



## Forsyth County Recycling & Solid Waste Department

**SAMUEL B. BUCKLES**, Environmental Scientist Manager

March 3, 2023

Ms. Beverly Tipton  
Georgia Department of Natural Resources  
Environmental Protection Division  
Solid Waste Management Program  
4244 International Parkway, Suite 104  
Atlanta, Georgia 30354-3906

RE: Second 2022 Semi-Annual Groundwater & Surface Water Monitoring Report  
& Corrective Measures Status Evaluation  
Forsyth County – Hightower Landfill  
Permit Nos. 058-006D(SL), 058-009(SL) and  
Permit No. 058-010D(SL)  
Forsyth County

Dear Ms. Tipton:

In accordance with the Georgia EPD Rules and Regulations for Solid Waste Management, Chapter 391-3-4, and the Site's Corrective Action Plan, Forsyth County is submitting the attached Semi-Annual Groundwater & Surface Water Monitoring Report & Corrective Measures Status Evaluation prepared by Atlantic Coast Consulting, Inc. (ACC).

You can reach me at (470) 208-8582 (cell) or by email at [sbbuckles@forsythco.com](mailto:sbbuckles@forsythco.com) if you would like to touch base or discuss, or Charles Adams with ACC at (770) 712-9785 (cell) or [charles.adams@atlcc.net](mailto:charles.adams@atlcc.net).

Sincerely,



## **Forsyth County – Hightower Road Landfill**

**Ballground, Georgia 30107**

**PERMIT #s: 058-006D(L), 058-009D(SL), 058-010D(SL)**

**Forsyth County**

### **SECOND 2022 SEMI-ANNUAL GROUNDWATER & SURFACE WATER MONITORING REPORT & CORRECTIVE MEASURES STATUS EVALUATION**

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## 1.0 INTRODUCTION

On behalf of Forsyth County, Georgia, Atlantic Coast Consulting, Inc. (ACC) is providing this Semi-Annual Groundwater & Surface Water Monitoring Report for the Hightower Road Municipal Solid Waste Landfill (MSWLF). The purpose of this report is to provide a summary and evaluation of the results of the recent groundwater and surface water monitoring event, which is required by the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management 391-3-4-.14. This report includes a professional geologist certification and compliance statement, a summary of site conditions, a description of sampling and analysis, a potentiometric map based on groundwater level measurements recorded during this monitoring event, determination of groundwater flow rate and direction, a summary of analytical results, and a statistical analysis of the analytical data.

## 2.0 PROFESSIONAL GEOLOGIST CERTIFICATION AND COMPLIANCE STATEMENT

This report has been prepared by a registered professional geologist in general accordance with Georgia Chapter 391-3-4 Solid Waste Regulations. The seal below certifies that a sufficiently trained and experienced qualified groundwater scientist with a baccalaureate degree in natural sciences has prepared and/or reviewed this report. The undersigned is qualified to make sound, professional judgments regarding groundwater monitoring and contaminant fate and transport. The information contained in this report is to the best of the undersigned's knowledge and belief, true, accurate, and complete.

ATLANTIC COAST CONSULTING, INC.



Charles B. Adams, P.G.

This certification statement is provided in accordance with the Solid Waste Management Rules of Georgia Chapter 391-3-4-.07(3)(v). This Semi-Annual Groundwater & Surface Water Monitoring Report is provided to document the results of the December 2022 monitoring event at the Hightower Road MSWLF. As documented in this report, there were constituent concentrations above established compliance standards. Therefore, as a qualified groundwater scientist, I certify that these constituents are not in compliance with established standards as documented herein. The facility complies with appropriate Rules of Georgia Solid Waste Management, because Assessment of Corrective Measures (ACM) Studies have been completed and a Corrective Action Plan (CAP) is being implemented.

### 3.0 SUMMARY OF SITE

The Forsyth County Hightower Road Landfill is a closed MSWLF consisting of four phases (Phases I through IV) located in northwest Forsyth County, Georgia. Phases I and II operated under EPD Solid Waste Handling Permit No. 058-006D(L) from 1986 until 1994, Phase III under EPD Solid Waste Handling Permit No. 058-009D(SL) from 1991 until 1995, and Phase IV under EPD Solid Waste Handling Permit No. 058-010D(SL) from 1993 until 1997. Closure activities for the entire facility were completed in 1999.

An ACM report completed in 2004 concluded that the source of volatile organic compounds (VOCs) in groundwater at the facility was primarily due to landfill gas (LFG), and various means of reducing LFG impacts to groundwater were evaluated. The ACM proposed a combination of monitored natural attenuation (MNA) and LFG migration control to remediate the site. Forsyth County subsequently held a public meeting to review the ACM results and solicit comments from the public regarding the selection of corrective measures. After completion of the public comment phase, corrective measures that were demonstrated to meet the requirements of Rule 391-3-4-.14(39) in the ACM were selected for long-term implementation at the facility. The measures consist of MNA and LFG migration control. The ACM was approved by EPD in 2005.

ACC submitted the *Interim CAP* to EPD for review in January 2007. The interim CAP proposed the implementation of MNA from the ACM, as well as the installation of several LFG interceptor vent trenches and the retrofitting of a passive vacuum source (individual turbines) to the existing in-waste gas vents. Three LFG interceptor trenches were completed in late 2007 and have reduced methane gas concentrations in methane monitoring wells. A Final CAP was submitted to EPD in July 2008 and presented a milestone schedule for implementing further corrective actions. The EPD conditionally approved the *Request for Minor Modification to Solid Waste Handling Permit* that added the CAP to the permit (pending submittal of remedial cost information), and annual MNA groundwater sampling was initiated during the second 2007 monitoring event. In response to the conditional approval of the CAP, a table summarizing actual and estimated remedial costs for the corrective action program and a revised CAP implementation schedule were submitted to EPD March 12, 2009. In accordance with this updated CAP schedule, Corrective Measures Status Evaluation Reports are completed every three years and include evaluations of the selected long-term remedies.

The CAP requires sampling of MNA parameters from select assessment monitoring wells on an annual basis. MNA sampling began with the second 2007 monitoring event. These MNA parameters include alkalinity (total), chloride, carbon dioxide, dissolved oxygen, ferrous iron, nitrate, oxidation-reduction potential, sulfate, and total dissolved solids. **Table A** presents a summary of the current analyte lists for all CAP-required monitoring locations. The CAP-prescribed schedule for review of MNA data is on a triennial basis. The first MNA/CAP review was completed during the second 2010 monitoring event, and subsequent reviews were completed during the second 2013, second 2016, second 2019 monitoring events. In accordance with this schedule, a CAP review was completed during the second 2022 monitoring event and is discussed further in *Section 4.2*. The reviews are submitted to EPD as attachments to the second semi-annual groundwater monitoring reports.

Forsyth County submitted a *Request for Minor Modification to Solid Waste Handling Permit* for a gas extraction system in September 2009. That design included replacing six passive vents with vertical gas extraction wells equipped with solar-powered flare/blower units (the vents included two vents in Phase I and four vents in Phase II). This design was approved by EPD on April 15, 2010. Forsyth County has implemented this design, and the installation certification report was submitted to EPD on October 14, 2011.

Off-site well W-3 was abandoned in May 2014 and off-site well W-2 was abandoned in September 2014. The sampling requirements for off-site wells W-2 and W-3 were removed from the permit via a *Request for Minor Modification to Solid Waste Handling Permit*, which was approved by EPD June 16, 2015.

Forsyth County submitted a March 2017 *Request for Minor Modification to Solid Waste Handling Permit* to remove all off-site sampling requirements from the permit for two off-site water wells (W-1 and W-4) and two “springs” (S-1 and S-2), based on a 13-year history of sampling analysis, with no confirmed VOC detections in well samples or spring samples, and only sporadic detections of naturally occurring metals barium, copper, and/or zinc in off-site well samples. The March 2017 *Request for Minor Modification* also included an adjustment to the frequency for full Appendix II analyte monitoring to correspond with triennial corrective measures status evaluation reports. EPD approved the permit modification on April 20, 2017.

Forsyth County provided adjacent property owner and public notification of sample results above groundwater protection standards (GWPS) in two wells along the northern property boundary in accordance with Rule 391-3-4-.17(6) and EPD correspondence dated April 25, 2017. A copy of the publisher’s affidavit for the newspaper notice and adjacent property owner notifications were provided to EPD July 7, 2017, October 2, 2017, and April 24, 2018. Future public notifications will also be submitted to EPD, if required.

Forsyth County is currently conducting a pilot test to evaluate the effectiveness of encapsulated potassium permanganate (KMnO<sub>4</sub>) in reducing VOCs in groundwater near AMW-12/12R and a new pilot test is underway near PH1-GWC-3/3A. Work is being conducted under the EPD approved Underground Injection Control (UIC) Permit No. GAW000753. This pilot test/UIC permit is the result of a multi-year process to evaluate enhancing the groundwater CAP. The first pilot test for selected remedy has been evaluated through the feasibility assessment process and implemented per the November 24, 2020 *Groundwater Pilot Test Work Plan*, submitted as Georgia EPD Online System (GEOS) Submittal ID: 519457. The second pilot test for this remedy is being implemented per the November 17, 2022 *Pilot Test B Work Plan*, submitted as GEOS Submittal ID: 713601.

As part of the UIC permit requirements, quarterly reports on the pilot tests are submitted to EPD Watershed Protection Branch. This semi-annual groundwater monitoring report, conducted under the solid waste permit, will also be submitted to the EPD Watershed Protection Branch as part of the UIC permit requirement.

A minor modification, GEOS Submittal 588643, approved by EPD September 24, 2021, was provided to update the facility environmental monitoring network to show temporary wells installed under the UIC permit and to depict the location of flare PH2-MV05 and methane barpunch location MM-11R.

### 3.1 Geologic Setting

The site is divided into two different lithologies by the Allatoona Fault, which runs through the northwest section of the site. All four phases of the landfill are located to the southeast of this fault and are underlain by the Canton formation. The Canton formation is often considered to be the inner-most belt of the Piedmont physiographic province; belts to the northwest of this formation are designated as part of the Blue Ridge physiographic province. The Canton formation is composed of carbonaceous/graphitic, garnetiferous mica schist inter-layered with amphibolite. The Chattahoochee fault runs sub-parallel to and southeast of the Allatoona Fault; the area between these two faults (that includes much of this site) is commonly referred to as the “Dahlonega Gold Belt”.

### 3.2 Monitoring Program

There are 13 groundwater monitoring wells and three AMW series wells utilized to monitor groundwater conditions near Phase I of the facility, and 34 monitoring wells and 10 AMW series wells to monitor Phases II – IV. Throughout the site, well clusters have been installed to monitor vertical gradients and/or stratification of potential impacts. The shallowest monitoring wells have no suffix (e.g., GWC-8), the intermediate monitoring wells have an “A” suffix (e.g., GWC-8A), and the deepest monitoring wells (installed in rock) have an “R” suffix (e.g., GWC-8R).

Surface water is monitored for permit-required parameters (Georgia Table 1 Surface Water Parameters) at 13 locations around the facility. Eleven surface water sampling points (SWA-1, SWA-2, and SWC-1 through SWC-9) are monitored semi-annually at the landfill. Two additional surface water sampling points, SWC-4A and SWC-4B, have been added for delineation purposes. When water is present, surface water samples are analyzed for chemical oxygen demand (COD), total cyanide, total organic carbon, chloride, and metals. Five surface water locations (SWC-1, SWC-4, SWC-4A, SWC-4B, and SWC-6) are also sampled semi-annually for Appendix I VOCs for delineation purposes. **Table A** provides a summary of surface water sampling requirements.

During the first semi-annual monitoring event, assessment monitoring wells are sampled for Appendix II VOCs and Appendix I metals, and detection monitoring wells are sampled for Appendix I parameters as listed in **Table A**. During the second semi-annual monitoring event, assessment monitoring wells are sampled for Appendix I parameters plus any verified Appendix II analytes and detection monitoring wells are sampled for Appendix I parameters. Once every three years, assessment monitoring wells are sampled for the full Appendix II analyte list; and monitoring wells were last sampled for the full Appendix II analyte list during the June 2022 monitoring event. The next triennial monitoring event is scheduled for June 2025. Some AMW series wells are sampled/analyzed for Appendix I VOCs or Appendix II VOCs and Appendix I metals as warranted by the data (i.e., to provide delineation) and are sampled for the required parameters listed in **Table A**. Appendix I VOCs are collected from SWC-1, SWC-4, SWC-4A, SWC-4B, and SWC-6 for delineation purposes. Any Appendix II constituents that become verified in an assessment well are added to the analyte list for the well it was detected in for the second semi-annual monitoring event.

As described in the July 26, 2013 *Response to EPD Comments*, the landfill has redundant monitoring in the saprolite/bedrock aquifer as these two zones have been demonstrated to be

interconnected in the 1992 *Site Assessment Report*. Therefore, if these wells are dry, the well complements are sampled, as shown on the following table:

ID	Complement
GWA-1	GWA-1A
GWC-3	GWC-3A
GWC-4	GWC-4A
GWC-8	GWC-8A
GWC-14	GWC-14A
GWC-15	AMW-1
GWC-16A	AMW-2
GWC-18	AMW-5

In accordance with the groundwater monitoring plan, all detected analyte concentrations are compared to a GWPS. The GWPS is the United States Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL), or in cases where no MCL exists, an alternate GWPS is utilized. Per Rule 391-3-4-.14(32), alternate GWPS were established in the ACM for analytes that have no established MCL.

### 3.3 Purging and Sampling Procedures

All samples were collected in accordance with the EPD-approved groundwater monitoring plan for Forsyth County Hightower Road Landfill. Groundwater samples were collected following the procedures summarized below:

- All sampling equipment was decontaminated prior to use at each sampling location.
- New gloves were donned prior to sampling and changed appropriately to avoid cross contaminating samples or sampling equipment.
- Depth to groundwater was measured with an electronic water level indicator and recorded prior to sample collection and used to calculate purge volume.
- A minimum of three well volumes were removed, or the well was purged dry. Disposable Teflon® bailers were used to purge all wells, except for PH1-GWA-1A, PH1-GWA-3A, PH1-GWC-2, PH1-GWC-3, PH1-GWC-3A, PH1-GWA-4, GWA-1, GWA-1A, GWC-4A, GWC-8R, GWC-14R, AMW-1, AMW-12, and AMW-12R. A Grundfos stainless steel submersible pump or peristaltic pump with disposable Teflon® lined tubing was utilized for these locations (**Table 1**).
- Parameters including pH, temperature, turbidity, and specific conductance were measured and recorded during purging and at the time of sampling. Field-collected parameters are summarized in **Table 1**.
- A brief groundwater recovery period was allowed for each well.
- Representative VOC samples were collected following purging. Samples for metals analysis were collected immediately if turbidity was less than 10 nephelometric turbidity units (NTU), or if turbidity was above 10 NTU on the following day (within 24



hours of purging) after allowing the water column to settle to obtain less turbid samples. Immediately after sample collection, all containers were labeled, placed on ice in laboratory-provided coolers, and delivered to the laboratory for analysis under chain-of-custody documentation.

- Trip blanks were provided for the event and analyzed for Appendix I VOCs or Appendix II VOCs, as appropriate.
- Two field blanks were collected during the event and analyzed for Appendix I constituents.

Surface water samples were collected utilizing grab sampling techniques following the procedures summarized below:

- New gloves were donned prior to sampling and changed appropriately to avoid cross contaminating samples.
- Parameters including pH, temperature, turbidity, specific conductance, and dissolved oxygen were measured and recorded at the time of sampling.
- Immediately after sample collection, all containers were labeled, placed on ice in laboratory-provided coolers, and delivered to the laboratory for analysis under chain-of-custody documentation.

Groundwater monitoring well information, including depth to water measurements and groundwater elevation calculations are included in **Table 2**. Laboratory analytical data are summarized in **Table 3** (Organics), **Table 4** (Metals), and **Table 4a** (MNA Parameters).

### 3.4 Laboratory Methods

Laboratory analyses were performed in accordance with approved U.S. EPA methodology as set forth in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, Third Edition, December 1996, SW-846, and subsequent revisions. During this event and prior sampling events, independent samples from each approved groundwater monitoring location were collected and analyzed for the applicable Appendix I (and/or Appendix II where applicable) constituents as listed in 40 Code of Federal Regulations (CFR) Part 258, Subpart E, 56 Fed. Reg. 51028-51029 (October 9, 1991), and *Rules for Solid Waste Management* [Chapter 391-3-4-.14(22)], as amended. The laboratory analytical results, quality control data, and chain-of-custody records for this semi-annual groundwater monitoring event are included in **Attachment A** of this report. Results of these analyses are discussed in the following sections.

### 3.5 Laboratory Certification

Analytical Environmental Services, Inc. (AES) is an approved laboratory (in accordance with 391-3-26-.05) for the analysis of solid/hazardous waste and is accredited by National Environmental Laboratory Accreditation Program (NELAP). Accreditation issuing authorities, certification identifications, and expiration dates are provided in the laboratory analytical reports in **Attachment A**.

## 4.0 DISCUSSION OF SAMPLING RESULTS

Samples from the second 2022 semi-annual monitoring event were collected December 12-14, 2022 and December 20, 2022 and were analyzed by AES of Atlanta, Georgia. Samples were collected and analyzed from detection and assessment monitoring wells for Appendix I and MNA parameters during this monitoring event as detailed in **Table A**. Monitoring well GWC-15 had an obstruction preventing it from being sampled and GWC-16A purged dry and did not recharge and therefore was not sampled, therefore the surrogate wells were sampled. AMW series wells AMW-1 and AMW-2 were sampled as surrogate wells for GWC-15 and GWC-16A, respectively.

### 4.1 Groundwater

An evaluation of the December 2022 semi-annual groundwater sampling results indicates that one or more VOCs were detected in 13 groundwater monitoring well samples and two AMW series well samples as summarized on **Table 3**. The concentrations of four organic compounds in one or more assessment monitoring well samples were above the respective GWPS: cis-1,2-dichloroethene (cis-1,2-DCE), tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride. A summary of organic detections is presented below.

- All verified, detected VOCs were in samples from assessment monitoring wells or AMW series wells.
- The concentrations of PCE and TCE in the samples from PH1-GWC-3 (9.5 µg/L and 9.5 µg/L, respectively) and PH1-GWC-3A (6.5 µg/L and 8.0 µg/L, respectively) were above the GWPS (5 µg/L and 5 µg/L, respectively). TCE was not detected in the SWC-6 sample that is located downgradient of PH1-GWC-3 and PH1-GWC-3A. Report *Section 4.4* discusses delineation sampling conducted due to the PH1-GWC-3 and PH1-GWC-3A detections.
- The concentrations of cis-1,2-DCE and vinyl chloride in the sample from GWC-14A (86 µg/L and 14 µg/L, respectively) were above the GWPS (70 µg/L and 2 µg/L, respectively). These compounds were not detected in GWC-13 (downgradient of GWC-14A), GWC-14 (shallower), or in GWC-14R (deeper) at concentrations above the GWPS. These detections are horizontally and vertically delineated.

The VOCs detected during the second 2022 monitoring event are being addressed by the remedies in the CAP. Overall, pattern of VOC detections indicates natural attenuation is occurring, as evidenced by VOC reduction from peak levels and patterns of declining parent compounds like PCE coupled with an increase in daughter compounds (cis-1,2-DCE). Groundwater conditions continue to improve where the total number of sample concentrations above a GWPS has decreased from 29 during the first 2007 event to six during the second 2022 event. The total number of concentrations above a GWPS that were also identified as SSIs has also decreased from 25 during the first 2007 event to six during the second 2022 event.

A summary of metals detected during this event is presented in **Table 4**. Appendix I metals barium, cadmium, chromium, cobalt, and zinc were detected in one or more groundwater monitoring well samples. Low levels of barium were detected in most groundwater samples,

while chromium, cobalt, and zinc were detected less often. These metals are considered naturally occurring in site soils. During this event, there was an unverified detection of cadmium (0.0100 mg/L) in the sample from GWC-19R that was above the GWPS (0.005 mg/L). This detection will be reevaluated during the next monitoring event. All other detected groundwater metals concentrations were less than their respective GWPS.

## 4.2 Performance Monitoring

In accordance with CAP, a corrective measures status evaluation (CMSE) report is completed triennially. The CMSE report is provided in **Attachment B**. The next CMSE will be submitted in conjunction with the report for the second 2025 groundwater monitoring event.

## 4.3 Hydraulic Gradient and Groundwater Flow Velocity

The December 2022 groundwater level measurements were used to calculate groundwater elevations and to prepare a potentiometric surface map (**Figure 1**). The groundwater flow velocity was calculated using the potentiometric surface depicted in **Figure 1** and estimated hydraulic conductivity measurements from previous studies of the facility. Groundwater flow velocity calculations are provided in **Table 5**. The results of these calculations indicate that groundwater flows at a calculated rate of approximately 144 feet per year, generally to the northeast and northwest (in a sub-radial pattern).

## 4.4 Surface Water

Eleven surface water sampling points are monitored semi-annually at the landfill. Two additional surface water sampling points, SWC-4A and SWC-4B, have been added for delineation purposes. All surface water sampling locations are listed in **Table A** and are depicted on **Figure 1**. Surface water samples are analyzed for permit-required parameters COD, total cyanide, total organic carbon, chloride, and/or metals (**Table A**). Low-level concentrations of COD, total organic carbon, chloride, and/or barium, were detected in one or more samples (**Table 6**).

Due to detections of VOCs above a GWPS in samples from PH1-GWC-3 and PH1-GWC-3A, Appendix I VOC sampling/analysis has been added<sup>1</sup> to SWC-6 (see **Table A**). Additionally, for delineation purposes SWC-1, SWC-4, SWC-4A, and SWC-4B are monitored for Appendix I VOCs and results are included in **Attachment A**. These surface water locations are monitored to verify that no VOCs are entering the tributaries of the Etowah River. The SWC-4B location serves as a point to delineate VOC results from AMW-12R. There were no detections of VOCs in the SWC-1, SWC-4, SWC-4A, and SWC-4B samples.

## 5.0 STATISTICAL ANALYSIS

According to EPD Rules for Solid Waste Management, a determination must be made as to if there is a statistically significant increase (SSI) over background values for each constituent that is part of the groundwater monitoring program.

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<sup>1</sup> Refer to correspondence dated June 14, 2017, titled “Response to April 25, 2017 EPD Letter” for the demonstration that SWC-6 is appropriate to monitor groundwater to surface water discharge from PH1-GWC-3/3A.

## 5.1 Statistical Methodology

Paragraph (18) of Georgia Rule 391-3-4-.14 requires using one of the following types of tests: a) parametric analysis of variance (ANOVA), b) ANOVA based on the ranks followed by multiple comparison procedures, c) a tolerance or prediction interval analysis, d) a control chart approach that gives control limits for each constituent, or e) another statistical test method that meets the performance standards of paragraph (19). The statistical analysis was performed in accordance with the Solid Waste Rules. Pertinent sections of the EPA guidance document titled *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance (March 2009)* are utilized, as necessary. The document recommends using one of three types of tests: ANOVA, tolerance limits, or prediction interval analysis. The document stipulates that a parametric test should be used for all constituents where:

1. The residuals of the data are normally distributed.
2. There is homogeneity of groundwater quality data variance among wells.
3. The proportion of non-detection is less than 15%; and
4. There are no significant seasonal effects upon the data.

If these criteria are not met, then a non-parametric test should be used. None of the constituents meet all four of the criteria. As a result, the statistical test chosen for every Appendix I constituent in the current sampling event was the Kruskal-Wallis, non-parametric ANOVA. This test is based on ranks followed by multiple comparison procedures to identify specific sources of difference. As presented in the CAP, groundwater VOCs occur in two distinct areas of the site. VOCs in groundwater in and around Phase I are not contiguous with those on the north side of the site around Phase II MSWLF and Phase III MSWLF. As a result, two sets of statistics are utilized, where one set considers only Phase I, and the other set considers the rest of the site.

For the Phase I area, three of five upgradient wells (PH1-GWA-1, PH1-GWA-1A, and PH1-GWA-2) have historic VOC detections and are evaluated statistically along with hydraulically downgradient wells. Therefore PH1-GWA-3A and PH1-GWA-4 are used for upgradient statistical comparisons. To maintain the integrity of PH1-GWA-4 as a background monitoring location in statistical calculations, the unverified arsenic detection from the December 2011 event has been removed from the statistical database to avoid false negative results. For Phases II-IV of the facility, GWA-1A and GWA-3 have had historical VOC detections and are statistically evaluated as downgradient wells. For Phases II-IV, wells GWA-1 and GWA-2 are used as upgradient wells for statistical purposes. The datasets from surrogate wells AMW-1 and AMW-2 are appended to the datasets for GWC-15 and GWC-16A, respectively, for statistical analysis.

As noted in the CAP, concentration trends in many wells appeared to change following capping activities completed in late 1999 (pathways of gas migration possibly altered). Based on review of the database, it was thought to be more conservative to run the statistical analysis with data after capping was completed. Data from the most recent 12 events are evaluated in statistical analysis.

The Kruskal-Wallis non-parametric ANOVA method compares each well with a group of background wells. The Kruskal-Wallis test can only determine which compliance well results are elevated with respect to background but cannot determine which specific samples

produce the statistical trigger. Therefore, this statistical method may identify false positive SSIs in wells with historical detections of a parameter when that parameter was not detected in samples from the current sampling event.

Further analysis with a non-parametric tolerance interval (NPTI) test shows which specific results from a well indicate an increase over background. The Kruskal-Wallis test was used as a screening statistical test, and the parameters that showed SSIs from Kruskal-Wallis were further analyzed using an NPTI. The NPTI test has the capability of pinpointing which results cause the SSI and can identify Kruskal-Wallis false positive SSIs for parameters not detected in the current sampling data.

For confirmed SSIs, calculated using the methodology above, that are also at a concentration above the relevant GWPS, confidence limits are calculated to determine if the 95% lower confidence limit (LCL) is above the GWPS. In accordance with the *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities Unified Guidance (March 2009)*, the confidence limits are compared to the GWPS, and a statistically significant level (SSL) is identified when the 95% LCL is above the GWPS.

## 5.2 Statistical Results

Kruskal-Wallis non-parametric ANOVA and NPTI statistical tests are included in **Attachment C**. The monitoring wells with concentrations identified as an SSI over background for the current event as determined by the Kruskal-Wallis ANOVA and the NPTI methods are listed in **Table 7**. The monitoring wells with identified SSIs over background and concentrations above a GWPS are evaluated to determine if concentrations are SSLs. **Table 8** summarizes this information in the GEOS data entry screen each semi-annual event. Sixteen monitoring wells had one or more SSIs during this event, and three monitoring wells had SSIs identified for analyte concentrations that were above the respective GWPS (see **Table 7**). All 12 monitoring wells with VOC SSIs or SSLs are currently in assessment monitoring and are addressed by the CAP remedies.

Three monitoring wells with metals SSIs are in the detection monitoring program. The detection monitoring wells with SSIs were triggered by low levels of barium, cobalt, and/or zinc. The current concentrations of barium, cobalt, and zinc are typical of unimpacted groundwater in the region, and concentrations are well below the respective GWPS. It is recommended that these three monitoring wells remain in detection monitoring (**Table A**).

## 6.0 SUMMARY AND RECOMMENDATIONS

The results of the data evaluated from the December 2022 sampling event are summarized below:

- Groundwater generally flows, in a sub-radial pattern, towards the northeast and northwest, at a calculated rate of approximately 144 feet per year.
- VOCs at concentrations above respective GWPS in network wells are limited to those in assessment monitoring status. Detections of groundwater VOCs are addressed by the CAP corrective remedies.
- Low-level concentrations of metals are detected in upgradient and downgradient groundwater and surface water sampling points. No verified groundwater metals concentrations were above a GWPS, and detected metals are likely naturally occurring.
- During this event, there was an unverified detection of cadmium at GWC-19R above the GWPS. This detection will be reevaluated during the next event.
- There were SSIs for VOC concentrations in samples from assessment monitoring wells. The only SSIs for wells currently in detection monitoring were for low-level concentrations of barium (PH1-GWB-1, GWC-1, and GWC-9), and zinc (PH1-GWB-2), all below respective GWPS; these detections are attributed to their typical presence in regional soils.
- Location SWC-6 is monitored for VOCs to delineate concentrations of VOCs in samples from monitoring wells PH1-GWC-3 and PH1-GWC-3A. There were no VOCs detected in the sample from SWC-6. VOC detections in the samples from monitoring wells PH1-GWC-3 and PH1-GWC-3A are considered delineated within the site boundary. Four additional surface water points were monitored for VOCs (SWC-1, SWC-4, SWC-4A, and SWC-4B), and no VOCs were detected in these samples.
- The overall pattern of VOC detections indicates natural attenuation is occurring, as evidenced by VOC reduction from peak levels and patterns of declining parent compounds like PCE coupled with an increase in daughter compounds (cis-1,2-DCE). Groundwater conditions continue to improve where the total number of sample concentrations above a GWPS has decreased from 29 during the first 2007 event to six during the second 2022 event. The total number of concentrations above a GWPS that were also identified as SSIs has also decreased from 25 during the first 2007 event to 6 during the second 2022 event.

Forsyth County will continue implementing the EPD-approved monitoring and corrective action program at the Hightower Road MSWLF. The next semi-annual monitoring event is scheduled for June 2023.

## TABLES

**Table A**  
**Required Compliance Points & Parameters**  
**Forsyth County - Hightower Road MSWLF**

Location	Well Status	1st Semi-Annual Event	2nd Semi-Annual Event
<b>Phase I Groundwater Locations</b>			
PH1-GWA-1	Assessment	App II VOCs + App I metals	App I + MNA
PH1-GWA-1A	Detection	App I	App I
PH1-GWA-2	Assessment	App II VOCs + App I metals	App I + MNA
PH1-GWA-3A	Detection	App I	App I
PH1-GWA-4	Detection	App I	App I + MNA
PH1-GWB-1	Detection	App I	App I
PH1-GWB-2	Detection	App I	App I
PH1-GWC-1	Detection	App I	App I
PH1-GWC-2	Assessment	App II VOCs + App I metals	App I + MNA
PH1-GWC-3	Assessment	App II VOCs + App I metals	App I + MNA
PH1-GWC-3A	Assessment	App II VOCs + App I metals	App I + MNA
PH1-GWC-4	Detection	App I	App I
GWC-1	Detection	App I	App I
AMW-8	Delineation	Water Level Only	Water Level Only
AMW-9	Delineation	App II VOCs + App I metals	App I
AMW-10	Delineation	Water Level Only	Water Level Only
<b>Phase II, III, and IV Groundwater Locations</b>			
GWA-1	Detection	App I	App I
GWA-1A	Detection	App I	App I
GWA-2	Detection	App I	App I
GWA-3	Detection	App I	App I
GWC-2	Detection	App I	App I
GWC-3	Detection	App I	App I
GWC-3A	Detection	App I	App I
GWC-4	Detection	App I	App I
GWC-4A	Detection	App I	App I
GWC-5	Detection	App I	App I
GWC-6	Detection	App I	App I
GWC-7	Detection	App I	App I
GWC-8	Detection	App I	App I
GWC-8A	Assessment	App II VOCs + App I metals	App I + MNA
GWC-8R	Assessment (Partial)	App II VOCs + SVOCs	App I VOCs + MNA
GWC-9	Detection	App I	App I
GWC-10	Detection	App I	App I
GWC-10A	Detection	App I	App I
GWC-11	Detection	App I	App I
GWC-12	Detection	App I	App I
GWC-12A	Detection	App I	App I
GWC-13	Detection	App I	App I
GWC-14	Detection	App I	App I
GWC-14A	Assessment	App II VOCs + App I metals	App I + MNA
GWC-14R	Assessment (Partial)	App II VOCs + SVOCs	App I VOCs + MNA
GWC-15	Assessment	App II VOCs + App I metals	App I + MNA
GWC-16A	Assessment	App II VOCs + App I metals	App I + MNA

**Notes:**

1. App I = Appendix I VOCs and metals.
2. App II = Appendix II VOCs and metals, SVOCs, pesticides/PCBs, herbicides, cyanide, sulfide.
3. Every three years, the full list of Appendix II parameters in 40 CFR Part 258, Subpart E, 56 Fed. Reg. 51032-51039 (October 9, 1991) are analyzed in assessment wells. The next full Appendix II list sampling will be the first 2025 event.
4. GA SW Parameters = metals (As, Ba, Cd, Cr, Pb, Ni, Ag, Se, Zn, Hg), chloride, cyanide, chemical oxygen demand (COD) & total organic carbon (TOC).
5. Verified detections of App II compounds are added to the assessment monitoring analyte list during the second semi-annual monitoring event.
6. MNA = Monitored Natural Attenuation Parameter List: alkalinity (total), carbon dioxide, chloride, dissolved oxygen, ferrous iron, nitrate, sulfate, oxidation-reduction potential, and total dissolved solids.



**Table A (Continued)**  
**Required Compliance Points & Parameters**  
**Forsyth County - Hightower Road MSWLF**

Location	Well Status	1st Semi-Annual Event	2nd Semi-Annual Event
<b>Phase II, III, and IV Groundwater Locations (Continued)</b>			
GWC-17	Assessment	App II VOCs + App I metals	App I + MNA
GWC-18	Assessment	App II VOCs + App I metals	App I + MNA
GWC-19R	Assessment	App II VOCs + App I metals	App I + MNA
GWC-22	Detection	App I	App I
GWC-23	Detection	App I	App I
GWC-23A	Detection	App I	App I
GWC-24	Detection	App I	App I + MNA
AMW-1	Delineation	Water Level Only	Water Level Only
AMW-2	Delineation	Water Level Only	Water Level Only
AMW-3	Delineation	Water Level Only	Water Level Only
AMW-4	Delineation	App II VOCs	App I VOCs + MNA
AMW-5	Delineation	App II VOCs	App I VOCs + MNA
AMW-11R	Delineation	Water Level Only	Water Level Only
AMW-12	Delineation	App II VOCs	App I VOCs
AMW-12R	Delineation	App II VOCs	App I VOCs
AMW-13	Delineation	App II VOCs + App I metals	App I
AMW-14	Delineation	App II VOCs	App I VOCs + MNA
FB-1	Quality Control	App I	App I
FB-2	Quality Control	App I	App I
TB	Quality Control	App II VOCs	App I VOCs
<b>Surface Water Locations</b>			
SWA-1	Surface Water	GA SW Parameters	GA SW Parameters
SWA-2	Surface Water	GA SW Parameters	GA SW Parameters
SWC-1	Surface Water	GA SW Parameters + App I VOCs	GA SW Parameters + App I VOCs
SWC-2	Surface Water	GA SW Parameters	GA SW Parameters
SWC-3	Surface Water	GA SW Parameters	GA SW Parameters
SWC-4	Surface Water	GA SW Parameters + App I VOCs	GA SW Parameters + App I VOCs
SWC-4A	Surface Water / Delineation	App I VOCs	App I VOCs
SWC-4B	Surface Water / Delineation	App I VOCs	App I VOCs
SWC-5	Surface Water	GA SW Parameters	GA SW Parameters
SWC-6	Surface Water	GA SW Parameters + App I VOCs	GA SW Parameters + App I VOCs
SWC-7	Surface Water	GA SW Parameters	GA SW Parameters
SWC-8	Surface Water	GA SW Parameters	GA SW Parameters
SWC-9	Surface Water	GA SW Parameters	GA SW Parameters

**Notes:**

1. App I = Appendix I VOCs and metals.
2. App II = Appendix II VOCs and metals, SVOCs, pesticides/PCBs, herbicides, cyanide, sulfide.
3. Every three years, the full list of Appendix II parameters in 40 CFR Part 258, Subpart E, 56 Fed. Reg. 51032-51039 (October 9, 1991) are analyzed in assessment wells. The next full Appendix II list sampling will be the first 2025 event.
4. GA SW Parameters = metals (As, Ba, Cd, Cr, Pb, Ni, Ag, Se, Zn, Hg), chloride, cyanide, chemical oxygen demand (COD) & total organic carbon (TOC).
5. Verified detections of App II compounds are added to the assessment monitoring analyte list during the second semi-annual monitoring event.
6. MNA = Monitored Natural Attenuation Parameter List: alkalinity (total), carbon dioxide, chloride, dissolved oxygen, ferrous iron, nitrate, sulfate, oxidation-reduction potential, and total dissolved solids.

**Table 1**  
**Summary of Water Quality Parameters**  
**Forsyth County - Hightower Road MSWLF**  
**December 2022 Sampling Event**

Well ID	Sample Method	pH (S.U.)	Specific Conductance (µS/cm)	Temperature (°C)	Turbidity (NTU)
<b>Phase I Groundwater Locations</b>					
PH1-GWA-1	Bailer	5.28	92	13.1	10.3
PH1-GWA-1A	Sub. Pump	6.71	62	17.6	48.8
PH1-GWA-2	Bailer	5.64	87	14.3	9.3
PH1-GWA-3A	Sub. Pump	6.05	52	17.6	6.6
PH1-GWA-4	Bladder	5.48	20	14.5	13.2
PH1-GWB-1	Bailer	4.88	41	16.7	28.0
PH1-GWB-2	Bailer	5.02	26	17.3	43.0
PH1-GWC-1	Bailer	5.94	180	13.3	11.3
PH1-GWC-2	Sub. Pump	7.09	177	13.3	24.0
PH1-GWC-3	Peri. Pump	5.73	168	13.5	7.1
PH1-GWC-3A	Peri. Pump	6.22	188	14.5	3.1
PH1-GWC-4	Bailer	4.54	30	21.4	NM
GWC-1	Bailer	5.02	83	16.9	5.6
AMW-9	Bailer	5.28	34	17.3	NM
<b>Phase II, III, and IV Groundwater Locations</b>					
GWA-1	Bladder	4.80	50	14.3	29.0
GWA-1A	Sub. Pump	7.17	142	13.9	15.0
GWA-2	Bailer	4.97	82	17.3	13.0
GWA-3	Bailer	5.85	32	13.5	0.6
GWC-2	Bailer	4.31	19	16.1	26.1
GWC-3	Bailer	4.00	26	16.7	NM
GWC-3A	Bailer	4.18	88	17.6	36.8
GWC-4	Bailer	5.18	25	16.6	12.5
GWC-4A	Sub. Pump	7.33	106	12.9	35.0
GWC-5	Bailer	4.70	20	16.0	11.0
GWC-6	Bailer	4.90	117	14.5	6.7
GWC-7	Bailer	5.25	53	15.4	7.1
GWC-8	Bailer	5.53	84	15.9	21.0
GWC-8A	Bailer	5.49	221	15.9	10.6
GWC-8R	Sub. Pump	6.73	275	14.8	173
GWC-9	Bailer	5.10	117	12.7	9.7
GWC-10	Bailer	5.13	25	13.5	4.2
GWC-10A	Bailer	5.27	85	9.4	15.6
GWC-11	Bailer	4.35	340	17.3	32.4
GWC-12	Bailer	5.05	47	16.9	5.4
GWC-12A	Bailer	5.30	24	17.0	36.1
GWC-13	Bailer	5.46	31	16.5	10.0
GWC-14	Bailer	6.50	29	13.9	NM
GWC-14A	Bailer	6.84	133	12.0	0.8
GWC-14R	Sub. Pump	5.91	308	15.8	9.7

**Notes:** Groundwater samples collected December 12-14, 2022 and December 20, 2022.

**Acronyms:** °C = Degrees Celsius  
µS/cm = microSiemens/centimeter  
NTU = Nephelometric Turbidity Units

NM = Not measured  
S.U. = Standard Units

**Table 1 (Continued)**  
**Summary of Water Quality Parameters**  
**Forsyth County - Hightower Road MSWLF**  
**December 2022 Sampling Event**

Well ID	Sample Method	pH (S.U.)	Specific Conductance (µS/cm)	Temperature (°C)	Turbidity (NTU)
<b>Phase II, III, and IV Groundwater Locations (Continued)</b>					
GWC-15	Obstruction in well - Refer to Surrogate AMW-1				
GWC-16A	Purged Dry - Refer to Surrogate AMW-2				
GWC-17	Bailer	5.50	112	13.6	5.9
GWC-18	Bailer	5.17	93	13.6	20.1
GWC-19R	Bailer	5.50	112	13.6	5.9
GWC-22	Bailer	5.16	51	16.6	3.7
GWC-23	Bailer	5.85	40	15.9	8.5
GWC-23A	Bailer	5.78	26	15.5	7.3
GWC-24	Bailer	5.78	68	13.1	2.9
AMW-1	Bladder	6.87	111	13.3	17.7
AMW-2	Bailer	6.03	160	13.4	2.9
AMW-4	Bailer	5.44	90	14.1	376
AMW-5	Bailer	5.66	84	14.6	553
AMW-12	Peri. Pump	5.27	61	14.2	3.2
AMW-12R	Peri. Pump	5.41	38	13.1	4.4
AMW-13	Bailer	5.89	41	12.7	5.2
AMW-14	Bailer	5.84	119	14.8	17.3

**Notes:** Groundwater samples collected December 12-14, 2022 and December 20, 2022.

**Acronyms:** °C = Degrees Celsius

µS/cm = microSiemens/centimeter

NTU = Nephelometric Turbidity Units

NM = Not measured

S.U. = Standard Units

**Table 2**  
**Summary of Groundwater Elevation Data**  
**Forsyth County - Hightower Road MSWLF**  
**December 2022 Sampling Event**

Monitoring Well ID	Total Well Depth (ft BTOC)	TOC Elevation (ft MSL)	Depth to Water Level (ft BTOC)	Groundwater Elevation (ft MSL)
<b>Phase I Groundwater Locations</b>				
PH1-GWA-1	48.66	1176.37	44.45	1131.92
PH1-GWA-1A	108.00	1176.35	44.69	1131.66
PH1-GWA-2	53.60	1183.40	39.71	1143.69
PH1-GWA-3A	250.00	1187.16	39.50	1147.66
PH1-GWA-4	57.00	1191.14	40.09	1151.05
PH1-GWB-1	53.80	1179.10	43.80	1135.30
PH1-GWB-2	42.22	1155.04	34.40	1120.64
PH1-GWC-1	23.79	1074.66	8.83	1065.83
PH1-GWC-2	127.61	1103.93	23.67	1080.26
PH1-GWC-3	23.42	1096.96	12.04	1084.92
PH1-GWC-3A	55.42	1096.28	11.18	1085.10
PH1-GWC-4	33.71	1124.26	32.90	1091.36
GWC-1	38.80	1102.25	29.10	1073.15
AMW-8	50.40	1186.23	42.81	1143.42
AMW-9	41.69	1162.64	40.77	1121.87
AMW-10	56.81	1180.73	52.53	1128.20
<b>Phase II, III, and IV Groundwater Locations</b>				
GWA-1	62.85	1187.70	57.66	1130.04
GWA-1A	141.00	1187.49	57.14	1130.35
GWA-2	52.18	1137.30	42.61	1094.69
GWA-3	48.86	1154.53	43.70	1110.83
GWC-2	55.61	1103.64	47.02	1056.62
GWC-3	39.71	1092.39	36.63	1055.76
GWC-3A	68.95	1094.67	35.05	1059.62
GWC-4	49.81	1132.82	45.35	1087.47
GWC-4A	89.23	1132.39	41.84	1090.55
GWC-5	49.91	1084.55	45.90	1038.65
GWC-6	34.52	1064.01	25.53	1038.48
GWC-7	54.21	1093.44	43.87	1049.57
GWC-8	27.53	1095.63	23.80	1071.83
GWC-8A	46.71	1095.44	23.16	1072.28
GWC-8R	94.67	1098.40	26.16	1072.24
GWC-9	60.50	1093.58	50.82	1042.76
GWC-10	37.51	1068.56	27.95	1040.61

**Notes:** Depths to water measured December 12, 2022.

**Acronyms:** ft BTOC = feet below top of casing  
ft MSL = feet Mean Sea Level  
TOC = top of casing

**Table 2 (Continued)**  
**Summary of Groundwater Elevation Data**  
**Forsyth County - Hightower Rd MSWLF**  
**December 2022 Sampling Event**

Monitoring Well ID	Total Well Depth (ft BTOC)	TOC Elevation (ft MSL)	Depth to Water Level (ft BTOC)	Groundwater Elevation (ft MSL)
<b>Phase II, III, and IV Groundwater Locations (Continued)</b>				
GWC-10A	54.30	1066.45	27.78	1038.67
GWC-11	46.80	1054.08	36.21	1017.87
GWC-12	40.06	1038.06	32.27	1005.79
GWC-12A	49.44	1038.09	33.16	1004.93
GWC-13	44.95	1090.82	35.26	1055.56
GWC-14	28.37	1089.49	25.64	1063.85
GWC-14A	64.75	1089.32	25.15	1064.17
GWC-14R	93.61	1078.60	15.28	1063.32
GWC-15	62.84	1125.68	60.74	1064.94
GWC-16A	51.05	1136.49	DRY	DRY
GWC-17	21.59	1107.78	14.12	1093.66
GWC-18	52.70	1094.87	45.09	1049.78
GWC-19R	39.87	1105.79	28.96	1076.83
GWC-22	35.05	1079.01	22.70	1056.31
GWC-23	32.22	1079.06	18.63	1060.43
GWC-23A	61.67	1079.10	31.69	1047.41
GWC-24	44.09	1102.32	37.95	1064.37
AMW-1	180.70	1130.04	63.93	1066.11
AMW-2	150.00	1101.96	43.85	1058.11
AMW-3	31.30	1041.09	9.38	1031.71
AMW-4	18.80	1040.09	4.11	1035.98
AMW-5	23.06	1049.32	7.54	1041.78
AMW-11R	58.10	1053.63	8.97	1044.66
AMW-12	19.56	1056.85	8.49	1048.36
AMW-12R	46.43	1056.34	10.46	1045.88
AMW-13	36.18	1093.09	33.57	1059.52
AMW-14	21.70	1052.73	9.57	1043.16

**Notes:** Depths to water measured December 12, 2022.

**Acronyms:** ft BTOC = feet below top of casing  
ft MSL = feet Mean Sea Level  
TOC = top of casing

**Table 3**  
**Summary of Appendix I/II Organic Compound Detections**  
**Forsyth County - Hightower Road MSWLF**  
**December 2022 Sampling Event**

Monitoring Well ID	1,1-DCA (µg/L)	Benzene (µg/L)	Chloro benzene (µg/L)	Chloro ethane (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	TCE (µg/L)	Vinyl Chloride (µg/L)
GWPS	810*	5	110*	4.6*	70	5	5	2
<b>Phase I Groundwater Locations</b>								
PH1-GWA-1	--	--	--	--	2.5	--	--	--
PH1-GWA-1A	--	--	--	--	--	--	--	--
PH1-GWA-2	--	--	--	--	35	--	2.2	--
PH1-GWA-3A	--	--	--	--	--	--	--	--
PH1-GWA-4	--	--	--	--	--	--	--	--
PH1-GWB-1	--	--	--	--	--	--	--	--
PH1-GWB-2	--	--	--	--	--	--	--	--
PH1-GWC-1	--	--	--	--	--	--	--	--
PH1-GWC-2	2.4	--	--	--	7.7	4.4	2.7	--
PH1-GWC-3	4.5	--	--	--	36	<b>9.5</b>	<b>9.5</b>	--
PH1-GWC-3A	3.6	--	--	--	23	<b>6.5</b>	<b>8.0</b>	--
PH1-GWC-4	Purged Dry							
GWC-1	--	--	--	--	--	--	--	--
AMW-9	--	--	--	--	--	--	--	--
<b>Phase II, III, and IV Groundwater Locations</b>								
GWA-1	--	--	--	--	--	--	--	--
GWA-1A	--	--	--	--	--	--	--	--
GWA-2	--	--	--	--	--	--	--	--
GWA-3	--	--	--	--	--	--	--	--
GWC-2	--	--	--	--	--	--	--	--
GWC-3	--	--	--	--	--	--	--	--
GWC-3A	--	--	--	--	--	--	--	--
GWC-4	--	--	--	--	--	--	--	--
GWC-4A	--	--	--	--	--	--	--	--
GWC-5	--	--	--	--	--	--	--	--
GWC-6	--	--	--	--	--	--	--	--
GWC-7	--	--	--	--	--	--	--	--
GWC-8	--	--	--	--	3.4	--	--	--
GWC-8A	2.5	2.4	--	--	35	--	--	--
GWC-8R	9.0	--	--	--	29	--	--	--

**Notes:** Groundwater samples collected December 12-14, 2022 and December 20, 2022.

-- = Below laboratory reporting limit.

Shaded and bold values indicate concentrations above GWPS.

\* No MCL exists; EPA Region IX PRG referenced as GWPS.

Underlined concentrations are unverified detections.

**Acronyms:** µg/L = micrograms per liter

1,1-DCA = 1,1-Dichloroethane; cis-1,2-DCE = cis-1,2-Dichloroethene;

PCE = Tetrachloroethene; TCE = Trichloroethene

GWPS = Groundwater Protection Standard is the EPA Maximum Contaminant Level (MCL), or the EPA Region IX Preliminary Remediation Goals (PRG) if an MCL is not established.

**Table 3 (Continued)**  
**Summary of Appendix I/II Organic Compound Detections**  
**Forsyth County - Hightower Road MSWLF**  
**December 2022 Sampling Event**

Monitoring Well ID	1,1-DCA (µg/L)	Benzene (µg/L)	Chloro benzene (µg/L)	Chloro ethane (µg/L)	cis-1,2-DCE (µg/L)	PCE (µg/L)	TCE (µg/L)	Vinyl Chloride (µg/L)
GWPS	810*	5	110*	4.6*	70	5	5	2
<b>Phase II, III, and IV Groundwater Locations (Continued)</b>								
GWC-9	--	--	--	--	--	--	--	--
GWC-10	--	--	--	--	--	--	--	--
GWC-10A	--	--	--	--	--	--	--	--
GWC-11	--	--	--	--	--	--	--	--
GWC-12	--	--	--	--	--	--	--	--
GWC-12A	--	--	--	--	--	--	--	--
GWC-13	--	--	--	--	--	--	--	--
GWC-14	--	--	--	--	--	--	--	--
GWC-14A	18	3.3	14	3.4	<b>86</b>	--	3.3	<b>14</b>
GWC-14R	12	--	--	--	22	--	3.0	--
GWC-15	Purged Dry; Refer to Surrogate AMW-1							
GWC-16A	Purged Dry; Refer to Surrogate AMW-2							
GWC-17	--	--	--	--	2.1	--	--	--
GWC-18	--	--	--	--	20	3.8	--	--
GWC-19R	--	--	--	--	9.9	--	--	--
GWC-22	--	--	--	--	--	--	--	--
GWC-23	--	--	--	--	--	--	--	--
GWC-23A	--	--	--	--	--	--	--	--
GWC-24	--	--	--	--	--	--	--	--
AMW-1	--	--	--	--	--	--	--	--
AMW-2	--	--	--	--	--	--	--	--
AMW-4	--	--	--	--	17	4.0	2.1	--
AMW-5	--	--	--	--	--	--	--	--
AMW-12	--	--	--	--	--	--	--	--
AMW-12R	--	--	--	--	--	3.1	--	--
AMW-13	--	--	--	--	--	--	--	--
AMW-14	--	--	--	--	--	--	--	--

**Notes:** Groundwater samples collected December 12-14, 2022 and December 20, 2022.

-- = Below laboratory reporting limit.

Shaded and bold values indicate concentrations above GWPS.

\* No MCL exists; EPA Region IX PRG referenced as GWPS.

Underlined concentrations are unverified detections.

**Acronyms:** µg/L = micrograms per liter

1,1-DCA = 1,1-Dichloroethane; cis-1,2-DCE = cis-1,2-Dichloroethene;

PCE = Tetrachloroethene; TCE = Trichloroethene

GWPS = Groundwater Protection Standard is the EPA Maximum Contaminant Level (MCL), or the EPA Region IX Preliminary Remediation Goals (PRG) if an MCL is not established.

**Table 4**  
**Summary of Appendix I/II Metals Detections**  
**Forsyth County - Hightower Road MSWLF**  
**December 2022 Sampling Event**

Monitoring Well ID	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Zinc (mg/L)
GWPS	2	0.005	0.1	0.73*	5**
<b>Phase I Groundwater Locations</b>					
PH1-GWA-1	--	--	--	0.0947	--
PH1-GWA-1A	0.0351	--	0.0172	--	--
PH1-GWA-2	0.0689	--	--	--	--
PH1-GWA-3A	--	--	--	--	--
PH1-GWA-4	--	--	--	--	--
PH1-GWB-1	0.0401	--	--	--	--
PH1-GWB-2	--	--	--	--	0.0629
PH1-GWC-1	0.0343	--	--	--	--
PH1-GWC-2	0.0247	--	0.0115	--	0.0216
PH1-GWC-3	0.0292	--	--	--	--
PH1-GWC-3A	0.0282	--	--	--	--
PH1-GWC-4	Insufficient Recharge				
GWC-1	0.0931	--	--	--	--
AMW-9	Insufficient Recharge				
<b>Phase II, III, and IV Groundwater Locations</b>					
GWA-1	0.0277	--	--	--	0.0205
GWA-1A	0.0348	--	--	--	--
GWA-2	0.0206	--	--	--	--
GWA-3	--	--	--	--	--
GWC-2	--	--	--	--	--
GWC-3	Insufficient Recharge				
GWC-3A	0.0354	--	--	--	--
GWC-4	0.0200	--	--	--	--
GWC-4A	0.0330	--	--	--	--
GWC-5	--	--	--	--	--
GWC-6	--	--	--	--	--
GWC-7	0.0356	--	--	--	0.0353
GWC-8	0.0340	--	--	--	--
GWC-8A	0.0527	--	--	--	--
GWC-8R	Insufficient Recharge				

**Notes:** Groundwater samples collected December 12-14, 2022 and December 20, 2022.

-- = Below laboratory reporting limit.

Shaded and bold values indicate concentrations above GWPS.

\* No MCL exists; EPA Region IX PRG referenced as GWPS.

\*\* Secondary EPA MCL.

Underlined concentrations are unverified detections.

**Acronyms:** mg/L = milligrams per liter

GWPS = Groundwater Protection Standard is the EPA Maximum Contaminant Level (MCL), or the EPA Region IX Preliminary Remediation Goals (PRG) if an MCL is not established.



**Table 4 (Continued)**  
**Summary of Appendix I/II Metals Detections**  
**Forsyth County - Hightower Road MSWLF**  
**December 2022 Sampling Event**

Monitoring Well ID	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Zinc (mg/L)
GWPS	2	0.005	0.1	0.73*	5**
<b>Phase II, III, and IV Groundwater Locations</b>					
GWC-9	0.0878	--	--	--	0.0416
GWC-10	--	--	--	--	--
GWC-10A	0.0386	--	--	--	0.0216
GWC-11	0.0232	--	--	--	0.0586
GWC-12	--	--	--	--	--
GWC-12A	--	--	--	--	--
GWC-13	--	--	--	--	--
GWC-14	Insufficient Recharge				
GWC-14A	0.181	--	--	0.192	--
GWC-14R	Insufficient Recharge				
GWC-15	Purged Dry; Refer to Surrogate AMW-1				
GWC-16A	Purged Dry; Refer to Surrogate AMW-2				
GWC-17	0.0365	--	--	--	--
GWC-18	0.178	--	--	--	--
GWC-19R	0.180	<b><u>0.0100</u></b>	--	--	--
GWC-22	0.0241	--	--	--	--
GWC-23	--	--	--	--	--
GWC-23A	--	--	--	--	--
GWC-24	--	--	--	--	--
AMW-1	0.0344	--	--	--	--
AMW-2	0.0236	--	--	--	--
AMW-13	--	--	--	--	--

**Notes:** Groundwater samples collected December 12-14, 2022 and December 20, 2022.

-- = Below laboratory reporting limit.

Shaded and bold values indicate concentrations above GWPS.

\* No MCL exists; EPA Region IX PRG referenced as GWPS.

\*\* Secondary EPA MCL.

Underlined concentrations are unverified detections.

**Acronyms:** mg/L = milligrams per liter

GWPS = Groundwater Protection Standard is the EPA Maximum Contaminant Level (MCL), or the EPA Region IX Preliminary Remediation Goals (PRG) if an MCL is not established.

**Table 4a**  
**Summary of MNA Indicator Parameters**  
**Forsyth County - Hightower Road MSWLF**  
**Corrective Action Plan**  
**December 2022 Sampling Event**

Well ID	Alkalinity (mg/L as CaCO <sub>3</sub> )	Total Dissolved Solids	Chloride	Sulfate	Ferrous Iron <sup>1</sup>	Dissolved Oxygen <sup>1</sup>	ORP (rel mV) <sup>1</sup>	Carbon Dioxide <sup>1</sup>	Nitrate Nitrogen
<b>Phase I Unimpacted Upgradient Groundwater Location</b>									
PH1-GWA-4	10.9	14	1.5	--	0.0	3.8	315	30	--
<b>Phase I Assessment Monitoring Locations</b>									
PH1-GWA-1	36.2	37	2.6	1.3	2.3	3.7	49	100	--
PH1-GWA-2	41.9	55	3.6	1.3	0.0	1.8	144	90	--
PH1-GWC-2	72.9	96	3.2	2.8	0.3	3.4	147	30	--
PH1-GWC-3	73.0	92	4.7	3.1	0.1	0.7	179	200	--
PH1-GWC-3A	94.8	110	2.6	1.9	0.4	0.5	103	100	0.49
<b>Phase II, III, and IV Assessment Monitoring Locations</b>									
GWC-8A	90.0	122	3.8	1.3	0.8	1.8	70	250	--
GWC-8R	140	162	2.4	3.0	1.8	4.7	150	125	--
GWC-14A	160	192	16	3.1	0.5	3.8	168	260	--
GWC-14R	153	183	4.5	3.0	0.7	5.1	90	140	--
GWC-15	Purged Dry; Refer to AMW-1								
AMW-1	53.5	76	1.4	3.5	0.0	4.5	274	25	--
GWC-16A	Purged Dry; Refer to AMW-2								
AMW-2	68.4	133	2.5	9.6	0.0	3.1	211	100	0.40
GWC-17	13.5	28	1.7	1.7	0.0	3.8	146	70	2.1
GWC-18	35.7	57	4.9	1.4	0.3	2.5	177	315	0.61
GWC-19R	51.7	57	2.2	3.8	0.0	1.9	165	100	--
GWC-24	30.1	29	2.2	2.5	0.0	3.7	122	80	0.48
<b>AMW Series Locations</b>									
AMW-4	40.9	59	3.7	1.5	0.3	3.3	165	200	--
AMW-5	38.8	62	3.7	3.5	0.0	2.6	259	100	--
AMW-14	37.5	52	3.9	3.2	0.3	1.7	229	100	--

**Notes:** <sup>1</sup> = Field measurement.

Units are mg/L unless otherwise noted.

Groundwater samples collected December 12-14, 2022 and December 20, 2022.

-- = Below laboratory reporting limit.

**Acronyms:** mg/L = milligrams per liter

rel MV = relative millivolts

ORP = oxidation-reduction potential

CaCO<sub>3</sub> = calcium carbonate

**Table 5**  
**Groundwater Flow Rate Calculation**  
**Forsyth County - Hightower Road MSWLF**  
**December 2022 Sampling Event**

Equation

$$v = \frac{k(i)}{n_e}$$

where: v = groundwater velocity  
k = hydraulic conductivity  
i = hydraulic gradient (dh/dl)  
dh = the difference between two hydraulic heads  
dl = the flow path length between the two piezometers  
n<sub>e</sub> = effective porosity

Values Used in Calculation

k =	1.0	ft/day	(reference 1)
i <sup>1</sup> =	0.067	ft/ft	PH1-GWA-2 to GWC-1
i <sup>2</sup> =	0.072	ft/ft	GWA-3 to GWC-2
i <sup>3</sup> =	0.085	ft/ft	GWA-2 to GWC-23
i <sup>4</sup> =	0.092	ft/ft	GWC-8 to AMW-11R
i <sup>AVE</sup> =	0.079	ft/ft	Average
n <sub>e</sub> =	0.20	unitless	(reference 1)

Calculation

$$v = \frac{(1.0 \text{ ft/day}) (0.079 \text{ ft/ft})}{20\%}$$

$$v = 0.39 \text{ ft/day}$$

$$v = 144 \text{ ft/year}$$

Notes: ft = feet

Reference:

(1) Site average hydraulic conductivity for GWA-2, GWC-3, GWC-4, & GWC-10 (October 8, 2004 Assessment of Corrective Measures Report hydraulic conductivity range is 0.0295 to 1.21 feet/day.)

**Table 6**  
**Summary of Surface Water Detections & Field Parameters**  
**Forsyth County - Hightower Road MSWLF**  
**December 2022 Sampling Event**

Location ID	Total Organic Carbon (mg/L)	Chemical Oxygen Demand (mg/L)	Chloride (mg/L)	Barium (mg/L)	Lead (mg/L)	Zinc (mg/L)
SWA-1	4.93	12.9	2.25	0.0289	--	0.0216
SWA-2	1.90	24.0	1.70	0.0215	--	0.0265
SWC-1	5.65	26.2	4.19	0.0203	--	--
SWC-2	1.90	17.3	1.68	0.0276	--	--
SWC-3	1.67	12.9	1.76	0.0204	--	0.0292
SWC-4	2.10	26.2	2.77	--	--	--
SWC-4A	NS	NS	NS	NS	NS	NS
SWC-4B	NS	NS	NS	NS	NS	NS
SWC-5	11.2	37.4	6.87	0.0405	--	0.0351
SWC-6	7.08	17.3	6.53	0.0229	--	0.0517
SWC-7	9.28	32.9	2.51	--	0.0226	--
SWC-8	9.79	35.1	2.57	--	--	0.0247
SWC-9	5.29	26.2	1.99	--	--	--

Location ID	pH (S.U.)	Specific Conductance (µS/cm)	Temperature (°C)	Turbidity (NTU)
SWA-1	6.06	50	12.6	71.2
SWA-2	5.87	25	10.6	186
SWC-1	5.33	86	11.5	38.4
SWC-2	5.85	25	10.6	149
SWC-3	5.89	27	10.6	146
SWC-4	6.41	49	11.1	22.3
SWC-4A	5.97	27	11.3	99.2
SWC-4B	6.00	29	11.8	60.3
SWC-5	6.08	244	12.3	38.3
SWC-6	6.37	74	13.0	85.5
SWC-7	3.91	76	11.2	38.0
SWC-8	6.01	50	10.8	47.4
SWC-9	5.95	25	11.2	43.5

**Notes:** Surface water samples were collected December 15, 2022.

-- = Below laboratory reporting limit.

Surface water samples are grab samples.

No VOCs detected in SWC-1, SWC-4, SWC-4A, SWC-4B, SWC-5, or SWC-6 samples.

**Acronyms:** °C = Degrees Celsius  
mg/L = milligrams per liter  
S.U. = Standard Units

µS/cm = microSiemens/centimeter  
NTU = Nephelometric Turbidity Units  
NS = not sampled/not required



**Table 8**  
**Confidence Intervals for Comparing the Mean of the Most Recent**  
**Measurements to an Assessment Monitoring Standard**  
**Forsyth County - Hightower Road MSWLF**  
**December 2022 Sampling Event**

Well	Parameter	Jun-21	Dec-21	Jun-22	Dec-22	mean	SD	95% LCL	GWPS	95% LCL > GWPS
PH1-GWC-3	PCE	9.3	8.8	8.3	9.5	9.0	0.5	8.3	5	Yes
PH1-GWC-3	TCE	7.5	7.1	7.2	9.5	7.8	1.1	6.5	5	Yes
PH1-GWC-3A	PCE	8.1	7.2	8.6	6.5	7.6	0.9	6.5	5	Yes
PH1-GWC-3A	TCE	6.1	5.7	6.8	8	6.7	1.0	5.5	5	Yes
GWC-14A	cis-1,2-DCE	59	77	54	86	69.0	15.0	51.3	70	No
GWC-14A	Vinyl Chloride	12	19	19	14	16.0	3.6	11.8	2	Yes

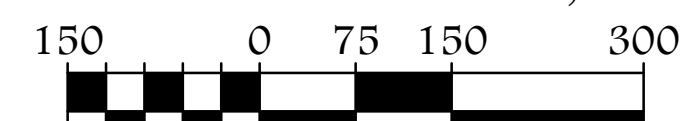
**Notes:** Reference: D7048 – 16 Standard Guide for Applying Statistical Methods for Assessment and Corrective Action  
Environmental Monitoring Programs

**Acronyms:** cis-1,2-DCE = cis-1,2-Dichloroethene      GWPS = groundwater protection standard  
PCE = Tetrachloroethene      LCL = lower confidence limit  
TCE = Trichloroethene      SD = standard deviation

FIGURE



ATLANTIC COAST CONSULTING, INC.  
770-594-5998  
www.atlcc.net  
Roswell, GA  
Savannah, GA  
Knoxville, TN



SCALE (IN FEET)

**LEGEND**

EXISTING	DESCRIPTION
850	PROMINENT CONTOUR
---	INTERMEDIATE CONTOUR
---	PROPERTY BOUNDARY
---	APPROXIMATE LIMIT OF WASTE
---	SURFACE WATER/POND
---	GROUNDWATER CONTOUR
---	GROUNDWATER FLOW DIRECTION
● GWA-1	GROUNDWATER MONITORING WELL
1002.23	ELEVATION IN FEET MEAN SEA LEVEL
▲ SWA-1	SURFACE WATER MONITORING POINT
■ MM-1	METHANE MONITORING POINT
□ MV-1	METHANE VENT
---	METHANE VENT TRENCH
○ PH1-MV04	EXTRACTION POINT WITH ACTIVE FLARE

**NOTES**

- SURVEY IS PROVIDED BY APPALACHIAN SURVEYING COMPANY IN CUMMING, GEORGIA DATED JANUARY AND APRIL 1998. CONTROL POINT COORDINATES WERE TAKEN FROM THESE SURVEYS.
- WELL AND PROBE LOCATIONS ARE APPROXIMATE AND BASED ON W.L. JORDEN & CO. DRAWINGS DATED MARCH 3, 1996.
- LOCATIONS OF MM-1R, MM-13, MM-14, AND MM-15 ARE APPROXIMATE.
- LOCATIONS OF AMW-2 AND AMW-3 ARE APPROXIMATE.
- \*GWA-1A, \*GWC-4A, \*GWC-23A, \*AMW-2 AND \*AMW-9 ARE NOT USED FOR POTENTIOMETRIC CONTOURS.
- POTENTIOMETRIC CONTOUR INTERVAL IS 10 FEET.
- DEPTHS TO GROUNDWATER MEASURED BY ATLANTIC COAST CONSULTING, INC. DECEMBER 12, 2022.

**REVISIONS**

0. INITIAL ISSUE	02/28/2023
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**PROJECT**



FORSYTH COUNTY  
HIGHTOWER ROAD LANDFILL

POTENTIOMETRIC SURFACE MAP  
DECEMBER 2022

Drawn by: AS	Checked by: AR	QC by: CH
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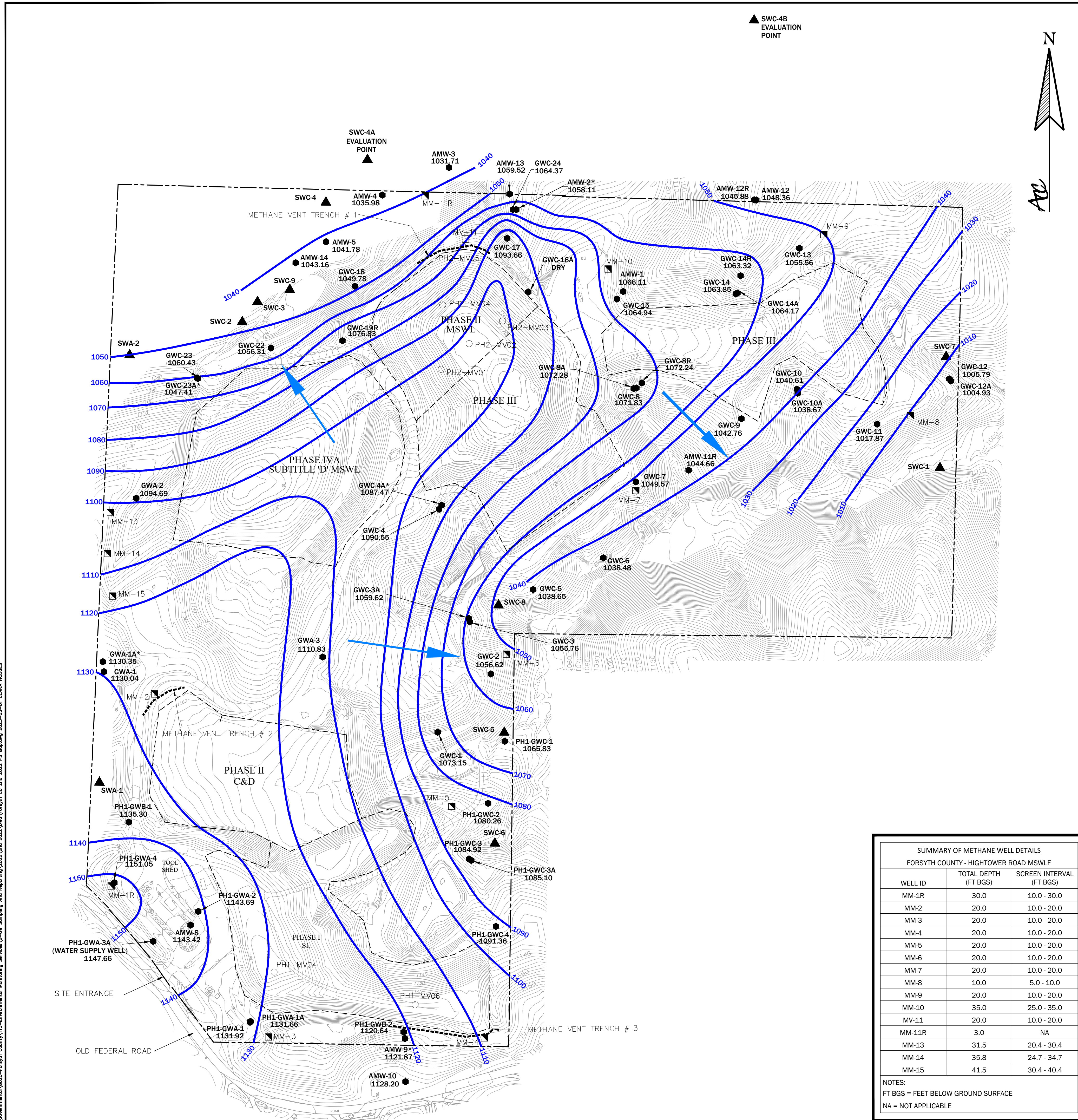
PROJECT NUMBER: G020-113      FIGURE: 1

SUMMARY OF GROUNDWATER ELEVATION DATA FORSYTH COUNTY - HIGHTOWER ROAD MSWLF DECEMBER 2022 SAMPLING EVENT				
MONITORING WELL ID	TOTAL WELL DEPTH (FT BTOC)	TOC ELEVATION (FT MSL)	DEPTH TO WATER LEVEL (FT BTOC)	GROUNDWATER ELEVATION (FT MSL)
PHASE I GROUNDWATER ELEVATION DATA				
PH1-GWA-1	48.66	1176.37	44.45	1131.92
PH1-GWA-1A	108.00	1176.35	44.69	1131.66
PH1-GWA-2	53.60	1183.40	39.71	1143.69
PH1-GWA-3A	250.00	1187.16	39.50	1147.66
PH1-GWA-4	57.00	1191.14	40.09	1151.05
PH1-GWB-1	53.80	1179.10	43.80	1135.30
PH1-GWB-2	42.22	1155.04	34.40	1120.64
PH1-GWC-1	23.79	1074.66	8.83	1065.83
PH1-GWC-2	127.61	1103.93	23.67	1080.26
PH1-GWC-3	23.42	1096.96	12.04	1084.92
PH1-GWC-3A	55.42	1096.28	11.18	1085.10
PH1-GWC-4	33.71	1124.26	32.90	1091.36
GWC-1	38.80	1102.25	29.10	1073.15
AMW-8	50.40	1186.23	42.81	1143.42
AMW-9*	41.69	1162.64	40.77	1121.87
AMW-10	56.81	1180.73	52.53	1128.20
PHASE II, III, AND IV GROUNDWATER ELEVATION DATA				
GWA-1	62.85	1187.70	57.66	1130.04
GWA-1A*	141.00	1187.49	57.14	1130.35
GWA-2	52.18	1137.30	42.61	1094.69
GWA-3	48.86	1154.53	43.70	1110.83
GWC-2	55.61	1103.64	47.02	1056.62
GWC-3	39.71	1092.39	36.63	1055.76
GWC-3A	68.95	1094.67	35.05	1059.62
GWC-4	49.81	1132.82	45.35	1087.47
GWC-4A*	89.23	1132.39	41.84	1090.55
GWC-5	49.91	1084.55	45.90	1038.65
GWC-6	34.52	1064.01	25.53	1038.48
GWC-7	54.21	1093.44	43.87	1049.57
GWC-8	27.53	1095.63	23.80	1071.83
GWC-8A	46.71	1095.44	23.16	1072.28
GWC-8R	94.67	1098.40	26.16	1072.24
GWC-9	60.50	1093.58	50.82	1042.76
GWC-10	37.51	1068.56	27.95	1040.61
GWC-10A	54.30	1066.45	27.78	1038.67
GWC-11	46.80	1054.08	36.21	1017.87
GWC-12	40.06	1038.06	32.27	1005.79
GWC-12A	49.44	1038.09	33.16	1004.93
GWC-13	44.95	1090.82	35.26	1055.56
GWC-14	28.37	1089.49	25.64	1063.85
GWC-14A	64.75	1089.32	25.15	1064.17
GWC-14R	93.61	1078.60	15.28	1063.32
GWC-15	62.84	1125.68	60.74	1064.94
GWC-16A	51.05	1136.49	DRY	DRY
GWC-17	21.59	1107.78	14.12	1093.66
GWC-18	52.70	1094.87	45.09	1049.78
GWC-19R	39.87	1105.79	28.96	1076.83
GWC-22	35.05	1079.01	22.70	1056.31
GWC-23	32.22	1079.06	18.63	1060.43
GWC-23A*	61.67	1079.10	31.69	1047.41
GWC-24	44.09	1102.32	37.95	1064.37
AMW-1	180.70	1130.04	63.93	1066.11
AMW-2*	150.00	1101.96	43.85	1058.11
AMW-3	31.30	1041.09	9.38	1031.71
AMW-4	18.80	1040.09	4.11	1035.98
AMW-5	23.06	1049.32	7.54	1041.78
AMW-11R	58.10	1053.63	8.97	1044.66
AMW-12	19.56	1056.85	8.49	1048.36
AMW-12R	46.43	1056.34	10.46	1045.88
AMW-13	36.18	1093.09	33.57	1059.52
AMW-14	21.70	1052.73	9.57	1043.16

SUMMARY OF METHANE WELL DETAILS FORSYTH COUNTY - HIGHTOWER ROAD MSWLF		
WELL ID	TOTAL DEPTH (FT BGS)	SCREEN INTERVAL (FT BGS)
MM-1R	30.0	10.0 - 30.0
MM-2	20.0	10.0 - 20.0
MM-3	20.0	10.0 - 20.0
MM-4	20.0	10.0 - 20.0
MM-5	20.0	10.0 - 20.0
MM-6	20.0	10.0 - 20.0
MM-7	20.0	10.0 - 20.0
MM-8	10.0	5.0 - 10.0
MM-9	20.0	10.0 - 20.0
MM-10	35.0	25.0 - 35.0
MV-11	20.0	10.0 - 20.0
MM-11R	3.0	NA
MM-13	31.5	20.4 - 30.4
MM-14	35.8	24.7 - 34.7
MM-15	41.5	30.4 - 40.4

NOTES:  
FT BGS = FEET BELOW GROUND SURFACE  
NA = NOT APPLICABLE

NOTES:  
DEPTHS TO WATER MEASURED DECEMBER 12, 2022.  
FT BTOC = FEET BELOW TOP OF CASING  
FT MSL = FEET MEAN SEA LEVEL  
TOC = TOP OF CASING



P:\Governmental\G020-Forsyth County\113-Environmental Monitoring Services\2-Off Sampling and Reporting\2022\2022\GWC\Forsyth Co 2nd 2022 PS Map.dwg 2023-03-01 C:\A\A\H00005



## ATTACHMENTS

**ATTACHMENT A**  
**LABORATORY ANALYTICAL RESULTS**



**ANALYTICAL ENVIRONMENTAL SERVICES, INC.**

December 21, 2022

Charles Adams  
Atlantic Coast Consulting, Inc.

1150 Northmeadow Pkwy  
Roswell GA 30076

RE: Forsyth County-Hightower Road MSWLF

Dear Charles Adams:

Order No: 2212E84

Analytical Environmental Services, Inc. received 43 samples on December 13, 2022 5:54 pm for the analyses presented in following report.

“No problems were encountered during the analyses except as noted in the Case Narrative or by qualifiers in the report or QC Summary. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits.

AES’s accreditations are as follows:

-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/22-06/30/23.

State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective through 06/30/23 and Total Coliforms/ E. coli, effective 04/20/20-04/24/23.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Metals and PCM Asbestos), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/23.

These results relate only to the items tested as received. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Ioana Pacurar  
Project Manager

### CHAIN OF CUSTODY

COMPANY: Atlantic Coast Consulting, Inc.		ADDRESS: 1150 Northmeadow Pkwy Suite 100 Roswell, GA 30076					ANALYSIS REQUESTED											Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AES Access account.	Number of Containers		
PHONE: 770-712-9785 or 770-594-5998		EMAIL: charles.adams@atlcc.net					Appendix I VOC	Appendix I Metals	Alkalinity	TDS	Cl, SO4, NO3*	Benzo(a)pyrene	SW Metals**	Chloride	Cyanide	COD	TOC				
SAMPLED BY: Eric Stamm		SIGNATURE: <i>Eric Stamm</i>																			
#	SAMPLE ID	SAMPLED:		GRAB	COMPOSITE	MATRIX (see codes)	PRESERVATION (see codes)											REMARKS			
		DATE	TIME				H+I	N	I	I	I	I	N	I	NaOH	S+I	S+I				
1	GWC-3A	12-12-22	1400	X		GW	X														2
2	GWC-3	12-12-22	1420	X		GW	X														2
3	GWC-2	12-12-22	1500	X		GW	X														2
4	GWC-1	12-12-22	1540	X		GW	X														2
5	GWC-3A	12-13-22	0905	X		GW		X													1
6	GWC-3	12-13-22	0915	X		GW		X													1
7	GWC-2	12-13-22	0950	X		GW		X													1
8	GWC-1	12-13-22	1005	X		GW		X													1
9	GWC-8A	12-13-22	1345	X		GW	X		X	X	X										3
10	GWC-14R	12-13-22	1516	X		GW	X		X	X	X										3
11	GWC-14A	12-13-22	1515	X		GW	X		X	X	X										3
12	Trip Blank			X		W	X														2
13																					
14																					

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:	PROJECT INFORMATION	RECEIPT
1. <i>Eric Stamm</i>	12/13/22/1754	1. <i>LEILA DYE</i>	12-13-22 17:54	PROJECT NAME: Forsyth County - Hightower Road MSWLF	Total # of Containers
2.		2.		PROJECT #: G020-113	Turnaround Time (TAT) Request <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same-Day Rush (auth req.) <input type="checkbox"/> Other _____
3.		3.		SITE ADDRESS: 9480 Old Federal Road, Ballground, GA 30107	
SPECIAL INSTRUCTIONS/COMMENTS: * 48-hr holding time nitrate ** Surface Water Metals: As, Ba, Cd, Cr, Pb, Ni, Ag, Se, Zn, Hg		SHIPMENT METHOD		SEND REPORT TO: Charles Adams, Betsy McDaniel	
		OUT: / / VIA: IN: / / VIA: <i>Client</i> FedEx UPS US mail courier other: _____		INVOICE TO (IF DIFFERENT FROM ABOVE):	STATE PROGRAM (if any): _____ E-mail? <input type="checkbox"/> Fax? <input type="checkbox"/>
				QUOTE #: _____ PO#: _____	DATA PACKAGE: I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV <input type="radio"/>

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

**CHAIN OF CUSTODY**

COMPANY: Atlantic Coast Consulting, Inc.		ADDRESS: 1150 Northmeadow Pkwy Suite 100 Roswell, GA 30076		ANALYSIS REQUESTED										Visit our website <a href="http://www.aesatlanta.com">www.aesatlanta.com</a> for downloadable COCs and to log in to your AESAccess account.		Number of Containers			
PHONE: 770-712-9785 or 770-594-5998		EMAIL: charles.adams@atlcc.net		Appendix I VOC	Appendix I Metals	Alkalinity	TDS	Cl, SO4, NO3 *	Benzo(a)pyrene	SW Metals **	Chloride	Cyanide	COD				TOC		
SAMPLED BY: <i>JD</i>		SIGNATURE: <i>[Signature]</i>		PRESERVATION (see codes)										REMARKS					
#	SAMPLE ID	DATE	TIME	GRAB	COMPOSITE	MATRIX (see codes)	H+I	N	I	I	I	I	N				I	NaOH	S+I
1	GWC-11	12/12/22	1415	X		GW	✓												2
2	GWC-11	12/13/22	1020	X		GW		✓											1
3	GWC-12	12/12/22	1440	X		GW	✓	✓											2
4	GWC-12	12/13/22	1035	X		GW		✓											1
5	GWC-12A	12/12/22	1500	X		GW	✓												2
6	GWC-12A	12/13/22	1045	X		GW		✓											1
7	GWC-13	12/12/22	1530	X		GW	✓												2
8	GWC-13	12/13/22	1035	X		GW		✓											1
9	Field Blank 1	12/12/22	1540	X		W	✓	✓											3
10																			
11																			
12																			
13																			
14																			
RELINQUISHED BY: <i>Erik Storm</i>		DATE/TIME: 12/13/22 17:54		RECEIVED BY: <i>LEILA DYE</i>		DATE/TIME: 12-13-22 17:54		PROJECT INFORMATION										RECEIPT	
1.				2.				PROJECT NAME: Forsyth County - Hightower Road MSWLF										Total # of Containers	
2.				3.				PROJECT #: G020-113										Turnaround Time (TAT) Request	
3.								SITE ADDRESS: 9480 Old Federal Road, Ballground, GA 30107										<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same-Day Rush (auth req.) <input type="checkbox"/> Other _____	
SPECIAL INSTRUCTIONS/COMMENTS: * 48-hr holding time nitrate ** Surface Water Metals: As, Ba, Cd, Cr, Pb, Ni, Ag, Se, Zn, Hg				SHIPMENT METHOD				SEND REPORT TO: Charles Adams, Betsy McDaniel										STATE PROGRAM (if any): _____	
				OUT: / / VIA: IN: <i>Client</i> / / VIA: FedEx UPS US mail courier other: _____				INVOICE TO (IF DIFFERENT FROM ABOVE):										E-mail? <input type="checkbox"/> Fax? <input type="checkbox"/>	
								QUOTE #: _____ PO#: _____										DATA PACKAGE: I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV <input type="radio"/>	
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Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST = Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

COMPANY: Atlantic Coast Consulting, Inc.		ADDRESS: 1150 Northmeadow Pkwy Suite 100 Roswell, GA 30076		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.		Number of Containers			
PHONE: 770-712-9785 or 770-594-5998		EMAIL: charles.adams@atlcc.net		Appendix I VOC	Appendix I Metals	Alkalinity	TDS	Cl, SO4, NO3 *	Benzo(a)pyrene	SW Metals **	Chloride	Cyanide	COD				TOC		
SAMPLED BY: <i>Dever Johnson, Hunter Auld</i>		SIGNATURE: <i>[Signature]</i>		PRESERVATION (see codes)										REMARKS					
#	SAMPLE ID	DATE	TIME	GRAB	COMPOSITE	MATRIX (see codes)	H+I	N	I	I	I	I	N				I	NaOH	S+I
1	PHI-GWB-1	12/12/22	1330	✓		GW	✓												2
2	PHI-GWB-1	12/13/22	0855	✓		GW		✓											1
3	PHI-GWB-2	14/12/22	1435	✓		GW	✓												2
4	PHI-GWB-2	12-13-22	0910	✓		GW		✓											
5	AMW-9	12/12/22	1400	✓		GW	✓												3
6	<del>AMW-9</del>																		
7	GWC-4	12/12/22	1510	✓		GW	✓												2
8	GWC-4	12/13/22	10:00	✓		GW		✓											1
9	GWC-5	12/12/22	1545	✓		GW	✓												2
10	GWC-5	12/13/22	1610	✓		GW		✓											
11																			
12																			
13																			
14																			
RELINQUISHED BY:		DATE/TIME:		RECEIVED BY:		DATE/TIME:		PROJECT INFORMATION										RECEIPT	
1. <i>Eva Stettin</i>		12/13/22/1754		1. <i>LEILA DYE</i>		12.13.22 17:54		PROJECT NAME: Forsyth County - Hightower Road MSWLF										Total # of Containers	
2.				2.				PROJECT #: G020-113										Turnaround Time (TAT) Request	
3.				3.				SITE ADDRESS: 9480 Old Federal Road, Ballground, GA 30107										<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same-Day Rush (auth req.) <input type="checkbox"/> Other _____	
SPECIAL INSTRUCTIONS/COMMENTS: * 48-hr holding time nitrate ** Surface Water Metals: As, Ba, Cd, Cr, Pb, Ni, Ag, Se, Zn, Hg				SHIPMENT METHOD				SEND REPORT TO: Charles Adams, Betsy McDaniel										STATE PROGRAM (if any): _____	
				OUT: / / VIA: IN: / / VIA: <i>Client</i> FedEx UPS US mail courier other: _____				INVOICE TO (IF DIFFERENT FROM ABOVE):										E-mail? <input type="checkbox"/> Fax? <input type="checkbox"/>	
								QUOTE #: _____ PO#: _____										DATA PACKAGE: I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV <input type="radio"/>	

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**CHAIN OF CUSTODY**

COMPANY: Atlantic Coast Consulting, Inc.		ADDRESS: 1150 Northmeadow Pkwy Suite 100 Roswell, GA 30076					ANALYSIS REQUESTED										Visit our website <a href="http://www.aesatlanta.com">www.aesatlanta.com</a> for downloadable COCs and to log in to your AESAccess account.		Number of Containers
PHONE: 770-712-9785 or 770-594-5998		EMAIL: charles.adams@atlcc.net					Appendix I VOC	Appendix I Metals	Alkalinity	TDS	Cl, SO4, NO3 *	Benzo(a)pyrene	SW Metals **	Chloride	Cyanide	COD			
SAMPLED BY: H. Auld		SIGNATURE: <i>H. Auld</i>					PRESERVATION (see codes)										REMARKS		
#	SAMPLE ID	DATE	TIME	GRAB	COMPOSITE	MATRIX (see codes)	H+I	N	I	I	I	I	N	I	NaOH	S+I			
1	GWA-2	12-12-22	1345	✓		GW	2												2
2	GWC-22	12-12-22	1415	✓		GW	2												2
3	GWC-23	12-12-22	1440	✓		GW	2												2
4	GWC-23A	12-12-22	1520	✓		GW	2												2
5	GWC-7	12-12-22	1610	✓		GW	2												2
6	PHI-GWA-3A	12-12-22	1640	✓		GW	2	1											3
7	GWA-2	12-13-22	0930	✓		GW		1											1
8	GWC-22	12-13-22	0940	✓		GW		1											1
9	GWC-23	12-13-22	0955	✓		GW		1											1
10	GWC-23A	12-13-22	0950	✓		GW		1											1
11	GWC-7	12-13-22	10:20	✓		GW		1											1
12	<del>GW8</del> GWC-8	12-13-22	1305	✓		GW	2												2
13	GWC-8R	12-13-22	1225	✓		GW	2		✓	✓	✓								3
14	GWC-14	12-13-22	17:50	✓		GW	2												2
RELINQUISHED BY:		DATE/TIME:		RECEIVED BY:		DATE/TIME:		PROJECT INFORMATION										RECEIPT <u>12-13</u>	
1. <i>Charles Adams</i>		12/13/22/1754		1. <i>LEILA DYE</i>		12.13.22 17:54		PROJECT NAME: Forsyth County - Hightower Road MSWLF										Total # of Containers	
2.				2.				PROJECT #: G020-113										Turnaround Time (TAT) Request <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same-Day Rush (auth req.) <input type="checkbox"/> Other _____	
3.				3.				SITE ADDRESS: 9480 Old Federal Road, Ballground, GA 30107											
SPECIAL INSTRUCTIONS/COMMENTS: * 48-hr holding time nitrate ** Surface Water Metals: As, Ba, Cd, Cr, Pb, Ni, Ag, Se, Zn, Hg				SHIPMENT METHOD				SEND REPORT TO: Charles Adams, Betsy McDaniel										STATE PROGRAM (if any): _____	
				OUT: / / VIA:				INVOICE TO (IF DIFFERENT FROM ABOVE):										E-mail? <input type="checkbox"/> Fax? <input type="checkbox"/>	
				IN: <u>Client</u> / / VIA:														DATA PACKAGE: I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/>	
				other: _____				QUOTE #: _____ PO#: _____											

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**Client:** Atlantic Coast Consulting, Inc.  
**Project:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84

**Case Narrative**

Sample Receiving Nonconformance:

Sample GWC-3 for App I Metals was listed on the Chain of Custody, but was not received by the laboratory.



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-001

**Client Sample ID:** GWC-3A  
**Collection Date:** 12/12/2022 2:00:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 19:03	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 19:03	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 19:03	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 19:03	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 19:03	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 19:03	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 19:03	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 19:03	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 19:03	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 19:03	CM
Benzene	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 19:03	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 19:03	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 19:03	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 19:03	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 19:03	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 19:03	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 19:03	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 19:03	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 19:03	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 19:03	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 19:03	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 19:03	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 19:03	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 19:03	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 19:03	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-3A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 2:00:00 PM
<b>Lab ID:</b> 2212E84-001	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 19:03	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 19:03	CM
Surr: 4-Bromofluorobenzene	95.5	75-118		%REC	348025	1	12/14/2022 19:03	CM
Surr: Dibromofluoromethane	96.2	82.5-121		%REC	348025	1	12/14/2022 19:03	CM
Surr: Toluene-d8	98.4	78.3-118		%REC	348025	1	12/14/2022 19:03	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-3
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 2:20:00 PM
<b>Lab ID:</b> 2212E84-002	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 19:28	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 19:28	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 19:28	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 19:28	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 19:28	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 19:28	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 19:28	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 19:28	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 19:28	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 19:28	CM
Benzene	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 19:28	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 19:28	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 19:28	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 19:28	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 19:28	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 19:28	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 19:28	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 19:28	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 19:28	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 19:28	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 19:28	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 19:28	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 19:28	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 19:28	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 19:28	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-3
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 2:20:00 PM
<b>Lab ID:</b> 2212E84-002	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 19:28	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 19:28	CM
Surr: 4-Bromofluorobenzene	95.3	75-118		%REC	348025	1	12/14/2022 19:28	CM
Surr: Dibromofluoromethane	96.2	82.5-121		%REC	348025	1	12/14/2022 19:28	CM
Surr: Toluene-d8	98.3	78.3-118		%REC	348025	1	12/14/2022 19:28	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 3:00:00 PM
<b>Lab ID:</b> 2212E84-003	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 19:53	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 19:53	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 19:53	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 19:53	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 19:53	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 19:53	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 19:53	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 19:53	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 19:53	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 19:53	CM
Benzene	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 19:53	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 19:53	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 19:53	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 19:53	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 19:53	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 19:53	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 19:53	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 19:53	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 19:53	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 19:53	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 19:53	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 19:53	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 19:53	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 19:53	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 19:53	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 3:00:00 PM
<b>Lab ID:</b> 2212E84-003	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 19:53	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 19:53	CM
Surr: 4-Bromofluorobenzene	95.4	75-118		%REC	348025	1	12/14/2022 19:53	CM
Surr: Dibromofluoromethane	95.7	82.5-121		%REC	348025	1	12/14/2022 19:53	CM
Surr: Toluene-d8	98	78.3-118		%REC	348025	1	12/14/2022 19:53	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 3:40:00 PM
<b>Lab ID:</b> 2212E84-004	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 20:18	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 20:18	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 20:18	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 20:18	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 20:18	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 20:18	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 20:18	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 20:18	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 20:18	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 20:18	CM
Benzene	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 20:18	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 20:18	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 20:18	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 20:18	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 20:18	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 20:18	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 20:18	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 20:18	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 20:18	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 20:18	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 20:18	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 20:18	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 20:18	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 20:18	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 20:18	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 3:40:00 PM
<b>Lab ID:</b> 2212E84-004	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 20:18	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 20:18	CM
Surr: 4-Bromofluorobenzene	94.5	75-118		%REC	348025	1	12/14/2022 20:18	CM
Surr: Dibromofluoromethane	96.4	82.5-121		%REC	348025	1	12/14/2022 20:18	CM
Surr: Toluene-d8	97.7	78.3-118		%REC	348025	1	12/14/2022 20:18	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-3A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 9:05:00 AM
<b>Lab ID:</b> 2212E84-005	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 17:18	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 17:18	HC
Barium	0.0354	0.0200		mg/L	347981	1	12/15/2022 17:18	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 17:18	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 17:18	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:18	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 17:18	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 17:18	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 17:18	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 17:18	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:18	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 17:18	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 17:18	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 17:18	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 17:18	HC

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 9:50:00 AM
<b>Lab ID:</b> 2212E84-007	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 17:44	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 17:44	HC
Barium	BRL	0.0200		mg/L	347981	1	12/15/2022 17:44	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 17:44	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 17:44	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:44	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 17:44	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 17:44	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 17:44	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 17:44	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:44	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 17:44	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 17:44	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 17:44	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 17:44	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 10:05:00 AM
<b>Lab ID:</b> 2212E84-008	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 17:46	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 17:46	HC
Barium	0.0931	0.0200		mg/L	347981	1	12/15/2022 17:46	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 17:46	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 17:46	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:46	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 17:46	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 17:46	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 17:46	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 17:46	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:46	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 17:46	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 17:46	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 17:46	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 17:46	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-009

**Client Sample ID:** GWC-8A  
**Collection Date:** 12/13/2022 1:45:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	122	10		mg/L	347887	1	12/14/2022 14:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	3.8	1.0		mg/L	R503939	1	12/14/2022 21:48	BI
Nitrate	BRL	0.25		mg/L	R503939	1	12/14/2022 21:48	BI
Sulfate	1.3	1.0		mg/L	R503939	1	12/14/2022 21:48	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
1,1-Dichloroethane	2.5	2.0		ug/L	348025	1	12/14/2022 20:43	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 20:43	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 20:43	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 20:43	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 20:43	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 20:43	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 20:43	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 20:43	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 20:43	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 20:43	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 20:43	CM
Benzene	2.4	2.0		ug/L	348025	1	12/14/2022 20:43	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 20:43	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 20:43	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 20:43	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 20:43	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 20:43	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 20:43	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 20:43	CM
cis-1,2-Dichloroethene	35	2.0		ug/L	348025	1	12/14/2022 20:43	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 20:43	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 20:43	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 20:43	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 20:43	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 20:43	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-8A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 1:45:00 PM
<b>Lab ID:</b> 2212E84-009	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 20:43	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 20:43	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 20:43	CM
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 20:43	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 20:43	CM
Surr: 4-Bromofluorobenzene	96.5	75-118		%REC	348025	1	12/14/2022 20:43	CM
Surr: Dibromofluoromethane	96.4	82.5-121		%REC	348025	1	12/14/2022 20:43	CM
Surr: Toluene-d8	98.8	78.3-118		%REC	348025	1	12/14/2022 20:43	CM
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	90.0	3.00		mg/L	R503982	1	12/15/2022 13:48	AH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-14R
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 3:10:00 PM
<b>Lab ID:</b> 2212E84-010	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	183	10		mg/L	347887	1	12/14/2022 14:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	4.5	1.0		mg/L	R503940	1	12/15/2022 00:31	BI
Nitrate	BRL	0.25		mg/L	R503940	1	12/15/2022 00:31	BI
Sulfate	3.0	1.0		mg/L	R503940	1	12/15/2022 00:31	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
1,1-Dichloroethane	12	2.0		ug/L	348025	1	12/14/2022 21:08	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 21:08	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 21:08	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 21:08	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 21:08	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 21:08	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 21:08	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 21:08	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 21:08	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 21:08	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 21:08	CM
Benzene	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 21:08	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 21:08	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 21:08	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 21:08	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 21:08	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 21:08	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 21:08	CM
cis-1,2-Dichloroethene	22	2.0		ug/L	348025	1	12/14/2022 21:08	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 21:08	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 21:08	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 21:08	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 21:08	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 21:08	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-14R
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 3:10:00 PM
<b>Lab ID:</b> 2212E84-010	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 21:08	CM
Trichloroethene	3.0	2.0		ug/L	348025	1	12/14/2022 21:08	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 21:08	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 21:08	CM
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 21:08	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 21:08	CM
Surr: 4-Bromofluorobenzene	96.1	75-118		%REC	348025	1	12/14/2022 21:08	CM
Surr: Dibromofluoromethane	96.9	82.5-121		%REC	348025	1	12/14/2022 21:08	CM
Surr: Toluene-d8	98.6	78.3-118		%REC	348025	1	12/14/2022 21:08	CM
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	153	3.00		mg/L	R503982	1	12/15/2022 13:48	AH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-011

**Client Sample ID:** GWC-14A  
**Collection Date:** 12/13/2022 3:15:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	192	10		mg/L	347887	1	12/14/2022 14:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	16	1.0		mg/L	R503940	1	12/15/2022 01:04	BI
Nitrate	BRL	0.25		mg/L	R503940	1	12/15/2022 01:04	BI
Sulfate	3.1	1.0		mg/L	R503940	1	12/15/2022 01:04	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
1,1-Dichloroethane	18	2.0		ug/L	348025	1	12/14/2022 21:33	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 21:33	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 21:33	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 21:33	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 21:33	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 21:33	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 21:33	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 21:33	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 21:33	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 21:33	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 21:33	CM
Benzene	3.3	2.0		ug/L	348025	1	12/14/2022 21:33	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 21:33	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 21:33	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 21:33	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 21:33	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 21:33	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
Chlorobenzene	14	10		ug/L	348025	1	12/14/2022 21:33	CM
Chloroethane	3.4	2.0		ug/L	348025	1	12/14/2022 21:33	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 21:33	CM
cis-1,2-Dichloroethene	86	2.0		ug/L	348025	1	12/14/2022 21:33	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 21:33	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 21:33	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 21:33	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 21:33	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 21:33	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-14A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 3:15:00 PM
<b>Lab ID:</b> 2212E84-011	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 21:33	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 21:33	CM
Trichloroethene	3.3	2.0		ug/L	348025	1	12/14/2022 21:33	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 21:33	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 21:33	CM
Vinyl chloride	14	2.0		ug/L	348025	1	12/14/2022 21:33	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 21:33	CM
Surr: 4-Bromofluorobenzene	96.2	75-118		%REC	348025	1	12/14/2022 21:33	CM
Surr: Dibromofluoromethane	95.7	82.5-121		%REC	348025	1	12/14/2022 21:33	CM
Surr: Toluene-d8	98.5	78.3-118		%REC	348025	1	12/14/2022 21:33	CM
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	160	3.00		mg/L	R503982	1	12/15/2022 13:48	AH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-012

**Client Sample ID:** TRIP BLANK  
**Collection Date:** 12/12/2022  
**Matrix:** Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 18:13	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 18:13	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 18:13	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 18:13	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 18:13	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 18:13	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 18:13	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 18:13	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 18:13	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 18:13	CM
Benzene	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 18:13	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 18:13	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 18:13	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 18:13	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 18:13	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 18:13	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 18:13	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 18:13	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 18:13	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 18:13	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 18:13	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 18:13	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 18:13	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 18:13	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 18:13	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> TRIP BLANK
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022
<b>Lab ID:</b> 2212E84-012	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 18:13	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 18:13	CM
Surr: 4-Bromofluorobenzene	96.3	75-118		%REC	348025	1	12/14/2022 18:13	CM
Surr: Dibromofluoromethane	94.9	82.5-121		%REC	348025	1	12/14/2022 18:13	CM
Surr: Toluene-d8	98.6	78.3-118		%REC	348025	1	12/14/2022 18:13	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-013

**Client Sample ID:** GWC-11  
**Collection Date:** 12/12/2022 2:15:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 21:58	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 21:58	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 21:58	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 21:58	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 21:58	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 21:58	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 21:58	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 21:58	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 21:58	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 21:58	CM
Benzene	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 21:58	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 21:58	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 21:58	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 21:58	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 21:58	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 21:58	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 21:58	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 21:58	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 21:58	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 21:58	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 21:58	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 21:58	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 21:58	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 21:58	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 21:58	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-11
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 2:15:00 PM
<b>Lab ID:</b> 2212E84-013	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 21:58	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 21:58	CM
Surr: 4-Bromofluorobenzene	95.5	75-118		%REC	348025	1	12/14/2022 21:58	CM
Surr: Dibromofluoromethane	94.6	82.5-121		%REC	348025	1	12/14/2022 21:58	CM
Surr: Toluene-d8	97.3	78.3-118		%REC	348025	1	12/14/2022 21:58	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-11
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 10:20:00 AM
<b>Lab ID:</b> 2212E84-014	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
<b>SW6020B</b>								
					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 17:49	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 17:49	HC
Barium	0.0232	0.0200		mg/L	347981	1	12/15/2022 17:49	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 17:49	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 17:49	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:49	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 17:49	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 17:49	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 17:49	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 17:49	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:49	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 17:49	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 17:49	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 17:49	HC
Zinc	0.0586	0.0200		mg/L	347981	1	12/15/2022 17:49	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-015

**Client Sample ID:** GWC-12  
**Collection Date:** 12/12/2022 2:40:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 22:23	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 22:23	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 22:23	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 22:23	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 22:23	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 22:23	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 22:23	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 22:23	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 22:23	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 22:23	CM
Benzene	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 22:23	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 22:23	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 22:23	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 22:23	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 22:23	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 22:23	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 22:23	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 22:23	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 22:23	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 22:23	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 22:23	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 22:23	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 22:23	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 22:23	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 22:23	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-12
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 2:40:00 PM
<b>Lab ID:</b> 2212E84-015	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 22:23	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 22:23	CM
Surr: 4-Bromofluorobenzene	95.3	75-118		%REC	348025	1	12/14/2022 22:23	CM
Surr: Dibromofluoromethane	95.9	82.5-121		%REC	348025	1	12/14/2022 22:23	CM
Surr: Toluene-d8	98.7	78.3-118		%REC	348025	1	12/14/2022 22:23	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-12
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 10:35:00 AM
<b>Lab ID:</b> 2212E84-016	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
	<b>SW6020B</b>							
					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 17:51	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 17:51	HC
Barium	BRL	0.0200		mg/L	347981	1	12/15/2022 17:51	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 17:51	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 17:51	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:51	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 17:51	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 17:51	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 17:51	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 17:51	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:51	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 17:51	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 17:51	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 17:51	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 17:51	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-12A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 3:00:00 PM
<b>Lab ID:</b> 2212E84-017	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 22:48	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 22:48	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 22:48	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 22:48	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 22:48	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 22:48	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 22:48	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 22:48	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 22:48	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 22:48	CM
Benzene	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 22:48	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 22:48	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 22:48	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 22:48	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 22:48	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 22:48	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 22:48	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 22:48	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 22:48	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 22:48	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 22:48	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 22:48	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 22:48	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 22:48	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 22:48	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-12A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 3:00:00 PM
<b>Lab ID:</b> 2212E84-017	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 22:48	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 22:48	CM
Surr: 4-Bromofluorobenzene	95.4	75-118		%REC	348025	1	12/14/2022 22:48	CM
Surr: Dibromofluoromethane	97.2	82.5-121		%REC	348025	1	12/14/2022 22:48	CM
Surr: Toluene-d8	98.9	78.3-118		%REC	348025	1	12/14/2022 22:48	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-12A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 10:45:00 AM
<b>Lab ID:</b> 2212E84-018	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 17:56	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 17:56	HC
Barium	BRL	0.0200		mg/L	347981	1	12/15/2022 17:56	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 17:56	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 17:56	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:56	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 17:56	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 17:56	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 17:56	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 17:56	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:56	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 17:56	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 17:56	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 17:56	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 17:56	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-13
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 3:30:00 PM
<b>Lab ID:</b> 2212E84-019	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 23:13	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 23:13	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 23:13	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 23:13	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 23:13	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 23:13	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 23:13	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 23:13	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 23:13	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 23:13	CM
Benzene	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 23:13	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 23:13	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 23:13	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 23:13	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 23:13	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 23:13	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 23:13	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 23:13	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 23:13	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 23:13	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 23:13	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 23:13	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 23:13	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 23:13	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 23:13	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-13
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 3:30:00 PM
<b>Lab ID:</b> 2212E84-019	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 23:13	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 23:13	CM
Surr: 4-Bromofluorobenzene	95.6	75-118		%REC	348025	1	12/14/2022 23:13	CM
Surr: Dibromofluoromethane	96.6	82.5-121		%REC	348025	1	12/14/2022 23:13	CM
Surr: Toluene-d8	99.4	78.3-118		%REC	348025	1	12/14/2022 23:13	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-13
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 10:35:00 AM
<b>Lab ID:</b> 2212E84-020	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 17:58	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 17:58	HC
Barium	BRL	0.0200		mg/L	347981	1	12/15/2022 17:58	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 17:58	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 17:58	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:58	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 17:58	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 17:58	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 17:58	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 17:58	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 17:58	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 17:58	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 17:58	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 17:58	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 17:58	HC

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> FIELD BLANK 1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 3:40:00 PM
<b>Lab ID:</b> 2212E84-021	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 18:38	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 18:38	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 18:38	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 18:38	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 18:38	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 18:38	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 18:38	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 18:38	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 18:38	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 18:38	CM
Benzene	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 18:38	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 18:38	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 18:38	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 18:38	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 18:38	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 18:38	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 18:38	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 18:38	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 18:38	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 18:38	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 18:38	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 18:38	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 18:38	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 18:38	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 18:38	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> FIELD BLANK 1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 3:40:00 PM
<b>Lab ID:</b> 2212E84-021	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 18:38	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 18:38	CM
Surr: 4-Bromofluorobenzene	94.9	75-118		%REC	348025	1	12/14/2022 18:38	CM
Surr: Dibromofluoromethane	96.2	82.5-121		%REC	348025	1	12/14/2022 18:38	CM
Surr: Toluene-d8	97.9	78.3-118		%REC	348025	1	12/14/2022 18:38	CM
<b>APPENDIX I METALS SW6020B</b>					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 18:01	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 18:01	HC
Barium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:01	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 18:01	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 18:01	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:01	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 18:01	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 18:01	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 18:01	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 18:01	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:01	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 18:01	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 18:01	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:01	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 18:01	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-022

**Client Sample ID:** PH1-GWB-1  
**Collection Date:** 12/12/2022 1:30:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 23:37	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 23:37	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 23:37	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 23:37	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 23:37	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 23:37	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 23:37	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 23:37	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 23:37	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 23:37	CM
Benzene	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 23:37	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 23:37	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 23:37	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 23:37	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 23:37	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 23:37	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 23:37	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 23:37	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 23:37	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 23:37	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 23:37	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 23:37	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 23:37	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 23:37	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 23:37	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWB-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 1:30:00 PM
<b>Lab ID:</b> 2212E84-022	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 23:37	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 23:37	CM
Surr: 4-Bromofluorobenzene	94.6	75-118		%REC	348025	1	12/14/2022 23:37	CM
Surr: Dibromofluoromethane	96.4	82.5-121		%REC	348025	1	12/14/2022 23:37	CM
Surr: Toluene-d8	98.7	78.3-118		%REC	348025	1	12/14/2022 23:37	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWB-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 8:55:00 AM
<b>Lab ID:</b> 2212E84-023	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 18:03	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 18:03	HC
Barium	0.0401	0.0200		mg/L	347981	1	12/15/2022 18:03	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 18:03	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 18:03	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:03	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 18:03	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 18:03	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 18:03	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 18:03	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:03	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 18:03	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 18:03	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:03	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 18:03	HC

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWB-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 2:35:00 PM
<b>Lab ID:</b> 2212E84-024	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>		<b>(SW5030B)</b>						
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/15/2022 00:03	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/15/2022 00:03	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/15/2022 00:03	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 00:03	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 00:03	CM
2-Butanone	BRL	100		ug/L	348025	1	12/15/2022 00:03	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/15/2022 00:03	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/15/2022 00:03	CM
Acetone	BRL	100		ug/L	348025	1	12/15/2022 00:03	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/15/2022 00:03	CM
Benzene	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/15/2022 00:03	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/15/2022 00:03	CM
Bromoform	BRL	10		ug/L	348025	1	12/15/2022 00:03	CM
Bromomethane	BRL	10		ug/L	348025	1	12/15/2022 00:03	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/15/2022 00:03	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 00:03	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
Chloromethane	BRL	10		ug/L	348025	1	12/15/2022 00:03	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/15/2022 00:03	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/15/2022 00:03	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
Iodomethane	BRL	100		ug/L	348025	1	12/15/2022 00:03	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/15/2022 00:03	CM
Styrene	BRL	10		ug/L	348025	1	12/15/2022 00:03	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
Toluene	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/15/2022 00:03	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/15/2022 00:03	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/15/2022 00:03	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWB-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 2:35:00 PM
<b>Lab ID:</b> 2212E84-024	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/15/2022 00:03	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/15/2022 00:03	CM
Surr: 4-Bromofluorobenzene	95.4	75-118		%REC	348025	1	12/15/2022 00:03	CM
Surr: Dibromofluoromethane	96	82.5-121		%REC	348025	1	12/15/2022 00:03	CM
Surr: Toluene-d8	98.3	78.3-118		%REC	348025	1	12/15/2022 00:03	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWB-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 9:10:00 AM
<b>Lab ID:</b> 2212E84-025	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 18:06	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 18:06	HC
Barium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:06	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 18:06	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 18:06	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:06	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 18:06	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 18:06	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 18:06	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 18:06	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:06	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 18:06	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 18:06	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:06	HC
Zinc	0.0629	0.0200		mg/L	347981	1	12/15/2022 18:06	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-9
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 2:00:00 PM
<b>Lab ID:</b> 2212E84-026	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/14/2022 17:48	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/14/2022 17:48	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/14/2022 17:48	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 17:48	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 17:48	CM
2-Butanone	BRL	100		ug/L	348025	1	12/14/2022 17:48	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/14/2022 17:48	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/14/2022 17:48	CM
Acetone	BRL	100		ug/L	348025	1	12/14/2022 17:48	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/14/2022 17:48	CM
Benzene	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 17:48	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/14/2022 17:48	CM
Bromoform	BRL	10		ug/L	348025	1	12/14/2022 17:48	CM
Bromomethane	BRL	10		ug/L	348025	1	12/14/2022 17:48	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/14/2022 17:48	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/14/2022 17:48	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
Chloromethane	BRL	10		ug/L	348025	1	12/14/2022 17:48	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/14/2022 17:48	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/14/2022 17:48	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
Iodomethane	BRL	100		ug/L	348025	1	12/14/2022 17:48	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/14/2022 17:48	CM
Styrene	BRL	10		ug/L	348025	1	12/14/2022 17:48	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
Toluene	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/14/2022 17:48	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/14/2022 17:48	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/14/2022 17:48	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-9
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 2:00:00 PM
<b>Lab ID:</b> 2212E84-026	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/14/2022 17:48	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/14/2022 17:48	CM
Surr: 4-Bromofluorobenzene	95.1	75-118		%REC	348025	1	12/14/2022 17:48	CM
Surr: Dibromofluoromethane	94.5	82.5-121		%REC	348025	1	12/14/2022 17:48	CM
Surr: Toluene-d8	98.7	78.3-118		%REC	348025	1	12/14/2022 17:48	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-027

**Client Sample ID:** GWC-4  
**Collection Date:** 12/12/2022 3:10:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/15/2022 00:27	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/15/2022 00:27	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/15/2022 00:27	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 00:27	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 00:27	CM
2-Butanone	BRL	100		ug/L	348025	1	12/15/2022 00:27	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/15/2022 00:27	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/15/2022 00:27	CM
Acetone	BRL	100		ug/L	348025	1	12/15/2022 00:27	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/15/2022 00:27	CM
Benzene	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/15/2022 00:27	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/15/2022 00:27	CM
Bromoform	BRL	10		ug/L	348025	1	12/15/2022 00:27	CM
Bromomethane	BRL	10		ug/L	348025	1	12/15/2022 00:27	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/15/2022 00:27	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 00:27	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
Chloromethane	BRL	10		ug/L	348025	1	12/15/2022 00:27	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/15/2022 00:27	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/15/2022 00:27	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
Iodomethane	BRL	100		ug/L	348025	1	12/15/2022 00:27	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/15/2022 00:27	CM
Styrene	BRL	10		ug/L	348025	1	12/15/2022 00:27	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
Toluene	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/15/2022 00:27	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/15/2022 00:27	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/15/2022 00:27	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-4
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 3:10:00 PM
<b>Lab ID:</b> 2212E84-027	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/15/2022 00:27	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/15/2022 00:27	CM
Surr: 4-Bromofluorobenzene	95.5	75-118		%REC	348025	1	12/15/2022 00:27	CM
Surr: Dibromofluoromethane	96.4	82.5-121		%REC	348025	1	12/15/2022 00:27	CM
Surr: Toluene-d8	98.7	78.3-118		%REC	348025	1	12/15/2022 00:27	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-4
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 10:00:00 AM
<b>Lab ID:</b> 2212E84-028	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 18:22	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 18:22	HC
Barium	0.0200	0.0200		mg/L	347981	1	12/15/2022 18:22	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 18:22	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 18:22	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:22	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 18:22	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 18:22	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 18:22	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 18:22	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:22	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 18:22	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 18:22	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:22	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 18:22	HC

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-029

**Client Sample ID:** GWC-5  
**Collection Date:** 12/12/2022 3:45:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/15/2022 00:52	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/15/2022 00:52	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/15/2022 00:52	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 00:52	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 00:52	CM
2-Butanone	BRL	100		ug/L	348025	1	12/15/2022 00:52	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/15/2022 00:52	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/15/2022 00:52	CM
Acetone	BRL	100		ug/L	348025	1	12/15/2022 00:52	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/15/2022 00:52	CM
Benzene	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/15/2022 00:52	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/15/2022 00:52	CM
Bromoform	BRL	10		ug/L	348025	1	12/15/2022 00:52	CM
Bromomethane	BRL	10		ug/L	348025	1	12/15/2022 00:52	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/15/2022 00:52	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 00:52	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
Chloromethane	BRL	10		ug/L	348025	1	12/15/2022 00:52	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/15/2022 00:52	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/15/2022 00:52	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
Iodomethane	BRL	100		ug/L	348025	1	12/15/2022 00:52	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/15/2022 00:52	CM
Styrene	BRL	10		ug/L	348025	1	12/15/2022 00:52	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
Toluene	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/15/2022 00:52	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/15/2022 00:52	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/15/2022 00:52	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-5
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 3:45:00 PM
<b>Lab ID:</b> 2212E84-029	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/15/2022 00:52	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/15/2022 00:52	CM
Surr: 4-Bromofluorobenzene	94.2	75-118		%REC	348025	1	12/15/2022 00:52	CM
Surr: Dibromofluoromethane	96.5	82.5-121		%REC	348025	1	12/15/2022 00:52	CM
Surr: Toluene-d8	98.9	78.3-118		%REC	348025	1	12/15/2022 00:52	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-5
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 10:10:00 AM
<b>Lab ID:</b> 2212E84-030	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 18:25	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 18:25	HC
Barium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:25	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 18:25	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 18:25	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:25	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 18:25	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 18:25	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 18:25	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 18:25	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:25	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 18:25	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 18:25	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:25	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 18:25	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-031

**Client Sample ID:** GWA-2  
**Collection Date:** 12/12/2022 1:45:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>		<b>(SW5030B)</b>						
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/15/2022 01:17	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/15/2022 01:17	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/15/2022 01:17	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 01:17	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 01:17	CM
2-Butanone	BRL	100		ug/L	348025	1	12/15/2022 01:17	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/15/2022 01:17	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/15/2022 01:17	CM
Acetone	BRL	100		ug/L	348025	1	12/15/2022 01:17	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/15/2022 01:17	CM
Benzene	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/15/2022 01:17	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/15/2022 01:17	CM
Bromoform	BRL	10		ug/L	348025	1	12/15/2022 01:17	CM
Bromomethane	BRL	10		ug/L	348025	1	12/15/2022 01:17	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/15/2022 01:17	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 01:17	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
Chloromethane	BRL	10		ug/L	348025	1	12/15/2022 01:17	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/15/2022 01:17	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/15/2022 01:17	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
Iodomethane	BRL	100		ug/L	348025	1	12/15/2022 01:17	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/15/2022 01:17	CM
Styrene	BRL	10		ug/L	348025	1	12/15/2022 01:17	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
Toluene	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/15/2022 01:17	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/15/2022 01:17	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/15/2022 01:17	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWA-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 1:45:00 PM
<b>Lab ID:</b> 2212E84-031	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/15/2022 01:17	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/15/2022 01:17	CM
Surr: 4-Bromofluorobenzene	94.4	75-118		%REC	348025	1	12/15/2022 01:17	CM
Surr: Dibromofluoromethane	96.7	82.5-121		%REC	348025	1	12/15/2022 01:17	CM
Surr: Toluene-d8	98.9	78.3-118		%REC	348025	1	12/15/2022 01:17	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-22
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 2:15:00 PM
<b>Lab ID:</b> 2212E84-032	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>		<b>(SW5030B)</b>						
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348025	1	12/15/2022 01:41	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348025	1	12/15/2022 01:41	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348025	1	12/15/2022 01:41	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 01:41	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 01:41	CM
2-Butanone	BRL	100		ug/L	348025	1	12/15/2022 01:41	CM
2-Hexanone	BRL	50		ug/L	348025	1	12/15/2022 01:41	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348025	1	12/15/2022 01:41	CM
Acetone	BRL	100		ug/L	348025	1	12/15/2022 01:41	CM
Acrylonitrile	BRL	50		ug/L	348025	1	12/15/2022 01:41	CM
Benzene	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
Bromochloromethane	BRL	10		ug/L	348025	1	12/15/2022 01:41	CM
Bromodichloromethane	BRL	10		ug/L	348025	1	12/15/2022 01:41	CM
Bromoform	BRL	10		ug/L	348025	1	12/15/2022 01:41	CM
Bromomethane	BRL	10		ug/L	348025	1	12/15/2022 01:41	CM
Carbon disulfide	BRL	5.0		ug/L	348025	1	12/15/2022 01:41	CM
Carbon tetrachloride	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
Chlorobenzene	BRL	10		ug/L	348025	1	12/15/2022 01:41	CM
Chloroethane	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
Chloroform	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
Chloromethane	BRL	10		ug/L	348025	1	12/15/2022 01:41	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
Dibromochloromethane	BRL	10		ug/L	348025	1	12/15/2022 01:41	CM
Dibromomethane	BRL	10		ug/L	348025	1	12/15/2022 01:41	CM
Ethylbenzene	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
Iodomethane	BRL	100		ug/L	348025	1	12/15/2022 01:41	CM
Methylene chloride	BRL	5.0		ug/L	348025	1	12/15/2022 01:41	CM
Styrene	BRL	10		ug/L	348025	1	12/15/2022 01:41	CM
Tetrachloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
Toluene	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348025	1	12/15/2022 01:41	CM
Trichloroethene	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
Trichlorofluoromethane	BRL	10		ug/L	348025	1	12/15/2022 01:41	CM
Vinyl acetate	BRL	100		ug/L	348025	1	12/15/2022 01:41	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-22
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 2:15:00 PM
<b>Lab ID:</b> 2212E84-032	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348025	1	12/15/2022 01:41	CM
Xylenes, Total	BRL	5.0		ug/L	348025	1	12/15/2022 01:41	CM
Surr: 4-Bromofluorobenzene	95.1	75-118		%REC	348025	1	12/15/2022 01:41	CM
Surr: Dibromofluoromethane	97.7	82.5-121		%REC	348025	1	12/15/2022 01:41	CM
Surr: Toluene-d8	99.2	78.3-118		%REC	348025	1	12/15/2022 01:41	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-033

**Client Sample ID:** GWC-23  
**Collection Date:** 12/12/2022 2:40:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348075	1	12/15/2022 14:23	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348075	1	12/15/2022 14:23	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348075	1	12/15/2022 14:23	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 14:23	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 14:23	CM
2-Butanone	BRL	100		ug/L	348075	1	12/15/2022 14:23	CM
2-Hexanone	BRL	50		ug/L	348075	1	12/15/2022 14:23	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348075	1	12/15/2022 14:23	CM
Acetone	BRL	100		ug/L	348075	1	12/15/2022 14:23	CM
Acrylonitrile	BRL	50		ug/L	348075	1	12/15/2022 14:23	CM
Benzene	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
Bromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 14:23	CM
Bromodichloromethane	BRL	10		ug/L	348075	1	12/15/2022 14:23	CM
Bromoform	BRL	10		ug/L	348075	1	12/15/2022 14:23	CM
Bromomethane	BRL	10		ug/L	348075	1	12/15/2022 14:23	CM
Carbon disulfide	BRL	5.0		ug/L	348075	1	12/15/2022 14:23	CM
Carbon tetrachloride	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
Chlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 14:23	CM
Chloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
Chloroform	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
Chloromethane	BRL	10		ug/L	348075	1	12/15/2022 14:23	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
Dibromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 14:23	CM
Dibromomethane	BRL	10		ug/L	348075	1	12/15/2022 14:23	CM
Ethylbenzene	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
Iodomethane	BRL	100		ug/L	348075	1	12/15/2022 14:23	CM
Methylene chloride	BRL	5.0		ug/L	348075	1	12/15/2022 14:23	CM
Styrene	BRL	10		ug/L	348075	1	12/15/2022 14:23	CM
Tetrachloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
Toluene	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348075	1	12/15/2022 14:23	CM
Trichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
Trichlorofluoromethane	BRL	10		ug/L	348075	1	12/15/2022 14:23	CM
Vinyl acetate	BRL	100		ug/L	348075	1	12/15/2022 14:23	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-23
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 2:40:00 PM
<b>Lab ID:</b> 2212E84-033	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348075	1	12/15/2022 14:23	CM
Xylenes, Total	BRL	5.0		ug/L	348075	1	12/15/2022 14:23	CM
Surr: 4-Bromofluorobenzene	97.1	75-118		%REC	348075	1	12/15/2022 14:23	CM
Surr: Dibromofluoromethane	94.8	82.5-121		%REC	348075	1	12/15/2022 14:23	CM
Surr: Toluene-d8	98.7	78.3-118		%REC	348075	1	12/15/2022 14:23	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-034

**Client Sample ID:** GWC-23A  
**Collection Date:** 12/12/2022 3:20:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348075	1	12/15/2022 14:48	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348075	1	12/15/2022 14:48	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348075	1	12/15/2022 14:48	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 14:48	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 14:48	CM
2-Butanone	BRL	100		ug/L	348075	1	12/15/2022 14:48	CM
2-Hexanone	BRL	50		ug/L	348075	1	12/15/2022 14:48	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348075	1	12/15/2022 14:48	CM
Acetone	BRL	100		ug/L	348075	1	12/15/2022 14:48	CM
Acrylonitrile	BRL	50		ug/L	348075	1	12/15/2022 14:48	CM
Benzene	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
Bromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 14:48	CM
Bromodichloromethane	BRL	10		ug/L	348075	1	12/15/2022 14:48	CM
Bromoform	BRL	10		ug/L	348075	1	12/15/2022 14:48	CM
Bromomethane	BRL	10		ug/L	348075	1	12/15/2022 14:48	CM
Carbon disulfide	BRL	5.0		ug/L	348075	1	12/15/2022 14:48	CM
Carbon tetrachloride	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
Chlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 14:48	CM
Chloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
Chloroform	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
Chloromethane	BRL	10		ug/L	348075	1	12/15/2022 14:48	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
Dibromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 14:48	CM
Dibromomethane	BRL	10		ug/L	348075	1	12/15/2022 14:48	CM
Ethylbenzene	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
Iodomethane	BRL	100		ug/L	348075	1	12/15/2022 14:48	CM
Methylene chloride	BRL	5.0		ug/L	348075	1	12/15/2022 14:48	CM
Styrene	BRL	10		ug/L	348075	1	12/15/2022 14:48	CM
Tetrachloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
Toluene	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348075	1	12/15/2022 14:48	CM
Trichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
Trichlorofluoromethane	BRL	10		ug/L	348075	1	12/15/2022 14:48	CM
Vinyl acetate	BRL	100		ug/L	348075	1	12/15/2022 14:48	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-23A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 3:20:00 PM
<b>Lab ID:</b> 2212E84-034	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348075	1	12/15/2022 14:48	CM
Xylenes, Total	BRL	5.0		ug/L	348075	1	12/15/2022 14:48	CM
Surr: 4-Bromofluorobenzene	95.9	75-118		%REC	348075	1	12/15/2022 14:48	CM
Surr: Dibromofluoromethane	95.4	82.5-121		%REC	348075	1	12/15/2022 14:48	CM
Surr: Toluene-d8	98.4	78.3-118		%REC	348075	1	12/15/2022 14:48	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-7
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 4:10:00 PM
<b>Lab ID:</b> 2212E84-035	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348075	1	12/15/2022 15:13	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348075	1	12/15/2022 15:13	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348075	1	12/15/2022 15:13	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 15:13	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 15:13	CM
2-Butanone	BRL	100		ug/L	348075	1	12/15/2022 15:13	CM
2-Hexanone	BRL	50		ug/L	348075	1	12/15/2022 15:13	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348075	1	12/15/2022 15:13	CM
Acetone	BRL	100		ug/L	348075	1	12/15/2022 15:13	CM
Acrylonitrile	BRL	50		ug/L	348075	1	12/15/2022 15:13	CM
Benzene	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
Bromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 15:13	CM
Bromodichloromethane	BRL	10		ug/L	348075	1	12/15/2022 15:13	CM
Bromoform	BRL	10		ug/L	348075	1	12/15/2022 15:13	CM
Bromomethane	BRL	10		ug/L	348075	1	12/15/2022 15:13	CM
Carbon disulfide	BRL	5.0		ug/L	348075	1	12/15/2022 15:13	CM
Carbon tetrachloride	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
Chlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 15:13	CM
Chloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
Chloroform	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
Chloromethane	BRL	10		ug/L	348075	1	12/15/2022 15:13	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
Dibromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 15:13	CM
Dibromomethane	BRL	10		ug/L	348075	1	12/15/2022 15:13	CM
Ethylbenzene	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
Iodomethane	BRL	100		ug/L	348075	1	12/15/2022 15:13	CM
Methylene chloride	BRL	5.0		ug/L	348075	1	12/15/2022 15:13	CM
Styrene	BRL	10		ug/L	348075	1	12/15/2022 15:13	CM
Tetrachloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
Toluene	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348075	1	12/15/2022 15:13	CM
Trichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
Trichlorofluoromethane	BRL	10		ug/L	348075	1	12/15/2022 15:13	CM
Vinyl acetate	BRL	100		ug/L	348075	1	12/15/2022 15:13	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-7
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 4:10:00 PM
<b>Lab ID:</b> 2212E84-035	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348075	1	12/15/2022 15:13	CM
Xylenes, Total	BRL	5.0		ug/L	348075	1	12/15/2022 15:13	CM
Surr: 4-Bromofluorobenzene	94.5	75-118		%REC	348075	1	12/15/2022 15:13	CM
Surr: Dibromofluoromethane	95.3	82.5-121		%REC	348075	1	12/15/2022 15:13	CM
Surr: Toluene-d8	98.5	78.3-118		%REC	348075	1	12/15/2022 15:13	CM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-036

**Client Sample ID:** PH1-GWA-3A  
**Collection Date:** 12/12/2022 4:40:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348075	1	12/15/2022 15:38	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348075	1	12/15/2022 15:38	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348075	1	12/15/2022 15:38	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 15:38	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 15:38	CM
2-Butanone	BRL	100		ug/L	348075	1	12/15/2022 15:38	CM
2-Hexanone	BRL	50		ug/L	348075	1	12/15/2022 15:38	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348075	1	12/15/2022 15:38	CM
Acetone	BRL	100		ug/L	348075	1	12/15/2022 15:38	CM
Acrylonitrile	BRL	50		ug/L	348075	1	12/15/2022 15:38	CM
Benzene	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
Bromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 15:38	CM
Bromodichloromethane	BRL	10		ug/L	348075	1	12/15/2022 15:38	CM
Bromoform	BRL	10		ug/L	348075	1	12/15/2022 15:38	CM
Bromomethane	BRL	10		ug/L	348075	1	12/15/2022 15:38	CM
Carbon disulfide	BRL	5.0		ug/L	348075	1	12/15/2022 15:38	CM
Carbon tetrachloride	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
Chlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 15:38	CM
Chloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
Chloroform	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
Chloromethane	BRL	10		ug/L	348075	1	12/15/2022 15:38	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
Dibromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 15:38	CM
Dibromomethane	BRL	10		ug/L	348075	1	12/15/2022 15:38	CM
Ethylbenzene	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
Iodomethane	BRL	100		ug/L	348075	1	12/15/2022 15:38	CM
Methylene chloride	BRL	5.0		ug/L	348075	1	12/15/2022 15:38	CM
Styrene	BRL	10		ug/L	348075	1	12/15/2022 15:38	CM
Tetrachloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
Toluene	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348075	1	12/15/2022 15:38	CM
Trichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
Trichlorofluoromethane	BRL	10		ug/L	348075	1	12/15/2022 15:38	CM
Vinyl acetate	BRL	100		ug/L	348075	1	12/15/2022 15:38	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWA-3A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/12/2022 4:40:00 PM
<b>Lab ID:</b> 2212E84-036	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348075	1	12/15/2022 15:38	CM
Xylenes, Total	BRL	5.0		ug/L	348075	1	12/15/2022 15:38	CM
Surr: 4-Bromofluorobenzene	96.2	75-118		%REC	348075	1	12/15/2022 15:38	CM
Surr: Dibromofluoromethane	94.2	82.5-121		%REC	348075	1	12/15/2022 15:38	CM
Surr: Toluene-d8	98.4	78.3-118		%REC	348075	1	12/15/2022 15:38	CM
<b>APPENDIX I METALS SW6020B</b>					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 18:27	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 18:27	HC
Barium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:27	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 18:27	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 18:27	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:27	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 18:27	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 18:27	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 18:27	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 18:27	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:27	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 18:27	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 18:27	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:27	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 18:27	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWA-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 9:30:00 AM
<b>Lab ID:</b> 2212E84-037	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
<b>SW6020B</b>								
					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 18:29	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 18:29	HC
Barium	0.0206	0.0200		mg/L	347981	1	12/15/2022 18:29	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 18:29	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 18:29	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:29	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 18:29	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 18:29	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 18:29	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 18:29	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:29	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 18:29	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 18:29	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:29	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 18:29	HC

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-22
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 9:40:00 AM
<b>Lab ID:</b> 2212E84-038	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 18:32	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 18:32	HC
Barium	0.0241	0.0200		mg/L	347981	1	12/15/2022 18:32	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 18:32	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 18:32	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:32	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 18:32	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 18:32	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 18:32	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 18:32	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:32	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 18:32	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 18:32	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:32	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 18:32	HC

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-23
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 9:55:00 AM
<b>Lab ID:</b> 2212E84-039	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 18:34	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 18:34	HC
Barium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:34	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 18:34	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 18:34	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:34	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 18:34	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 18:34	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 18:34	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 18:34	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:34	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 18:34	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 18:34	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:34	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 18:34	HC

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-23A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 9:50:00 AM
<b>Lab ID:</b> 2212E84-040	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 18:36	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 18:36	HC
Barium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:36	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 18:36	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 18:36	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:36	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 18:36	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 18:36	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 18:36	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 18:36	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:36	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 18:36	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 18:36	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:36	HC
Zinc	BRL	0.0200		mg/L	347981	1	12/15/2022 18:36	HC

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-7
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 10:20:00 AM
<b>Lab ID:</b> 2212E84-041	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	347981	1	12/15/2022 18:39	HC
Arsenic	BRL	0.0100		mg/L	347981	1	12/15/2022 18:39	HC
Barium	0.0356	0.0200		mg/L	347981	1	12/15/2022 18:39	HC
Beryllium	BRL	0.00300		mg/L	347981	1	12/15/2022 18:39	HC
Cadmium	BRL	0.00500		mg/L	347981	1	12/15/2022 18:39	HC
Chromium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:39	HC
Cobalt	BRL	0.0400		mg/L	347981	1	12/15/2022 18:39	HC
Copper	BRL	0.0200		mg/L	347981	1	12/15/2022 18:39	HC
Lead	BRL	0.0150		mg/L	347981	1	12/15/2022 18:39	HC
Nickel	BRL	0.0200		mg/L	347981	1	12/15/2022 18:39	HC
Selenium	BRL	0.0100		mg/L	347981	1	12/15/2022 18:39	HC
Silver	BRL	0.0100		mg/L	347981	1	12/15/2022 18:39	HC
Thallium	BRL	0.00200		mg/L	347981	1	12/15/2022 18:39	HC
Vanadium	BRL	0.0200		mg/L	347981	1	12/15/2022 18:39	HC
Zinc	0.0353	0.0200		mg/L	347981	1	12/15/2022 18:39	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-042

**Client Sample ID:** GWC-8  
**Collection Date:** 12/13/2022 1:05:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348075	1	12/15/2022 16:03	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348075	1	12/15/2022 16:03	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348075	1	12/15/2022 16:03	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 16:03	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 16:03	CM
2-Butanone	BRL	100		ug/L	348075	1	12/15/2022 16:03	CM
2-Hexanone	BRL	50		ug/L	348075	1	12/15/2022 16:03	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348075	1	12/15/2022 16:03	CM
Acetone	BRL	100		ug/L	348075	1	12/15/2022 16:03	CM
Acrylonitrile	BRL	50		ug/L	348075	1	12/15/2022 16:03	CM
Benzene	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
Bromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 16:03	CM
Bromodichloromethane	BRL	10		ug/L	348075	1	12/15/2022 16:03	CM
Bromoform	BRL	10		ug/L	348075	1	12/15/2022 16:03	CM
Bromomethane	BRL	10		ug/L	348075	1	12/15/2022 16:03	CM
Carbon disulfide	BRL	5.0		ug/L	348075	1	12/15/2022 16:03	CM
Carbon tetrachloride	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
Chlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 16:03	CM
Chloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
Chloroform	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
Chloromethane	BRL	10		ug/L	348075	1	12/15/2022 16:03	CM
cis-1,2-Dichloroethene	3.4	2.0		ug/L	348075	1	12/15/2022 16:03	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
Dibromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 16:03	CM
Dibromomethane	BRL	10		ug/L	348075	1	12/15/2022 16:03	CM
Ethylbenzene	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
Iodomethane	BRL	100		ug/L	348075	1	12/15/2022 16:03	CM
Methylene chloride	BRL	5.0		ug/L	348075	1	12/15/2022 16:03	CM
Styrene	BRL	10		ug/L	348075	1	12/15/2022 16:03	CM
Tetrachloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
Toluene	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348075	1	12/15/2022 16:03	CM
Trichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
Trichlorofluoromethane	BRL	10		ug/L	348075	1	12/15/2022 16:03	CM
Vinyl acetate	BRL	100		ug/L	348075	1	12/15/2022 16:03	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-8
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 1:05:00 PM
<b>Lab ID:</b> 2212E84-042	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348075	1	12/15/2022 16:03	CM
Xylenes, Total	BRL	5.0		ug/L	348075	1	12/15/2022 16:03	CM
Surr: 4-Bromofluorobenzene	95.9	75-118		%REC	348075	1	12/15/2022 16:03	CM
Surr: Dibromofluoromethane	95.3	82.5-121		%REC	348075	1	12/15/2022 16:03	CM
Surr: Toluene-d8	98.8	78.3-118		%REC	348075	1	12/15/2022 16:03	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212E84-043

**Client Sample ID:** GWC-8R  
**Collection Date:** 12/13/2022 12:25:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	162	10		mg/L	347887	1	12/14/2022 14:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	2.4	1.0		mg/L	R503939	1	12/14/2022 20:32	BI
Nitrate	BRL	0.25		mg/L	R503939	1	12/14/2022 20:32	BI
Sulfate	3.0	1.0		mg/L	R503939	1	12/14/2022 20:32	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
1,1-Dichloroethane	9.0	2.0		ug/L	348075	1	12/15/2022 16:28	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348075	1	12/15/2022 16:28	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348075	1	12/15/2022 16:28	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348075	1	12/15/2022 16:28	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 16:28	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 16:28	CM
2-Butanone	BRL	100		ug/L	348075	1	12/15/2022 16:28	CM
2-Hexanone	BRL	50		ug/L	348075	1	12/15/2022 16:28	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348075	1	12/15/2022 16:28	CM
Acetone	BRL	100		ug/L	348075	1	12/15/2022 16:28	CM
Acrylonitrile	BRL	50		ug/L	348075	1	12/15/2022 16:28	CM
Benzene	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
Bromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 16:28	CM
Bromodichloromethane	BRL	10		ug/L	348075	1	12/15/2022 16:28	CM
Bromoform	BRL	10		ug/L	348075	1	12/15/2022 16:28	CM
Bromomethane	BRL	10		ug/L	348075	1	12/15/2022 16:28	CM
Carbon disulfide	BRL	5.0		ug/L	348075	1	12/15/2022 16:28	CM
Carbon tetrachloride	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
Chlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 16:28	CM
Chloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
Chloroform	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
Chloromethane	BRL	10		ug/L	348075	1	12/15/2022 16:28	CM
cis-1,2-Dichloroethene	29	2.0		ug/L	348075	1	12/15/2022 16:28	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
Dibromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 16:28	CM
Dibromomethane	BRL	10		ug/L	348075	1	12/15/2022 16:28	CM
Ethylbenzene	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
Iodomethane	BRL	100		ug/L	348075	1	12/15/2022 16:28	CM
Methylene chloride	BRL	5.0		ug/L	348075	1	12/15/2022 16:28	CM
Styrene	BRL	10		ug/L	348075	1	12/15/2022 16:28	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-8R
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 12:25:00 PM
<b>Lab ID:</b> 2212E84-043	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Tetrachloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
Toluene	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348075	1	12/15/2022 16:28	CM
Trichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
Trichlorofluoromethane	BRL	10		ug/L	348075	1	12/15/2022 16:28	CM
Vinyl acetate	BRL	100		ug/L	348075	1	12/15/2022 16:28	CM
Vinyl chloride	BRL	2.0		ug/L	348075	1	12/15/2022 16:28	CM
Xylenes, Total	BRL	5.0		ug/L	348075	1	12/15/2022 16:28	CM
Surr: 4-Bromofluorobenzene	95.8	75-118		%REC	348075	1	12/15/2022 16:28	CM
Surr: Dibromofluoromethane	95.7	82.5-121		%REC	348075	1	12/15/2022 16:28	CM
Surr: Toluene-d8	98.5	78.3-118		%REC	348075	1	12/15/2022 16:28	CM
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	140	3.00		mg/L	R504088	1	12/16/2022 12:24	AH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-14
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 1:15:00 PM
<b>Lab ID:</b> 2212E84-044	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348075	1	12/15/2022 16:53	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348075	1	12/15/2022 16:53	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348075	1	12/15/2022 16:53	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 16:53	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 16:53	CM
2-Butanone	BRL	100		ug/L	348075	1	12/15/2022 16:53	CM
2-Hexanone	BRL	50		ug/L	348075	1	12/15/2022 16:53	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348075	1	12/15/2022 16:53	CM
Acetone	BRL	100		ug/L	348075	1	12/15/2022 16:53	CM
Acrylonitrile	BRL	50		ug/L	348075	1	12/15/2022 16:53	CM
Benzene	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
Bromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 16:53	CM
Bromodichloromethane	BRL	10		ug/L	348075	1	12/15/2022 16:53	CM
Bromoform	BRL	10		ug/L	348075	1	12/15/2022 16:53	CM
Bromomethane	BRL	10		ug/L	348075	1	12/15/2022 16:53	CM
Carbon disulfide	BRL	5.0		ug/L	348075	1	12/15/2022 16:53	CM
Carbon tetrachloride	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
Chlorobenzene	BRL	10		ug/L	348075	1	12/15/2022 16:53	CM
Chloroethane	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
Chloroform	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
Chloromethane	BRL	10		ug/L	348075	1	12/15/2022 16:53	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
Dibromochloromethane	BRL	10		ug/L	348075	1	12/15/2022 16:53	CM
Dibromomethane	BRL	10		ug/L	348075	1	12/15/2022 16:53	CM
Ethylbenzene	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
Iodomethane	BRL	100		ug/L	348075	1	12/15/2022 16:53	CM
Methylene chloride	BRL	5.0		ug/L	348075	1	12/15/2022 16:53	CM
Styrene	BRL	10		ug/L	348075	1	12/15/2022 16:53	CM
Tetrachloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
Toluene	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348075	1	12/15/2022 16:53	CM
Trichloroethene	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
Trichlorofluoromethane	BRL	10		ug/L	348075	1	12/15/2022 16:53	CM
Vinyl acetate	BRL	100		ug/L	348075	1	12/15/2022 16:53	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-14
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 1:15:00 PM
<b>Lab ID:</b> 2212E84-044	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348075	1	12/15/2022 16:53	CM
Xylenes, Total	BRL	5.0		ug/L	348075	1	12/15/2022 16:53	CM
Surr: 4-Bromofluorobenzene	95.7	75-118		%REC	348075	1	12/15/2022 16:53	CM
Surr: Dibromofluoromethane	96.2	82.5-121		%REC	348075	1	12/15/2022 16:53	CM
Surr: Toluene-d8	98.2	78.3-118		%REC	348075	1	12/15/2022 16:53	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**SAMPLE/COOLER RECEIPT CHECKLIST**

1. Client Name: **Atlantic Coast Consulting, Inc.** \_\_\_\_\_

AES Work Order Number: **2212E84** \_\_\_\_\_

2. Carrier: FedEx  UPS  USPS  Client  Courier  Other \_\_\_\_\_

	Yes	No	N/A	Details	Comments
3. Shipping container/cooler received in good condition?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	damaged <input type="checkbox"/> leaking <input type="checkbox"/> other <input type="checkbox"/>	
4. Custody seals present on shipping container?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
5. Custody seals intact on shipping container?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
6. Temperature blanks present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
7. Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cooling initiated for recently collected samples / ice present <input type="checkbox"/>	
8. Chain of Custody (COC) present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
9. Chain of Custody signed, dated, and timed when relinquished and received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
10. Sampler name and/or signature on COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
11. Were all samples received within holding time?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
12. TAT marked on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. <input type="checkbox"/>	

13. Cooler 1 Temperature 1.7 °C      Cooler 2 Temperature \_\_\_\_\_ °C      Cooler 3 Temperature \_\_\_\_\_ °C      Cooler 4 Temperature \_\_\_\_\_ °C  
 14. Cooler 5 Temperature \_\_\_\_\_ °C      Cooler 6 Temperature \_\_\_\_\_ °C      Cooler 7 Temperature \_\_\_\_\_ °C      Cooler 8 Temperature \_\_\_\_\_ °C

15. Comments: \_\_\_\_\_

I certify that I have completed sections 1-15 (dated initials). DG 12/14/22

	Yes	No	N/A	Details	Comments
16. Were sample containers intact upon receipt?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
17. Custody seals present on sample containers?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
18. Custody seals intact on sample containers?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
19. Do sample container labels match the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	incomplete info <input type="checkbox"/> illegible <input type="checkbox"/> no label <input type="checkbox"/> other <input type="checkbox"/>	
20. Are analyses requested indicated on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
21. Were all of the samples listed on the COC received?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	samples received but not listed on COC <input type="checkbox"/> samples listed on COC not received <input checked="" type="checkbox"/>	
22. Was the sample collection date/time noted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
23. Did we receive sufficient sample volume for indicated analyses?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
24. Were samples received in appropriate containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
25. Were VOA samples received without headspace (< 1/4" bubble)?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
26. Were trip blanks submitted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	listed on COC <input checked="" type="checkbox"/> not listed on COC <input type="checkbox"/>	

27. Comments: \_\_\_\_\_

This section only applies to samples where pH can be checked at Sample Receipt.

I certify that I have completed sections 16-27 (dated initials). DG 12/14/22

	Yes	No	N/A	Details	Comments
28. Have containers needing chemical preservation been checked? *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
29. Containers meet preservation guidelines?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
30. Was pH adjusted at Sample Receipt?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		

\* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

This also excludes metals by EPA 200.7, 200.8 and 245.1 which will be verified between 16 and 24 hours after preservation.

I certify that I have completed sections 28-30 (dated initials). DG 12/14/22

Locked

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 347887**

Sample ID: <b>MB-347887</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/14/2022</b>	Run No: <b>503796</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Residue, Dissolved (TDS) by SM2540C</b>	BatchID: <b>347887</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11816663</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS)      BRL                      10

Sample ID: <b>LCS-347887</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/14/2022</b>	Run No: <b>503796</b>							
SampleType: <b>LCS</b>	TestCode: <b>Residue, Dissolved (TDS) by SM2540C</b>	BatchID: <b>347887</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11816664</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS)      2900                      40                      3000                      96.7                      78.33                      117.67

Sample ID: <b>2212C26-014DDUP</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/14/2022</b>	Run No: <b>503796</b>							
SampleType: <b>DUP</b>	TestCode: <b>Residue, Dissolved (TDS) by SM2540C</b>	BatchID: <b>347887</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11816666</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS)      746.0                      10                      742.0                      0.538                      10

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 347981**

Sample ID: <b>MB-347981</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>503972</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>347981</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11819239</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	BRL	0.00600									
Arsenic	BRL	0.0100									
Barium	BRL	0.0200									
Beryllium	BRL	0.00400									
Cadmium	BRL	0.00500									
Chromium	BRL	0.0200									
Cobalt	BRL	0.0500									
Copper	BRL	0.0200									
Lead	BRL	0.0100									
Nickel	BRL	0.0400									
Selenium	BRL	0.0500									
Silver	BRL	0.00500									
Thallium	BRL	0.00200									
Vanadium	BRL	0.0500									
Zinc	BRL	0.0200									

Sample ID: <b>LCS-347981</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>503972</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>347981</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11819240</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1003	0.00600	0.1000		100	80	120				
Arsenic	0.09516	0.0100	0.1000		95.2	80	120				
Barium	0.09939	0.0200	0.1000		99.4	80	120				
Beryllium	0.09916	0.00400	0.1000		99.2	80	120				
Cadmium	0.09779	0.00500	0.1000		97.8	80	120				
Chromium	0.09618	0.0200	0.1000		96.2	80	120				
Cobalt	0.09942	0.0500	0.1000		99.4	80	120				
Copper	0.1008	0.0200	0.1000		101	80	120				

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 347981**

Sample ID: <b>LCS-347981</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>503972</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>347981</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11819240</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Lead	0.1063	0.0100	0.1000		106	80	120				
Nickel	0.09959	0.0400	0.1000		99.6	80	120				
Selenium	0.09072	0.0500	0.1000		90.7	80	120				
Silver	0.01115	0.00500	0.0100		112	80	120				
Thallium	0.1048	0.00200	0.1000		105	80	120				
Vanadium	0.09603	0.0500	0.1000		96.0	80	120				
Zinc	0.09399	0.0200	0.1000		94.0	80	120				

Sample ID: <b>2212E84-005AMS</b>	Client ID: <b>GWC-3A</b>	Units: <b>mg/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>503972</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>347981</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11819243</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1020	0.00600	0.1000		102	75	125				
Arsenic	0.09575	0.0100	0.1000		95.8	75	125				
Barium	0.1389	0.0200	0.1000	0.03541	103	75	125				
Beryllium	0.1034	0.00400	0.1000		103	75	125				
Cadmium	0.09972	0.00500	0.1000		99.7	75	125				
Chromium	0.09782	0.0200	0.1000		97.8	75	125				
Cobalt	0.1005	0.0500	0.1000	0.0008773	99.7	75	125				
Copper	0.1025	0.0200	0.1000		103	75	125				
Lead	0.1080	0.0100	0.1000		108	75	125				
Nickel	0.1018	0.0400	0.1000	0.001852	100.0	75	125				
Selenium	0.09351	0.0500	0.1000		93.5	75	125				
Silver	0.01104	0.00500	0.0100		110	75	125				
Thallium	0.1075	0.00200	0.1000		107	75	125				
Vanadium	0.09859	0.0500	0.1000		98.6	75	125				
Zinc	0.1090	0.0200	0.1000	0.01142	97.6	75	125				

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 347981**

Sample ID: <b>2212E84-005AMSD</b>	Client ID: <b>GWC-3A</b>	Units: <b>mg/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>503972</b>
SampleType: <b>MSD</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>347981</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11819244</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Antimony	0.1039	0.00600	0.1000		104	75	125	0.1020	1.85	20	
Arsenic	0.09777	0.0100	0.1000		97.8	75	125	0.09575	2.09	20	
Barium	0.1395	0.0200	0.1000	0.03541	104	75	125	0.1389	0.435	20	
Beryllium	0.1021	0.00400	0.1000		102	75	125	0.1034	1.22	20	
Cadmium	0.09945	0.00500	0.1000		99.5	75	125	0.09972	0.271	20	
Chromium	0.09922	0.0200	0.1000		99.2	75	125	0.09782	1.43	20	
Cobalt	0.1023	0.0500	0.1000	0.0008773	101	75	125	0.1005	1.71	20	
Copper	0.1044	0.0200	0.1000		104	75	125	0.1025	1.85	20	
Lead	0.1102	0.0100	0.1000		110	75	125	0.1080	2.01	20	
Nickel	0.1024	0.0400	0.1000	0.001852	101	75	125	0.1018	0.541	20	
Selenium	0.09239	0.0500	0.1000		92.4	75	125	0.09351	1.20	20	
Silver	0.01131	0.00500	0.0100		113	75	125	0.01104	2.50	20	
Thallium	0.1097	0.00200	0.1000		110	75	125	0.1075	2.01	20	
Vanadium	0.09907	0.0500	0.1000		99.1	75	125	0.09859	0.481	20	
Zinc	0.1104	0.0200	0.1000	0.01142	99.0	75	125	0.1090	1.25	20	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348025**

Sample ID: <b>MB-348025</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/14/2022</b>	Run No: <b>503962</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348025</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11817502</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0									
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,3-Trichloropropane	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Acrylonitrile	BRL	5.0									
Benzene	BRL	5.0									
Bromochloromethane	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348025**

Sample ID: <b>MB-348025</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/14/2022</b>	Run No: <b>503962</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348025</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11817502</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dibromomethane	BRL	5.0									
Ethylbenzene	BRL	5.0									
Iodomethane	BRL	10									
Methylene chloride	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
trans-1,4-Dichloro-2-butene	BRL	10									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl acetate	BRL	10									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	10									
Surr: 4-Bromofluorobenzene	47.73	0	50.00		95.5	75	118				
Surr: Dibromofluoromethane	47.52	0	50.00		95.0	82.5	121				
Surr: Toluene-d8	49.20	0	50.00		98.4	78.3	118				

Sample ID: <b>LCS-348025</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/14/2022</b>	Run No: <b>503962</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348025</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11817503</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348025**

Sample ID: <b>LCS-348025</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/14/2022</b>	Run No: <b>503962</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348025</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11817503</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	46.35	5.0	50.00		92.7	71	130				
Benzene	45.85	5.0	50.00		91.7	80.4	126				
Chlorobenzene	47.11	5.0	50.00		94.2	81	120				
Toluene	49.32	5.0	50.00		98.6	79.2	124				
Trichloroethene	49.48	5.0	50.00		99.0	78.4	125				
Surr: 4-Bromofluorobenzene	48.92	0	50.00		97.8	75	118				
Surr: Dibromofluoromethane	47.50	0	50.00		95.0	82.5	121				
Surr: Toluene-d8	51.03	0	50.00		102	78.3	118				

Sample ID: <b>2212E84-017AMS</b>	Client ID: <b>GWC-12A</b>	Units: <b>ug/L</b>	Prep Date: <b>12/14/2022</b>	Run No: <b>503962</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348025</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11826248</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	26.93	5.0	20.00		135	67.6	143				
Benzene	25.64	5.0	20.00		128	70.5	136				
Chlorobenzene	24.98	5.0	20.00		125	77.1	133				
Toluene	26.54	5.0	20.00		133	66.4	140				
Trichloroethene	26.40	5.0	20.00		132	75.1	140				
Surr: 4-Bromofluorobenzene	50.45	0	50.00		101	75	118				
Surr: Dibromofluoromethane	48.98	0	50.00		98.0	82.5	121				
Surr: Toluene-d8	51.13	0	50.00		102	78.3	118				

Sample ID: <b>2212E84-015ADUP</b>	Client ID: <b>GWC-12</b>	Units: <b>ug/L</b>	Prep Date: <b>12/14/2022</b>	Run No: <b>503962</b>							
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348025</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11826247</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,1-Trichloroethane	BRL	5.0						0	0	20	

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348025**

Sample ID: <b>2212E84-015ADUP</b>	Client ID: <b>GWC-12</b>	Units: <b>ug/L</b>	Prep Date: <b>12/14/2022</b>	Run No: <b>503962</b>
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348025</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11826247</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,2,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,2-Trichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethene	BRL	5.0						0	0	20	
1,2,3-Trichloropropane	BRL	5.0						0	0	20	
1,2-Dibromo-3-chloropropane	BRL	5.0						0	0	20	
1,2-Dibromoethane	BRL	5.0						0	0	20	
1,2-Dichlorobenzene	BRL	5.0						0	0	20	
1,2-Dichloroethane	BRL	5.0						0	0	20	
1,2-Dichloropropane	BRL	5.0						0	0	20	
1,4-Dichlorobenzene	BRL	5.0						0	0	20	
2-Butanone	BRL	50						0	0	20	
2-Hexanone	BRL	10						0	0	20	
4-Methyl-2-pentanone	BRL	10						0	0	20	
Acetone	BRL	50						0	0	20	
Acrylonitrile	BRL	5.0						0	0	20	
Benzene	BRL	5.0						0	0	20	
Bromochloromethane	BRL	5.0						0	0	20	
Bromodichloromethane	BRL	5.0						0	0	20	
Bromoform	BRL	5.0						0	0	20	
Bromomethane	BRL	5.0						0	0	20	
Carbon disulfide	BRL	5.0						0	0	20	
Carbon tetrachloride	BRL	5.0						0	0	20	
Chlorobenzene	BRL	5.0						0	0	20	
Chloroethane	BRL	10						0	0	20	
Chloroform	BRL	5.0						0	0	20	
Chloromethane	BRL	10						0	0	20	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348025**

Sample ID: <b>2212E84-015ADUP</b>	Client ID: <b>GWC-12</b>	Units: <b>ug/L</b>	Prep Date: <b>12/14/2022</b>	Run No: <b>503962</b>							
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348025</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11826247</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

cis-1,2-Dichloroethene	BRL	5.0						0	0	20	
cis-1,3-Dichloropropene	BRL	5.0						0	0	20	
Dibromochloromethane	BRL	5.0						0	0	20	
Dibromomethane	BRL	5.0						0	0	20	
Ethylbenzene	BRL	5.0						0	0	20	
Iodomethane	BRL	10						0	0	20	
Methylene chloride	BRL	5.0						0	0	20	
Styrene	BRL	5.0						0	0	20	
Tetrachloroethene	BRL	5.0						0	0	20	
Toluene	BRL	5.0						0	0	20	
trans-1,2-Dichloroethene	BRL	5.0						0	0	20	
trans-1,3-Dichloropropene	BRL	5.0						0	0	20	
trans-1,4-Dichloro-2-butene	BRL	10						0	0	20	
Trichloroethene	BRL	5.0						0	0	20	
Trichlorofluoromethane	BRL	5.0						0	0	20	
Vinyl acetate	BRL	10						0	0	20	
Vinyl chloride	BRL	2.0						0	0	20	
Xylenes, Total	BRL	10						0	0	20	
Surr: 4-Bromofluorobenzene	47.76	0	50.00		95.5	75	118	47.63	0	0	
Surr: Dibromofluoromethane	49.39	0	50.00		98.8	82.5	121	47.94	0	0	
Surr: Toluene-d8	49.82	0	50.00		99.6	78.3	118	49.35	0	0	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348075**

Sample ID: <b>MB-348075</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>504005</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348075</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11819534</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0									
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,3-Trichloropropane	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Acrylonitrile	BRL	5.0									
Benzene	BRL	5.0									
Bromochloromethane	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348075**

Sample ID: <b>MB-348075</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>504005</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348075</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11819534</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dibromomethane	BRL	5.0									
Ethylbenzene	BRL	5.0									
Iodomethane	BRL	10									
Methylene chloride	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
trans-1,4-Dichloro-2-butene	BRL	10									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl acetate	BRL	10									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	10									
Surr: 4-Bromofluorobenzene	47.55	0	50.00		95.1	75	118				
Surr: Dibromofluoromethane	48.07	0	50.00		96.1	82.5	121				
Surr: Toluene-d8	49.55	0	50.00		99.1	78.3	118				

Sample ID: <b>LCS-348075</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>504005</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348075</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11819535</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348075**

Sample ID: <b>LCS-348075</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>504005</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348075</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11819535</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	54.23	5.0	50.00		108	71	130				
Benzene	51.34	5.0	50.00		103	80.4	126				
Chlorobenzene	53.45	5.0	50.00		107	81	120				
Toluene	55.65	5.0	50.00		111	79.2	124				
Trichloroethene	55.31	5.0	50.00		111	78.4	125				
Surr: 4-Bromofluorobenzene	50.19	0	50.00		100	75	118				
Surr: Dibromofluoromethane	48.22	0	50.00		96.4	82.5	121				
Surr: Toluene-d8	51.43	0	50.00		103	78.3	118				

Sample ID: <b>2212E84-036AMS</b>	Client ID: <b>PHI-GWA-3A</b>	Units: <b>ug/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>504005</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348075</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11825476</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	27.01	5.0	20.00		135	67.6	143				
Benzene	25.75	5.0	20.00		129	70.5	136				
Chlorobenzene	25.45	5.0	20.00		127	77.1	133				
Toluene	27.13	5.0	20.00		136	66.4	140				
Trichloroethene	26.42	5.0	20.00		132	75.1	140				
Surr: 4-Bromofluorobenzene	49.95	0	50.00		99.9	75	118				
Surr: Dibromofluoromethane	49.53	0	50.00		99.1	82.5	121				
Surr: Toluene-d8	51.43	0	50.00		103	78.3	118				

Sample ID: <b>2212E84-035ADUP</b>	Client ID: <b>GWC-7</b>	Units: <b>ug/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>504005</b>							
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348075</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11825475</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,1-Trichloroethane	BRL	5.0						0	0	20	

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348075**

Sample ID: **2212E84-035ADUP** Client ID: **GWC-7** Units: **ug/L** Prep Date: **12/15/2022** Run No: **504005**  
 SampleType: **DUP** TestCode: **APPENDIX I VOLATILE ORGANICS SW8260D** BatchID: **348075** Analysis Date: **12/16/2022** Seq No: **11825475**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,2,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,2-Trichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethene	BRL	5.0						0	0	20	
1,2,3-Trichloropropane	BRL	5.0						0	0	20	
1,2-Dibromo-3-chloropropane	BRL	5.0						0	0	20	
1,2-Dibromoethane	BRL	5.0						0	0	20	
1,2-Dichlorobenzene	BRL	5.0						0	0	20	
1,2-Dichloroethane	BRL	5.0						0	0	20	
1,2-Dichloropropane	BRL	5.0						0	0	20	
1,4-Dichlorobenzene	BRL	5.0						0	0	20	
2-Butanone	BRL	50						0	0	20	
2-Hexanone	BRL	10						0	0	20	
4-Methyl-2-pentanone	BRL	10						0	0	20	
Acetone	BRL	50						0	0	20	
Acrylonitrile	BRL	5.0						0	0	20	
Benzene	BRL	5.0						0	0	20	
Bromochloromethane	BRL	5.0						0	0	20	
Bromodichloromethane	BRL	5.0						0	0	20	
Bromoform	BRL	5.0						0	0	20	
Bromomethane	BRL	5.0						0	0	20	
Carbon disulfide	BRL	5.0						0	0	20	
Carbon tetrachloride	BRL	5.0						0	0	20	
Chlorobenzene	BRL	5.0						0	0	20	
Chloroethane	BRL	10						0	0	20	
Chloroform	BRL	5.0						0	0	20	
Chloromethane	BRL	10						0	0	20	

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348075**

Sample ID: <b>2212E84-035ADUP</b>	Client ID: <b>GWC-7</b>	Units: <b>ug/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>504005</b>
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348075</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11825475</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0						0	0	20	
cis-1,3-Dichloropropene	BRL	5.0						0	0	20	
Dibromochloromethane	BRL	5.0						0	0	20	
Dibromomethane	BRL	5.0						0	0	20	
Ethylbenzene	BRL	5.0						0	0	20	
Iodomethane	BRL	10						0	0	20	
Methylene chloride	BRL	5.0						0	0	20	
Styrene	BRL	5.0						0	0	20	
Tetrachloroethene	BRL	5.0						0	0	20	
Toluene	BRL	5.0						0	0	20	
trans-1,2-Dichloroethene	BRL	5.0						0	0	20	
trans-1,3-Dichloropropene	BRL	5.0						0	0	20	
trans-1,4-Dichloro-2-butene	BRL	10						0	0	20	
Trichloroethene	BRL	5.0						0	0	20	
Trichlorofluoromethane	BRL	5.0						0	0	20	
Vinyl acetate	BRL	10						0	0	20	
Vinyl chloride	BRL	2.0						0	0	20	
Xylenes, Total	BRL	10						0	0	20	
Surr: 4-Bromofluorobenzene	48.34	0	50.00		96.7	75	118	47.23	0	0	
Surr: Dibromofluoromethane	49.21	0	50.00		98.4	82.5	121	47.65	0	0	
Surr: Toluene-d8	49.74	0	50.00		99.5	78.3	118	49.27	0	0	

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R503939**

Sample ID: <b>MB-R503939</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>503939</b>							
SampleType: <b>MBLK</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R503939</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11817196</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: <b>LCS-R503939</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>503939</b>							
SampleType: <b>LCS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R503939</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11817195</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	9.887	1.0	10.00		98.9	90	110				
Nitrate	5.185	0.25	5.000		104	90	110				
Sulfate	26.05	1.0	25.00		104	90	110				

Sample ID: <b>2212E09-001CMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>503939</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R503939</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11817220</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	11.07	1.0	10.00	1.122	99.5	90	110				
Nitrate	5.892	0.25	5.000	0.6516	105	90	110				
Sulfate	27.19	1.0	25.00	1.357	103	90	110				

Sample ID: <b>2212F38-002EMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>503939</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R503939</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11817218</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	12.51	1.0	10.00	2.866	96.5	90	110				
Nitrate	5.217	0.25	5.000		104	90	110				
Sulfate	30.03	1.0	25.00	3.438	106	90	110				

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R503939**

Sample ID: <b>2212F38-002EMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>503939</b>							
SampleType: <b>MSD</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R503939</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11817219</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	12.69	1.0	10.00	2.866	98.2	90	110	12.51	1.39	20	
Nitrate	5.268	0.25	5.000		105	90	110	5.217	0.976	20	
Sulfate	29.51	1.0	25.00	3.438	104	90	110	30.03	1.73	20	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R503940**

Sample ID: <b>MB-R503940</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>503940</b>							
SampleType: <b>MBLK</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R503940</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11821244</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: <b>LCS-R503940</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>503940</b>							
SampleType: <b>LCS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R503940</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11821243</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	9.721	1.0	10.00		97.2	90	110				
Nitrate	5.110	0.25	5.000		102	90	110				
Sulfate	25.54	1.0	25.00		102	90	110				

Sample ID: <b>2212F38-006EMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>503940</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R503940</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11821250</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	14.70	1.0	10.00	4.768	99.3	90	110				
Nitrate	7.020	0.25	5.000	1.810	104	90	110				
Sulfate	31.52	1.0	25.00	4.996	106	90	110				

Sample ID: <b>2212F62-001AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>503940</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R503940</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11821265</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	13.42	1.0	10.00	3.067	104	90	110				
Nitrate	5.649	0.25	5.000	0.2938	107	90	110				
Sulfate	27.65	1.0	25.00	0.8800	107	90	110				

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R503940**

Sample ID: <b>2212F38-006EMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>503940</b>							
SampleType: <b>MSD</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R503940</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11821251</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	14.62	1.0	10.00	4.768	98.6	90	110	14.70	0.486	20	
Nitrate	6.988	0.25	5.000	1.810	104	90	110	7.020	0.468	20	
Sulfate	31.24	1.0	25.00	4.996	105	90	110	31.52	0.908	20	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R503982**

Sample ID: <b>LCS-R503982</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>503982</b>							
SampleType: <b>LCS</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R503982</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11818280</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)	126.7	3.00	125.0		101	90	110				
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Sample ID: <b>2212A29-001CDUP</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>503982</b>							
SampleType: <b>DUP</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R503982</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11818282</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)	12.97	3.00						14.13	8.54	30	
------------------------------	-------	------	--	--	--	--	--	-------	------	----	--

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212E84

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504088**

Sample ID: <b>LCS-R504088</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504088</b>							
SampleType: <b>LCS</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R504088</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11820743</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)      128.5                      3.00                      125.0                      103                      90                      110

Sample ID: <b>2212F38-002EDUP</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504088</b>							
SampleType: <b>DUP</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R504088</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11820745</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)      84.88                      3.00                                                                                                                                                    90.54                      6.45                      30

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

End of Report



**ANALYTICAL ENVIRONMENTAL SERVICES, INC.**

December 23, 2022

Charles Adams  
Atlantic Coast Consulting, Inc.

1150 Northmeadow Pkwy  
Roswell GA 30076

RE: Forsyth County-Hightower Road MSWLF

Dear Charles Adams:

Order No: 2212H65

Analytical Environmental Services, Inc. received 29 samples on December 14, 2022 4:42 pm for the analyses presented in following report.

“No problems were encountered during the analyses except as noted in the Case Narrative or by qualifiers in the report or QC Summary. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits.

AES’s accreditations are as follows:

-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/22-06/30/23.

State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective through 06/30/23 and Total Coliforms/ E. coli, effective 04/20/20-04/24/23.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Metals and PCM Asbestos), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/23.

These results relate only to the items tested as received. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Ioana Pacurar  
Project Manager

COMPANY: Atlantic Coast Consulting, Inc.		ADDRESS: 1150 Northmeadow Pkwy Suite 100 Roswell, GA 30076					ANALYSIS REQUESTED										Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.		Number of Containers	
PHONE: 770-712-9785 or 770-594-5998		EMAIL: charles.adams@atlcc.net					Appendix I VOC	Appendix I Metals	Alkalinity	TDS	Cl, SO4, NO3 *	Benzo(a)pyrene	SW Metals **	Chloride	Cyanide	COD				TOC
SAMPLED BY: <u>D. Johnson</u>		SIGNATURE: <u>[Signature]</u>					PRESERVATION (see codes)										REMARKS			
#	SAMPLE ID	SAMPLED:		GRAB	COMPOSITE	MATRIX (see codes)	H+I	N	I	I	I	I	N	I	NaOH	S+I				S+I
1	GWC-6	12/14/22	0925	✓		GW	✓		✓	✓	✓	ⓧ								2
2	AMW-2	12/14/22	1045	✓		GW	✓		✓	✓	✓									3
3	GWC-24	12/14/22	1100	✓		GW	✓		✓	✓	✓									3
4	AMW-13	12/14/22	1120	✓		GW	✓		✓	ⓧ	✓									2
5	GWC-17	12/14/22	1145	✓		GW	✓		✓	✓	✓									3
6	GWC-19 R	12/14/22	1230	✓		GW	✓		✓	✓	✓									3
7	PHI-GWA-2	12/14/22	1330	✓		GW	✓		✓	✓	✓									3
8	Trip Blank	—	—	✓		W	✓													2
9																				
10																				
11																				
12																				
13																				
14																				
RELINQUISHED BY:		DATE/TIME:		RECEIVED BY:		DATE/TIME:		PROJECT INFORMATION										RECEIPT		
1. <u>JALP</u>		12-14-22/1640		1. <u>Chill</u>		12/14/22/1642		PROJECT NAME: Forsyth County - Hightower Road MSWLF										Total # of Containers		
2.				2.				PROJECT #: G020-113										Turnaround Time (TAT) Request		
3.				3.				SITE ADDRESS: 9480 Old Federal Road, Ballground, GA 30107										<input checked="" type="checkbox"/> Standard		
								SEND REPORT TO: Charles Adams, Betsy McDaniel										<input type="checkbox"/> 2 Business Day Rush		
								INVOICE TO (IF DIFFERENT FROM ABOVE):										<input type="checkbox"/> Next Business Day Rush		
								QUOTE #: _____ PO#: _____										<input type="checkbox"/> Same-Day Rush (auth req.)		
																		<input type="checkbox"/> Other _____		
																		STATE PROGRAM (if any): _____		
																		E-mail? <input type="checkbox"/> Fax? <input type="checkbox"/>		
																		DATA PACKAGE: I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV <input type="radio"/>		
SPECIAL INSTRUCTIONS/COMMENTS: * 48-hr holding time nitrate ** Surface Water Metals: As, Ba, Cd, Cr, Pb, Ni, Ag, Se, Zn, Hg				SHIPMENT METHOD																
				OUT: / / VIA:																
				IN: / / VIA:																
				Client FedEx UPS US mail courier																
				other: _____																

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

**CHAIN OF CUSTODY**

COMPANY: Atlantic Coast Consulting, Inc.		ADDRESS: 1150 Northmeadow Pkwy Suite 100 Roswell, GA 30076				ANALYSIS REQUESTED										Visit our website <a href="http://www.aesatlanta.com">www.aesatlanta.com</a> for downloadable COCs and to log in to your AESAccess account.		Number of Containers	
PHONE: 770-712-9785 or 770-594-5998		EMAIL: charles.adams@atlcc.net				Appendix I VOC	Appendix I Metals	Alkalinity	TDS	Cl, SO4, NO3 *	Benzo(a)pyrene	SW Metals **	Chloride	Cyanide	COD				TOC
SAMPLED BY: <i>H. Auld</i>		SIGNATURE: <i>H. Auld</i>				PRESERVATION (see codes)										REMARKS			
#	SAMPLE ID	DATE	TIME	GRAB	COMPOSITE	MATRIX (see codes)	H+I	N	I	I	I	I	N	I	NaOH				S+I
1	<del>GW-14A</del>	<del>12-13-22</del>	<del>1515</del>	<del>✓</del>		<del>GW</del>	<del>✓</del>		<del>✓</del>	<del>✓</del>	<del>✓</del>								<del>3</del>
2	GWA-3	12-13-22	1630	✓		GW	✓												2
3	GW-8	12-14-22	0900	✓		GW		✓											1
4	GW-8A	12-14-22	0905	✓		GW		✓											1
5	GW-14A	12-14-22	0935	✓		GW		✓											1
6	GWA-3	12-14-22	0950	✓		GW		✓											12-14 (HW) (1) 4
7	PHI-GW-2	12-14-22	1045	✓		GW	✓	✓	✓	✓									4
8	GWA-1A	12-14-22	1235	✓		GW	✓	✓											3
9	GW-4A	12-14-22	1425	✓		GW	✓												2
10																			
11																			
12																			
13																			
14																			
RELINQUISHED BY: 1. <i>H. Auld</i>		DATE/TIME: 12-14-22/1640	RECEIVED BY: 1. <i>Chill</i>		DATE/TIME: 12/14/22 1642	PROJECT INFORMATION										RECEIPT			
2.			3.			PROJECT NAME: Forsyth County - Hightower Road MSWLF										Total # of Containers			
3.						PROJECT #: G020-113										Turnaround Time (TAT) Request			
						SITE ADDRESS: 9480 Old Federal Road, Ballground, GA 30107										<input checked="" type="checkbox"/> Standard			
						SEND REPORT TO: Charles Adams, Betsy McDaniel										<input type="checkbox"/> 2 Business Day Rush			
						INVOICE TO (IF DIFFERENT FROM ABOVE):										<input type="checkbox"/> Next Business Day Rush			
																<input type="checkbox"/> Same-Day Rush (auth req.)			
																<input type="checkbox"/> Other _____			
SPECIAL INSTRUCTIONS/COMMENTS: * 48-hr holding time nitrate ** Surface Water Metals: As, Ba, Cd, Cr, Pb, Ni, Ag, Se, Zn, Hg			SHIPMENT METHOD			QUOTE #:										STATE PROGRAM (if any): _____			
			OUT: / / VIA: IN: / / VIA: Client FedEx UPS US mail courier other: _____			PO#:										E-mail? <input type="checkbox"/> Fax? <input type="checkbox"/>			
																DATA PACKAGE: I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV <input type="radio"/>			

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Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST = Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)  
Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None





**CHAIN OF CUSTODY**

COMPANY: Atlantic Coast Consulting, Inc.		ADDRESS: 1150 Northmeadow Pkwy Suite 100 Roswell, GA 30076					ANALYSIS REQUESTED										Visit our website <a href="http://www.aesatlanta.com">www.aesatlanta.com</a> for downloadable COCs and to log in to your AESAccess account.		Number of Containers		
PHONE: 770-712-9785 or 770-594-5998		EMAIL: charles.adams@atlcc.net					Appendix I VOC	Appendix I Metals	Alkalinity	TDS	Cl, SO4, NO3 *	Benzo(a)pyrene	SW Metals **	Chloride	Cyanide	COD				TOC	Magnesium, Potassium
SAMPLED BY: <u>Z Adams</u>		SIGNATURE:					PRESERVATION (see codes)										REMARKS				
#	SAMPLE ID	SAMPLED:		GRAB	COMPOSITE	MATRIX (see codes)	H+I	N	I	I	I	I	N	I	NaOH	S+I				S+I	
		DATE	TIME																		
1	GWC-10	12/14/22	1125	X		GW	✓														2
2	GWC-10A	12/14/22	1200				✓														2
3	GWC-9	12/14/22	1230				✓														2
4	PHI-GWA-1	12/14/22	1325				✓		✓	✓	✓										3
5	PHI-GWC-1	12/14/22	1425				✓														2
6	AMW-12	12/14/22	0935				✓		✓					✓					✓		4
7	AMW-12R	12/14/22	1015				✓		✓					✓					✓		4
8	Stream	12/14/22	1040			SW			✓					✓							2
9																					
10																					
11																					
12																					
13																					
14																					
RELINQUISHED BY: <u>Z Adams</u> DATE/TIME: <u>12-14-22/1640</u>		RECEIVED BY: <u>Chill</u> DATE/TIME: <u>12/14/22 1614</u>		PROJECT INFORMATION										RECEIPT							
1.		2.		PROJECT NAME: Forsyth County - Hightower Road MSWLF										Total # of Containers: <u>21</u>							
2.		3.		PROJECT #: G020-113										Turnaround Time (TAT) Request <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same-Day Rush (auth req.) <input type="checkbox"/> Other _____							
				SITE ADDRESS: 9480 Old Federal Road, Ballground, GA 30107																	
				SEND REPORT TO: Charles Adams, Betsy McDaniel										STATE PROGRAM (if any): _____ E-mail? <input type="checkbox"/> Fax? <input type="checkbox"/> DATA PACKAGE: I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV <input type="radio"/>							
				INVOICE TO (IF DIFFERENT FROM ABOVE):																	
SPECIAL INSTRUCTIONS/COMMENTS: * 48-hr holding time nitrate ** Surface Water Metals: As, Ba, Cd, Cr, Pb, Ni, Ag, Se, Zn, Hg		SHIPMENT METHOD		QUOTE #: _____ PO#: _____																	
		OUT: / / VIA: IN: / / VIA: Client FedEx UPS US mail courier other: _____																			

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST = Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)  
Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

**Client:** Atlantic Coast Consulting, Inc.  
**Project:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65

**Case Narrative**

Sample Receiving Non-conformance:

Samples AMW-14, AMW-5, and AMW-4 (AES: 2212H65-017, -018, 020) were inadvertently preserved with HNO<sub>3</sub> by the laboratory which did not allow for the analysis of Alkalinity, NO<sub>3</sub>, SO<sub>4</sub>, Cl, and TDS to be performed. Samples were placed on hold for those analyses and were re-collected by the client. Only App I VOCs was analyzed on these samples.

Nitrate Analysis by Method 9056:

Samples GWC-19R, PH1-GWA-2, GWC-18 (AES: 2212H65-006, -007, -019) submitted for the analysis of Nitrate were performed outside the method specified hold time of 48 hours from collection. The samples were initially set up to be analyzed within the hold time, however, due to an unforeseen area wide power outage the ability for the laboratory to analyze the samples was delayed. Per Betsy McDaniel with ACC via e-mail on 12/19/2022, samples will be re-collected for Nitrate only, and Sulfate/Chloride was still reported as those compounds have a longer holding time.

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-001

**Client Sample ID:** GWC-6  
**Collection Date:** 12/14/2022 9:25:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
1,1,1-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
1,1,2-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
1,1-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
1,1-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
1,2,3-Trichloropropane	BRL	10		ug/L	348214	1	12/17/2022 04:55	ZH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348214	1	12/17/2022 04:55	ZH
1,2-Dibromoethane	BRL	1.0		ug/L	348214	1	12/17/2022 04:55	ZH
1,2-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 04:55	ZH
1,2-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
1,2-Dichloropropane	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
1,4-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 04:55	ZH
2-Butanone	BRL	100		ug/L	348214	1	12/17/2022 04:55	ZH
2-Hexanone	BRL	50		ug/L	348214	1	12/17/2022 04:55	ZH
4-Methyl-2-pentanone	BRL	50		ug/L	348214	1	12/17/2022 04:55	ZH
Acetone	BRL	100		ug/L	348214	1	12/17/2022 04:55	ZH
Acrylonitrile	BRL	50		ug/L	348214	1	12/17/2022 04:55	ZH
Benzene	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
Bromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 04:55	ZH
Bromodichloromethane	BRL	10		ug/L	348214	1	12/17/2022 04:55	ZH
Bromoform	BRL	10		ug/L	348214	1	12/17/2022 04:55	ZH
Bromomethane	BRL	10		ug/L	348214	1	12/17/2022 04:55	ZH
Carbon disulfide	BRL	5.0		ug/L	348214	1	12/17/2022 04:55	ZH
Carbon tetrachloride	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
Chlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 04:55	ZH
Chloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
Chloroform	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
Chloromethane	BRL	10		ug/L	348214	1	12/17/2022 04:55	ZH
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
Dibromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 04:55	ZH
Dibromomethane	BRL	10		ug/L	348214	1	12/17/2022 04:55	ZH
Ethylbenzene	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
Iodomethane	BRL	100		ug/L	348214	1	12/17/2022 04:55	ZH
Methylene chloride	BRL	5.0		ug/L	348214	1	12/17/2022 04:55	ZH
Styrene	BRL	10		ug/L	348214	1	12/17/2022 04:55	ZH
Tetrachloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
Toluene	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348214	1	12/17/2022 04:55	ZH
Trichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
Trichlorofluoromethane	BRL	10		ug/L	348214	1	12/17/2022 04:55	ZH
Vinyl acetate	BRL	100		ug/L	348214	1	12/17/2022 04:55	ZH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-6
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 9:25:00 AM
<b>Lab ID:</b> 2212H65-001	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348214	1	12/17/2022 04:55	ZH
Xylenes, Total	BRL	5.0		ug/L	348214	1	12/17/2022 04:55	ZH
Surr: 4-Bromofluorobenzene	97.3	75-118		%REC	348214	1	12/17/2022 04:55	ZH
Surr: Dibromofluoromethane	98.3	82.5-121		%REC	348214	1	12/17/2022 04:55	ZH
Surr: Toluene-d8	99.1	78.3-118		%REC	348214	1	12/17/2022 04:55	ZH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-002

**Client Sample ID:** AMW-2  
**Collection Date:** 12/14/2022 10:45:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	133	10		mg/L	348021	1	12/16/2022 11:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	2.5	1.0		mg/L	R504136	1	12/15/2022 23:13	BI
Nitrate	0.40	0.25		mg/L	R504136	1	12/15/2022 23:13	BI
Sulfate	9.6	1.0		mg/L	R504136	1	12/15/2022 23:13	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
1,1,1-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
1,1,2-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
1,1-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
1,1-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
1,2,3-Trichloropropane	BRL	10		ug/L	348214	1	12/17/2022 05:20	ZH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348214	1	12/17/2022 05:20	ZH
1,2-Dibromoethane	BRL	1.0		ug/L	348214	1	12/17/2022 05:20	ZH
1,2-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 05:20	ZH
1,2-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
1,2-Dichloropropane	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
1,4-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 05:20	ZH
2-Butanone	BRL	100		ug/L	348214	1	12/17/2022 05:20	ZH
2-Hexanone	BRL	50		ug/L	348214	1	12/17/2022 05:20	ZH
4-Methyl-2-pentanone	BRL	50		ug/L	348214	1	12/17/2022 05:20	ZH
Acetone	BRL	100		ug/L	348214	1	12/17/2022 05:20	ZH
Acrylonitrile	BRL	50		ug/L	348214	1	12/17/2022 05:20	ZH
Benzene	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
Bromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 05:20	ZH
Bromodichloromethane	BRL	10		ug/L	348214	1	12/17/2022 05:20	ZH
Bromoform	BRL	10		ug/L	348214	1	12/17/2022 05:20	ZH
Bromomethane	BRL	10		ug/L	348214	1	12/17/2022 05:20	ZH
Carbon disulfide	BRL	5.0		ug/L	348214	1	12/17/2022 05:20	ZH
Carbon tetrachloride	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
Chlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 05:20	ZH
Chloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
Chloroform	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
Chloromethane	BRL	10		ug/L	348214	1	12/17/2022 05:20	ZH
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
Dibromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 05:20	ZH
Dibromomethane	BRL	10		ug/L	348214	1	12/17/2022 05:20	ZH
Ethylbenzene	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
Iodomethane	BRL	100		ug/L	348214	1	12/17/2022 05:20	ZH
Methylene chloride	BRL	5.0		ug/L	348214	1	12/17/2022 05:20	ZH
Styrene	BRL	10		ug/L	348214	1	12/17/2022 05:20	ZH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 10:45:00 AM
<b>Lab ID:</b> 2212H65-002	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Tetrachloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
Toluene	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348214	1	12/17/2022 05:20	ZH
Trichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
Trichlorofluoromethane	BRL	10		ug/L	348214	1	12/17/2022 05:20	ZH
Vinyl acetate	BRL	100		ug/L	348214	1	12/17/2022 05:20	ZH
Vinyl chloride	BRL	2.0		ug/L	348214	1	12/17/2022 05:20	ZH
Xylenes, Total	BRL	5.0		ug/L	348214	1	12/17/2022 05:20	ZH
Surr: 4-Bromofluorobenzene	96.2	75-118		%REC	348214	1	12/17/2022 05:20	ZH
Surr: Dibromofluoromethane	98.7	82.5-121		%REC	348214	1	12/17/2022 05:20	ZH
Surr: Toluene-d8	98.9	78.3-118		%REC	348214	1	12/17/2022 05:20	ZH
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	68.4	3.00		mg/L	R504257	1	12/19/2022 11:43	AH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-003

**Client Sample ID:** GWC-24  
**Collection Date:** 12/14/2022 11:00:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	29	10		mg/L	348021	1	12/16/2022 11:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	2.2	1.0		mg/L	R504136	1	12/16/2022 01:06	BI
Nitrate	0.48	0.25		mg/L	R504136	1	12/16/2022 01:06	BI
Sulfate	2.5	1.0		mg/L	R504136	1	12/16/2022 01:06	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
1,1,1-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
1,1,2-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
1,1-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
1,1-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
1,2,3-Trichloropropane	BRL	10		ug/L	348214	1	12/17/2022 05:45	ZH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348214	1	12/17/2022 05:45	ZH
1,2-Dibromoethane	BRL	1.0		ug/L	348214	1	12/17/2022 05:45	ZH
1,2-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 05:45	ZH
1,2-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
1,2-Dichloropropane	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
1,4-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 05:45	ZH
2-Butanone	BRL	100		ug/L	348214	1	12/17/2022 05:45	ZH
2-Hexanone	BRL	50		ug/L	348214	1	12/17/2022 05:45	ZH
4-Methyl-2-pentanone	BRL	50		ug/L	348214	1	12/17/2022 05:45	ZH
Acetone	BRL	100		ug/L	348214	1	12/17/2022 05:45	ZH
Acrylonitrile	BRL	50		ug/L	348214	1	12/17/2022 05:45	ZH
Benzene	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
Bromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 05:45	ZH
Bromodichloromethane	BRL	10		ug/L	348214	1	12/17/2022 05:45	ZH
Bromoform	BRL	10		ug/L	348214	1	12/17/2022 05:45	ZH
Bromomethane	BRL	10		ug/L	348214	1	12/17/2022 05:45	ZH
Carbon disulfide	BRL	5.0		ug/L	348214	1	12/17/2022 05:45	ZH
Carbon tetrachloride	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
Chlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 05:45	ZH
Chloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
Chloroform	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
Chloromethane	BRL	10		ug/L	348214	1	12/17/2022 05:45	ZH
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
Dibromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 05:45	ZH
Dibromomethane	BRL	10		ug/L	348214	1	12/17/2022 05:45	ZH
Ethylbenzene	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
Iodomethane	BRL	100		ug/L	348214	1	12/17/2022 05:45	ZH
Methylene chloride	BRL	5.0		ug/L	348214	1	12/17/2022 05:45	ZH
Styrene	BRL	10		ug/L	348214	1	12/17/2022 05:45	ZH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-24
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 11:00:00 AM
<b>Lab ID:</b> 2212H65-003	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Tetrachloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
Toluene	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348214	1	12/17/2022 05:45	ZH
Trichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
Trichlorofluoromethane	BRL	10		ug/L	348214	1	12/17/2022 05:45	ZH
Vinyl acetate	BRL	100		ug/L	348214	1	12/17/2022 05:45	ZH
Vinyl chloride	BRL	2.0		ug/L	348214	1	12/17/2022 05:45	ZH
Xylenes, Total	BRL	5.0		ug/L	348214	1	12/17/2022 05:45	ZH
Surr: 4-Bromofluorobenzene	96.7	75-118		%REC	348214	1	12/17/2022 05:45	ZH
Surr: Dibromofluoromethane	99.6	82.5-121		%REC	348214	1	12/17/2022 05:45	ZH
Surr: Toluene-d8	99.9	78.3-118		%REC	348214	1	12/17/2022 05:45	ZH
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	30.1	3.00		mg/L	R504257	1	12/19/2022 11:43	AH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-13
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 11:20:00 AM
<b>Lab ID:</b> 2212H65-004	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
1,1,1-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
1,1,2-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
1,1-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
1,1-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
1,2,3-Trichloropropane	BRL	10		ug/L	348214	1	12/17/2022 06:10	ZH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348214	1	12/17/2022 06:10	ZH
1,2-Dibromoethane	BRL	1.0		ug/L	348214	1	12/17/2022 06:10	ZH
1,2-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 06:10	ZH
1,2-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
1,2-Dichloropropane	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
1,4-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 06:10	ZH
2-Butanone	BRL	100		ug/L	348214	1	12/17/2022 06:10	ZH
2-Hexanone	BRL	50		ug/L	348214	1	12/17/2022 06:10	ZH
4-Methyl-2-pentanone	BRL	50		ug/L	348214	1	12/17/2022 06:10	ZH
Acetone	BRL	100		ug/L	348214	1	12/17/2022 06:10	ZH
Acrylonitrile	BRL	50		ug/L	348214	1	12/17/2022 06:10	ZH
Benzene	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
Bromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 06:10	ZH
Bromodichloromethane	BRL	10		ug/L	348214	1	12/17/2022 06:10	ZH
Bromoform	BRL	10		ug/L	348214	1	12/17/2022 06:10	ZH
Bromomethane	BRL	10		ug/L	348214	1	12/17/2022 06:10	ZH
Carbon disulfide	BRL	5.0		ug/L	348214	1	12/17/2022 06:10	ZH
Carbon tetrachloride	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
Chlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 06:10	ZH
Chloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
Chloroform	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
Chloromethane	BRL	10		ug/L	348214	1	12/17/2022 06:10	ZH
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
Dibromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 06:10	ZH
Dibromomethane	BRL	10		ug/L	348214	1	12/17/2022 06:10	ZH
Ethylbenzene	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
Iodomethane	BRL	100		ug/L	348214	1	12/17/2022 06:10	ZH
Methylene chloride	BRL	5.0		ug/L	348214	1	12/17/2022 06:10	ZH
Styrene	BRL	10		ug/L	348214	1	12/17/2022 06:10	ZH
Tetrachloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
Toluene	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348214	1	12/17/2022 06:10	ZH
Trichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
Trichlorofluoromethane	BRL	10		ug/L	348214	1	12/17/2022 06:10	ZH
Vinyl acetate	BRL	100		ug/L	348214	1	12/17/2022 06:10	ZH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-13
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 11:20:00 AM
<b>Lab ID:</b> 2212H65-004	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348214	1	12/17/2022 06:10	ZH
Xylenes, Total	BRL	5.0		ug/L	348214	1	12/17/2022 06:10	ZH
Surr: 4-Bromofluorobenzene	96.7	75-118		%REC	348214	1	12/17/2022 06:10	ZH
Surr: Dibromofluoromethane	99.2	82.5-121		%REC	348214	1	12/17/2022 06:10	ZH
Surr: Toluene-d8	100	78.3-118		%REC	348214	1	12/17/2022 06:10	ZH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-005

**Client Sample ID:** GWC-17  
**Collection Date:** 12/14/2022 11:45:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	28	10		mg/L	348021	1	12/16/2022 11:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	1.7	1.0		mg/L	R504109	1	12/16/2022 03:14	BI
Nitrate	2.1	0.25		mg/L	R504109	1	12/16/2022 03:14	BI
Sulfate	1.7	1.0		mg/L	R504109	1	12/16/2022 03:14	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
1,1,1-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
1,1,2-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
1,1-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
1,1-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
1,2,3-Trichloropropane	BRL	10		ug/L	348214	1	12/17/2022 06:35	ZH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348214	1	12/17/2022 06:35	ZH
1,2-Dibromoethane	BRL	1.0		ug/L	348214	1	12/17/2022 06:35	ZH
1,2-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 06:35	ZH
1,2-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
1,2-Dichloropropane	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
1,4-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 06:35	ZH
2-Butanone	BRL	100		ug/L	348214	1	12/17/2022 06:35	ZH
2-Hexanone	BRL	50		ug/L	348214	1	12/17/2022 06:35	ZH
4-Methyl-2-pentanone	BRL	50		ug/L	348214	1	12/17/2022 06:35	ZH
Acetone	BRL	100		ug/L	348214	1	12/17/2022 06:35	ZH
Acrylonitrile	BRL	50		ug/L	348214	1	12/17/2022 06:35	ZH
Benzene	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
Bromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 06:35	ZH
Bromodichloromethane	BRL	10		ug/L	348214	1	12/17/2022 06:35	ZH
Bromoform	BRL	10		ug/L	348214	1	12/17/2022 06:35	ZH
Bromomethane	BRL	10		ug/L	348214	1	12/17/2022 06:35	ZH
Carbon disulfide	BRL	5.0		ug/L	348214	1	12/17/2022 06:35	ZH
Carbon tetrachloride	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
Chlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 06:35	ZH
Chloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
Chloroform	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
Chloromethane	BRL	10		ug/L	348214	1	12/17/2022 06:35	ZH
cis-1,2-Dichloroethene	2.1	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
Dibromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 06:35	ZH
Dibromomethane	BRL	10		ug/L	348214	1	12/17/2022 06:35	ZH
Ethylbenzene	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
Iodomethane	BRL	100		ug/L	348214	1	12/17/2022 06:35	ZH
Methylene chloride	BRL	5.0		ug/L	348214	1	12/17/2022 06:35	ZH
Styrene	BRL	10		ug/L	348214	1	12/17/2022 06:35	ZH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-17
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 11:45:00 AM
<b>Lab ID:</b> 2212H65-005	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Tetrachloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
Toluene	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348214	1	12/17/2022 06:35	ZH
Trichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
Trichlorofluoromethane	BRL	10		ug/L	348214	1	12/17/2022 06:35	ZH
Vinyl acetate	BRL	100		ug/L	348214	1	12/17/2022 06:35	ZH
Vinyl chloride	BRL	2.0		ug/L	348214	1	12/17/2022 06:35	ZH
Xylenes, Total	BRL	5.0		ug/L	348214	1	12/17/2022 06:35	ZH
Surr: 4-Bromofluorobenzene	98.1	75-118		%REC	348214	1	12/17/2022 06:35	ZH
Surr: Dibromofluoromethane	99.4	82.5-121		%REC	348214	1	12/17/2022 06:35	ZH
Surr: Toluene-d8	99.2	78.3-118		%REC	348214	1	12/17/2022 06:35	ZH
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	13.5	3.00		mg/L	R504257	1	12/19/2022 11:43	AH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-006

**Client Sample ID:** GWC-19R  
**Collection Date:** 12/14/2022 12:30:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	57	10		mg/L	348021	1	12/16/2022 11:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	2.2	1.0		mg/L	R504323	1	12/16/2022 20:16	BI
Sulfate	3.8	1.0		mg/L	R504323	1	12/16/2022 20:16	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
1,1,1-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
1,1,2-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
1,1-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
1,1-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
1,2,3-Trichloropropane	BRL	10		ug/L	348214	1	12/17/2022 07:00	ZH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348214	1	12/17/2022 07:00	ZH
1,2-Dibromoethane	BRL	1.0		ug/L	348214	1	12/17/2022 07:00	ZH
1,2-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 07:00	ZH
1,2-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
1,2-Dichloropropane	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
1,4-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 07:00	ZH
2-Butanone	BRL	100		ug/L	348214	1	12/17/2022 07:00	ZH
2-Hexanone	BRL	50		ug/L	348214	1	12/17/2022 07:00	ZH
4-Methyl-2-pentanone	BRL	50		ug/L	348214	1	12/17/2022 07:00	ZH
Acetone	BRL	100		ug/L	348214	1	12/17/2022 07:00	ZH
Acrylonitrile	BRL	50		ug/L	348214	1	12/17/2022 07:00	ZH
Benzene	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
Bromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 07:00	ZH
Bromodichloromethane	BRL	10		ug/L	348214	1	12/17/2022 07:00	ZH
Bromoform	BRL	10		ug/L	348214	1	12/17/2022 07:00	ZH
Bromomethane	BRL	10		ug/L	348214	1	12/17/2022 07:00	ZH
Carbon disulfide	BRL	5.0		ug/L	348214	1	12/17/2022 07:00	ZH
Carbon tetrachloride	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
Chlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 07:00	ZH
Chloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
Chloroform	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
Chloromethane	BRL	10		ug/L	348214	1	12/17/2022 07:00	ZH
cis-1,2-Dichloroethene	9.9	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
Dibromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 07:00	ZH
Dibromomethane	BRL	10		ug/L	348214	1	12/17/2022 07:00	ZH
Ethylbenzene	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
Iodomethane	BRL	100		ug/L	348214	1	12/17/2022 07:00	ZH
Methylene chloride	BRL	5.0		ug/L	348214	1	12/17/2022 07:00	ZH
Styrene	BRL	10		ug/L	348214	1	12/17/2022 07:00	ZH
Tetrachloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-19R
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 12:30:00 PM
<b>Lab ID:</b> 2212H65-006	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Toluene	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348214	1	12/17/2022 07:00	ZH
Trichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
Trichlorofluoromethane	BRL	10		ug/L	348214	1	12/17/2022 07:00	ZH
Vinyl acetate	BRL	100		ug/L	348214	1	12/17/2022 07:00	ZH
Vinyl chloride	BRL	2.0		ug/L	348214	1	12/17/2022 07:00	ZH
Xylenes, Total	BRL	5.0		ug/L	348214	1	12/17/2022 07:00	ZH
Surr: 4-Bromofluorobenzene	97	75-118		%REC	348214	1	12/17/2022 07:00	ZH
Surr: Dibromofluoromethane	100	82.5-121		%REC	348214	1	12/17/2022 07:00	ZH
Surr: Toluene-d8	98.8	78.3-118		%REC	348214	1	12/17/2022 07:00	ZH
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	51.7	3.00		mg/L	R504257	1	12/19/2022 11:43	AH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-007

**Client Sample ID:** PH1-GWA-2  
**Collection Date:** 12/14/2022 1:30:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	55	10		mg/L	348021	1	12/16/2022 11:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	3.6	1.0		mg/L	R504323	1	12/16/2022 23:44	BI
Sulfate	1.3	1.0		mg/L	R504323	1	12/16/2022 23:44	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
1,1,1-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
1,1,2-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
1,1-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
1,1-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
1,2,3-Trichloropropane	BRL	10		ug/L	348214	1	12/17/2022 07:25	ZH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348214	1	12/17/2022 07:25	ZH
1,2-Dibromoethane	BRL	1.0		ug/L	348214	1	12/17/2022 07:25	ZH
1,2-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 07:25	ZH
1,2-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
1,2-Dichloropropane	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
1,4-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 07:25	ZH
2-Butanone	BRL	100		ug/L	348214	1	12/17/2022 07:25	ZH
2-Hexanone	BRL	50		ug/L	348214	1	12/17/2022 07:25	ZH
4-Methyl-2-pentanone	BRL	50		ug/L	348214	1	12/17/2022 07:25	ZH
Acetone	BRL	100		ug/L	348214	1	12/17/2022 07:25	ZH
Acrylonitrile	BRL	50		ug/L	348214	1	12/17/2022 07:25	ZH
Benzene	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
Bromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 07:25	ZH
Bromodichloromethane	BRL	10		ug/L	348214	1	12/17/2022 07:25	ZH
Bromoform	BRL	10		ug/L	348214	1	12/17/2022 07:25	ZH
Bromomethane	BRL	10		ug/L	348214	1	12/17/2022 07:25	ZH
Carbon disulfide	BRL	5.0		ug/L	348214	1	12/17/2022 07:25	ZH
Carbon tetrachloride	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
Chlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 07:25	ZH
Chloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
Chloroform	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
Chloromethane	BRL	10		ug/L	348214	1	12/17/2022 07:25	ZH
cis-1,2-Dichloroethene	35	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
Dibromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 07:25	ZH
Dibromomethane	BRL	10		ug/L	348214	1	12/17/2022 07:25	ZH
Ethylbenzene	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
Iodomethane	BRL	100		ug/L	348214	1	12/17/2022 07:25	ZH
Methylene chloride	BRL	5.0		ug/L	348214	1	12/17/2022 07:25	ZH
Styrene	BRL	10		ug/L	348214	1	12/17/2022 07:25	ZH
Tetrachloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWA-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 1:30:00 PM
<b>Lab ID:</b> 2212H65-007	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Toluene	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348214	1	12/17/2022 07:25	ZH
Trichloroethene	2.2	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
Trichlorofluoromethane	BRL	10		ug/L	348214	1	12/17/2022 07:25	ZH
Vinyl acetate	BRL	100		ug/L	348214	1	12/17/2022 07:25	ZH
Vinyl chloride	BRL	2.0		ug/L	348214	1	12/17/2022 07:25	ZH
Xylenes, Total	BRL	5.0		ug/L	348214	1	12/17/2022 07:25	ZH
Surr: 4-Bromofluorobenzene	97.4	75-118		%REC	348214	1	12/17/2022 07:25	ZH
Surr: Dibromofluoromethane	100	82.5-121		%REC	348214	1	12/17/2022 07:25	ZH
Surr: Toluene-d8	99	78.3-118		%REC	348214	1	12/17/2022 07:25	ZH
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	41.9	3.00		mg/L	R504257	1	12/19/2022 11:43	AH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> TRIP BLANK
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022
<b>Lab ID:</b> 2212H65-008	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
1,1,1-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
1,1,2-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
1,1-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
1,1-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
1,2,3-Trichloropropane	BRL	10		ug/L	348214	1	12/17/2022 07:50	ZH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348214	1	12/17/2022 07:50	ZH
1,2-Dibromoethane	BRL	1.0		ug/L	348214	1	12/17/2022 07:50	ZH
1,2-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 07:50	ZH
1,2-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
1,2-Dichloropropane	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
1,4-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 07:50	ZH
2-Butanone	BRL	100		ug/L	348214	1	12/17/2022 07:50	ZH
2-Hexanone	BRL	50		ug/L	348214	1	12/17/2022 07:50	ZH
4-Methyl-2-pentanone	BRL	50		ug/L	348214	1	12/17/2022 07:50	ZH
Acetone	BRL	100		ug/L	348214	1	12/17/2022 07:50	ZH
Acrylonitrile	BRL	50		ug/L	348214	1	12/17/2022 07:50	ZH
Benzene	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
Bromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 07:50	ZH
Bromodichloromethane	BRL	10		ug/L	348214	1	12/17/2022 07:50	ZH
Bromoform	BRL	10		ug/L	348214	1	12/17/2022 07:50	ZH
Bromomethane	BRL	10		ug/L	348214	1	12/17/2022 07:50	ZH
Carbon disulfide	BRL	5.0		ug/L	348214	1	12/17/2022 07:50	ZH
Carbon tetrachloride	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
Chlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 07:50	ZH
Chloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
Chloroform	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
Chloromethane	BRL	10		ug/L	348214	1	12/17/2022 07:50	ZH
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
Dibromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 07:50	ZH
Dibromomethane	BRL	10		ug/L	348214	1	12/17/2022 07:50	ZH
Ethylbenzene	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
Iodomethane	BRL	100		ug/L	348214	1	12/17/2022 07:50	ZH
Methylene chloride	BRL	5.0		ug/L	348214	1	12/17/2022 07:50	ZH
Styrene	BRL	10		ug/L	348214	1	12/17/2022 07:50	ZH
Tetrachloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
Toluene	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348214	1	12/17/2022 07:50	ZH
Trichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
Trichlorofluoromethane	BRL	10		ug/L	348214	1	12/17/2022 07:50	ZH
Vinyl acetate	BRL	100		ug/L	348214	1	12/17/2022 07:50	ZH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-008

**Client Sample ID:** TRIP BLANK  
**Collection Date:** 12/14/2022  
**Matrix:** Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348214	1	12/17/2022 07:50	ZH
Xylenes, Total	BRL	5.0		ug/L	348214	1	12/17/2022 07:50	ZH
Surr: 4-Bromofluorobenzene	96.7	75-118		%REC	348214	1	12/17/2022 07:50	ZH
Surr: Dibromofluoromethane	100	82.5-121		%REC	348214	1	12/17/2022 07:50	ZH
Surr: Toluene-d8	99.3	78.3-118		%REC	348214	1	12/17/2022 07:50	ZH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-009

**Client Sample ID:** GWA-3  
**Collection Date:** 12/13/2022 4:30:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
1,1,1-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
1,1,2-Trichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
1,1-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
1,1-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
1,2,3-Trichloropropane	BRL	10		ug/L	348214	1	12/17/2022 08:15	ZH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348214	1	12/17/2022 08:15	ZH
1,2-Dibromoethane	BRL	1.0		ug/L	348214	1	12/17/2022 08:15	ZH
1,2-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 08:15	ZH
1,2-Dichloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
1,2-Dichloropropane	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
1,4-Dichlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 08:15	ZH
2-Butanone	BRL	100		ug/L	348214	1	12/17/2022 08:15	ZH
2-Hexanone	BRL	50		ug/L	348214	1	12/17/2022 08:15	ZH
4-Methyl-2-pentanone	BRL	50		ug/L	348214	1	12/17/2022 08:15	ZH
Acetone	BRL	100		ug/L	348214	1	12/17/2022 08:15	ZH
Acrylonitrile	BRL	50		ug/L	348214	1	12/17/2022 08:15	ZH
Benzene	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
Bromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 08:15	ZH
Bromodichloromethane	BRL	10		ug/L	348214	1	12/17/2022 08:15	ZH
Bromoform	BRL	10		ug/L	348214	1	12/17/2022 08:15	ZH
Bromomethane	BRL	10		ug/L	348214	1	12/17/2022 08:15	ZH
Carbon disulfide	BRL	5.0		ug/L	348214	1	12/17/2022 08:15	ZH
Carbon tetrachloride	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
Chlorobenzene	BRL	10		ug/L	348214	1	12/17/2022 08:15	ZH
Chloroethane	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
Chloroform	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
Chloromethane	BRL	10		ug/L	348214	1	12/17/2022 08:15	ZH
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
Dibromochloromethane	BRL	10		ug/L	348214	1	12/17/2022 08:15	ZH
Dibromomethane	BRL	10		ug/L	348214	1	12/17/2022 08:15	ZH
Ethylbenzene	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
Iodomethane	BRL	100		ug/L	348214	1	12/17/2022 08:15	ZH
Methylene chloride	BRL	5.0		ug/L	348214	1	12/17/2022 08:15	ZH
Styrene	BRL	10		ug/L	348214	1	12/17/2022 08:15	ZH
Tetrachloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
Toluene	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348214	1	12/17/2022 08:15	ZH
Trichloroethene	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
Trichlorofluoromethane	BRL	10		ug/L	348214	1	12/17/2022 08:15	ZH
Vinyl acetate	BRL	100		ug/L	348214	1	12/17/2022 08:15	ZH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWA-3
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/13/2022 4:30:00 PM
<b>Lab ID:</b> 2212H65-009	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348214	1	12/17/2022 08:15	ZH
Xylenes, Total	BRL	5.0		ug/L	348214	1	12/17/2022 08:15	ZH
Surr: 4-Bromofluorobenzene	97.5	75-118		%REC	348214	1	12/17/2022 08:15	ZH
Surr: Dibromofluoromethane	99.8	82.5-121		%REC	348214	1	12/17/2022 08:15	ZH
Surr: Toluene-d8	99.7	78.3-118		%REC	348214	1	12/17/2022 08:15	ZH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-8
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 9:00:00 AM
<b>Lab ID:</b> 2212H65-010	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348098	1	12/19/2022 17:09	HC
Arsenic	BRL	0.0100		mg/L	348098	1	12/19/2022 17:09	HC
Barium	0.0340	0.0200		mg/L	348098	1	12/19/2022 17:09	HC
Beryllium	BRL	0.00300		mg/L	348098	1	12/19/2022 17:09	HC
Cadmium	BRL	0.00500		mg/L	348098	1	12/19/2022 17:09	HC
Chromium	BRL	0.0100		mg/L	348098	1	12/19/2022 17:09	HC
Cobalt	BRL	0.0400		mg/L	348098	1	12/19/2022 17:09	HC
Copper	BRL	0.0200		mg/L	348098	1	12/19/2022 17:09	HC
Lead	BRL	0.0150		mg/L	348098	1	12/19/2022 17:09	HC
Nickel	BRL	0.0200		mg/L	348098	1	12/19/2022 17:09	HC
Selenium	BRL	0.0100		mg/L	348098	1	12/19/2022 17:09	HC
Silver	BRL	0.0100		mg/L	348098	1	12/19/2022 17:09	HC
Thallium	BRL	0.00200		mg/L	348098	1	12/19/2022 17:09	HC
Vanadium	BRL	0.0200		mg/L	348098	1	12/19/2022 17:09	HC
Zinc	BRL	0.0200		mg/L	348098	1	12/19/2022 17:09	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-8A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 9:05:00 AM
<b>Lab ID:</b> 2212H65-011	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
<b>SW6020B</b>					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348098	1	12/19/2022 16:45	HC
Arsenic	BRL	0.0100		mg/L	348098	1	12/19/2022 16:45	HC
Barium	0.0527	0.0200		mg/L	348098	1	12/19/2022 16:45	HC
Beryllium	BRL	0.00300		mg/L	348098	1	12/19/2022 16:45	HC
Cadmium	BRL	0.00500		mg/L	348098	1	12/19/2022 16:45	HC
Chromium	BRL	0.0100		mg/L	348098	1	12/19/2022 16:45	HC
Cobalt	BRL	0.0400		mg/L	348098	1	12/19/2022 16:45	HC
Copper	BRL	0.0200		mg/L	348098	1	12/19/2022 16:45	HC
Lead	BRL	0.0150		mg/L	348098	1	12/19/2022 16:45	HC
Nickel	BRL	0.0200		mg/L	348098	1	12/19/2022 16:45	HC
Selenium	BRL	0.0100		mg/L	348098	1	12/19/2022 16:45	HC
Silver	BRL	0.0100		mg/L	348098	1	12/19/2022 16:45	HC
Thallium	BRL	0.00200		mg/L	348098	1	12/19/2022 16:45	HC
Vanadium	BRL	0.0200		mg/L	348098	1	12/19/2022 16:45	HC
Zinc	BRL	0.0200		mg/L	348098	1	12/19/2022 16:45	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-14A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 9:35:00 AM
<b>Lab ID:</b> 2212H65-012	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348098	1	12/19/2022 17:11	HC
Arsenic	BRL	0.0100		mg/L	348098	1	12/19/2022 17:11	HC
Barium	0.181	0.0200		mg/L	348098	1	12/19/2022 17:11	HC
Beryllium	BRL	0.00300		mg/L	348098	1	12/19/2022 17:11	HC
Cadmium	BRL	0.00500		mg/L	348098	1	12/19/2022 17:11	HC
Chromium	BRL	0.0100		mg/L	348098	1	12/19/2022 17:11	HC
Cobalt	0.192	0.0400		mg/L	348098	1	12/19/2022 17:11	HC
Copper	BRL	0.0200		mg/L	348098	1	12/19/2022 17:11	HC
Lead	BRL	0.0150		mg/L	348098	1	12/19/2022 17:11	HC
Nickel	BRL	0.0200		mg/L	348098	1	12/19/2022 17:11	HC
Selenium	BRL	0.0100		mg/L	348098	1	12/19/2022 17:11	HC
Silver	BRL	0.0100		mg/L	348098	1	12/19/2022 17:11	HC
Thallium	BRL	0.00200		mg/L	348098	1	12/19/2022 17:11	HC
Vanadium	BRL	0.0200		mg/L	348098	1	12/19/2022 17:11	HC
Zinc	BRL	0.0200		mg/L	348098	1	12/19/2022 17:11	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWA-3
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 9:50:00 AM
<b>Lab ID:</b> 2212H65-013	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348098	1	12/19/2022 17:14	HC
Arsenic	BRL	0.0100		mg/L	348098	1	12/19/2022 17:14	HC
Barium	BRL	0.0200		mg/L	348098	1	12/19/2022 17:14	HC
Beryllium	BRL	0.00300		mg/L	348098	1	12/19/2022 17:14	HC
Cadmium	BRL	0.00500		mg/L	348098	1	12/19/2022 17:14	HC
Chromium	BRL	0.0100		mg/L	348098	1	12/19/2022 17:14	HC
Cobalt	BRL	0.0400		mg/L	348098	1	12/19/2022 17:14	HC
Copper	BRL	0.0200		mg/L	348098	1	12/19/2022 17:14	HC
Lead	BRL	0.0150		mg/L	348098	1	12/19/2022 17:14	HC
Nickel	BRL	0.0200		mg/L	348098	1	12/19/2022 17:14	HC
Selenium	BRL	0.0100		mg/L	348098	1	12/19/2022 17:14	HC
Silver	BRL	0.0100		mg/L	348098	1	12/19/2022 17:14	HC
Thallium	BRL	0.00200		mg/L	348098	1	12/19/2022 17:14	HC
Vanadium	BRL	0.0200		mg/L	348098	1	12/19/2022 17:14	HC
Zinc	BRL	0.0200		mg/L	348098	1	12/19/2022 17:14	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-014

**Client Sample ID:** PH1-GWC-2  
**Collection Date:** 12/14/2022 10:45:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	96	10		mg/L	348021	1	12/16/2022 11:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	3.2	1.0		mg/L	R504136	1	12/15/2022 23:29	BI
Nitrate	BRL	0.25		mg/L	R504136	1	12/15/2022 23:29	BI
Sulfate	2.8	1.0		mg/L	R504136	1	12/15/2022 23:29	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
1,1,1-Trichloroethane	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
1,1,2-Trichloroethane	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
1,1-Dichloroethane	2.4	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
1,1-Dichloroethene	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
1,2,3-Trichloropropane	BRL	10		ug/L	348215	1	12/17/2022 18:02	ZH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348215	1	12/17/2022 18:02	ZH
1,2-Dibromoethane	BRL	1.0		ug/L	348215	1	12/17/2022 18:02	ZH
1,2-Dichlorobenzene	BRL	10		ug/L	348215	1	12/17/2022 18:02	ZH
1,2-Dichloroethane	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
1,2-Dichloropropane	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
1,4-Dichlorobenzene	BRL	10		ug/L	348215	1	12/17/2022 18:02	ZH
2-Butanone	BRL	100		ug/L	348215	1	12/17/2022 18:02	ZH
2-Hexanone	BRL	50		ug/L	348215	1	12/17/2022 18:02	ZH
4-Methyl-2-pentanone	BRL	50		ug/L	348215	1	12/17/2022 18:02	ZH
Acetone	BRL	100		ug/L	348215	1	12/17/2022 18:02	ZH
Acrylonitrile	BRL	50		ug/L	348215	1	12/17/2022 18:02	ZH
Benzene	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
Bromochloromethane	BRL	10		ug/L	348215	1	12/17/2022 18:02	ZH
Bromodichloromethane	BRL	10		ug/L	348215	1	12/17/2022 18:02	ZH
Bromoform	BRL	10		ug/L	348215	1	12/17/2022 18:02	ZH
Bromomethane	BRL	10		ug/L	348215	1	12/17/2022 18:02	ZH
Carbon disulfide	BRL	5.0		ug/L	348215	1	12/17/2022 18:02	ZH
Carbon tetrachloride	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
Chlorobenzene	BRL	10		ug/L	348215	1	12/17/2022 18:02	ZH
Chloroethane	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
Chloroform	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
Chloromethane	BRL	10		ug/L	348215	1	12/17/2022 18:02	ZH
cis-1,2-Dichloroethene	7.7	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
Dibromochloromethane	BRL	10		ug/L	348215	1	12/17/2022 18:02	ZH
Dibromomethane	BRL	10		ug/L	348215	1	12/17/2022 18:02	ZH
Ethylbenzene	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
Iodomethane	BRL	100		ug/L	348215	1	12/17/2022 18:02	ZH
Methylene chloride	BRL	5.0		ug/L	348215	1	12/17/2022 18:02	ZH
Styrene	BRL	10		ug/L	348215	1	12/17/2022 18:02	ZH

**Qualifiers:**

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- BRL Below reporting limit
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- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-014

**Client Sample ID:** PH1-GWC-2  
**Collection Date:** 12/14/2022 10:45:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
Tetrachloroethene	4.4	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
Toluene	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348215	1	12/17/2022 18:02	ZH
Trichloroethene	2.7	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
Trichlorofluoromethane	BRL	10		ug/L	348215	1	12/17/2022 18:02	ZH
Vinyl acetate	BRL	100		ug/L	348215	1	12/17/2022 18:02	ZH
Vinyl chloride	BRL	2.0		ug/L	348215	1	12/17/2022 18:02	ZH
Xylenes, Total	BRL	5.0		ug/L	348215	1	12/17/2022 18:02	ZH
Surr: 4-Bromofluorobenzene	96.8	75-118		%REC	348215	1	12/17/2022 18:02	ZH
Surr: Dibromofluoromethane	99.1	82.5-121		%REC	348215	1	12/17/2022 18:02	ZH
Surr: Toluene-d8	99.1	78.3-118		%REC	348215	1	12/17/2022 18:02	ZH
<b>APPENDIX I METALS SW6020B</b>			<b>(SW3005A)</b>					
Antimony	BRL	0.00600		mg/L	348098	1	12/19/2022 17:16	HC
Arsenic	BRL	0.0100		mg/L	348098	1	12/19/2022 17:16	HC
Barium	0.0247	0.0200		mg/L	348098	1	12/19/2022 17:16	HC
Beryllium	BRL	0.00300		mg/L	348098	1	12/19/2022 17:16	HC
Cadmium	BRL	0.00500		mg/L	348098	1	12/19/2022 17:16	HC
Chromium	0.0115	0.0100		mg/L	348098	1	12/19/2022 17:16	HC
Cobalt	BRL	0.0400		mg/L	348098	1	12/19/2022 17:16	HC
Copper	BRL	0.0200		mg/L	348098	1	12/19/2022 17:16	HC
Lead	BRL	0.0150		mg/L	348098	1	12/19/2022 17:16	HC
Nickel	BRL	0.0200		mg/L	348098	1	12/19/2022 17:16	HC
Selenium	BRL	0.0100		mg/L	348098	1	12/19/2022 17:16	HC
Silver	BRL	0.0100		mg/L	348098	1	12/19/2022 17:16	HC
Thallium	BRL	0.00200		mg/L	348098	1	12/19/2022 17:16	HC
Vanadium	BRL	0.0200		mg/L	348098	1	12/19/2022 17:16	HC
Zinc	0.0216	0.0200		mg/L	348098	1	12/19/2022 17:16	HC
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	72.9	3.00		mg/L	R504257	1	12/19/2022 11:43	AH

**Qualifiers:**

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- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
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- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-015

**Client Sample ID:** GWA-1A  
**Collection Date:** 12/14/2022 12:35:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
1,1-Dichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
1,1-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
1,2,3-Trichloropropane	BRL	10		ug/L	348062	1	12/16/2022 20:40	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348062	1	12/16/2022 20:40	OM
1,2-Dibromoethane	BRL	1.0		ug/L	348062	1	12/16/2022 20:40	OM
1,2-Dichlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 20:40	OM
1,2-Dichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
1,2-Dichloropropane	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
1,4-Dichlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 20:40	OM
2-Butanone	BRL	100		ug/L	348062	1	12/16/2022 20:40	OM
2-Hexanone	BRL	50		ug/L	348062	1	12/16/2022 20:40	OM
4-Methyl-2-pentanone	BRL	50		ug/L	348062	1	12/16/2022 20:40	OM
Acetone	BRL	100		ug/L	348062	1	12/16/2022 20:40	OM
Acrylonitrile	BRL	50		ug/L	348062	1	12/16/2022 20:40	OM
Benzene	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
Bromochloromethane	BRL	10		ug/L	348062	1	12/16/2022 20:40	OM
Bromodichloromethane	BRL	10		ug/L	348062	1	12/16/2022 20:40	OM
Bromoform	BRL	10		ug/L	348062	1	12/16/2022 20:40	OM
Bromomethane	BRL	10		ug/L	348062	1	12/16/2022 20:40	OM
Carbon disulfide	BRL	5.0		ug/L	348062	1	12/16/2022 20:40	OM
Carbon tetrachloride	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
Chlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 20:40	OM
Chloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
Chloroform	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
Chloromethane	BRL	10		ug/L	348062	1	12/16/2022 20:40	OM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
Dibromochloromethane	BRL	10		ug/L	348062	1	12/16/2022 20:40	OM
Dibromomethane	BRL	10		ug/L	348062	1	12/16/2022 20:40	OM
Ethylbenzene	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
Iodomethane	BRL	100		ug/L	348062	1	12/16/2022 20:40	OM
Methylene chloride	BRL	5.0		ug/L	348062	1	12/16/2022 20:40	OM
Styrene	BRL	10		ug/L	348062	1	12/16/2022 20:40	OM
Tetrachloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
Toluene	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348062	1	12/16/2022 20:40	OM
Trichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
Trichlorofluoromethane	BRL	10		ug/L	348062	1	12/16/2022 20:40	OM
Vinyl acetate	BRL	100		ug/L	348062	1	12/16/2022 20:40	OM

**Qualifiers:**

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- BRL Below reporting limit
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- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWA-1A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 12:35:00 PM
<b>Lab ID:</b> 2212H65-015	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348062	1	12/16/2022 20:40	OM
Xylenes, Total	BRL	5.0		ug/L	348062	1	12/16/2022 20:40	OM
Surr: 4-Bromofluorobenzene	89	75-118		%REC	348062	1	12/16/2022 20:40	OM
Surr: Dibromofluoromethane	104	82.5-121		%REC	348062	1	12/16/2022 20:40	OM
Surr: Toluene-d8	97.9	78.3-118		%REC	348062	1	12/16/2022 20:40	OM
<b>APPENDIX I METALS SW6020B</b>					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348098	1	12/19/2022 17:18	HC
Arsenic	BRL	0.0100		mg/L	348098	1	12/19/2022 17:18	HC
Barium	0.0348	0.0200		mg/L	348098	1	12/19/2022 17:18	HC
Beryllium	BRL	0.00300		mg/L	348098	1	12/19/2022 17:18	HC
Cadmium	BRL	0.00500		mg/L	348098	1	12/19/2022 17:18	HC
Chromium	BRL	0.0100		mg/L	348098	1	12/19/2022 17:18	HC
Cobalt	BRL	0.0400		mg/L	348098	1	12/19/2022 17:18	HC
Copper	BRL	0.0200		mg/L	348098	1	12/19/2022 17:18	HC
Lead	BRL	0.0150		mg/L	348098	1	12/19/2022 17:18	HC
Nickel	BRL	0.0200		mg/L	348098	1	12/19/2022 17:18	HC
Selenium	BRL	0.0100		mg/L	348098	1	12/19/2022 17:18	HC
Silver	BRL	0.0100		mg/L	348098	1	12/19/2022 17:18	HC
Thallium	BRL	0.00200		mg/L	348098	1	12/19/2022 17:18	HC
Vanadium	BRL	0.0200		mg/L	348098	1	12/19/2022 17:18	HC
Zinc	BRL	0.0200		mg/L	348098	1	12/19/2022 17:18	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-4A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 2:25:00 PM
<b>Lab ID:</b> 2212H65-016	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
1,1-Dichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
1,1-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
1,2,3-Trichloropropane	BRL	10		ug/L	348062	1	12/16/2022 21:02	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348062	1	12/16/2022 21:02	OM
1,2-Dibromoethane	BRL	1.0		ug/L	348062	1	12/16/2022 21:02	OM
1,2-Dichlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 21:02	OM
1,2-Dichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
1,2-Dichloropropane	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
1,4-Dichlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 21:02	OM
2-Butanone	BRL	100		ug/L	348062	1	12/16/2022 21:02	OM
2-Hexanone	BRL	50		ug/L	348062	1	12/16/2022 21:02	OM
4-Methyl-2-pentanone	BRL	50		ug/L	348062	1	12/16/2022 21:02	OM
Acetone	BRL	100		ug/L	348062	1	12/16/2022 21:02	OM
Acrylonitrile	BRL	50		ug/L	348062	1	12/16/2022 21:02	OM
Benzene	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
Bromochloromethane	BRL	10		ug/L	348062	1	12/16/2022 21:02	OM
Bromodichloromethane	BRL	10		ug/L	348062	1	12/16/2022 21:02	OM
Bromoform	BRL	10		ug/L	348062	1	12/16/2022 21:02	OM
Bromomethane	BRL	10		ug/L	348062	1	12/16/2022 21:02	OM
Carbon disulfide	BRL	5.0		ug/L	348062	1	12/16/2022 21:02	OM
Carbon tetrachloride	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
Chlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 21:02	OM
Chloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
Chloroform	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
Chloromethane	BRL	10		ug/L	348062	1	12/16/2022 21:02	OM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
Dibromochloromethane	BRL	10		ug/L	348062	1	12/16/2022 21:02	OM
Dibromomethane	BRL	10		ug/L	348062	1	12/16/2022 21:02	OM
Ethylbenzene	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
Iodomethane	BRL	100		ug/L	348062	1	12/16/2022 21:02	OM
Methylene chloride	BRL	5.0		ug/L	348062	1	12/16/2022 21:02	OM
Styrene	BRL	10		ug/L	348062	1	12/16/2022 21:02	OM
Tetrachloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
Toluene	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348062	1	12/16/2022 21:02	OM
Trichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
Trichlorofluoromethane	BRL	10		ug/L	348062	1	12/16/2022 21:02	OM
Vinyl acetate	BRL	100		ug/L	348062	1	12/16/2022 21:02	OM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-4A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 2:25:00 PM
<b>Lab ID:</b> 2212H65-016	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348062	1	12/16/2022 21:02	OM
Xylenes, Total	BRL	5.0		ug/L	348062	1	12/16/2022 21:02	OM
Surr: 4-Bromofluorobenzene	89.5	75-118		%REC	348062	1	12/16/2022 21:02	OM
Surr: Dibromofluoromethane	104	82.5-121		%REC	348062	1	12/16/2022 21:02	OM
Surr: Toluene-d8	98.3	78.3-118		%REC	348062	1	12/16/2022 21:02	OM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-14
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 10:00:00 AM
<b>Lab ID:</b> 2212H65-017	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>		<b>(SW5030B)</b>						
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
1,1-Dichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
1,1-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
1,2,3-Trichloropropane	BRL	10		ug/L	348062	1	12/16/2022 21:24	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348062	1	12/16/2022 21:24	OM
1,2-Dibromoethane	BRL	1.0		ug/L	348062	1	12/16/2022 21:24	OM
1,2-Dichlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 21:24	OM
1,2-Dichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
1,2-Dichloropropane	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
1,4-Dichlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 21:24	OM
2-Butanone	BRL	100		ug/L	348062	1	12/16/2022 21:24	OM
2-Hexanone	BRL	50		ug/L	348062	1	12/16/2022 21:24	OM
4-Methyl-2-pentanone	BRL	50		ug/L	348062	1	12/16/2022 21:24	OM
Acetone	BRL	100		ug/L	348062	1	12/16/2022 21:24	OM
Acrylonitrile	BRL	50		ug/L	348062	1	12/16/2022 21:24	OM
Benzene	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
Bromochloromethane	BRL	10		ug/L	348062	1	12/16/2022 21:24	OM
Bromodichloromethane	BRL	10		ug/L	348062	1	12/16/2022 21:24	OM
Bromoform	BRL	10		ug/L	348062	1	12/16/2022 21:24	OM
Bromomethane	BRL	10		ug/L	348062	1	12/16/2022 21:24	OM
Carbon disulfide	BRL	5.0		ug/L	348062	1	12/16/2022 21:24	OM
Carbon tetrachloride	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
Chlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 21:24	OM
Chloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
Chloroform	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
Chloromethane	BRL	10		ug/L	348062	1	12/16/2022 21:24	OM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
Dibromochloromethane	BRL	10		ug/L	348062	1	12/16/2022 21:24	OM
Dibromomethane	BRL	10		ug/L	348062	1	12/16/2022 21:24	OM
Ethylbenzene	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
Iodomethane	BRL	100		ug/L	348062	1	12/16/2022 21:24	OM
Methylene chloride	BRL	5.0		ug/L	348062	1	12/16/2022 21:24	OM
Styrene	BRL	10		ug/L	348062	1	12/16/2022 21:24	OM
Tetrachloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
Toluene	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348062	1	12/16/2022 21:24	OM
Trichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
Trichlorofluoromethane	BRL	10		ug/L	348062	1	12/16/2022 21:24	OM
Vinyl acetate	BRL	100		ug/L	348062	1	12/16/2022 21:24	OM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-14
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 10:00:00 AM
<b>Lab ID:</b> 2212H65-017	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348062	1	12/16/2022 21:24	OM
Xylenes, Total	BRL	5.0		ug/L	348062	1	12/16/2022 21:24	OM
Surr: 4-Bromofluorobenzene	89.2	75-118		%REC	348062	1	12/16/2022 21:24	OM
Surr: Dibromofluoromethane	106	82.5-121		%REC	348062	1	12/16/2022 21:24	OM
Surr: Toluene-d8	98.4	78.3-118		%REC	348062	1	12/16/2022 21:24	OM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-018

**Client Sample ID:** AMW-5  
**Collection Date:** 12/14/2022 11:05:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
1,1-Dichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
1,1-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
1,2,3-Trichloropropane	BRL	10		ug/L	348062	1	12/16/2022 21:46	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348062	1	12/16/2022 21:46	OM
1,2-Dibromoethane	BRL	1.0		ug/L	348062	1	12/16/2022 21:46	OM
1,2-Dichlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 21:46	OM
1,2-Dichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
1,2-Dichloropropane	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
1,4-Dichlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 21:46	OM
2-Butanone	BRL	100		ug/L	348062	1	12/16/2022 21:46	OM
2-Hexanone	BRL	50		ug/L	348062	1	12/16/2022 21:46	OM
4-Methyl-2-pentanone	BRL	50		ug/L	348062	1	12/16/2022 21:46	OM
Acetone	BRL	100		ug/L	348062	1	12/16/2022 21:46	OM
Acrylonitrile	BRL	50		ug/L	348062	1	12/16/2022 21:46	OM
Benzene	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
Bromochloromethane	BRL	10		ug/L	348062	1	12/16/2022 21:46	OM
Bromodichloromethane	BRL	10		ug/L	348062	1	12/16/2022 21:46	OM
Bromoform	BRL	10		ug/L	348062	1	12/16/2022 21:46	OM
Bromomethane	BRL	10		ug/L	348062	1	12/16/2022 21:46	OM
Carbon disulfide	BRL	5.0		ug/L	348062	1	12/16/2022 21:46	OM
Carbon tetrachloride	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
Chlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 21:46	OM
Chloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
Chloroform	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
Chloromethane	BRL	10		ug/L	348062	1	12/16/2022 21:46	OM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
Dibromochloromethane	BRL	10		ug/L	348062	1	12/16/2022 21:46	OM
Dibromomethane	BRL	10		ug/L	348062	1	12/16/2022 21:46	OM
Ethylbenzene	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
Iodomethane	BRL	100		ug/L	348062	1	12/16/2022 21:46	OM
Methylene chloride	BRL	5.0		ug/L	348062	1	12/16/2022 21:46	OM
Styrene	BRL	10		ug/L	348062	1	12/16/2022 21:46	OM
Tetrachloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
Toluene	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348062	1	12/16/2022 21:46	OM
Trichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
Trichlorofluoromethane	BRL	10		ug/L	348062	1	12/16/2022 21:46	OM
Vinyl acetate	BRL	100		ug/L	348062	1	12/16/2022 21:46	OM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-5
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 11:05:00 AM
<b>Lab ID:</b> 2212H65-018	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348062	1	12/16/2022 21:46	OM
Xylenes, Total	BRL	5.0		ug/L	348062	1	12/16/2022 21:46	OM
Surr: 4-Bromofluorobenzene	90.6	75-118		%REC	348062	1	12/16/2022 21:46	OM
Surr: Dibromofluoromethane	107	82.5-121		%REC	348062	1	12/16/2022 21:46	OM
Surr: Toluene-d8	98.9	78.3-118		%REC	348062	1	12/16/2022 21:46	OM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-019

**Client Sample ID:** GWC-18  
**Collection Date:** 12/14/2022 12:15:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	57	10		mg/L	348021	1	12/16/2022 11:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	4.9	1.0		mg/L	R504323	1	12/16/2022 19:44	BI
Sulfate	1.4	1.0		mg/L	R504323	1	12/16/2022 19:44	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
1,1-Dichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
1,1-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
1,2,3-Trichloropropane	BRL	10		ug/L	348062	1	12/16/2022 22:08	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348062	1	12/16/2022 22:08	OM
1,2-Dibromoethane	BRL	1.0		ug/L	348062	1	12/16/2022 22:08	OM
1,2-Dichlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 22:08	OM
1,2-Dichloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
1,2-Dichloropropane	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
1,4-Dichlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 22:08	OM
2-Butanone	BRL	100		ug/L	348062	1	12/16/2022 22:08	OM
2-Hexanone	BRL	50		ug/L	348062	1	12/16/2022 22:08	OM
4-Methyl-2-pentanone	BRL	50		ug/L	348062	1	12/16/2022 22:08	OM
Acetone	BRL	100		ug/L	348062	1	12/16/2022 22:08	OM
Acrylonitrile	BRL	50		ug/L	348062	1	12/16/2022 22:08	OM
Benzene	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
Bromochloromethane	BRL	10		ug/L	348062	1	12/16/2022 22:08	OM
Bromodichloromethane	BRL	10		ug/L	348062	1	12/16/2022 22:08	OM
Bromoform	BRL	10		ug/L	348062	1	12/16/2022 22:08	OM
Bromomethane	BRL	10		ug/L	348062	1	12/16/2022 22:08	OM
Carbon disulfide	BRL	5.0		ug/L	348062	1	12/16/2022 22:08	OM
Carbon tetrachloride	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
Chlorobenzene	BRL	10		ug/L	348062	1	12/16/2022 22:08	OM
Chloroethane	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
Chloroform	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
Chloromethane	BRL	10		ug/L	348062	1	12/16/2022 22:08	OM
cis-1,2-Dichloroethene	20	2.0		ug/L	348062	1	12/16/2022 22:08	OM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
Dibromochloromethane	BRL	10		ug/L	348062	1	12/16/2022 22:08	OM
Dibromomethane	BRL	10		ug/L	348062	1	12/16/2022 22:08	OM
Ethylbenzene	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
Iodomethane	BRL	100		ug/L	348062	1	12/16/2022 22:08	OM
Methylene chloride	BRL	5.0		ug/L	348062	1	12/16/2022 22:08	OM
Styrene	BRL	10		ug/L	348062	1	12/16/2022 22:08	OM
Tetrachloroethene	3.8	2.0		ug/L	348062	1	12/16/2022 22:08	OM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-18
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 12:15:00 PM
<b>Lab ID:</b> 2212H65-019	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Toluene	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348062	1	12/16/2022 22:08	OM
Trichloroethene	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
Trichlorofluoromethane	BRL	10		ug/L	348062	1	12/16/2022 22:08	OM
Vinyl acetate	BRL	100		ug/L	348062	1	12/16/2022 22:08	OM
Vinyl chloride	BRL	2.0		ug/L	348062	1	12/16/2022 22:08	OM
Xylenes, Total	BRL	5.0		ug/L	348062	1	12/16/2022 22:08	OM
Surr: 4-Bromofluorobenzene	89.4	75-118		%REC	348062	1	12/16/2022 22:08	OM
Surr: Dibromofluoromethane	107	82.5-121		%REC	348062	1	12/16/2022 22:08	OM
Surr: Toluene-d8	97.4	78.3-118		%REC	348062	1	12/16/2022 22:08	OM
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	35.7	3.00		mg/L	R504257	1	12/19/2022 11:43	AH

**Qualifiers:**

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- BRL Below reporting limit
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- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-4
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 1:40:00 PM
<b>Lab ID:</b> 2212H65-020	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
1,1,1-Trichloroethane	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
1,1,2-Trichloroethane	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
1,1-Dichloroethane	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
1,1-Dichloroethene	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
1,2,3-Trichloropropane	BRL	10		ug/L	348215	1	12/17/2022 18:27	ZH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348215	1	12/17/2022 18:27	ZH
1,2-Dibromoethane	BRL	1.0		ug/L	348215	1	12/17/2022 18:27	ZH
1,2-Dichlorobenzene	BRL	10		ug/L	348215	1	12/17/2022 18:27	ZH
1,2-Dichloroethane	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
1,2-Dichloropropane	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
1,4-Dichlorobenzene	BRL	10		ug/L	348215	1	12/17/2022 18:27	ZH
2-Butanone	BRL	100		ug/L	348215	1	12/17/2022 18:27	ZH
2-Hexanone	BRL	50		ug/L	348215	1	12/17/2022 18:27	ZH
4-Methyl-2-pentanone	BRL	50		ug/L	348215	1	12/17/2022 18:27	ZH
Acetone	BRL	100		ug/L	348215	1	12/17/2022 18:27	ZH
Acrylonitrile	BRL	50		ug/L	348215	1	12/17/2022 18:27	ZH
Benzene	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
Bromochloromethane	BRL	10		ug/L	348215	1	12/17/2022 18:27	ZH
Bromodichloromethane	BRL	10		ug/L	348215	1	12/17/2022 18:27	ZH
Bromoform	BRL	10		ug/L	348215	1	12/17/2022 18:27	ZH
Bromomethane	BRL	10		ug/L	348215	1	12/17/2022 18:27	ZH
Carbon disulfide	BRL	5.0		ug/L	348215	1	12/17/2022 18:27	ZH
Carbon tetrachloride	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
Chlorobenzene	BRL	10		ug/L	348215	1	12/17/2022 18:27	ZH
Chloroethane	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
Chloroform	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
Chloromethane	BRL	10		ug/L	348215	1	12/17/2022 18:27	ZH
cis-1,2-Dichloroethene	17	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
Dibromochloromethane	BRL	10		ug/L	348215	1	12/17/2022 18:27	ZH
Dibromomethane	BRL	10		ug/L	348215	1	12/17/2022 18:27	ZH
Ethylbenzene	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
Iodomethane	BRL	100		ug/L	348215	1	12/17/2022 18:27	ZH
Methylene chloride	BRL	5.0		ug/L	348215	1	12/17/2022 18:27	ZH
Styrene	BRL	10		ug/L	348215	1	12/17/2022 18:27	ZH
Tetrachloroethene	4.0	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
Toluene	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348215	1	12/17/2022 18:27	ZH
Trichloroethene	2.1	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
Trichlorofluoromethane	BRL	10		ug/L	348215	1	12/17/2022 18:27	ZH
Vinyl acetate	BRL	100		ug/L	348215	1	12/17/2022 18:27	ZH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-4
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 1:40:00 PM
<b>Lab ID:</b> 2212H65-020	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348215	1	12/17/2022 18:27	ZH
Xylenes, Total	BRL	5.0		ug/L	348215	1	12/17/2022 18:27	ZH
Surr: 4-Bromofluorobenzene	96.1	75-118		%REC	348215	1	12/17/2022 18:27	ZH
Surr: Dibromofluoromethane	99.8	82.5-121		%REC	348215	1	12/17/2022 18:27	ZH
Surr: Toluene-d8	99.1	78.3-118		%REC	348215	1	12/17/2022 18:27	ZH

**Qualifiers:**

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**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-021

**Client Sample ID:** SWC-4  
**Collection Date:** 12/14/2022 2:10:00 PM  
**Matrix:** Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Organic Carbon (TOC) by SM5310B</b>								
Organic Carbon, Total	2.10	1.00		mg/L	R504298	1	12/20/2022 09:09	SK
<b>Total Cyanide (SM4500 CN-C, E) (SM4500-CN-E)</b>								
Cyanide, Total	BRL	0.010		mg/L	348182	1	12/19/2022 18:31	JO
<b>Mercury, Total SW7470A (SW7470A)</b>								
Mercury	BRL	0.00050		mg/L	348185	1	12/19/2022 19:12	GR
<b>Inorganic Anions by IC E300.0</b>								
Chloride	2.77	1.00		mg/L	R504576	1	12/22/2022 02:22	BI
<b>Chemical Oxygen Demand (COD) E410.4</b>								
Chemical Oxygen Demand	26.2	10.0		mg/L	R504244	1	12/14/2022 16:00	SK
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
1,1-Dichloroethane	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
1,1-Dichloroethene	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
1,2,3-Trichloropropane	BRL	10		ug/L	348187	1	12/17/2022 17:13	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348187	1	12/17/2022 17:13	OM
1,2-Dibromoethane	BRL	1.0		ug/L	348187	1	12/17/2022 17:13	OM
1,2-Dichlorobenzene	BRL	10		ug/L	348187	1	12/17/2022 17:13	OM
1,2-Dichloroethane	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
1,2-Dichloropropane	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
1,4-Dichlorobenzene	BRL	10		ug/L	348187	1	12/17/2022 17:13	OM
2-Butanone	BRL	100		ug/L	348187	1	12/17/2022 17:13	OM
2-Hexanone	BRL	50		ug/L	348187	1	12/17/2022 17:13	OM
4-Methyl-2-pentanone	BRL	50		ug/L	348187	1	12/17/2022 17:13	OM
Acetone	BRL	100		ug/L	348187	1	12/17/2022 17:13	OM
Acrylonitrile	BRL	50		ug/L	348187	1	12/17/2022 17:13	OM
Benzene	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
Bromochloromethane	BRL	10		ug/L	348187	1	12/17/2022 17:13	OM
Bromodichloromethane	BRL	10		ug/L	348187	1	12/17/2022 17:13	OM
Bromoform	BRL	10		ug/L	348187	1	12/17/2022 17:13	OM
Bromomethane	BRL	10		ug/L	348187	1	12/17/2022 17:13	OM
Carbon disulfide	BRL	5.0		ug/L	348187	1	12/17/2022 17:13	OM
Carbon tetrachloride	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
Chlorobenzene	BRL	10		ug/L	348187	1	12/17/2022 17:13	OM
Chloroethane	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
Chloroform	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
Chloromethane	BRL	10		ug/L	348187	1	12/17/2022 17:13	OM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM

**Qualifiers:**

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- Narr See case narrative
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- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWC-4
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 2:10:00 PM
<b>Lab ID:</b> 2212H65-021	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
Dibromochloromethane	BRL	10		ug/L	348187	1	12/17/2022 17:13	OM
Dibromomethane	BRL	10		ug/L	348187	1	12/17/2022 17:13	OM
Ethylbenzene	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
Iodomethane	BRL	100		ug/L	348187	1	12/17/2022 17:13	OM
Methylene chloride	BRL	5.0		ug/L	348187	1	12/17/2022 17:13	OM
Styrene	BRL	10		ug/L	348187	1	12/17/2022 17:13	OM
Tetrachloroethene	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
Toluene	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348187	1	12/17/2022 17:13	OM
Trichloroethene	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
Trichlorofluoromethane	BRL	10		ug/L	348187	1	12/17/2022 17:13	OM
Vinyl acetate	BRL	100		ug/L	348187	1	12/17/2022 17:13	OM
Vinyl chloride	BRL	2.0		ug/L	348187	1	12/17/2022 17:13	OM
Xylenes, Total	BRL	5.0		ug/L	348187	1	12/17/2022 17:13	OM
Surr: 4-Bromofluorobenzene	97.7	75-118		%REC	348187	1	12/17/2022 17:13	OM
Surr: Dibromofluoromethane	99.8	82.5-121		%REC	348187	1	12/17/2022 17:13	OM
Surr: Toluene-d8	100	78.3-118		%REC	348187	1	12/17/2022 17:13	OM
<b>METALS, TOTAL SW6010D</b>					<b>(SW3010A)</b>			
Arsenic	BRL	0.0500		mg/L	348100	1	12/19/2022 18:19	TA
Barium	BRL	0.0200		mg/L	348100	1	12/19/2022 18:19	TA
Cadmium	BRL	0.0050		mg/L	348100	1	12/19/2022 18:19	TA
Chromium	BRL	0.0100		mg/L	348100	1	12/19/2022 18:19	TA
Lead	BRL	0.0100		mg/L	348100	1	12/19/2022 18:19	TA
Nickel	BRL	0.0200		mg/L	348100	1	12/19/2022 18:19	TA
Selenium	BRL	0.0200		mg/L	348100	1	12/19/2022 18:19	TA
Silver	BRL	0.0100		mg/L	348100	1	12/19/2022 18:19	TA
Zinc	BRL	0.0200		mg/L	348100	1	12/19/2022 18:19	TA

**Qualifiers:**

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- E Estimated (value above quantitation range)
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- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
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- J Estimated value detected below Reporting Limit



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-022

**Client Sample ID:** GWC-10  
**Collection Date:** 12/14/2022 11:25:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
1,1-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
1,1-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
1,2,3-Trichloropropane	BRL	10		ug/L	348178	1	12/16/2022 20:30	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348178	1	12/16/2022 20:30	OM
1,2-Dibromoethane	BRL	1.0		ug/L	348178	1	12/16/2022 20:30	OM
1,2-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 20:30	OM
1,2-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
1,2-Dichloropropane	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
1,4-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 20:30	OM
2-Butanone	BRL	100		ug/L	348178	1	12/16/2022 20:30	OM
2-Hexanone	BRL	50		ug/L	348178	1	12/16/2022 20:30	OM
4-Methyl-2-pentanone	BRL	50		ug/L	348178	1	12/16/2022 20:30	OM
Acetone	BRL	100		ug/L	348178	1	12/16/2022 20:30	OM
Acrylonitrile	BRL	50		ug/L	348178	1	12/16/2022 20:30	OM
Benzene	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
Bromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 20:30	OM
Bromodichloromethane	BRL	10		ug/L	348178	1	12/16/2022 20:30	OM
Bromoform	BRL	10		ug/L	348178	1	12/16/2022 20:30	OM
Bromomethane	BRL	10		ug/L	348178	1	12/16/2022 20:30	OM
Carbon disulfide	BRL	5.0		ug/L	348178	1	12/16/2022 20:30	OM
Carbon tetrachloride	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
Chlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 20:30	OM
Chloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
Chloroform	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
Chloromethane	BRL	10		ug/L	348178	1	12/16/2022 20:30	OM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
Dibromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 20:30	OM
Dibromomethane	BRL	10		ug/L	348178	1	12/16/2022 20:30	OM
Ethylbenzene	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
Iodomethane	BRL	100		ug/L	348178	1	12/16/2022 20:30	OM
Methylene chloride	BRL	5.0		ug/L	348178	1	12/16/2022 20:30	OM
Styrene	BRL	10		ug/L	348178	1	12/16/2022 20:30	OM
Tetrachloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
Toluene	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348178	1	12/16/2022 20:30	OM
Trichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
Trichlorofluoromethane	BRL	10		ug/L	348178	1	12/16/2022 20:30	OM
Vinyl acetate	BRL	100		ug/L	348178	1	12/16/2022 20:30	OM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-10
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 11:25:00 AM
<b>Lab ID:</b> 2212H65-022	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348178	1	12/16/2022 20:30	OM
Xylenes, Total	BRL	5.0		ug/L	348178	1	12/16/2022 20:30	OM
Surr: 4-Bromofluorobenzene	100	75-118		%REC	348178	1	12/16/2022 20:30	OM
Surr: Dibromofluoromethane	101	82.5-121		%REC	348178	1	12/16/2022 20:30	OM
Surr: Toluene-d8	98.3	78.3-118		%REC	348178	1	12/16/2022 20:30	OM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-10A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 12:00:00 PM
<b>Lab ID:</b> 2212H65-023	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
1,1-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
1,1-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
1,2,3-Trichloropropane	BRL	10		ug/L	348178	1	12/16/2022 20:53	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348178	1	12/16/2022 20:53	OM
1,2-Dibromoethane	BRL	1.0		ug/L	348178	1	12/16/2022 20:53	OM
1,2-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 20:53	OM
1,2-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
1,2-Dichloropropane	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
1,4-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 20:53	OM
2-Butanone	BRL	100		ug/L	348178	1	12/16/2022 20:53	OM
2-Hexanone	BRL	50		ug/L	348178	1	12/16/2022 20:53	OM
4-Methyl-2-pentanone	BRL	50		ug/L	348178	1	12/16/2022 20:53	OM
Acetone	BRL	100		ug/L	348178	1	12/16/2022 20:53	OM
Acrylonitrile	BRL	50		ug/L	348178	1	12/16/2022 20:53	OM
Benzene	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
Bromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 20:53	OM
Bromodichloromethane	BRL	10		ug/L	348178	1	12/16/2022 20:53	OM
Bromoform	BRL	10		ug/L	348178	1	12/16/2022 20:53	OM
Bromomethane	BRL	10		ug/L	348178	1	12/16/2022 20:53	OM
Carbon disulfide	BRL	5.0		ug/L	348178	1	12/16/2022 20:53	OM
Carbon tetrachloride	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
Chlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 20:53	OM
Chloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
Chloroform	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
Chloromethane	BRL	10		ug/L	348178	1	12/16/2022 20:53	OM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
Dibromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 20:53	OM
Dibromomethane	BRL	10		ug/L	348178	1	12/16/2022 20:53	OM
Ethylbenzene	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
Iodomethane	BRL	100		ug/L	348178	1	12/16/2022 20:53	OM
Methylene chloride	BRL	5.0		ug/L	348178	1	12/16/2022 20:53	OM
Styrene	BRL	10		ug/L	348178	1	12/16/2022 20:53	OM
Tetrachloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
Toluene	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348178	1	12/16/2022 20:53	OM
Trichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
Trichlorofluoromethane	BRL	10		ug/L	348178	1	12/16/2022 20:53	OM
Vinyl acetate	BRL	100		ug/L	348178	1	12/16/2022 20:53	OM

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-10A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 12:00:00 PM
<b>Lab ID:</b> 2212H65-023	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348178	1	12/16/2022 20:53	OM
Xylenes, Total	BRL	5.0		ug/L	348178	1	12/16/2022 20:53	OM
Surr: 4-Bromofluorobenzene	98.6	75-118		%REC	348178	1	12/16/2022 20:53	OM
Surr: Dibromofluoromethane	99.7	82.5-121		%REC	348178	1	12/16/2022 20:53	OM
Surr: Toluene-d8	99.6	78.3-118		%REC	348178	1	12/16/2022 20:53	OM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-024

**Client Sample ID:** GWC-9  
**Collection Date:** 12/14/2022 12:30:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
1,1-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
1,1-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
1,2,3-Trichloropropane	BRL	10		ug/L	348178	1	12/16/2022 21:15	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348178	1	12/16/2022 21:15	OM
1,2-Dibromoethane	BRL	1.0		ug/L	348178	1	12/16/2022 21:15	OM
1,2-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 21:15	OM
1,2-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
1,2-Dichloropropane	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
1,4-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 21:15	OM
2-Butanone	BRL	100		ug/L	348178	1	12/16/2022 21:15	OM
2-Hexanone	BRL	50		ug/L	348178	1	12/16/2022 21:15	OM
4-Methyl-2-pentanone	BRL	50		ug/L	348178	1	12/16/2022 21:15	OM
Acetone	BRL	100		ug/L	348178	1	12/16/2022 21:15	OM
Acrylonitrile	BRL	50		ug/L	348178	1	12/16/2022 21:15	OM
Benzene	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
Bromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 21:15	OM
Bromodichloromethane	BRL	10		ug/L	348178	1	12/16/2022 21:15	OM
Bromoform	BRL	10		ug/L	348178	1	12/16/2022 21:15	OM
Bromomethane	BRL	10		ug/L	348178	1	12/16/2022 21:15	OM
Carbon disulfide	BRL	5.0		ug/L	348178	1	12/16/2022 21:15	OM
Carbon tetrachloride	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
Chlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 21:15	OM
Chloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
Chloroform	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
Chloromethane	BRL	10		ug/L	348178	1	12/16/2022 21:15	OM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
Dibromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 21:15	OM
Dibromomethane	BRL	10		ug/L	348178	1	12/16/2022 21:15	OM
Ethylbenzene	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
Iodomethane	BRL	100		ug/L	348178	1	12/16/2022 21:15	OM
Methylene chloride	BRL	5.0		ug/L	348178	1	12/16/2022 21:15	OM
Styrene	BRL	10		ug/L	348178	1	12/16/2022 21:15	OM
Tetrachloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
Toluene	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348178	1	12/16/2022 21:15	OM
Trichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
Trichlorofluoromethane	BRL	10		ug/L	348178	1	12/16/2022 21:15	OM
Vinyl acetate	BRL	100		ug/L	348178	1	12/16/2022 21:15	OM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-9
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 12:30:00 PM
<b>Lab ID:</b> 2212H65-024	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348178	1	12/16/2022 21:15	OM
Xylenes, Total	BRL	5.0		ug/L	348178	1	12/16/2022 21:15	OM
Surr: 4-Bromofluorobenzene	98.3	75-118		%REC	348178	1	12/16/2022 21:15	OM
Surr: Dibromofluoromethane	99.4	82.5-121		%REC	348178	1	12/16/2022 21:15	OM
Surr: Toluene-d8	100	78.3-118		%REC	348178	1	12/16/2022 21:15	OM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-025

**Client Sample ID:** PH1-GWA-1  
**Collection Date:** 12/14/2022 1:25:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	37	10		mg/L	348021	1	12/16/2022 11:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	2.6	1.0		mg/L	R504109	1	12/16/2022 01:16	BI
Nitrate	BRL	0.25		mg/L	R504109	1	12/16/2022 01:16	BI
Sulfate	1.3	1.0		mg/L	R504109	1	12/16/2022 01:16	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
1,1-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
1,1-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
1,2,3-Trichloropropane	BRL	10		ug/L	348178	1	12/16/2022 21:38	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348178	1	12/16/2022 21:38	OM
1,2-Dibromoethane	BRL	1.0		ug/L	348178	1	12/16/2022 21:38	OM
1,2-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 21:38	OM
1,2-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
1,2-Dichloropropane	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
1,4-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 21:38	OM
2-Butanone	BRL	100		ug/L	348178	1	12/16/2022 21:38	OM
2-Hexanone	BRL	50		ug/L	348178	1	12/16/2022 21:38	OM
4-Methyl-2-pentanone	BRL	50		ug/L	348178	1	12/16/2022 21:38	OM
Acetone	BRL	100		ug/L	348178	1	12/16/2022 21:38	OM
Acrylonitrile	BRL	50		ug/L	348178	1	12/16/2022 21:38	OM
Benzene	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
Bromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 21:38	OM
Bromodichloromethane	BRL	10		ug/L	348178	1	12/16/2022 21:38	OM
Bromoform	BRL	10		ug/L	348178	1	12/16/2022 21:38	OM
Bromomethane	BRL	10		ug/L	348178	1	12/16/2022 21:38	OM
Carbon disulfide	BRL	5.0		ug/L	348178	1	12/16/2022 21:38	OM
Carbon tetrachloride	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
Chlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 21:38	OM
Chloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
Chloroform	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
Chloromethane	BRL	10		ug/L	348178	1	12/16/2022 21:38	OM
cis-1,2-Dichloroethene	2.5	2.0		ug/L	348178	1	12/16/2022 21:38	OM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
Dibromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 21:38	OM
Dibromomethane	BRL	10		ug/L	348178	1	12/16/2022 21:38	OM
Ethylbenzene	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
Iodomethane	BRL	100		ug/L	348178	1	12/16/2022 21:38	OM
Methylene chloride	BRL	5.0		ug/L	348178	1	12/16/2022 21:38	OM
Styrene	BRL	10		ug/L	348178	1	12/16/2022 21:38	OM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWA-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 1:25:00 PM
<b>Lab ID:</b> 2212H65-025	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Tetrachloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
Toluene	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348178	1	12/16/2022 21:38	OM
Trichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
Trichlorofluoromethane	BRL	10		ug/L	348178	1	12/16/2022 21:38	OM
Vinyl acetate	BRL	100		ug/L	348178	1	12/16/2022 21:38	OM
Vinyl chloride	BRL	2.0		ug/L	348178	1	12/16/2022 21:38	OM
Xylenes, Total	BRL	5.0		ug/L	348178	1	12/16/2022 21:38	OM
Surr: 4-Bromofluorobenzene	97.3	75-118		%REC	348178	1	12/16/2022 21:38	OM
Surr: Dibromofluoromethane	97.6	82.5-121		%REC	348178	1	12/16/2022 21:38	OM
Surr: Toluene-d8	99.6	78.3-118		%REC	348178	1	12/16/2022 21:38	OM
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	36.2	3.00		mg/L	R504257	1	12/19/2022 11:43	AH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWC-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 2:25:00 PM
<b>Lab ID:</b> 2212H65-026	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
1,1-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
1,1-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
1,2,3-Trichloropropane	BRL	10		ug/L	348178	1	12/16/2022 22:01	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348178	1	12/16/2022 22:01	OM
1,2-Dibromoethane	BRL	1.0		ug/L	348178	1	12/16/2022 22:01	OM
1,2-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 22:01	OM
1,2-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
1,2-Dichloropropane	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
1,4-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 22:01	OM
2-Butanone	BRL	100		ug/L	348178	1	12/16/2022 22:01	OM
2-Hexanone	BRL	50		ug/L	348178	1	12/16/2022 22:01	OM
4-Methyl-2-pentanone	BRL	50		ug/L	348178	1	12/16/2022 22:01	OM
Acetone	BRL	100		ug/L	348178	1	12/16/2022 22:01	OM
Acrylonitrile	BRL	50		ug/L	348178	1	12/16/2022 22:01	OM
Benzene	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
Bromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 22:01	OM
Bromodichloromethane	BRL	10		ug/L	348178	1	12/16/2022 22:01	OM
Bromoform	BRL	10		ug/L	348178	1	12/16/2022 22:01	OM
Bromomethane	BRL	10		ug/L	348178	1	12/16/2022 22:01	OM
Carbon disulfide	BRL	5.0		ug/L	348178	1	12/16/2022 22:01	OM
Carbon tetrachloride	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
Chlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 22:01	OM
Chloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
Chloroform	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
Chloromethane	BRL	10		ug/L	348178	1	12/16/2022 22:01	OM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
Dibromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 22:01	OM
Dibromomethane	BRL	10		ug/L	348178	1	12/16/2022 22:01	OM
Ethylbenzene	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
Iodomethane	BRL	100		ug/L	348178	1	12/16/2022 22:01	OM
Methylene chloride	BRL	5.0		ug/L	348178	1	12/16/2022 22:01	OM
Styrene	BRL	10		ug/L	348178	1	12/16/2022 22:01	OM
Tetrachloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
Toluene	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348178	1	12/16/2022 22:01	OM
Trichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
Trichlorofluoromethane	BRL	10		ug/L	348178	1	12/16/2022 22:01	OM
Vinyl acetate	BRL	100		ug/L	348178	1	12/16/2022 22:01	OM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWC-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 2:25:00 PM
<b>Lab ID:</b> 2212H65-026	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348178	1	12/16/2022 22:01	OM
Xylenes, Total	BRL	5.0		ug/L	348178	1	12/16/2022 22:01	OM
Surr: 4-Bromofluorobenzene	98.3	75-118		%REC	348178	1	12/16/2022 22:01	OM
Surr: Dibromofluoromethane	96.9	82.5-121		%REC	348178	1	12/16/2022 22:01	OM
Surr: Toluene-d8	98.9	78.3-118		%REC	348178	1	12/16/2022 22:01	OM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212H65-027

**Client Sample ID:** AMW-12  
**Collection Date:** 12/14/2022 9:35:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Metals by ICP/MS SW6020B</b>					<b>(SW3005A)</b>			
Manganese	BRL	0.00500		mg/L	348098	1	12/19/2022 17:21	HC
Potassium	1.20	0.100		mg/L	348098	1	12/19/2022 17:21	HC
<b>ION SCAN SW9056A</b>								
Chloride	1.1	1.0		mg/L	R504320	1	12/19/2022 18:25	CB
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
1,1-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
1,1-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
1,2,3-Trichloropropane	BRL	10		ug/L	348178	1	12/16/2022 22:23	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348178	1	12/16/2022 22:23	OM
1,2-Dibromoethane	BRL	1.0		ug/L	348178	1	12/16/2022 22:23	OM
1,2-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 22:23	OM
1,2-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
1,2-Dichloropropane	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
1,4-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 22:23	OM
2-Butanone	BRL	100		ug/L	348178	1	12/16/2022 22:23	OM
2-Hexanone	BRL	50		ug/L	348178	1	12/16/2022 22:23	OM
4-Methyl-2-pentanone	BRL	50		ug/L	348178	1	12/16/2022 22:23	OM
Acetone	BRL	100		ug/L	348178	1	12/16/2022 22:23	OM
Acrylonitrile	BRL	50		ug/L	348178	1	12/16/2022 22:23	OM
Benzene	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
Bromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 22:23	OM
Bromodichloromethane	BRL	10		ug/L	348178	1	12/16/2022 22:23	OM
Bromoform	BRL	10		ug/L	348178	1	12/16/2022 22:23	OM
Bromomethane	BRL	10		ug/L	348178	1	12/16/2022 22:23	OM
Carbon disulfide	BRL	5.0		ug/L	348178	1	12/16/2022 22:23	OM
Carbon tetrachloride	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
Chlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 22:23	OM
Chloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
Chloroform	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
Chloromethane	BRL	10		ug/L	348178	1	12/16/2022 22:23	OM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
Dibromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 22:23	OM
Dibromomethane	BRL	10		ug/L	348178	1	12/16/2022 22:23	OM
Ethylbenzene	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
Iodomethane	BRL	100		ug/L	348178	1	12/16/2022 22:23	OM
Methylene chloride	BRL	5.0		ug/L	348178	1	12/16/2022 22:23	OM
Styrene	BRL	10		ug/L	348178	1	12/16/2022 22:23	OM
Tetrachloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-12
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 9:35:00 AM
<b>Lab ID:</b> 2212H65-027	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Toluene	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348178	1	12/16/2022 22:23	OM
Trichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
Trichlorofluoromethane	BRL	10		ug/L	348178	1	12/16/2022 22:23	OM
Vinyl acetate	BRL	100		ug/L	348178	1	12/16/2022 22:23	OM
Vinyl chloride	BRL	2.0		ug/L	348178	1	12/16/2022 22:23	OM
Xylenes, Total	BRL	5.0		ug/L	348178	1	12/16/2022 22:23	OM
Surr: 4-Bromofluorobenzene	97.2	75-118		%REC	348178	1	12/16/2022 22:23	OM
Surr: Dibromofluoromethane	97.4	82.5-121		%REC	348178	1	12/16/2022 22:23	OM
Surr: Toluene-d8	98.8	78.3-118		%REC	348178	1	12/16/2022 22:23	OM
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	20.8	3.00		mg/L	R504327	1	12/20/2022 11:31	AH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-12R
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 10:15:00 AM
<b>Lab ID:</b> 2212H65-028	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Metals by ICP/MS SW6020B</b>					<b>(SW3005A)</b>			
Manganese	BRL	0.00500		mg/L	348098	1	12/19/2022 17:23	HC
Potassium	1.18	0.100		mg/L	348098	1	12/19/2022 17:23	HC
<b>ION SCAN SW9056A</b>								
Chloride	1.1	1.0		mg/L	R504320	1	12/19/2022 18:36	CB
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
1,1-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
1,1-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
1,2,3-Trichloropropane	BRL	10		ug/L	348178	1	12/16/2022 22:46	OM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348178	1	12/16/2022 22:46	OM
1,2-Dibromoethane	BRL	1.0		ug/L	348178	1	12/16/2022 22:46	OM
1,2-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 22:46	OM
1,2-Dichloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
1,2-Dichloropropane	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
1,4-Dichlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 22:46	OM
2-Butanone	BRL	100		ug/L	348178	1	12/16/2022 22:46	OM
2-Hexanone	BRL	50		ug/L	348178	1	12/16/2022 22:46	OM
4-Methyl-2-pentanone	BRL	50		ug/L	348178	1	12/16/2022 22:46	OM
Acetone	BRL	100		ug/L	348178	1	12/16/2022 22:46	OM
Acrylonitrile	BRL	50		ug/L	348178	1	12/16/2022 22:46	OM
Benzene	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
Bromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 22:46	OM
Bromodichloromethane	BRL	10		ug/L	348178	1	12/16/2022 22:46	OM
Bromoform	BRL	10		ug/L	348178	1	12/16/2022 22:46	OM
Bromomethane	BRL	10		ug/L	348178	1	12/16/2022 22:46	OM
Carbon disulfide	BRL	5.0		ug/L	348178	1	12/16/2022 22:46	OM
Carbon tetrachloride	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
Chlorobenzene	BRL	10		ug/L	348178	1	12/16/2022 22:46	OM
Chloroethane	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
Chloroform	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
Chloromethane	BRL	10		ug/L	348178	1	12/16/2022 22:46	OM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
Dibromochloromethane	BRL	10		ug/L	348178	1	12/16/2022 22:46	OM
Dibromomethane	BRL	10		ug/L	348178	1	12/16/2022 22:46	OM
Ethylbenzene	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
Iodomethane	BRL	100		ug/L	348178	1	12/16/2022 22:46	OM
Methylene chloride	BRL	5.0		ug/L	348178	1	12/16/2022 22:46	OM
Styrene	BRL	10		ug/L	348178	1	12/16/2022 22:46	OM
Tetrachloroethene	3.1	2.0		ug/L	348178	1	12/16/2022 22:46	OM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-12R
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 10:15:00 AM
<b>Lab ID:</b> 2212H65-028	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Toluene	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348178	1	12/16/2022 22:46	OM
Trichloroethene	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
Trichlorofluoromethane	BRL	10		ug/L	348178	1	12/16/2022 22:46	OM
Vinyl acetate	BRL	100		ug/L	348178	1	12/16/2022 22:46	OM
Vinyl chloride	BRL	2.0		ug/L	348178	1	12/16/2022 22:46	OM
Xylenes, Total	BRL	5.0		ug/L	348178	1	12/16/2022 22:46	OM
Surr: 4-Bromofluorobenzene	97.2	75-118		%REC	348178	1	12/16/2022 22:46	OM
Surr: Dibromofluoromethane	98.6	82.5-121		%REC	348178	1	12/16/2022 22:46	OM
Surr: Toluene-d8	98.1	78.3-118		%REC	348178	1	12/16/2022 22:46	OM
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	21.1	3.00		mg/L	R504327	1	12/20/2022 11:31	AH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> STREAM
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/14/2022 10:40:00 AM
<b>Lab ID:</b> 2212H65-029	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>ION SCAN SW9056A</b>								
Chloride	2.2	1.0		mg/L	R504320	1	12/19/2022 18:47	CB
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	26.8	3.00		mg/L	R504327	1	12/20/2022 11:31	AH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**SAMPLE/COOLER RECEIPT CHECKLIST**

1. Client Name: Atlantic Coast Consulting, Inc.

AES Work Order Number: 2212H65

2. Carrier: FedEx  UPS  USPS  Client  Courier  Other \_\_\_\_\_

	Yes	No	N/A	Details	Comments
3. Shipping container/cooler received in good condition?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	damaged <input type="checkbox"/> leaking <input type="checkbox"/> other <input type="checkbox"/>	
4. Custody seals present on shipping container?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
5. Custody seals intact on shipping container?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
6. Temperature blanks present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
7. Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cooling initiated for recently collected samples / ice present <input type="checkbox"/>	
8. Chain of Custody (COC) present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
9. Chain of Custody signed, dated, and timed when relinquished and received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
10. Sampler name and/or signature on COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
11. Were all samples received within holding time?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
12. TAT marked on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. <input type="checkbox"/>	

13. Cooler 1 Temperature 3.0 °C    Cooler 2 Temperature \_\_\_\_\_ °C    Cooler 3 Temperature \_\_\_\_\_ °C    Cooler 4 Temperature \_\_\_\_\_ °C  
 14. Cooler 5 Temperature \_\_\_\_\_ °C    Cooler 6 Temperature \_\_\_\_\_ °C    Cooler 7 Temperature \_\_\_\_\_ °C    Cooler 8 Temperature \_\_\_\_\_ °C

15. Comments: \_\_\_\_\_

I certify that I have completed sections 1-15 (dated initials). CH 12/15/22

	Yes	No	N/A	Details	Comments
16. Were sample containers intact upon receipt?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
17. Custody seals present on sample containers?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
18. Custody seals intact on sample containers?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
19. Do sample container labels match the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	incomplete info <input type="checkbox"/> illegible <input type="checkbox"/> no label <input type="checkbox"/> other <input type="checkbox"/>	
20. Are analyses requested indicated on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
21. Were all of the samples listed on the COC received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	samples received but not listed on COC <input type="checkbox"/> samples listed on COC not received <input type="checkbox"/>	
22. Was the sample collection date/time noted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
23. Did we receive sufficient sample volume for indicated analyses?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
24. Were samples received in appropriate containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
25. Were VOA samples received without headspace (< 1/4" bubble)?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
26. Were trip blanks submitted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	listed on COC <input checked="" type="checkbox"/> not listed on COC <input type="checkbox"/>	

27. Comments: \_\_\_\_\_

I certify that I have completed sections 16-27 (dated initials). CH 12/15/22

This section only applies to samples where pH can be checked at Sample Receipt.

	Yes	No	N/A	Details	Comments
28. Have containers needing chemical preservation been checked? *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
29. Containers meet preservation guidelines?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
30. Was pH adjusted at Sample Receipt?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		

\* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

This also excludes metals by EPA 200.7, 200.8 and 245.1 which will be verified between 16 and 24 hours after preservation.

I certify that I have completed sections 28-30 (dated initials). CH 12/15/22



Client: Atlantic Coast Consulting, Inc.  
 Project Name: Forsyth County-Hightower Road MSWLF  
 Lab Order: 2212H65

## Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
2212H65-001A	GWC-6	12/14/2022 9:25:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 10:40:00PM	12/17/2022
2212H65-002A	AMW-2	12/14/2022 10:45:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 10:40:00PM	12/17/2022
2212H65-002B	AMW-2	12/14/2022 10:45:00AM	Groundwater	ION SCAN			12/15/2022
2212H65-002B	AMW-2	12/14/2022 10:45:00AM	Groundwater	Alkalinity by SM2320B			12/19/2022
2212H65-002B	AMW-2	12/14/2022 10:45:00AM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/16/2022 11:45:00AM	12/16/2022
2212H65-003A	GWC-24	12/14/2022 11:00:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 10:40:00PM	12/17/2022
2212H65-003B	GWC-24	12/14/2022 11:00:00AM	Groundwater	ION SCAN			12/16/2022
2212H65-003B	GWC-24	12/14/2022 11:00:00AM	Groundwater	Alkalinity by SM2320B			12/19/2022
2212H65-003B	GWC-24	12/14/2022 11:00:00AM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/16/2022 11:45:00AM	12/16/2022
2212H65-004A	AMW-13	12/14/2022 11:20:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 10:40:00PM	12/17/2022
2212H65-005A	GWC-17	12/14/2022 11:45:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 10:40:00PM	12/17/2022
2212H65-005B	GWC-17	12/14/2022 11:45:00AM	Groundwater	ION SCAN			12/16/2022
2212H65-005B	GWC-17	12/14/2022 11:45:00AM	Groundwater	Alkalinity by SM2320B			12/19/2022
2212H65-005B	GWC-17	12/14/2022 11:45:00AM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/16/2022 11:45:00AM	12/16/2022
2212H65-006A	GWC-19R	12/14/2022 12:30:00PM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 10:40:00PM	12/17/2022
2212H65-006B	GWC-19R	12/14/2022 12:30:00PM	Groundwater	ION SCAN			12/16/2022
2212H65-006B	GWC-19R	12/14/2022 12:30:00PM	Groundwater	Alkalinity by SM2320B			12/19/2022
2212H65-006B	GWC-19R	12/14/2022 12:30:00PM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/16/2022 11:45:00AM	12/16/2022
2212H65-007A	PH1-GWA-2	12/14/2022 1:30:00PM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 10:40:00PM	12/17/2022
2212H65-007B	PH1-GWA-2	12/14/2022 1:30:00PM	Groundwater	ION SCAN			12/16/2022
2212H65-007B	PH1-GWA-2	12/14/2022 1:30:00PM	Groundwater	Alkalinity by SM2320B			12/19/2022
2212H65-007B	PH1-GWA-2	12/14/2022 1:30:00PM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/16/2022 11:45:00AM	12/16/2022
2212H65-008A	TRIP BLANK	12/14/2022 12:00:00AM	Aqueous	APPENDIX I VOLATILE ORGANICS		12/16/2022 10:40:00PM	12/17/2022
2212H65-009A	GWA-3	12/13/2022 4:30:00PM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 10:40:00PM	12/17/2022
2212H65-010A	GWC-8	12/14/2022 9:00:00AM	Groundwater	APPENDIX I METALS		12/19/2022 8:51:00AM	12/19/2022
2212H65-011A	GWC-8A	12/14/2022 9:05:00AM	Groundwater	APPENDIX I METALS		12/19/2022 8:51:00AM	12/19/2022
2212H65-012A	GWC-14A	12/14/2022 9:35:00AM	Groundwater	APPENDIX I METALS		12/19/2022 8:51:00AM	12/19/2022
2212H65-013A	GWA-3	12/14/2022 9:50:00AM	Groundwater	APPENDIX I METALS		12/19/2022 8:51:00AM	12/19/2022
2212H65-014A	PH1-GWC-2	12/14/2022 10:45:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/17/2022 1:45:00PM	12/17/2022

Client: Atlantic Coast Consulting, Inc.  
 Project Name: Forsyth County-Hightower Road MSWLF  
 Lab Order: 2212H65

## Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
2212H65-014B	PH1-GWC-2	12/14/2022 10:45:00AM	Groundwater	APPENDIX I METALS		12/19/2022 8:51:00AM	12/19/2022
2212H65-014C	PH1-GWC-2	12/14/2022 10:45:00AM	Groundwater	ION SCAN			12/15/2022
2212H65-014C	PH1-GWC-2	12/14/2022 10:45:00AM	Groundwater	Alkalinity by SM2320B			12/19/2022
2212H65-014C	PH1-GWC-2	12/14/2022 10:45:00AM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/16/2022 11:45:00AM	12/16/2022
2212H65-015A	GWA-1A	12/14/2022 12:35:00PM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/15/2022 7:32:00AM	12/16/2022
2212H65-015B	GWA-1A	12/14/2022 12:35:00PM	Groundwater	APPENDIX I METALS		12/19/2022 8:51:00AM	12/19/2022
2212H65-016A	GWC-4A	12/14/2022 2:25:00PM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/15/2022 7:32:00AM	12/16/2022
2212H65-017A	AMW-14	12/14/2022 10:00:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/15/2022 7:32:00AM	12/16/2022
2212H65-018A	AMW-5	12/14/2022 11:05:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/15/2022 7:32:00AM	12/16/2022
2212H65-019A	GWC-18	12/14/2022 12:15:00PM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/15/2022 7:32:00AM	12/16/2022
2212H65-019B	GWC-18	12/14/2022 12:15:00PM	Groundwater	ION SCAN			12/16/2022
2212H65-019B	GWC-18	12/14/2022 12:15:00PM	Groundwater	Alkalinity by SM2320B			12/19/2022
2212H65-019B	GWC-18	12/14/2022 12:15:00PM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/16/2022 11:45:00AM	12/16/2022
2212H65-020A	AMW-4	12/14/2022 1:40:00PM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/17/2022 1:45:00PM	12/17/2022
2212H65-021A	SWC-4	12/14/2022 2:10:00PM	Surface Water	APPENDIX I VOLATILE ORGANICS		12/17/2022 1:39:00PM	12/17/2022
2212H65-021B	SWC-4	12/14/2022 2:10:00PM	Surface Water	TOTAL METALS BY ICP		12/19/2022 8:15:00AM	12/19/2022
2212H65-021B	SWC-4	12/14/2022 2:10:00PM	Surface Water	TOTAL MERCURY		12/19/2022 1:23:00PM	12/19/2022
2212H65-021C	SWC-4	12/14/2022 2:10:00PM	Surface Water	Inorganic Anions by IC			12/22/2022
2212H65-021D	SWC-4	12/14/2022 2:10:00PM	Surface Water	Total Cyanide		12/19/2022 1:09:00PM	12/19/2022
2212H65-021E	SWC-4	12/14/2022 2:10:00PM	Surface Water	Chemical Oxygen Demand (COD)			12/14/2022
2212H65-021F	SWC-4	12/14/2022 2:10:00PM	Surface Water	Total Organic Carbon by SM5310B			12/20/2022
2212H65-022A	GWC-10	12/14/2022 11:25:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 6:41:00PM	12/16/2022
2212H65-023A	GWC-10A	12/14/2022 12:00:00PM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 6:41:00PM	12/16/2022
2212H65-024A	GWC-9	12/14/2022 12:30:00PM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 6:41:00PM	12/16/2022
2212H65-025A	PH1-GWA-1	12/14/2022 1:25:00PM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 6:41:00PM	12/16/2022
2212H65-025B	PH1-GWA-1	12/14/2022 1:25:00PM	Groundwater	ION SCAN			12/16/2022
2212H65-025B	PH1-GWA-1	12/14/2022 1:25:00PM	Groundwater	Alkalinity by SM2320B			12/19/2022
2212H65-025B	PH1-GWA-1	12/14/2022 1:25:00PM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/16/2022 11:45:00AM	12/16/2022
2212H65-026A	PH1-GWC-1	12/14/2022 2:25:00PM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 6:41:00PM	12/16/2022

Client: Atlantic Coast Consulting, Inc.  
 Project Name: Forsyth County-Hightower Road MSWLF  
 Lab Order: 2212H65

**Dates Report**

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
2212H65-027A	AMW-12	12/14/2022 9:35:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 6:41:00PM	12/16/2022
2212H65-027B	AMW-12	12/14/2022 9:35:00AM	Groundwater	ION SCAN			12/19/2022
2212H65-027B	AMW-12	12/14/2022 9:35:00AM	Groundwater	Alkalinity by SM2320B			12/20/2022
2212H65-027C	AMW-12	12/14/2022 9:35:00AM	Groundwater	Total Metals by ICP/MS		12/19/2022 8:51:00AM	12/19/2022
2212H65-028A	AMW-12R	12/14/2022 10:15:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/16/2022 6:41:00PM	12/16/2022
2212H65-028B	AMW-12R	12/14/2022 10:15:00AM	Groundwater	ION SCAN			12/19/2022
2212H65-028B	AMW-12R	12/14/2022 10:15:00AM	Groundwater	Alkalinity by SM2320B			12/20/2022
2212H65-028C	AMW-12R	12/14/2022 10:15:00AM	Groundwater	Total Metals by ICP/MS		12/19/2022 8:51:00AM	12/19/2022
2212H65-029A	STREAM	12/14/2022 10:40:00AM	Surface Water	Alkalinity by SM2320B			12/20/2022
2212H65-029B	STREAM	12/14/2022 10:40:00AM	Surface Water	ION SCAN			12/19/2022

### Sample pH Adjustment Sheet

AES Sample ID	Sample Volume (mL)	Test(s) Requested	Department	pH Required	pH as Rec.	Preservative Required	Preservative Lot#	Amount Added		pH after Add.	Initials	Date	Time (Military)
								mL of Acid	NaOH Pellets				
2212H65 -0827C	250	6020	Metals	1	6	HNO3	MEI-1023-9	0.5		1	CH	12/15/22	2pm
Notes:													
2212H65 -0828C	250	6020	Metals	1	6	HNO3	MEI-1023-9	0.5		1	CH	12/15/22	2pm
Notes:													
Notes:													
Notes:													
Notes:													
Notes:													

### Sample pH Adjustment Sheet

AES Sample ID	Sample Volume (mL)	Test(s) Requested	Department	pH Required	pH as Rec.	Preservative Required	Preservative Lot#	Amount Added		pH after Add.	Initials	Date	Time (Military)
								mL of Acid	NaOH Pellets				
2212H65-017B	250	9056, Alkalinity, TDS	IC/WC		6		MET-1023-9	.5		1	CH	12/15/02	2PM
Notes:													
2212H65-018B	250	9056, Alkalinity, TDS	IC/WC		6		MET-1023-9	.5		1	CH	12/15/02	2PM
Notes:													
2212H65-020B	250	9056, Alkalinity, TDS	IC/WC		6		MET-1023-9	.5		1	CH	12/15/02	2PM
Notes:													
Notes:													
Notes:													
Notes:													

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348021**

Sample ID: <b>MB-348021</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504033</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Residue, Dissolved (TDS) by SM2540C</b>	BatchID: <b>348021</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11824708</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS)      BRL                      10

Sample ID: <b>LCS-348021</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504033</b>							
SampleType: <b>LCS</b>	TestCode: <b>Residue, Dissolved (TDS) by SM2540C</b>	BatchID: <b>348021</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11824711</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS)      2916                      40                      3000                      97.2                      78.33                      117.67

Sample ID: <b>2212H47-001EDUP</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504033</b>							
SampleType: <b>DUP</b>	TestCode: <b>Residue, Dissolved (TDS) by SM2540C</b>	BatchID: <b>348021</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11824714</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS)      321.0                      10                      318.0                      0.939                      10

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348062**

Sample ID: <b>MB-348062</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>503945</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348062</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11818927</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0									
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,3-Trichloropropane	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Acrylonitrile	BRL	5.0									
Benzene	BRL	5.0									
Bromochloromethane	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348062**

Sample ID: <b>MB-348062</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>503945</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348062</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11818927</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dibromomethane	BRL	5.0									
Ethylbenzene	BRL	5.0									
Iodomethane	BRL	10									
Methylene chloride	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
trans-1,4-Dichloro-2-butene	BRL	10									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl acetate	BRL	10									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	10									
Surr: 4-Bromofluorobenzene	46.80	0	50.00		93.6	75	118				
Surr: Dibromofluoromethane	51.06	0	50.00		102	82.5	121				
Surr: Toluene-d8	48.31	0	50.00		96.6	78.3	118				

Sample ID: <b>LCS-348062</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>504333</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348062</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11828917</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348062**

Sample ID: <b>LCS-348062</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>504333</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348062</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11828917</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	18.95	5.0	20.00		94.8	71	130				
Benzene	19.57	5.0	20.00		97.8	80.4	126				
Chlorobenzene	19.97	5.0	20.00		99.8	81	120				
Toluene	19.70	5.0	20.00		98.5	79.2	124				
Trichloroethene	19.72	5.0	20.00		98.6	78.4	125				
Surr: 4-Bromofluorobenzene	49.61	0	50.00		99.2	75	118				
Surr: Dibromofluoromethane	49.95	0	50.00		99.9	82.5	121				
Surr: Toluene-d8	50.87	0	50.00		102	78.3	118				

Sample ID: <b>2212H65-015AMS</b>	Client ID: <b>GWA-1A</b>	Units: <b>ug/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>503945</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348062</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11827444</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	62.50	5.0	50.00		125	67.6	143				
Benzene	54.10	5.0	50.00		108	70.5	136				
Chlorobenzene	51.70	5.0	50.00		103	77.1	133				
Toluene	52.48	5.0	50.00		105	66.4	140				
Trichloroethene	54.25	5.0	50.00		108	75.1	140				
Surr: 4-Bromofluorobenzene	49.94	0	50.00		99.9	75	118				
Surr: Dibromofluoromethane	53.30	0	50.00		107	82.5	121				
Surr: Toluene-d8	51.48	0	50.00		103	78.3	118				

Sample ID: <b>2212H65-016ADUP</b>	Client ID: <b>GWC-4A</b>	Units: <b>ug/L</b>	Prep Date: <b>12/15/2022</b>	Run No: <b>503945</b>							
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348062</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11827438</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,1-Trichloroethane	BRL	5.0						0	0	20	

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348062**

Sample ID: **2212H65-016ADUP** Client ID: **GWC-4A** Units: **ug/L** Prep Date: **12/15/2022** Run No: **503945**  
 SampleType: **DUP** TestCode: **APPENDIX I VOLATILE ORGANICS SW8260D** BatchID: **348062** Analysis Date: **12/17/2022** Seq No: **11827438**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,2,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,2-Trichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethene	BRL	5.0						0	0	20	
1,2,3-Trichloropropane	BRL	5.0						0	0	20	
1,2-Dibromo-3-chloropropane	BRL	5.0						0	0	20	
1,2-Dibromoethane	BRL	5.0						0	0	20	
1,2-Dichlorobenzene	BRL	5.0						0	0	20	
1,2-Dichloroethane	BRL	5.0						0	0	20	
1,2-Dichloropropane	BRL	5.0						0	0	20	
1,4-Dichlorobenzene	BRL	5.0						0	0	20	
2-Butanone	BRL	50						0	0	20	
2-Hexanone	BRL	10						0	0	20	
4-Methyl-2-pentanone	BRL	10						0	0	20	
Acetone	BRL	50						0	0	20	
Acrylonitrile	BRL	5.0						0	0	20	
Benzene	BRL	5.0						0	0	20	
Bromochloromethane	BRL	5.0						0	0	20	
Bromodichloromethane	BRL	5.0						0	0	20	
Bromoform	BRL	5.0						0	0	20	
Bromomethane	BRL	5.0						0	0	20	
Carbon disulfide	BRL	5.0						0	0	20	
Carbon tetrachloride	BRL	5.0						0	0	20	
Chlorobenzene	BRL	5.0						0	0	20	
Chloroethane	BRL	10						0	0	20	
Chloroform	BRL	5.0						0	0	20	
Chloromethane	BRL	10						0	0	20	

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348062**

Sample ID: **2212H65-016ADUP** Client ID: **GWC-4A** Units: **ug/L** Prep Date: **12/15/2022** Run No: **503945**  
 SampleType: **DUP** TestCode: **APPENDIX I VOLATILE ORGANICS SW8260D** BatchID: **348062** Analysis Date: **12/17/2022** Seq No: **11827438**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0						0	0	20	
cis-1,3-Dichloropropene	BRL	5.0						0	0	20	
Dibromochloromethane	BRL	5.0						0	0	20	
Dibromomethane	BRL	5.0						0	0	20	
Ethylbenzene	BRL	5.0						0	0	20	
Iodomethane	BRL	10						0	0	20	
Methylene chloride	BRL	5.0						0	0	20	
Styrene	BRL	5.0						0	0	20	
Tetrachloroethene	BRL	5.0						0	0	20	
Toluene	BRL	5.0						0	0	20	
trans-1,2-Dichloroethene	BRL	5.0						0	0	20	
trans-1,3-Dichloropropene	BRL	5.0						0	0	20	
trans-1,4-Dichloro-2-butene	BRL	10						0	0	20	
Trichloroethene	BRL	5.0						0	0	20	
Trichlorofluoromethane	BRL	5.0						0	0	20	
Vinyl acetate	BRL	10						0	0	20	
Vinyl chloride	BRL	2.0						0	0	20	
Xylenes, Total	BRL	10						0	0	20	
Surr: 4-Bromofluorobenzene	45.02	0	50.00		90.0	75	118	44.73	0	0	
Surr: Dibromofluoromethane	52.93	0	50.00		106	82.5	121	51.90	0	0	
Surr: Toluene-d8	49.66	0	50.00		99.3	78.3	118	49.13	0	0	

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348098**

Sample ID: <b>MB-348098</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504203</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348098</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827294</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	BRL	0.00600									
Arsenic	BRL	0.0100									
Barium	BRL	0.0200									
Beryllium	BRL	0.00400									
Cadmium	BRL	0.00500									
Chromium	BRL	0.0200									
Cobalt	BRL	0.0500									
Copper	BRL	0.0200									
Lead	BRL	0.0100									
Nickel	BRL	0.0400									
Selenium	BRL	0.0500									
Silver	BRL	0.00500									
Thallium	BRL	0.00200									
Vanadium	BRL	0.0500									
Zinc	BRL	0.0200									

Sample ID: <b>MB-348098</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504204</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Total Metals by ICP/MS SW6020B</b>	BatchID: <b>348098</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827341</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Manganese	BRL	0.00500									
Potassium	BRL	0.100									

Sample ID: <b>LCS-348098</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504203</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348098</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827295</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1125	0.00600	0.1000		112	80	120				
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**Qualifiers:**

> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348098**

Sample ID: <b>LCS-348098</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504203</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348098</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827295</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	0.1046	0.0100	0.1000		105	80	120				
Barium	0.1103	0.0200	0.1000		110	80	120				
Beryllium	0.1027	0.00400	0.1000		103	80	120				
Cadmium	0.1044	0.00500	0.1000		104	80	120				
Chromium	0.1068	0.0200	0.1000		107	80	120				
Cobalt	0.1070	0.0500	0.1000		107	80	120				
Copper	0.1073	0.0200	0.1000		107	80	120				
Lead	0.1073	0.0100	0.1000		107	80	120				
Nickel	0.1064	0.0400	0.1000		106	80	120				
Selenium	0.09883	0.0500	0.1000		98.8	80	120				
Silver	0.01072	0.00500	0.0100		107	80	120				
Thallium	0.1058	0.00200	0.1000		106	80	120				
Vanadium	0.1064	0.0500	0.1000		106	80	120				
Zinc	0.1050	0.0200	0.1000		105	80	120				

Sample ID: <b>LCS-348098</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504204</b>							
SampleType: <b>LCS</b>	TestCode: <b>Total Metals by ICP/MS SW6020B</b>	BatchID: <b>348098</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827342</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Manganese	0.1038	0.00500	0.1000		104	80	120				
Potassium	0.9887	0.100	1.000		98.9	80	120				

Sample ID: <b>2212H65-011AMS</b>	Client ID: <b>GWC-8A</b>	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504203</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348098</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827297</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1113	0.00600	0.1000		111	75	125				
Arsenic	0.1051	0.0100	0.1000	0.001836	103	75	125				

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348098**

Sample ID: <b>2212H65-011AMS</b>	Client ID: <b>GWC-8A</b>	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504203</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348098</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827297</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Barium	0.1667	0.0200	0.1000	0.05268	114	75	125				
Beryllium	0.1001	0.00400	0.1000		100	75	125				
Cadmium	0.09991	0.00500	0.1000		99.9	75	125				
Chromium	0.1070	0.0200	0.1000		107	75	125				
Cobalt	0.1344	0.0500	0.1000	0.02510	109	75	125				
Copper	0.1108	0.0200	0.1000		111	75	125				
Lead	0.1100	0.0100	0.1000		110	75	125				
Nickel	0.1155	0.0400	0.1000	0.009361	106	75	125				
Selenium	0.1004	0.0500	0.1000		100	75	125				
Silver	0.01099	0.00500	0.0100		110	75	125				
Thallium	0.1084	0.00200	0.1000		108	75	125				
Vanadium	0.1081	0.0500	0.1000		108	75	125				
Zinc	0.1128	0.0200	0.1000	0.006056	107	75	125				

Sample ID: <b>2212H65-011AMS</b>	Client ID: <b>GWC-8A</b>	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504204</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Metals by ICP/MS SW6020B</b>	BatchID: <b>348098</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827344</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Manganese	0.6197	0.00500	0.1000	0.5001	120	75	125				
Potassium	3.495	0.100	1.000	2.451	104	75	125				

Sample ID: <b>2212H65-011AMSD</b>	Client ID: <b>GWC-8A</b>	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504203</b>							
SampleType: <b>MSD</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348098</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827298</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1099	0.00600	0.1000		110	75	125	0.1113	1.29	20	
Arsenic	0.1042	0.0100	0.1000	0.001836	102	75	125	0.1051	0.801	20	
Barium	0.1611	0.0200	0.1000	0.05268	108	75	125	0.1667	3.41	20	

**Qualifiers:** > Greater than Result value      < Less than Result value      B Analyte detected in the associated method blank  
 BRL Below reporting limit      E Estimated (value above quantitation range)      H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit      N Analyte not NELAC certified      R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit      S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348098**

Sample ID: <b>2212H65-011AMSD</b>	Client ID: <b>GWC-8A</b>	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504203</b>							
SampleType: <b>MSD</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348098</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827298</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Beryllium	0.1023	0.00400	0.1000		102	75	125	0.1001	2.15	20	
Cadmium	0.1038	0.00500	0.1000		104	75	125	0.09991	3.86	20	
Chromium	0.1062	0.0200	0.1000		106	75	125	0.1070	0.719	20	
Cobalt	0.1317	0.0500	0.1000	0.02510	107	75	125	0.1344	2.04	20	
Copper	0.1086	0.0200	0.1000		109	75	125	0.1108	2.02	20	
Lead	0.1078	0.0100	0.1000		108	75	125	0.1100	1.99	20	
Nickel	0.1137	0.0400	0.1000	0.009361	104	75	125	0.1155	1.57	20	
Selenium	0.1002	0.0500	0.1000		100	75	125	0.1004	0.196	20	
Silver	0.01093	0.00500	0.0100		109	75	125	0.01099	0.633	20	
Thallium	0.1062	0.00200	0.1000		106	75	125	0.1084	2.04	20	
Vanadium	0.1062	0.0500	0.1000		106	75	125	0.1081	1.80	20	
Zinc	0.1090	0.0200	0.1000	0.006056	103	75	125	0.1128	3.42	20	

Sample ID: <b>2212H65-011AMSD</b>	Client ID: <b>GWC-8A</b>	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504204</b>							
SampleType: <b>MSD</b>	TestCode: <b>Total Metals by ICP/MS SW6020B</b>	BatchID: <b>348098</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827345</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Manganese	0.6033	0.00500	0.1000	0.5001	103	75	125	0.6197	2.68	20	
Potassium	3.469	0.100	1.000	2.451	102	75	125	3.495	0.729	20	

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348100**

Sample ID: <b>MB-348100</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504181</b>							
SampleType: <b>MBLK</b>	TestCode: <b>METALS, TOTAL SW6010D</b>	BatchID: <b>348100</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11829042</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	BRL	0.0500									
Barium	BRL	0.0200									
Cadmium	BRL	0.0050									
Chromium	BRL	0.0100									
Lead	BRL	0.0100									
Nickel	BRL	0.0200									
Selenium	BRL	0.0200									
Silver	BRL	0.0100									
Zinc	BRL	0.0200									

Sample ID: <b>LCS-348100</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504181</b>							
SampleType: <b>LCS</b>	TestCode: <b>METALS, TOTAL SW6010D</b>	BatchID: <b>348100</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11829043</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	1.006	0.0500	1.000		101	80	120				
Barium	1.034	0.0200	1.000		103	80	120				
Cadmium	1.013	0.0050	1.000		101	80	120				
Chromium	1.030	0.0100	1.000		103	80	120				
Lead	1.022	0.0100	1.000		102	80	120				
Nickel	1.029	0.0200	1.000		103	80	120				
Selenium	0.9657	0.0200	1.000		96.6	80	120				
Silver	0.1011	0.0100	0.1000		101	80	120				
Zinc	0.9938	0.0200	1.000		99.4	80	120				

Sample ID: <b>2212F06-001BMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504181</b>							
SampleType: <b>MS</b>	TestCode: <b>METALS, TOTAL SW6010D</b>	BatchID: <b>348100</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11829048</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348100**

Sample ID: <b>2212F06-001BMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504181</b>							
SampleType: <b>MS</b>	TestCode: <b>METALS, TOTAL SW6010D</b>	BatchID: <b>348100</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11829048</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	0.9757	0.0500	1.000		97.6	75	125				
Barium	1.031	0.0200	1.000	0.01212	102	75	125				
Cadmium	1.004	0.0050	1.000		100	75	125				
Chromium	1.015	0.0100	1.000		101	75	125				
Lead	1.001	0.0100	1.000		100	75	125				
Nickel	1.081	0.0200	1.000	0.07107	101	75	125				
Selenium	0.9508	0.0200	1.000	0.01900	93.2	75	125				
Silver	0.09956	0.0100	0.1000		99.6	75	125				
Zinc	1.892	0.0200	1.000	0.9470	94.5	75	125				

Sample ID: <b>2212F06-001BMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504181</b>							
SampleType: <b>MSD</b>	TestCode: <b>METALS, TOTAL SW6010D</b>	BatchID: <b>348100</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11829049</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	0.9817	0.0500	1.000		98.2	75	125	0.9757	0.606	20	
Barium	1.029	0.0200	1.000	0.01212	102	75	125	1.031	0.173	20	
Cadmium	1.001	0.0050	1.000		100	75	125	1.004	0.289	20	
Chromium	1.014	0.0100	1.000		101	75	125	1.015	0.085	20	
Lead	1.003	0.0100	1.000		100	75	125	1.001	0.184	20	
Nickel	1.079	0.0200	1.000	0.07107	101	75	125	1.081	0.161	20	
Selenium	0.9546	0.0200	1.000	0.01900	93.6	75	125	0.9508	0.406	20	
Silver	0.09917	0.0100	0.1000		99.2	75	125	0.09956	0.392	20	
Zinc	1.877	0.0200	1.000	0.9470	93.0	75	125	1.892	0.799	20	

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL	Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348178**

Sample ID: <b>MB-348178</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504168</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348178</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11823866</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0									
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,3-Trichloropropane	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Acrylonitrile	BRL	5.0									
Benzene	BRL	5.0									
Bromochloromethane	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348178**

Sample ID: <b>MB-348178</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504168</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348178</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11823866</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dibromomethane	BRL	5.0									
Ethylbenzene	BRL	5.0									
Iodomethane	BRL	10									
Methylene chloride	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
trans-1,4-Dichloro-2-butene	BRL	10									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl acetate	BRL	10									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	10									
Surr: 4-Bromofluorobenzene	48.96	0	50.00		97.9	75	118				
Surr: Dibromofluoromethane	48.41	0	50.00		96.8	82.5	121				
Surr: Toluene-d8	49.77	0	50.00		99.5	78.3	118				

Sample ID: <b>LCS-348178</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504168</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348178</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11823915</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348178**

Sample ID: <b>LCS-348178</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504168</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348178</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11823915</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	18.01	5.0	20.00		90.0	71	130				
Benzene	17.86	5.0	20.00		89.3	80.4	126				
Chlorobenzene	18.50	5.0	20.00		92.5	81	120				
Toluene	17.76	5.0	20.00		88.8	79.2	124				
Trichloroethene	19.21	5.0	20.00		96.0	78.4	125				
Surr: 4-Bromofluorobenzene	50.71	0	50.00		101	75	118				
Surr: Dibromofluoromethane	51.56	0	50.00		103	82.5	121				
Surr: Toluene-d8	49.74	0	50.00		99.5	78.3	118				

Sample ID: <b>2212H21-002AMS</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504168</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348178</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11824576</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	52.14	5.0	50.00		104	67.6	143				
Benzene	50.94	5.0	50.00		102	70.5	136				
Chlorobenzene	49.42	5.0	50.00		98.8	77.1	133				
Toluene	50.76	5.0	50.00		102	66.4	140				
Trichloroethene	52.92	5.0	50.00		106	75.1	140				
Surr: 4-Bromofluorobenzene	50.41	0	50.00		101	75	118				
Surr: Dibromofluoromethane	50.95	0	50.00		102	82.5	121				
Surr: Toluene-d8	50.81	0	50.00		102	78.3	118				

Sample ID: <b>2212H21-001ADUP</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504168</b>							
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348178</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11824575</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,1-Trichloroethane	BRL	5.0						0	0	20	

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348178**

Sample ID: <b>2212H21-001ADUP</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504168</b>							
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348178</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11824575</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,2,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,2-Trichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethene	BRL	5.0						0	0	20	
1,2,3-Trichloropropane	BRL	5.0						0	0	20	
1,2-Dibromo-3-chloropropane	BRL	5.0						0	0	20	
1,2-Dibromoethane	BRL	5.0						0	0	20	
1,2-Dichlorobenzene	BRL	5.0						0	0	20	
1,2-Dichloroethane	BRL	5.0						0	0	20	
1,2-Dichloropropane	BRL	5.0						0	0	20	
1,4-Dichlorobenzene	BRL	5.0						0	0	20	
2-Butanone	BRL	50						0	0	20	
2-Hexanone	BRL	10						0	0	20	
4-Methyl-2-pentanone	BRL	10						0	0	20	
Acetone	BRL	50						0	0	20	
Acrylonitrile	BRL	5.0						0	0	20	
Benzene	BRL	5.0						0	0	20	
Bromochloromethane	BRL	5.0						0	0	20	
Bromodichloromethane	BRL	5.0						0	0	20	
Bromoform	BRL	5.0						0	0	20	
Bromomethane	BRL	5.0						0	0	20	
Carbon disulfide	BRL	5.0						0	0	20	
Carbon tetrachloride	BRL	5.0						0	0	20	
Chlorobenzene	BRL	5.0						0	0	20	
Chloroethane	BRL	10						0	0	20	
Chloroform	BRL	5.0						0	0	20	
Chloromethane	BRL	10						0	0	20	

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348178**

Sample ID: <b>2212H21-001ADUP</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504168</b>							
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348178</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11824575</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

cis-1,2-Dichloroethene	BRL	5.0						0	0	20	
cis-1,3-Dichloropropene	BRL	5.0						0	0	20	
Dibromochloromethane	BRL	5.0						0	0	20	
Dibromomethane	BRL	5.0						0	0	20	
Ethylbenzene	BRL	5.0						0	0	20	
Iodomethane	BRL	10						0	0	20	
Methylene chloride	BRL	5.0						0	0	20	
Styrene	BRL	5.0						0	0	20	
Tetrachloroethene	BRL	5.0						0	0	20	
Toluene	BRL	5.0						0	0	20	
trans-1,2-Dichloroethene	BRL	5.0						0	0	20	
trans-1,3-Dichloropropene	BRL	5.0						0	0	20	
trans-1,4-Dichloro-2-butene	BRL	10						0	0	20	
Trichloroethene	BRL	5.0						0	0	20	
Trichlorofluoromethane	BRL	5.0						0	0	20	
Vinyl acetate	BRL	10						0	0	20	
Vinyl chloride	BRL	2.0						0	0	20	
Xylenes, Total	BRL	10						0	0	20	
Surr: 4-Bromofluorobenzene	48.99	0	50.00		98.0	75	118	48.51	0	0	
Surr: Dibromofluoromethane	49.65	0	50.00		99.3	82.5	121	49.32	0	0	
Surr: Toluene-d8	50.39	0	50.00		101	78.3	118	49.17	0	0	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348182**

Sample ID: <b>MB-348182</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504266</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348182</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11826253</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      BRL                      0.010

Sample ID: <b>LCS-348182</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504266</b>							
SampleType: <b>LCS</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348182</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11826254</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      0.1000                      0.010                      0.1000                      100                      85                      115

Sample ID: <b>2212F17-004FMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504266</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348182</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11826256</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      0.09900                      0.010                      0.1000                      99.0                      90                      110

Sample ID: <b>2212H25-002CMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504266</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348182</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11826259</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      0.09200                      0.010                      0.1000                      92.0                      90                      110

Sample ID: <b>2212F17-004FMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504266</b>							
SampleType: <b>MSD</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348182</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11826257</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      0.1000                      0.010                      0.1000                      100                      90                      110                      0.09900                      1.01                      20

**Qualifiers:**    >    Greater than Result value                      <    Less than Result value                      B    Analyte detected in the associated method blank  
                     BRL    Below reporting limit                      E    Estimated (value above quantitation range)                      H    Holding times for preparation or analysis exceeded  
                     J    Estimated value detected below Reporting Limit                      N    Analyte not NELAC certified                      R    RPD outside limits due to matrix  
                     Rpt Lim    Reporting Limit                      S    Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348185**

Sample ID: <b>MB-348185</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504228</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Mercury, Total SW7470A</b>	BatchID: <b>348185</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11826999</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury BRL 0.00020

Sample ID: <b>LCS-348185</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504228</b>							
SampleType: <b>LCS</b>	TestCode: <b>Mercury, Total SW7470A</b>	BatchID: <b>348185</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827000</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.004082 0.00020 0.0040 102 80 120

Sample ID: <b>2212H65-021BMS</b>	Client ID: <b>SWC-4</b>	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504228</b>							
SampleType: <b>MS</b>	TestCode: <b>Mercury, Total SW7470A</b>	BatchID: <b>348185</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827005</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005960 0.00020 0.0040 149 75 125 S

Sample ID: <b>2212H65-021BMSD</b>	Client ID: <b>SWC-4</b>	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504228</b>							
SampleType: <b>MSD</b>	TestCode: <b>Mercury, Total SW7470A</b>	BatchID: <b>348185</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827006</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.004691 0.00020 0.0040 117 75 125 0.005960 23.8 20 R

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348187**

Sample ID: <b>MB-348187</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504195</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348187</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11824381</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0									
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,3-Trichloropropane	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Acrylonitrile	BRL	5.0									
Benzene	BRL	5.0									
Bromochloromethane	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348187**

Sample ID: <b>MB-348187</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504195</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348187</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11824381</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dibromomethane	BRL	5.0									
Ethylbenzene	BRL	5.0									
Iodomethane	BRL	10									
Methylene chloride	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
trans-1,4-Dichloro-2-butene	BRL	10									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl acetate	BRL	10									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	10									
Surr: 4-Bromofluorobenzene	49.17	0	50.00		98.3	75	118				
Surr: Dibromofluoromethane	48.99	0	50.00		98.0	82.5	121				
Surr: Toluene-d8	49.59	0	50.00		99.2	78.3	118				

Sample ID: <b>LCS-348187</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504195</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348187</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11824382</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348187**

Sample ID: <b>LCS-348187</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504195</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348187</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11824382</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	49.65	5.0	50.00		99.3	71	130				
Benzene	48.01	5.0	50.00		96.0	80.4	126				
Chlorobenzene	48.20	5.0	50.00		96.4	81	120				
Toluene	47.23	5.0	50.00		94.5	79.2	124				
Trichloroethene	49.20	5.0	50.00		98.4	78.4	125				
Surr: 4-Bromofluorobenzene	50.28	0	50.00		101	75	118				
Surr: Dibromofluoromethane	50.22	0	50.00		100	82.5	121				
Surr: Toluene-d8	50.60	0	50.00		101	78.3	118				

Sample ID: <b>2212H22-001AMS</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504195</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348187</b>	Analysis Date: <b>12/18/2022</b>	Seq No: <b>11824461</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	51.65	5.0	50.00		103	67.6	143				
Benzene	51.99	5.0	50.00	0.4800	103	70.5	136				
Chlorobenzene	52.50	5.0	50.00	2.790	99.4	77.1	133				
Toluene	51.29	5.0	50.00		103	66.4	140				
Trichloroethene	53.53	5.0	50.00		107	75.1	140				
Surr: 4-Bromofluorobenzene	50.09	0	50.00		100	75	118				
Surr: Dibromofluoromethane	50.50	0	50.00		101	82.5	121				
Surr: Toluene-d8	51.35	0	50.00		103	78.3	118				

Sample ID: <b>2212H22-003ADUP</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504195</b>							
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348187</b>	Analysis Date: <b>12/18/2022</b>	Seq No: <b>11824460</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,1-Trichloroethane	BRL	5.0						0	0	20	

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348187**

Sample ID: <b>2212H22-003ADUP</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504195</b>
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348187</b>	Analysis Date: <b>12/18/2022</b>	Seq No: <b>11824460</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,2,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,2-Trichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethene	BRL	5.0						0	0	20	
1,2,3-Trichloropropane	BRL	5.0						0	0	20	
1,2-Dibromo-3-chloropropane	BRL	5.0						0	0	20	
1,2-Dibromoethane	BRL	5.0						0	0	20	
1,2-Dichlorobenzene	BRL	5.0						0	0	20	
1,2-Dichloroethane	BRL	5.0						0	0	20	
1,2-Dichloropropane	BRL	5.0						0	0	20	
1,4-Dichlorobenzene	BRL	5.0						0	0	20	
2-Butanone	BRL	50						0	0	20	
2-Hexanone	BRL	10						0	0	20	
4-Methyl-2-pentanone	BRL	10						0	0	20	
Acetone	BRL	50						0	0	20	
Acrylonitrile	BRL	5.0						0	0	20	
Benzene	BRL	5.0						0	0	20	
Bromochloromethane	BRL	5.0						0	0	20	
Bromodichloromethane	BRL	5.0						0	0	20	
Bromoform	BRL	5.0						0	0	20	
Bromomethane	BRL	5.0						0	0	20	
Carbon disulfide	BRL	5.0						0	0	20	
Carbon tetrachloride	BRL	5.0						0	0	20	
Chlorobenzene	BRL	5.0						0	0	20	
Chloroethane	BRL	10						0	0	20	
Chloroform	BRL	5.0						0	0	20	
Chloromethane	BRL	10						0	0	20	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348187**

Sample ID: <b>2212H22-003ADUP</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504195</b>							
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348187</b>	Analysis Date: <b>12/18/2022</b>	Seq No: <b>11824460</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

cis-1,2-Dichloroethene	BRL	5.0						0	0	20	
cis-1,3-Dichloropropene	BRL	5.0						0	0	20	
Dibromochloromethane	BRL	5.0						0	0	20	
Dibromomethane	BRL	5.0						0	0	20	
Ethylbenzene	BRL	5.0						0	0	20	
Iodomethane	BRL	10						0	0	20	
Methylene chloride	BRL	5.0						0	0	20	
Styrene	BRL	5.0						0	0	20	
Tetrachloroethene	BRL	5.0						0	0	20	
Toluene	BRL	5.0						0	0	20	
trans-1,2-Dichloroethene	BRL	5.0						0	0	20	
trans-1,3-Dichloropropene	BRL	5.0						0	0	20	
trans-1,4-Dichloro-2-butene	BRL	10						0	0	20	
Trichloroethene	BRL	5.0						0	0	20	
Trichlorofluoromethane	BRL	5.0						0	0	20	
Vinyl acetate	BRL	10						0	0	20	
Vinyl chloride	BRL	2.0						0	0	20	
Xylenes, Total	BRL	10						0	0	20	
Surr: 4-Bromofluorobenzene	49.14	0	50.00		98.3	75	118	48.69	0	0	
Surr: Dibromofluoromethane	49.83	0	50.00		99.7	82.5	121	50.01	0	0	
Surr: Toluene-d8	50.43	0	50.00		101	78.3	118	50.15	0	0	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348214**

Sample ID: <b>MB-348214</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504269</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348214</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11826333</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0									
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,3-Trichloropropane	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Acrylonitrile	BRL	5.0									
Benzene	BRL	5.0									
Bromochloromethane	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348214**

Sample ID: <b>MB-348214</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504269</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348214</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11826333</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dibromomethane	BRL	5.0									
Ethylbenzene	BRL	5.0									
Iodomethane	BRL	10									
Methylene chloride	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
trans-1,4-Dichloro-2-butene	BRL	10									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl acetate	BRL	10									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	10									
Surr: 4-Bromofluorobenzene	48.25	0	50.00		96.5	75	118				
Surr: Dibromofluoromethane	48.52	0	50.00		97.0	82.5	121				
Surr: Toluene-d8	49.02	0	50.00		98.0	78.3	118				

Sample ID: <b>LCS-348214</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504269</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348214</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11826332</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348214**

Sample ID: <b>LCS-348214</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504269</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348214</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11826332</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	49.90	5.0	50.00		99.8	71	130				
Benzene	49.19	5.0	50.00		98.4	80.4	126				
Chlorobenzene	50.30	5.0	50.00		101	81	120				
Toluene	53.00	5.0	50.00		106	79.2	124				
Trichloroethene	51.94	5.0	50.00		104	78.4	125				
Surr: 4-Bromofluorobenzene	50.10	0	50.00		100	75	118				
Surr: Dibromofluoromethane	49.17	0	50.00		98.3	82.5	121				
Surr: Toluene-d8	51.58	0	50.00		103	78.3	118				

Sample ID: <b>2212H65-002AMS</b>	Client ID: <b>AMW-2</b>	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504269</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348214</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827518</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	53.81	5.0	50.00		108	67.6	143				
Benzene	49.13	5.0	50.00		98.3	70.5	136				
Chlorobenzene	51.66	5.0	50.00		103	77.1	133				
Toluene	54.42	5.0	50.00		109	66.4	140				
Trichloroethene	54.49	5.0	50.00		109	75.1	140				
Surr: 4-Bromofluorobenzene	51.82	0	50.00		104	75	118				
Surr: Dibromofluoromethane	50.42	0	50.00		101	82.5	121				
Surr: Toluene-d8	51.33	0	50.00		103	78.3	118				

Sample ID: <b>2212H65-001ADUP</b>	Client ID: <b>GWC-6</b>	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504269</b>							
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348214</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827517</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,1-Trichloroethane	BRL	5.0						0	0	20	

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348214**

Sample ID: <b>2212H65-001ADUP</b>	Client ID: <b>GWC-6</b>	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504269</b>
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348214</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827517</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,2,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,2-Trichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethene	BRL	5.0						0	0	20	
1,2,3-Trichloropropane	BRL	5.0						0	0	20	
1,2-Dibromo-3-chloropropane	BRL	5.0						0	0	20	
1,2-Dibromoethane	BRL	5.0						0	0	20	
1,2-Dichlorobenzene	BRL	5.0						0	0	20	
1,2-Dichloroethane	BRL	5.0						0	0	20	
1,2-Dichloropropane	BRL	5.0						0	0	20	
1,4-Dichlorobenzene	BRL	5.0						0	0	20	
2-Butanone	BRL	50						0	0	20	
2-Hexanone	BRL	10						0	0	20	
4-Methyl-2-pentanone	BRL	10						0	0	20	
Acetone	BRL	50						0	0	20	
Acrylonitrile	BRL	5.0						0	0	20	
Benzene	BRL	5.0						0	0	20	
Bromochloromethane	BRL	5.0						0	0	20	
Bromodichloromethane	BRL	5.0						0	0	20	
Bromoform	BRL	5.0						0	0	20	
Bromomethane	BRL	5.0						0	0	20	
Carbon disulfide	BRL	5.0						0	0	20	
Carbon tetrachloride	BRL	5.0						0	0	20	
Chlorobenzene	BRL	5.0						0	0	20	
Chloroethane	BRL	10						0	0	20	
Chloroform	BRL	5.0						0	0	20	
Chloromethane	BRL	10						0	0	20	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348214**

Sample ID: <b>2212H65-001ADUP</b>	Client ID: <b>GWC-6</b>	Units: <b>ug/L</b>	Prep Date: <b>12/16/2022</b>	Run No: <b>504269</b>
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348214</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827517</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0						0	0	20	
cis-1,3-Dichloropropene	BRL	5.0						0	0	20	
Dibromochloromethane	BRL	5.0						0	0	20	
Dibromomethane	BRL	5.0						0	0	20	
Ethylbenzene	BRL	5.0						0	0	20	
Iodomethane	BRL	10						0	0	20	
Methylene chloride	BRL	5.0						0	0	20	
Styrene	BRL	5.0						0	0	20	
Tetrachloroethene	BRL	5.0						0	0	20	
Toluene	BRL	5.0						0	0	20	
trans-1,2-Dichloroethene	BRL	5.0						0	0	20	
trans-1,3-Dichloropropene	BRL	5.0						0	0	20	
trans-1,4-Dichloro-2-butene	BRL	10						0	0	20	
Trichloroethene	BRL	5.0						0	0	20	
Trichlorofluoromethane	BRL	5.0						0	0	20	
Vinyl acetate	BRL	10						0	0	20	
Vinyl chloride	BRL	2.0						0	0	20	
Xylenes, Total	BRL	10						0	0	20	
Surr: 4-Bromofluorobenzene	48.48	0	50.00		97.0	75	118	48.64	0	0	
Surr: Dibromofluoromethane	49.77	0	50.00		99.5	82.5	121	49.14	0	0	
Surr: Toluene-d8	49.78	0	50.00		99.6	78.3	118	49.54	0	0	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348215**

Sample ID: <b>MB-348215</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504270</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348215</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11826357</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0									
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,3-Trichloropropane	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Acrylonitrile	BRL	5.0									
Benzene	BRL	5.0									
Bromochloromethane	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348215**

Sample ID: <b>MB-348215</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504270</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348215</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11826357</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dibromomethane	BRL	5.0									
Ethylbenzene	BRL	5.0									
Iodomethane	BRL	10									
Methylene chloride	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
trans-1,4-Dichloro-2-butene	BRL	10									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl acetate	BRL	10									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	10									
Surr: 4-Bromofluorobenzene	48.84	0	50.00		97.7	75	118				
Surr: Dibromofluoromethane	48.83	0	50.00		97.7	82.5	121				
Surr: Toluene-d8	49.54	0	50.00		99.1	78.3	118				

Sample ID: <b>LCS-348215</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504270</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348215</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11826356</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348215**

Sample ID: <b>LCS-348215</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504270</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348215</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11826356</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	52.30	5.0	50.00		105	71	130				
Benzene	50.74	5.0	50.00		101	80.4	126				
Chlorobenzene	51.85	5.0	50.00		104	81	120				
Toluene	54.86	5.0	50.00		110	79.2	124				
Trichloroethene	53.67	5.0	50.00		107	78.4	125				
Surr: 4-Bromofluorobenzene	50.83	0	50.00		102	75	118				
Surr: Dibromofluoromethane	49.26	0	50.00		98.5	82.5	121				
Surr: Toluene-d8	51.49	0	50.00		103	78.3	118				

Sample ID: <b>2212H96-009AMS</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504270</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348215</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827566</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	5525	500	5000	325.0	104	67.6	143				
Benzene	4911	500	5000	35.00	97.5	70.5	136				
Chlorobenzene	5148	500	5000		103	77.1	133				
Toluene	7034	500	5000	1693	107	66.4	140				
Trichloroethene	5337	500	5000		107	75.1	140				
Surr: 4-Bromofluorobenzene	5096	0	5000		102	75	118				
Surr: Dibromofluoromethane	4950	0	5000		99.0	82.5	121				
Surr: Toluene-d8	5145	0	5000		103	78.3	118				

Sample ID: <b>2212H96-009AMSD</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504270</b>							
SampleType: <b>MSD</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348215</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11827571</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	4896	500	5000	325.0	91.4	67.6	143	5525	12.1	19.6	
Benzene	4548	500	5000	35.00	90.3	70.5	136	4911	7.68	20	

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348215**

Sample ID: <b>2212H96-009AMSD</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504270</b>
SampleType: <b>MSD</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348215</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11827571</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	4835	500	5000		96.7	77.1	133	5148	6.27	20	
Toluene	6509	500	5000	1693	96.3	66.4	140	7034	7.75	20	
Trichloroethene	4894	500	5000		97.9	75.1	140	5337	8.66	20	
Surr: 4-Bromofluorobenzene	5085	0	5000		102	75	118	5096	0	0	
Surr: Dibromofluoromethane	4929	0	5000		98.6	82.5	121	4950	0	0	
Surr: Toluene-d8	5140	0	5000		103	78.3	118	5145	0	0	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504109**

Sample ID: <b>MB-R504109</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504109</b>							
SampleType: <b>MBLK</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504109</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11821650</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: <b>LCS-R504109</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504109</b>							
SampleType: <b>LCS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504109</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11821647</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	9.825	1.0	10.00		98.3	90	110				
Nitrate	5.189	0.25	5.000		104	90	110				
Sulfate	25.05	1.0	25.00		100	90	110				

Sample ID: <b>2212176-010AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504109</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504109</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11822582</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	17.53	1.0	10.00	8.187	93.5	90	110				
Nitrate	5.168	0.25	5.000		103	90	110				
Sulfate	28.66	1.0	25.00	4.063	98.4	90	110				

Sample ID: <b>2212J16-001AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504109</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504109</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11821702</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	13.78	1.0	10.00	4.541	92.3	90	110				
Nitrate	5.666	0.25	5.000	0.4844	104	90	110				
Sulfate	32.29	1.0	25.00	7.562	98.9	90	110				

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504109**

Sample ID: <b>2212J16-001AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504109</b>							
SampleType: <b>MSD</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504109</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11821705</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	13.69	1.0	10.00	4.541	91.5	90	110	13.78	0.641	20	
Nitrate	5.560	0.25	5.000	0.4844	102	90	110	5.666	1.90	20	
Sulfate	31.66	1.0	25.00	7.562	96.4	90	110	32.29	1.98	20	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504136**

Sample ID: <b>MB-R504136</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504136</b>							
SampleType: <b>MBLK</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504136</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11822653</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: <b>LCS-R504136</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504136</b>							
SampleType: <b>LCS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504136</b>	Analysis Date: <b>12/15/2022</b>	Seq No: <b>11822652</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	9.794	1.0	10.00		97.9	90	110				
Nitrate	5.036	0.25	5.000		101	90	110				
Sulfate	25.22	1.0	25.00		101	90	110				

Sample ID: <b>2212G68-001AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504136</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504136</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11822682</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	13.27	1.0	10.00	3.694	95.8	90	110				
Nitrate	8.918	0.25	5.000	3.467	109	90	110				
Sulfate	26.87	1.0	25.00	1.077	103	90	110				

Sample ID: <b>2212G93-001AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504136</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504136</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11822684</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	13.33	1.0	10.00	4.315	90.2	90	110				
Nitrate	6.056	0.25	5.000	1.007	101	90	110				
Sulfate	26.60	1.0	25.00	2.261	97.4	90	110				

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504136**

Sample ID: <b>2212G68-001AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504136</b>							
SampleType: <b>MSD</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504136</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11822683</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	13.06	1.0	10.00	3.694	93.6	90	110	13.27	1.62	20	
Nitrate	8.794	0.25	5.000	3.467	107	90	110	8.918	1.41	20	
Sulfate	26.30	1.0	25.00	1.077	101	90	110	26.87	2.13	20	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504244**

Sample ID: <b>MB-R504244</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504244</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504244</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11825619</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand BRL 10.0

Sample ID: <b>LCS-R504244</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504244</b>							
SampleType: <b>LCS</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504244</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11825620</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand 518.4 10.0 500.0 104 90 110

Sample ID: <b>2212F59-012CMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504244</b>							
SampleType: <b>MS</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504244</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11825622</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand 425.3 12.5 375.0 44.06 102 90 110

Sample ID: <b>2212H21-014BMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504244</b>							
SampleType: <b>MS</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504244</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11825635</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand 397.5 12.5 375.0 19.56 101 90 110

Sample ID: <b>2212F59-012CMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504244</b>							
SampleType: <b>MSD</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504244</b>	Analysis Date: <b>12/14/2022</b>	Seq No: <b>11825623</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand 419.8 12.5 375.0 44.06 100 90 110 425.3 1.32 30

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504257**

Sample ID: <b>LCS-R504257</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504257</b>							
SampleType: <b>LCS</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R504257</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11825950</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)      123.7                  3.00                  125.0                  99.0      90                  110

Sample ID: <b>2212F38-006EDUP</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504257</b>							
SampleType: <b>DUP</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R504257</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11825953</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)      48.63                  3.00                                                                                                                        47.09                  3.20                  30

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504298**

Sample ID: <b>MB</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504298</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504298</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11830071</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      BRL      1.00

Sample ID: <b>LCS-TC</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504298</b>							
SampleType: <b>LCS</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504298</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11830068</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      25.68      1.00      25.00      103      85      115

Sample ID: <b>2212H75-004AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504298</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504298</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11830073</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      25.68      1.00      25.00      103      85      115

Sample ID: <b>2212H75-005AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504298</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504298</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11830093</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      26.22      1.00      25.00      105      85      115

Sample ID: <b>2212H75-004AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504298</b>							
SampleType: <b>MSD</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504298</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11830076</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      24.72      1.00      25.00      98.9      85      115      25.68      3.81      15

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504298**

Sample ID: <b>2212H75-005AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504298</b>							
SampleType: <b>MSD</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504298</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11830094</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total	26.49	1.00	25.00		106	85	115	26.22	1.02	15	
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<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504320**

Sample ID: <b>MB-R504320</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504320</b>							
SampleType: <b>MBLK</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504320</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11828715</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride BRL 1.0

Sample ID: <b>LCS-R504320</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504320</b>							
SampleType: <b>LCS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504320</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11828714</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 10.25 1.0 10.00 102 90 110

Sample ID: <b>2212H65-027BMS</b>	Client ID: <b>AMW-12</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504320</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504320</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11828760</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 10.73 1.0 10.00 1.092 96.4 90 110

Sample ID: <b>2212H65-028BMS</b>	Client ID: <b>AMW-12R</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504320</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504320</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11828768</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 10.57 1.0 10.00 1.060 95.1 90 110

Sample ID: <b>2212H65-027BMSD</b>	Client ID: <b>AMW-12</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504320</b>							
SampleType: <b>MSD</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504320</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11828767</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 11.21 1.0 10.00 1.092 101 90 110 10.73 4.34 20

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504323**

Sample ID: <b>MB-R504323</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504323</b>							
SampleType: <b>MBLK</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504323</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11830574</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride BRL 1.0  
 Sulfate BRL 1.0

Sample ID: <b>LCS-R504323</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504323</b>							
SampleType: <b>LCS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504323</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11830573</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 10.21 1.0 10.00 102 90 110  
 Sulfate 25.34 1.0 25.00 101 90 110

Sample ID: <b>2212H65-019BMS</b>	Client ID: <b>GWC-18</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504323</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504323</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11830602</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 14.28 1.0 10.00 4.881 94.0 90 110 H  
 Sulfate 26.01 1.0 25.00 1.396 98.5 90 110 H

Sample ID: <b>2212176-020AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504323</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504323</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11830604</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 10.65 1.0 10.00 1.523 91.3 90 110 H  
 Sulfate 25.82 1.0 25.00 1.125 98.8 90 110 H

Sample ID: <b>2212H65-019BMSD</b>	Client ID: <b>GWC-18</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504323</b>							
SampleType: <b>MSD</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504323</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11830603</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 14.32 1.0 10.00 4.881 94.4 90 110 14.28 0.289 20 H

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504323**

Sample ID: <b>2212H65-019BMSD</b>	Client ID: <b>GWC-18</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504323</b>
SampleType: <b>MSD</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504323</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11830603</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Sulfate	26.05	1.0	25.00	1.396	98.6	90	110	26.01	0.141	20	H

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL	Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504327**

Sample ID: <b>LCS-R504327</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504327</b>							
SampleType: <b>LCS</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R504327</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11828840</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)      127.6                      3.00                      125.0                      102                      90                      110

Sample ID: <b>2212J44-024BDUP</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504327</b>							
SampleType: <b>DUP</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R504327</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11828842</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)      17.65                      3.00                                                                                                                                                    20.73                      16.0                      30

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212H65

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504576**

Sample ID: <b>MB-R504576</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504576</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504576</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11837594</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride BRL 1.00

Sample ID: <b>LCS-R504576</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504576</b>							
SampleType: <b>LCS</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504576</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11837592</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 9.614 1.00 10.00 96.1 90 110

Sample ID: <b>2212H71-005DMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504576</b>							
SampleType: <b>MS</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504576</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11837595</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 11.06 1.00 10.00 1.684 93.7 90 110

Sample ID: <b>2212H71-009DMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504576</b>							
SampleType: <b>MS</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504576</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11837597</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 10.05 1.00 10.00 100 90 110

Sample ID: <b>2212H71-005DMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504576</b>							
SampleType: <b>MSD</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504576</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11837596</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 11.07 1.00 10.00 1.684 93.9 90 110 11.06 0.110 20

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL	Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S Spike Recovery outside limits due to matrix	

End of Report



**ANALYTICAL ENVIRONMENTAL SERVICES, INC.**

December 28, 2022

Charles Adams  
Atlantic Coast Consulting, Inc.

1150 Northmeadow Pkwy  
Roswell GA 30076

RE: Forsyth County-Hightower Road MSWLF

Dear Charles Adams:

Order No: 2212J44

Analytical Environmental Services, Inc. received 35 samples on December 16, 2022 10:28 am for the analyses presented in following report.

“No problems were encountered during the analyses except as noted in the Case Narrative or by qualifiers in the report or QC Summary. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits.

AES’s accreditations are as follows:

-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/22-06/30/23.

State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective through 06/30/23 and Total Coliforms/ E. coli, effective 04/20/20-04/24/23.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Metals and PCM Asbestos), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/23.

These results relate only to the items tested as received. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,


Ioana Pacurar  
Project Manager

COMPANY: Atlantic Coast Consulting, Inc.		ADDRESS: 1150 Northmeadow Pkwy Suite 100 Roswell, GA 30076		ANALYSIS REQUESTED										Visit our website <a href="http://www.aesatlanta.com">www.aesatlanta.com</a> for downloadable COCs and to log in to your AESAccess account.		Number of Containers				
PHONE: 770-712-9785 or 770-594-5998		EMAIL: charles.adams@atcc.net		Appendix I VOC	Appendix I Metals	Alkalinity	TDS	Cl, SO4, NO3 *	Benzo(a)pyrene	SW Metals **	Chloride	Cyanide	COD				TOC	Manganese		
SAMPLED BY: <i>Hunter Auld</i>		SIGNATURE: <i>[Signature]</i>		SAMPLED:			PRESERVATION (see codes)										REMARKS			
#	SAMPLE ID	DATE	TIME	GRAB	COMPOSITE	MATRIX (see codes)	H+I	N	I	I	I	I	N	I	NaOH	S+I		S+I		
1	PHI-GWA-1A	12-15-22	0955	✓		GW	✓	✓												3
2	AMW-1	12-15-22	1145	✓		GW	✓	✓	✓	✓										5
3	GWC-4A	12-15-22	1255	✓		GW		✓												1
4	GWA-1	12-15-22	1320	✓		GW	✓	✓	✓	✓										5
5	PHI-GWA-4	12-15-22	1445	✓		GW	✓	✓	✓	✓										5
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
RELINQUISHED BY:		DATE/TIME:	RECEIVED BY:		DATE/TIME:	PROJECT INFORMATION										RECEIPT				
1. <i>Eric Storm</i>		12-16-22 10:28	1. <i>LEILA DYE</i>		12.16.22 10:28	PROJECT NAME: Forsyth County - Hightower Road MSWLF										Total # of Containers	19			
2.			2.			PROJECT #: G020-113										Turnaround Time (TAT) Request				
3.			3.			SITE ADDRESS: 9480 Old Federal Road, Ballground, GA 30107										<input checked="" type="checkbox"/> Standard				
SPECIAL INSTRUCTIONS/COMMENTS: * 48-hr holding time nitrate ** Surface Water Metals: As, Ba, Cd, Cr, Pb, Ni, Ag, Se, Zn, Hg		SHIPMENT METHOD		SEND REPORT TO: Charles Adams, Betsy McDaniel										<input type="checkbox"/> 2 Business Day Rush						
		OUT: / / VIA:		INVOICE TO (IF DIFFERENT FROM ABOVE):										<input type="checkbox"/> Next Business Day Rush						
		IN: / / VIA:		QUOTE #: _____ PO#: _____										<input type="checkbox"/> Same-Day Rush (auth req.)						
		Client FedEx UPS US mail courier												<input type="checkbox"/> Other _____						
		other: _____												STATE PROGRAM (if any): _____						
														E-mail? <input type="checkbox"/> Fax? <input type="checkbox"/>						
														DATA PACKAGE: I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV <input type="radio"/>						

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST = Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)  
Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

**CHAIN OF CUSTODY**

COMPANY: Atlantic Coast Consulting, Inc.		ADDRESS: 1150 Northmeadow Pkwy Suite 100 Roswell, GA 30076					ANALYSIS REQUESTED										Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.		Number of Containers			
PHONE: 770-712-9785 or 770-594-5998		EMAIL: charles.adams@atlcc.net					Appendix I VOC	Appendix I Metals	Alkalinity	TDS	Cl, SO4, NO3 *	Benzo(a)pyrene	SW Metals **	Chloride	Cyanide	COD				TOC	REMARKS	
SAMPLED BY: <u>JDMS</u>		SIGNATURE: 															PRESERVATION (see codes)					
#	SAMPLE ID	SAMPLED:		GRAB	COMPOSITE	MATRIX (see codes)											REMARKS					
		DATE	TIME				H+I	N	I	I	I	I	N	I	NaOH	S+I			S+I			
1	PH1-GWA-1	12/15/22	0840	X		GW	✓															1
2	PH1-GWC-1	12/15/22	0850	X		GW	✓															1
3	PH1-GWA-2	12/15/22	1020	X		GW	✓															1
4	GWC-6	12/15/22	0845	X		GW	✓															1
5	GWC-9	12/15/22	0900	X		GW	✓															1
6	GWC-10	12/15/22	0915	X		GW	✓															1
7	GWC-10A	12/15/22	0910	X		GW	✓															1
8	GWC-17	12/15/22	0915	X		GW	✓															1
9	GWC-19Z	12/15/22	1005	X		GW	✓															1
10	GWC-24	12/15/22	0920	X		GW	✓															1
11	AMW-2	12/15/22	0910	X		GW	✓															1
12	Field Blank - 2	12/15/22	0920	X		W	✓	✓														3
13	Trip Blank			X		W	✓															2
14	AMW-13	12/15/22	0930	X		GW	✓															1
RELINQUISHED BY:		DATE/TIME:		RECEIVED BY:		DATE/TIME:		PROJECT INFORMATION										RECEIPT				
1. <u>Eric Stamm</u>		12-16-22 10:28		1. <u>LEILA DYE</u>		12-16-22 10:28		PROJECT NAME: Forsyth County - Hightower Road MSWLF										Total # of Containers <u>19</u>				
2.				2.				PROJECT #: G020-113										Turnaround Time (TAT) Request				
3.				3.				SITE ADDRESS: 9480 Old Federal Road, Ballground, GA 30107										<input checked="" type="checkbox"/> Standard				
								SEND REPORT TO: Charles Adams, Betsy McDaniel										<input type="checkbox"/> 2 Business Day Rush				
SPECIAL INSTRUCTIONS/COMMENTS: * 48-hr holding time nitrate ** Surface Water Metals: As, Ba, Cd, Cr, Pb, Ni, Ag, Se, Zn, Hg				SHIPMENT METHOD				INVOICE TO (IF DIFFERENT FROM ABOVE):										<input type="checkbox"/> Next Business Day Rush				
				OUT: / / VIA:														<input type="checkbox"/> Same-Day Rush (auth req.)				
				IN: <u>Client</u> / / VIA:														<input type="checkbox"/> Other _____				
				other: _____				QUOTE #: _____ PO#: _____										STATE PROGRAM (if any): _____				
																		E-mail? <input type="checkbox"/> Fax? <input type="checkbox"/>				
																		DATA PACKAGE: I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV <input type="radio"/>				

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**CHAIN OF CUSTODY**

COMPANY: Atlantic Coast Consulting, Inc.		ADDRESS: 1150 Northmeadow Pkwy Suite 100 Roswell, GA 30076					ANALYSIS REQUESTED										Visit our website <a href="http://www.aesatlanta.com">www.aesatlanta.com</a> for downloadable COCs and to log in to your AESAccess account.		Number of Containers		
PHONE: 770-712-9785 or 770-594-5998		EMAIL: charles.adams@atlcc.net					Appendix I VOC	Appendix I Metals	Alkalinity	TDS	Cl, SO4, NO3 *	Benzo(a)pyrene	SW Metals **	Chloride	Cyanide	COD				TOC	<del>ES</del> Potassium, Manganese
SAMPLED BY: <u>Eric Stamm</u>		SIGNATURE: <u>Eric Stamm</u>					PRESERVATION (see codes)										REMARKS				
#	SAMPLE ID	SAMPLED:		GRAB	COMPOSITE	MATRIX (see codes)	H+I	N	I	I	I	I	N	I	NaOH	S+I				S+I	
1	GWC-18	12/15/22	0905	X		GW	X														1
2	PH1-GWC-3	12/15/22	1055	X		GW	X	X	X	X											5
3	PH1-GWC-3A	12/15/22	1145	X		GW	X	X	X	X	2										7
4	SWC-6	12/15/22	1230	X		SW	X	<del>B</del>	X			X	X	X	X	X	X				9
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
RELINQUISHED BY:		DATE/TIME:		RECEIVED BY:		DATE/TIME:		PROJECT INFORMATION										RECEIPT			
1. <u>Eric Stamm</u>		12-16-22 1028		1. <u>LEILA DYE</u>		12-16-22 10:28		PROJECT NAME: Forsyth County - Hightower Road MSWLF										Total # of Containers <u>22</u>			
2.				2.				PROJECT #: G020-113										Turnaround Time (TAT) Request			
3.				3.				SITE ADDRESS: 9480 Old Federal Road, Ballground, GA 30107										<input checked="" type="checkbox"/> Standard			
SPECIAL INSTRUCTIONS/COMMENTS:				SHIPMENT METHOD				SEND REPORT TO: Charles Adams, Betsy McDaniel										<input type="checkbox"/> 2 Business Day Rush			
* 48-hr holding time nitrate				OUT: / / VIA:				INVOICE TO (IF DIFFERENT FROM ABOVE):										<input type="checkbox"/> Next Business Day Rush			
** Surface Water Metals: As, Ba, Cd, Cr, Pb, Ni, Ag, Se, Zn, Hg				IN: / / VIA:				QUOTE #: _____ PO#: _____										<input type="checkbox"/> Same-Day Rush (auth req.)			
				Client		FedEx UPS US mail courier												<input type="checkbox"/> Other _____			
				other: _____														STATE PROGRAM (if any): _____			
																		E-mail? <input type="checkbox"/> Fax? <input type="checkbox"/>			
																		DATA PACKAGE: I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/>			

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Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST = Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)

Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None



COMPANY: Atlantic Coast Consulting, Inc.		ADDRESS: 1150 Northmeadow Pkwy Suite 100 Roswell, GA 30076					ANALYSIS REQUESTED										Visit our website www.aesatlanta.com for downloadable COCs and to log in to your AESAccess account.		Number of Containers	
PHONE: 770-712-9785 or 770-594-5998		EMAIL: charles.adams@atlcc.net					Appendix I VOC	Appendix I Metals	Alkalinity	TDS	Cl, SO4, NO3 *	Benzo(a)pyrene	SW Metals **	Chloride	Cyanide	COD				TOC
SAMPLED BY: <i>[Signature]</i>		SIGNATURE: <i>[Signature]</i>					PRESERVATION (see codes)										REMARKS			
#	SAMPLE ID	DATE	TIME	GRAB	COMPOSITE	MATRIX (see codes)	H+I	N	I	I	I	I	N	I	NaOH	S+I				S+I
1	SWA-1	12/15/22	1010	X		SW							✓	✓	✓	✓	✓			6
2	SWA-2	12/15/22	1105	X		SW							✓	✓	✓	✓	✓			6
3	SWC-1	12/15/22	1050	X		SW	✓						✓	✓	✓	✓	✓			6
4	SWC-2	12/15/22	1115	X		SW							✓	✓	✓	✓	✓			6
5	SWC-3	12/15/22	1120	X		SW							✓	✓	✓	✓	✓			6
6	SWC-4A	12/15/22	1135	X		SW	✓													2
7	SWC-4B	12/15/22	1150	X		SW	✓													2
8	SWC-5	12/15/22	0955	X		SW							✓	✓	✓	✓	✓			6
9	SWC-7	12/15/22	1040	X		SW							✓	✓	✓	✓	✓			6
10	SWC-8	12/15/22	1025	X		SW							✓	✓	✓	✓	✓			6
11	SWC-9	12/15/22	1130	X		SW							✓	✓	✓	✓	✓			6
12	<del>SWC-6</del> (30)																			
13																				
14																				

RELINQUISHED BY: <i>[Signature]</i> DATE/TIME: 12-16-22 10:28		RECEIVED BY: <i>[Signature]</i> DATE/TIME: 12.16.22 10:28		PROJECT INFORMATION				RECEIPT	
1. <i>[Signature]</i>		2.		PROJECT NAME: Forsyth County - Hightower Road MSWLF				Total # of Containers: <b>54</b>	
3.		3.		PROJECT #: G020-113				Turnaround Time (TAT) Request	
SPECIAL INSTRUCTIONS/COMMENTS: * 48-hr holding time nitrate ** Surface Water Metals: As, Ba, Cd, Cr, Pb, Ni, Ag, Se, Zn, Hg		SHIPMENT METHOD		SITE ADDRESS: 9480 Old Federal Road, Ballground, GA 30107				<input checked="" type="checkbox"/> Standard	
		OUT: / / VIA:		SEND REPORT TO: Charles Adams, Betsy McDaniel				<input type="checkbox"/> 2 Business Day Rush	
		IN: <i>[Signature]</i> / / VIA:		INVOICE TO (IF DIFFERENT FROM ABOVE):				<input type="checkbox"/> Next Business Day Rush	
		Client FedEx UPS US mail courier		QUOTE #: _____ PO#: _____				<input type="checkbox"/> Same-Day Rush (auth req.)	
		other: _____						<input type="checkbox"/> Other _____	
								STATE PROGRAM (if any): _____	
								E-mail? <input type="checkbox"/> Fax? <input type="checkbox"/>	
								DATA PACKAGE: I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/>	

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST = Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)  
Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

**Client:** Atlantic Coast Consulting, Inc.  
**Project:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212J44

**Case Narrative**

Mercury Analysis by Method 7470A:

LCS-348328 recovery for Mercury was outside control limits biased high. Target analyte was not detected in the analytical samples and data is reportable with high bias.

Due to sample matrix, sample 2212J44-024 required dilution during analysis resulting in elevated reporting limits.

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212J44-001

**Client Sample ID:** PH1-GWA-1A  
**Collection Date:** 12/15/2022 9:55:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348323	1	12/17/2022 22:30	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348323	1	12/17/2022 22:30	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348323	1	12/17/2022 22:30	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 22:30	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 22:30	CM
2-Butanone	BRL	100		ug/L	348323	1	12/17/2022 22:30	CM
2-Hexanone	BRL	50		ug/L	348323	1	12/17/2022 22:30	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348323	1	12/17/2022 22:30	CM
Acetone	BRL	100		ug/L	348323	1	12/17/2022 22:30	CM
Acrylonitrile	BRL	50		ug/L	348323	1	12/17/2022 22:30	CM
Benzene	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
Bromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 22:30	CM
Bromodichloromethane	BRL	10		ug/L	348323	1	12/17/2022 22:30	CM
Bromoform	BRL	10		ug/L	348323	1	12/17/2022 22:30	CM
Bromomethane	BRL	10		ug/L	348323	1	12/17/2022 22:30	CM
Carbon disulfide	BRL	5.0		ug/L	348323	1	12/22/2022 13:48	CM
Carbon tetrachloride	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
Chlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 22:30	CM
Chloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
Chloroform	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
Chloromethane	BRL	10		ug/L	348323	1	12/17/2022 22:30	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
Dibromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 22:30	CM
Dibromomethane	BRL	10		ug/L	348323	1	12/17/2022 22:30	CM
Ethylbenzene	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
Iodomethane	BRL	100		ug/L	348323	1	12/17/2022 22:30	CM
Methylene chloride	BRL	5.0		ug/L	348323	1	12/17/2022 22:30	CM
Styrene	BRL	10		ug/L	348323	1	12/17/2022 22:30	CM
Tetrachloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
Toluene	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348323	1	12/17/2022 22:30	CM
Trichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
Trichlorofluoromethane	BRL	10		ug/L	348323	1	12/17/2022 22:30	CM
Vinyl acetate	BRL	100		ug/L	348323	1	12/17/2022 22:30	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWA-1A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 9:55:00 AM
<b>Lab ID:</b> 2212J44-001	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348323	1	12/17/2022 22:30	CM
Xylenes, Total	BRL	5.0		ug/L	348323	1	12/17/2022 22:30	CM
Surr: 4-Bromofluorobenzene	96	75-118		%REC	348323	1	12/22/2022 13:48	CM
Surr: 4-Bromofluorobenzene	97.1	75-118		%REC	348323	1	12/17/2022 22:30	CM
Surr: Dibromofluoromethane	97.2	82.5-121		%REC	348323	1	12/22/2022 13:48	CM
Surr: Dibromofluoromethane	102	82.5-121		%REC	348323	1	12/17/2022 22:30	CM
Surr: Toluene-d8	96.3	78.3-118		%REC	348323	1	12/17/2022 22:30	CM
Surr: Toluene-d8	98	78.3-118		%REC	348323	1	12/22/2022 13:48	CM
<b>APPENDIX I METALS SW6020B</b>					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 17:57	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 17:57	HC
Barium	0.0351	0.0200		mg/L	348175	1	12/20/2022 17:57	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 17:57	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 17:57	HC
Chromium	0.0172	0.0100		mg/L	348175	1	12/20/2022 17:57	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 17:57	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 17:57	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 17:57	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 17:57	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 17:57	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 17:57	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 17:57	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 17:57	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 17:57	HC

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212J44-002

**Client Sample ID:** AMW-1  
**Collection Date:** 12/15/2022 11:45:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Metals by ICP/MS SW6020B</b>					<b>(SW3005A)</b>			
Manganese	0.0438	0.00500		mg/L	348175	1	12/20/2022 17:59	HC
Potassium	2.47	0.100		mg/L	348175	1	12/20/2022 17:59	HC
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	76	10		mg/L	348156	1	12/21/2022 13:00	NN
<b>ION SCAN SW9056A</b>								
Chloride	1.4	1.0		mg/L	R504137	1	12/16/2022 12:30	BI
Nitrate	BRL	0.25		mg/L	R504137	1	12/16/2022 12:30	BI
Sulfate	3.5	1.0		mg/L	R504137	1	12/16/2022 12:30	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348323	1	12/17/2022 22:54	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348323	1	12/17/2022 22:54	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348323	1	12/17/2022 22:54	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 22:54	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 22:54	CM
2-Butanone	BRL	100		ug/L	348323	1	12/17/2022 22:54	CM
2-Hexanone	BRL	50		ug/L	348323	1	12/17/2022 22:54	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348323	1	12/17/2022 22:54	CM
Acetone	BRL	100		ug/L	348323	1	12/17/2022 22:54	CM
Acrylonitrile	BRL	50		ug/L	348323	1	12/17/2022 22:54	CM
Benzene	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
Bromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 22:54	CM
Bromodichloromethane	BRL	10		ug/L	348323	1	12/17/2022 22:54	CM
Bromoform	BRL	10		ug/L	348323	1	12/17/2022 22:54	CM
Bromomethane	BRL	10		ug/L	348323	1	12/17/2022 22:54	CM
Carbon disulfide	BRL	5.0		ug/L	348323	1	12/22/2022 14:13	CM
Carbon tetrachloride	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
Chlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 22:54	CM
Chloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
Chloroform	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
Chloromethane	BRL	10		ug/L	348323	1	12/17/2022 22:54	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
Dibromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 22:54	CM
Dibromomethane	BRL	10		ug/L	348323	1	12/17/2022 22:54	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 11:45:00 AM
<b>Lab ID:</b> 2212J44-002	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
Ethylbenzene	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
Iodomethane	BRL	100		ug/L	348323	1	12/17/2022 22:54	CM
Methylene chloride	BRL	5.0		ug/L	348323	1	12/17/2022 22:54	CM
Styrene	BRL	10		ug/L	348323	1	12/17/2022 22:54	CM
Tetrachloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
Toluene	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348323	1	12/17/2022 22:54	CM
Trichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
Trichlorofluoromethane	BRL	10		ug/L	348323	1	12/17/2022 22:54	CM
Vinyl acetate	BRL	100		ug/L	348323	1	12/17/2022 22:54	CM
Vinyl chloride	BRL	2.0		ug/L	348323	1	12/17/2022 22:54	CM
Xylenes, Total	BRL	5.0		ug/L	348323	1	12/17/2022 22:54	CM
Surr: 4-Bromofluorobenzene	95	75-118		%REC	348323	1	12/17/2022 22:54	CM
Surr: 4-Bromofluorobenzene	96.6	75-118		%REC	348323	1	12/22/2022 14:13	CM
Surr: Dibromofluoromethane	96.9	82.5-121		%REC	348323	1	12/22/2022 14:13	CM
Surr: Dibromofluoromethane	104	82.5-121		%REC	348323	1	12/17/2022 22:54	CM
Surr: Toluene-d8	98.4	78.3-118		%REC	348323	1	12/22/2022 14:13	CM
Surr: Toluene-d8	101	78.3-118		%REC	348323	1	12/17/2022 22:54	CM
<b>APPENDIX I METALS SW6020B</b>			<b>(SW3005A)</b>					
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 17:59	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 17:59	HC
Barium	0.0344	0.0200		mg/L	348175	1	12/20/2022 17:59	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 17:59	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 17:59	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 17:59	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 17:59	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 17:59	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 17:59	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 17:59	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 17:59	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 17:59	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 17:59	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 17:59	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 17:59	HC
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	53.5	3.00		mg/L	R504327	1	12/20/2022 11:31	AH

**Qualifiers:**

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- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-4A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 12:55:00 PM
<b>Lab ID:</b> 2212J44-003	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:02	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:02	HC
Barium	0.0330	0.0200		mg/L	348175	1	12/20/2022 18:02	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:02	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:02	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:02	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:02	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:02	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:02	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:02	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:02	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:02	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:02	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:02	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 18:02	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWA-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 1:20:00 PM
<b>Lab ID:</b> 2212J44-004	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Metals by ICP/MS SW6020B</b>					<b>(SW3005A)</b>			
Manganese	0.0173	0.00500		mg/L	348175	1	12/20/2022 18:04	HC
Potassium	0.927	0.100		mg/L	348175	1	12/20/2022 18:04	HC
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	36	10		mg/L	348156	1	12/21/2022 13:00	NN
<b>ION SCAN SW9056A</b>								
Chloride	11	1.0		mg/L	R504723	1	12/16/2022 22:51	BI
Nitrate	3.1	0.25		mg/L	R504723	1	12/16/2022 22:51	BI
Sulfate	BRL	1.0		mg/L	R504723	1	12/16/2022 22:51	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348323	1	12/17/2022 23:18	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348323	1	12/17/2022 23:18	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348323	1	12/17/2022 23:18	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 23:18	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 23:18	CM
2-Butanone	BRL	100		ug/L	348323	1	12/17/2022 23:18	CM
2-Hexanone	BRL	50		ug/L	348323	1	12/17/2022 23:18	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348323	1	12/17/2022 23:18	CM
Acetone	BRL	100		ug/L	348323	1	12/17/2022 23:18	CM
Acrylonitrile	BRL	50		ug/L	348323	1	12/17/2022 23:18	CM
Benzene	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
Bromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 23:18	CM
Bromodichloromethane	BRL	10		ug/L	348323	1	12/17/2022 23:18	CM
Bromoform	BRL	10		ug/L	348323	1	12/17/2022 23:18	CM
Bromomethane	BRL	10		ug/L	348323	1	12/17/2022 23:18	CM
Carbon disulfide	BRL	5.0		ug/L	348323	1	12/17/2022 23:18	CM
Carbon tetrachloride	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
Chlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 23:18	CM
Chloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
Chloroform	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
Chloromethane	BRL	10		ug/L	348323	1	12/17/2022 23:18	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
Dibromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 23:18	CM
Dibromomethane	BRL	10		ug/L	348323	1	12/17/2022 23:18	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWA-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 1:20:00 PM
<b>Lab ID:</b> 2212J44-004	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
Ethylbenzene	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
Iodomethane	BRL	100		ug/L	348323	1	12/17/2022 23:18	CM
Methylene chloride	BRL	5.0		ug/L	348323	1	12/17/2022 23:18	CM
Styrene	BRL	10		ug/L	348323	1	12/17/2022 23:18	CM
Tetrachloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
Toluene	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348323	1	12/17/2022 23:18	CM
Trichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
Trichlorofluoromethane	BRL	10		ug/L	348323	1	12/17/2022 23:18	CM
Vinyl acetate	BRL	100		ug/L	348323	1	12/17/2022 23:18	CM
Vinyl chloride	BRL	2.0		ug/L	348323	1	12/17/2022 23:18	CM
Xylenes, Total	BRL	5.0		ug/L	348323	1	12/17/2022 23:18	CM
Surr: 4-Bromofluorobenzene	96	75-118		%REC	348323	1	12/17/2022 23:18	CM
Surr: Dibromofluoromethane	99.7	82.5-121		%REC	348323	1	12/17/2022 23:18	CM
Surr: Toluene-d8	99.6	78.3-118		%REC	348323	1	12/17/2022 23:18	CM
<b>APPENDIX I METALS SW6020B</b>			<b>(SW3005A)</b>					
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:04	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:04	HC
Barium	0.0277	0.0200		mg/L	348175	1	12/20/2022 18:04	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:04	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:04	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:04	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:04	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:04	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:04	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:04	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:04	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:04	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:04	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:04	HC
Zinc	0.0205	0.0200		mg/L	348175	1	12/20/2022 18:04	HC
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	BRL	3.00		mg/L	R504327	1	12/20/2022 11:31	AH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212J44-005

**Client Sample ID:** PH1-GWA-4  
**Collection Date:** 12/15/2022 2:45:00 PM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Metals by ICP/MS SW6020B</b>					<b>(SW3005A)</b>			
Manganese	0.0449	0.00500		mg/L	348175	1	12/20/2022 18:06	HC
Potassium	1.05	0.100		mg/L	348175	1	12/20/2022 18:06	HC
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	14	10		mg/L	348156	1	12/21/2022 13:00	NN
<b>ION SCAN SW9056A</b>								
Chloride	1.5	1.0		mg/L	R504723	1	12/16/2022 23:24	BI
Nitrate	BRL	0.25		mg/L	R504723	1	12/16/2022 23:24	BI
Sulfate	BRL	1.0		mg/L	R504723	1	12/16/2022 23:24	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348323	1	12/17/2022 23:42	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348323	1	12/17/2022 23:42	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348323	1	12/17/2022 23:42	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 23:42	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 23:42	CM
2-Butanone	BRL	100		ug/L	348323	1	12/17/2022 23:42	CM
2-Hexanone	BRL	50		ug/L	348323	1	12/17/2022 23:42	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348323	1	12/17/2022 23:42	CM
Acetone	BRL	100		ug/L	348323	1	12/17/2022 23:42	CM
Acrylonitrile	BRL	50		ug/L	348323	1	12/17/2022 23:42	CM
Benzene	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
Bromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 23:42	CM
Bromodichloromethane	BRL	10		ug/L	348323	1	12/17/2022 23:42	CM
Bromoform	BRL	10		ug/L	348323	1	12/17/2022 23:42	CM
Bromomethane	BRL	10		ug/L	348323	1	12/17/2022 23:42	CM
Carbon disulfide	BRL	5.0		ug/L	348323	1	12/17/2022 23:42	CM
Carbon tetrachloride	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
Chlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 23:42	CM
Chloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
Chloroform	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
Chloromethane	BRL	10		ug/L	348323	1	12/17/2022 23:42	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
Dibromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 23:42	CM
Dibromomethane	BRL	10		ug/L	348323	1	12/17/2022 23:42	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWA-4
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 2:45:00 PM
<b>Lab ID:</b> 2212J44-005	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>		<b>(SW5030B)</b>						
Ethylbenzene	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
Iodomethane	BRL	100		ug/L	348323	1	12/17/2022 23:42	CM
Methylene chloride	BRL	5.0		ug/L	348323	1	12/17/2022 23:42	CM
Styrene	BRL	10		ug/L	348323	1	12/17/2022 23:42	CM
Tetrachloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
Toluene	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348323	1	12/17/2022 23:42	CM
Trichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
Trichlorofluoromethane	BRL	10		ug/L	348323	1	12/17/2022 23:42	CM
Vinyl acetate	BRL	100		ug/L	348323	1	12/17/2022 23:42	CM
Vinyl chloride	BRL	2.0		ug/L	348323	1	12/17/2022 23:42	CM
Xylenes, Total	BRL	5.0		ug/L	348323	1	12/17/2022 23:42	CM
Surr: 4-Bromofluorobenzene	99.2	75-118		%REC	348323	1	12/17/2022 23:42	CM
Surr: Dibromofluoromethane	103	82.5-121		%REC	348323	1	12/17/2022 23:42	CM
Surr: Toluene-d8	92.7	78.3-118		%REC	348323	1	12/17/2022 23:42	CM
<b>APPENDIX I METALS SW6020B</b>		<b>(SW3005A)</b>						
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:06	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:06	HC
Barium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:06	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:06	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:06	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:06	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:06	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:06	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:06	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:06	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:06	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:06	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:06	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:06	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 18:06	HC
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	10.9	3.00		mg/L	R504327	1	12/20/2022 11:31	AH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWA-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 8:40:00 AM
<b>Lab ID:</b> 2212J44-006	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:09	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:09	HC
Barium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:09	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:09	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:09	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:09	HC
Cobalt	0.0947	0.0400		mg/L	348175	1	12/20/2022 18:09	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:09	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:09	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:09	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:09	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:09	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:09	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:09	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 18:09	HC

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWC-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 8:50:00 AM
<b>Lab ID:</b> 2212J44-007	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
<b>SW6020B</b>					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:11	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:11	HC
Barium	0.0343	0.0200		mg/L	348175	1	12/20/2022 18:11	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:11	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:11	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:11	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:11	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:11	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:11	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:11	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:11	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:11	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:11	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:11	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 18:11	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b>	Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b>	PH1-GWA-2
<b>Project Name:</b>	Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b>	12/15/2022 10:20:00 AM
<b>Lab ID:</b>	2212J44-008	<b>Matrix:</b>	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:13	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:13	HC
Barium	0.0689	0.0200		mg/L	348175	1	12/20/2022 18:13	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:13	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:13	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:13	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:13	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:13	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:13	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:13	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:13	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:13	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:13	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:13	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 18:13	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-6
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 8:45:00 AM
<b>Lab ID:</b> 2212J44-009	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:30	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:30	HC
Barium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:30	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:30	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:30	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:30	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:30	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:30	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:30	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:30	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:30	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:30	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:30	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:30	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 18:30	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-9
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 9:00:00 AM
<b>Lab ID:</b> 2212J44-010	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:33	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:33	HC
Barium	0.0878	0.0200		mg/L	348175	1	12/20/2022 18:33	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:33	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:33	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:33	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:33	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:33	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:33	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:33	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:33	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:33	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:33	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:33	HC
Zinc	0.0416	0.0200		mg/L	348175	1	12/20/2022 18:33	HC

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-10
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 9:15:00 AM
<b>Lab ID:</b> 2212J44-011	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:35	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:35	HC
Barium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:35	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:35	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:35	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:35	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:35	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:35	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:35	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:35	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:35	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:35	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:35	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:35	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 18:35	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-10A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 9:10:00 AM
<b>Lab ID:</b> 2212J44-012	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:38	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:38	HC
Barium	0.0386	0.0200		mg/L	348175	1	12/20/2022 18:38	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:38	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:38	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:38	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:38	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:38	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:38	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:38	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:38	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:38	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:38	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:38	HC
Zinc	0.0216	0.0200		mg/L	348175	1	12/20/2022 18:38	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-17
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 9:45:00 AM
<b>Lab ID:</b> 2212J44-013	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:40	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:40	HC
Barium	0.0365	0.0200		mg/L	348175	1	12/20/2022 18:40	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:40	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:40	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:40	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:40	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:40	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:40	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:40	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:40	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:40	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:40	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:40	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 18:40	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-19R
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 10:05:00 AM
<b>Lab ID:</b> 2212J44-014	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:42	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:42	HC
Barium	0.180	0.0200		mg/L	348175	1	12/20/2022 18:42	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:42	HC
Cadmium	0.0100	0.00500		mg/L	348175	1	12/20/2022 18:42	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:42	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:42	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:42	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:42	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:42	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:42	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:42	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:42	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:42	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 18:42	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-24
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 9:20:00 AM
<b>Lab ID:</b> 2212J44-015	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>							
					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:45	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:45	HC
Barium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:45	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:45	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:45	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:45	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:45	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:45	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:45	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:45	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:45	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:45	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:45	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:45	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 18:45	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 9:10:00 AM
<b>Lab ID:</b> 2212J44-016	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:47	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:47	HC
Barium	0.0236	0.0200		mg/L	348175	1	12/20/2022 18:47	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:47	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:47	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:47	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:47	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:47	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:47	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:47	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:47	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:47	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:47	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:47	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 18:47	HC

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212J44-017

**Client Sample ID:** FIELD BLANK-2  
**Collection Date:** 12/15/2022 9:20:00 AM  
**Matrix:** Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348323	1	12/17/2022 20:29	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348323	1	12/17/2022 20:29	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348323	1	12/17/2022 20:29	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 20:29	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 20:29	CM
2-Butanone	BRL	100		ug/L	348323	1	12/17/2022 20:29	CM
2-Hexanone	BRL	50		ug/L	348323	1	12/17/2022 20:29	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348323	1	12/17/2022 20:29	CM
Acetone	BRL	100		ug/L	348323	1	12/17/2022 20:29	CM
Acrylonitrile	BRL	50		ug/L	348323	1	12/17/2022 20:29	CM
Benzene	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
Bromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 20:29	CM
Bromodichloromethane	BRL	10		ug/L	348323	1	12/17/2022 20:29	CM
Bromoform	BRL	10		ug/L	348323	1	12/17/2022 20:29	CM
Bromomethane	BRL	10		ug/L	348323	1	12/17/2022 20:29	CM
Carbon disulfide	BRL	5.0		ug/L	348323	1	12/17/2022 20:29	CM
Carbon tetrachloride	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
Chlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 20:29	CM
Chloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
Chloroform	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
Chloromethane	BRL	10		ug/L	348323	1	12/17/2022 20:29	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
Dibromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 20:29	CM
Dibromomethane	BRL	10		ug/L	348323	1	12/17/2022 20:29	CM
Ethylbenzene	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
Iodomethane	BRL	100		ug/L	348323	1	12/17/2022 20:29	CM
Methylene chloride	BRL	5.0		ug/L	348323	1	12/17/2022 20:29	CM
Styrene	BRL	10		ug/L	348323	1	12/17/2022 20:29	CM
Tetrachloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
Toluene	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348323	1	12/17/2022 20:29	CM
Trichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
Trichlorofluoromethane	BRL	10		ug/L	348323	1	12/17/2022 20:29	CM
Vinyl acetate	BRL	100		ug/L	348323	1	12/17/2022 20:29	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> FIELD BLANK-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 9:20:00 AM
<b>Lab ID:</b> 2212J44-017	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348323	1	12/17/2022 20:29	CM
Xylenes, Total	BRL	5.0		ug/L	348323	1	12/17/2022 20:29	CM
Surr: 4-Bromofluorobenzene	101	75-118		%REC	348323	1	12/17/2022 20:29	CM
Surr: Dibromofluoromethane	98.2	82.5-121		%REC	348323	1	12/17/2022 20:29	CM
Surr: Toluene-d8	97.9	78.3-118		%REC	348323	1	12/17/2022 20:29	CM
<b>APPENDIX I METALS SW6020B</b>					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:49	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:49	HC
Barium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:49	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:49	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:49	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:49	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:49	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:49	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:49	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:49	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:49	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:49	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:49	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:49	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 18:49	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212J44-018

**Client Sample ID:** TRIP BLANK 1  
**Collection Date:** 12/16/2022  
**Matrix:** Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348323	1	12/17/2022 19:40	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348323	1	12/17/2022 19:40	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348323	1	12/17/2022 19:40	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 19:40	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 19:40	CM
2-Butanone	BRL	100		ug/L	348323	1	12/17/2022 19:40	CM
2-Hexanone	BRL	50		ug/L	348323	1	12/17/2022 19:40	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348323	1	12/17/2022 19:40	CM
Acetone	BRL	100		ug/L	348323	1	12/17/2022 19:40	CM
Acrylonitrile	BRL	50		ug/L	348323	1	12/17/2022 19:40	CM
Benzene	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
Bromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 19:40	CM
Bromodichloromethane	BRL	10		ug/L	348323	1	12/17/2022 19:40	CM
Bromoform	BRL	10		ug/L	348323	1	12/17/2022 19:40	CM
Bromomethane	BRL	10		ug/L	348323	1	12/17/2022 19:40	CM
Carbon disulfide	BRL	5.0		ug/L	348323	1	12/17/2022 19:40	CM
Carbon tetrachloride	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
Chlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 19:40	CM
Chloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
Chloroform	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
Chloromethane	BRL	10		ug/L	348323	1	12/17/2022 19:40	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
Dibromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 19:40	CM
Dibromomethane	BRL	10		ug/L	348323	1	12/17/2022 19:40	CM
Ethylbenzene	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
Iodomethane	BRL	100		ug/L	348323	1	12/17/2022 19:40	CM
Methylene chloride	BRL	5.0		ug/L	348323	1	12/17/2022 19:40	CM
Styrene	BRL	10		ug/L	348323	1	12/17/2022 19:40	CM
Tetrachloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
Toluene	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348323	1	12/17/2022 19:40	CM
Trichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
Trichlorofluoromethane	BRL	10		ug/L	348323	1	12/17/2022 19:40	CM
Vinyl acetate	BRL	100		ug/L	348323	1	12/17/2022 19:40	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> TRIP BLANK 1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/16/2022
<b>Lab ID:</b> 2212J44-018	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348323	1	12/17/2022 19:40	CM
Xylenes, Total	BRL	5.0		ug/L	348323	1	12/17/2022 19:40	CM
Surr: 4-Bromofluorobenzene	102	75-118		%REC	348323	1	12/17/2022 19:40	CM
Surr: Dibromofluoromethane	97.4	82.5-121		%REC	348323	1	12/17/2022 19:40	CM
Surr: Toluene-d8	97.5	78.3-118		%REC	348323	1	12/17/2022 19:40	CM

**Qualifiers:**

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- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212J44-019

**Client Sample ID:** TRIP BLANK 2  
**Collection Date:** 12/16/2022  
**Matrix:** Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348323	1	12/17/2022 20:05	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348323	1	12/17/2022 20:05	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348323	1	12/17/2022 20:05	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 20:05	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 20:05	CM
2-Butanone	BRL	100		ug/L	348323	1	12/17/2022 20:05	CM
2-Hexanone	BRL	50		ug/L	348323	1	12/17/2022 20:05	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348323	1	12/17/2022 20:05	CM
Acetone	BRL	100		ug/L	348323	1	12/17/2022 20:05	CM
Acrylonitrile	BRL	50		ug/L	348323	1	12/17/2022 20:05	CM
Benzene	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
Bromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 20:05	CM
Bromodichloromethane	BRL	10		ug/L	348323	1	12/17/2022 20:05	CM
Bromoform	BRL	10		ug/L	348323	1	12/17/2022 20:05	CM
Bromomethane	BRL	10		ug/L	348323	1	12/17/2022 20:05	CM
Carbon disulfide	BRL	5.0		ug/L	348323	1	12/17/2022 20:05	CM
Carbon tetrachloride	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
Chlorobenzene	BRL	10		ug/L	348323	1	12/17/2022 20:05	CM
Chloroethane	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
Chloroform	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
Chloromethane	BRL	10		ug/L	348323	1	12/17/2022 20:05	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
Dibromochloromethane	BRL	10		ug/L	348323	1	12/17/2022 20:05	CM
Dibromomethane	BRL	10		ug/L	348323	1	12/17/2022 20:05	CM
Ethylbenzene	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
Iodomethane	BRL	100		ug/L	348323	1	12/17/2022 20:05	CM
Methylene chloride	BRL	5.0		ug/L	348323	1	12/17/2022 20:05	CM
Styrene	BRL	10		ug/L	348323	1	12/17/2022 20:05	CM
Tetrachloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
Toluene	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348323	1	12/17/2022 20:05	CM
Trichloroethene	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
Trichlorofluoromethane	BRL	10		ug/L	348323	1	12/17/2022 20:05	CM
Vinyl acetate	BRL	100		ug/L	348323	1	12/17/2022 20:05	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> TRIP BLANK 2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/16/2022
<b>Lab ID:</b> 2212J44-019	<b>Matrix:</b> Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348323	1	12/17/2022 20:05	CM
Xylenes, Total	BRL	5.0		ug/L	348323	1	12/17/2022 20:05	CM
Surr: 4-Bromofluorobenzene	99	75-118		%REC	348323	1	12/17/2022 20:05	CM
Surr: Dibromofluoromethane	98	82.5-121		%REC	348323	1	12/17/2022 20:05	CM
Surr: Toluene-d8	101	78.3-118		%REC	348323	1	12/17/2022 20:05	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-13
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 9:30:00 AM
<b>Lab ID:</b> 2212J44-020	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>	<b>SW6020B</b>				<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348175	1	12/20/2022 18:52	HC
Arsenic	BRL	0.0100		mg/L	348175	1	12/20/2022 18:52	HC
Barium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:52	HC
Beryllium	BRL	0.00300		mg/L	348175	1	12/20/2022 18:52	HC
Cadmium	BRL	0.00500		mg/L	348175	1	12/20/2022 18:52	HC
Chromium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:52	HC
Cobalt	BRL	0.0400		mg/L	348175	1	12/20/2022 18:52	HC
Copper	BRL	0.0200		mg/L	348175	1	12/20/2022 18:52	HC
Lead	BRL	0.0150		mg/L	348175	1	12/20/2022 18:52	HC
Nickel	BRL	0.0200		mg/L	348175	1	12/20/2022 18:52	HC
Selenium	BRL	0.0100		mg/L	348175	1	12/20/2022 18:52	HC
Silver	BRL	0.0100		mg/L	348175	1	12/20/2022 18:52	HC
Thallium	BRL	0.00200		mg/L	348175	1	12/20/2022 18:52	HC
Vanadium	BRL	0.0200		mg/L	348175	1	12/20/2022 18:52	HC
Zinc	BRL	0.0200		mg/L	348175	1	12/20/2022 18:52	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-18
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 9:05:00 AM
<b>Lab ID:</b> 2212J44-021	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I METALS</b>								
<b>SW6020B</b>					<b>(SW3005A)</b>			
Antimony	BRL	0.00600		mg/L	348226	1	12/21/2022 14:58	HC
Arsenic	BRL	0.0100		mg/L	348226	1	12/21/2022 14:58	HC
Barium	0.178	0.0200		mg/L	348226	1	12/21/2022 14:58	HC
Beryllium	BRL	0.00300		mg/L	348226	1	12/21/2022 14:58	HC
Cadmium	BRL	0.00500		mg/L	348226	1	12/21/2022 14:58	HC
Chromium	BRL	0.0100		mg/L	348226	1	12/21/2022 14:58	HC
Cobalt	BRL	0.0400		mg/L	348226	1	12/21/2022 14:58	HC
Copper	BRL	0.0200		mg/L	348226	1	12/21/2022 14:58	HC
Lead	BRL	0.0150		mg/L	348226	1	12/21/2022 14:58	HC
Nickel	BRL	0.0200		mg/L	348226	1	12/21/2022 14:58	HC
Selenium	BRL	0.0100		mg/L	348226	1	12/21/2022 14:58	HC
Silver	BRL	0.0100		mg/L	348226	1	12/21/2022 14:58	HC
Thallium	BRL	0.00200		mg/L	348226	1	12/21/2022 14:58	HC
Vanadium	BRL	0.0200		mg/L	348226	1	12/21/2022 14:58	HC
Zinc	BRL	0.0200		mg/L	348226	1	12/21/2022 14:58	HC

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212J44-022

**Client Sample ID:** PH1-GWC-3  
**Collection Date:** 12/15/2022 10:55:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Metals by ICP/MS SW6020B</b>					<b>(SW3005A)</b>			
Manganese	0.108	0.00500		mg/L	348226	1	12/21/2022 14:14	HC
Potassium	1.02	0.100		mg/L	348226	1	12/21/2022 14:14	HC
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	92	10		mg/L	348156	1	12/21/2022 13:00	NN
<b>ION SCAN SW9056A</b>								
Chloride	4.7	1.0		mg/L	R504137	1	12/16/2022 10:22	BI
Nitrate	BRL	0.25		mg/L	R504137	1	12/16/2022 10:22	BI
Sulfate	3.1	1.0		mg/L	R504137	1	12/16/2022 10:22	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
1,1-Dichloroethane	4.5	2.0		ug/L	348323	1	12/18/2022 00:06	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348323	1	12/18/2022 00:06	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348323	1	12/18/2022 00:06	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348323	1	12/18/2022 00:06	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 00:06	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 00:06	CM
2-Butanone	BRL	100		ug/L	348323	1	12/18/2022 00:06	CM
2-Hexanone	BRL	50		ug/L	348323	1	12/18/2022 00:06	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348323	1	12/18/2022 00:06	CM
Acetone	BRL	100		ug/L	348323	1	12/18/2022 00:06	CM
Acrylonitrile	BRL	50		ug/L	348323	1	12/18/2022 00:06	CM
Benzene	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
Bromochloromethane	BRL	10		ug/L	348323	1	12/18/2022 00:06	CM
Bromodichloromethane	BRL	10		ug/L	348323	1	12/18/2022 00:06	CM
Bromoform	BRL	10		ug/L	348323	1	12/18/2022 00:06	CM
Bromomethane	BRL	10		ug/L	348323	1	12/18/2022 00:06	CM
Carbon disulfide	BRL	5.0		ug/L	348323	1	12/18/2022 00:06	CM
Carbon tetrachloride	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
Chlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 00:06	CM
Chloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
Chloroform	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
Chloromethane	BRL	10		ug/L	348323	1	12/18/2022 00:06	CM
cis-1,2-Dichloroethene	36	2.0		ug/L	348323	1	12/18/2022 00:06	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
Dibromochloromethane	BRL	10		ug/L	348323	1	12/18/2022 00:06	CM
Dibromomethane	BRL	10		ug/L	348323	1	12/18/2022 00:06	CM

**Qualifiers:**

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- BRL Below reporting limit
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- B Analyte detected in the associated method blank
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- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWC-3
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 10:55:00 AM
<b>Lab ID:</b> 2212J44-022	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>		<b>(SW5030B)</b>						
Ethylbenzene	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
Iodomethane	BRL	100		ug/L	348323	1	12/18/2022 00:06	CM
Methylene chloride	BRL	5.0		ug/L	348323	1	12/18/2022 00:06	CM
Styrene	BRL	10		ug/L	348323	1	12/18/2022 00:06	CM
Tetrachloroethene	9.5	2.0		ug/L	348323	1	12/18/2022 00:06	CM
Toluene	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348323	1	12/18/2022 00:06	CM
Trichloroethene	9.5	2.0		ug/L	348323	1	12/18/2022 00:06	CM
Trichlorofluoromethane	BRL	10		ug/L	348323	1	12/18/2022 00:06	CM
Vinyl acetate	BRL	100		ug/L	348323	1	12/18/2022 00:06	CM
Vinyl chloride	BRL	2.0		ug/L	348323	1	12/18/2022 00:06	CM
Xylenes, Total	BRL	5.0		ug/L	348323	1	12/18/2022 00:06	CM
Surr: 4-Bromofluorobenzene	101	75-118		%REC	348323	1	12/18/2022 00:06	CM
Surr: Dibromofluoromethane	108	82.5-121		%REC	348323	1	12/18/2022 00:06	CM
Surr: Toluene-d8	101	78.3-118		%REC	348323	1	12/18/2022 00:06	CM
<b>APPENDIX I METALS SW6020B</b>		<b>(SW3005A)</b>						
Antimony	BRL	0.00600		mg/L	348226	1	12/21/2022 14:14	HC
Arsenic	BRL	0.0100		mg/L	348226	1	12/21/2022 14:14	HC
Barium	0.0292	0.0200		mg/L	348226	1	12/21/2022 14:14	HC
Beryllium	BRL	0.00300		mg/L	348226	1	12/21/2022 14:14	HC
Cadmium	BRL	0.00500		mg/L	348226	1	12/21/2022 14:14	HC
Chromium	BRL	0.0100		mg/L	348226	1	12/21/2022 14:14	HC
Cobalt	BRL	0.0400		mg/L	348226	1	12/21/2022 14:14	HC
Copper	BRL	0.0200		mg/L	348226	1	12/21/2022 14:14	HC
Lead	BRL	0.0150		mg/L	348226	1	12/21/2022 14:14	HC
Nickel	BRL	0.0200		mg/L	348226	1	12/21/2022 14:14	HC
Selenium	BRL	0.0100		mg/L	348226	1	12/21/2022 14:14	HC
Silver	BRL	0.0100		mg/L	348226	1	12/21/2022 14:14	HC
Thallium	BRL	0.00200		mg/L	348226	1	12/21/2022 14:14	HC
Vanadium	BRL	0.0200		mg/L	348226	1	12/21/2022 14:14	HC
Zinc	BRL	0.0200		mg/L	348226	1	12/21/2022 14:14	HC
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	73.0	3.00		mg/L	R504327	1	12/20/2022 11:31	AH

**Qualifiers:**

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- E Estimated (value above quantitation range)
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- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
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**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212J44-023

**Client Sample ID:** PH1-GWC-3A  
**Collection Date:** 12/15/2022 11:45:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Metals by ICP/MS SW6020B</b>					<b>(SW3005A)</b>			
Manganese	0.0627	0.00500		mg/L	348226	1	12/21/2022 14:16	HC
Potassium	1.22	0.100		mg/L	348226	1	12/21/2022 14:16	HC
<b>SIM Polynuclear Aromatic Hydrocarbons SW8270E</b>					<b>(SW3510C)</b>			
Benzo(a)pyrene	BRL	0.20		ug/L	348207	1	12/20/2022 17:18	YH
Surr: 4-Terphenyl-d14	186	64.1-136	S	%REC	348207	1	12/20/2022 17:18	YH
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	110	10		mg/L	348156	1	12/21/2022 13:00	NN
<b>ION SCAN SW9056A</b>								
Chloride	2.6	1.0		mg/L	R504137	1	12/16/2022 12:14	BI
Nitrate	0.49	0.25		mg/L	R504137	1	12/16/2022 12:14	BI
Sulfate	1.9	1.0		mg/L	R504137	1	12/16/2022 12:14	BI
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
1,1-Dichloroethane	3.6	2.0		ug/L	348323	1	12/18/2022 00:30	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348323	1	12/18/2022 00:30	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348323	1	12/18/2022 00:30	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348323	1	12/18/2022 00:30	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 00:30	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 00:30	CM
2-Butanone	BRL	100		ug/L	348323	1	12/18/2022 00:30	CM
2-Hexanone	BRL	50		ug/L	348323	1	12/18/2022 00:30	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348323	1	12/18/2022 00:30	CM
Acetone	BRL	100		ug/L	348323	1	12/18/2022 00:30	CM
Acrylonitrile	BRL	50		ug/L	348323	1	12/18/2022 00:30	CM
Benzene	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
Bromochloromethane	BRL	10		ug/L	348323	1	12/18/2022 00:30	CM
Bromodichloromethane	BRL	10		ug/L	348323	1	12/18/2022 00:30	CM
Bromoform	BRL	10		ug/L	348323	1	12/18/2022 00:30	CM
Bromomethane	BRL	10		ug/L	348323	1	12/18/2022 00:30	CM
Carbon disulfide	BRL	5.0		ug/L	348323	1	12/18/2022 00:30	CM
Carbon tetrachloride	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
Chlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 00:30	CM
Chloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
Chloroform	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
Chloromethane	BRL	10		ug/L	348323	1	12/18/2022 00:30	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
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- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
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- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212J44-023

**Client Sample ID:** PH1-GWC-3A  
**Collection Date:** 12/15/2022 11:45:00 AM  
**Matrix:** Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>			<b>(SW5030B)</b>					
cis-1,2-Dichloroethene	23	2.0		ug/L	348323	1	12/18/2022 00:30	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
Dibromochloromethane	BRL	10		ug/L	348323	1	12/18/2022 00:30	CM
Dibromomethane	BRL	10		ug/L	348323	1	12/18/2022 00:30	CM
Ethylbenzene	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
Iodomethane	BRL	100		ug/L	348323	1	12/18/2022 00:30	CM
Methylene chloride	BRL	5.0		ug/L	348323	1	12/18/2022 00:30	CM
Styrene	BRL	10		ug/L	348323	1	12/18/2022 00:30	CM
Tetrachloroethene	6.5	2.0		ug/L	348323	1	12/18/2022 00:30	CM
Toluene	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348323	1	12/18/2022 00:30	CM
Trichloroethene	8.0	2.0		ug/L	348323	1	12/18/2022 00:30	CM
Trichlorofluoromethane	BRL	10		ug/L	348323	1	12/18/2022 00:30	CM
Vinyl acetate	BRL	100		ug/L	348323	1	12/18/2022 00:30	CM
Vinyl chloride	BRL	2.0		ug/L	348323	1	12/18/2022 00:30	CM
Xylenes, Total	BRL	5.0		ug/L	348323	1	12/18/2022 00:30	CM
Surr: 4-Bromofluorobenzene	105	75-118		%REC	348323	1	12/18/2022 00:30	CM
Surr: Dibromofluoromethane	103	82.5-121		%REC	348323	1	12/18/2022 00:30	CM
Surr: Toluene-d8	95.2	78.3-118		%REC	348323	1	12/18/2022 00:30	CM
<b>APPENDIX I METALS SW6020B</b>			<b>(SW3005A)</b>					
Antimony	BRL	0.00600		mg/L	348226	1	12/21/2022 14:16	HC
Arsenic	BRL	0.0100		mg/L	348226	1	12/21/2022 14:16	HC
Barium	0.0282	0.0200		mg/L	348226	1	12/21/2022 14:16	HC
Beryllium	BRL	0.00300		mg/L	348226	1	12/21/2022 14:16	HC
Cadmium	BRL	0.00500		mg/L	348226	1	12/21/2022 14:16	HC
Chromium	BRL	0.0100		mg/L	348226	1	12/21/2022 14:16	HC
Cobalt	BRL	0.0400		mg/L	348226	1	12/21/2022 14:16	HC
Copper	BRL	0.0200		mg/L	348226	1	12/21/2022 14:16	HC
Lead	BRL	0.0150		mg/L	348226	1	12/21/2022 14:16	HC
Nickel	BRL	0.0200		mg/L	348226	1	12/21/2022 14:16	HC
Selenium	BRL	0.0100		mg/L	348226	1	12/21/2022 14:16	HC
Silver	BRL	0.0100		mg/L	348226	1	12/21/2022 14:16	HC
Thallium	BRL	0.00200		mg/L	348226	1	12/21/2022 14:16	HC
Vanadium	BRL	0.0200		mg/L	348226	1	12/21/2022 14:16	HC
Zinc	BRL	0.0200		mg/L	348226	1	12/21/2022 14:16	HC
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	94.8	3.00		mg/L	R504327	1	12/20/2022 11:31	AH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
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- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212J44-024

**Client Sample ID:** SWC-6  
**Collection Date:** 12/15/2022 12:30:00 PM  
**Matrix:** Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Organic Carbon (TOC) by SM5310B</b>								
Organic Carbon, Total	7.08	1.00		mg/L	R504298	1	12/20/2022 03:06	SK
<b>Total Cyanide (SM4500 CN-C, E) (SM4500-CN-E)</b>								
Cyanide, Total	BRL	0.010		mg/L	348282	1	12/21/2022 16:20	JO
<b>Mercury, Total SW7470A (SW7470A)</b>								
Mercury	BRL	0.00200		mg/L	348393	1	12/22/2022 16:57	GR
<b>Inorganic Anions by IC E300.0</b>								
Chloride	6.53	1.00		mg/L	R504708	1	12/22/2022 21:07	BI
<b>Chemical Oxygen Demand (COD) E410.4</b>								
Chemical Oxygen Demand	17.3	10.0		mg/L	R504359	1	12/20/2022 16:00	SK
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348323	1	12/18/2022 00:54	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348323	1	12/18/2022 00:54	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348323	1	12/18/2022 00:54	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 00:54	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 00:54	CM
2-Butanone	BRL	100		ug/L	348323	1	12/18/2022 00:54	CM
2-Hexanone	BRL	50		ug/L	348323	1	12/18/2022 00:54	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348323	1	12/18/2022 00:54	CM
Acetone	BRL	100		ug/L	348323	1	12/18/2022 00:54	CM
Acrylonitrile	BRL	50		ug/L	348323	1	12/18/2022 00:54	CM
Benzene	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
Bromochloromethane	BRL	10		ug/L	348323	1	12/18/2022 00:54	CM
Bromodichloromethane	BRL	10		ug/L	348323	1	12/18/2022 00:54	CM
Bromoform	BRL	10		ug/L	348323	1	12/18/2022 00:54	CM
Bromomethane	BRL	10		ug/L	348323	1	12/18/2022 00:54	CM
Carbon disulfide	BRL	5.0		ug/L	348323	1	12/18/2022 00:54	CM
Carbon tetrachloride	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
Chlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 00:54	CM
Chloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
Chloroform	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
Chloromethane	BRL	10		ug/L	348323	1	12/18/2022 00:54	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212J44-024

**Client Sample ID:** SWC-6  
**Collection Date:** 12/15/2022 12:30:00 PM  
**Matrix:** Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
Dibromochloromethane	BRL	10		ug/L	348323	1	12/18/2022 00:54	CM
Dibromomethane	BRL	10		ug/L	348323	1	12/18/2022 00:54	CM
Ethylbenzene	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
Iodomethane	BRL	100		ug/L	348323	1	12/18/2022 00:54	CM
Methylene chloride	BRL	5.0		ug/L	348323	1	12/18/2022 00:54	CM
Styrene	BRL	10		ug/L	348323	1	12/18/2022 00:54	CM
Tetrachloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
Toluene	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348323	1	12/18/2022 00:54	CM
Trichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
Trichlorofluoromethane	BRL	10		ug/L	348323	1	12/18/2022 00:54	CM
Vinyl acetate	BRL	100		ug/L	348323	1	12/18/2022 00:54	CM
Vinyl chloride	BRL	2.0		ug/L	348323	1	12/18/2022 00:54	CM
Xylenes, Total	BRL	5.0		ug/L	348323	1	12/18/2022 00:54	CM
Surr: 4-Bromofluorobenzene	101	75-118		%REC	348323	1	12/18/2022 00:54	CM
Surr: Dibromofluoromethane	105	82.5-121		%REC	348323	1	12/18/2022 00:54	CM
Surr: Toluene-d8	94.8	78.3-118		%REC	348323	1	12/18/2022 00:54	CM

**Alkalinity by SM2320B**

Alkalinity, Total (As CaCO3)	20.7	3.00		mg/L	R504327	1	12/20/2022 11:31	AH
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**METALS, TOTAL SW6010D**

<b>METALS, TOTAL SW6010D</b>					<b>(SW3010A)</b>			
Arsenic	BRL	0.0500		mg/L	348227	1	12/21/2022 16:46	TA
Barium	0.0229	0.0200		mg/L	348227	1	12/21/2022 16:46	TA
Cadmium	BRL	0.0050		mg/L	348227	1	12/21/2022 16:46	TA
Chromium	BRL	0.0100		mg/L	348227	1	12/21/2022 16:46	TA
Lead	BRL	0.0100		mg/L	348227	1	12/21/2022 16:46	TA
Nickel	BRL	0.0200		mg/L	348227	1	12/21/2022 16:46	TA
Selenium	BRL	0.0200		mg/L	348227	1	12/21/2022 16:46	TA
Silver	BRL	0.0100		mg/L	348227	1	12/21/2022 16:46	TA
Zinc	0.0517	0.0200		mg/L	348227	1	12/21/2022 16:46	TA

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
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- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWA-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 10:10:00 AM
<b>Lab ID:</b> 2212J44-025	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Organic Carbon (TOC) by SM5310B</b>								
Organic Carbon, Total	4.93	1.00		mg/L	R504730	1	12/23/2022 15:18	SK
<b>Total Cyanide (SM4500 CN-C, E) (SM4500-CN-E)</b>								
Cyanide, Total	BRL	0.010		mg/L	348365	1	12/23/2022 18:27	JO
<b>Mercury, Total SW7470A (SW7470A)</b>								
Mercury	BRL	0.00050		mg/L	348328	1	12/21/2022 19:48	GR
<b>Inorganic Anions by IC E300.0</b>								
Chloride	2.25	1.00		mg/L	R504708	1	12/22/2022 21:23	BI
<b>Chemical Oxygen Demand (COD) E410.4</b>								
Chemical Oxygen Demand	12.9	10.0		mg/L	R504359	1	12/20/2022 16:00	SK
<b>METALS, TOTAL SW6010D (SW3010A)</b>								
Arsenic	BRL	0.0500		mg/L	348227	1	12/21/2022 16:49	TA
Barium	0.0289	0.0200		mg/L	348227	1	12/21/2022 16:49	TA
Cadmium	BRL	0.0050		mg/L	348227	1	12/21/2022 16:49	TA
Chromium	BRL	0.0100		mg/L	348227	1	12/21/2022 16:49	TA
Lead	BRL	0.0100		mg/L	348227	1	12/21/2022 16:49	TA
Nickel	BRL	0.0200		mg/L	348227	1	12/21/2022 16:49	TA
Selenium	BRL	0.0200		mg/L	348227	1	12/21/2022 16:49	TA
Silver	BRL	0.0100		mg/L	348227	1	12/21/2022 16:49	TA
Zinc	0.0216	0.0200		mg/L	348227	1	12/21/2022 16:49	TA

**Qualifiers:**

- \* Value exceeds maximum contaminant level
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- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWA-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 11:05:00 AM
<b>Lab ID:</b> 2212J44-026	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Organic Carbon (TOC) by SM5310B</b>								
Organic Carbon, Total	1.90	1.00		mg/L	R504730	1	12/23/2022 01:23	SK
<b>Total Cyanide (SM4500 CN-C, E) (SM4500-CN-E)</b>								
Cyanide, Total	BRL	0.010		mg/L	348365	1	12/23/2022 18:31	JO
<b>Mercury, Total SW7470A (SW7470A)</b>								
Mercury	BRL	0.00050		mg/L	348328	1	12/21/2022 19:52	GR
<b>Inorganic Anions by IC E300.0</b>								
Chloride	1.70	1.00		mg/L	R504708	1	12/22/2022 21:39	BI
<b>Chemical Oxygen Demand (COD) E410.4</b>								
Chemical Oxygen Demand	24.0	10.0		mg/L	R504359	1	12/20/2022 16:00	SK
<b>METALS, TOTAL SW6010D (SW3010A)</b>								
Arsenic	BRL	0.0500		mg/L	348227	1	12/21/2022 16:52	TA
Barium	0.0215	0.0200		mg/L	348227	1	12/21/2022 16:52	TA
Cadmium	BRL	0.0050		mg/L	348227	1	12/21/2022 16:52	TA
Chromium	BRL	0.0100		mg/L	348227	1	12/21/2022 16:52	TA
Lead	BRL	0.0100		mg/L	348227	1	12/21/2022 16:52	TA
Nickel	BRL	0.0200		mg/L	348227	1	12/21/2022 16:52	TA
Selenium	BRL	0.0200		mg/L	348227	1	12/21/2022 16:52	TA
Silver	BRL	0.0100		mg/L	348227	1	12/21/2022 16:52	TA
Zinc	0.0265	0.0200		mg/L	348227	1	12/21/2022 16:52	TA

**Qualifiers:**

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- B Analyte detected in the associated method blank
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- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWC-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 10:50:00 AM
<b>Lab ID:</b> 2212J44-027	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Organic Carbon (TOC) by SM5310B</b>								
Organic Carbon, Total	5.65	1.00		mg/L	R504730	1	12/23/2022 01:51	SK
<b>Total Cyanide (SM4500 CN-C, E) (SM4500-CN-E)</b>								
Cyanide, Total	BRL	0.010		mg/L	348365	1	12/23/2022 18:38	JO
<b>Mercury, Total SW7470A (SW7470A)</b>								
Mercury	BRL	0.00050		mg/L	348328	1	12/21/2022 19:56	GR
<b>Inorganic Anions by IC E300.0</b>								
Chloride	4.19	1.00		mg/L	R504708	1	12/22/2022 21:55	BI
<b>Chemical Oxygen Demand (COD) E410.4</b>								
Chemical Oxygen Demand	26.2	10.0		mg/L	R504361	1	12/20/2022 16:00	SK
<b>APPENDIX I VOLATILE ORGANICS SW8260D (SW5030B)</b>								
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348323	1	12/18/2022 01:18	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348323	1	12/18/2022 01:18	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348323	1	12/18/2022 01:18	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 01:18	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 01:18	CM
2-Butanone	BRL	100		ug/L	348323	1	12/18/2022 01:18	CM
2-Hexanone	BRL	50		ug/L	348323	1	12/18/2022 01:18	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348323	1	12/18/2022 01:18	CM
Acetone	BRL	100		ug/L	348323	1	12/18/2022 01:18	CM
Acrylonitrile	BRL	50		ug/L	348323	1	12/18/2022 01:18	CM
Benzene	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
Bromochloromethane	BRL	10		ug/L	348323	1	12/18/2022 01:18	CM
Bromodichloromethane	BRL	10		ug/L	348323	1	12/18/2022 01:18	CM
Bromoform	BRL	10		ug/L	348323	1	12/18/2022 01:18	CM
Bromomethane	BRL	10		ug/L	348323	1	12/18/2022 01:18	CM
Carbon disulfide	BRL	5.0		ug/L	348323	1	12/18/2022 01:18	CM
Carbon tetrachloride	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
Chlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 01:18	CM
Chloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
Chloroform	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
Chloromethane	BRL	10		ug/L	348323	1	12/18/2022 01:18	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWC-1
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 10:50:00 AM
<b>Lab ID:</b> 2212J44-027	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>				<b>(SW5030B)</b>				
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
Dibromochloromethane	BRL	10		ug/L	348323	1	12/18/2022 01:18	CM
Dibromomethane	BRL	10		ug/L	348323	1	12/18/2022 01:18	CM
Ethylbenzene	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
Iodomethane	BRL	100		ug/L	348323	1	12/18/2022 01:18	CM
Methylene chloride	BRL	5.0		ug/L	348323	1	12/18/2022 01:18	CM
Styrene	BRL	10		ug/L	348323	1	12/18/2022 01:18	CM
Tetrachloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
Toluene	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348323	1	12/18/2022 01:18	CM
Trichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
Trichlorofluoromethane	BRL	10		ug/L	348323	1	12/18/2022 01:18	CM
Vinyl acetate	BRL	100		ug/L	348323	1	12/18/2022 01:18	CM
Vinyl chloride	BRL	2.0		ug/L	348323	1	12/18/2022 01:18	CM
Xylenes, Total	BRL	5.0		ug/L	348323	1	12/18/2022 01:18	CM
Surr: 4-Bromofluorobenzene	103	75-118		%REC	348323	1	12/18/2022 01:18	CM
Surr: Dibromofluoromethane	102	82.5-121		%REC	348323	1	12/18/2022 01:18	CM
Surr: Toluene-d8	97.3	78.3-118		%REC	348323	1	12/18/2022 01:18	CM
<b>METALS, TOTAL SW6010D</b>				<b>(SW3010A)</b>				
Arsenic	BRL	0.0500		mg/L	348227	1	12/21/2022 16:55	TA
Barium	0.0203	0.0200		mg/L	348227	1	12/21/2022 16:55	TA
Cadmium	BRL	0.0050		mg/L	348227	1	12/21/2022 16:55	TA
Chromium	BRL	0.0100		mg/L	348227	1	12/21/2022 16:55	TA
Lead	BRL	0.0100		mg/L	348227	1	12/21/2022 16:55	TA
Nickel	BRL	0.0200		mg/L	348227	1	12/21/2022 16:55	TA
Selenium	BRL	0.0200		mg/L	348227	1	12/21/2022 16:55	TA
Silver	BRL	0.0100		mg/L	348227	1	12/21/2022 16:55	TA
Zinc	BRL	0.0200		mg/L	348227	1	12/21/2022 16:55	TA

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWC-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 11:15:00 AM
<b>Lab ID:</b> 2212J44-028	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Organic Carbon (TOC) by SM5310B</b>								
Organic Carbon, Total	1.90	1.00		mg/L	R504730	1	12/23/2022 02:18	SK
<b>Total Cyanide (SM4500 CN-C, E) (SM4500-CN-E)</b>								
Cyanide, Total	BRL	0.010		mg/L	348365	1	12/23/2022 18:41	JO
<b>Mercury, Total SW7470A (SW7470A)</b>								
Mercury	BRL	0.00050		mg/L	348328	1	12/21/2022 19:59	GR
<b>Inorganic Anions by IC E300.0</b>								
Chloride	1.68	1.00		mg/L	R504755	1	12/23/2022 18:20	BI
<b>Chemical Oxygen Demand (COD) E410.4</b>								
Chemical Oxygen Demand	17.3	10.0		mg/L	R504361	1	12/20/2022 16:00	SK
<b>METALS, TOTAL SW6010D (SW3010A)</b>								
Arsenic	BRL	0.0500		mg/L	348227	1	12/21/2022 17:04	TA
Barium	0.0276	0.0200		mg/L	348227	1	12/21/2022 17:04	TA
Cadmium	BRL	0.0050		mg/L	348227	1	12/21/2022 17:04	TA
Chromium	BRL	0.0100		mg/L	348227	1	12/21/2022 17:04	TA
Lead	BRL	0.0100		mg/L	348227	1	12/21/2022 17:04	TA
Nickel	BRL	0.0200		mg/L	348227	1	12/21/2022 17:04	TA
Selenium	BRL	0.0200		mg/L	348227	1	12/21/2022 17:04	TA
Silver	BRL	0.0100		mg/L	348227	1	12/21/2022 17:04	TA
Zinc	BRL	0.0200		mg/L	348227	1	12/21/2022 17:04	TA

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWC-3
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 11:20:00 AM
<b>Lab ID:</b> 2212J44-029	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Organic Carbon (TOC) by SM5310B</b>								
Organic Carbon, Total	1.67	1.00		mg/L	R504730	1	12/23/2022 10:49	SK
<b>Total Cyanide (SM4500 CN-C, E) (SM4500-CN-E)</b>								
Cyanide, Total	BRL	0.010		mg/L	348365	1	12/23/2022 18:44	JO
<b>Mercury, Total SW7470A (SW7470A)</b>								
Mercury	BRL	0.00050		mg/L	348328	1	12/21/2022 20:03	GR
<b>Inorganic Anions by IC E300.0</b>								
Chloride	1.76	1.00		mg/L	R504755	1	12/23/2022 18:37	BI
<b>Chemical Oxygen Demand (COD) E410.4</b>								
Chemical Oxygen Demand	12.9	10.0		mg/L	R504361	1	12/20/2022 16:00	SK
<b>METALS, TOTAL SW6010D (SW3010A)</b>								
Arsenic	BRL	0.0500		mg/L	348227	1	12/21/2022 17:07	TA
Barium	0.0204	0.0200		mg/L	348227	1	12/21/2022 17:07	TA
Cadmium	BRL	0.0050		mg/L	348227	1	12/21/2022 17:07	TA
Chromium	BRL	0.0100		mg/L	348227	1	12/21/2022 17:07	TA
Lead	BRL	0.0100		mg/L	348227	1	12/21/2022 17:07	TA
Nickel	BRL	0.0200		mg/L	348227	1	12/21/2022 17:07	TA
Selenium	BRL	0.0200		mg/L	348227	1	12/21/2022 17:07	TA
Silver	BRL	0.0100		mg/L	348227	1	12/21/2022 17:07	TA
Zinc	0.0292	0.0200		mg/L	348227	1	12/21/2022 17:07	TA

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab ID:** 2212J44-030

**Client Sample ID:** SWC-4A  
**Collection Date:** 12/15/2022 11:35:00 AM  
**Matrix:** Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348323	1	12/18/2022 01:42	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348323	1	12/18/2022 01:42	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348323	1	12/18/2022 01:42	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 01:42	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 01:42	CM
2-Butanone	BRL	100		ug/L	348323	1	12/18/2022 01:42	CM
2-Hexanone	BRL	50		ug/L	348323	1	12/18/2022 01:42	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348323	1	12/18/2022 01:42	CM
Acetone	BRL	100		ug/L	348323	1	12/18/2022 01:42	CM
Acrylonitrile	BRL	50		ug/L	348323	1	12/18/2022 01:42	CM
Benzene	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
Bromochloromethane	BRL	10		ug/L	348323	1	12/18/2022 01:42	CM
Bromodichloromethane	BRL	10		ug/L	348323	1	12/18/2022 01:42	CM
Bromoform	BRL	10		ug/L	348323	1	12/18/2022 01:42	CM
Bromomethane	BRL	10		ug/L	348323	1	12/18/2022 01:42	CM
Carbon disulfide	BRL	5.0		ug/L	348323	1	12/18/2022 01:42	CM
Carbon tetrachloride	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
Chlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 01:42	CM
Chloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
Chloroform	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
Chloromethane	BRL	10		ug/L	348323	1	12/18/2022 01:42	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
Dibromochloromethane	BRL	10		ug/L	348323	1	12/18/2022 01:42	CM
Dibromomethane	BRL	10		ug/L	348323	1	12/18/2022 01:42	CM
Ethylbenzene	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
Iodomethane	BRL	100		ug/L	348323	1	12/18/2022 01:42	CM
Methylene chloride	BRL	5.0		ug/L	348323	1	12/18/2022 01:42	CM
Styrene	BRL	10		ug/L	348323	1	12/18/2022 01:42	CM
Tetrachloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
Toluene	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348323	1	12/18/2022 01:42	CM
Trichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
Trichlorofluoromethane	BRL	10		ug/L	348323	1	12/18/2022 01:42	CM
Vinyl acetate	BRL	100		ug/L	348323	1	12/18/2022 01:42	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWC-4A
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 11:35:00 AM
<b>Lab ID:</b> 2212J44-030	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348323	1	12/18/2022 01:42	CM
Xylenes, Total	BRL	5.0		ug/L	348323	1	12/18/2022 01:42	CM
Surr: 4-Bromofluorobenzene	100	75-118		%REC	348323	1	12/18/2022 01:42	CM
Surr: Dibromofluoromethane	104	82.5-121		%REC	348323	1	12/18/2022 01:42	CM
Surr: Toluene-d8	98.8	78.3-118		%REC	348323	1	12/18/2022 01:42	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWC-4B
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 11:50:00 AM
<b>Lab ID:</b> 2212J44-031	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
1,1,1,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
1,1,1-Trichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
1,1,2,2-Tetrachloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
1,1,2-Trichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
1,1-Dichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
1,1-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
1,2,3-Trichloropropane	BRL	10		ug/L	348323	1	12/18/2022 02:06	CM
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	348323	1	12/18/2022 02:06	CM
1,2-Dibromoethane	BRL	1.0		ug/L	348323	1	12/18/2022 02:06	CM
1,2-Dichlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 02:06	CM
1,2-Dichloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
1,2-Dichloropropane	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
1,4-Dichlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 02:06	CM
2-Butanone	BRL	100		ug/L	348323	1	12/18/2022 02:06	CM
2-Hexanone	BRL	50		ug/L	348323	1	12/18/2022 02:06	CM
4-Methyl-2-pentanone	BRL	50		ug/L	348323	1	12/18/2022 02:06	CM
Acetone	BRL	100		ug/L	348323	1	12/18/2022 02:06	CM
Acrylonitrile	BRL	50		ug/L	348323	1	12/18/2022 02:06	CM
Benzene	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
Bromochloromethane	BRL	10		ug/L	348323	1	12/18/2022 02:06	CM
Bromodichloromethane	BRL	10		ug/L	348323	1	12/18/2022 02:06	CM
Bromoform	BRL	10		ug/L	348323	1	12/18/2022 02:06	CM
Bromomethane	BRL	10		ug/L	348323	1	12/18/2022 02:06	CM
Carbon disulfide	BRL	5.0		ug/L	348323	1	12/18/2022 02:06	CM
Carbon tetrachloride	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
Chlorobenzene	BRL	10		ug/L	348323	1	12/18/2022 02:06	CM
Chloroethane	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
Chloroform	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
Chloromethane	BRL	10		ug/L	348323	1	12/18/2022 02:06	CM
cis-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
cis-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
Dibromochloromethane	BRL	10		ug/L	348323	1	12/18/2022 02:06	CM
Dibromomethane	BRL	10		ug/L	348323	1	12/18/2022 02:06	CM
Ethylbenzene	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
Iodomethane	BRL	100		ug/L	348323	1	12/18/2022 02:06	CM
Methylene chloride	BRL	5.0		ug/L	348323	1	12/18/2022 02:06	CM
Styrene	BRL	10		ug/L	348323	1	12/18/2022 02:06	CM
Tetrachloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
Toluene	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
trans-1,2-Dichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
trans-1,3-Dichloropropene	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
trans-1,4-Dichloro-2-butene	BRL	100		ug/L	348323	1	12/18/2022 02:06	CM
Trichloroethene	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
Trichlorofluoromethane	BRL	10		ug/L	348323	1	12/18/2022 02:06	CM
Vinyl acetate	BRL	100		ug/L	348323	1	12/18/2022 02:06	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWC-4B
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 11:50:00 AM
<b>Lab ID:</b> 2212J44-031	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>APPENDIX I VOLATILE ORGANICS SW8260D</b>					<b>(SW5030B)</b>			
Vinyl chloride	BRL	2.0		ug/L	348323	1	12/18/2022 02:06	CM
Xylenes, Total	BRL	5.0		ug/L	348323	1	12/18/2022 02:06	CM
Surr: 4-Bromofluorobenzene	104	75-118		%REC	348323	1	12/18/2022 02:06	CM
Surr: Dibromofluoromethane	104	82.5-121		%REC	348323	1	12/18/2022 02:06	CM
Surr: Toluene-d8	102	78.3-118		%REC	348323	1	12/18/2022 02:06	CM

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWC-5
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 9:55:00 AM
<b>Lab ID:</b> 2212J44-032	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Organic Carbon (TOC) by SM5310B</b>								
Organic Carbon, Total	11.2	1.00		mg/L	R504730	1	12/23/2022 11:18	SK
<b>Total Cyanide (SM4500 CN-C, E) (SM4500-CN-E)</b>								
Cyanide, Total	BRL	0.010		mg/L	348365	1	12/23/2022 18:45	JO
<b>Mercury, Total SW7470A (SW7470A)</b>								
Mercury	BRL	0.00050		mg/L	348328	1	12/21/2022 20:07	GR
<b>Inorganic Anions by IC E300.0</b>								
Chloride	6.87	1.00		mg/L	R504755	1	12/23/2022 18:53	BI
<b>Chemical Oxygen Demand (COD) E410.4</b>								
Chemical Oxygen Demand	37.4	10.0		mg/L	R504361	1	12/20/2022 16:00	SK
<b>METALS, TOTAL SW6010D (SW3010A)</b>								
Arsenic	BRL	0.0500		mg/L	348227	1	12/21/2022 17:11	TA
Barium	0.0405	0.0200		mg/L	348227	1	12/21/2022 17:11	TA
Cadmium	BRL	0.0050		mg/L	348227	1	12/21/2022 17:11	TA
Chromium	BRL	0.0100		mg/L	348227	1	12/21/2022 17:11	TA
Lead	BRL	0.0100		mg/L	348227	1	12/21/2022 17:11	TA
Nickel	BRL	0.0200		mg/L	348227	1	12/21/2022 17:11	TA
Selenium	BRL	0.0200		mg/L	348227	1	12/21/2022 17:11	TA
Silver	BRL	0.0100		mg/L	348227	1	12/21/2022 17:11	TA
Zinc	0.0351	0.0200		mg/L	348227	1	12/21/2022 17:11	TA

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWC-7
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 10:40:00 AM
<b>Lab ID:</b> 2212J44-033	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Organic Carbon (TOC) by SM5310B</b>								
Organic Carbon, Total	9.28	1.00		mg/L	R504730	1	12/23/2022 11:53	SK
<b>Total Cyanide (SM4500 CN-C, E) (SM4500-CN-E)</b>								
Cyanide, Total	BRL	0.010		mg/L	348365	1	12/23/2022 18:49	JO
<b>Mercury, Total SW7470A (SW7470A)</b>								
Mercury	BRL	0.00050		mg/L	348393	1	12/22/2022 16:18	GR
<b>Inorganic Anions by IC E300.0</b>								
Chloride	2.51	1.00		mg/L	R504755	1	12/23/2022 19:09	BI
<b>Chemical Oxygen Demand (COD) E410.4</b>								
Chemical Oxygen Demand	32.9	10.0		mg/L	R504361	1	12/20/2022 16:00	SK
<b>METALS, TOTAL SW6010D (SW3010A)</b>								
Arsenic	BRL	0.0500		mg/L	348227	1	12/21/2022 17:14	TA
Barium	BRL	0.0200		mg/L	348227	1	12/21/2022 17:14	TA
Cadmium	BRL	0.0050		mg/L	348227	1	12/21/2022 17:14	TA
Chromium	BRL	0.0100		mg/L	348227	1	12/21/2022 17:14	TA
Lead	0.0226	0.0100		mg/L	348227	1	12/21/2022 17:14	TA
Nickel	BRL	0.0200		mg/L	348227	1	12/21/2022 17:14	TA
Selenium	BRL	0.0200		mg/L	348227	1	12/21/2022 17:14	TA
Silver	BRL	0.0100		mg/L	348227	1	12/21/2022 17:14	TA
Zinc	BRL	0.0200		mg/L	348227	1	12/21/2022 17:14	TA

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWC-8
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 10:25:00 AM
<b>Lab ID:</b> 2212J44-034	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Organic Carbon (TOC) by SM5310B</b>								
Organic Carbon, Total	9.79	1.00		mg/L	R504730	1	12/23/2022 12:21	SK
<b>Total Cyanide (SM4500 CN-C, E) (SM4500-CN-E)</b>								
Cyanide, Total	BRL	0.010		mg/L	348365	1	12/23/2022 18:51	JO
<b>Mercury, Total SW7470A (SW7470A)</b>								
Mercury	BRL	0.00050		mg/L	348393	1	12/22/2022 16:21	GR
<b>Inorganic Anions by IC E300.0</b>								
Chloride	2.57	1.00		mg/L	R504755	1	12/23/2022 19:25	BI
<b>Chemical Oxygen Demand (COD) E410.4</b>								
Chemical Oxygen Demand	35.1	10.0		mg/L	R504361	1	12/20/2022 16:00	SK
<b>METALS, TOTAL SW6010D (SW3010A)</b>								
Arsenic	BRL	0.0500		mg/L	348227	1	12/21/2022 17:17	TA
Barium	BRL	0.0200		mg/L	348227	1	12/21/2022 17:17	TA
Cadmium	BRL	0.0050		mg/L	348227	1	12/21/2022 17:17	TA
Chromium	BRL	0.0100		mg/L	348227	1	12/21/2022 17:17	TA
Lead	BRL	0.0100		mg/L	348227	1	12/21/2022 17:17	TA
Nickel	BRL	0.0200		mg/L	348227	1	12/21/2022 17:17	TA
Selenium	BRL	0.0200		mg/L	348227	1	12/21/2022 17:17	TA
Silver	BRL	0.0100		mg/L	348227	1	12/21/2022 17:17	TA
Zinc	0.0247	0.0200		mg/L	348227	1	12/21/2022 17:17	TA

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> SWC-9
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF	<b>Collection Date:</b> 12/15/2022 11:30:00 AM
<b>Lab ID:</b> 2212J44-035	<b>Matrix:</b> Surface Water

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Total Organic Carbon (TOC) by SM5310B</b>								
Organic Carbon, Total	5.29	1.00		mg/L	R504730	1	12/23/2022 12:51	SK
<b>Total Cyanide (SM4500 CN-C, E) (SM4500-CN-E)</b>								
Cyanide, Total	BRL	0.010		mg/L	348365	1	12/23/2022 18:54	JO
<b>Mercury, Total SW7470A (SW7470A)</b>								
Mercury	BRL	0.00050		mg/L	348393	1	12/22/2022 16:37	GR
<b>Inorganic Anions by IC E300.0</b>								
Chloride	1.99	1.00		mg/L	R504755	1	12/23/2022 19:41	BI
<b>Chemical Oxygen Demand (COD) E410.4</b>								
Chemical Oxygen Demand	26.2	10.0		mg/L	R504361	1	12/20/2022 16:00	SK
<b>METALS, TOTAL SW6010D (SW3010A)</b>								
Arsenic	BRL	0.0500		mg/L	348227	1	12/21/2022 17:20	TA
Barium	BRL	0.0200		mg/L	348227	1	12/21/2022 17:20	TA
Cadmium	BRL	0.0050		mg/L	348227	1	12/21/2022 17:20	TA
Chromium	BRL	0.0100		mg/L	348227	1	12/21/2022 17:20	TA
Lead	BRL	0.0100		mg/L	348227	1	12/21/2022 17:20	TA
Nickel	BRL	0.0200		mg/L	348227	1	12/21/2022 17:20	TA
Selenium	BRL	0.0200		mg/L	348227	1	12/21/2022 17:20	TA
Silver	BRL	0.0100		mg/L	348227	1	12/21/2022 17:20	TA
Zinc	BRL	0.0200		mg/L	348227	1	12/21/2022 17:20	TA

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

**SAMPLE/COOLER RECEIPT CHECKLIST**

1. Client Name: Atlantic Coast Consulting, Inc.

AES Work Order Number: 2212J44

2. Carrier: FedEx  UPS  USPS  Client  Courier  Other \_\_\_\_\_

	Yes	No	N/A	Details	Comments
3. Shipping container/cooler received in good condition?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	damaged <input type="checkbox"/> leaking <input type="checkbox"/> other <input type="checkbox"/>	
4. Custody seals present on shipping container?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
5. Custody seals intact on shipping container?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
6. Temperature blanks present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
7. Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cooling initiated for recently collected samples / ice present <input type="checkbox"/>	
8. Chain of Custody (COC) present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
9. Chain of Custody signed, dated, and timed when relinquished and received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
10. Sampler name and/or signature on COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
11. Were all samples received within holding time?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
12. TAT marked on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. <input type="checkbox"/>	

13. Cooler 1 Temperature 1.6 °C    Cooler 2 Temperature 1.4 °C    Cooler 3 Temperature 1.3 °C    Cooler 4 Temperature \_\_\_\_\_ °C  
 14. Cooler 5 Temperature \_\_\_\_\_ °C    Cooler 6 Temperature \_\_\_\_\_ °C    Cooler 7 Temperature \_\_\_\_\_ °C    Cooler 8 Temperature \_\_\_\_\_ °C

15. Comments: \_\_\_\_\_

I certify that I have completed sections 1-15 (dated initials). DG 12/17/22

	Yes	No	N/A	Details	Comments
16. Were sample containers intact upon receipt?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
17. Custody seals present on sample containers?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
18. Custody seals intact on sample containers?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
19. Do sample container labels match the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	incomplete info <input type="checkbox"/> illegible <input type="checkbox"/> no label <input type="checkbox"/> other <input type="checkbox"/>	
20. Are analyses requested indicated on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
21. Were all of the samples listed on the COC received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	samples received but not listed on COC <input type="checkbox"/> samples listed on COC not received <input type="checkbox"/>	
22. Was the sample collection date/time noted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
23. Did we receive sufficient sample volume for indicated analyses?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
24. Were samples received in appropriate containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
25. Were VOA samples received without headspace (< 1/4" bubble)?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
26. Were trip blanks submitted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	listed on COC <input checked="" type="checkbox"/> not listed on COC <input type="checkbox"/>	

27. Comments: \_\_\_\_\_

This section only applies to samples where pH can be checked at Sample Receipt.

I certify that I have completed sections 16-27 (dated initials). DG 12/17/22

	Yes	No	N/A	Details	Comments
28. Have containers needing chemical preservation been checked? *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
29. Containers meet preservation guidelines?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
30. Was pH adjusted at Sample Receipt?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		

\* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

This also excludes metals by EPA 200.7, 200.8 and 245.1 which will be verified between 16 and 24 hours after preservation.

I certify that I have completed sections 28-30 (dated initials). DG 12/17/22

**Locked**

Client: Atlantic Coast Consulting, Inc.  
 Project Name: Forsyth County-Hightower Road MSWLF  
 Lab Order: 2212J44

### Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
2212J44-001A	PH1-GWA-1A	12/15/2022 9:55:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/17/2022
2212J44-001A	PH1-GWA-1A	12/15/2022 9:55:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/22/2022
2212J44-001B	PH1-GWA-1A	12/15/2022 9:55:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-002A	AMW-1	12/15/2022 11:45:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/17/2022
2212J44-002A	AMW-1	12/15/2022 11:45:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/22/2022
2212J44-002B	AMW-1	12/15/2022 11:45:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-002B	AMW-1	12/15/2022 11:45:00AM	Groundwater	Total Metals by ICP/MS		12/20/2022 9:25:00AM	12/20/2022
2212J44-002D	AMW-1	12/15/2022 11:45:00AM	Groundwater	ION SCAN			12/16/2022
2212J44-002D	AMW-1	12/15/2022 11:45:00AM	Groundwater	Alkalinity by SM2320B			12/20/2022
2212J44-002D	AMW-1	12/15/2022 11:45:00AM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/21/2022 1:00:00PM	12/21/2022
2212J44-003A	GWC-4A	12/15/2022 12:55:00PM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-004A	GWA-1	12/15/2022 1:20:00PM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/17/2022
2212J44-004B	GWA-1	12/15/2022 1:20:00PM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-004B	GWA-1	12/15/2022 1:20:00PM	Groundwater	Total Metals by ICP/MS		12/20/2022 9:25:00AM	12/20/2022
2212J44-004D	GWA-1	12/15/2022 1:20:00PM	Groundwater	ION SCAN			12/16/2022
2212J44-004D	GWA-1	12/15/2022 1:20:00PM	Groundwater	Alkalinity by SM2320B			12/20/2022
2212J44-004D	GWA-1	12/15/2022 1:20:00PM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/21/2022 1:00:00PM	12/21/2022
2212J44-005A	PH1-GWA-4	12/15/2022 2:45:00PM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/17/2022
2212J44-005B	PH1-GWA-4	12/15/2022 2:45:00PM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-005B	PH1-GWA-4	12/15/2022 2:45:00PM	Groundwater	Total Metals by ICP/MS		12/20/2022 9:25:00AM	12/20/2022
2212J44-005D	PH1-GWA-4	12/15/2022 2:45:00PM	Groundwater	ION SCAN			12/16/2022
2212J44-005D	PH1-GWA-4	12/15/2022 2:45:00PM	Groundwater	Alkalinity by SM2320B			12/20/2022
2212J44-005D	PH1-GWA-4	12/15/2022 2:45:00PM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/21/2022 1:00:00PM	12/21/2022
2212J44-006A	PH1-GWA-1	12/15/2022 8:40:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-007A	PH1-GWC-1	12/15/2022 8:50:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-008A	PH1-GWA-2	12/15/2022 10:20:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-009A	GWC-6	12/15/2022 8:45:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-010A	GWC-9	12/15/2022 9:00:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-011A	GWC-10	12/15/2022 9:15:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022

Client: Atlantic Coast Consulting, Inc.  
 Project Name: Forsyth County-Hightower Road MSWLF  
 Lab Order: 2212J44

## Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
2212J44-012A	GWC-10A	12/15/2022 9:10:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-013A	GWC-17	12/15/2022 9:45:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-014A	GWC-19R	12/15/2022 10:05:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-015A	GWC-24	12/15/2022 9:20:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-016A	AMW-2	12/15/2022 9:10:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-017A	FIELD BLANK-2	12/15/2022 9:20:00AM	Aqueous	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/17/2022
2212J44-017B	FIELD BLANK-2	12/15/2022 9:20:00AM	Aqueous	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-018A	TRIP BLANK 1	12/16/2022 12:00:00AM	Aqueous	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/17/2022
2212J44-019A	TRIP BLANK 2	12/16/2022 12:00:00AM	Aqueous	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/17/2022
2212J44-020A	AMW-13	12/15/2022 9:30:00AM	Groundwater	APPENDIX I METALS		12/20/2022 9:25:00AM	12/20/2022
2212J44-021A	GWC-18	12/15/2022 9:05:00AM	Groundwater	APPENDIX I METALS		12/21/2022 7:14:00AM	12/21/2022
2212J44-022A	PH1-GWC-3	12/15/2022 10:55:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/18/2022
2212J44-022B	PH1-GWC-3	12/15/2022 10:55:00AM	Groundwater	APPENDIX I METALS		12/21/2022 7:14:00AM	12/21/2022
2212J44-022B	PH1-GWC-3	12/15/2022 10:55:00AM	Groundwater	Total Metals by ICP/MS		12/21/2022 7:14:00AM	12/21/2022
2212J44-022D	PH1-GWC-3	12/15/2022 10:55:00AM	Groundwater	ION SCAN			12/16/2022
2212J44-022D	PH1-GWC-3	12/15/2022 10:55:00AM	Groundwater	Alkalinity by SM2320B			12/20/2022
2212J44-022D	PH1-GWC-3	12/15/2022 10:55:00AM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/21/2022 1:00:00PM	12/21/2022
2212J44-023A	PH1-GWC-3A	12/15/2022 11:45:00AM	Groundwater	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/18/2022
2212J44-023B	PH1-GWC-3A	12/15/2022 11:45:00AM	Groundwater	APPENDIX I METALS		12/21/2022 7:14:00AM	12/21/2022
2212J44-023B	PH1-GWC-3A	12/15/2022 11:45:00AM	Groundwater	Total Metals by ICP/MS		12/21/2022 7:14:00AM	12/21/2022
2212J44-023D	PH1-GWC-3A	12/15/2022 11:45:00AM	Groundwater	ION SCAN			12/16/2022
2212J44-023D	PH1-GWC-3A	12/15/2022 11:45:00AM	Groundwater	Alkalinity by SM2320B			12/20/2022
2212J44-023D	PH1-GWC-3A	12/15/2022 11:45:00AM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/21/2022 1:00:00PM	12/21/2022
2212J44-023E	PH1-GWC-3A	12/15/2022 11:45:00AM	Groundwater	Polynuclear Aromatic Hydrocarbons		12/20/2022 10:10:00AM	12/20/2022
2212J44-024A	SWC-6	12/15/2022 12:30:00PM	Surface Water	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/18/2022
2212J44-024B	SWC-6	12/15/2022 12:30:00PM	Surface Water	Alkalinity by SM2320B			12/20/2022
2212J44-024C	SWC-6	12/15/2022 12:30:00PM	Surface Water	TOTAL METALS BY ICP		12/21/2022 8:47:00AM	12/21/2022
2212J44-024C	SWC-6	12/15/2022 12:30:00PM	Surface Water	TOTAL MERCURY		12/22/2022 11:44:00AM	12/22/2022
2212J44-024D	SWC-6	12/15/2022 12:30:00PM	Surface Water	Inorganic Anions by IC			12/22/2022

Client: Atlantic Coast Consulting, Inc.  
 Project Name: Forsyth County-Hightower Road MSWLF  
 Lab Order: 2212J44

**Dates Report**

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
2212J44-024E	SWC-6	12/15/2022 12:30:00PM	Surface Water	Total Cyanide		12/21/2022 12:09:00PM	12/21/2022
2212J44-024F	SWC-6	12/15/2022 12:30:00PM	Surface Water	Chemical Oxygen Demand (COD)			12/20/2022
2212J44-024G	SWC-6	12/15/2022 12:30:00PM	Surface Water	Total Organic Carbon by SM5310B			12/20/2022
2212J44-025A	SWA-1	12/15/2022 10:10:00AM	Surface Water	TOTAL METALS BY ICP		12/21/2022 8:47:00AM	12/21/2022
2212J44-025A	SWA-1	12/15/2022 10:10:00AM	Surface Water	TOTAL MERCURY		12/21/2022 11:59:00AM	12/21/2022
2212J44-025B	SWA-1	12/15/2022 10:10:00AM	Surface Water	Inorganic Anions by IC			12/22/2022
2212J44-025C	SWA-1	12/15/2022 10:10:00AM	Surface Water	Total Cyanide		12/22/2022 12:08:00PM	12/23/2022
2212J44-025D	SWA-1	12/15/2022 10:10:00AM	Surface Water	Chemical Oxygen Demand (COD)			12/20/2022
2212J44-025E	SWA-1	12/15/2022 10:10:00AM	Surface Water	Total Organic Carbon by SM5310B			12/23/2022
2212J44-026A	SWA-2	12/15/2022 11:05:00AM	Surface Water	TOTAL METALS BY ICP		12/21/2022 8:47:00AM	12/21/2022
2212J44-026A	SWA-2	12/15/2022 11:05:00AM	Surface Water	TOTAL MERCURY		12/21/2022 11:59:00AM	12/21/2022
2212J44-026B	SWA-2	12/15/2022 11:05:00AM	Surface Water	Inorganic Anions by IC			12/22/2022
2212J44-026C	SWA-2	12/15/2022 11:05:00AM	Surface Water	Total Cyanide		12/22/2022 12:08:00PM	12/23/2022
2212J44-026D	SWA-2	12/15/2022 11:05:00AM	Surface Water	Chemical Oxygen Demand (COD)			12/20/2022
2212J44-026E	SWA-2	12/15/2022 11:05:00AM	Surface Water	Total Organic Carbon by SM5310B			12/23/2022
2212J44-027A	SWC-1	12/15/2022 10:50:00AM	Surface Water	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/18/2022
2212J44-027B	SWC-1	12/15/2022 10:50:00AM	Surface Water	TOTAL METALS BY ICP		12/21/2022 8:47:00AM	12/21/2022
2212J44-027B	SWC-1	12/15/2022 10:50:00AM	Surface Water	TOTAL MERCURY		12/21/2022 11:59:00AM	12/21/2022
2212J44-027C	SWC-1	12/15/2022 10:50:00AM	Surface Water	Inorganic Anions by IC			12/22/2022
2212J44-027D	SWC-1	12/15/2022 10:50:00AM	Surface Water	Total Cyanide		12/22/2022 12:08:00PM	12/23/2022
2212J44-027E	SWC-1	12/15/2022 10:50:00AM	Surface Water	Chemical Oxygen Demand (COD)			12/20/2022
2212J44-027F	SWC-1	12/15/2022 10:50:00AM	Surface Water	Total Organic Carbon by SM5310B			12/23/2022
2212J44-028A	SWC-2	12/15/2022 11:15:00AM	Surface Water	TOTAL METALS BY ICP		12/21/2022 8:47:00AM	12/21/2022
2212J44-028A	SWC-2	12/15/2022 11:15:00AM	Surface Water	TOTAL MERCURY		12/21/2022 11:59:00AM	12/21/2022
2212J44-028B	SWC-2	12/15/2022 11:15:00AM	Surface Water	Inorganic Anions by IC			12/23/2022
2212J44-028C	SWC-2	12/15/2022 11:15:00AM	Surface Water	Total Cyanide		12/22/2022 12:08:00PM	12/23/2022
2212J44-028D	SWC-2	12/15/2022 11:15:00AM	Surface Water	Chemical Oxygen Demand (COD)			12/20/2022
2212J44-028E	SWC-2	12/15/2022 11:15:00AM	Surface Water	Total Organic Carbon by SM5310B			12/23/2022
2212J44-029A	SWC-3	12/15/2022 11:20:00AM	Surface Water	TOTAL METALS BY ICP		12/21/2022 8:47:00AM	12/21/2022

Client: Atlantic Coast Consulting, Inc.  
 Project Name: Forsyth County-Hightower Road MSWLF  
 Lab Order: 2212J44

## Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
2212J44-029A	SWC-3	12/15/2022 11:20:00AM	Surface Water	TOTAL MERCURY		12/21/2022 11:59:00AM	12/21/2022
2212J44-029B	SWC-3	12/15/2022 11:20:00AM	Surface Water	Inorganic Anions by IC			12/23/2022
2212J44-029C	SWC-3	12/15/2022 11:20:00AM	Surface Water	Total Cyanide		12/22/2022 12:08:00PM	12/23/2022
2212J44-029D	SWC-3	12/15/2022 11:20:00AM	Surface Water	Chemical Oxygen Demand (COD)			12/20/2022
2212J44-029E	SWC-3	12/15/2022 11:20:00AM	Surface Water	Total Organic Carbon by SM5310B			12/23/2022
2212J44-030A	SWC-4A	12/15/2022 11:35:00AM	Surface Water	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/18/2022
2212J44-031A	SWC-4B	12/15/2022 11:50:00AM	Surface Water	APPENDIX I VOLATILE ORGANICS		12/17/2022 6:00:00PM	12/18/2022
2212J44-032A	SWC-5	12/15/2022 9:55:00AM	Surface Water	TOTAL METALS BY ICP		12/21/2022 8:47:00AM	12/21/2022
2212J44-032A	SWC-5	12/15/2022 9:55:00AM	Surface Water	TOTAL MERCURY		12/21/2022 11:59:00AM	12/21/2022
2212J44-032B	SWC-5	12/15/2022 9:55:00AM	Surface Water	Inorganic Anions by IC			12/23/2022
2212J44-032C	SWC-5	12/15/2022 9:55:00AM	Surface Water	Total Cyanide		12/22/2022 12:08:00PM	12/23/2022
2212J44-032D	SWC-5	12/15/2022 9:55:00AM	Surface Water	Chemical Oxygen Demand (COD)			12/20/2022
2212J44-032E	SWC-5	12/15/2022 9:55:00AM	Surface Water	Total Organic Carbon by SM5310B			12/23/2022
2212J44-033A	SWC-7	12/15/2022 10:40:00AM	Surface Water	TOTAL METALS BY ICP		12/21/2022 8:47:00AM	12/21/2022
2212J44-033A	SWC-7	12/15/2022 10:40:00AM	Surface Water	TOTAL MERCURY		12/22/2022 11:44:00AM	12/22/2022
2212J44-033B	SWC-7	12/15/2022 10:40:00AM	Surface Water	Inorganic Anions by IC			12/23/2022
2212J44-033C	SWC-7	12/15/2022 10:40:00AM	Surface Water	Total Cyanide		12/22/2022 12:08:00PM	12/23/2022
2212J44-033D	SWC-7	12/15/2022 10:40:00AM	Surface Water	Chemical Oxygen Demand (COD)			12/20/2022
2212J44-033E	SWC-7	12/15/2022 10:40:00AM	Surface Water	Total Organic Carbon by SM5310B			12/23/2022
2212J44-034A	SWC-8	12/15/2022 10:25:00AM	Surface Water	TOTAL METALS BY ICP		12/21/2022 8:47:00AM	12/21/2022
2212J44-034A	SWC-8	12/15/2022 10:25:00AM	Surface Water	TOTAL MERCURY		12/22/2022 11:44:00AM	12/22/2022
2212J44-034B	SWC-8	12/15/2022 10:25:00AM	Surface Water	Inorganic Anions by IC			12/23/2022
2212J44-034C	SWC-8	12/15/2022 10:25:00AM	Surface Water	Total Cyanide		12/22/2022 12:08:00PM	12/23/2022
2212J44-034D	SWC-8	12/15/2022 10:25:00AM	Surface Water	Chemical Oxygen Demand (COD)			12/20/2022
2212J44-034E	SWC-8	12/15/2022 10:25:00AM	Surface Water	Total Organic Carbon by SM5310B			12/23/2022
2212J44-035A	SWC-9	12/15/2022 11:30:00AM	Surface Water	TOTAL METALS BY ICP		12/21/2022 8:47:00AM	12/21/2022
2212J44-035A	SWC-9	12/15/2022 11:30:00AM	Surface Water	TOTAL MERCURY		12/22/2022 11:44:00AM	12/22/2022
2212J44-035B	SWC-9	12/15/2022 11:30:00AM	Surface Water	Inorganic Anions by IC			12/23/2022
2212J44-035C	SWC-9	12/15/2022 11:30:00AM	Surface Water	Total Cyanide		12/22/2022 12:08:00PM	12/23/2022

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Lab Order:** 2212J44

**Dates Report**

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
2212J44-035D	SWC-9	12/15/2022 11:30:00AM	Surface Water	Chemical Oxygen Demand (COD)			12/20/2022
2212J44-035E	SWC-9	12/15/2022 11:30:00AM	Surface Water	Total Organic Carbon by SM5310B			12/23/2022



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348156**

Sample ID: <b>MB-348156</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504484</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Residue, Dissolved (TDS) by SM2540C</b>	BatchID: <b>348156</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11835839</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS)      BRL                      10

Sample ID: <b>LCS-348156</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504484</b>							
SampleType: <b>LCS</b>	TestCode: <b>Residue, Dissolved (TDS) by SM2540C</b>	BatchID: <b>348156</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11835840</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS)      2840                      40                      3000                      94.7                      78.33                      117.67

Sample ID: <b>2212180-001BDUP</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504484</b>							
SampleType: <b>DUP</b>	TestCode: <b>Residue, Dissolved (TDS) by SM2540C</b>	BatchID: <b>348156</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11835845</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS)      1912                      40                      1844                      3.62                      10

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348175**

Sample ID: <b>MB-348175</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504251</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Total Metals by ICP/MS SW6020B</b>	BatchID: <b>348175</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827389</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Manganese BRL 0.00500  
 Potassium BRL 0.100

Sample ID: <b>MB-348175</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504412</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348175</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11831738</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony BRL 0.00600  
 Arsenic BRL 0.0100  
 Barium BRL 0.0200  
 Beryllium BRL 0.00400  
 Cadmium BRL 0.00500  
 Chromium BRL 0.0200  
 Cobalt BRL 0.0500  
 Copper BRL 0.0200  
 Lead BRL 0.0100  
 Nickel BRL 0.0400  
 Selenium BRL 0.0500  
 Silver BRL 0.00500  
 Thallium BRL 0.00200  
 Vanadium BRL 0.0500  
 Zinc BRL 0.0200

Sample ID: <b>LCS-348175</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504251</b>							
SampleType: <b>LCS</b>	TestCode: <b>Total Metals by ICP/MS SW6020B</b>	BatchID: <b>348175</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827390</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Manganese 0.1032 0.00500 0.1000 103 80 120

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348175**

Sample ID: <b>LCS-348175</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504251</b>							
SampleType: <b>LCS</b>	TestCode: <b>Total Metals by ICP/MS SW6020B</b>	BatchID: <b>348175</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827390</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Potassium	0.8835	0.100	1.000		88.4	80	120				
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Sample ID: <b>LCS-348175</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504412</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348175</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11831739</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1107	0.00600	0.1000		111	80	120				
Arsenic	0.1056	0.0100	0.1000		106	80	120				
Barium	0.1097	0.0200	0.1000		110	80	120				
Beryllium	0.1032	0.00400	0.1000		103	80	120				
Cadmium	0.1021	0.00500	0.1000		102	80	120				
Chromium	0.1045	0.0200	0.1000		104	80	120				
Cobalt	0.1072	0.0500	0.1000		107	80	120				
Copper	0.1083	0.0200	0.1000		108	80	120				
Lead	0.1058	0.0100	0.1000		106	80	120				
Nickel	0.1062	0.0400	0.1000		106	80	120				
Selenium	0.09756	0.0500	0.1000		97.6	80	120				
Silver	0.01084	0.00500	0.0100		108	80	120				
Thallium	0.1038	0.00200	0.1000		104	80	120				
Vanadium	0.1049	0.0500	0.1000		105	80	120				
Zinc	0.1042	0.0200	0.1000		104	80	120				

Sample ID: <b>2212K26-001AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504251</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Metals by ICP/MS SW6020B</b>	BatchID: <b>348175</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827392</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Manganese	0.1122	0.00500	0.1000	0.01055	102	75	125				
Potassium	17.22	0.100	1.000	16.65	56.5	75	125				S

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348175**

Sample ID: <b>2212K26-001AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504412</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348175</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11831741</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1104	0.00600	0.1000		110	75	125				
Arsenic	0.1064	0.0100	0.1000		106	75	125				
Barium	0.1427	0.0200	0.1000	0.03359	109	75	125				
Beryllium	0.1028	0.00400	0.1000		103	75	125				
Cadmium	0.1016	0.00500	0.1000		102	75	125				
Chromium	0.1121	0.0200	0.1000	0.008109	104	75	125				
Cobalt	0.1059	0.0500	0.1000	0.0002912	106	75	125				
Copper	0.1140	0.0200	0.1000	0.006639	107	75	125				
Lead	0.1054	0.0100	0.1000	0.002260	103	75	125				
Nickel	0.1067	0.0400	0.1000	0.001889	105	75	125				
Selenium	0.09732	0.0500	0.1000		97.3	75	125				
Silver	0.01064	0.00500	0.0100		106	75	125				
Thallium	0.1041	0.00200	0.1000		104	75	125				
Vanadium	0.1099	0.0500	0.1000	0.005645	104	75	125				
Zinc	0.2159	0.0200	0.1000	0.1130	103	75	125				

Sample ID: <b>2212K26-001AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504251</b>							
SampleType: <b>MSD</b>	TestCode: <b>Total Metals by ICP/MS SW6020B</b>	BatchID: <b>348175</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11827393</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Manganese	0.1120	0.00500	0.1000	0.01055	101	75	125	0.1122	0.191	20	
Potassium	17.72	0.100	1.000	16.65	106	75	125	17.22	2.86	20	

Sample ID: <b>2212K26-001AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504412</b>							
SampleType: <b>MSD</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348175</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11831742</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1144	0.00600	0.1000		114	75	125	0.1104	3.53	20	
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**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348175**

Sample ID: <b>2212K26-001AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/19/2022</b>	Run No: <b>504412</b>
SampleType: <b>MSD</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348175</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11831742</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Arsenic	0.1050	0.0100	0.1000		105	75	125	0.1064	1.33	20	
Barium	0.1431	0.0200	0.1000	0.03359	110	75	125	0.1427	0.295	20	
Beryllium	0.1012	0.00400	0.1000		101	75	125	0.1028	1.56	20	
Cadmium	0.1028	0.00500	0.1000		103	75	125	0.1016	1.17	20	
Chromium	0.1126	0.0200	0.1000	0.008109	105	75	125	0.1121	0.450	20	
Cobalt	0.1066	0.0500	0.1000	0.0002912	106	75	125	0.1059	0.701	20	
Copper	0.1150	0.0200	0.1000	0.006639	108	75	125	0.1140	0.841	20	
Lead	0.1101	0.0100	0.1000	0.002260	108	75	125	0.1054	4.30	20	
Nickel	0.1081	0.0400	0.1000	0.001889	106	75	125	0.1067	1.31	20	
Selenium	0.09538	0.0500	0.1000		95.4	75	125	0.09732	2.01	20	
Silver	0.01097	0.00500	0.0100		110	75	125	0.01064	3.13	20	
Thallium	0.1047	0.00200	0.1000		105	75	125	0.1041	0.587	20	
Vanadium	0.1106	0.0500	0.1000	0.005645	105	75	125	0.1099	0.564	20	
Zinc	0.2180	0.0200	0.1000	0.1130	105	75	125	0.2159	0.935	20	

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348207**

Sample ID: <b>MB-348207</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/20/2022</b>	Run No: <b>504492</b>							
SampleType: <b>MBLK</b>	TestCode: <b>SIM Polynuclear Aromatic Hydrocarbons SW8270E</b>	BatchID: <b>348207</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11833721</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(a)pyrene	BRL	0.050									
Surr: 4-Terphenyl-d14	2.164	0	2.000		108	64.1	136				

Sample ID: <b>LCS-348207</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/20/2022</b>	Run No: <b>504492</b>							
SampleType: <b>LCS</b>	TestCode: <b>SIM Polynuclear Aromatic Hydrocarbons SW8270E</b>	BatchID: <b>348207</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11833723</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(a)pyrene	1.845	0.050	2.000		92.2	70.8	125				
Surr: 4-Terphenyl-d14	2.149	0	2.000		107	64.1	136				

Sample ID: <b>2212K62-009BMS</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/20/2022</b>	Run No: <b>504492</b>							
SampleType: <b>MS</b>	TestCode: <b>SIM Polynuclear Aromatic Hydrocarbons SW8270E</b>	BatchID: <b>348207</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11833728</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(a)pyrene	1.708	0.050	2.000		85.4	53.1	121				
Surr: 4-Terphenyl-d14	2.003	0	2.000		100	64.1	136				

Sample ID: <b>2212K62-009BMSD</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/20/2022</b>	Run No: <b>504492</b>							
SampleType: <b>MSD</b>	TestCode: <b>SIM Polynuclear Aromatic Hydrocarbons SW8270E</b>	BatchID: <b>348207</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11833730</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Benzo(a)pyrene	1.800	0.050	2.000		90.0	53.1	121	1.708	5.26	19.8	
Surr: 4-Terphenyl-d14	2.159	0	2.000		108	64.1	136	2.003	0	0	

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348226**

Sample ID: <b>MB-348226</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504506</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348226</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834249</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	BRL	0.00600									
Arsenic	BRL	0.0100									
Barium	BRL	0.0200									
Beryllium	BRL	0.00400									
Cadmium	BRL	0.00500									
Chromium	BRL	0.0200									
Cobalt	BRL	0.0500									
Copper	BRL	0.0200									
Lead	BRL	0.0100									
Nickel	BRL	0.0400									
Selenium	BRL	0.0500									
Silver	BRL	0.00500									
Thallium	BRL	0.00200									
Vanadium	BRL	0.0500									
Zinc	BRL	0.0200									

Sample ID: <b>MB-348226</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504508</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Total Metals by ICP/MS SW6020B</b>	BatchID: <b>348226</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834334</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Manganese	BRL	0.00500									
Potassium	BRL	0.100									

Sample ID: <b>LCS-348226</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504506</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348226</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834250</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1035	0.00600	0.1000		104	80	120				
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**Qualifiers:**

> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348226**

Sample ID: <b>LCS-348226</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504506</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348226</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834250</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	0.1043	0.0100	0.1000		104	80	120				
Barium	0.1064	0.0200	0.1000		106	80	120				
Beryllium	0.1082	0.00400	0.1000		108	80	120				
Cadmium	0.1046	0.00500	0.1000		105	80	120				
Chromium	0.1036	0.0200	0.1000		104	80	120				
Cobalt	0.1060	0.0500	0.1000		106	80	120				
Copper	0.1074	0.0200	0.1000		107	80	120				
Lead	0.1075	0.0100	0.1000		108	80	120				
Nickel	0.1057	0.0400	0.1000		106	80	120				
Selenium	0.1019	0.0500	0.1000		102	80	120				
Silver	0.01072	0.00500	0.0100		107	80	120				
Thallium	0.1077	0.00200	0.1000		108	80	120				
Vanadium	0.1026	0.0500	0.1000		103	80	120				
Zinc	0.1056	0.0200	0.1000		106	80	120				

Sample ID: <b>LCS-348226</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504508</b>							
SampleType: <b>LCS</b>	TestCode: <b>Total Metals by ICP/MS SW6020B</b>	BatchID: <b>348226</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834335</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Manganese	0.1022	0.00500	0.1000		102	80	120				
Potassium	0.9346	0.100	1.000		93.5	80	120				

Sample ID: <b>2212K10-001BMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504506</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348226</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834256</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.1013	0.00600	0.1000		101	75	125				
Arsenic	0.1013	0.0100	0.1000		101	75	125				

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348226**

Sample ID: <b>2212K10-001BMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504506</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348226</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834256</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Barium	0.1738	0.0200	0.1000	0.06837	105	75	125				
Beryllium	0.1066	0.00400	0.1000		107	75	125				
Cadmium	0.1034	0.00500	0.1000		103	75	125				
Chromium	0.1032	0.0200	0.1000		103	75	125				
Cobalt	0.1038	0.0500	0.1000	0.0007545	103	75	125				
Copper	0.1043	0.0200	0.1000		104	75	125				
Lead	0.1061	0.0100	0.1000		106	75	125				
Nickel	0.1047	0.0400	0.1000	0.002007	103	75	125				
Selenium	0.09989	0.0500	0.1000		99.9	75	125				
Silver	0.01029	0.00500	0.0100		103	75	125				
Thallium	0.1052	0.00200	0.1000		105	75	125				
Vanadium	0.1018	0.0500	0.1000	0.001102	101	75	125				
Zinc	0.1139	0.0200	0.1000	0.009012	105	75	125				

Sample ID: <b>2212K10-001BMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504508</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Metals by ICP/MS SW6020B</b>	BatchID: <b>348226</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834337</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Manganese	0.1305	0.00500	0.1000	0.03170	98.8	75	125				
Potassium	2.361	0.100	1.000	1.363	99.8	75	125				

Sample ID: <b>2212K10-001BMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504506</b>							
SampleType: <b>MSD</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348226</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834259</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Antimony	0.09632	0.00600	0.1000		96.3	75	125	0.1013	5.07	20	
Arsenic	0.09645	0.0100	0.1000		96.5	75	125	0.1013	4.93	20	
Barium	0.1699	0.0200	0.1000	0.06837	101	75	125	0.1738	2.27	20	

**Qualifiers:** > Greater than Result value      < Less than Result value      B Analyte detected in the associated method blank  
 BRL Below reporting limit      E Estimated (value above quantitation range)      H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit      N Analyte not NELAC certified      R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit      S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348226**

Sample ID: <b>2212K10-001BMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504506</b>							
SampleType: <b>MSD</b>	TestCode: <b>APPENDIX I METALS SW6020B</b>	BatchID: <b>348226</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834259</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Beryllium	0.1014	0.00400	0.1000		101	75	125	0.1066	5.00	20	
Cadmium	0.09808	0.00500	0.1000		98.1	75	125	0.1034	5.24	20	
Chromium	0.09785	0.0200	0.1000		97.9	75	125	0.1032	5.28	20	
Cobalt	0.09969	0.0500	0.1000	0.0007545	98.9	75	125	0.1038	4.03	20	
Copper	0.1007	0.0200	0.1000		101	75	125	0.1043	3.50	20	
Lead	0.1009	0.0100	0.1000		101	75	125	0.1061	4.94	20	
Nickel	0.1002	0.0400	0.1000	0.002007	98.2	75	125	0.1047	4.32	20	
Selenium	0.09424	0.0500	0.1000		94.2	75	125	0.09989	5.82	20	
Silver	0.01016	0.00500	0.0100		102	75	125	0.01029	1.28	20	
Thallium	0.1011	0.00200	0.1000		101	75	125	0.1052	4.02	20	
Vanadium	0.09731	0.0500	0.1000	0.001102	96.2	75	125	0.1018	4.50	20	
Zinc	0.1080	0.0200	0.1000	0.009012	98.9	75	125	0.1139	5.37	20	

Sample ID: <b>2212K10-001BMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504508</b>							
SampleType: <b>MSD</b>	TestCode: <b>Total Metals by ICP/MS SW6020B</b>	BatchID: <b>348226</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834338</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Manganese	0.1264	0.00500	0.1000	0.03170	94.7	75	125	0.1305	3.17	20	
Potassium	2.323	0.100	1.000	1.363	96.0	75	125	2.361	1.60	20	

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348227**

Sample ID: <b>MB-348227</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504538</b>							
SampleType: <b>MBLK</b>	TestCode: <b>METALS, TOTAL SW6010D</b>	BatchID: <b>348227</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11835328</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	BRL	0.0500									
Barium	BRL	0.0200									
Cadmium	BRL	0.0050									
Chromium	BRL	0.0100									
Lead	BRL	0.0100									
Nickel	BRL	0.0200									
Selenium	BRL	0.0200									
Silver	BRL	0.0100									
Zinc	BRL	0.0200									

Sample ID: <b>LCS-348227</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504538</b>							
SampleType: <b>LCS</b>	TestCode: <b>METALS, TOTAL SW6010D</b>	BatchID: <b>348227</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11835329</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	0.9724	0.0500	1.000		97.2	80	120				
Barium	1.004	0.0200	1.000		100	80	120				
Cadmium	0.9756	0.0050	1.000		97.6	80	120				
Chromium	1.001	0.0100	1.000		100	80	120				
Lead	0.9980	0.0100	1.000		99.8	80	120				
Nickel	1.001	0.0200	1.000		100	80	120				
Selenium	0.9736	0.0200	1.000		97.4	80	120				
Silver	0.09853	0.0100	0.1000		98.5	80	120				
Zinc	1.004	0.0200	1.000		100	80	120				

Sample ID: <b>2212J93-003BMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504538</b>							
SampleType: <b>MS</b>	TestCode: <b>METALS, TOTAL SW6010D</b>	BatchID: <b>348227</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11835331</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348227**

Sample ID: <b>2212J93-003BMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504538</b>							
SampleType: <b>MS</b>	TestCode: <b>METALS, TOTAL SW6010D</b>	BatchID: <b>348227</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11835331</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	0.9738	0.0500	1.000		97.4	75	125				
Barium	1.038	0.0200	1.000	0.06315	97.5	75	125				
Cadmium	0.9539	0.0050	1.000		95.4	75	125				
Chromium	1.004	0.0100	1.000	0.03179	97.3	75	125				
Lead	0.9802	0.0100	1.000		98.0	75	125				
Nickel	0.9361	0.0200	1.000		93.6	75	125				
Selenium	0.9627	0.0200	1.000	0.02307	94.0	75	125				
Silver	0.09657	0.0100	0.1000		96.6	75	125				
Zinc	1.009	0.0200	1.000	0.04373	96.6	75	125				

Sample ID: <b>2212J93-003BMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504538</b>							
SampleType: <b>MSD</b>	TestCode: <b>METALS, TOTAL SW6010D</b>	BatchID: <b>348227</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11835332</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	0.9620	0.0500	1.000		96.2	75	125	0.9738	1.22	20	
Barium	1.047	0.0200	1.000	0.06315	98.4	75	125	1.038	0.804	20	
Cadmium	0.9641	0.0050	1.000		96.4	75	125	0.9539	1.06	20	
Chromium	1.015	0.0100	1.000	0.03179	98.3	75	125	1.004	1.03	20	
Lead	0.9839	0.0100	1.000		98.4	75	125	0.9802	0.381	20	
Nickel	0.9655	0.0200	1.000		96.5	75	125	0.9361	3.09	20	
Selenium	0.9779	0.0200	1.000	0.02307	95.5	75	125	0.9627	1.56	20	
Silver	0.09791	0.0100	0.1000		97.9	75	125	0.09657	1.38	20	
Zinc	1.012	0.0200	1.000	0.04373	96.8	75	125	1.009	0.259	20	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348282**

Sample ID: <b>MB-348282</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504501</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348282</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834104</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      BRL                      0.010

Sample ID: <b>LCS-348282</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504501</b>							
SampleType: <b>LCS</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348282</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834106</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      0.1010                      0.010                      0.1000                      101                      85                      115

Sample ID: <b>2212H54-003CMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504501</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348282</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834118</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      0.09100                      0.010                      0.1000                      91.0                      90                      110

Sample ID: <b>2212H55-001CMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504501</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348282</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834111</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      0.1040                      0.010                      0.1000                      104                      90                      110

Sample ID: <b>2212H55-001CMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504501</b>							
SampleType: <b>MSD</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348282</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834114</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      0.1010                      0.010                      0.1000                      101                      90                      110                      0.1040                      2.93                      20

**Qualifiers:**    >    Greater than Result value                      <    Less than Result value                      B    Analyte detected in the associated method blank  
                     BRL    Below reporting limit                      E    Estimated (value above quantitation range)                      H    Holding times for preparation or analysis exceeded  
                     J    Estimated value detected below Reporting Limit                      N    Analyte not NELAC certified                      R    RPD outside limits due to matrix  
                     Rpt Lim    Reporting Limit                      S    Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348323**

Sample ID: <b>MB-348323</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504408</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348323</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11831416</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0									
1,1,1-Trichloroethane	BRL	5.0									
1,1,2,2-Tetrachloroethane	BRL	5.0									
1,1,2-Trichloroethane	BRL	5.0									
1,1-Dichloroethane	BRL	5.0									
1,1-Dichloroethene	BRL	5.0									
1,2,3-Trichloropropane	BRL	5.0									
1,2-Dibromo-3-chloropropane	BRL	5.0									
1,2-Dibromoethane	BRL	5.0									
1,2-Dichlorobenzene	BRL	5.0									
1,2-Dichloroethane	BRL	5.0									
1,2-Dichloropropane	BRL	5.0									
1,4-Dichlorobenzene	BRL	5.0									
2-Butanone	BRL	50									
2-Hexanone	BRL	10									
4-Methyl-2-pentanone	BRL	10									
Acetone	BRL	50									
Acrylonitrile	BRL	5.0									
Benzene	BRL	5.0									
Bromochloromethane	BRL	5.0									
Bromodichloromethane	BRL	5.0									
Bromoform	BRL	5.0									
Bromomethane	BRL	5.0									
Carbon disulfide	BRL	5.0									
Carbon tetrachloride	BRL	5.0									
Chlorobenzene	BRL	5.0									
Chloroethane	BRL	10									

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348323**

Sample ID: <b>MB-348323</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504408</b>							
SampleType: <b>MBLK</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348323</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11831416</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloroform	BRL	5.0									
Chloromethane	BRL	10									
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dibromomethane	BRL	5.0									
Ethylbenzene	BRL	5.0									
Iodomethane	BRL	10									
Methylene chloride	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
trans-1,4-Dichloro-2-butene	BRL	10									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl acetate	BRL	10									
Vinyl chloride	BRL	2.0									
Xylenes, Total	BRL	10									
Surr: 4-Bromofluorobenzene	49.30	0	50.00		98.6	75	118				
Surr: Dibromofluoromethane	47.91	0	50.00		95.8	82.5	121				
Surr: Toluene-d8	49.94	0	50.00		99.9	78.3	118				

Sample ID: <b>LCS-348323</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504408</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348323</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11831419</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348323**

Sample ID: <b>LCS-348323</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504408</b>							
SampleType: <b>LCS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348323</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11831419</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	17.82	5.0	20.00		89.1	71	130				
Benzene	18.62	5.0	20.00		93.1	80.4	126				
Chlorobenzene	17.24	5.0	20.00		86.2	81	120				
Toluene	17.65	5.0	20.00		88.2	79.2	124				
Trichloroethene	18.75	5.0	20.00		93.8	78.4	125				
Surr: 4-Bromofluorobenzene	47.06	0	50.00		94.1	75	118				
Surr: Dibromofluoromethane	49.09	0	50.00		98.2	82.5	121				
Surr: Toluene-d8	50.54	0	50.00		101	78.3	118				

Sample ID: <b>2212J44-005AMS</b>	Client ID: <b>PHI-GWA-4</b>	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504408</b>							
SampleType: <b>MS</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348323</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11832746</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	20.71	5.0	20.00		104	67.6	143				
Benzene	20.27	5.0	20.00		101	70.5	136				
Chlorobenzene	18.87	5.0	20.00		94.4	77.1	133				
Toluene	20.08	5.0	20.00		100	66.4	140				
Trichloroethene	21.43	5.0	20.00		107	75.1	140				
Surr: 4-Bromofluorobenzene	47.99	0	50.00		96.0	75	118				
Surr: Dibromofluoromethane	50.90	0	50.00		102	82.5	121				
Surr: Toluene-d8	52.53	0	50.00		105	78.3	118				

Sample ID: <b>2212J44-004ADUP</b>	Client ID: <b>GWA-1</b>	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504408</b>							
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348323</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11832745</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,1-Trichloroethane	BRL	5.0						0	0	20	

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348323**

Sample ID: <b>2212J44-004ADUP</b>	Client ID: <b>GWA-1</b>	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504408</b>
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348323</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11832745</b>

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,2,2-Tetrachloroethane	BRL	5.0						0	0	20	
1,1,2-Trichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethane	BRL	5.0						0	0	20	
1,1-Dichloroethene	BRL	5.0						0	0	20	
1,2,3-Trichloropropane	BRL	5.0						0	0	20	
1,2-Dibromo-3-chloropropane	BRL	5.0						0	0	20	
1,2-Dibromoethane	BRL	5.0						0	0	20	
1,2-Dichlorobenzene	BRL	5.0						0	0	20	
1,2-Dichloroethane	BRL	5.0						0	0	20	
1,2-Dichloropropane	BRL	5.0						0	0	20	
1,4-Dichlorobenzene	BRL	5.0						0	0	20	
2-Butanone	BRL	50						0	0	20	
2-Hexanone	BRL	10						0	0	20	
4-Methyl-2-pentanone	BRL	10						0	0	20	
Acetone	BRL	50						0	0	20	
Acrylonitrile	BRL	5.0						0	0	20	
Benzene	BRL	5.0						0	0	20	
Bromochloromethane	BRL	5.0						0	0	20	
Bromodichloromethane	BRL	5.0						0	0	20	
Bromoform	BRL	5.0						0	0	20	
Bromomethane	BRL	5.0						0	0	20	
Carbon disulfide	BRL	5.0						3.740	0	20	
Carbon tetrachloride	BRL	5.0						0	0	20	
Chlorobenzene	BRL	5.0						0	0	20	
Chloroethane	BRL	10						0	0	20	
Chloroform	BRL	5.0						0	0	20	
Chloromethane	BRL	10						0	0	20	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348323**

Sample ID: <b>2212J44-004ADUP</b>	Client ID: <b>GWA-1</b>	Units: <b>ug/L</b>	Prep Date: <b>12/17/2022</b>	Run No: <b>504408</b>							
SampleType: <b>DUP</b>	TestCode: <b>APPENDIX I VOLATILE ORGANICS SW8260D</b>	BatchID: <b>348323</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11832745</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

cis-1,2-Dichloroethene	BRL	5.0						0	0	20	
cis-1,3-Dichloropropene	BRL	5.0						0	0	20	
Dibromochloromethane	BRL	5.0						0	0	20	
Dibromomethane	BRL	5.0						0	0	20	
Ethylbenzene	BRL	5.0						0	0	20	
Iodomethane	BRL	10						0	0	20	
Methylene chloride	BRL	5.0						0	0	20	
Styrene	BRL	5.0						0	0	20	
Tetrachloroethene	BRL	5.0						0	0	20	
Toluene	BRL	5.0						0	0	20	
trans-1,2-Dichloroethene	BRL	5.0						0	0	20	
trans-1,3-Dichloropropene	BRL	5.0						0	0	20	
trans-1,4-Dichloro-2-butene	BRL	10						0	0	20	
Trichloroethene	BRL	5.0						0	0	20	
Trichlorofluoromethane	BRL	5.0						0	0	20	
Vinyl acetate	BRL	10						0	0	20	
Vinyl chloride	BRL	2.0						0	0	20	
Xylenes, Total	BRL	10						0	0	20	
Surr: 4-Bromofluorobenzene	48.93	0	50.00		97.9	75	118	48.00	0	0	
Surr: Dibromofluoromethane	47.50	0	50.00		95.0	82.5	121	49.83	0	0	
Surr: Toluene-d8	47.23	0	50.00		94.5	78.3	118	49.82	0	0	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348328**

Sample ID: <b>MB-348328</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504458</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Mercury, Total SW7470A</b>	BatchID: <b>348328</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834844</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury BRL 0.00020

Sample ID: <b>LCS-348328</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504458</b>							
SampleType: <b>LCS</b>	TestCode: <b>Mercury, Total SW7470A</b>	BatchID: <b>348328</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834847</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.004802 0.00020 0.0040 120 80 120 S

Sample ID: <b>2212J67-001DMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504458</b>							
SampleType: <b>MS</b>	TestCode: <b>Mercury, Total SW7470A</b>	BatchID: <b>348328</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834854</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.004402 0.00020 0.0040 110 75 125

Sample ID: <b>2212J67-001DMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/21/2022</b>	Run No: <b>504458</b>							
SampleType: <b>MSD</b>	TestCode: <b>Mercury, Total SW7470A</b>	BatchID: <b>348328</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11834862</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.004352 0.00020 0.0040 109 75 125 0.004402 1.14 20

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348365**

Sample ID: <b>MB-348365</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/22/2022</b>	Run No: <b>504749</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348365</b>	Analysis Date: <b>12/23/2022</b>	Seq No: <b>11841108</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      BRL                      0.010

Sample ID: <b>LCS-348365</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/22/2022</b>	Run No: <b>504749</b>							
SampleType: <b>LCS</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348365</b>	Analysis Date: <b>12/23/2022</b>	Seq No: <b>11841109</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      0.08900                      0.010                      0.1000                      89.0                      85                      115

Sample ID: <b>2212192-001AMS</b>	Client ID: <b>22-11302</b>	Units: <b>mg/L</b>	Prep Date: <b>12/22/2022</b>	Run No: <b>504749</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348365</b>	Analysis Date: <b>12/23/2022</b>	Seq No: <b>11841111</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      0.07600                      0.010                      0.1000                      76.0                      90                      110                      S

Sample ID: <b>2212K10-009CMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/22/2022</b>	Run No: <b>504749</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348365</b>	Analysis Date: <b>12/23/2022</b>	Seq No: <b>11841114</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      0.08900                      0.010                      0.1000                      89.0                      90                      110                      S

Sample ID: <b>2212192-001AMSD</b>	Client ID: <b>22-11302</b>	Units: <b>mg/L</b>	Prep Date: <b>12/22/2022</b>	Run No: <b>504749</b>							
SampleType: <b>MSD</b>	TestCode: <b>Total Cyanide (SM4500 CN-C, E)</b>	BatchID: <b>348365</b>	Analysis Date: <b>12/23/2022</b>	Seq No: <b>11841112</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Cyanide, Total                      0.08800                      0.010                      0.1000                      88.0                      90                      110                      0.07600                      14.6                      20                      S

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL	Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348393**

Sample ID: <b>MB-348393</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/22/2022</b>	Run No: <b>504569</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Mercury, Total SW7470A</b>	BatchID: <b>348393</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11838286</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury BRL 0.00020

Sample ID: <b>LCS-348393</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/22/2022</b>	Run No: <b>504569</b>							
SampleType: <b>LCS</b>	TestCode: <b>Mercury, Total SW7470A</b>	BatchID: <b>348393</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11838287</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.004433 0.00020 0.0040 111 80 120

Sample ID: <b>2212K35-001AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/22/2022</b>	Run No: <b>504569</b>							
SampleType: <b>MS</b>	TestCode: <b>Mercury, Total SW7470A</b>	BatchID: <b>348393</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11838294</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.004859 0.00020 0.0040 121 75 125

Sample ID: <b>2212K35-001AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/22/2022</b>	Run No: <b>504569</b>							
SampleType: <b>MSD</b>	TestCode: <b>Mercury, Total SW7470A</b>	BatchID: <b>348393</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11838297</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Mercury 0.005248 0.00020 0.0040 131 75 125 0.004859 7.70 20 S

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504137**

Sample ID: <b>MB-R504137</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504137</b>							
SampleType: <b>MBLK</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504137</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11830822</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: <b>LCS-R504137</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504137</b>							
SampleType: <b>LCS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504137</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11830821</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	10.02	1.0	10.00		100	90	110				
Nitrate	5.298	0.25	5.000		106	90	110				
Sulfate	26.14	1.0	25.00		105	90	110				

Sample ID: <b>2212176-006AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504137</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504137</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11830852</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	11.44	1.0	10.00	2.005	94.4	90	110				
Nitrate	7.003	0.25	5.000	1.806	104	90	110				
Sulfate	26.30	1.0	25.00	1.096	101	90	110				

Sample ID: <b>2212176-015AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504137</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504137</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11830844</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	11.71	1.0	10.00	2.299	94.1	90	110				
Nitrate	5.217	0.25	5.000		104	90	110				
Sulfate	27.95	1.0	25.00	2.053	104	90	110				

**Qualifiers:** > Greater than Result value      < Less than Result value      B Analyte detected in the associated method blank  
 BRL Below reporting limit      E Estimated (value above quantitation range)      H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit      N Analyte not NELAC certified      R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit      S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504137**

Sample ID: <b>2212176-006AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504137</b>							
SampleType: <b>MSD</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504137</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11830853</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	11.52	1.0	10.00	2.005	95.1	90	110	11.44	0.651	20	
Nitrate	7.055	0.25	5.000	1.806	105	90	110	7.003	0.733	20	
Sulfate	26.19	1.0	25.00	1.096	100	90	110	26.30	0.407	20	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504298**

Sample ID: <b>MB</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504298</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504298</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11830071</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      BRL      1.00

Sample ID: <b>LCS-TC</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504298</b>							
SampleType: <b>LCS</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504298</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11830068</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      25.68      1.00      25.00      103      85      115

Sample ID: <b>2212H75-004AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504298</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504298</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11830073</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      25.68      1.00      25.00      103      85      115

Sample ID: <b>2212H75-005AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504298</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504298</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11830093</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      26.22      1.00      25.00      105      85      115

Sample ID: <b>2212H75-004AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504298</b>							
SampleType: <b>MSD</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504298</b>	Analysis Date: <b>12/19/2022</b>	Seq No: <b>11830076</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      24.72      1.00      25.00      98.9      85      115      25.68      3.81      15

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	



**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504298**

Sample ID: <b>2212H75-005AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504298</b>							
SampleType: <b>MSD</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504298</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11830094</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total	26.49	1.00	25.00		106	85	115	26.22	1.02	15	
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<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504327**

Sample ID: <b>LCS-R504327</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504327</b>							
SampleType: <b>LCS</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R504327</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11828840</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)      127.6                  3.00                  125.0                  102                  90                  110

Sample ID: <b>2212J44-024BDUP</b>	Client ID: <b>SWC-6</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504327</b>							
SampleType: <b>DUP</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R504327</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11828842</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)      17.65                  3.00                                                                                                                        20.73                  16.0                  30

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504359**

Sample ID: <b>MB-R504359</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504359</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504359</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11829929</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand      BRL                      10.0

Sample ID: <b>LCS-R504359</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504359</b>							
SampleType: <b>LCS</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504359</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11829930</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand      522.9                      10.0                      500.0                      105                      90                      110

Sample ID: <b>2212G60-002CMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504359</b>							
SampleType: <b>MS</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504359</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11829932</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand      561.8                      12.5                      375.0                      184.4                      101                      90                      110

Sample ID: <b>2212I80-001DMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504359</b>							
SampleType: <b>MS</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504359</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11829949</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand      439.3                      12.5                      375.0                      59.65                      101                      90                      110

Sample ID: <b>2212G60-002CMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504359</b>							
SampleType: <b>MSD</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504359</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11829933</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand      559.0                      12.5                      375.0                      184.4                      99.9                      90                      110                      561.8                      0.497                      30

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL	Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504361**

Sample ID: <b>MB-R504361</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504361</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504361</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11829941</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand BRL 10.0

Sample ID: <b>LCS-R504361</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504361</b>							
SampleType: <b>LCS</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504361</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11829943</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand 522.9 10.0 500.0 105 90 110

Sample ID: <b>2212J44-027EMS</b>	Client ID: <b>SWC-1</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504361</b>							
SampleType: <b>MS</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504361</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11829948</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand 400.3 12.5 375.0 26.24 99.7 90 110

Sample ID: <b>2212K10-008BMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504361</b>							
SampleType: <b>MS</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504361</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11829972</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand 386.4 12.5 375.0 8.421 101 90 110

Sample ID: <b>2212J44-027EMSD</b>	Client ID: <b>SWC-1</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504361</b>							
SampleType: <b>MSD</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R504361</b>	Analysis Date: <b>12/20/2022</b>	Seq No: <b>11829950</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand 400.3 12.5 375.0 26.24 99.7 90 110 400.3 0 30

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504708**

Sample ID: <b>MB-R504708</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504708</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504708</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11840185</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride BRL 1.00

Sample ID: <b>LCS-R504708</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504708</b>							
SampleType: <b>LCS</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504708</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11840184</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 9.550 1.00 10.00 95.5 90 110

Sample ID: <b>2212K10-008DMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504708</b>							
SampleType: <b>MS</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504708</b>	Analysis Date: <b>12/23/2022</b>	Seq No: <b>11840218</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 10.14 1.00 10.00 1.633 85.1 90 110 S

Sample ID: <b>2212K10-009DMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504708</b>							
SampleType: <b>MS</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504708</b>	Analysis Date: <b>12/23/2022</b>	Seq No: <b>11840220</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 11.09 1.00 10.00 2.354 87.3 90 110 S

Sample ID: <b>2212K10-008DMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504708</b>							
SampleType: <b>MSD</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504708</b>	Analysis Date: <b>12/23/2022</b>	Seq No: <b>11840219</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 10.07 1.00 10.00 1.633 84.4 90 110 10.14 0.666 20 S

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL	Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504723**

Sample ID: <b>MB-R504723</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504723</b>							
SampleType: <b>MBLK</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504723</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11840352</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: <b>LCS-R504723</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504723</b>							
SampleType: <b>LCS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504723</b>	Analysis Date: <b>12/16/2022</b>	Seq No: <b>11840351</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	10.41	1.0	10.00		104	90	110				
Nitrate	5.357	0.25	5.000		107	90	110				
Sulfate	25.06	1.0	25.00		100	90	110				

Sample ID: <b>2212J44-005DMS</b>	Client ID: <b>PH1-GWA-4</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504723</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504723</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11840361</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	11.34	1.0	10.00	1.508	98.3	90	110				
Nitrate	5.139	0.25	5.000		103	90	110				
Sulfate	25.99	1.0	25.00		104	90	110				

Sample ID: <b>2212J44-005DMSD</b>	Client ID: <b>PH1-GWA-4</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504723</b>							
SampleType: <b>MSD</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504723</b>	Analysis Date: <b>12/17/2022</b>	Seq No: <b>11840362</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	11.12	1.0	10.00	1.508	96.1	90	110	11.34	1.98	20	
Nitrate	5.044	0.25	5.000		101	90	110	5.139	1.87	20	
Sulfate	24.98	1.0	25.00		99.9	90	110	25.99	3.96	20	

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504730**

Sample ID: <b>MB-R504730</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504730</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504730</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11840540</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      BRL      1.00

Sample ID: <b>LCS-R504730</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504730</b>							
SampleType: <b>LCS</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504730</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11840537</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      26.42      1.00      25.00      106      85      115

Sample ID: <b>2212K35-001FMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504730</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504730</b>	Analysis Date: <b>12/23/2022</b>	Seq No: <b>11840542</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      30.04      1.00      25.00      3.261      107      85      115

Sample ID: <b>2212K35-001FMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504730</b>							
SampleType: <b>MSD</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R504730</b>	Analysis Date: <b>12/23/2022</b>	Seq No: <b>11840543</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total      30.10      1.00      25.00      3.261      107      85      115      30.04      0.200      15

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF  
**Workorder:** 2212J44

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504755**

Sample ID: <b>MB-R504755</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504755</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504755</b>	Analysis Date: <b>12/23/2022</b>	Seq No: <b>11841330</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride BRL 1.00

Sample ID: <b>LCS-R504755</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504755</b>							
SampleType: <b>LCS</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504755</b>	Analysis Date: <b>12/23/2022</b>	Seq No: <b>11841329</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 9.606 1.00 10.00 96.1 90 110

Sample ID: <b>2212J44-028BMS</b>	Client ID: <b>SWC-2</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504755</b>							
SampleType: <b>MS</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504755</b>	Analysis Date: <b>12/23/2022</b>	Seq No: <b>11841350</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 10.45 1.00 10.00 1.682 87.7 90 110 S

Sample ID: <b>2212J44-029BMS</b>	Client ID: <b>SWC-3</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504755</b>							
SampleType: <b>MS</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504755</b>	Analysis Date: <b>12/24/2022</b>	Seq No: <b>11841352</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 10.57 1.00 10.00 1.756 88.1 90 110 S

Sample ID: <b>2212J44-028BMSD</b>	Client ID: <b>SWC-2</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504755</b>							
SampleType: <b>MSD</b>	TestCode: <b>Inorganic Anions by IC E300.0</b>	BatchID: <b>R504755</b>	Analysis Date: <b>12/24/2022</b>	Seq No: <b>11841351</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride 10.52 1.00 10.00 1.682 88.3 90 110 10.45 0.649 20 S

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix



End of Report



# ANALYTICAL ENVIRONMENTAL SERVICES, INC.

December 28, 2022

Charles Adams  
Atlantic Coast Consulting, Inc.

1150 Northmeadow Pkwy  
Roswell GA 30076

RE: Forsyth County-Hightower Road MSWLF (Resample)

Dear Charles Adams:

Order No: 2212N28

Analytical Environmental Services, Inc. received 6 samples on December 20, 2022 5:23 pm for the analyses presented in following report.

“No problems were encountered during the analyses except as noted in the Case Narrative or by qualifiers in the report or QC Summary. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits.

AES’s accreditations are as follows:

-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/22-06/30/23.

State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective through 06/30/23 and Total Coliforms/ E. coli, effective 04/20/20-04/24/23.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Metals and PCM Asbestos), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/23.

These results relate only to the items tested as received. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Ioana Pacurar  
Project Manager

**CHAIN OF CUSTODY**

COMPANY: Atlantic Coast Consulting, Inc.		ADDRESS: 1150 Northmeadow Pkwy Suite 100 Roswell, GA 30076		ANALYSIS REQUESTED										Visit our website <a href="http://www.aesatlanta.com">www.aesatlanta.com</a> for downloadable COCs and to log in to your AESAccess account.		Number of Containers			
PHONE: 770-712-9785 or 770-594-5998		EMAIL: charles.adams@atlcc.net																	
SAMPLED BY: <i>Eric Stamm</i>		SIGNATURE: <i>Eric Stamm</i>		PRESERVATION (see codes)										REMARKS					
#	SAMPLE ID	SAMPLED:															GRAB	COMPOSITE	MATRIX (see codes)
		DATE	TIME				Alkalinity	TDS	Cl, SO4, NO3 *	NO3 only *									
1	AMW-14	12/20/22	1310	X		GW	X	X	X										1
2	AMW-5	12/20/22	1325	X		GW	X	X	X										1
3	AMW-4	12/20/22	1345	X		GW	X	X	X										1
4	PH1-GWA-2	12/20/22	1415	X		GW				X									1
5	GWC-18	12/20/22	1245	X		GW				X									1
6	GWC-19R	12/20/22	1220	X		GW				X									1
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
RELINQUISHED BY:		DATE/TIME:		RECEIVED BY:		DATE/TIME:		PROJECT INFORMATION										RECEIPT	
1. <i>Eric Stamm</i> <i>Eric Stamm</i>		12/20/22/1723		1. <i>OC</i> <i>OC</i>		1220 22 1723		PROJECT NAME: Forsyth County - Hightower Road MSWLF (Resample)										Total # of Containers	
2.				2.				PROJECT #: G020-113										Turnaround Time (TAT) Request <input checked="" type="checkbox"/> Standard <input type="checkbox"/> 2 Business Day Rush <input type="checkbox"/> Next Business Day Rush <input type="checkbox"/> Same-Day Rush (auth req.) <input type="checkbox"/> Other _____	
3.				3.				SITE ADDRESS: 9480 Old Federal Road, Ballground, GA 30107											
SPECIAL INSTRUCTIONS/COMMENTS: * 48-hr holding time nitrate				SHIPMENT METHOD				SEND REPORT TO: Charles Adams, Betsy McDaniel										STATE PROGRAM (if any): _____ E-mail? <input type="checkbox"/> Fax? <input type="checkbox"/> DATA PACKAGE: I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV <input type="radio"/>	
				OUT: / / VIA: IN: / / VIA: Client FedEx UPS US mail courier other: _____				INVOICE TO (IF DIFFERENT FROM ABOVE):											
								QUOTE #: _____ PO#: _____											

Submission of samples to the laboratory constitutes acceptance of AES's Terms & Conditions. Client assumes sole responsibility for damage or loss of samples before we accept them. Samples received after 3PM or on Saturday are considered as received the following business day. If no TAT is marked on COC, AES will proceed with standard TAT. Samples are disposed of 30 days after completion of report unless other arrangements are made.

Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST = Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify)  
Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-14
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF (Resample)	<b>Collection Date:</b> 12/20/2022 1:10:00 PM
<b>Lab ID:</b> 2212N28-001	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	52	10		mg/L	348340	1	12/22/2022 15:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	3.9	1.0		mg/L	R504575	1	12/21/2022 15:56	BI
Nitrate	BRL	0.25		mg/L	R504575	1	12/21/2022 15:56	BI
Sulfate	3.2	1.0		mg/L	R504575	1	12/21/2022 15:56	BI
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	37.5	3.00		mg/L	R504782	1	12/27/2022 10:12	AH

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-5
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF (Resample)	<b>Collection Date:</b> 12/20/2022 1:25:00 PM
<b>Lab ID:</b> 2212N28-002	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	62	10		mg/L	348340	1	12/22/2022 15:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	3.7	1.0		mg/L	R504575	1	12/21/2022 16:12	BI
Nitrate	BRL	0.25		mg/L	R504575	1	12/21/2022 16:12	BI
Sulfate	3.5	1.0		mg/L	R504575	1	12/21/2022 16:12	BI
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	38.8	3.00		mg/L	R504782	1	12/27/2022 10:12	AH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> AMW-4
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF (Resample)	<b>Collection Date:</b> 12/20/2022 1:45:00 PM
<b>Lab ID:</b> 2212N28-003	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>Residue, Dissolved (TDS) by SM2540C</b>								
Residue, Dissolved (TDS)	59	10		mg/L	348340	1	12/22/2022 15:45	NN
<b>ION SCAN SW9056A</b>								
Chloride	3.7	1.0		mg/L	R504575	1	12/21/2022 17:32	BI
Nitrate	BRL	0.25		mg/L	R504575	1	12/21/2022 17:32	BI
Sulfate	1.5	1.0		mg/L	R504575	1	12/21/2022 17:32	BI
<b>Alkalinity by SM2320B</b>								
Alkalinity, Total (As CaCO3)	40.9	3.00		mg/L	R504782	1	12/27/2022 10:12	AH

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> PH1-GWA-2
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF (Resample)	<b>Collection Date:</b> 12/20/2022 2:15:00 PM
<b>Lab ID:</b> 2212N28-004	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>ION SCAN SW9056A</b>								
Nitrate	BRL	0.25		mg/L	R504575	1	12/21/2022 17:48	BI

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-18
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF (Resample)	<b>Collection Date:</b> 12/20/2022 12:45:00 PM
<b>Lab ID:</b> 2212N28-005	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>ION SCAN SW9056A</b>								
Nitrate	0.61	0.25		mg/L	R504575	1	12/21/2022 15:24	BI

**Qualifiers:**

- \* Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit



<b>Client:</b> Atlantic Coast Consulting, Inc.	<b>Client Sample ID:</b> GWC-19R
<b>Project Name:</b> Forsyth County-Hightower Road MSWLF (Resample)	<b>Collection Date:</b> 12/20/2022 12:20:00 PM
<b>Lab ID:</b> 2212N28-006	<b>Matrix:</b> Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
<b>ION SCAN SW9056A</b>								
Nitrate	BRL	0.25		mg/L	R504575	1	12/21/2022 14:52	BI

<b>Qualifiers:</b>	* Value exceeds maximum contaminant level	E Estimated (value above quantitation range)
	BRL Below reporting limit	S Spike Recovery outside limits due to matrix
	H Holding times for preparation or analysis exceeded	Narr See case narrative
	N Analyte not NELAC certified	F Analyzed in the lab which is a deviation from the method
	B Analyte detected in the associated method blank	< Less than Result value
	> Greater than Result value	J Estimated value detected below Reporting Limit

**SAMPLE/COOLER RECEIPT CHECKLIST**

1. Client Name: Atlantic Coast Consulting, Inc.

AES Work Order Number: 2212N28

2. Carrier: FedEx  UPS  USPS  Client  Courier  Other \_\_\_\_\_

	Yes	No	N/A	Details	Comments
3. Shipping container/cooler received in good condition?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	damaged <input type="checkbox"/> leaking <input type="checkbox"/> other <input type="checkbox"/>	
4. Custody seals present on shipping container?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
5. Custody seals intact on shipping container?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
6. Temperature blanks present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
7. Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cooling initiated for recently collected samples / ice present <input type="checkbox"/>	
8. Chain of Custody (COC) present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
9. Chain of Custody signed, dated, and timed when relinquished and received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
10. Sampler name and/or signature on COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
11. Were all samples received within holding time?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
12. TAT marked on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. <input type="checkbox"/>	

13. Cooler 1 Temperature 2.1 °C    Cooler 2 Temperature \_\_\_\_\_ °C    Cooler 3 Temperature \_\_\_\_\_ °C    Cooler 4 Temperature \_\_\_\_\_ °C  
 14. Cooler 5 Temperature \_\_\_\_\_ °C    Cooler 6 Temperature \_\_\_\_\_ °C    Cooler 7 Temperature \_\_\_\_\_ °C    Cooler 8 Temperature \_\_\_\_\_ °C

15. Comments: \_\_\_\_\_

I certify that I have completed sections 1-15 (dated initials). CP 12/20/22

	Yes	No	N/A	Details	Comments
16. Were sample containers intact upon receipt?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
17. Custody seals present on sample containers?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
18. Custody seals intact on sample containers?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
19. Do sample container labels match the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	incomplete info <input type="checkbox"/> illegible <input type="checkbox"/> no label <input type="checkbox"/> other <input type="checkbox"/>	
20. Are analyses requested indicated on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
21. Were all of the samples listed on the COC received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	samples received but not listed on COC <input type="checkbox"/> samples listed on COC not received <input type="checkbox"/>	
22. Was the sample collection date/time noted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
23. Did we receive sufficient sample volume for indicated analyses?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
24. Were samples received in appropriate containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
25. Were VOA samples received without headspace (< 1/4" bubble)?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
26. Were trip blanks submitted?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	listed on COC <input type="checkbox"/> not listed on COC <input type="checkbox"/>	

27. Comments: \_\_\_\_\_

I certify that I have completed sections 16-27 (dated initials). HM 12/21/22

This section only applies to samples where pH can be checked at Sample Receipt.

	Yes	No	N/A	Details	Comments
28. Have containers needing chemical preservation been checked? *	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
29. Containers meet preservation guidelines?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
30. Was pH adjusted at Sample Receipt?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		

\* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

This also excludes metals by EPA 200.7, 200.8 and 245.1 which will be verified between 16 and 24 hours after preservation.

I certify that I have completed sections 28-30 (dated initials). HM 12/21/22

Locked

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF (Resampl  
**Lab Order:** 2212N28

## Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
2212N28-001A	AMW-14	12/20/2022 1:10:00PM	Groundwater	ION SCAN			12/21/2022
2212N28-001A	AMW-14	12/20/2022 1:10:00PM	Groundwater	Alkalinity by SM2320B			12/27/2022
2212N28-001A	AMW-14	12/20/2022 1:10:00PM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/22/2022 3:45:00PM	12/22/2022
2212N28-002A	AMW-5	12/20/2022 1:25:00PM	Groundwater	ION SCAN			12/21/2022
2212N28-002A	AMW-5	12/20/2022 1:25:00PM	Groundwater	Alkalinity by SM2320B			12/27/2022
2212N28-002A	AMW-5	12/20/2022 1:25:00PM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/22/2022 3:45:00PM	12/22/2022
2212N28-003A	AMW-4	12/20/2022 1:45:00PM	Groundwater	ION SCAN			12/21/2022
2212N28-003A	AMW-4	12/20/2022 1:45:00PM	Groundwater	Alkalinity by SM2320B			12/27/2022
2212N28-003A	AMW-4	12/20/2022 1:45:00PM	Groundwater	Residue, Dissolved (TDS) by SM2540C		12/22/2022 3:45:00PM	12/22/2022
2212N28-004A	PH1-GWA-2	12/20/2022 2:15:00PM	Groundwater	ION SCAN			12/21/2022
2212N28-005A	GWC-18	12/20/2022 12:45:00PM	Groundwater	ION SCAN			12/21/2022
2212N28-006A	GWC-19R	12/20/2022 12:20:00PM	Groundwater	ION SCAN			12/21/2022

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF (Resample)  
**Workorder:** 2212N28

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 348340**

Sample ID: <b>MB-348340</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/22/2022</b>	Run No: <b>504605</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Residue, Dissolved (TDS) by SM2540C</b>	BatchID: <b>348340</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11840749</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS)

BRL 10

Sample ID: <b>LCS-348340</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/22/2022</b>	Run No: <b>504605</b>							
SampleType: <b>LCS</b>	TestCode: <b>Residue, Dissolved (TDS) by SM2540C</b>	BatchID: <b>348340</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11840750</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS)

2992 40 3000 99.7 78.33 117.67

Sample ID: <b>2212N03-001ADUP</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>12/22/2022</b>	Run No: <b>504605</b>							
SampleType: <b>DUP</b>	TestCode: <b>Residue, Dissolved (TDS) by SM2540C</b>	BatchID: <b>348340</b>	Analysis Date: <b>12/22/2022</b>	Seq No: <b>11840752</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Dissolved (TDS)

464.0 10 430.0 7.61 10

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF (Resample)  
**Workorder:** 2212N28

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504575**

Sample ID: <b>MB-R504575</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504575</b>							
SampleType: <b>MBLK</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504575</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11836192</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	BRL	1.0									
Nitrate	BRL	0.25									
Sulfate	BRL	1.0									

Sample ID: <b>LCS-R504575</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504575</b>							
SampleType: <b>LCS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504575</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11836191</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	10.46	1.0	10.00		105	90	110				
Nitrate	5.136	0.25	5.000		103	90	110				
Sulfate	24.53	1.0	25.00		98.1	90	110				

Sample ID: <b>2212N15-001AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504575</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504575</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11836213</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	11.37	1.0	10.00	2.327	90.4	90	110				
Nitrate	5.222	0.25	5.000		104	90	110				
Sulfate	25.73	1.0	25.00	1.242	97.9	90	110				

Sample ID: <b>2212N28-002AMS</b>	Client ID: <b>AMW-5</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504575</b>							
SampleType: <b>MS</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504575</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11836215</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	12.97	1.0	10.00	3.744	92.3	90	110				
Nitrate	5.264	0.25	5.000		105	90	110				
Sulfate	28.13	1.0	25.00	3.456	98.7	90	110				

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF (Resample)  
**Workorder:** 2212N28

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504575**

Sample ID: <b>2212N15-001AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504575</b>							
SampleType: <b>MSD</b>	TestCode: <b>ION SCAN SW9056A</b>	BatchID: <b>R504575</b>	Analysis Date: <b>12/21/2022</b>	Seq No: <b>11836214</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chloride	11.39	1.0	10.00	2.327	90.7	90	110	11.37	0.218	20	
Nitrate	5.232	0.25	5.000		105	90	110	5.222	0.193	20	
Sulfate	25.81	1.0	25.00	1.242	98.3	90	110	25.73	0.330	20	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Atlantic Coast Consulting, Inc.  
**Project Name:** Forsyth County-Hightower Road MSWLF (Resample)  
**Workorder:** 2212N28

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R504782**

Sample ID: <b>LCS-R504782</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504782</b>							
SampleType: <b>LCS</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R504782</b>	Analysis Date: <b>12/27/2022</b>	Seq No: <b>11842276</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)      126.1                  3.00                  125.0                  101                  90                  110

Sample ID: <b>2212P17-001CDUP</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>504782</b>							
SampleType: <b>DUP</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R504782</b>	Analysis Date: <b>12/27/2022</b>	Seq No: <b>11842278</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)      88.70                  3.00                                                                                                                        79.36                  11.1                  30

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

End of Report



**ATTACHMENT B**

**CORRECTIVE MEASURES STATUS EVALUATION**

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### ATTACHMENT B Tables

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Table A2	Summary of MNA Indicator Parameter Concentration Averages (2019-2022)
Table A3a	Summary of Concentrations Above a GWPS – June 2022 Sampling Event
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Table A4	Summary of SSIs & GWPS Exceedances (2019-2022)

### ATTACHMENT B Figures

Figure A1	Site Location Map
Figure A2	Site Plan
Figure A3	Molar Concentration Trend (PH1-GWC-3)
Figure A4	Molar Concentration Trend (PH1-GWC-3A)
Figure A5	Molar Concentration Trend (GWC-14A)

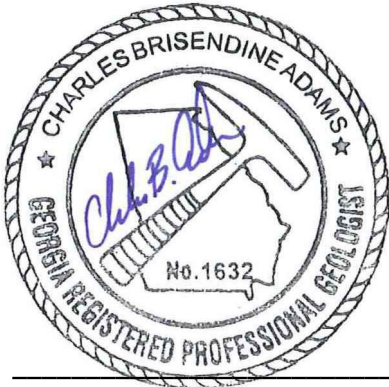
### ATTACHMENT B Appendix

Appendix 1 VOC time series graphs

## Professional Geologist Certification

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I, Charles B. Adams, certify that I am a qualified groundwater scientist demonstrated by a Georgia state registered professional geologist certification. I have sufficient training and experience in groundwater hydrology and related fields to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that the data in this report has been prepared by me or a subordinate working under my direction.



---

Charles B. Adams, P.G.  
Georgia P.G. Registration Number 1632

## 1.0 Introduction

On behalf of Forsyth County, Georgia, Atlantic Coast Consulting, Inc. (ACC) is providing this Corrective Measures Status Evaluation (CMSE) for the Forsyth County Hightower Road Municipal Solid Waste Landfill (MSWLF) (Phases I–IV). This report is being provided in accordance with the Environmental Protection Division (EPD) approved July 2008 Corrective Action Plan (CAP). The Assessment of Corrective Measures (ACM) report completed in 2004 concluded that the source of volatile organic compound (VOC) impacts at the facility was primarily landfill gas (LFG) and evaluated various means of reducing LFG impacts to groundwater. The selected remedies for the Site are: (1) LFG migration and infiltration control, and (2) monitored natural attenuation (MNA). The objective of this report is to provide an evaluation of the CAP prescribed corrective measure progress towards compliance with applicable groundwater protection standards (GWPS) per rule 391-3-4-.14(44)(a)(3). This document presents and reviews data collected during the semi-annual groundwater sampling events since the revised CAP was submitted in 2008. Note the first CMSE was presented as an attachment to the second 2010 Groundwater Monitoring Report, and subsequent reports were provided in the second 2013, second 2016, and second 2019 semi-annual groundwater & surface water monitoring reports.

The corrective action program was established to meet the implementation guidelines described in the Georgia Rules for Solid Waste Management 391-3-4-.14(44). Molar trend plots of groundwater data are provided per CAP requirements to satisfy Georgia rule 391-3-4-.14(44)(a). As qualified herein the CAP measures are achieving the corrective action goals per Georgia rule 391-3-4-.14(40) based on the review and evaluation of data collected. Based on evaluation of MNA data results and time trend plots, Forsyth County will continue the EPD-approved groundwater monitoring program in accordance with the ACM study, assessment monitoring plan, and CAP for the Hightower Road Landfill. No changes to the corrective action program are recommended at this time. A corrective action schedule is provided in this report per Georgia rule 391-3-4-.14(41). The remedies under this CAP will be considered complete per rule 391-3-4-.14(48)(a) when compliance with the GWPS has been achieved unless conditions warrant implementation of rule 391-3-4-.14(46).

## 1.1 Background

The Forsyth County Hightower Road MSWLF is a closed facility, located in northwest Forsyth County, Georgia. A map depicting the site location is presented as **Figure A1**. Phases I and II operated under EPD Permit No. 058-006D(L) from 1986 until 1994, Phase III under EPD Permit No. 058-009D(SL) from 1991 until 1995, and Phase IV under EPD Permit No. 058-010S(SL) from 1993 until 1997. Closure activities for the entire facility were completed in 1999. A map depicting the landfill phases, monitoring network, methane vent trenches, vent system, and passive flare locations is provided in **Figure A2**. More extensive detail of the site history is included in the ACM and CAP.

There are 13 monitoring wells and three AMW series wells utilized to monitor groundwater conditions near Phase I of the facility, and 34 monitoring wells and 10 AMW series wells to monitor Phases II – IV. Throughout the site, well clusters have been installed to monitor vertical gradients and/or stratification of potential impacts. The shallowest monitoring wells have no suffix (e.g., GWC-8), the intermediate monitoring wells have an “A” suffix (e.g., GWC-8A), and the deepest monitoring wells (installed in rock) have an “R” suffix (e.g., GWC-8R). The CAP requires sampling of MNA parameters from select assessment monitoring wells on an annual basis. MNA sampling began with the second 2007 monitoring event. These MNA parameters include

dissolved oxygen, nitrate, sulfate, ferrous iron, chloride, oxidation-reduction potential (ORP), carbon dioxide, total dissolved solids (TDS), and total alkalinity. Surface water is monitored semi-annually at 13 locations around the facility. Five surface water locations (SWC-1, SWC-4, SWC-4A, SWC-4B, and SWC-6) are also sampled semi-annually for Appendix I VOCs for delineation purposes.

In efforts to reduce methane concentrations at the facility, Forsyth County installed a vent system during the 1999 closure that consists of 23 passive vents as part of the remedy (**Figure A2**). As part of the EPD-approved interim CAP recommendations, methane vent trenches were installed in Phase II (MSW), Phase II (C&D), and Phase I (MSW), designated as Methane Vent Trench #1, #2, and #3, respectively (**Figure A2**). A Minor Modification request to install an active extraction system was approved by EPD on April 15, 2010. This modification enhances the extraction of LFG through the addition of passive solar flares at selected locations to help improve groundwater conditions. The design included adapting six passive vents as vertical gas extraction wells equipped with solar powered flare/blower units (the vents included 2 vents in Phase I and 4 vents in Phase II and are shown on **Figure A2**). Following implementation, an installation certification report was submitted to EPD October 14, 2011.

The County implemented a methane remediation plan<sup>1</sup> that included installation of a seventh solar powered flare north of Phase II at vent trench #1 designated as PH2-MV-05. The location of the flare is depicted in **Figure A2**.

## 2.0 CAP Effectiveness Evaluation

The effectiveness of each of the CAP remedies (LFG Migration/Infiltration Control and MNA) is discussed in the following sections.

### 2.1 Landfill Gas Migration/Infiltration Control

The combination of passive methane vents, vent trenches, and active solar powered gas extraction blowers with flares has been effective in reducing methane concentrations as measured in perimeter methane monitoring locations. Historically, MM-2 and MM-11 had methane concentrations above the lower explosive limit (LEL). The 2022 quarterly methane monitoring data indicates that no methane compliance point had a measured concentration above the LEL. The vent trenches have been effective in reducing methane at the compliance monitoring points as evidenced by lack of methane LEL exceedances in the network during the quarterly methane monitoring.

Methane is measured in well headspace in select wells in accordance with the CAP; measurements are displayed in **Table A1**. There have been levels of methane in well headspace in PH1-GWB-2, PH1-GWA-2, and GWC-16A between 2008 and 2018 (**Table A1**). The highest measurement for GWC-16A was in December 2014. The level of methane in the headspace of GWC-16A has dropped from 52% by volume in December 2014, to 0% by volume in December 2019, and was 0% by volume December 2022. Because GWC-16A does not currently have methane in the well headspace, this may indicate that the LFG migration controls are preventing the gas buildup in this part of the landfill. During post-closure inspections, the flares have been observed to be flaring gas, which is direct evidence of the control of LFG due to this corrective measure.

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<sup>1</sup> GEOS Submittal 491942 dated June 19, 2020.

The seven passive vents adapted as vertical gas extraction wells equipped with solar powered flare/blower units have been successful in flaring LFG since their installation. The combination of flared LFG extraction and methane vent trenches has been effective in controlling LFG migration as evidenced by the lack of methane above the LEL in the monitoring network and direct evidence of LFG flaring.

The landfill is inspected quarterly in accordance with the CAP and Post-Closure Care requirements. Inspection Forms are completed and filed in the operating record to document the condition of the landfill cap/cover, methane and groundwater monitoring wells, surface water systems, LFG management system, and general notes/observations. Repairs are made as necessary and general maintenance is completed regularly by the County. No major cap repairs have been required during the last three-year period.

## 2.2 MNA Effectiveness Evaluation

The 2019 to 2022 groundwater monitoring events included annual collection of MNA parameters from select downgradient monitoring wells in the assessment monitoring program, three AMW series wells where VOCs have been detected (AMW-4, AMW-5 and AMW-14), and an unimpacted upgradient well (PH1-GWA-4). MNA parameter analysis included laboratory testing for alkalinity (total), chloride, nitrate, sulfate, and total dissolved solids, and field testing was performed for carbon dioxide, ferrous iron, dissolved oxygen, and oxidation-reduction potential. These data were collected in accordance with the CAP. A summary of MNA indicator parameter data is presented in **Table A1**. A summary of the MNA parameter average concentrations, as well as maximum, minimum, and median values is presented in **Table A2**.

Based on review of the 2019 to 2022 MNA data, upgradient well PH1-GWA-4 contains the relative highest average concentration of dissolved oxygen, and the relative lowest average concentration of carbon dioxide, alkalinity, chloride, and total dissolved solids; and no detections of ferrous iron (reduced form). This is a general indication that dissolved oxygen is relatively depleted and conditions are more reducing in impacted wells. Ferrous iron has also been observed in field tests from a number of impacted wells. The relatively higher alkalinity and carbon dioxide concentrations in impacted wells are indicators typical of a LFG source. Downgradient groundwater wells in the assessment monitoring program and AMW wells have shown carbon dioxide concentrations that are significantly elevated compared to background since 2019. Consistent with historic results, the recent MNA data affirms the ACM determination that low level VOC concentrations in groundwater are likely attributable to a LFG source and that natural attenuation is occurring.

There are five direct lines of evidence that demonstrate degradation by natural attenuation:

- 1) The ratios of tetrachloroethene (PCE) and trichloroethene (TCE) to cis-1,2-DCE indicate degradation is occurring via reductive dechlorination. It is generally recognized that cis-1,2-DCE is a daughter product of PCE and/or TCE (EPA, 1998). In the most recent sampling event, the concentration of cis-1,2-DCE is higher than PCE and TCE in all wells exhibiting one or more GWPS exceedance (PH1-GWC-3, PH1-GWC-3A, and GWC-14A; **Table A3a & A3b**). This indicates that PCE and TCE are likely breaking down into cis-1,2-DCE in these wells.
- 2) The presence of further degradation of PCE and/or TCE parent compounds to vinyl chloride is observed in samples from GWC-14A.
- 3) Carbon dioxide levels in impacted wells are up to greater than two times the background level as shown on **Table A2**. The presence of elevated levels of carbon dioxide may result directly from LFG interaction with groundwater, as a respiratory product of anaerobic

- bacteria, and/or as a final degradation product because of complete mineralization of organic compounds.
- 4) Total alkalinity in the impacted wells is greater than two times the background level as shown on **Table A2**. The elevated alkalinity levels are attributed to the interaction of carbon dioxide with groundwater to form carbonic acid and ultimately bicarbonate.
  - 5) Chloride concentrations are greater than two times the background level in impacted wells PH1-GWC-3 and GWC-14A as shown on **Table A2**. Chloride concentrations increase during the process of reductive dechlorination (e.g., chloride is released as PCE and TCE are reduced to cis-1,2-DCE and vinyl chloride). Relatively low-level increases in chloride over background such as these may also occur due to LFG interaction with groundwater.

### 2.3 Groundwater Trend Evaluation

The ACM/CAP presented evaluations of groundwater conditions and presented evidence that conditions are favorable for MNA at the facility. Analysis of time-trend plots of contaminant concentrations indicated that the site would no longer have concentrations above a GWPS by approximately 2027. The ACM listed 30 years as the compliance goal and the CAP listed 20 years as the compliance goal and as adjusted in these three-year evaluations, the year to compliance is approximately 2040. Generally consistent with these estimations, the individual VOC time trend graph trends in assessment wells continue to be downward in comparison to historical highs and conditions remain favorable for MNA (**Appendix 1**). Concentrations above GWPS in the most recent groundwater monitoring events are summarized in **Table A3a** and **A3b**. As shown in these tables, the VOC exceedances (cis-1,2-DCE, PCE, TCE, and vinyl chloride) are clustered near assessment wells in two areas: Phase I wells (PH1-GWC-3 and PH1-GWC-3A) and Phase II-IV wells (GWC-14A, and AMW-1/GWC-15). Wells with enough VOC detections to graph are presented in **Appendix 1**. As shown in the graphs VOC concentrations are declining from peak levels in all wells except PH1-GWC-3 and PH1-GWC-3A. Note that hollow symbols on the time trend graphs represent non-detect values (reporting limit).

The VOC concentrations above their respective GWPS are chlorinated hydrocarbons. As presented in the ACM and CAP, most of the detected chlorinated VOCs represent various stages of reductive dechlorination of the chlorinated methane, ethane and ethene series. Lesser concentrations of BTEX compounds (benzene, toluene, ethylbenzene, and xylenes) have been reported in one or more of the monitoring wells sporadically over time and in just two wells since 2019 (GWC-8A and GWC-14A).

Trends of molar concentrations of chlorinated ethanes and chlorinated ethenes are plotted in **Figure A3, A4, and A5** for assessment monitoring wells that have not achieved GWPS compliance. Chlorinated ethene series compounds are the most recalcitrant and are generally the limiting factor in attaining compliance with GWPS. As shown in **Tables A3a & A3b**, chlorinated ethane/ethene series compounds account for most current groundwater GWPS exceedances. Of the chlorinated ethene series compounds, vinyl chloride has the lowest GWPS (2 micrograms per liter - µg/L). Therefore, the molar concentration of the GWPS for vinyl chloride is used as the decisive compliance goal. These plots depict an approximate time to GWPS compliance. An evaluation of plots for each of the three network wells with a current GWPS exceedance (PH1-GWC-3, PH1-GWC-3A, and GWC-14A) is summarized below. Note that the vertical axis of each graph utilizes the maximum observed concentration to show the concentration trends in a smaller scale.

**PH1-GWC-3:** Chlorinated ethanes are currently in compliance at this location. In the most recent monitoring data, the concentrations of PCE and TCE were above the GWPS. As shown in **Figure**

**A3**, this shows up as a rising trend in the chlorinated ethene graph. Since 2014 the concentrations of cis-1,2-DCE have been above PCE and/or TCE. This fits the expected degradation pattern where PCE and TCE degrade to cis-1,2-DCE via reductive dechlorination. Thus, natural attenuation is occurring, but a longer-term evaluation compliance period is required to establish the compliance timeframe for chlorinated ethenes.

**PH1-GWC-3A:** Chlorinated ethanes are currently in compliance at this location. In the most recent monitoring data, PCE and TCE concentrations were above the GWPS. Like PH1-GWC-3, this well has had cis-1,2-DCE concentrations higher than PCE and/or TCE since 2014. Thus, natural attenuation is occurring, but a longer term evaluation compliance period is required to establish the compliance timeframe for chlorinated ethenes.

**GWC-14A:** Chlorinated ethanes are currently in compliance at this location. Current concentrations of cis-1,2-DCE and vinyl chloride are above respective GWPS. Since 2019, the concentration of cis 1,2-DCE has been greater than PCE and TCE, which indicates that natural attenuation of groundwater contaminants is occurring via reductive dechlorination. Additionally, the persistent presence of vinyl chloride also suggests that reductive dechlorination is on-going. Chlorinated ethane concentrations have been declining since 2005, and chlorinated ethene parent concentrations (PCE and TCE) are significantly lower than initial levels. Based on the extrapolation of recent data trends shown in **Figure A5**, the GWPS is approximated to be met by 2040.

As discussed in the groundwater monitoring report, the County has implemented additional corrective actions to enhance the corrective action program that includes groundwater pilot tests of potassium permanganate (under the Underground Injection Control permit). The first pilot test was at Phase 2 of the facility near wells AMW-12/AMW-12R. Another pilot test is underway near wells PH1-GWC-3/3A. Updates to potential reductions of the time to remedy completion due to potassium permanganate treatment will be provided in future triennial CAP reviews.

### 3.0 Evaluation Summary

Infiltration control (enhanced closure cover system), LFG migration control, and MNA are the remedial actions selected at the site. These remedial actions are responsible for improved groundwater quality. The LFG migration control is enhanced by venting and flaring of LFG. This enhancement has further improved groundwater quality (as evidenced by reductions of VOC concentrations in several wells and an overall decrease in the number of concentrations above a GWPS since 2019). The following items are noted based on a review of data collected in the 14 years following implementation of the CAP.

- Overall, the number of groundwater Maximum Contaminant Level (MCL) exceedances has decreased from 13 in the second 2019 event to 6 in the current event. Also, the total number of statistically significant increases that are MCL exceedances has decreased from 11 in the second 2019 event to 6 in the second 2022 event (**Table A4**). Of the 43 network groundwater monitoring wells sampled in the second 2022 event, 15 had VOC detections above laboratory reporting limits and only six of those had concentrations above the GWPS. The time-trend (molar concentration) plots for the assessment wells with concentrations above a GWPS indicate that site wells are generally on schedule to reach compliance by approximately 2040.
- As discussed in Section 2.2, MNA parameters collected over the past three years indicate that there continues to be adequate evidence of favorable conditions for the reductive dechlorination of chlorinated VOCs in groundwater. In the most recent monitoring event, several assessment monitoring wells have concentrations of cis-1,2-DCE greater than



PCE/TCE indicating that reductive dechlorination is occurring, natural attenuation is ongoing, and selected remedial measures are effective.

- In the most recent sampling event assessment monitoring wells sampled for MNA parameters have lower average redox potential and average dissolved oxygen relative to background well PH1-GWA-4 (**Table A2**). These relatively lower dissolved oxygen and slightly reducing conditions relative to background are conducive to degradation of chlorinated VOCs via reductive dechlorination.
- Several direct lines of evidence demonstrate that natural attenuation is occurring: 1) the ratio of cis-1,2-DCE is greater than PCE and TCE indicating a degradation reaction, 2) the presence of daughter product vinyl chloride in wells shows reductive dechlorination degradation, 3) The median value of MNA indicator parameters alkalinity, carbon dioxide, chloride, and TDS in wells with VOCs is greater than two times the background concentration.

#### 4.0 Corrective Action Schedule

A Corrective Action Schedule was provided in the March 12, 2009 Response to Comments on the Revised CAP that included actual dates of CAP remedies and timelines for maintenance, inspections, MNA and reporting. The schedule was previously updated in the 2010, 2013, 2016, and 2019 CMSEs. The current schedule has been updated below:

##### CORRECTIVE ACTION SCHEDULE

ITEM	ESTIMATED/OR COMPLETION DATE (Actual completion in bold font)
Installation of landfill engineered cap system	<b>Completed in 1999</b>
Inspect landfill engineered cap system	Ongoing, perform quarterly, repair as needed
Complete perimeter methane monitoring and access control inspections	Ongoing, perform quarterly, repair as needed
Inspect LFG extraction systems	Perform quarterly, repair as needed
Sampling of MNA parameters	MNA sampling begins on the second 2007 Semi-annual Sampling Event; performed annually until cessation
MNA Evaluation Report	Complete every three years; initial report <b>April 13, 2011</b>
Interim CAP submitted to EPD	<b>January 31, 2007</b>
EPD Approved Interim CAP	<b>May 3, 2007</b>
Submission of Trench & Turbine Design Drawings to EPD	<b>August 1, 2007</b>
Methane Trench Construction Documentation Report to EPD	<b>January 23, 2008</b>
EPD Approval of Minor Modification for Trench Installation	<b>April 23, 2008</b>
Submitted CAP to EPD	<b>July 14, 2008</b>
EPD CAP Approval	<b>November 10, 2008</b>
Submission of Cost Table & Schedule (per EPD Comments on CAP)	<b>March 12, 2009</b>
Active Gas Extraction System Design	<b>September 1, 2009</b>
Active Gas Extraction System Design Submitted to EPD	<b>December 11, 2009</b>
EPD Design Review/Approval of Minor Modification	<b>April 21, 2010</b>
Complete Construction of Gas Flaring System	<b>August 10, 2011</b>
Gas Flaring System Construction Documentation to EPD	<b>October 14, 2011</b>
Timeframe to Return Site to Compliance	~22 years or ~2045 (based on trend analysis)

#### 5.0 Contingency Plan and Recommendations

Based on observed data, the selected CAP remedies and recent enhancements (solar powered flares) appear to be effective in reducing landfill gas. The reduction of most contaminant concentrations in groundwater is direct evidence that natural attenuation is ongoing and a successful remedy. Molar trend plots of groundwater data are provided per the CAP to satisfy Georgia rule 391-3-4-.14(44)(a). The CAP on track to achieve corrective action goals per Georgia rule 391-3-4-.14(44), however several wells require a longer evaluation period to estimate a time to compliance. Forsyth County will continue implementing the selected CAP remedies and the effectiveness of remedial measures and future MNA data will be evaluated in the next CMSE, after the second 2025 monitoring event. The effectiveness of the CAP remedy enhancement

(pilot test potassium permanganate remedy) for the first pilot test has been documented<sup>2</sup> and the pilot test in Phase 1 of the facility is currently being implemented.

## 6.0 References

Advanced Environmental Management, Inc., 2004. *Assessment of Corrective Measures Report*, prepared for Forsyth County Hightower Road Municipal Solid Waste Landfills, Permit Nos. 058-006D(L), 009D(SL), 010D(SL), October 8, 2004.

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AFCEE, 2004. *FINAL Principles and Practices of Enhanced Anaerobic Bioremediation of Chlorinated Solvents*, Prepared for: Air Force Center for Environmental Excellence, Brooks City-Base, Texas, Naval Facilities Engineering Service Center, Port Hueneme, California and Environmental Security Technology Certification Program, Arlington, Virginia, August 2004.

EPA, 1998. *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water*, Office of Research and Development, EPA/600/R-98/128, September 1998.

Georgia EPD, 2005. Correspondence approving the Assessment of Corrective Measures titled, *Assessment of Corrective Measures Report, Hightower Road MSWL Phases 1,2,3,4*, January 28, 2005.

Georgia EPD, 2005. Correspondence approving the Corrective Action Plan titled, *Forsyth County – Hightower Rd Ph 1, 3, and 4 (SL), Permit Nos. 0058-006D(SL), 058-009D(SL), and 058-010D(SL), Corrective Action Plan*, November 10, 2008.

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<sup>2</sup> GEOS Submittal 664139.

**ATTACHMENT B  
TABLES**

**Table A1**  
**Summary of MNA Indicator Parameter Data (2019-2022)**  
**Forsyth County - Hightower Rd MSWLF**

Well	Date	Alkalinity (mg/L as CaCO <sub>3</sub> )	Total Dissolved Solids	Chloride	Sulfate	Ferrous Iron <sup>1</sup>	Dissolved Oxygen <sup>1</sup>	ORP (rel mV) <sup>1</sup>	Carbon Dioxide <sup>1</sup>	Nitrate Nitrogen	Methane in Well Headspace (%/vol)
<b>UNIMPACTED UPGRADIENT WELL</b>											
PH1-GWA-4	2019	7.04	--	2.1	--	0.0	5.1	199	45	--	NM
PH1-GWA-4	2020	5.74	14	2.1	1.1	0.0	3.4	230	35	--	NM
PH1-GWA-4	2021	6.71	16	1.5	1.1	0.0	6.9	254	85	--	NM
PH1-GWA-4	2022	10.9	14	1.5	--	0.0	3.8	315	30	--	NM
<b>PHASE I ASSESSMENT WELLS</b>											
PH1-GWA-1	2019	27.6	28	2.8	--	1.2	1.4	159	190	--	0
PH1-GWA-1	2020	33.1	44	2.4	1.0	1.5	4.5	154	225	--	0
PH1-GWA-1	2021	34.3	44	2.1	1.5	2.4	3.3	87	188	--	0
PH1-GWA-1	2022	36.2	37	2.6	1.3	2.25	3.7	49	100	--	0
PH1-GWA-2	2019	46.2	61	4.7	--	1	2.4	311	190	--	0
PH1-GWA-2	2020	34.3	68	3.7	--	0.5	5.2	148	225	--	0
PH1-GWA-2	2021	35.6	68	3.6	1.3	1.6	1.7	183	80	--	0
PH1-GWA-2	2022	41.9	55	3.6	1.3	0.0	1.8	144	90	--	0
PH1-GWC-2	2019	62.2	95	2.9	2.1	2.8	1.5	111	55	--	0
PH1-GWC-2	2020	65.6	93	4.2	2.4	0.0	3.9	239	50	--	0
PH1-GWC-2	2021	69.7	105	2.8	2.7	0.0	1.7	188	55	--	0
PH1-GWC-2	2022	72.9	96	3.2	2.8	0.3	3.4	147	30	--	0
PH1-GWC-3	2019	60	101	4	3	0.0	1.6	200	15	--	0
PH1-GWC-3	2020	59.7	86	5.0	2.9	0.5	4.1	165	125	--	0
PH1-GWC-3	2021	64.9	92	4.2	3.7	0.5	2.1	251	130	--	0
PH1-GWC-3	2022	73	92	4.7	3.1	0.1	0.7	179	200	--	0
PH1-GWC-3A	2019	77.6	112	1.9	--	0.0	2.4	186	20	--	0
PH1-GWC-3A	2020	81.5	104	2.1	1.6	0.0	4.8	148	60	--	0
PH1-GWC-3A	2021	90.2	117	1.9	1.5	0.0	2.8	247	65	--	0
PH1-GWC-3A	2022	94.8	110	2.6	1.9	0.4	0.5	103	100	0.49	0
<b>PHASE II-IV ASSESSMENT WELLS</b>											
GWC-8A	2019	142	105	4.6	--	2.5	2.4	49	400	--	0
GWC-8A	2020	55.0	129	4.1	1.4	4.0	2.9	5	250	--	0
GWC-8A	2021	32.3	65	3.1	1.4	4.0	3.5	32	425	--	0
GWC-8A	2022	90.0	122	3.8	1.3	0.8	1.8	70	250	--	0
GWC-8R	2019	133	149	3.1	2.5	2.2	2.7	33	85	--	0
GWC-8R	2020	123	153	3.7	3.1	3.0	3.3	62	150	--	0
GWC-8R	2021	133	150	2.4	3.3	2.5	3.2	76	150	--	0
GWC-8R	2022	140	162	2.4	3	1.8	4.7	150	125	--	0
GWC-14A	2019	167	183	16	2.2	2.5	3.5	69	300	--	0
GWC-14A	2020	133	176	15	3.5	3.0	4.5	41	450	--	0
GWC-14A	2021	147	170	16	3.4	1.5	1.4	68	250	--	0
GWC-14A	2022	160	192	16	3.1	0.5	3.75	168	260	--	0
GWC-14R	2019	143	171	7.3	3.4	0.0	3.7	228	150	--	0
GWC-14R	2020	143	166	5.4	3.1	0.5	5.0	170	210	--	0
GWC-14R	2021	146	179	4.4	3.1	0.5	0.8	188	200	--	0
GWC-14R	2022	153	183	4.5	3.0	0.7	5.1	90	100	--	0
GWC-16A*	2019	74.1	110	2.3	6.2	0.0	2.5	227	50	0.42	0
GWC-16A*	2020	78.7	108	2.3	9.4	0.0	4.8	243	90	0.36	0
GWC-16A*	2021	68.3	87	2.0	7.1	0.0	2.3	245	60	0.35	0
GWC-16A*	2022	68.4	133	2.5	9.6	0.0	3.1	211	100	0.4	0
GWC-17	2019	35.8	51	2.4	1.2	0	3.4	116	75	1.3	0
GWC-17	2020	31.9	52	2.8	1.4	0.5	2.1	119	100	0.70	0
GWC-17	2021	20.2	42	2.2	1.8	0.0	4.8	308	125	0.95	0
GWC-17	2022	13.5	28	1.7	1.7	0.0	3.8	146	70	2.10	0
GWC-18	2019	25.5	41	5.1	--	2.3	3.3	156	150	1.2	0
GWC-18	2020	21.0	48	4.5	1.0	5.0	4.6	231	100	1.0	0
GWC-18	2021	23.1	52	4.2	1.3	1.5	4.2	127	35	0.49	0
GWC-18	2022	35.1	57	4.9	1.4	0.3	2.5	177	315	0.61	0

**Table A1**  
**Summary of MNA Indicator Parameter Data (2019-2022)**  
**Forsyth County - Hightower Rd MSWLF**

Well	Date	Alkalinity (mg/L as CaCO <sub>3</sub> )	Total Dissolved Solids	Chloride	Sulfate	Ferrous Iron <sup>1</sup>	Dissolved Oxygen <sup>1</sup>	ORP (rel mV) <sup>1</sup>	Carbon Dioxide <sup>1</sup>	Nitrate Nitrogen	Methane in Well Headspace (%/vol)
<b>PHASE II-IV ASSESSMENT WELLS CONTINUED</b>											
GWC-19R	2019	44	63	2	1.6	0.5	4.1	152	200	0.3	0
GWC-19R	2020	38.5	60	3.4	2.0	1.5	4.4	134	300	--	0
GWC-19R	2021	43.4	60	1.9	2.5	1.5	2.5	72	50	--	0
GWC-19R	2022	51.7	57	2.2	3.8	0.0	1.9	165	100	--	0
GWC-24	2019	33.4	53	2.1	1.6	0.0	8.6	176	175	--	0
GWC-24	2020	23.3	43	3.4	1.9	0.0	3.5	178	175	--	0
GWC-24	2021	24.6	44	1.7	2.1	1.0	5.6	194	63	0.43	0
GWC-24	2022	30.1	29	2.2	2.5	1.0	3.7	122	80	0.48	0
<b>AMW SERIES WELLS</b>											
AMW-4	2019	41.2	60	3.5	--	0.5	2.6	232	135	--	0
AMW-4	2020	37.2	58	3.3	1.5	0.0	4.6	267	50	0.32	0
AMW-4	2021	38.2	61	3.0	1.5	0.0	2.1	260	55	0.28	0
AMW-4	2022	40.9	59	3.7	1.5	0.3	3.34	165	200	--	0
AMW-5	2019	31.9	60	4.1	3.3	0.5	2.0	178	60	--	0
AMW-5	2020	34.7	62	4.0	3.0	0.0	5.3	133	30	--	0
AMW-5	2021	34.4	57	3.4	3.1	0.0	1.5	242	25	--	0
AMW-5	2022	38.8	62	3.7	3.5	0.0	2.6	259	100	--	0
AMW-14	2019	31.5	65	4.3	2.8	0.0	3.1	307	35	--	0
AMW-14	2020	33.8	63	3.8	2.8	0.0	2.4	148	20	--	0
AMW-14	2021	34.7	64	3.5	2.9	1.0	2.0	235	40	--	0
AMW-14	2022	37.5	52	3.9	3.2	0.3	1.7	229	100	--	0

**Notes:** <sup>1</sup> = Field Measurement

\* = Data from surrogate well AMW-2 because GWC-16A was dry. Methane in well headspace is still measured from GWC-16.

Units are milligrams per liter (mg/L) unless otherwise noted.

-- = below laboratory reporting limit.

**Acronyms:** NM = not measured.

rel MV = relative millivolts

ORP = oxidation reduction potential

**Table A2**  
**Summary of MNA Indicator Parameter Concentration Averages (2019-2022)**  
**Forsyth County - Hightower Rd MSWLF**

Well	Average Alkalinity	Average Total Dissolved Solids	Average Chloride	Average Dissolved Oxygen	Average Oxidation-Reduction Potential	Average Carbon Dioxide
<b>UNIMPACTED UPGRADIENT WELL</b>						
PH1-GWA-4	8	15	1.8	4.8	250	49
<b>PHASE I ASSESSMENT WELLS</b>						
PH1-GWA-1	33	38	2	3	112	176
PH1-GWA-2	40	63	3.9	2.8	197	146
PH1-GWC-2	68	97	3.3	2.6	171	48
PH1-GWC-3	64	93	4.5	2.1	199	118
PH1-GWC-3A	86	111	2.1	2.6	171	61
<b>PHASE II-IV ASSESSMENT WELLS</b>						
GWC-8A	80	105	3.9	2.7	39	331
GWC-8R	132	154	2.9	3.5	80	128
GWC-14A	152	180	15.8	3.3	87	315
GWC-14R	146	175	5.4	3.6	169	165
GWC-16A	72	110	2.3	3.2	232	75
GWC-17	25	43	2.3	3.5	172	93
GWC-18	26	50	4.7	3.6	173	150
GWC-19R	44	60	2.4	3.2	131	163
GWC-24	28	42	2.4	5.4	168	123
<b>AMW SERIES WELLS</b>						
AMW-4	39	60	3.4	3.2	231	110
AMW-5	35	60	3.8	2.9	203	54
AMW-14	34	61	3.9	2.3	230	49
<b>Downgradient</b>						
<i>Minimum</i>	25	38	2.1	2.1	39	48
<i>Maximum</i>	152	180	16	5.4	232	331
<i>Median</i>	44	63	3.4	3.2	171	123

**Notes:** Average = the arithmetic average of data collected from 2019 to 2022.

Units are milligrams per liter, except for Oxidation-Reduction Potential (millivolts).

**Table A3a**  
**Summary of Concentrations Above a GWPS**  
**Forsyth County - Hightower Road MSWLF**  
**June 2022 Sampling Event**

Monitoring Well ID	cis-1,2-DCE (µg/L)	PCE (µg/L)	TCE (µg/L)	Vinyl Chloride (µg/L)
GWPS	70	5	5	2
<b>PHASE I WELLS</b>				
PH1-GWC-3	26	<b>8.3</b>	<b>7.2</b>	--
PH1-GWC-3A	19	<b>8.6</b>	<b>6.8</b>	--
<b>PHASE II - IV WELLS</b>				
GWC-14A	54	--	--	<b>19</b>
AMW-1	<b>150</b>	<b>42</b>	<b>65</b>	--

**Notes:** Groundwater samples collected on June 6-10, 2022.

-- = Below laboratory reporting limit.

Shaded and bold values indicate concentrations above GWPS.

**Acronyms:** µg/L = micrograms per liter  
cis-1,2-DCE = cis-1,2-Dichloroethene;  
PCE = Tetrachloroethene; TCE = Trichloroethene  
GWPS = Groundwater Protection Standard



**Table A3b**  
**Summary of Concentrations Above a GWPS**  
**Forsyth County - Hightower Road MSWLF**  
**December 2022 Sampling Event**

Monitoring Well ID	cis-1,2-DCE (µg/L)	PCE (µg/L)	TCE (µg/L)	Vinyl Chloride (µg/L)
GWPS	70	5	5	2
<b>PHASE I WELLS</b>				
PH1-GWC-3	36	<b>9.5</b>	<b>9.5</b>	-
PH1-GWC-3A	23	<b>6.5</b>	<b>8.0</b>	-
<b>PHASE II - IV WELLS</b>				
GWC-14A	<b>86</b>	-	3.3	<b>14</b>

**Notes:** Groundwater samples collected on December 13-20th, 2022.  
 -- = Below laboratory reporting limit.  
 Shaded and bold values indicate concentrations above GWPS.

**Acronyms:** µg/L = micrograms per liter  
 cis-1,2-DCE = cis-1,2-Dichloroethene;  
 PCE = Tetrachloroethene; TCE = Trichloroethene  
 GWPS = Groundwater Protection Standard

**Table A4**  
**Summary of SSIs & GWPS Exceedances (2019-2022)**  
**Forsyth County - Hightower Rd MSWLF**

Event	Total Number of Sample Concentrations Above a GWPS	Total Number of SSIs	SSIs with GWPS Exceedances	Number of Dry Wells
Second 2019	13	64	11	6
First 2020	2	47	7	2
Second 2020	11	52	10	2
First 2021	9	50	8	2
Second 2021	11	52	10	2
First 2022	11	48	9	2
Second 2022	4	46	6	3

**Notes:**

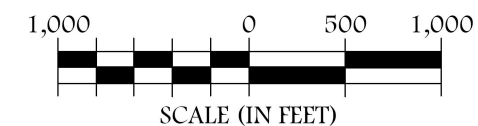
SSI = statistically significant increase

GWPS = Groundwater Protection Standard

**ATTACHMENT B**  
**FIGURES**



ATLANTIC COAST  
CONSULTING, INC.  
770-594-5998  
www.atlcc.net  
Roswell, GA  
Savannah, GA  
Knoxville, TN



EXISTING	DESCRIPTION
	APPROXIMATE PROPERTY BOUNDARY
	ROADS



PROJECT  
FORSYTH COUNTY



HIGHTOWER ROAD LANDFILL  
LOCATION MAP

PROJECT NO. G020-113

FEBRUARY 2023

DRAWN BY: RW

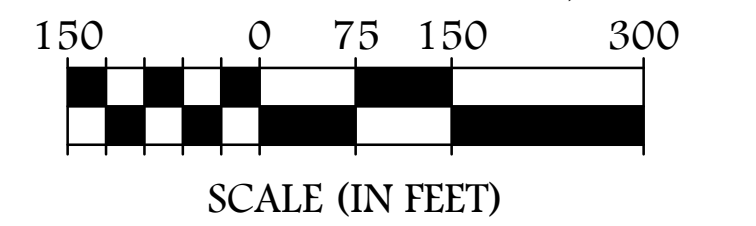
FIGURE:

CHECKED BY: AR

A1



ATLANTIC COAST  
CONSULTING, INC.  
770-594-5998  
www.atlcc.net  
Roswell, GA  
Savannah, GA  
Knoxville, TN



**LEGEND**

EXISTING	DESCRIPTION
— 850 —	PROMINENT CONTOUR
— — —	INTERMEDIATE CONTOUR
---	PROPERTY BOUNDARY
- - - - -	APPROXIMATE LIMIT OF WASTE
----	METHANE VENT TRENCH
----	METHANE VENT SYSTEM
● GWA-1	GROUNDWATER MONITORING WELL
▲ SWA-1	SURFACE WATER MONITORING POINT
■ MM-1	METHANE MONITORING POINT
□ MV-1	METHANE VENT
○ PH1-MV04	EXTRACTION POINT WITH ACTIVE FLARE

**NOTES**

1. SURVEY IS PROVIDED BY APPALACHIAN SURVEYING COMPANY IN CUMMING, GEORGIA DATED JANUARY AND APRIL 1998. CONTROL POINT COORDINATES WERE TAKEN FROM THESE SURVEYS.
2. WELL AND PROBE LOCATIONS ARE APPROXIMATE AND BASED ON W.L. JORDEN & CO. DRAWINGS DATED MARCH 3, 1996.
3. LOCATIONS OF MM-1R, MM-13, MM-14, AND MM-15 ARE APPROXIMATE.

**REVISIONS**

0. INITIAL ISSUE	02/13/2023
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**PROJECT**

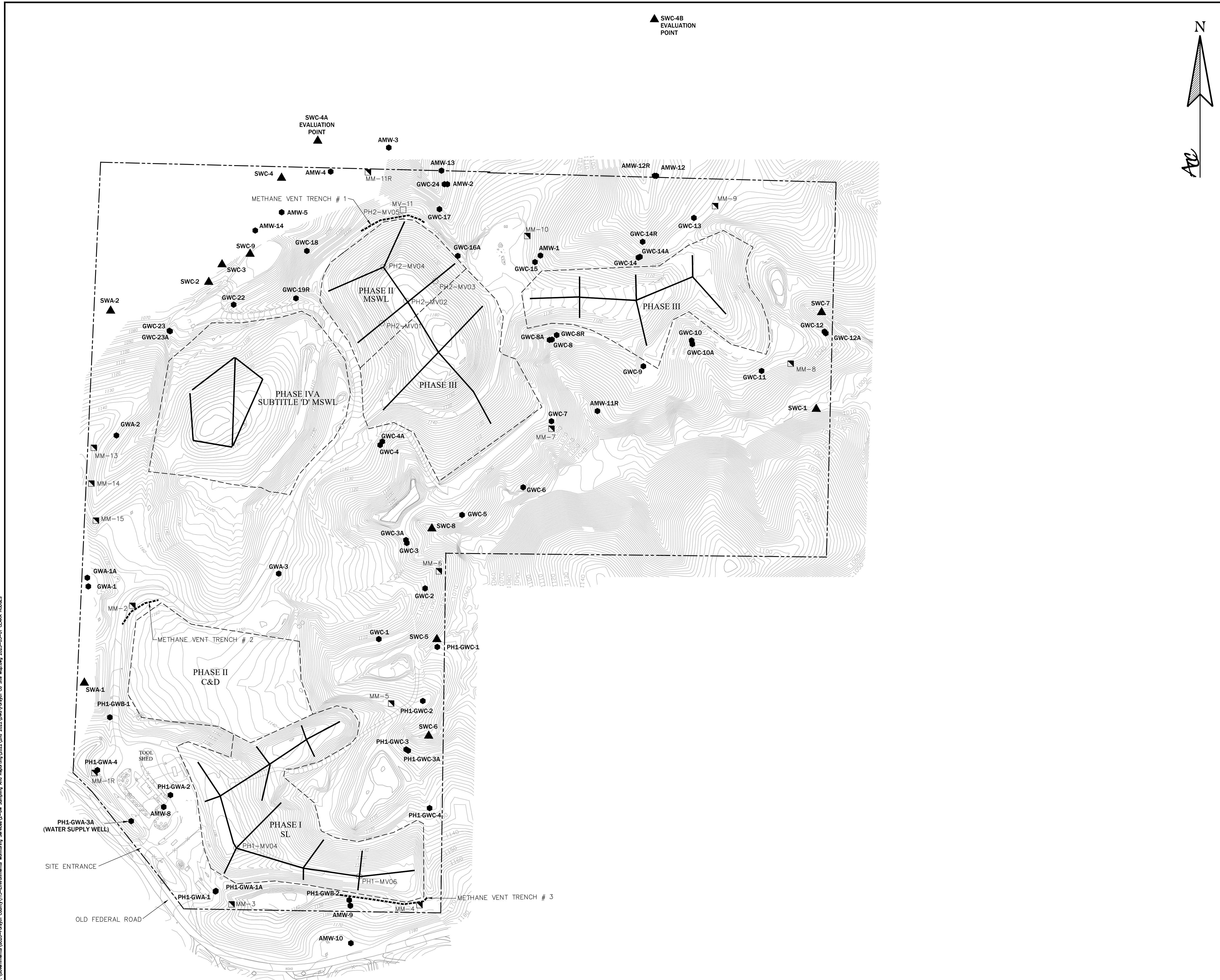


FORSYTH COUNTY  
HIGHTOWER ROAD LANDFILL

**SITE PLAN**

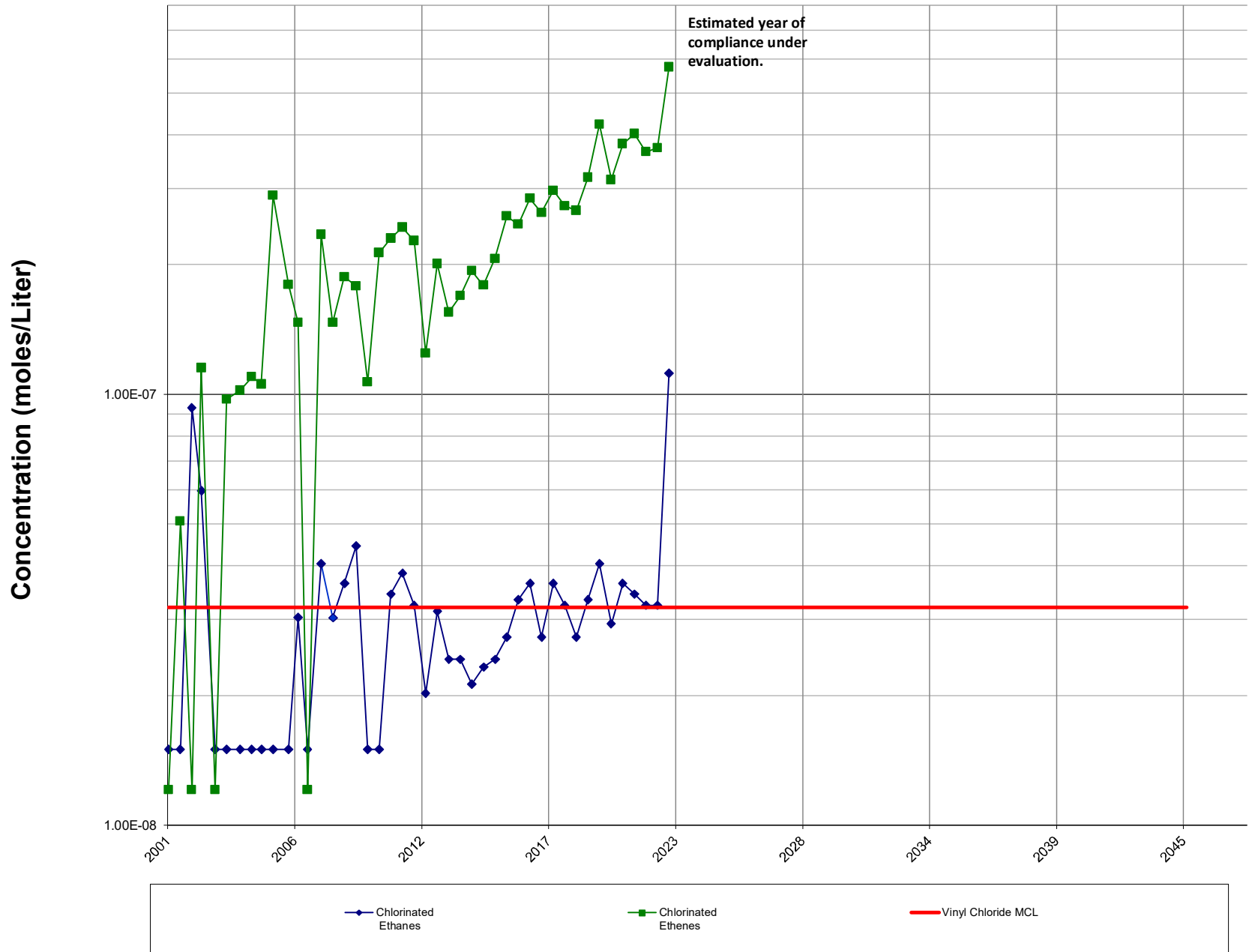
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PROJECT NUMBER: G020-113	FIGURE: A2
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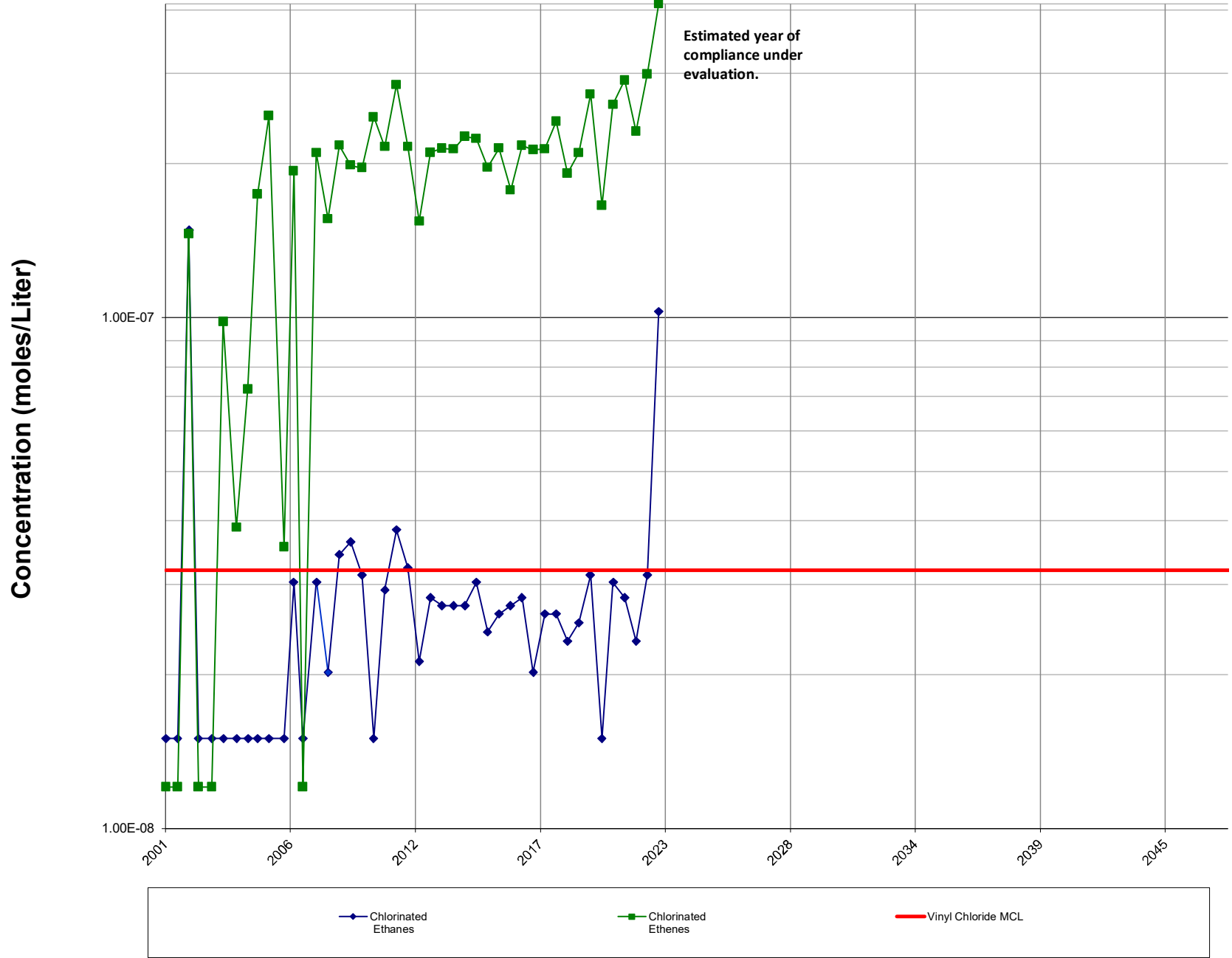


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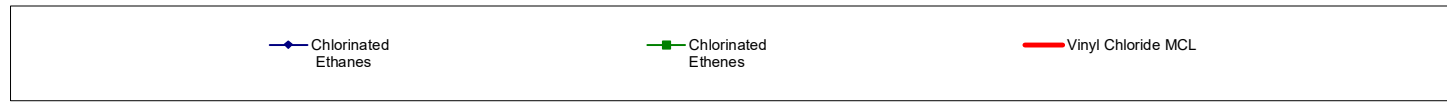
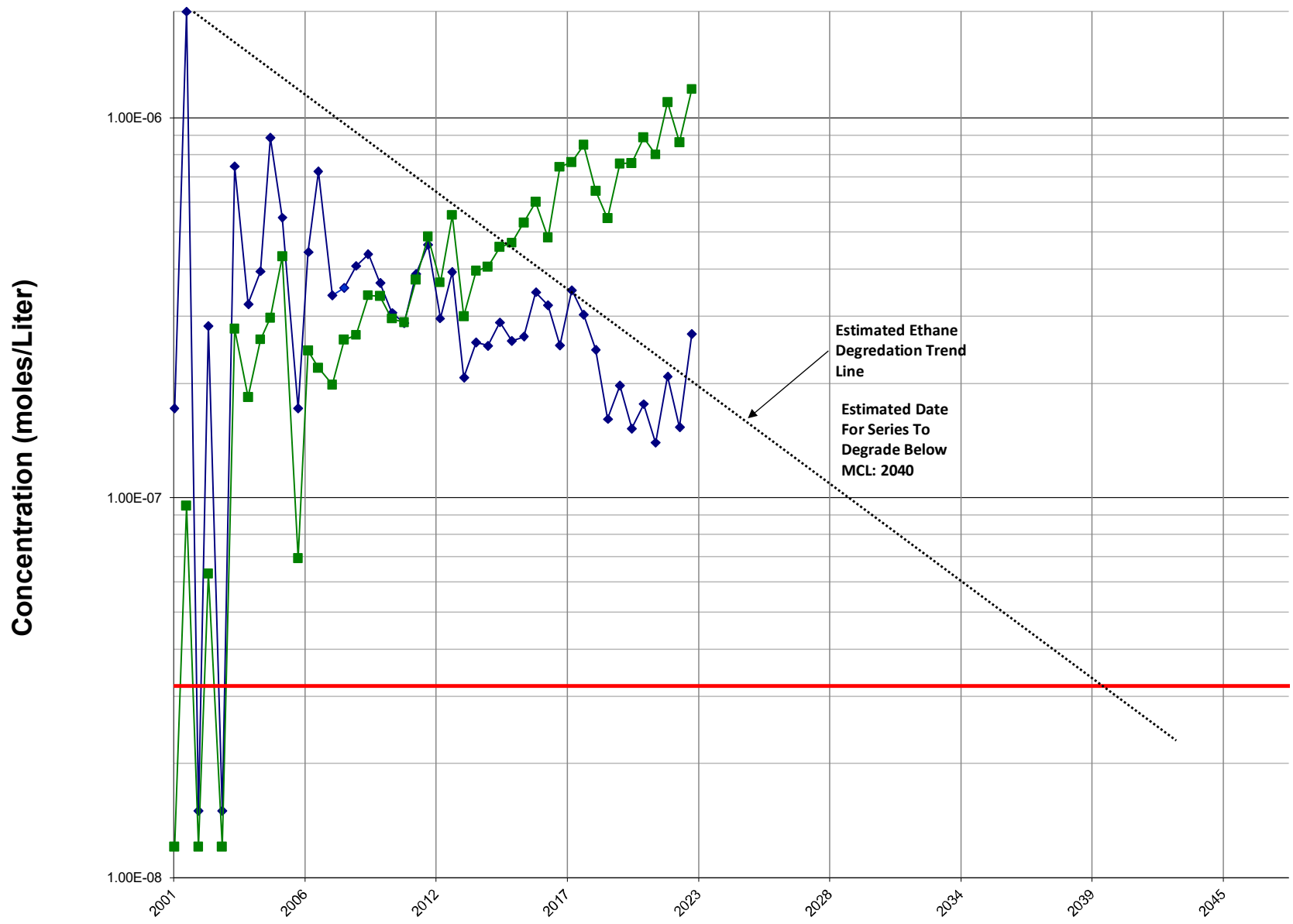
# Figure A3 Molar Concentration Trend (PH1-GWC-3)



# Figure A4 Molar Concentration Trend (PH1-GWC-3A)

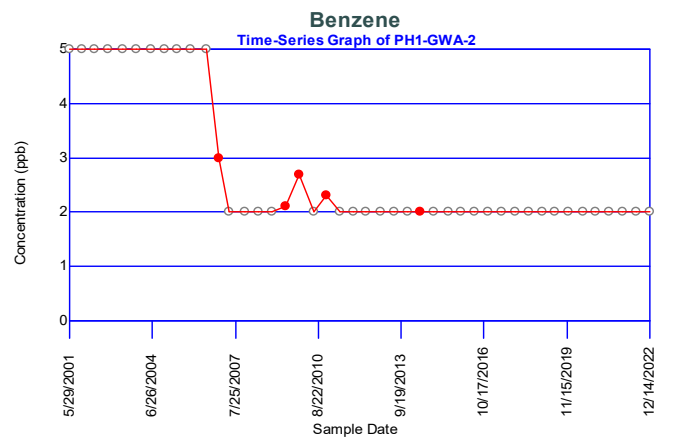
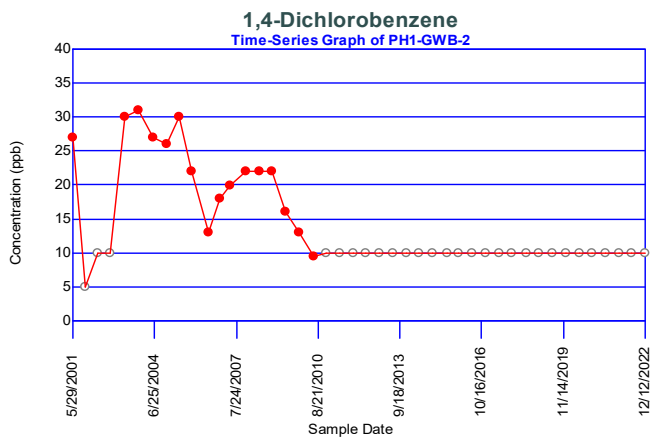
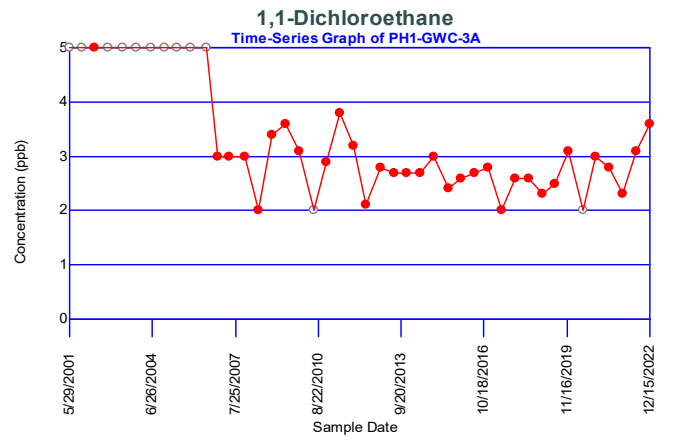
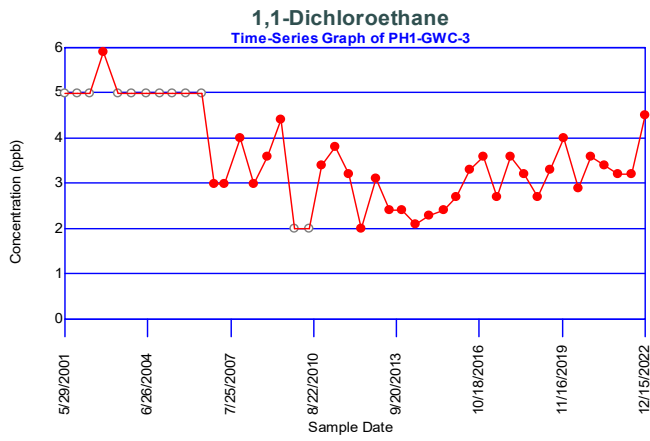
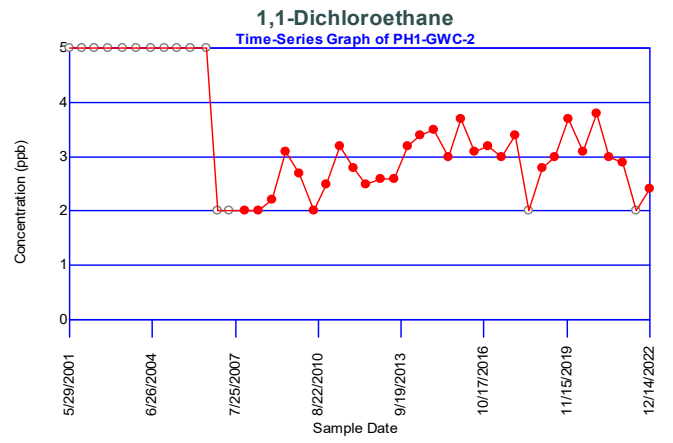
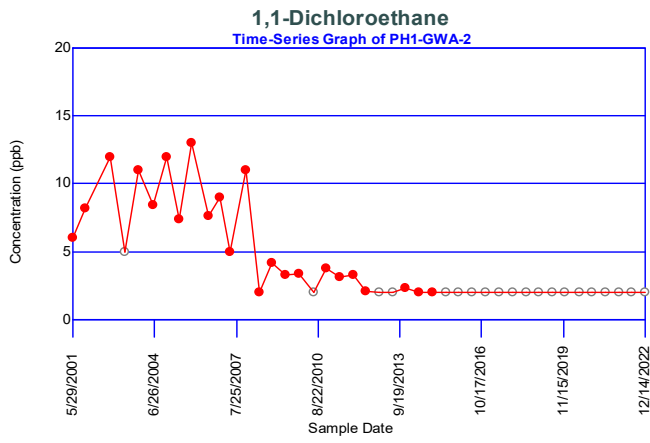


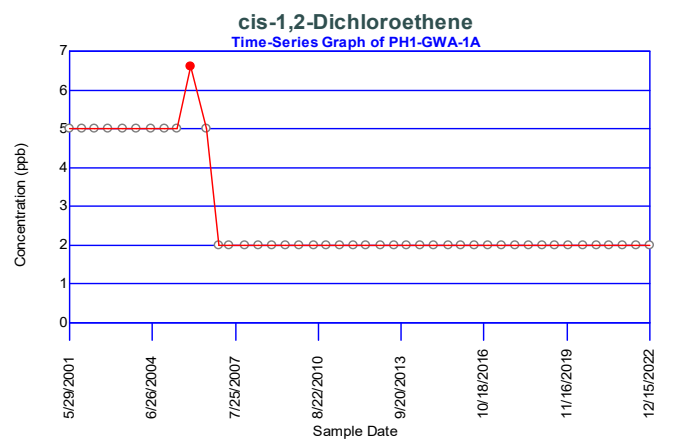
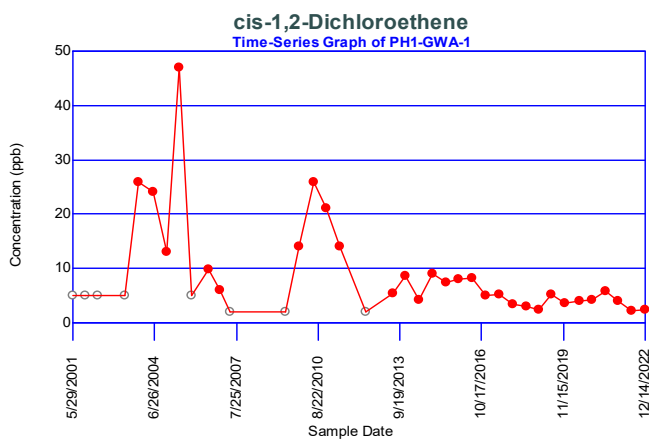
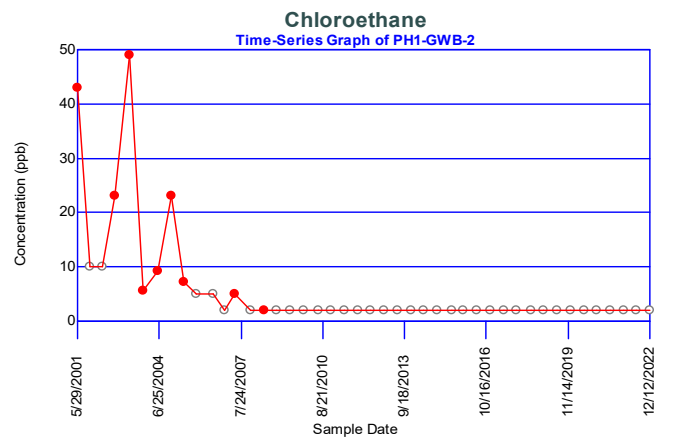
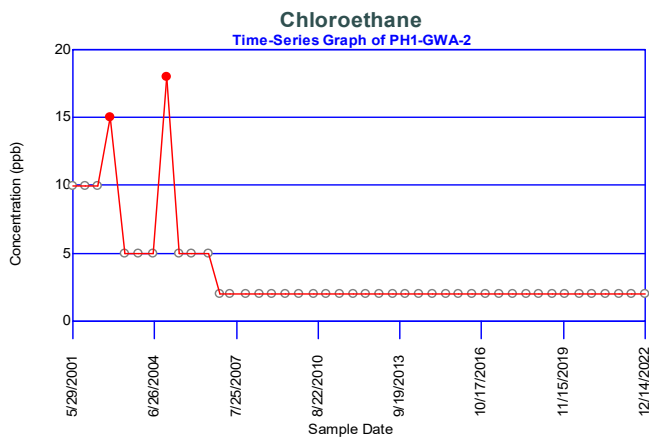
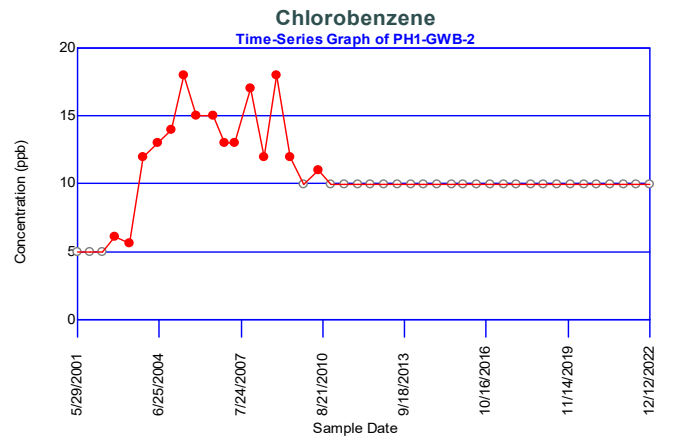
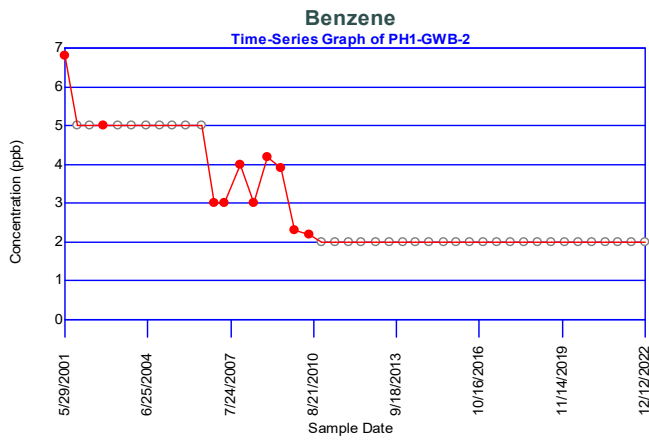
# Figure A5 Molar Concentration Trend (GWC-14A)

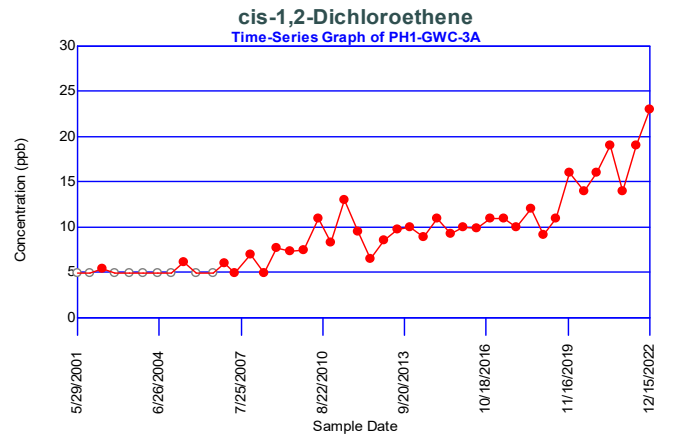
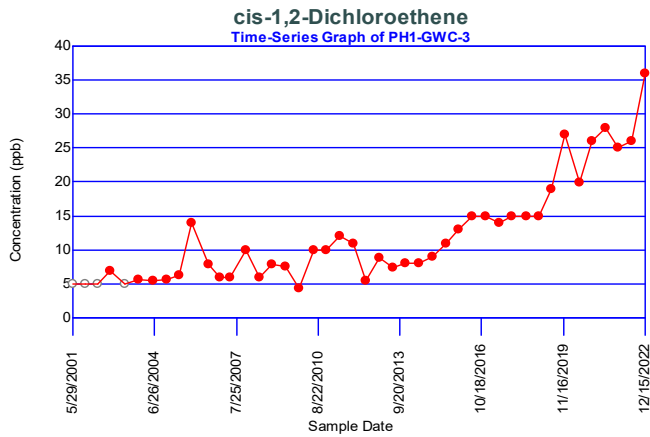
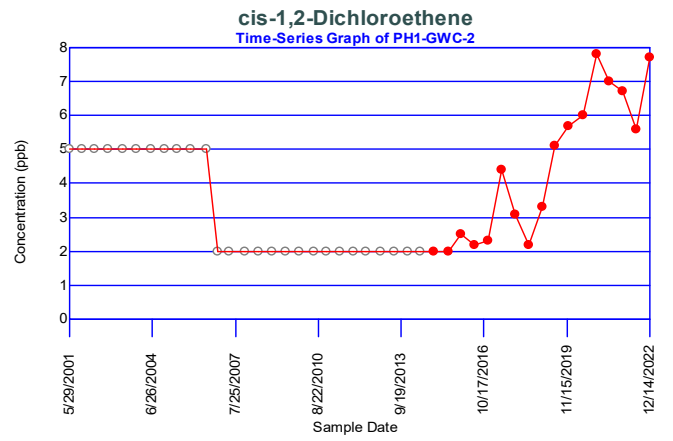
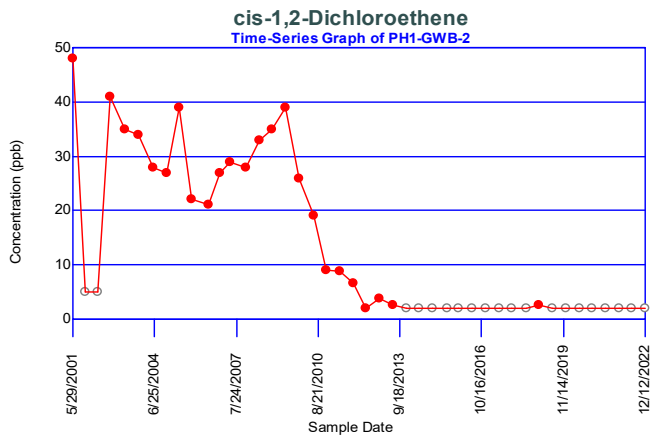
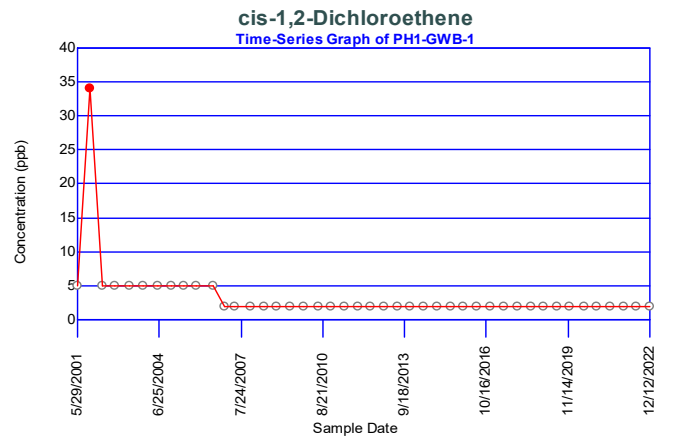
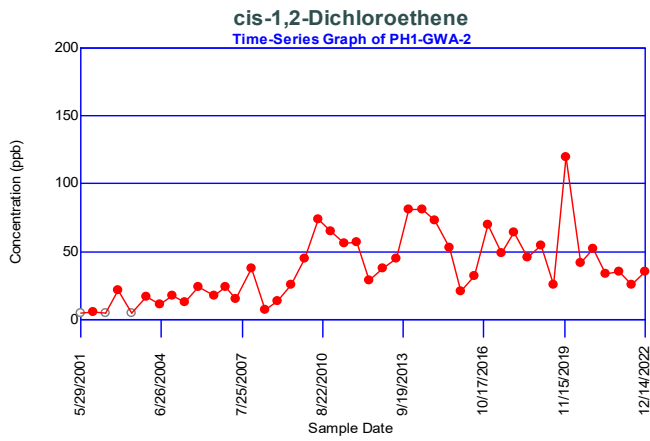


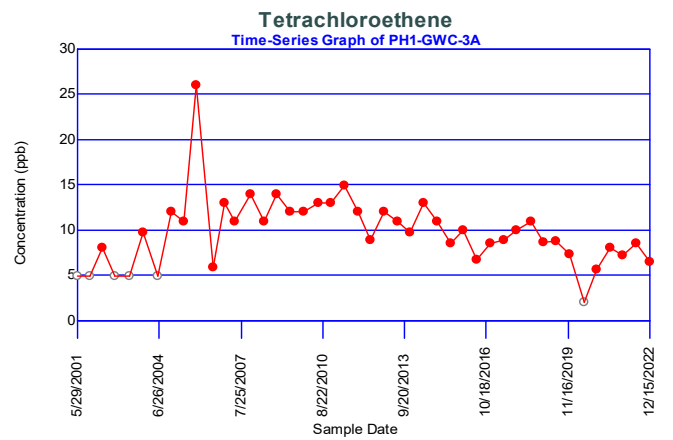
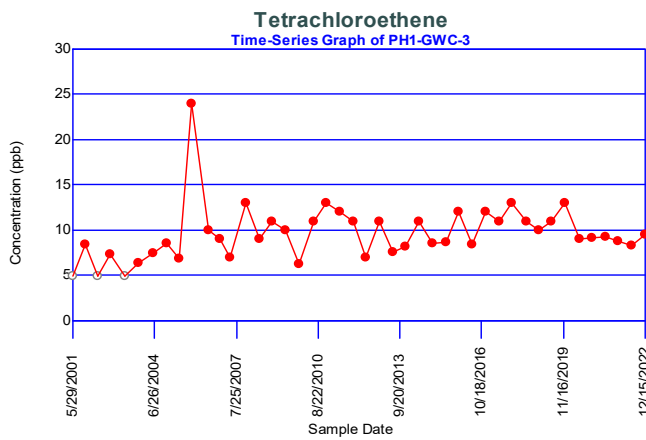
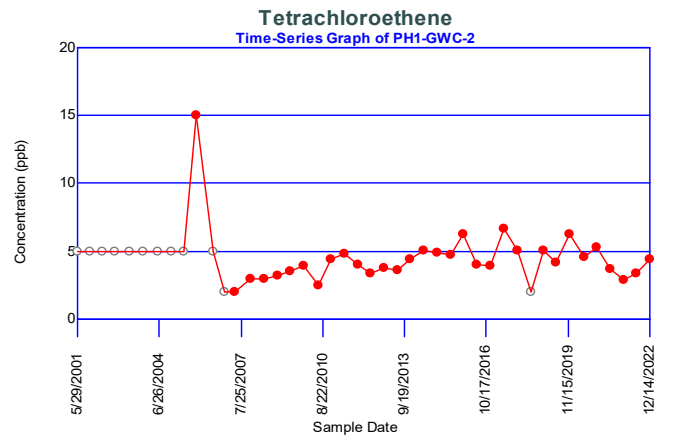
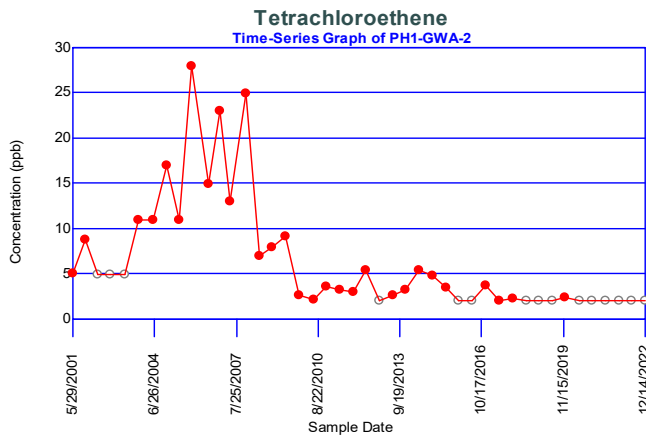
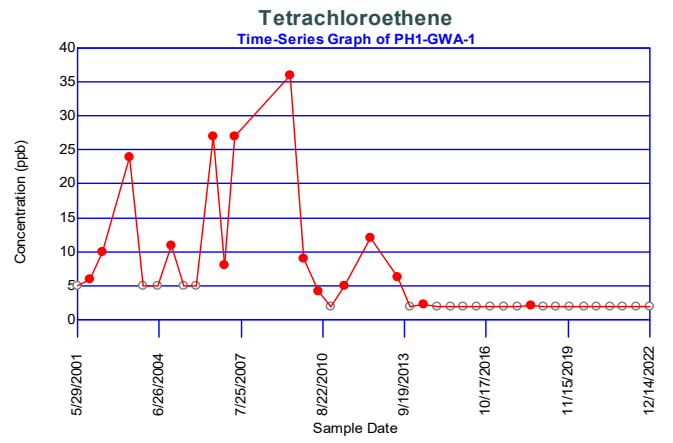
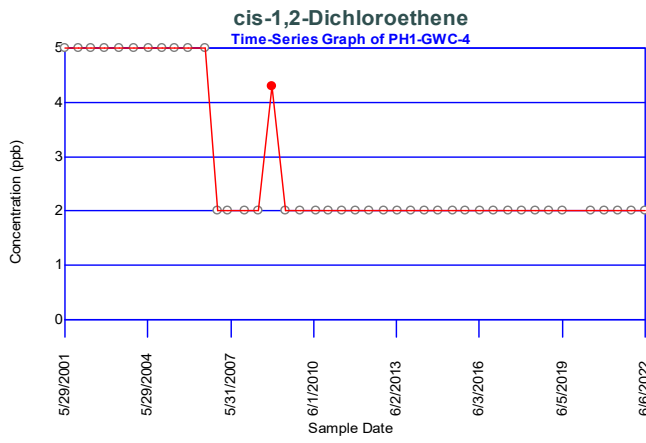


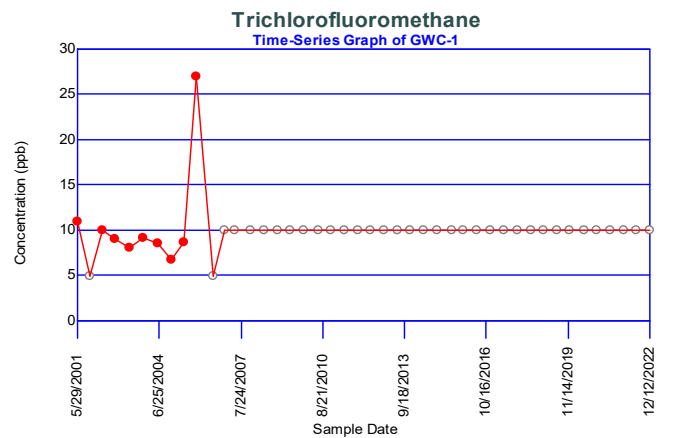
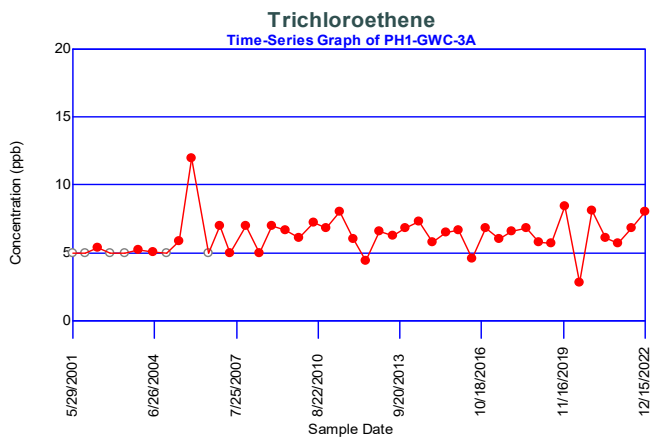
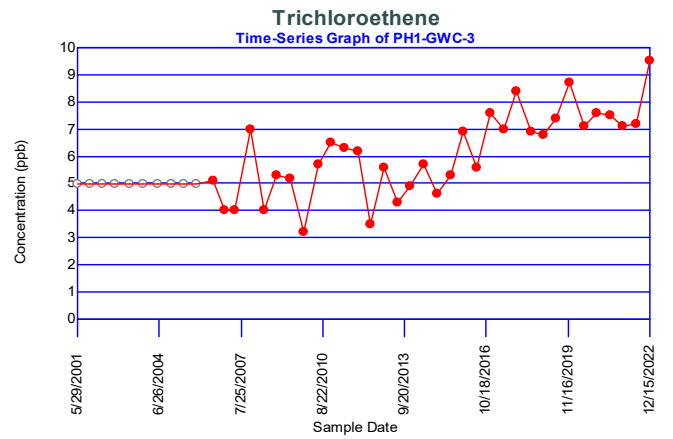
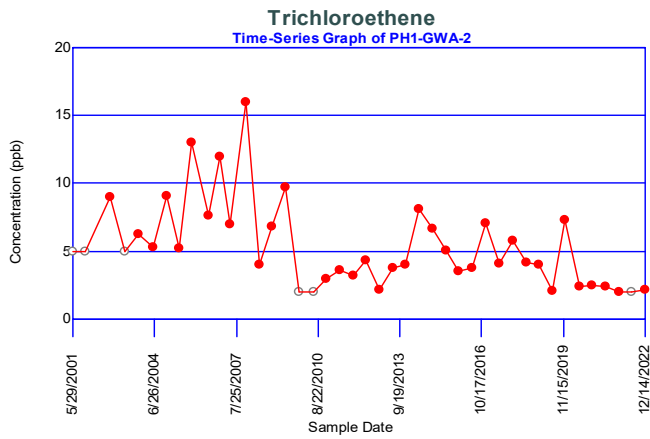
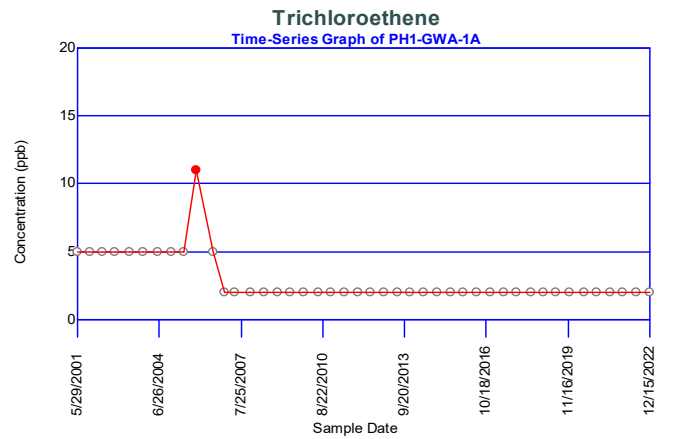
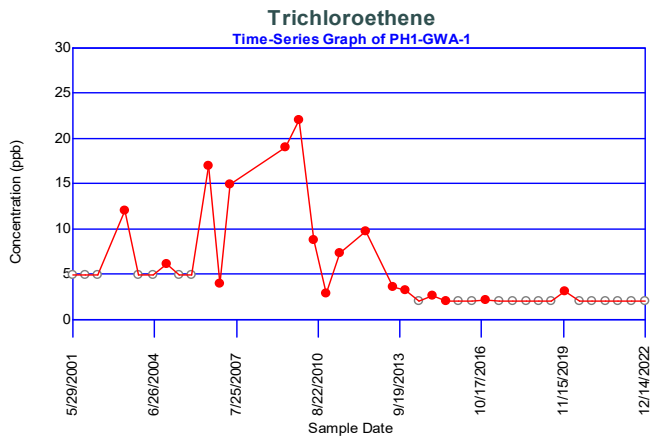
**ATTACHMENT B, APPENDIX 1  
VOC TIME SERIES GRAPHS**

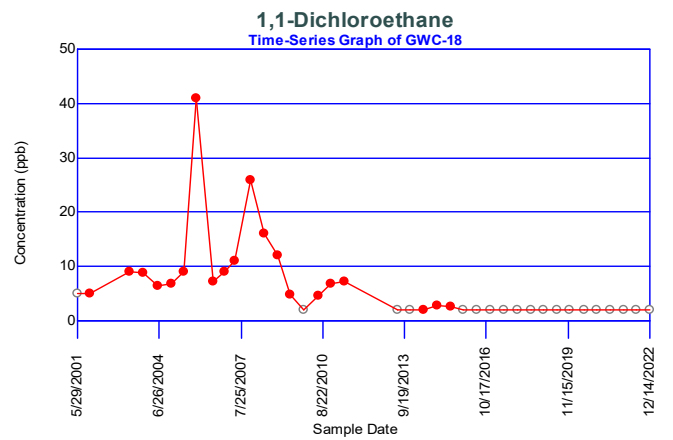
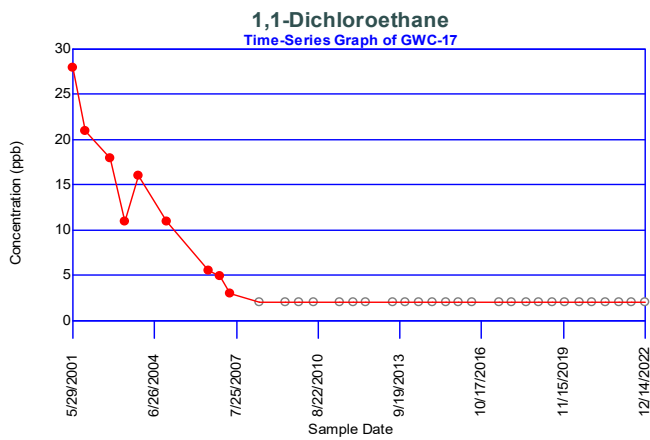
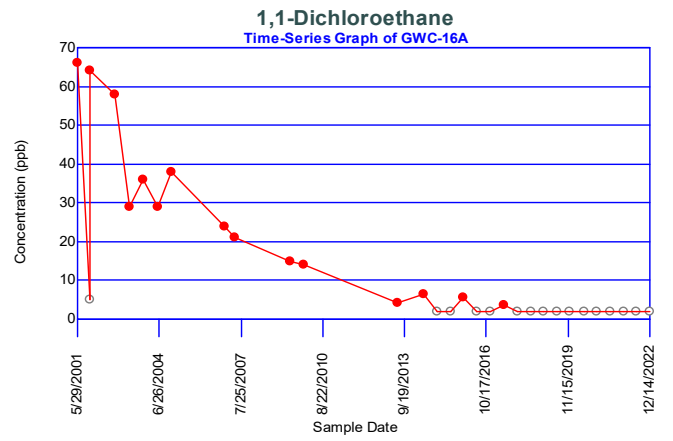
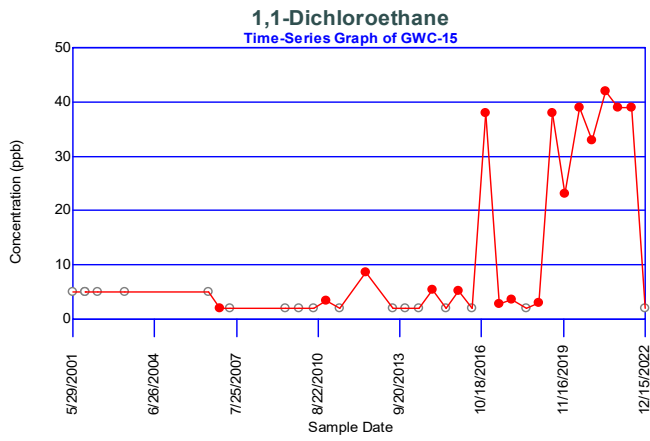
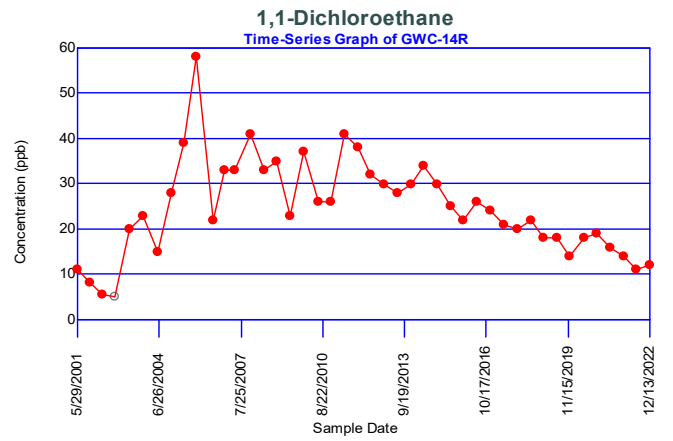
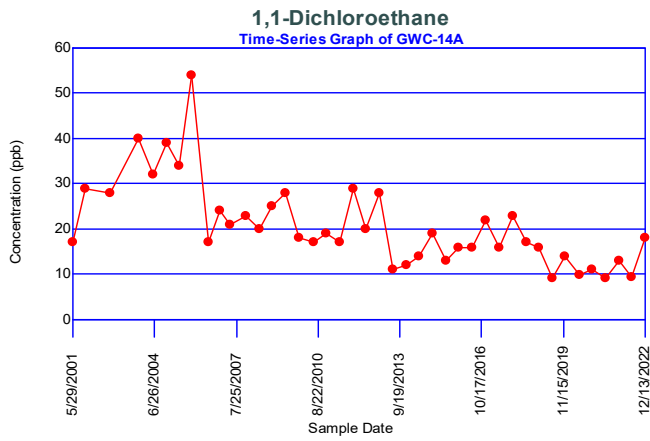


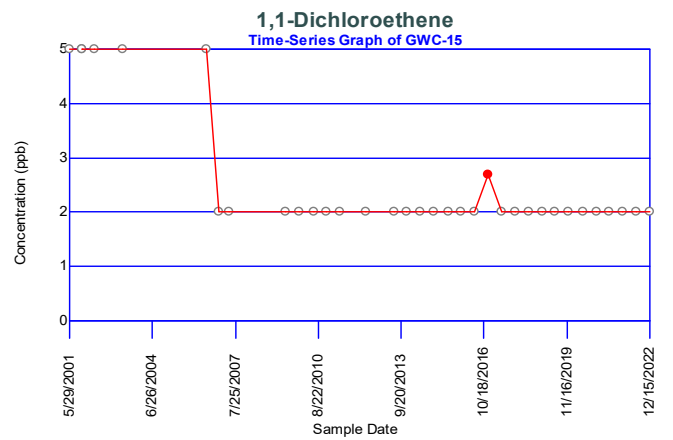
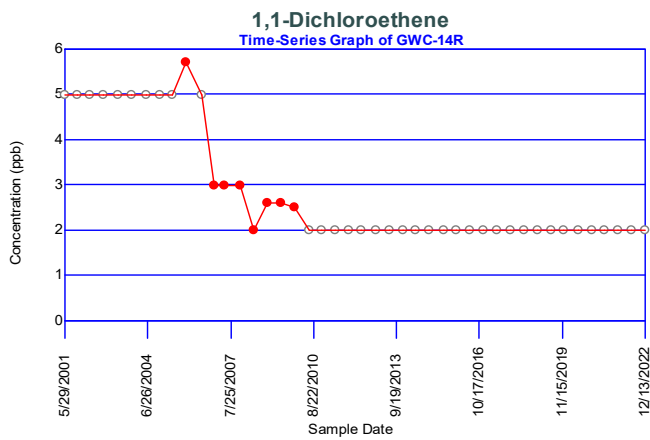
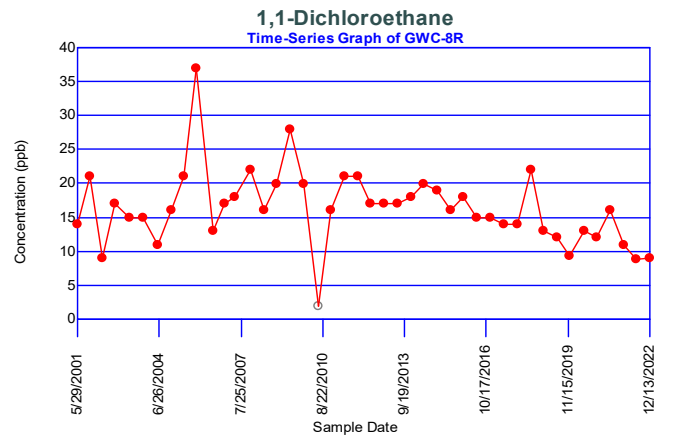
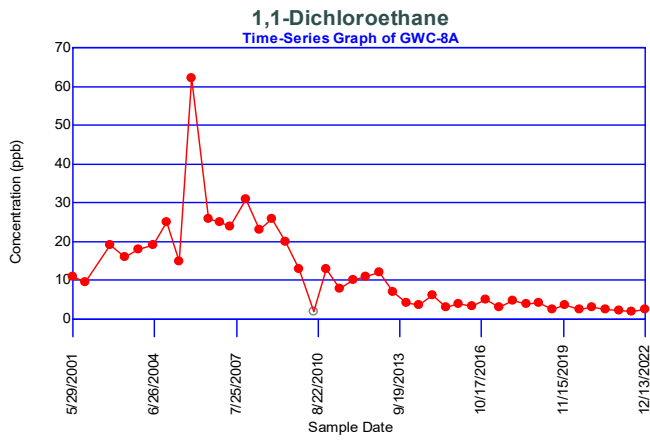
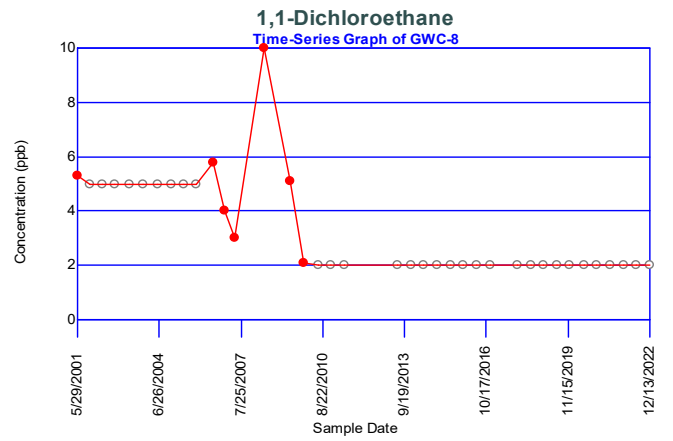
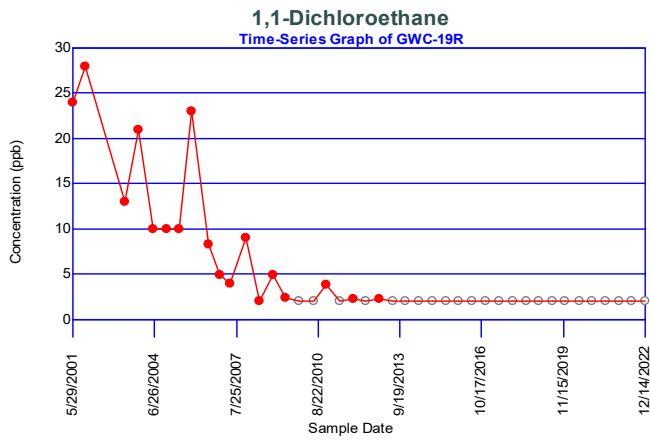




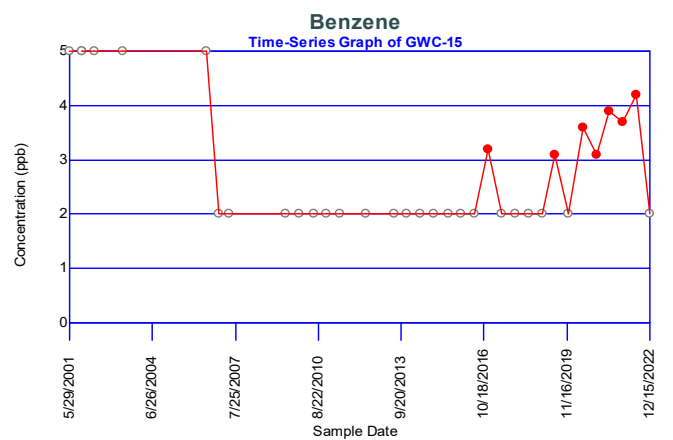
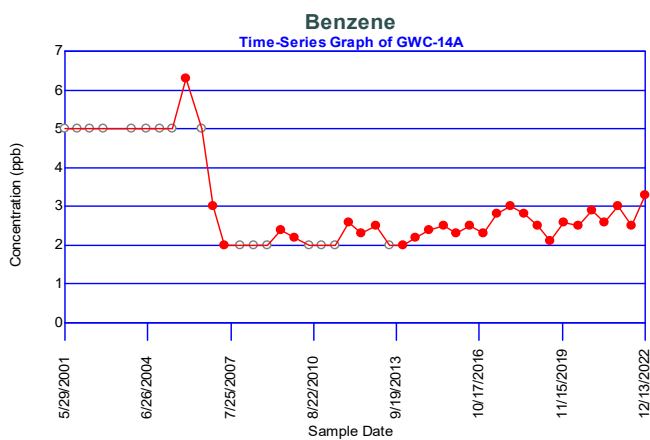
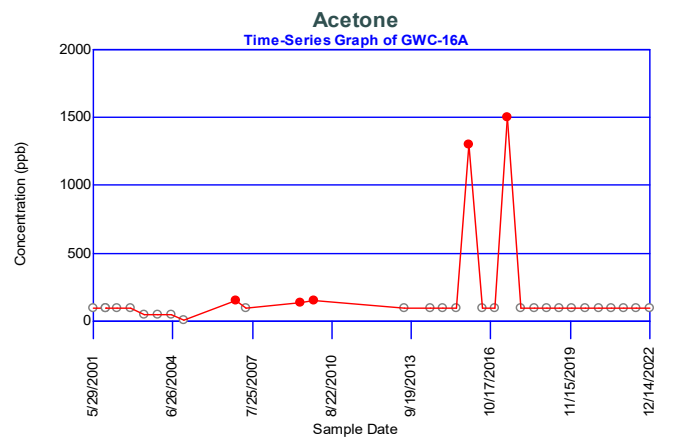
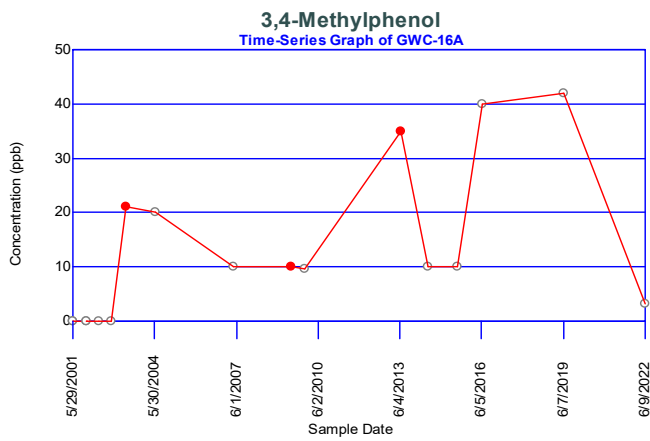
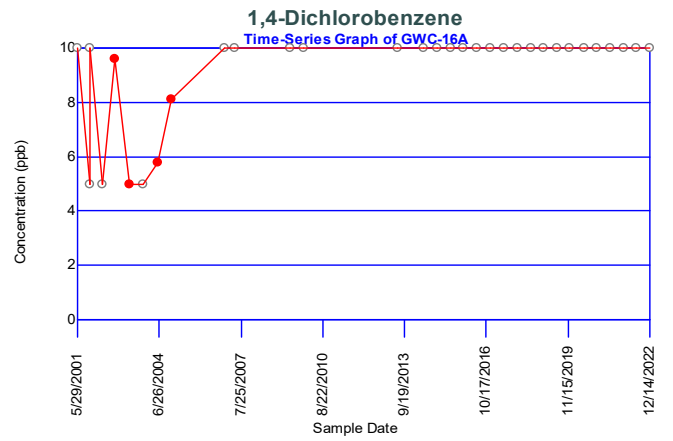
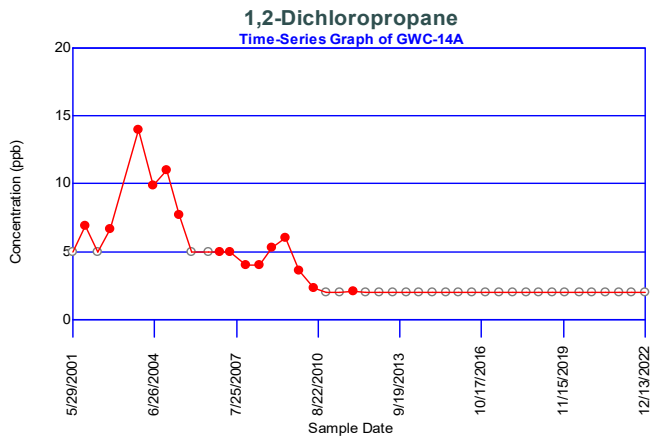


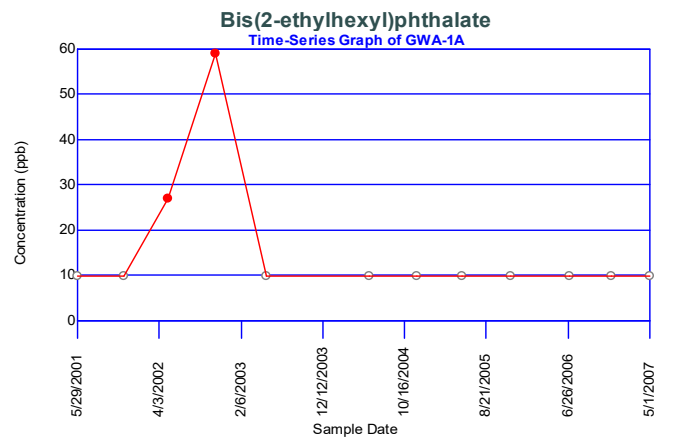
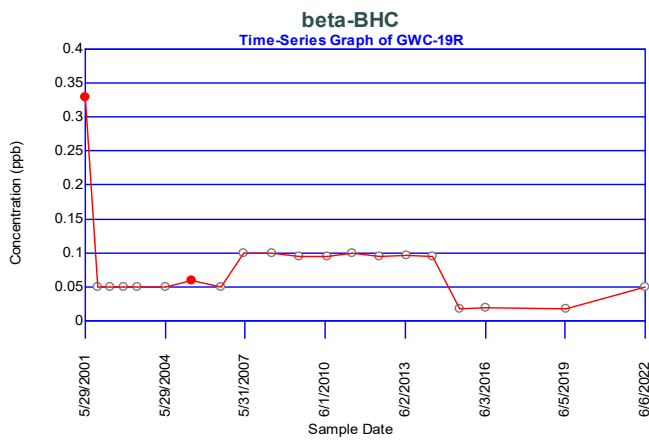
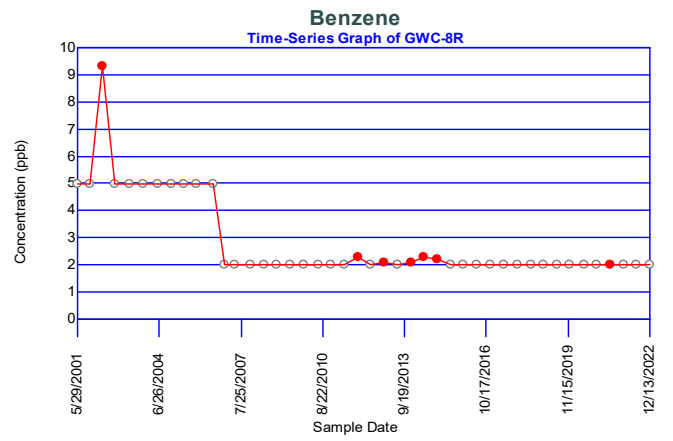
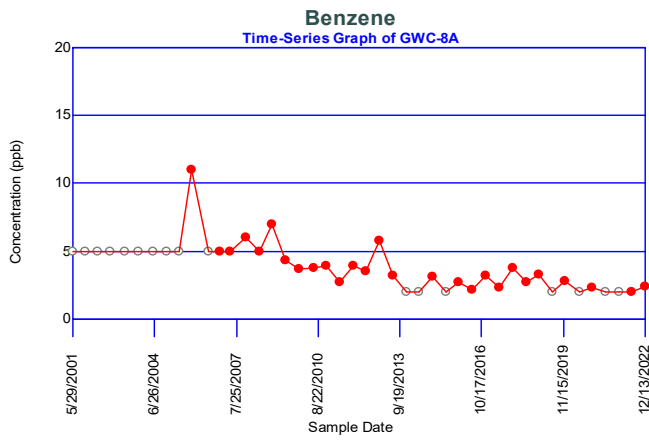
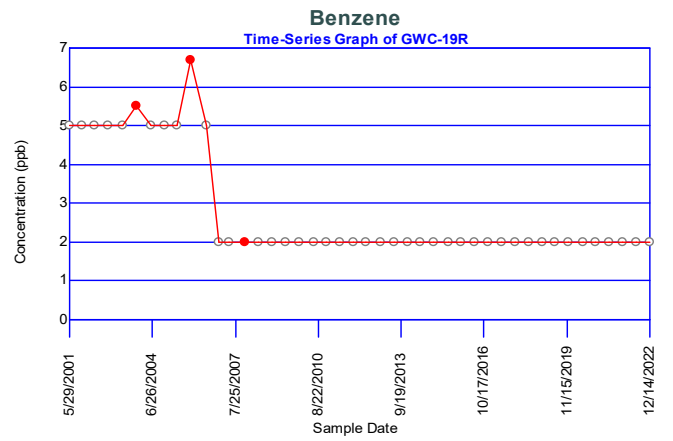
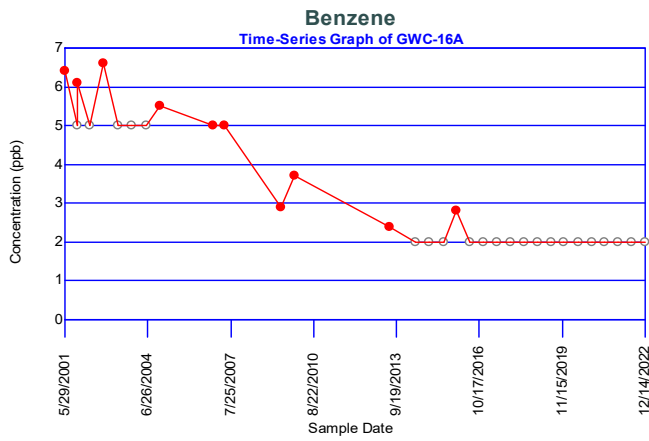




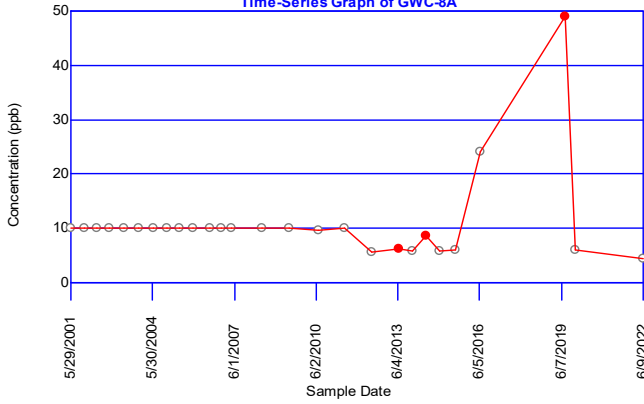




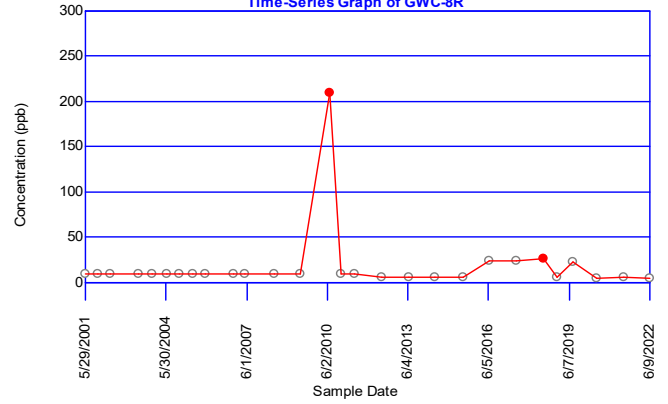




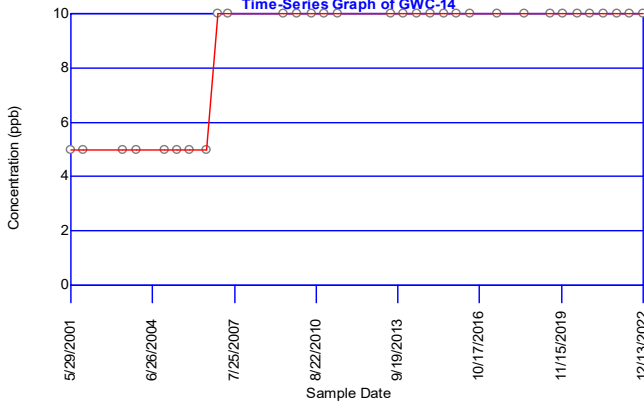
**Bis(2-ethylhexyl)phthalate**  
Time-Series Graph of GWC-8A



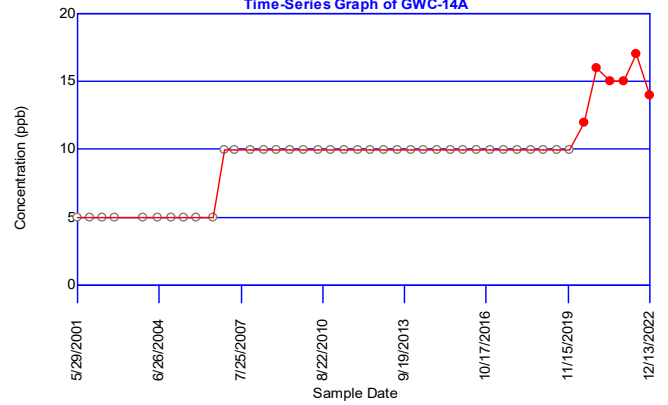
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Time-Series Graph of GWC-8R



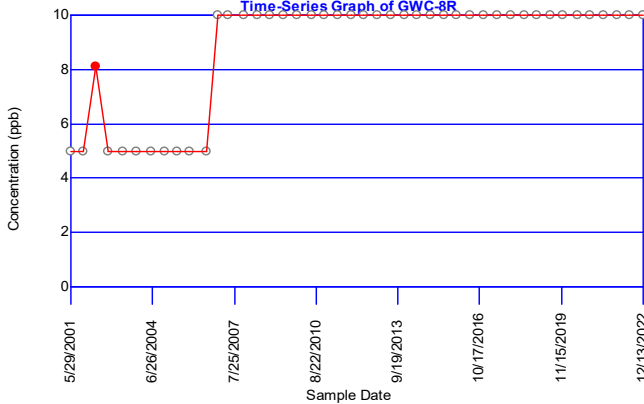
**Chlorobenzene**  
Time-Series Graph of GWC-14



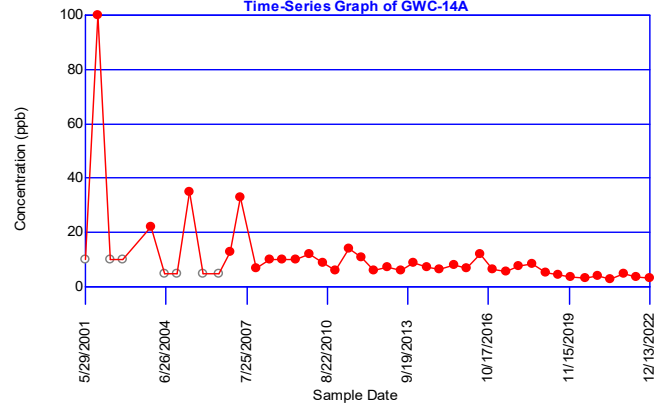
**Chlorobenzene**  
Time-Series Graph of GWC-14A

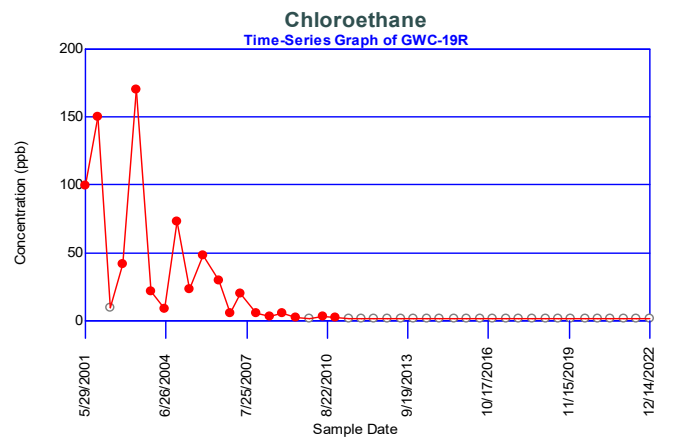
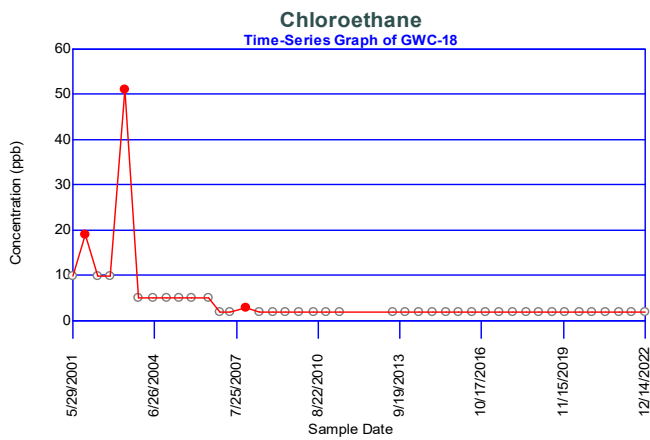
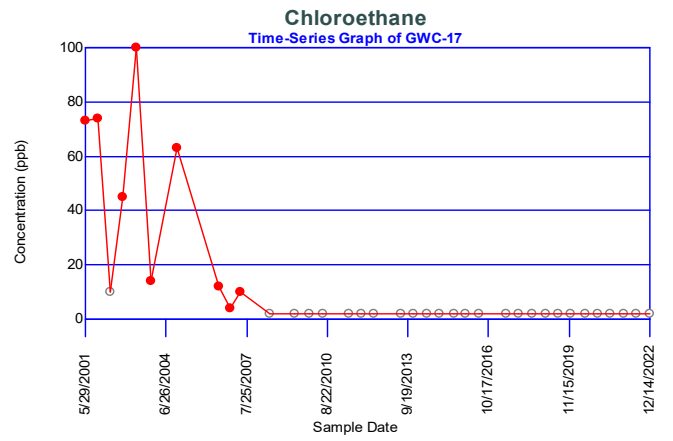
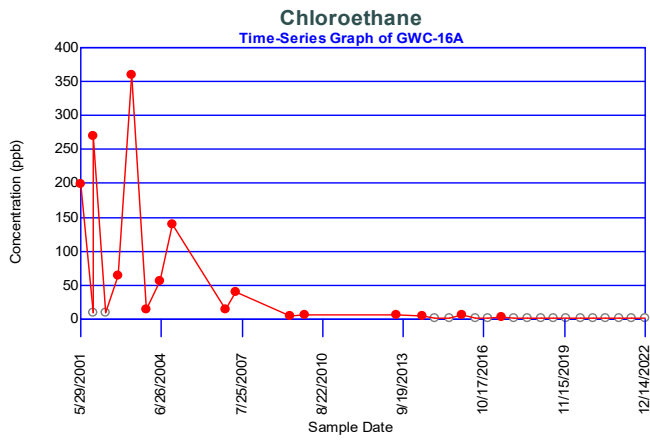
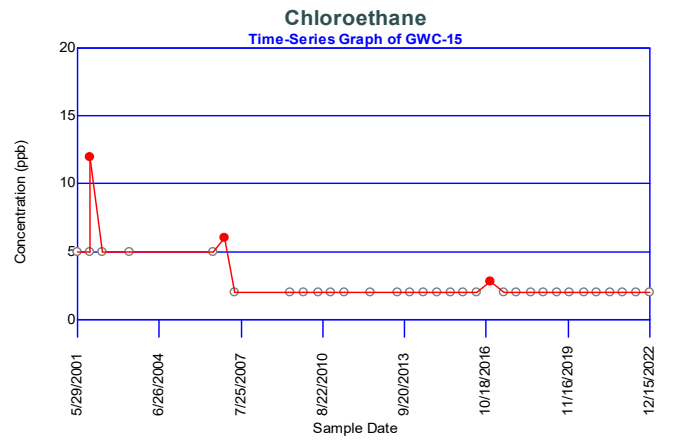
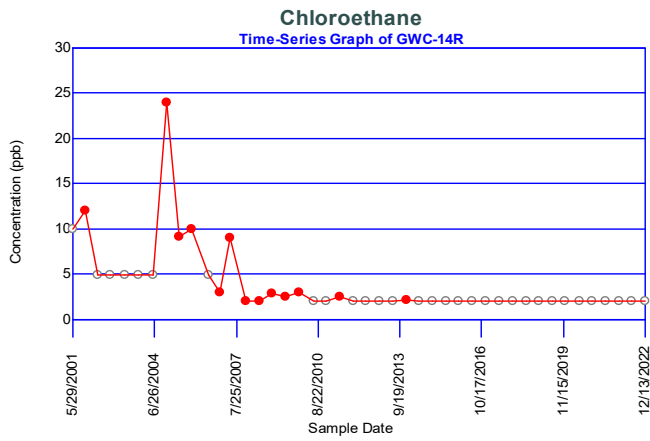


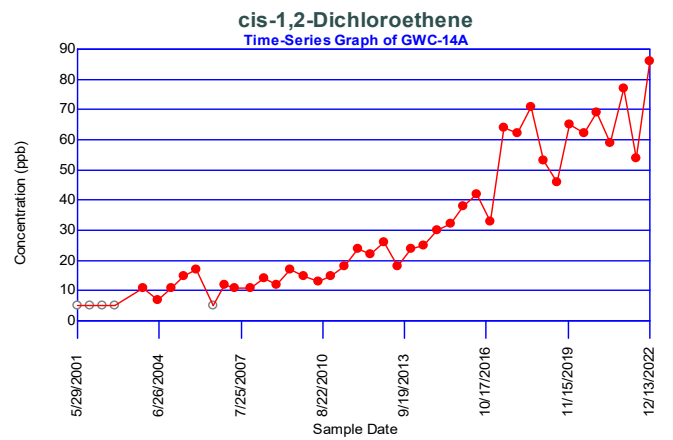
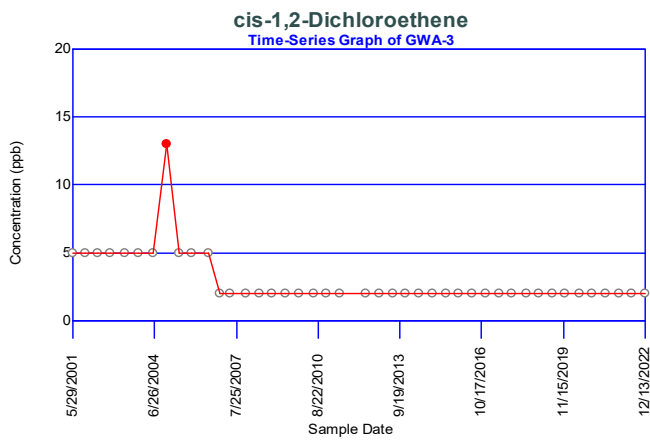
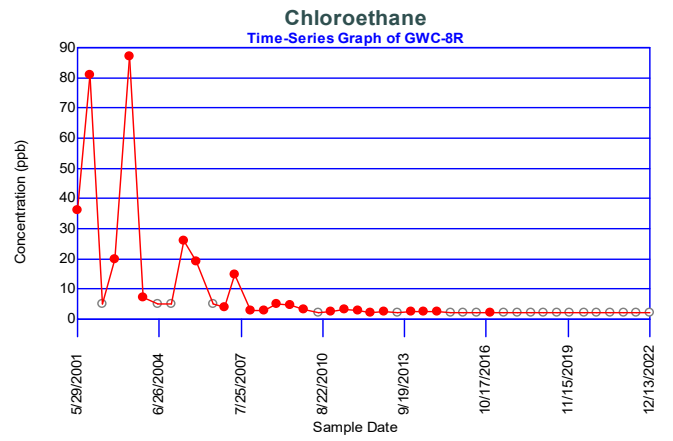
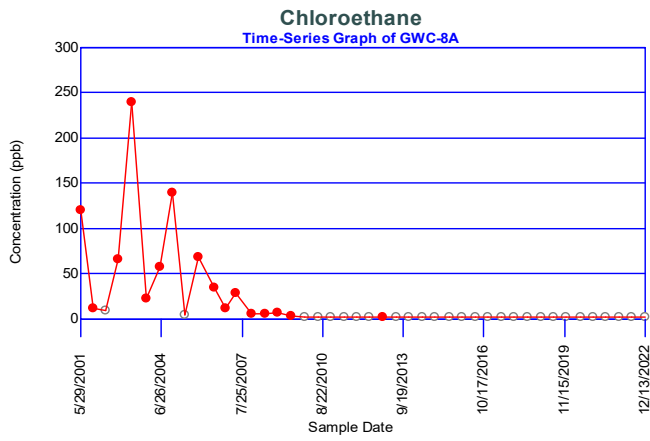
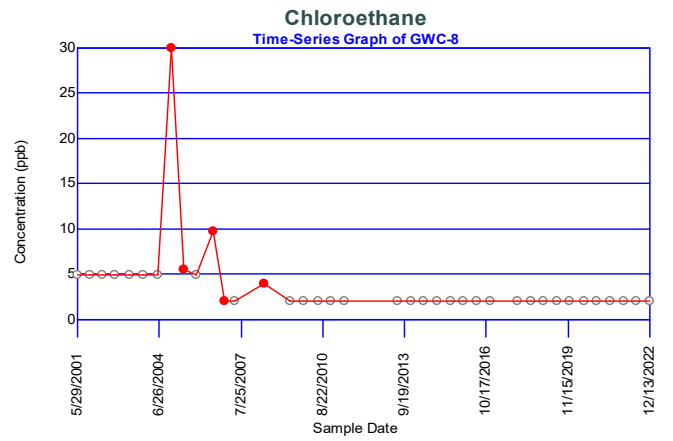
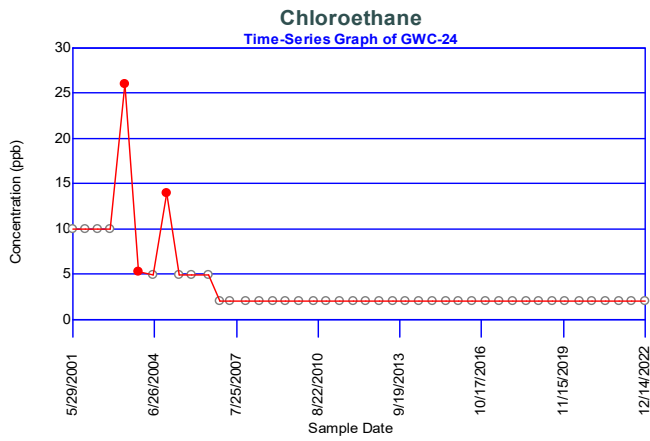
**Chlorobenzene**  
Time-Series Graph of GWC-8R

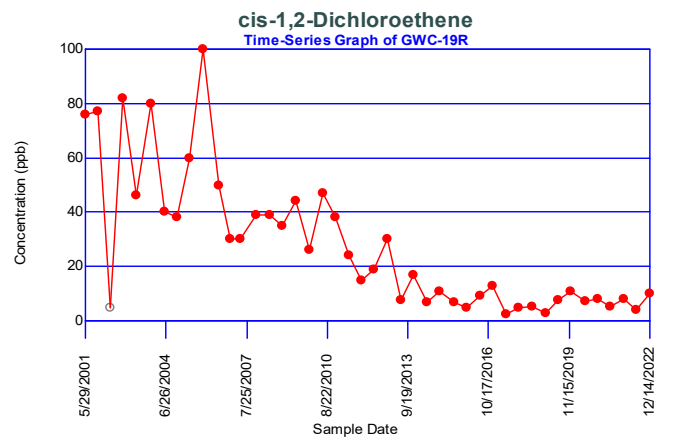
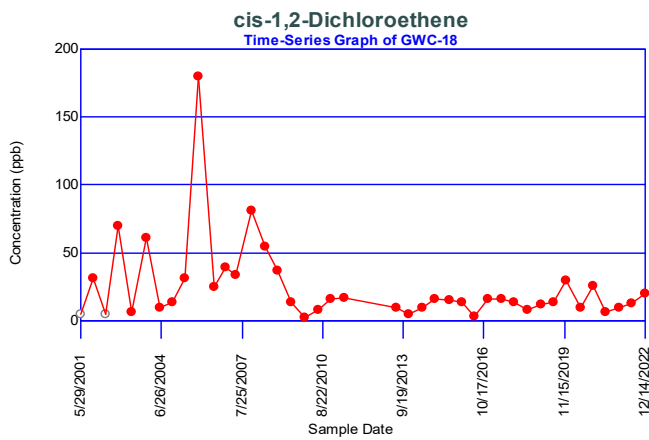
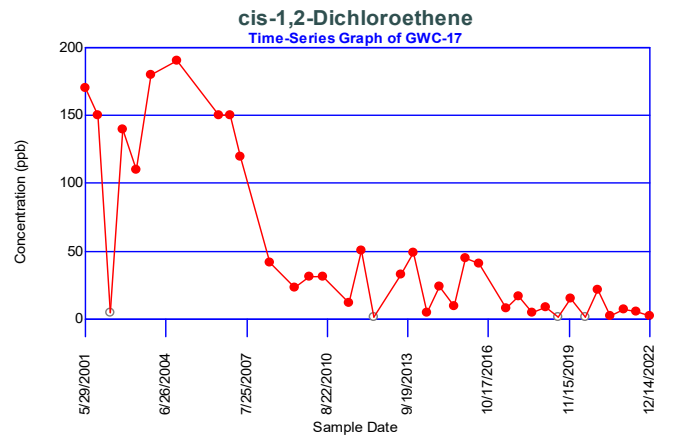
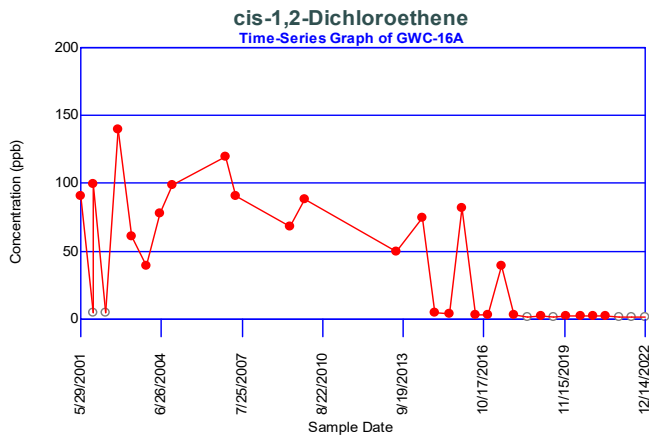
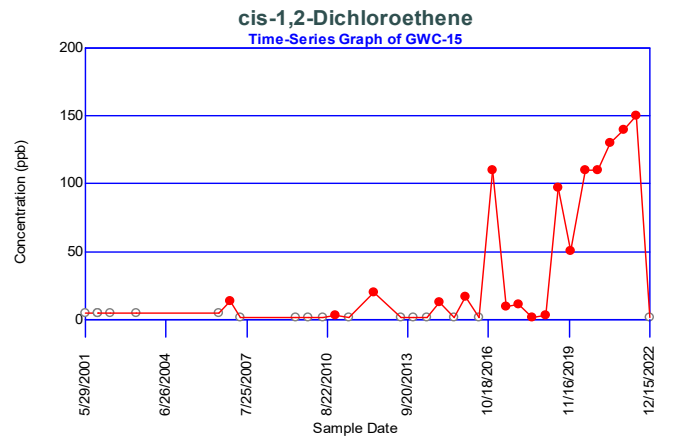
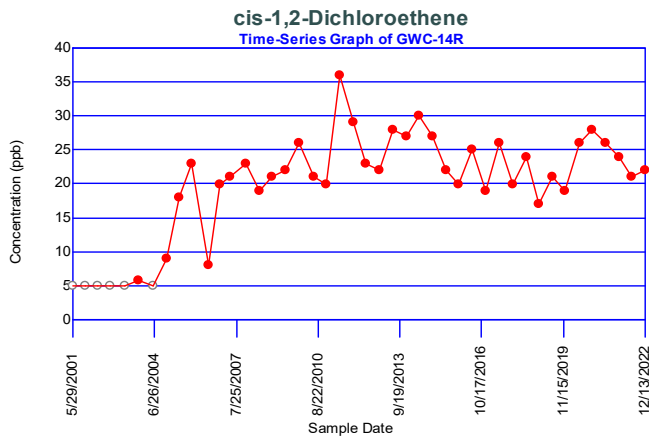


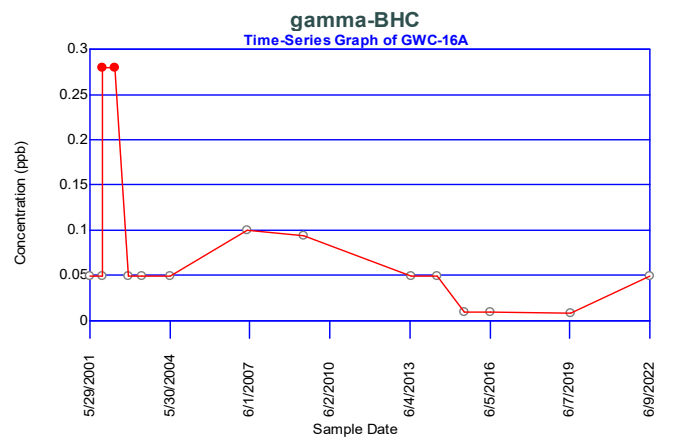
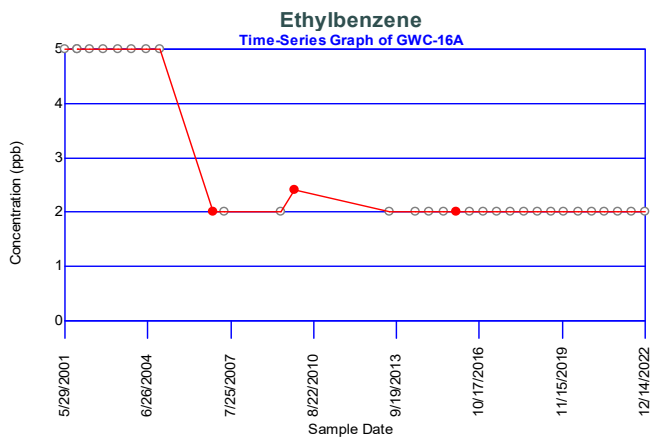
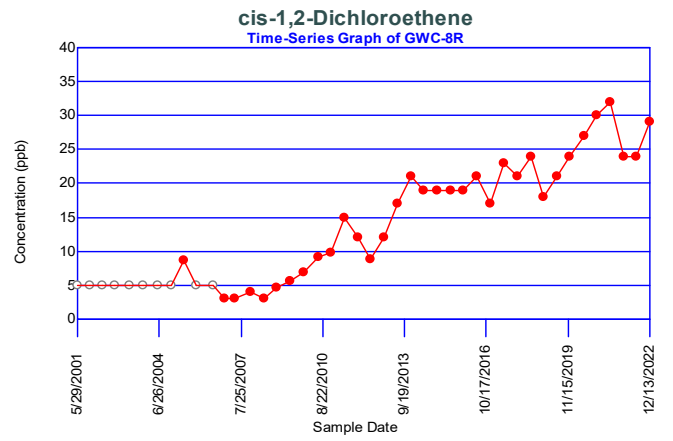
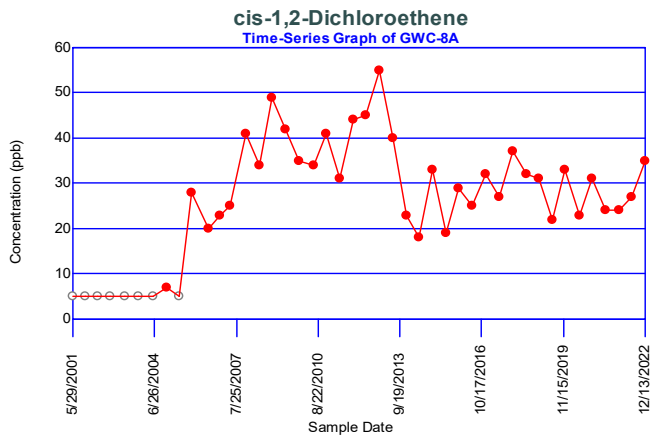
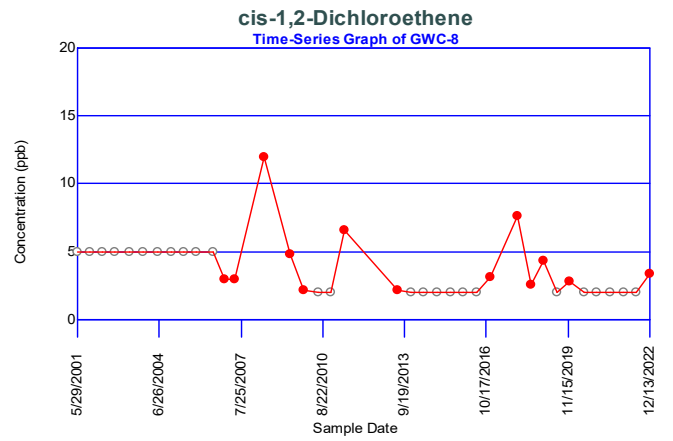
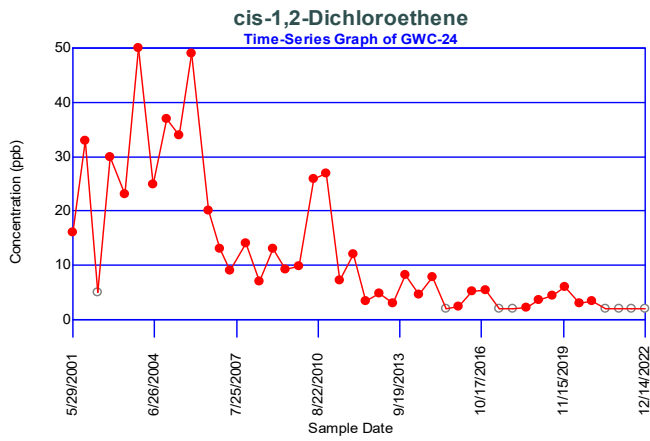
**Chloroethane**  
Time-Series Graph of GWC-14A

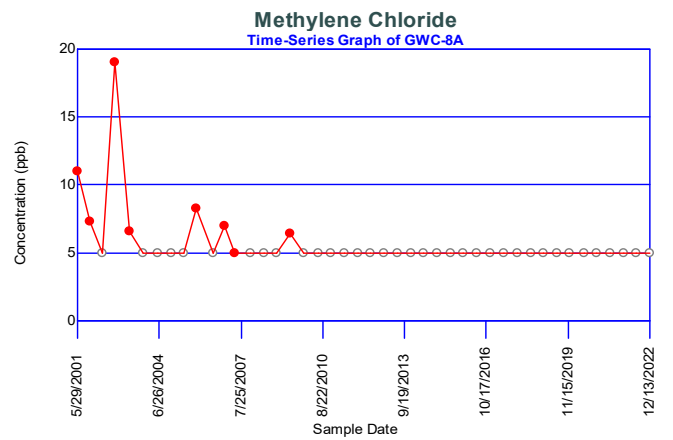
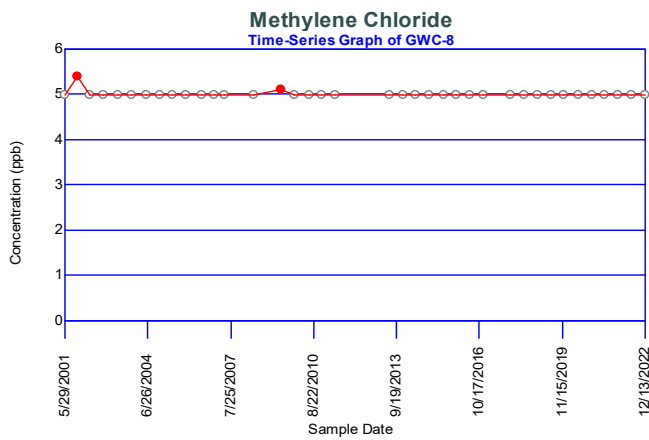
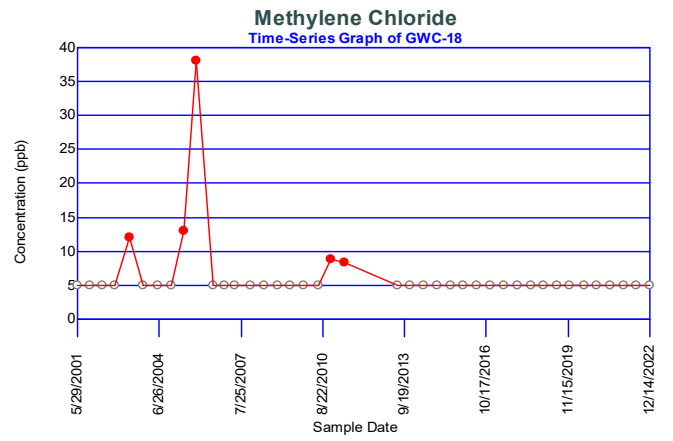
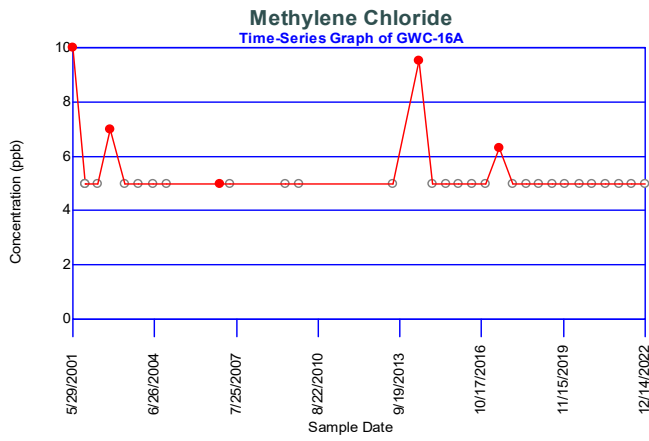
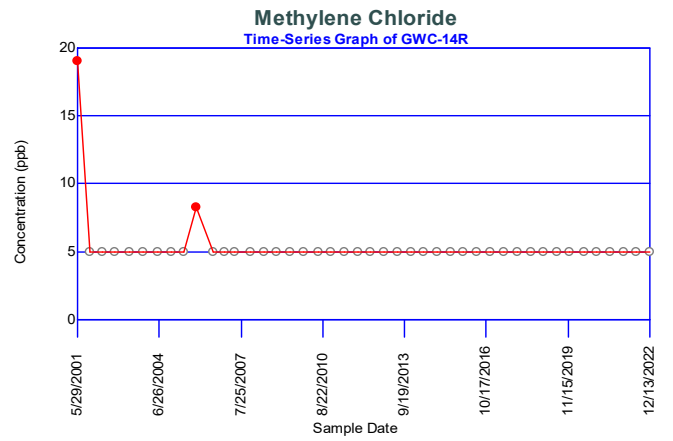
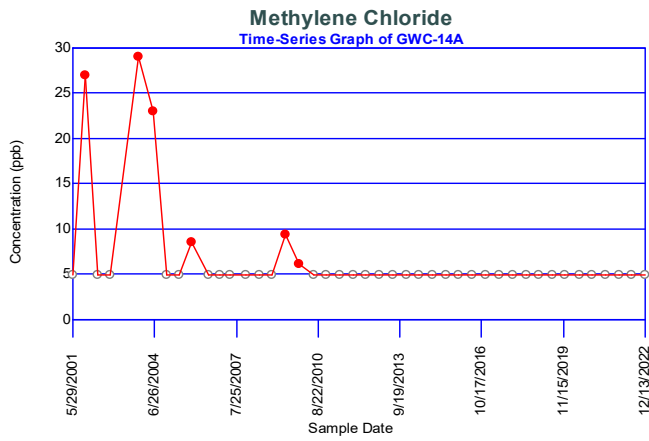




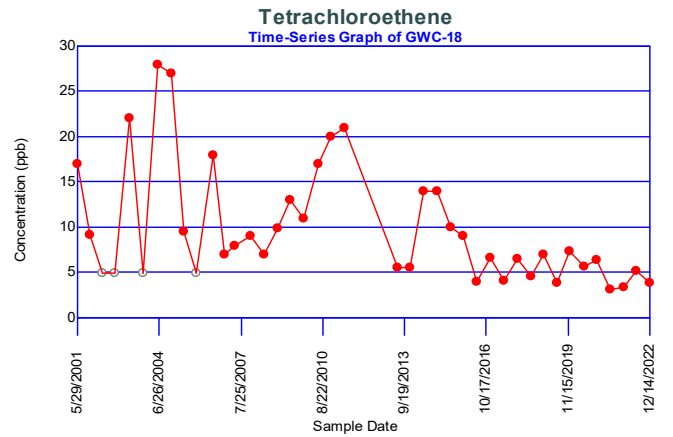
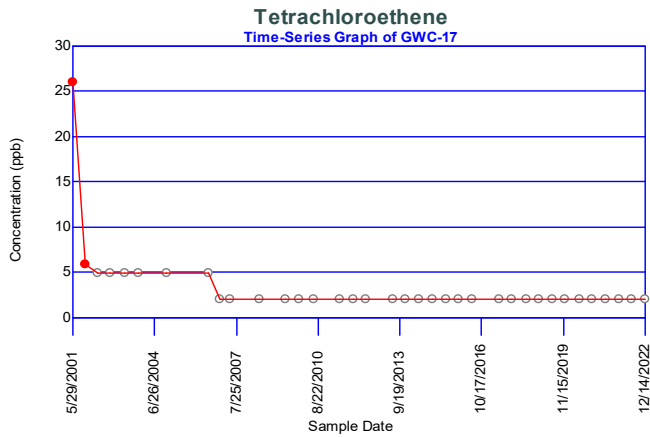
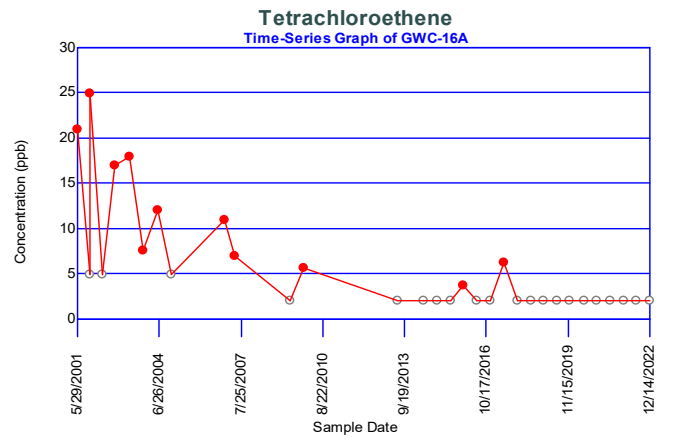
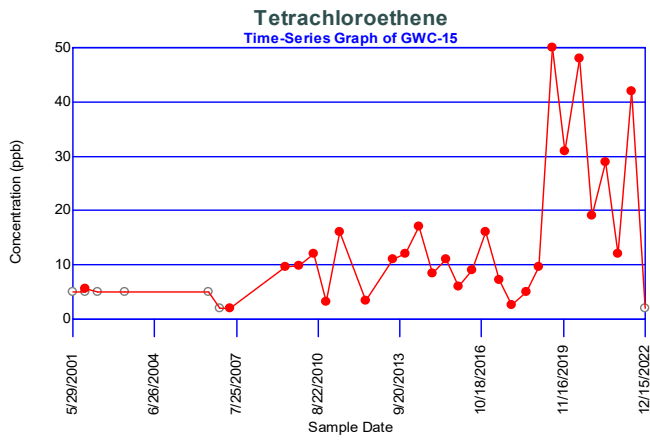
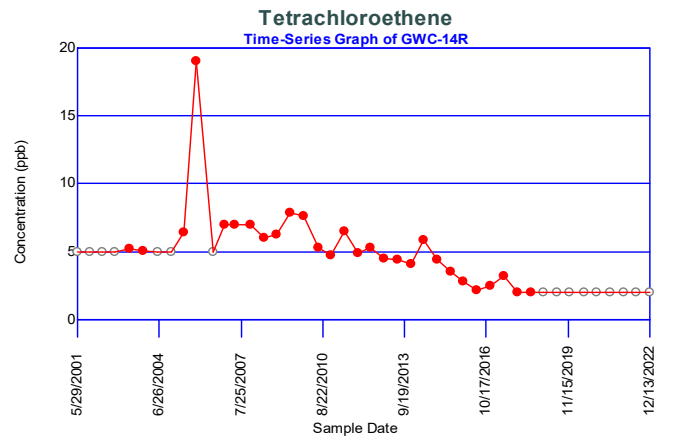
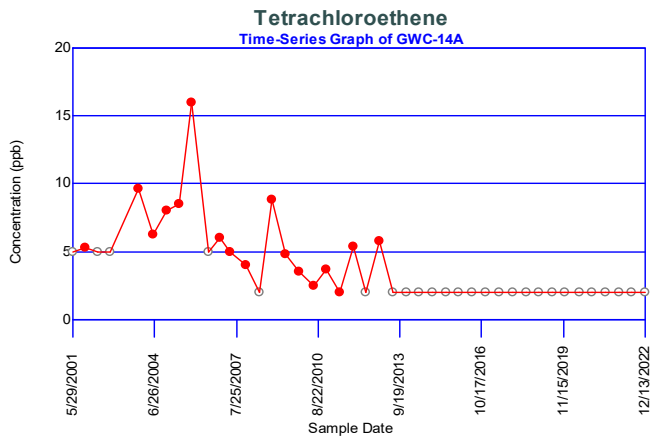


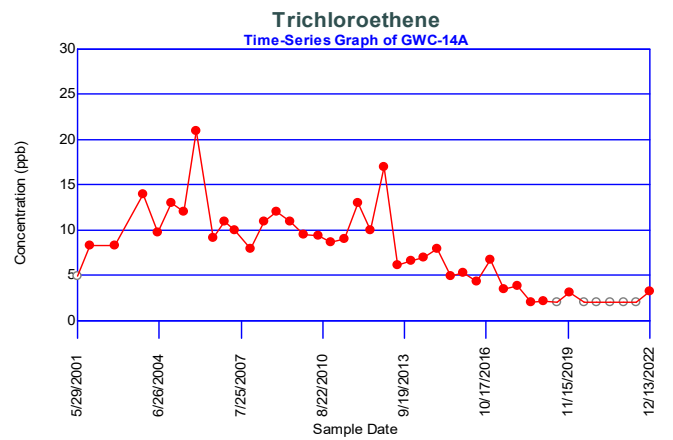
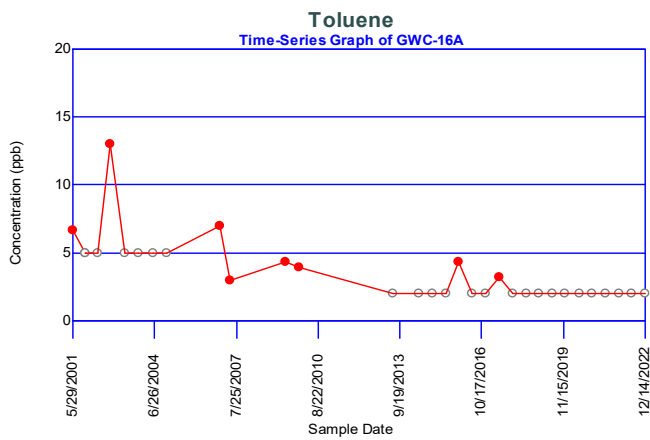
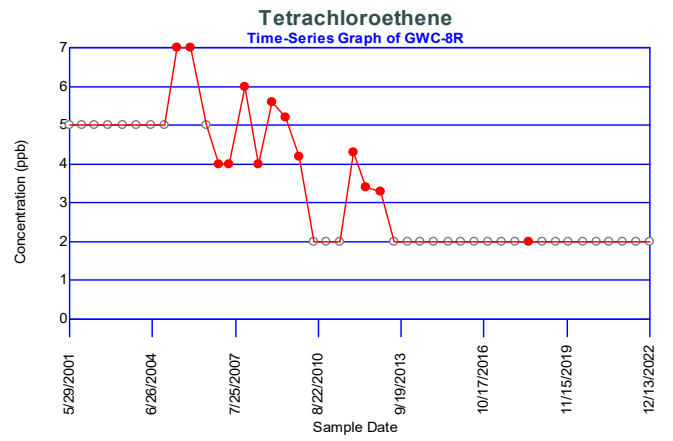
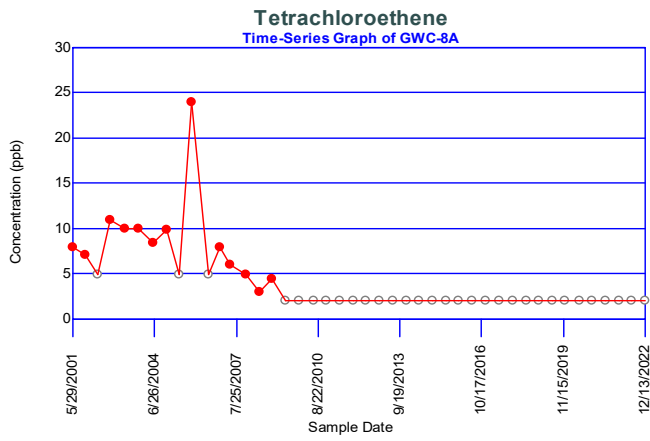
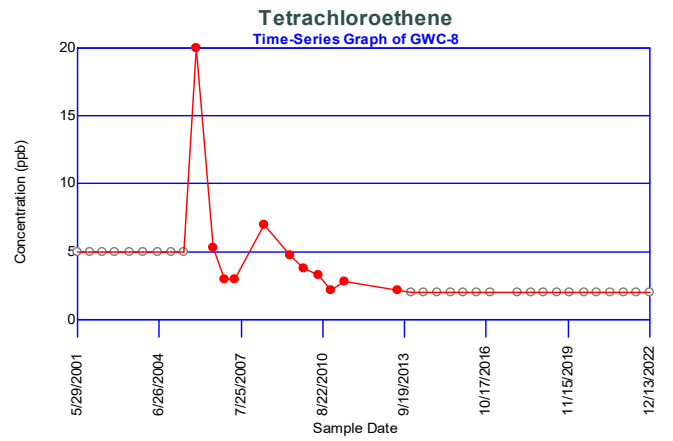
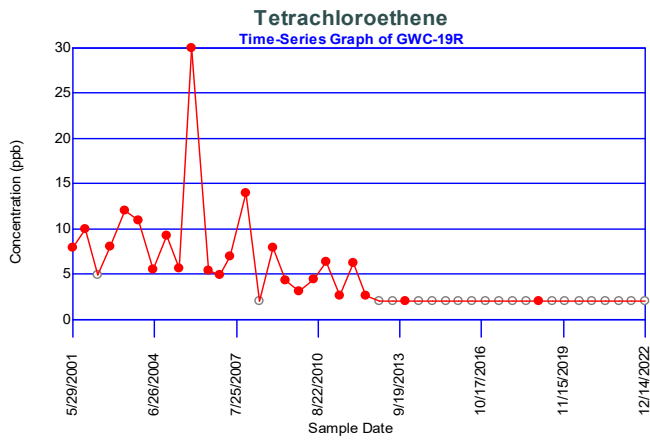


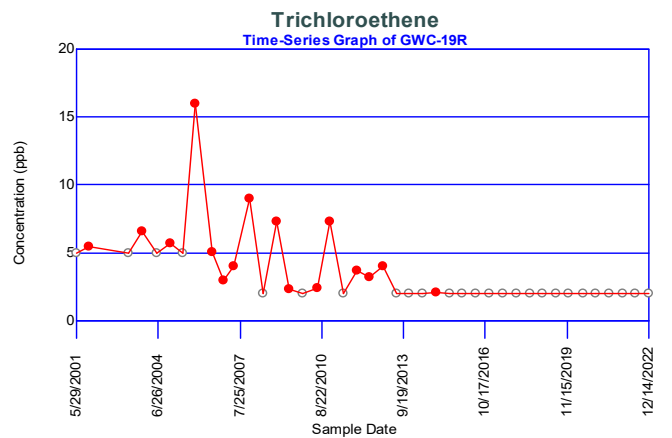
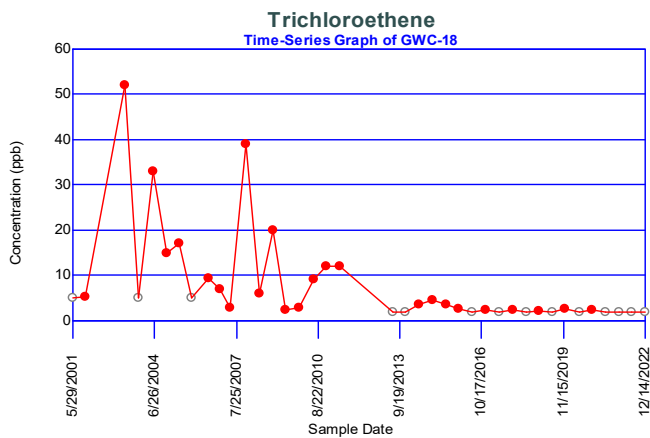
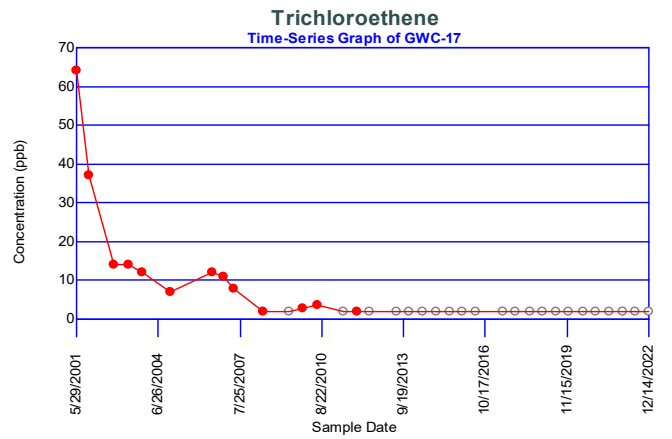
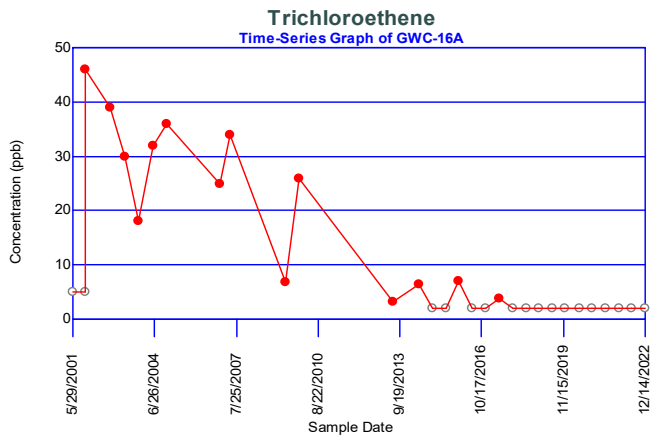
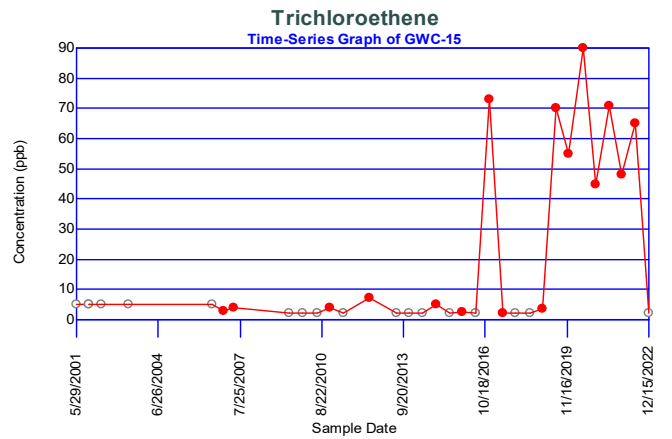
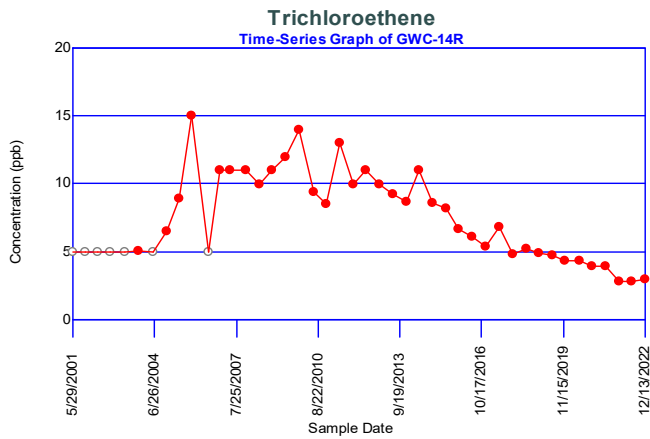


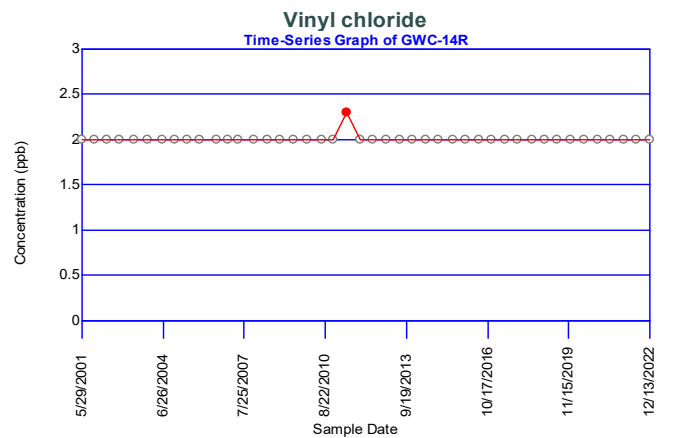
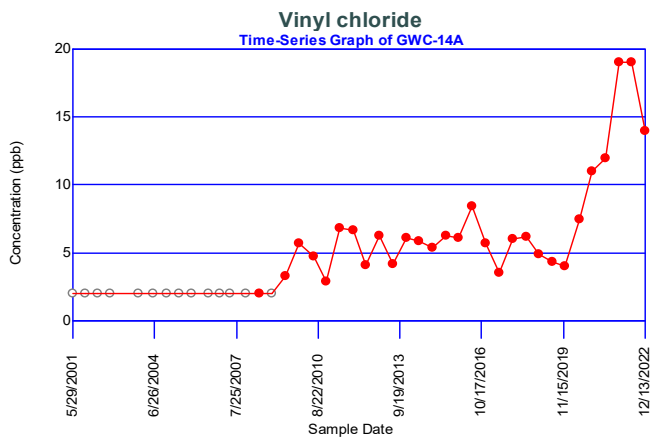
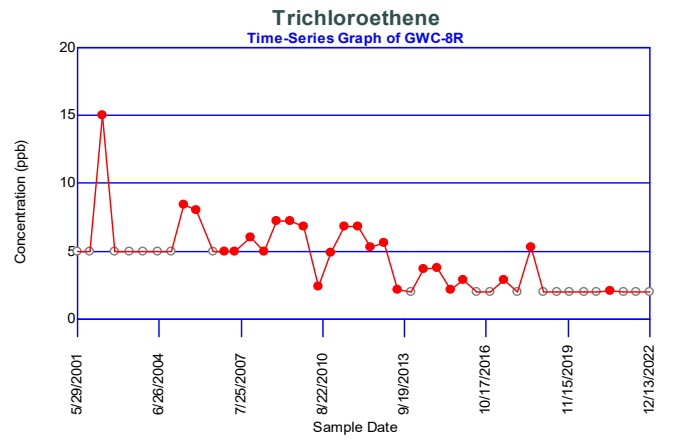
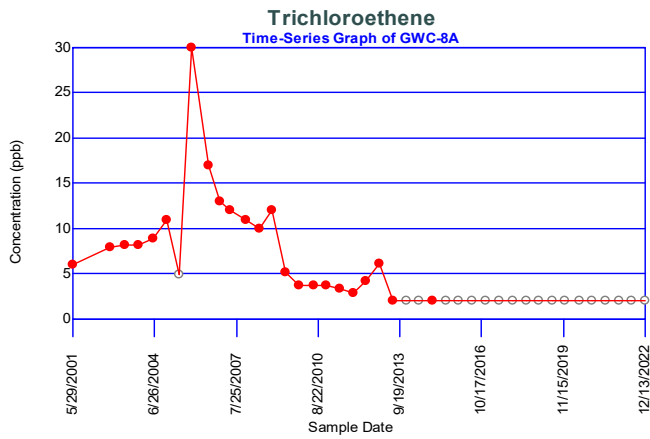
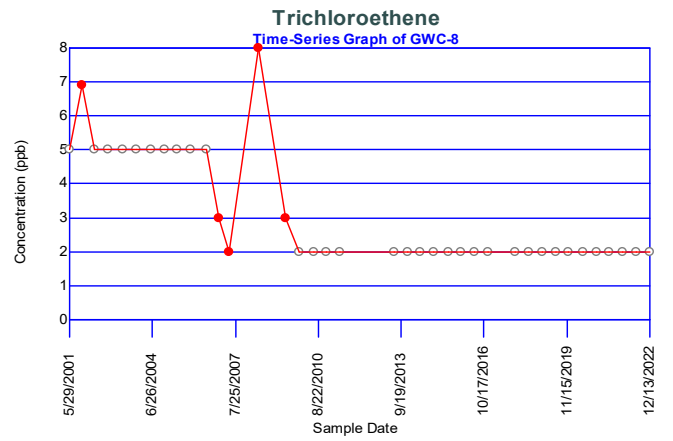
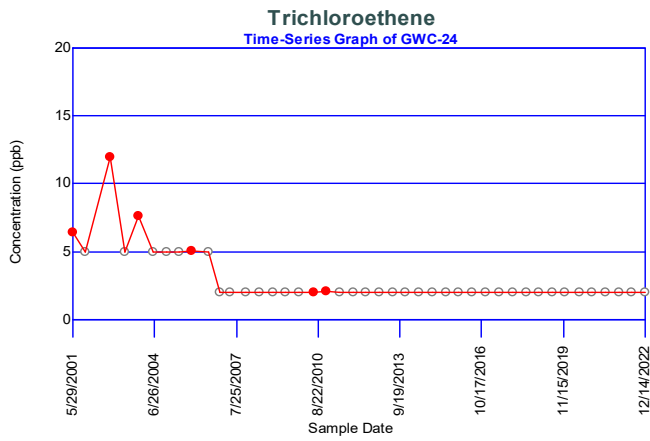


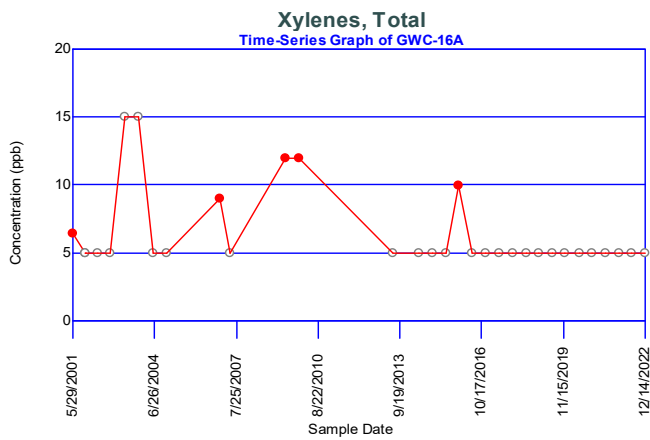
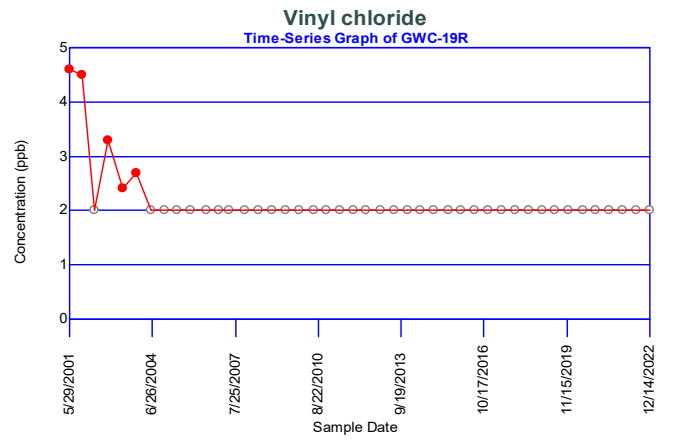
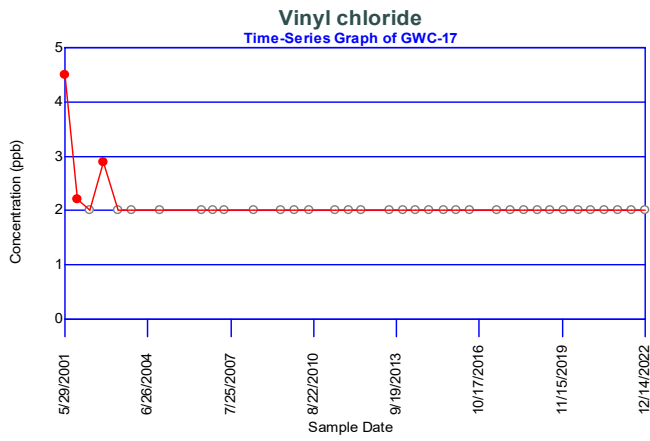
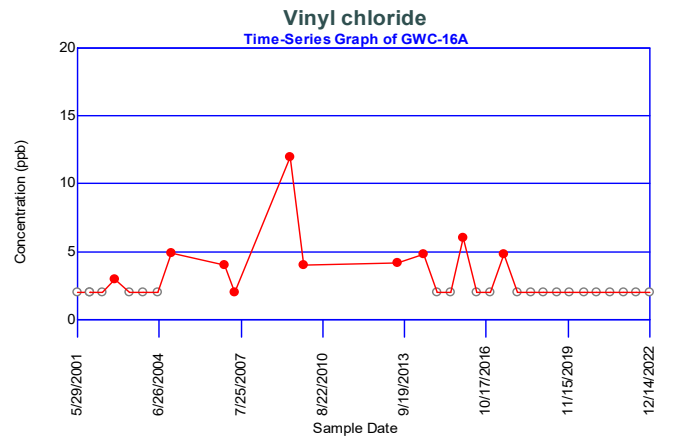
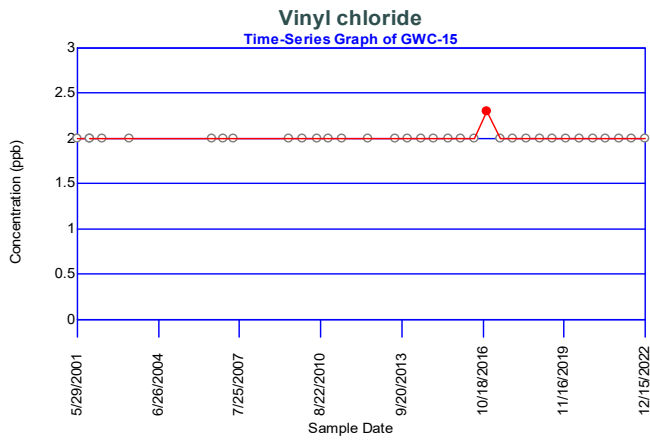












**ATTACHMENT C**  
**STATISTICAL ANALYSIS**

**STATISTICAL ANALYSIS:  
Kruskal-Wallis Non-Parametric Test**

**Forsyth County - Hightower Road MSWLF - Phase I**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

<b>Parameter Name</b>	<b>Well ID</b>	<b>Statistically Significant</b>	<b>Confidence Level</b>
1,1-Dichloroethane	PH1-GWA-1A	FALSE	1%
1,1-Dichloroethane	GWC-1	FALSE	1%
1,1-Dichloroethane	PH1-GWA-1	FALSE	1%
1,1-Dichloroethane	PH1-GWC-2	TRUE	1%
1,1-Dichloroethane	PH1-GWC-3	TRUE	1%
1,1-Dichloroethane	PH1-GWC-3A	TRUE	1%
1,1-Dichloroethane	PH1-GWA-2	FALSE	1%
1,1-Dichloroethane	PH1-GWB-1	FALSE	1%
1,1-Dichloroethane	PH1-GWB-2	FALSE	1%
1,1-Dichloroethane	PH1-GWC-1	FALSE	1%
1,1-Dichloroethane	PH1-GWC-4	FALSE	1%
1,1-Dichloroethane	PH1-GWA-1A	FALSE	0.45%
1,1-Dichloroethane	GWC-1	FALSE	0.45%
1,1-Dichloroethane	PH1-GWA-1	FALSE	0.45%
1,1-Dichloroethane	PH1-GWC-2	TRUE	0.45%
1,1-Dichloroethane	PH1-GWC-3	TRUE	0.45%
1,1-Dichloroethane	PH1-GWC-3A	TRUE	0.45%
1,1-Dichloroethane	PH1-GWA-2	FALSE	0.45%
1,1-Dichloroethane	PH1-GWB-1	FALSE	0.45%
1,1-Dichloroethane	PH1-GWB-2	FALSE	0.45%
1,1-Dichloroethane	PH1-GWC-1	FALSE	0.45%
1,1-Dichloroethane	PH1-GWC-4	FALSE	0.45%
cis-1,2-Dichloroethene	PH1-GWA-1A	FALSE	1%
cis-1,2-Dichloroethene	GWC-1	FALSE	1%
cis-1,2-Dichloroethene	PH1-GWA-1	TRUE	1%
cis-1,2-Dichloroethene	PH1-GWC-2	TRUE	1%
cis-1,2-Dichloroethene	PH1-GWC-3	TRUE	1%
cis-1,2-Dichloroethene	PH1-GWC-3A	TRUE	1%
cis-1,2-Dichloroethene	PH1-GWA-2	TRUE	1%
cis-1,2-Dichloroethene	PH1-GWB-1	FALSE	1%
cis-1,2-Dichloroethene	PH1-GWB-2	FALSE	1%
cis-1,2-Dichloroethene	PH1-GWC-1	FALSE	1%
cis-1,2-Dichloroethene	PH1-GWC-4	FALSE	1%
cis-1,2-Dichloroethene	PH1-GWA-1A	FALSE	0.45%
cis-1,2-Dichloroethene	GWC-1	FALSE	0.45%
cis-1,2-Dichloroethene	PH1-GWA-1	TRUE	0.45%
cis-1,2-Dichloroethene	PH1-GWC-2	TRUE	0.45%
cis-1,2-Dichloroethene	PH1-GWC-3	TRUE	0.45%
cis-1,2-Dichloroethene	PH1-GWC-3A	TRUE	0.45%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.
4. Non-detects are replaced with 1/2 the detection limit.



**Forsyth County - Hightower Road MSWLF - Phase I**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

<b>Parameter Name</b>	<b>Well ID</b>	<b>Statistically Significant</b>	<b>Confidence Level</b>
cis-1,2-Dichloroethene	PH1-GWA-2	TRUE	0.45%
cis-1,2-Dichloroethene	PH1-GWB-1	FALSE	0.45%
cis-1,2-Dichloroethene	PH1-GWB-2	FALSE	0.45%
cis-1,2-Dichloroethene	PH1-GWC-1	FALSE	0.45%
cis-1,2-Dichloroethene	PH1-GWC-4	FALSE	0.45%
Tetrachloroethene	PH1-GWA-1A	FALSE	1%
Tetrachloroethene	GWC-1	FALSE	1%
Tetrachloroethene	PH1-GWA-1	FALSE	1%
Tetrachloroethene	PH1-GWC-2	TRUE	1%
Tetrachloroethene	PH1-GWC-3	TRUE	1%
Tetrachloroethene	PH1-GWC-3A	TRUE	1%
Tetrachloroethene	PH1-GWA-2	FALSE	1%
Tetrachloroethene	PH1-GWB-1	FALSE	1%
Tetrachloroethene	PH1-GWB-2	FALSE	1%
Tetrachloroethene	PH1-GWC-1	FALSE	1%
Tetrachloroethene	PH1-GWC-4	FALSE	1%
Tetrachloroethene	PH1-GWA-1A	FALSE	0.45%
Tetrachloroethene	GWC-1	FALSE	0.45%
Tetrachloroethene	PH1-GWA-1	FALSE	0.45%
Tetrachloroethene	PH1-GWC-2	TRUE	0.45%
Tetrachloroethene	PH1-GWC-3	TRUE	0.45%
Tetrachloroethene	PH1-GWC-3A	TRUE	0.45%
Tetrachloroethene	PH1-GWA-2	FALSE	0.45%
Tetrachloroethene	PH1-GWB-1	FALSE	0.45%
Tetrachloroethene	PH1-GWB-2	FALSE	0.45%
Tetrachloroethene	PH1-GWC-1	FALSE	0.45%
Tetrachloroethene	PH1-GWC-4	FALSE	0.45%
Trichloroethene	PH1-GWA-1A	FALSE	1%
Trichloroethene	GWC-1	FALSE	1%
Trichloroethene	PH1-GWA-1	FALSE	1%
Trichloroethene	PH1-GWC-2	TRUE	1%
Trichloroethene	PH1-GWC-3	TRUE	1%
Trichloroethene	PH1-GWC-3A	TRUE	1%
Trichloroethene	PH1-GWA-2	TRUE	1%
Trichloroethene	PH1-GWB-1	FALSE	1%
Trichloroethene	PH1-GWB-2	FALSE	1%
Trichloroethene	PH1-GWC-1	FALSE	1%
Trichloroethene	PH1-GWC-4	FALSE	1%
Trichloroethene	PH1-GWA-1A	FALSE	0.45%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.
4. Non-detects are replaced with 1/2 the detection limit.

**Forsyth County - Hightower Road MSWLF - Phase I**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

<b>Parameter Name</b>	<b>Well ID</b>	<b>Statistically Significant</b>	<b>Confidence Level</b>
Trichloroethene	GWC-1	FALSE	0.45%
Trichloroethene	PH1-GWA-1	FALSE	0.45%
Trichloroethene	PH1-GWC-2	TRUE	0.45%
Trichloroethene	PH1-GWC-3	TRUE	0.45%
Trichloroethene	PH1-GWC-3A	TRUE	0.45%
Trichloroethene	PH1-GWA-2	TRUE	0.45%
Trichloroethene	PH1-GWB-1	FALSE	0.45%
Trichloroethene	PH1-GWB-2	FALSE	0.45%
Trichloroethene	PH1-GWC-1	FALSE	0.45%
Trichloroethene	PH1-GWC-4	FALSE	0.45%
Barium	PH1-GWA-1A	TRUE	1%
Barium	GWC-1	TRUE	1%
Barium	PH1-GWA-1	FALSE	1%
Barium	PH1-GWC-2	FALSE	1%
Barium	PH1-GWC-3	TRUE	1%
Barium	PH1-GWC-3A	TRUE	1%
Barium	PH1-GWA-2	TRUE	1%
Barium	PH1-GWB-1	TRUE	1%
Barium	PH1-GWB-2	FALSE	1%
Barium	PH1-GWC-1	TRUE	1%
Barium	PH1-GWC-4	TRUE	1%
Barium	PH1-GWA-1A	FALSE	0.45%
Barium	GWC-1	TRUE	0.45%
Barium	PH1-GWA-1	FALSE	0.45%
Barium	PH1-GWC-2	FALSE	0.45%
Barium	PH1-GWC-3	TRUE	0.45%
Barium	PH1-GWC-3A	TRUE	0.45%
Barium	PH1-GWA-2	TRUE	0.45%
Barium	PH1-GWB-1	TRUE	0.45%
Barium	PH1-GWB-2	FALSE	0.45%
Barium	PH1-GWC-1	TRUE	0.45%
Barium	PH1-GWC-4	TRUE	0.45%
Chromium	PH1-GWA-1A	FALSE	1%
Chromium	GWC-1	FALSE	1%
Chromium	PH1-GWA-1	FALSE	1%
Chromium	PH1-GWC-2	FALSE	1%
Chromium	PH1-GWC-3	FALSE	1%
Chromium	PH1-GWC-3A	FALSE	1%
Chromium	PH1-GWA-2	FALSE	1%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.
4. Non-detects are replaced with 1/2 the detection limit.

**Forsyth County - Hightower Road MSWLF - Phase I**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

<b>Parameter Name</b>	<b>Well ID</b>	<b>Statistically Significant</b>	<b>Confidence Level</b>
Chromium	PH1-GWB-1	FALSE	1%
Chromium	PH1-GWB-2	FALSE	1%
Chromium	PH1-GWC-1	FALSE	1%
Chromium	PH1-GWC-4	FALSE	1%
Chromium	PH1-GWA-1A	FALSE	0.45%
Chromium	GWC-1	FALSE	0.45%
Chromium	PH1-GWA-1	FALSE	0.45%
Chromium	PH1-GWC-2	FALSE	0.45%
Chromium	PH1-GWC-3	FALSE	0.45%
Chromium	PH1-GWC-3A	FALSE	0.45%
Chromium	PH1-GWA-2	FALSE	0.45%
Chromium	PH1-GWB-1	FALSE	0.45%
Chromium	PH1-GWB-2	FALSE	0.45%
Chromium	PH1-GWC-1	FALSE	0.45%
Chromium	PH1-GWC-4	FALSE	0.45%
Cobalt	PH1-GWA-1A	FALSE	1%
Cobalt	GWC-1	FALSE	1%
Cobalt	PH1-GWA-1	TRUE	1%
Cobalt	PH1-GWC-2	FALSE	1%
Cobalt	PH1-GWC-3	FALSE	1%
Cobalt	PH1-GWC-3A	FALSE	1%
Cobalt	PH1-GWA-2	FALSE	1%
Cobalt	PH1-GWB-1	FALSE	1%
Cobalt	PH1-GWB-2	FALSE	1%
Cobalt	PH1-GWC-1	FALSE	1%
Cobalt	PH1-GWC-4	FALSE	1%
Cobalt	PH1-GWA-1A	FALSE	0.45%
Cobalt	GWC-1	FALSE	0.45%
Cobalt	PH1-GWA-1	TRUE	0.45%
Cobalt	PH1-GWC-2	FALSE	0.45%
Cobalt	PH1-GWC-3	FALSE	0.45%
Cobalt	PH1-GWC-3A	FALSE	0.45%
Cobalt	PH1-GWA-2	FALSE	0.45%
Cobalt	PH1-GWB-1	FALSE	0.45%
Cobalt	PH1-GWB-2	FALSE	0.45%
Cobalt	PH1-GWC-1	FALSE	0.45%
Cobalt	PH1-GWC-4	FALSE	0.45%
Zinc	PH1-GWA-1A	FALSE	1%
Zinc	GWC-1	FALSE	1%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.
4. Non-detects are replaced with 1/2 the detection limit.

Forsyth County - Hightower Road MSWLF - Phase I  
 Second 2022 Groundwater Monitoring Event  
 Kruskal-Wallis Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
Zinc	PH1-GWA-1	TRUE	1%
Zinc	PH1-GWC-2	FALSE	1%
Zinc	PH1-GWC-3	FALSE	1%
Zinc	PH1-GWC-3A	FALSE	1%
Zinc	PH1-GWA-2	FALSE	1%
Zinc	PH1-GWB-1	FALSE	1%
Zinc	PH1-GWB-2	TRUE	1%
Zinc	PH1-GWC-1	FALSE	1%
Zinc	PH1-GWC-4	FALSE	1%
Zinc	PH1-GWA-1A	FALSE	0.45%
Zinc	GWC-1	FALSE	0.45%
Zinc	PH1-GWA-1	TRUE	0.45%
Zinc	PH1-GWC-2	FALSE	0.45%
Zinc	PH1-GWC-3	FALSE	0.45%
Zinc	PH1-GWC-3A	FALSE	0.45%
Zinc	PH1-GWA-2	FALSE	0.45%
Zinc	PH1-GWB-1	FALSE	0.45%
Zinc	PH1-GWB-2	TRUE	0.45%
Zinc	PH1-GWC-1	FALSE	0.45%
Zinc	PH1-GWC-4	FALSE	0.45%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.
4. Non-detects are replaced with 1/2 the detection limit.

**Kruskal-Wallis Non-Parametric Test**

**Parameter: 1,1-Dichloroethane**

Original Data (Not Transformed)  
 Non-Detects Replaced with 1/2 DL

**Kruskal Wallis Ranks**

**Background Locations**

Loc. ID	Date	Value	Rank
PH1-GWA-3A	6/14/2017	ND<1	61
	12/11/2017	ND<1	61
	6/18/2018	ND<1	61
	12/17/2018	ND<1	61
	6/13/2019	ND<1	61
	12/12/2019	ND<1	61
	6/25/2020	ND<1	61
	12/18/2020	ND<1	61
	6/15/2021	ND<1	61
	12/15/2021	ND<1	61
	6/6/2022	ND<1	61
	12/12/2022	ND<1	61

Rank Sum = 732  
 Rank Mean = 61

PH1-GWA-4	6/15/2017	ND<1	61
	12/12/2017	ND<1	61
	6/18/2018	ND<1	61
	12/18/2018	ND<1	61
	6/11/2019	ND<1	61
	12/9/2019	ND<1	61
	6/24/2020	ND<1	61
	12/15/2020	ND<1	61
	6/16/2021	ND<1	61
	12/14/2021	ND<1	61
	6/7/2022	ND<1	61
	12/15/2022	ND<1	61

Rank Sum = 732  
 Rank Mean = 61

Background Rank Sum = 1464  
 Background Rank Mean = 61

**Compliance Locations**

Loc. ID	Date	Value	Rank
PH1-GWA-1A	6/12/2017	ND<1	61
	12/13/2017	ND<1	61
	6/19/2018	ND<1	61
	12/18/2018	ND<1	61
	6/10/2019	ND<1	61
	12/10/2019	ND<1	61
	6/22/2020	ND<1	61
	12/18/2020	ND<1	61
	6/15/2021	ND<1	61
	12/13/2021	ND<1	61
	6/8/2022	ND<1	61

12/15/2022 ND<1 61  
 Rank Sum = 732  
 Rank Mean = 61

GWC-1	6/13/2017	ND<1	61
	12/13/2017	ND<1	61
	6/19/2018	ND<1	61
	12/17/2018	ND<1	61
	6/13/2019	ND<1	61
	12/10/2019	ND<1	61
	6/22/2020	ND<1	61
	12/16/2020	ND<1	61
	6/15/2021	ND<1	61
	12/15/2021	ND<1	61
	6/7/2022	ND<1	61
12/12/2022	ND<1	61	

Rank Sum = 732  
 Rank Mean = 61

PH1-GWA-1	6/13/2017	ND<1	61
	12/13/2017	ND<1	61
	6/19/2018	ND<1	61
	12/18/2018	ND<1	61
	6/10/2019	ND<1	61
	12/9/2019	ND<1	61
	6/22/2020	ND<1	61
	12/15/2020	ND<1	61
	6/15/2021	ND<1	61
	12/13/2021	ND<1	61
	6/8/2022	ND<1	61
12/14/2022	ND<1	61	

Rank Sum = 732  
 Rank Mean = 61

PH1-GWC-2	6/13/2017	3	135
	12/13/2017	3.4	146
	6/19/2018	ND<1	61
	12/18/2018	2.8	131
	6/10/2019	3	136
	12/10/2019	3.7	151
	6/22/2020	3.1	139
	12/17/2020	3.8	152
	6/17/2021	3	137
	12/14/2021	2.9	133
	6/8/2022	ND<1	61
12/14/2022	2.4	125	

Rank Sum = 1507  
 Rank Mean = 125.583

PH1-GWC-3	6/13/2017	2.7	129
	12/12/2017	3.6	148
	6/19/2018	3.2	142
	12/18/2018	2.7	130
	6/10/2019	3.3	145
	12/9/2019	4	153
	6/22/2020	2.9	134
	12/15/2020	3.6	149
	6/14/2021	3.4	147
	12/14/2021	3.2	143

1,1-Dichloroethane

6/7/2022	3.2	144
12/15/2022	4.5	154

Rank Sum = 1718  
Rank Mean = 143.167

PH1-GWC-3A	6/13/2017	2	122
	12/12/2017	2.6	127
	6/19/2018	2.6	128
	12/18/2018	2.3	123
	6/10/2019	2.5	126
	12/9/2019	3.1	140
	6/26/2020	ND<1	61
	12/15/2020	3	138
	6/14/2021	2.8	132
	12/14/2021	2.3	124
	6/7/2022	3.1	141
	12/15/2022	3.6	150

Rank Sum = 1512  
Rank Mean = 126

PH1-GWA-2	6/15/2017	ND<1	61
	12/13/2017	ND<1	61
	6/18/2018	ND<1	61
	12/18/2018	ND<1	61
	6/11/2019	ND<1	61
	12/9/2019	ND<1	61
	6/24/2020	ND<1	61
	12/15/2020	ND<1	61
	6/16/2021	ND<1	61
	12/14/2021	ND<1	61
	6/7/2022	ND<1	61
	12/14/2022	ND<1	61

Rank Sum = 732  
Rank Mean = 61

PH1-GWB-1	6/15/2017	ND<1	61
	12/12/2017	ND<1	61
	6/18/2018	ND<1	61
	12/17/2018	ND<1	61
	6/11/2019	ND<1	61
	12/10/2019	ND<1	61
	6/24/2020	ND<1	61
	12/17/2020	ND<1	61
	6/14/2021	ND<1	61
	12/13/2021	ND<1	61
	6/7/2022	ND<1	61
	12/12/2022	ND<1	61

Rank Sum = 732  
Rank Mean = 61

PH1-GWB-2	6/15/2017	ND<1	61
	12/11/2017	ND<1	61
	6/19/2018	ND<1	61
	12/17/2018	ND<1	61
	6/12/2019	ND<1	61
	12/12/2019	ND<1	61
	6/24/2020	ND<1	61
	12/17/2020	ND<1	61
	6/16/2021	ND<1	61

1,1-Dichloroethane

12/13/2021	ND<1	61
6/9/2022	ND<1	61
12/12/2022	ND<1	61

Rank Sum = 732  
Rank Mean = 61

PH1-GWC-1	6/15/2017	ND<1	61
	12/11/2017	ND<1	61
	6/19/2018	ND<1	61
	12/19/2018	ND<1	61
	6/13/2019	ND<1	61
	12/11/2019	ND<1	61
	6/22/2020	ND<1	61
	12/17/2020	ND<1	61
	6/16/2021	ND<1	61
	12/15/2021	ND<1	61
	6/9/2022	ND<1	61
	12/14/2022	ND<1	61

Rank Sum = 732  
Rank Mean = 61

PH1-GWC-4	6/15/2017	ND<1	61
	12/11/2017	ND<1	61
	6/19/2018	ND<1	61
	12/19/2018	ND<1	61
	6/13/2019	ND<1	61
	6/22/2020	ND<1	61
	12/17/2020	ND<1	61
	6/16/2021	ND<1	61
	12/15/2021	ND<1	61
	6/6/2022	ND<1	61

Rank Sum = 610  
Rank Mean = 61

**Calculation Results:**

Kruskal-Wallis H Statistic = 70.3018

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 136.52

95% Confidence comparison value is 19.6752 at 11 degrees of freedom

**70.3018 > 19.6752 indicating a significant group difference at 5% significance level**

**136.52 > 19.6752 indicating a significant group difference at 5% significance level when adjusted for ties**

**Individual Well Comparisons at 1% Significance Level per Comparison**

1% Z score is 2.32634

Mean background rank is 61

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	61	0	36.6829
GWC-1	61	0	36.6829
PH1-GWA-1	61	0	36.6829
PH1-GWC-2	125.583	64.5833	36.6829
PH1-GWC-3	143.167	82.1667	36.6829
PH1-GWC-3A	126	65	36.6829
PH1-GWA-2	61	0	36.6829
PH1-GWB-1	61	0	36.6829
PH1-GWB-2	61	0	36.6829
PH1-GWC-1	61	0	36.6829
PH1-GWC-4	61	0	39.052

### Individual Well Comparisons at Groupwise 5% Significance Level (0.454545% Significance Level per comparison)

0.454545% Z score is 2.65209

Mean background rank is 61

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	61	0	41.8194
GWC-1	61	0	41.8194
PH1-GWA-1	61	0	41.8194
PH1-GWC-2	125.583	64.5833	41.8194
PH1-GWC-3	143.167	82.1667	41.8194
PH1-GWC-3A	126	65	41.8194
PH1-GWA-2	61	0	41.8194
PH1-GWB-1	61	0	41.8194
PH1-GWB-2	61	0	41.8194
PH1-GWC-1	61	0	41.8194
PH1-GWC-4	61	0	44.5202

### Kruskal-Wallis Non-Parametric Test

Parameter: cis-1,2-Dichloroethene

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

### Kruskal Wallis Ranks

#### Background Locations

Loc. ID	Date	Value	Rank
PH1-GWA-3A	6/14/2017	ND<1	47
	12/11/2017	ND<1	47
	6/18/2018	ND<1	47
	12/17/2018	ND<1	47
	6/13/2019	ND<1	47
	12/12/2019	ND<1	47
	6/25/2020	ND<1	47
	12/18/2020	ND<1	47
	6/15/2021	ND<1	47
	12/15/2021	ND<1	47
	6/6/2022	ND<1	47
	12/12/2022	ND<1	47
	Rank Sum = 564		
Rank Mean = 47			
PH1-GWA-4	6/15/2017	ND<1	47
	12/12/2017	ND<1	47
	6/18/2018	ND<1	47
	12/18/2018	ND<1	47
	6/11/2019	ND<1	47
	12/9/2019	ND<1	47
	6/24/2020	ND<1	47
	12/15/2020	ND<1	47
	6/16/2021	ND<1	47
	12/14/2021	ND<1	47
	6/7/2022	ND<1	47
	12/15/2022	ND<1	47
	Rank Sum = 564		
Rank Mean = 47			

Background Rank Sum = 1128

Background Rank Mean = 47

#### Compliance Locations

Loc. ID	Date	Value	Rank
PH1-GWA-1A	6/12/2017	ND<1	47
	12/13/2017	ND<1	47
	6/19/2018	ND<1	47
	12/18/2018	ND<1	47
	6/10/2019	ND<1	47
	12/10/2019	ND<1	47
	6/22/2020	ND<1	47
	12/18/2020	ND<1	47
	6/15/2021	ND<1	47
	12/13/2021	ND<1	47
	6/8/2022	ND<1	47

cis-1,2-Dichloroethene

12/15/2022 ND<1 47  
 Rank Sum = 564  
 Rank Mean = 47

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GWC-1 6/13/2017 ND<1 47  
 12/13/2017 ND<1 47  
 6/19/2018 ND<1 47  
 12/17/2018 ND<1 47  
 6/13/2019 ND<1 47  
 12/10/2019 ND<1 47  
 6/22/2020 ND<1 47  
 12/16/2020 ND<1 47  
 6/15/2021 ND<1 47  
 12/15/2021 ND<1 47  
 6/7/2022 ND<1 47  
 12/12/2022 ND<1 47

Rank Sum = 564  
 Rank Mean = 47

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PH1-GWA-1 6/13/2017 5.2 109  
 12/13/2017 3.5 102  
 6/19/2018 3.1 99  
 12/18/2018 2.4 96  
 6/10/2019 5.2 110  
 12/9/2019 3.7 103  
 6/22/2020 4 104  
 12/15/2020 4.3 106  
 6/15/2021 5.8 113  
 12/13/2021 4.1 105  
 6/8/2022 2.3 95  
 12/14/2022 2.5 97

Rank Sum = 1239  
 Rank Mean = 103.25

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PH1-GWC-2 6/13/2017 4.4 107  
 12/13/2017 3.1 100  
 6/19/2018 2.2 94  
 12/18/2018 3.3 101  
 6/10/2019 5.1 108  
 12/10/2019 5.7 112  
 6/22/2020 6 114  
 12/17/2020 7.8 118  
 6/17/2021 7 116  
 12/14/2021 6.7 115  
 6/8/2022 5.6 111  
 12/14/2022 7.7 117

Rank Sum = 1313  
 Rank Mean = 109.417

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PH1-GWC-3 6/13/2017 14 124  
 12/12/2017 15 127  
 6/19/2018 15 128  
 12/18/2018 15 129  
 6/10/2019 19 132  
 12/9/2019 27 142  
 6/22/2020 20 135  
 12/15/2020 26 138  
 6/14/2021 28 143  
 12/14/2021 25 137

cis-1,2-Dichloroethene

6/7/2022 26 139  
 12/15/2022 36 147  
 Rank Sum = 1621  
 Rank Mean = 135.083

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PH1-GWC-3A 6/13/2017 11 121  
 12/12/2017 10 120  
 6/19/2018 12 123  
 12/18/2018 9.2 119  
 6/10/2019 11 122  
 12/9/2019 16 130  
 6/26/2020 14 125  
 12/15/2020 16 131  
 6/14/2021 19 133  
 12/14/2021 14 126  
 6/7/2022 19 134  
 12/15/2022 23 136

Rank Sum = 1520  
 Rank Mean = 126.667

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PH1-GWA-2 6/15/2017 49 150  
 12/13/2017 64 153  
 6/18/2018 46 149  
 12/18/2018 55 152  
 6/11/2019 26 140  
 12/9/2019 120 154  
 6/24/2020 42 148  
 12/15/2020 52 151  
 6/16/2021 34 144  
 12/14/2021 35 145  
 6/7/2022 26 141  
 12/14/2022 35 146

Rank Sum = 1773  
 Rank Mean = 147.75

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PH1-GWB-1 6/15/2017 ND<1 47  
 12/12/2017 ND<1 47  
 6/18/2018 ND<1 47  
 12/17/2018 ND<1 47  
 6/11/2019 ND<1 47  
 12/10/2019 ND<1 47  
 6/24/2020 ND<1 47  
 12/17/2020 ND<1 47  
 6/14/2021 ND<1 47  
 12/13/2021 ND<1 47  
 6/7/2022 ND<1 47  
 12/12/2022 ND<1 47

Rank Sum = 564  
 Rank Mean = 47

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PH1-GWB-2 6/15/2017 ND<1 47  
 12/11/2017 ND<1 47  
 6/19/2018 ND<1 47  
 12/17/2018 2.6 98  
 6/12/2019 ND<1 47  
 12/12/2019 ND<1 47  
 6/24/2020 ND<1 47  
 12/17/2020 ND<1 47  
 6/16/2021 ND<1 47



cis-1,2-Dichloroethene

12/13/2021	ND<1	47
6/9/2022	ND<1	47
12/12/2022	ND<1	47

Rank Sum = 615  
Rank Mean = 51.25

PH1-GWC-1	6/15/2017	ND<1	47
	12/11/2017	ND<1	47
	6/19/2018	ND<1	47
	12/19/2018	ND<1	47
	6/13/2019	ND<1	47
	12/11/2019	ND<1	47
	6/22/2020	ND<1	47
	12/17/2020	ND<1	47
	6/16/2021	ND<1	47
	12/15/2021	ND<1	47
	6/9/2022	ND<1	47
	12/14/2022	ND<1	47

Rank Sum = 564  
Rank Mean = 47

PH1-GWC-4	6/15/2017	ND<1	47
	12/11/2017	ND<1	47
	6/19/2018	ND<1	47
	12/19/2018	ND<1	47
	6/13/2019	ND<1	47
	6/22/2020	ND<1	47
	12/17/2020	ND<1	47
	6/16/2021	ND<1	47
	12/15/2021	ND<1	47
	6/6/2022	ND<1	47

Rank Sum = 470  
Rank Mean = 47

**Calculation Results:**

Kruskal-Wallis H Statistic = 117.008

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 150.053

95% Confidence comparison value is 19.6752 at 11 degrees of freedom

**117.008 > 19.6752 indicating a significant group difference at 5% significance level**

**150.053 > 19.6752 indicating a significant group difference at 5% significance level when adjusted for ties**

**Individual Well Comparisons at 1% Significance Level per Comparison**

1% Z score is 2.32634

Mean background rank is 47

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	47	0	36.6829
GWC-1	47	0	36.6829
PH1-GWA-1	103.25	56.25	36.6829
PH1-GWC-2	109.417	62.4167	36.6829
PH1-GWC-3	135.083	88.0833	36.6829
PH1-GWC-3A	126.667	79.6667	36.6829
PH1-GWA-2	147.75	100.75	36.6829
PH1-GWB-1	47	0	36.6829
PH1-GWB-2	51.25	4.25	36.6829
PH1-GWC-1	47	0	36.6829
PH1-GWC-4	47	0	39.052

cis-1,2-Dichloroethene

**Individual Well Comparisons at Groupwise 5% Significance Level  
(0.454545% Significance Level per comparison)**

0.454545% Z score is 2.65209

Mean background rank is 47

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	47	0	41.8194
GWC-1	47	0	41.8194
PH1-GWA-1	103.25	56.25	41.8194
PH1-GWC-2	109.417	62.4167	41.8194
PH1-GWC-3	135.083	88.0833	41.8194
PH1-GWC-3A	126.667	79.6667	41.8194
PH1-GWA-2	147.75	100.75	41.8194
PH1-GWB-1	47	0	41.8194
PH1-GWB-2	51.25	4.25	41.8194
PH1-GWC-1	47	0	41.8194
PH1-GWC-4	47	0	44.5202

## Kruskal-Wallis Non-Parametric Test

## Parameter: Tetrachloroethene

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

## Kruskal Wallis Ranks

## Background Locations

Loc. ID	Date	Value	Rank
PH1-GWA-3A	6/14/2017	ND<1	58.5
	12/11/2017	ND<1	58.5
	6/18/2018	ND<1	58.5
	12/17/2018	ND<1	58.5
	6/13/2019	ND<1	58.5
	12/12/2019	ND<1	58.5
	6/25/2020	ND<1	58.5
	12/18/2020	ND<1	58.5
	6/15/2021	ND<1	58.5
	12/15/2021	ND<1	58.5
	6/6/2022	ND<1	58.5
	12/12/2022	ND<1	58.5

Rank Sum = 702

Rank Mean = 58.5

PH1-GWA-4	6/15/2017	ND<1	58.5
	12/12/2017	ND<1	58.5
	6/18/2018	ND<1	58.5
	12/18/2018	ND<1	58.5
	6/11/2019	ND<1	58.5
	12/9/2019	ND<1	58.5
	6/24/2020	ND<1	58.5
	12/15/2020	ND<1	58.5
	6/16/2021	ND<1	58.5
	12/14/2021	ND<1	58.5
	6/7/2022	ND<1	58.5
	12/15/2022	ND<1	58.5

Rank Sum = 702

Rank Mean = 58.5

Background Rank Sum = 1404

Background Rank Mean = 58.5

## Compliance Locations

Loc. ID	Date	Value	Rank
PH1-GWA-1A	6/12/2017	ND<1	58.5
	12/13/2017	ND<1	58.5
	6/19/2018	ND<1	58.5
	12/18/2018	ND<1	58.5
	6/10/2019	ND<1	58.5
	12/10/2019	ND<1	58.5
	6/22/2020	ND<1	58.5
	12/18/2020	ND<1	58.5
	6/15/2021	ND<1	58.5
	12/13/2021	ND<1	58.5
	6/8/2022	ND<1	58.5

	12/15/2022	ND<1	58.5
Rank Sum = 702			
Rank Mean = 58.5			

GWC-1	6/13/2017	ND<1	58.5
	12/13/2017	ND<1	58.5
	6/19/2018	ND<1	58.5
	12/17/2018	ND<1	58.5
	6/13/2019	ND<1	58.5
	12/10/2019	ND<1	58.5
	6/22/2020	ND<1	58.5
	12/16/2020	ND<1	58.5
	6/15/2021	ND<1	58.5
	12/15/2021	ND<1	58.5
	6/7/2022	ND<1	58.5
	12/12/2022	ND<1	58.5

Rank Sum = 702

Rank Mean = 58.5

PH1-GWA-1	6/13/2017	ND<1	58.5
	12/13/2017	ND<1	58.5
	6/19/2018	2.1	117
	12/18/2018	ND<1	58.5
	6/10/2019	ND<1	58.5
	12/9/2019	ND<1	58.5
	6/22/2020	ND<1	58.5
	12/15/2020	ND<1	58.5
	6/15/2021	ND<1	58.5
	12/13/2021	ND<1	58.5
	6/8/2022	ND<1	58.5
	12/14/2022	ND<1	58.5

Rank Sum = 760.5

Rank Mean = 63.375

PH1-GWC-2	6/13/2017	6.7	133
	12/13/2017	5.1	127
	6/19/2018	ND<1	58.5
	12/18/2018	5.1	128
	6/10/2019	4.2	124
	12/10/2019	6.3	131
	6/22/2020	4.6	126
	12/17/2020	5.3	129
	6/17/2021	3.7	123
	12/14/2021	2.9	121
	6/8/2022	3.4	122
	12/14/2022	4.4	125

Rank Sum = 1447.5

Rank Mean = 120.625

PH1-GWC-3	6/13/2017	11	149
	12/12/2017	13	153
	6/19/2018	11	150
	12/18/2018	10	147
	6/10/2019	11	151
	12/9/2019	13	154
	6/22/2020	9	143
	12/15/2020	9.1	144
	6/14/2021	9.3	145
	12/14/2021	8.8	140

Tetrachloroethene

6/7/2022	8.3	137
12/15/2022	9.5	146
Rank Sum = 1759		
Rank Mean = 146.583		

PH1-GWC-3A	6/13/2017	8.9	142
	12/12/2017	10	148
	6/19/2018	11	152
	12/18/2018	8.7	139
	6/10/2019	8.8	141
	12/9/2019	7.4	135
	6/26/2020	ND<1	58.5
	12/15/2020	5.7	130
	6/14/2021	8.1	136
	12/14/2021	7.2	134
	6/7/2022	8.6	138
	12/15/2022	6.5	132
Rank Sum = 1585.5			
Rank Mean = 132.125			

PH1-GWA-2	6/15/2017	2.1	118
	12/13/2017	2.3	119
	6/18/2018	ND<1	58.5
	12/18/2018	ND<1	58.5
	6/11/2019	ND<1	58.5
	12/9/2019	2.4	120
	6/24/2020	ND<1	58.5
	12/15/2020	ND<1	58.5
	6/16/2021	ND<1	58.5
	12/14/2021	ND<1	58.5
	6/7/2022	ND<1	58.5
	12/14/2022	ND<1	58.5
Rank Sum = 883.5			
Rank Mean = 73.625			

PH1-GWB-1	6/15/2017	ND<1	58.5
	12/12/2017	ND<1	58.5
	6/18/2018	ND<1	58.5
	12/17/2018	ND<1	58.5
	6/11/2019	ND<1	58.5
	12/10/2019	ND<1	58.5
	6/24/2020	ND<1	58.5
	12/17/2020	ND<1	58.5
	6/14/2021	ND<1	58.5
	12/13/2021	ND<1	58.5
	6/7/2022	ND<1	58.5
	12/12/2022	ND<1	58.5
Rank Sum = 702			
Rank Mean = 58.5			

PH1-GWB-2	6/15/2017	ND<1	58.5
	12/11/2017	ND<1	58.5
	6/19/2018	ND<1	58.5
	12/17/2018	ND<1	58.5
	6/12/2019	ND<1	58.5
	12/12/2019	ND<1	58.5
	6/24/2020	ND<1	58.5
	12/17/2020	ND<1	58.5
	6/16/2021	ND<1	58.5

Tetrachloroethene

12/13/2021	ND<1	58.5
6/9/2022	ND<1	58.5
12/12/2022	ND<1	58.5
Rank Sum = 702		
Rank Mean = 58.5		

PH1-GWC-1	6/15/2017	ND<1	58.5
	12/11/2017	ND<1	58.5
	6/19/2018	ND<1	58.5
	12/19/2018	ND<1	58.5
	6/13/2019	ND<1	58.5
	12/11/2019	ND<1	58.5
	6/22/2020	ND<1	58.5
	12/17/2020	ND<1	58.5
	6/16/2021	ND<1	58.5
	12/15/2021	ND<1	58.5
	6/9/2022	ND<1	58.5
	12/14/2022	ND<1	58.5
Rank Sum = 702			
Rank Mean = 58.5			

PH1-GWC-4	6/15/2017	ND<1	58.5
	12/11/2017	ND<1	58.5
	6/19/2018	ND<1	58.5
	12/19/2018	ND<1	58.5
	6/13/2019	ND<1	58.5
	6/22/2020	ND<1	58.5
	12/17/2020	ND<1	58.5
	6/16/2021	ND<1	58.5
	12/15/2021	ND<1	58.5
	6/6/2022	ND<1	58.5
Rank Sum = 585			
Rank Mean = 58.5			

Calculation Results:

Kruskal-Wallis H Statistic = 76.3648

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 133.357

95% Confidence comparison value is 19.6752 at 11 degrees of freedom

**76.3648 > 19.6752 indicating a significant group difference at 5% significance level**

**133.357 > 19.6752 indicating a significant group difference at 5% significance level when adjusted for ties**

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634

Mean background rank is 58.5

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	58.5	0	36.6829
GWC-1	58.5	0	36.6829
PH1-GWA-1	63.375	4.875	36.6829
PH1-GWC-2	120.625	62.125	36.6829
PH1-GWC-3	146.583	88.0833	36.6829
PH1-GWC-3A	132.125	73.625	36.6829
PH1-GWA-2	73.625	15.125	36.6829
PH1-GWB-1	58.5	0	36.6829
PH1-GWB-2	58.5	0	36.6829
PH1-GWC-1	58.5	0	36.6829
PH1-GWC-4	58.5	0	39.052

### Individual Well Comparisons at Groupwise 5% Significance Level (0.454545% Significance Level per comparison)

0.454545% Z score is 2.65209

Mean background rank is 58.5

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	58.5	0	41.8194
GWC-1	58.5	0	41.8194
PH1-GWA-1	63.375	4.875	41.8194
PH1-GWC-2	120.625	62.125	41.8194
PH1-GWC-3	146.583	88.0833	41.8194
PH1-GWC-3A	132.125	73.625	41.8194
PH1-GWA-2	73.625	15.125	41.8194
PH1-GWB-1	58.5	0	41.8194
PH1-GWB-2	58.5	0	41.8194
PH1-GWC-1	58.5	0	41.8194
PH1-GWC-4	58.5	0	44.5202

### Kruskal-Wallis Non-Parametric Test

Parameter: Trichloroethene

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

### Kruskal Wallis Ranks

#### Background Locations

Loc. ID	Date	Value	Rank
PH1-GWA-3A	6/14/2017	ND<1	54.5
	12/11/2017	ND<1	54.5
	6/18/2018	ND<1	54.5
	12/17/2018	ND<1	54.5
	6/13/2019	ND<1	54.5
	12/12/2019	ND<1	54.5
	6/25/2020	ND<1	54.5
	12/18/2020	ND<1	54.5
	6/15/2021	ND<1	54.5
	12/15/2021	ND<1	54.5
	6/6/2022	ND<1	54.5
	12/12/2022	ND<1	54.5

Rank Sum = 654

Rank Mean = 54.5

PH1-GWA-4	6/15/2017	ND<1	54.5
	12/12/2017	ND<1	54.5
	6/18/2018	ND<1	54.5
	12/18/2018	ND<1	54.5
	6/11/2019	ND<1	54.5
	12/9/2019	ND<1	54.5
	6/24/2020	ND<1	54.5
	12/15/2020	ND<1	54.5
	6/16/2021	ND<1	54.5
	12/14/2021	ND<1	54.5
	6/7/2022	ND<1	54.5
	12/15/2022	ND<1	54.5

Rank Sum = 654

Rank Mean = 54.5

Background Rank Sum = 1308

Background Rank Mean = 54.5

#### Compliance Locations

Loc. ID	Date	Value	Rank
PH1-GWA-1A	6/12/2017	ND<1	54.5
	12/13/2017	ND<1	54.5
	6/19/2018	ND<1	54.5
	12/18/2018	ND<1	54.5
	6/10/2019	ND<1	54.5
	12/10/2019	ND<1	54.5
	6/22/2020	ND<1	54.5
	12/18/2020	ND<1	54.5
	6/15/2021	ND<1	54.5
	12/13/2021	ND<1	54.5
	6/8/2022	ND<1	54.5

## Trichloroethene

12/15/2022 ND<1 54.5  
 Rank Sum = 654  
 Rank Mean = 54.5

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GWC-1 6/13/2017 ND<1 54.5  
 12/13/2017 ND<1 54.5  
 6/19/2018 ND<1 54.5  
 12/17/2018 ND<1 54.5  
 6/13/2019 ND<1 54.5  
 12/10/2019 ND<1 54.5  
 6/22/2020 ND<1 54.5  
 12/16/2020 ND<1 54.5  
 6/15/2021 ND<1 54.5  
 12/15/2021 ND<1 54.5  
 6/7/2022 ND<1 54.5  
 12/12/2022 ND<1 54.5

Rank Sum = 654  
 Rank Mean = 54.5

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PH1-GWA-1 6/13/2017 ND<1 54.5  
 12/13/2017 ND<1 54.5  
 6/19/2018 ND<1 54.5  
 12/18/2018 ND<1 54.5  
 6/10/2019 ND<1 54.5  
 12/9/2019 3.1 126  
 6/22/2020 ND<1 54.5  
 12/15/2020 ND<1 54.5  
 6/15/2021 ND<1 54.5  
 12/13/2021 ND<1 54.5  
 6/8/2022 ND<1 54.5  
 12/14/2022 ND<1 54.5

Rank Sum = 725.5  
 Rank Mean = 60.4583

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PH1-GWC-2 6/13/2017 2.4 116  
 12/13/2017 ND<1 54.5  
 6/19/2018 ND<1 54.5  
 12/18/2018 2 109  
 6/10/2019 2 110  
 12/10/2019 2.6 121  
 6/22/2020 2.1 112  
 12/17/2020 2.5 119  
 6/17/2021 2.7 122  
 12/14/2021 3 125  
 6/8/2022 2.1 113  
 12/14/2022 2.7 123

Rank Sum = 1279  
 Rank Mean = 106.583

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PH1-GWC-3 6/13/2017 7 141  
 12/12/2017 8.4 151  
 6/19/2018 6.9 140  
 12/18/2018 6.8 137  
 6/10/2019 7.4 146  
 12/9/2019 8.7 153  
 6/22/2020 7.1 142  
 12/15/2020 7.6 148  
 6/14/2021 7.5 147  
 12/14/2021 7.1 143

## Trichloroethene

6/7/2022 7.2 144  
 12/15/2022 9.5 154

Rank Sum = 1746  
 Rank Mean = 145.5

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PH1-GWC-3A 6/13/2017 6 134  
 12/12/2017 6.6 136  
 6/19/2018 6.8 138  
 12/18/2018 5.8 132  
 6/10/2019 5.7 130  
 12/9/2019 8.4 152  
 6/26/2020 2.8 124  
 12/15/2020 8.1 150  
 6/14/2021 6.1 135  
 12/14/2021 5.7 131  
 6/7/2022 6.8 139  
 12/15/2022 8 149

Rank Sum = 1650  
 Rank Mean = 137.5

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PH1-GWA-2 6/15/2017 4.1 128  
 12/13/2017 5.8 133  
 6/18/2018 4.2 129  
 12/18/2018 4 127  
 6/11/2019 2.1 114  
 12/9/2019 7.3 145  
 6/24/2020 2.4 117  
 12/15/2020 2.5 120  
 6/16/2021 2.4 118  
 12/14/2021 2 111  
 6/7/2022 ND<1 54.5  
 12/14/2022 2.2 115

Rank Sum = 1411.5  
 Rank Mean = 117.625

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PH1-GWB-1 6/15/2017 ND<1 54.5  
 12/12/2017 ND<1 54.5  
 6/18/2018 ND<1 54.5  
 12/17/2018 ND<1 54.5  
 6/11/2019 ND<1 54.5  
 12/10/2019 ND<1 54.5  
 6/24/2020 ND<1 54.5  
 12/17/2020 ND<1 54.5  
 6/14/2021 ND<1 54.5  
 12/13/2021 ND<1 54.5  
 6/7/2022 ND<1 54.5  
 12/12/2022 ND<1 54.5

Rank Sum = 654  
 Rank Mean = 54.5

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PH1-GWB-2 6/15/2017 ND<1 54.5  
 12/11/2017 ND<1 54.5  
 6/19/2018 ND<1 54.5  
 12/17/2018 ND<1 54.5  
 6/12/2019 ND<1 54.5  
 12/12/2019 ND<1 54.5  
 6/24/2020 ND<1 54.5  
 12/17/2020 ND<1 54.5  
 6/16/2021 ND<1 54.5

Trichloroethene

12/13/2021	ND<1	54.5
6/9/2022	ND<1	54.5
12/12/2022	ND<1	54.5

Rank Sum = 654  
Rank Mean = 54.5

PH1-GWC-1	6/15/2017	ND<1	54.5
	12/11/2017	ND<1	54.5
	6/19/2018	ND<1	54.5
	12/19/2018	ND<1	54.5
	6/13/2019	ND<1	54.5
	12/11/2019	ND<1	54.5
	6/22/2020	ND<1	54.5
	12/17/2020	ND<1	54.5
	6/16/2021	ND<1	54.5
	12/15/2021	ND<1	54.5
	6/9/2022	ND<1	54.5
	12/14/2022	ND<1	54.5

Rank Sum = 654  
Rank Mean = 54.5

PH1-GWC-4	6/15/2017	ND<1	54.5
	12/11/2017	ND<1	54.5
	6/19/2018	ND<1	54.5
	12/19/2018	ND<1	54.5
	6/13/2019	ND<1	54.5
	6/22/2020	ND<1	54.5
	12/17/2020	ND<1	54.5
	6/16/2021	ND<1	54.5
	12/15/2021	ND<1	54.5
	6/6/2022	ND<1	54.5

Rank Sum = 545  
Rank Mean = 54.5

**Calculation Results:**

Kruskal-Wallis H Statistic = 91.1785

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 139.182

95% Confidence comparison value is 19.6752 at 11 degrees of freedom

**91.1785 > 19.6752 indicating a significant group difference at 5% significance level**

**139.182 > 19.6752 indicating a significant group difference at 5% significance level when adjusted for ties**

**Individual Well Comparisons at 1% Significance Level per Comparison**

1% Z score is 2.32634

Mean background rank is 54.5

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	54.5	0	36.6829
GWC-1	54.5	0	36.6829
PH1-GWA-1	60.4583	5.95833	36.6829
PH1-GWC-2	106.583	52.0833	36.6829
PH1-GWC-3	145.5	91	36.6829
PH1-GWC-3A	137.5	83	36.6829
PH1-GWA-2	117.625	63.125	36.6829
PH1-GWB-1	54.5	0	36.6829
PH1-GWB-2	54.5	0	36.6829
PH1-GWC-1	54.5	0	36.6829
PH1-GWC-4	54.5	0	39.052

Trichloroethene

**Individual Well Comparisons at Groupwise 5% Significance Level  
(0.454545% Significance Level per comparison)**

0.454545% Z score is 2.65209

Mean background rank is 54.5

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	54.5	0	41.8194
GWC-1	54.5	0	41.8194
PH1-GWA-1	60.4583	5.95833	41.8194
PH1-GWC-2	106.583	52.0833	41.8194
PH1-GWC-3	145.5	91	41.8194
PH1-GWC-3A	137.5	83	41.8194
PH1-GWA-2	117.625	63.125	41.8194
PH1-GWB-1	54.5	0	41.8194
PH1-GWB-2	54.5	0	41.8194
PH1-GWC-1	54.5	0	41.8194
PH1-GWC-4	54.5	0	44.5202

## Kruskal-Wallis Non-Parametric Test

## Parameter: Barium

Original Data (Not Transformed)  
Non-Detects Replaced with 1/2 DL

## Kruskal Wallis Ranks

## Background Locations

Loc. ID	Date	Value	Rank
PH1-GWA-3A	6/14/2017	ND<10	21
	12/11/2017	ND<10	21
	6/18/2018	ND<10	21
	12/17/2018	ND<10	21
	6/13/2019	ND<10	21
	12/12/2019	ND<10	21
	6/25/2020	ND<10	21
	12/18/2020	ND<10	21
	6/15/2021	ND<10	21
	12/15/2021	ND<10	21
	6/6/2022	ND<10	21
	12/12/2022	ND<10	21

Rank Sum = 252

Rank Mean = 21

PH1-GWA-4	6/16/2017	ND<10	21
	12/13/2017	37	102
	6/19/2018	ND<10	21
	12/19/2018	ND<10	21
	6/12/2019	ND<10	21
	12/10/2019	ND<10	21
	6/25/2020	ND<10	21
	12/16/2020	ND<10	21
	6/17/2021	ND<10	21
	12/15/2021	ND<10	21
	6/8/2022	ND<10	21
	12/15/2022	ND<10	21

Rank Sum = 333

Rank Mean = 27.75

Background Rank Sum = 585

Background Rank Mean = 24.375

## Compliance Locations

Loc. ID	Date	Value	Rank
PH1-GWA-1A	6/12/2017	24	55
	12/13/2017	27	76
	6/20/2018	25	65
	12/19/2018	27	77
	6/11/2019	24	56
	12/10/2019	23.4	52
	6/22/2020	21.7	47
	12/18/2020	27.4	81
	6/16/2021	24.8	63
	12/14/2021	22.6	49
	6/8/2022	25.9	70

12/15/2022 35.1 101  
Rank Sum = 792  
Rank Mean = 66

GWC-1	6/14/2017	92	148
	12/14/2017	88	147
	6/20/2018	94	151
	12/18/2018	150	153
	6/13/2019	93	149
	12/11/2019	85.2	145
	6/23/2020	95.3	152
	12/17/2020	81.1	140
	6/16/2021	86.1	146
	12/16/2021	84	142
	6/8/2022	79.1	135
	12/13/2022	93.1	150

Rank Sum = 1758

Rank Mean = 146.5

PH1-GWA-1	6/14/2017	21	46
	12/14/2017	20	42
	6/20/2018	34	98
	12/19/2018	24	57
	6/11/2019	24	58
	12/10/2019	20.3	43
	6/23/2020	27.7	82
	12/16/2020	ND<10	21
	6/16/2021	28.7	85
	12/14/2021	22.8	50
	6/9/2022	25.3	67
12/15/2022	ND<10	21	

Rank Sum = 670

Rank Mean = 55.8333

PH1-GWC-2	6/14/2017	51	117
	12/13/2017	ND<10	21
	6/19/2018	ND<10	21
	12/18/2018	26	72
	6/10/2019	39	104
	12/10/2019	ND<10	21
	6/22/2020	33.6	97
	12/17/2020	ND<10	21
	6/17/2021	20.6	44
	12/17/2021	ND<10	21
	6/8/2022	20.9	45
	12/14/2022	24.7	61

Rank Sum = 645

Rank Mean = 53.75

PH1-GWC-3	6/14/2017	26	73
	12/13/2017	27	78
	6/20/2018	23	51
	12/19/2018	27	79
	6/11/2019	30	89
	12/10/2019	24.7	62
	6/23/2020	23.6	53
	12/16/2020	25.6	69
	6/15/2021	24.3	60
	12/15/2021	28.8	86

Barium

6/8/2022	25.5	68
12/15/2022	29.2	88

Rank Sum = 856  
Rank Mean = 71.3333

PH1-GWC-3A	6/14/2017	29	87
	12/13/2017	27	80
	6/28/2018	26	74
	12/19/2018	24	59
	6/11/2019	30	90
	12/10/2019	24.9	64
	6/23/2020	23.9	54
	12/16/2020	25.9	71
	6/15/2021	30.5	92
	12/15/2021	28.5	84
	6/8/2022	30.1	91
	12/15/2022	28.2	83

Rank Sum = 929  
Rank Mean = 77.4167

PH1-GWA-2	6/16/2017	80	137
	12/14/2017	80	138
	6/19/2018	61	126
	12/19/2018	81	139
	6/12/2019	84	143
	12/10/2019	84.2	144
	6/25/2020	64.6	129
	12/16/2020	65.5	130
	6/17/2021	71.7	134
	12/15/2021	71.6	133
	6/8/2022	59	125
	12/15/2022	68.9	132

Rank Sum = 1610  
Rank Mean = 134.167

PH1-GWB-1	6/16/2017	52	118
	12/13/2017	54	121
	6/19/2018	62	127
	12/18/2018	53	119
	6/12/2019	82	141
	12/11/2019	67	131
	6/25/2020	79.3	136
	12/18/2020	50.5	116
	6/15/2021	63.1	128
	12/14/2021	56.8	124
	6/8/2022	53.7	120
	12/13/2022	40.1	106

Rank Sum = 1487  
Rank Mean = 123.917

PH1-GWB-2	6/16/2017	ND<10	21
	12/12/2017	ND<10	21
	6/20/2018	ND<10	21
	12/18/2018	22	48
	6/13/2019	ND<10	21
	12/13/2019	ND<10	21
	6/25/2020	ND<10	21
	12/18/2020	ND<10	21
	6/17/2021	ND<10	21

Barium

12/14/2021	ND<10	21
6/10/2022	ND<10	21
12/13/2022	ND<10	21

Rank Sum = 279  
Rank Mean = 23.25

PH1-GWC-1	6/16/2017	40	105
	12/12/2017	38	103
	6/20/2018	42	108
	12/20/2018	47	114
	6/13/2019	50	115
	12/12/2019	43.7	113
	6/23/2020	42.8	112
	12/18/2020	32.1	95
	6/17/2021	42.1	111
	12/16/2021	30.6	93
	6/10/2022	42	109
	12/15/2022	34.3	100

Rank Sum = 1278  
Rank Mean = 106.5

PH1-GWC-4	6/16/2017	42	110
	12/12/2017	54	122
	6/20/2018	34	99
	12/20/2018	310	154
	6/13/2019	32	94
	6/23/2020	25.2	66
	12/18/2020	56.4	123
	6/17/2021	33	96
	12/16/2021	41.3	107
	6/7/2022	26.6	75

Rank Sum = 1046  
Rank Mean = 104.6

Calculation Results:

Kruskal-Wallis H Statistic = 128.924

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 131.403

95% Confidence comparison value is 19.6752 at 11 degrees of freedom

**128.924 > 19.6752 indicating a significant group difference at 5% significance level**

**131.403 > 19.6752 indicating a significant group difference at 5% significance level when adjusted for ties**

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634

Mean background rank is 24.375

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	66	41.625	36.6829
GWC-1	146.5	122.125	36.6829
PH1-GWA-1	55.8333	31.4583	36.6829
PH1-GWC-2	53.75	29.375	36.6829
PH1-GWC-3	71.3333	46.9583	36.6829
PH1-GWC-3A	77.4167	53.0417	36.6829
PH1-GWA-2	134.167	109.792	36.6829
PH1-GWB-1	123.917	99.5417	36.6829
PH1-GWB-2	23.25	-1.125	36.6829
PH1-GWC-1	106.5	82.125	36.6829
PH1-GWC-4	104.6	80.225	39.052



### Individual Well Comparisons at Groupwise 5% Significance Level (0.454545% Significance Level per comparison)

0.454545% Z score is 2.65209  
Mean background rank is 24.375

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	66	41.625	41.8194
<b>GWC-1</b>	<b>146.5</b>	<b>122.125</b>	<b>41.8194</b>
PH1-GWA-1	55.8333	31.4583	41.8194
PH1-GWC-2	53.75	29.375	41.8194
<b>PH1-GWC-3</b>	<b>71.3333</b>	<b>46.9583</b>	<b>41.8194</b>
<b>PH1-GWC-3A</b>	<b>77.4167</b>	<b>53.0417</b>	<b>41.8194</b>
<b>PH1-GWA-2</b>	<b>134.167</b>	<b>109.792</b>	<b>41.8194</b>
<b>PH1-GWB-1</b>	<b>123.917</b>	<b>99.5417</b>	<b>41.8194</b>
PH1-GWB-2	23.25	-1.125	41.8194
<b>PH1-GWC-1</b>	<b>106.5</b>	<b>82.125</b>	<b>41.8194</b>
<b>PH1-GWC-4</b>	<b>104.6</b>	<b>80.225</b>	<b>44.5202</b>

### Kruskal-Wallis Non-Parametric Test

Parameter: Chromium

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

### Kruskal Wallis Ranks

#### Background Locations

Loc. ID	Date	Value	Rank
PH1-GWA-3A	6/14/2017	ND<5	73
	12/11/2017	ND<5	73
	6/18/2018	ND<5	73
	12/17/2018	ND<5	73
	6/13/2019	ND<5	73
	12/12/2019	ND<5	73
	6/25/2020	ND<5	73
	12/18/2020	ND<5	73
	6/15/2021	ND<5	73
	12/15/2021	ND<5	73
	6/6/2022	ND<5	73
	12/12/2022	ND<5	73
	Rank Sum = 876		
Rank Mean = 73			
PH1-GWA-4	6/16/2017	ND<5	73
	12/13/2017	ND<5	73
	6/19/2018	ND<5	73
	12/19/2018	ND<5	73
	6/12/2019	ND<5	73
	12/10/2019	ND<5	73
	6/25/2020	ND<5	73
	12/16/2020	ND<5	73
	6/17/2021	ND<5	73
	12/15/2021	ND<5	73
	6/8/2022	ND<5	73
	12/15/2022	ND<5	73
	Rank Sum = 876		
Rank Mean = 73			

Background Rank Sum = 1752

Background Rank Mean = 73

#### Compliance Locations

Loc. ID	Date	Value	Rank
PH1-GWA-1A	6/12/2017	ND<5	73
	12/13/2017	ND<5	73
	6/20/2018	ND<5	73
	12/19/2018	ND<5	73
	6/11/2019	11	146
	12/10/2019	ND<5	73
	6/22/2020	ND<5	73
	12/18/2020	ND<5	73
	6/16/2021	ND<5	73
	12/14/2021	ND<5	73
	6/8/2022	19.9	151

## Chromium

12/15/2022 17.2 150  
 Rank Sum = 1104  
 Rank Mean = 92

---

GWC-1	6/14/2017	ND<5	73
	12/14/2017	ND<5	73
	6/20/2018	ND<5	73
	12/18/2018	ND<5	73
	6/13/2019	ND<5	73
	12/11/2019	ND<5	73
	6/23/2020	ND<5	73
	12/17/2020	ND<5	73
	6/16/2021	ND<5	73
	12/16/2021	ND<5	73
	6/8/2022	ND<5	73
	12/13/2022	ND<5	73

Rank Sum = 876  
 Rank Mean = 73

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PH1-GWA-1	6/14/2017	ND<5	73
	12/14/2017	ND<5	73
	6/20/2018	ND<5	73
	12/19/2018	ND<5	73
	6/11/2019	ND<5	73
	12/10/2019	ND<5	73
	6/23/2020	ND<5	73
	12/16/2020	ND<5	73
	6/16/2021	ND<5	73
	12/14/2021	ND<5	73
	6/9/2022	ND<5	73
	12/15/2022	ND<5	73

Rank Sum = 876  
 Rank Mean = 73

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PH1-GWC-2	6/14/2017	ND<5	73
	12/13/2017	ND<5	73
	6/19/2018	12	148
	12/18/2018	ND<5	73
	6/10/2019	69	154
	12/10/2019	ND<5	73
	6/22/2020	27.2	152
	12/17/2020	ND<5	73
	6/17/2021	ND<5	73
	12/17/2021	ND<5	73
	6/8/2022	15.7	149
	12/14/2022	11.5	147

Rank Sum = 1261  
 Rank Mean = 105.083

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PH1-GWC-3	6/14/2017	ND<5	73
	12/13/2017	ND<5	73
	6/20/2018	ND<5	73
	12/19/2018	ND<5	73
	6/11/2019	ND<5	73
	12/10/2019	ND<5	73
	6/23/2020	ND<5	73
	12/16/2020	ND<5	73
	6/15/2021	ND<5	73
	12/15/2021	ND<5	73

## Chromium

6/8/2022 ND<10 73  
 12/15/2022 ND<5 73

Rank Sum = 876  
 Rank Mean = 73

---

PH1-GWC-3A	6/14/2017	ND<5	73
	12/13/2017	ND<5	73
	6/28/2018	ND<5	73
	12/19/2018	ND<5	73
	6/11/2019	ND<5	73
	12/10/2019	ND<5	73
	6/23/2020	ND<5	73
	12/16/2020	ND<5	73
	6/15/2021	ND<5	73
	12/15/2021	ND<5	73
	6/8/2022	ND<10	73
	12/15/2022	ND<5	73

Rank Sum = 876  
 Rank Mean = 73

---

PH1-GWA-2	6/16/2017	ND<5	73
	12/14/2017	ND<5	73
	6/19/2018	ND<5	73
	12/19/2018	ND<5	73
	6/12/2019	ND<5	73
	12/10/2019	ND<5	73
	6/25/2020	ND<5	73
	12/16/2020	ND<5	73
	6/17/2021	ND<5	73
	12/15/2021	ND<5	73
	6/8/2022	ND<10	73
	12/15/2022	ND<5	73

Rank Sum = 876  
 Rank Mean = 73

---

PH1-GWB-1	6/16/2017	ND<5	73
	12/13/2017	ND<5	73
	6/19/2018	ND<5	73
	12/18/2018	ND<5	73
	6/12/2019	ND<5	73
	12/11/2019	ND<5	73
	6/25/2020	ND<5	73
	12/18/2020	ND<5	73
	6/15/2021	ND<5	73
	12/14/2021	ND<5	73
	6/8/2022	ND<5	73
	12/13/2022	ND<5	73

Rank Sum = 876  
 Rank Mean = 73

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PH1-GWB-2	6/16/2017	ND<5	73
	12/12/2017	ND<5	73
	6/20/2018	ND<5	73
	12/18/2018	ND<5	73
	6/13/2019	ND<5	73
	12/13/2019	ND<5	73
	6/25/2020	ND<5	73
	12/18/2020	ND<5	73
	6/17/2021	ND<5	73

## Chromium

12/14/2021	ND<5	73
6/10/2022	ND<5	73
12/13/2022	ND<5	73

Rank Sum = 876  
Rank Mean = 73

PH1-GWC-1	6/16/2017	ND<5	73
	12/12/2017	ND<5	73
	6/20/2018	ND<5	73
	12/20/2018	ND<5	73
	6/13/2019	ND<5	73
	12/12/2019	ND<5	73
	6/23/2020	ND<5	73
	12/18/2020	ND<5	73
	6/17/2021	ND<5	73
	12/16/2021	ND<5	73
	6/10/2022	ND<5	73
	12/15/2022	ND<5	73

Rank Sum = 876  
Rank Mean = 73

PH1-GWC-4	6/16/2017	ND<5	73
	12/12/2017	ND<5	73
	6/20/2018	ND<5	73
	12/20/2018	49	153
	6/13/2019	ND<5	73
	6/23/2020	ND<5	73
	12/18/2020	ND<5	73
	6/17/2021	ND<5	73
	12/16/2021	ND<5	73
	6/7/2022	ND<5	73

Rank Sum = 810  
Rank Mean = 81

**Calculation Results:**

Kruskal-Wallis H Statistic = 7.14147

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 43.2077

95% Confidence comparison value is 19.6752 at 11 degrees of freedom

7.14147 < 19.6752 indicating no significant group difference at 5% significance level

43.2077 > 19.6752 indicating a significant group difference at 5% significance level when adjusted for ties

**Individual Well Comparisons at 1% Significance Level per Comparison**

1% Z score is 2.32634

Mean background rank is 73

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	92	19	36.6829
GWC-1	73	0	36.6829
PH1-GWA-1	73	0	36.6829
PH1-GWC-2	105.083	32.0833	36.6829
PH1-GWC-3	73	0	36.6829
PH1-GWC-3A	73	0	36.6829
PH1-GWA-2	73	0	36.6829
PH1-GWB-1	73	0	36.6829
PH1-GWB-2	73	0	36.6829
PH1-GWC-1	73	0	36.6829
PH1-GWC-4	81	8	39.052

## Chromium

**Individual Well Comparisons at Groupwise 5% Significance Level  
(0.454545% Significance Level per comparison)**

0.454545% Z score is 2.65209

Mean background rank is 73

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	92	19	41.8194
GWC-1	73	0	41.8194
PH1-GWA-1	73	0	41.8194
PH1-GWC-2	105.083	32.0833	41.8194
PH1-GWC-3	73	0	41.8194
PH1-GWC-3A	73	0	41.8194
PH1-GWA-2	73	0	41.8194
PH1-GWB-1	73	0	41.8194
PH1-GWB-2	73	0	41.8194
PH1-GWC-1	73	0	41.8194
PH1-GWC-4	81	8	44.5202

## Kruskal-Wallis Non-Parametric Test

## Parameter: Cobalt

Original Data (Not Transformed)  
Non-Detects Replaced with 1/2 DL

## Kruskal Wallis Ranks

## Background Locations

Loc. ID	Date	Value	Rank
PH1-GWA-3A	6/14/2017	ND<20	71.5
	12/11/2017	ND<20	71.5
	6/18/2018	ND<20	71.5
	12/17/2018	ND<20	71.5
	6/13/2019	ND<20	71.5
	12/12/2019	ND<20	71.5
	6/25/2020	ND<20	71.5
	12/18/2020	ND<20	71.5
	6/15/2021	ND<20	71.5
	12/15/2021	ND<20	71.5
	6/6/2022	ND<20	71.5
	12/12/2022	ND<20	71.5
	Rank Sum = 858		
Rank Mean = 71.5			
PH1-GWA-4	6/16/2017	ND<20	71.5
	12/13/2017	ND<20	71.5
	6/19/2018	ND<20	71.5
	12/19/2018	ND<20	71.5
	6/12/2019	ND<20	71.5
	12/10/2019	ND<20	71.5
	6/25/2020	ND<20	71.5
	12/16/2020	ND<20	71.5
	6/17/2021	ND<20	71.5
	12/15/2021	ND<20	71.5
	6/8/2022	ND<20	71.5
	12/15/2022	ND<20	71.5
	Rank Sum = 858		
Rank Mean = 71.5			

Background Rank Sum = 1716  
Background Rank Mean = 71.5

## Compliance Locations

Loc. ID	Date	Value	Rank
PH1-GWA-1A	6/12/2017	ND<20	71.5
	12/13/2017	ND<20	71.5
	6/20/2018	ND<20	71.5
	12/19/2018	ND<20	71.5
	6/11/2019	ND<20	71.5
	12/10/2019	ND<20	71.5
	6/22/2020	ND<20	71.5
	12/18/2020	ND<20	71.5
	6/16/2021	ND<20	71.5
	12/14/2021	ND<20	71.5
	6/8/2022	ND<20	71.5

12/15/2022 ND<20 71.5  
Rank Sum = 858  
Rank Mean = 71.5

GWC-1	6/14/2017	ND<20	71.5
	12/14/2017	ND<20	71.5
	6/20/2018	ND<20	71.5
	12/18/2018	ND<20	71.5
	6/13/2019	ND<20	71.5
	12/11/2019	ND<20	71.5
	6/23/2020	ND<20	71.5
	12/17/2020	ND<20	71.5
	6/16/2021	ND<20	71.5
	12/16/2021	ND<20	71.5
	6/8/2022	ND<20	71.5
	12/13/2022	ND<20	71.5

Rank Sum = 858  
Rank Mean = 71.5

PH1-GWA-1	6/14/2017	100	153
	12/14/2017	76	145
	6/20/2018	75	144
	12/19/2018	82	147
	6/11/2019	91	150
	12/10/2019	90.1	149
	6/23/2020	76.6	146
	12/16/2020	95.6	152
	6/16/2021	83.5	148
	12/14/2021	111	154
	6/9/2022	74.7	143
12/15/2022	94.7	151	

Rank Sum = 1782  
Rank Mean = 148.5

PH1-GWC-2	6/14/2017	ND<20	71.5
	12/13/2017	ND<20	71.5
	6/19/2018	ND<20	71.5
	12/18/2018	ND<20	71.5
	6/10/2019	ND<20	71.5
	12/10/2019	ND<20	71.5
	6/22/2020	ND<20	71.5
	12/17/2020	ND<20	71.5
	6/17/2021	ND<20	71.5
	12/17/2021	ND<20	71.5
	6/8/2022	ND<20	71.5
	12/14/2022	ND<20	71.5

Rank Sum = 858  
Rank Mean = 71.5

PH1-GWC-3	6/14/2017	ND<20	71.5
	12/13/2017	ND<20	71.5
	6/20/2018	ND<20	71.5
	12/19/2018	ND<20	71.5
	6/11/2019	ND<20	71.5
	12/10/2019	ND<20	71.5
	6/23/2020	ND<20	71.5
	12/16/2020	ND<20	71.5
	6/15/2021	ND<20	71.5
	12/15/2021	ND<20	71.5

6/8/2022	ND<25	71.5
12/15/2022	ND<20	71.5

Rank Sum = 858  
Rank Mean = 71.5

PH1-GWC-3A	6/14/2017	ND<20	71.5
	12/13/2017	ND<20	71.5
	6/28/2018	ND<20	71.5
	12/19/2018	ND<20	71.5
	6/11/2019	ND<20	71.5
	12/10/2019	ND<20	71.5
	6/23/2020	ND<20	71.5
	12/16/2020	ND<20	71.5
	6/15/2021	ND<20	71.5
	12/15/2021	ND<20	71.5
	6/8/2022	ND<25	71.5
	12/15/2022	ND<20	71.5

Rank Sum = 858  
Rank Mean = 71.5

PH1-GWA-2	6/16/2017	ND<20	71.5
	12/14/2017	ND<20	71.5
	6/19/2018	ND<20	71.5
	12/19/2018	ND<20	71.5
	6/12/2019	ND<20	71.5
	12/10/2019	ND<20	71.5
	6/25/2020	ND<20	71.5
	12/16/2020	ND<20	71.5
	6/17/2021	ND<20	71.5
	12/15/2021	ND<20	71.5
	6/8/2022	ND<25	71.5
	12/15/2022	ND<20	71.5

Rank Sum = 858  
Rank Mean = 71.5

PH1-GWB-1	6/16/2017	ND<20	71.5
	12/13/2017	ND<20	71.5
	6/19/2018	ND<20	71.5
	12/18/2018	ND<20	71.5
	6/12/2019	ND<20	71.5
	12/11/2019	ND<20	71.5
	6/25/2020	ND<20	71.5
	12/18/2020	ND<20	71.5
	6/15/2021	ND<20	71.5
	12/14/2021	ND<20	71.5
	6/8/2022	ND<20	71.5
	12/13/2022	ND<20	71.5

Rank Sum = 858  
Rank Mean = 71.5

PH1-GWB-2	6/16/2017	ND<20	71.5
	12/12/2017	ND<20	71.5
	6/20/2018	ND<20	71.5
	12/18/2018	ND<20	71.5
	6/13/2019	ND<20	71.5
	12/13/2019	ND<20	71.5
	6/25/2020	ND<20	71.5
	12/18/2020	ND<20	71.5
	6/17/2021	ND<20	71.5

12/14/2021	ND<20	71.5
6/10/2022	ND<20	71.5
12/13/2022	ND<20	71.5

Rank Sum = 858  
Rank Mean = 71.5

PH1-GWC-1	6/16/2017	ND<20	71.5
	12/12/2017	ND<20	71.5
	6/20/2018	ND<20	71.5
	12/20/2018	ND<20	71.5
	6/13/2019	ND<20	71.5
	12/12/2019	ND<20	71.5
	6/23/2020	ND<20	71.5
	12/18/2020	ND<20	71.5
	6/17/2021	ND<20	71.5
	12/16/2021	ND<20	71.5
	6/10/2022	ND<20	71.5
	12/15/2022	ND<20	71.5

Rank Sum = 858  
Rank Mean = 71.5

PH1-GWC-4	6/16/2017	ND<20	71.5
	12/12/2017	ND<20	71.5
	6/20/2018	ND<20	71.5
	12/20/2018	ND<20	71.5
	6/13/2019	ND<20	71.5
	6/23/2020	ND<20	71.5
	12/18/2020	ND<20	71.5
	6/17/2021	ND<20	71.5
	12/16/2021	ND<20	71.5
	6/7/2022	ND<20	71.5

Rank Sum = 715  
Rank Mean = 71.5

### Calculation Results:

Kruskal-Wallis H Statistic = 32.9806

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 152.667

95% Confidence comparison value is 19.6752 at 11 degrees of freedom

**32.9806 > 19.6752 indicating a significant group difference at 5% significance level**

**152.667 > 19.6752 indicating a significant group difference at 5% significance level when adjusted for ties**

### Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634

Mean background rank is 71.5

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	71.5	0	36.6829
GWC-1	71.5	0	36.6829
<b>PH1-GWA-1</b>	<b>148.5</b>	<b>77</b>	<b>36.6829</b>
PH1-GWC-2	71.5	0	36.6829
PH1-GWC-3	71.5	0	36.6829
PH1-GWC-3A	71.5	0	36.6829
PH1-GWA-2	71.5	0	36.6829
PH1-GWB-1	71.5	0	36.6829
PH1-GWB-2	71.5	0	36.6829
PH1-GWC-1	71.5	0	36.6829
PH1-GWC-4	71.5	0	39.052

### Individual Well Comparisons at Groupwise 5% Significance Level (0.454545% Significance Level per comparison)

0.454545% Z score is 2.65209

Mean background rank is 71.5

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	71.5	0	41.8194
GWC-1	71.5	0	41.8194
<b>PH1-GWA-1</b>	<b>148.5</b>	<b>77</b>	<b>41.8194</b>
PH1-GWC-2	71.5	0	41.8194
PH1-GWC-3	71.5	0	41.8194
PH1-GWC-3A	71.5	0	41.8194
PH1-GWA-2	71.5	0	41.8194
PH1-GWB-1	71.5	0	41.8194
PH1-GWB-2	71.5	0	41.8194
PH1-GWC-1	71.5	0	41.8194
PH1-GWC-4	71.5	0	44.5202

### Kruskal-Wallis Non-Parametric Test

Parameter: Zinc

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

### Kruskal Wallis Ranks

#### Background Locations

Loc. ID	Date	Value	Rank
PH1-GWA-3A	6/14/2017	ND<10	55
	12/11/2017	ND<10	55
	6/18/2018	ND<10	55
	12/17/2018	ND<10	55
	6/13/2019	ND<10	55
	12/12/2019	ND<10	55
	6/25/2020	ND<10	55
	12/18/2020	ND<10	55
	6/15/2021	ND<10	55
	12/15/2021	ND<10	55
	6/6/2022	ND<10	55
	12/12/2022	ND<10	55
	Rank Sum = 660		
Rank Mean = 55			
PH1-GWA-4	6/16/2017	ND<10	55
	12/13/2017	ND<10	55
	6/19/2018	ND<10	55
	12/19/2018	ND<10	55
	6/12/2019	ND<10	55
	12/10/2019	48.9	149
	6/25/2020	ND<10	55
	12/16/2020	ND<10	55
	6/17/2021	ND<10	55
	12/15/2021	ND<10	55
	6/8/2022	ND<10	55
	12/15/2022	ND<10	55
	Rank Sum = 754		
Rank Mean = 62.8333			

Background Rank Sum = 1414

Background Rank Mean = 58.9167

#### Compliance Locations

Loc. ID	Date	Value	Rank
PH1-GWA-1A	6/12/2017	ND<10	55
	12/13/2017	ND<10	55
	6/20/2018	ND<10	55
	12/19/2018	ND<10	55
	6/11/2019	ND<10	55
	12/10/2019	ND<10	55
	6/22/2020	ND<10	55
	12/18/2020	ND<10	55
	6/16/2021	ND<10	55
	12/14/2021	ND<10	55
	6/8/2022	38.2	140

## Zinc

12/15/2022 ND<10 55  
 Rank Sum = 745  
 Rank Mean = 62.0833

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GWC-1 6/14/2017 ND<10 55  
 12/14/2017 ND<10 55  
 6/20/2018 20 110  
 12/18/2018 ND<10 55  
 6/13/2019 ND<10 55  
 12/11/2019 27.1 126  
 6/23/2020 55.4 152  
 12/17/2020 ND<10 55  
 6/16/2021 ND<10 55  
 12/16/2021 ND<10 55  
 6/8/2022 ND<10 55  
 12/13/2022 ND<10 55

Rank Sum = 883  
 Rank Mean = 73.5833

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PH1-GWA-1 6/14/2017 43 146  
 12/14/2017 51 150  
 6/20/2018 55 151  
 12/19/2018 40 145  
 6/11/2019 34 137  
 12/10/2019 32.4 134  
 6/23/2020 ND<10 55  
 12/16/2020 ND<10 55  
 6/16/2021 ND<10 55  
 12/14/2021 31 132  
 6/9/2022 ND<10 55  
 12/15/2022 ND<10 55

Rank Sum = 1270  
 Rank Mean = 105.833

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PH1-GWC-2 6/14/2017 ND<10 55  
 12/13/2017 ND<10 55  
 6/19/2018 20 111  
 12/18/2018 ND<10 55  
 6/10/2019 26 123  
 12/10/2019 ND<10 55  
 6/22/2020 ND<10 55  
 12/17/2020 ND<10 55  
 6/17/2021 ND<10 55  
 12/17/2021 ND<10 55  
 6/8/2022 45.9 148  
 12/14/2022 21.6 115

Rank Sum = 937  
 Rank Mean = 78.0833

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PH1-GWC-3 6/14/2017 ND<10 55  
 12/13/2017 ND<10 55  
 6/20/2018 ND<10 55  
 12/19/2018 ND<10 55  
 6/11/2019 ND<10 55  
 12/10/2019 ND<10 55  
 6/23/2020 ND<10 55  
 12/16/2020 ND<10 55  
 6/15/2021 ND<10 55  
 12/15/2021 ND<10 55

## Zinc

6/8/2022 ND<10 55  
 12/15/2022 ND<10 55  
 Rank Sum = 660  
 Rank Mean = 55

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PH1-GWC-3A 6/14/2017 ND<10 55  
 12/13/2017 ND<10 55  
 6/28/2018 21 114  
 12/19/2018 ND<10 55  
 6/11/2019 ND<10 55  
 12/10/2019 ND<10 55  
 6/23/2020 36.9 139  
 12/16/2020 ND<10 55  
 6/15/2021 23.6 119  
 12/15/2021 43.6 147  
 6/8/2022 38.8 143  
 12/15/2022 ND<10 55

Rank Sum = 1047  
 Rank Mean = 87.25

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PH1-GWA-2 6/16/2017 ND<10 55  
 12/14/2017 ND<10 55  
 6/19/2018 ND<10 55  
 12/19/2018 29 129  
 6/12/2019 ND<10 55  
 12/10/2019 ND<10 55  
 6/25/2020 ND<10 55  
 12/16/2020 ND<10 55  
 6/17/2021 ND<10 55  
 12/15/2021 ND<10 55  
 6/8/2022 ND<10 55  
 12/15/2022 ND<10 55

Rank Sum = 734  
 Rank Mean = 61.1667

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PH1-GWB-1 6/16/2017 ND<10 55  
 12/13/2017 ND<10 55  
 6/19/2018 39 144  
 12/18/2018 ND<10 55  
 6/12/2019 22 118  
 12/11/2019 38.2 141  
 6/25/2020 26.8 125  
 12/18/2020 ND<10 55  
 6/15/2021 ND<10 55  
 12/14/2021 ND<10 55  
 6/8/2022 ND<10 55  
 12/13/2022 ND<10 55

Rank Sum = 968  
 Rank Mean = 80.6667

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PH1-GWB-2 6/16/2017 36 138  
 12/12/2017 25 121  
 6/20/2018 31 133  
 12/18/2018 28 127  
 6/13/2019 33 136  
 12/13/2019 38.3 142  
 6/25/2020 25.4 122  
 12/18/2020 21.6 116  
 6/17/2021 26.3 124

12/14/2021	23.8	120
6/10/2022	29.4	130
12/13/2022	62.9	153

Rank Sum = 1562

Rank Mean = 130.167

PH1-GWC-1	6/16/2017	ND<10	55
	12/12/2017	ND<10	55
	6/20/2018	ND<10	55
	12/20/2018	ND<10	55
	6/13/2019	ND<10	55
	12/12/2019	ND<10	55
	6/23/2020	32.5	135
	12/18/2020	ND<10	55
	6/17/2021	ND<10	55
	12/16/2021	ND<10	55
	6/10/2022	ND<10	55
	12/15/2022	ND<10	55

Rank Sum = 740

Rank Mean = 61.6667

PH1-GWC-4	6/16/2017	20	112
	12/12/2017	28	128
	6/20/2018	ND<10	55
	12/20/2018	120	154
	6/13/2019	20	113
	6/23/2020	ND<10	55
	12/18/2020	ND<10	55
	6/17/2021	ND<10	55
	12/16/2021	21.7	117
	6/7/2022	30.7	131

Rank Sum = 975

Rank Mean = 97.5

**Calculation Results:**

Kruskal-Wallis H Statistic = 36.0919

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 55.919

95% Confidence comparison value is 19.6752 at 11 degrees of freedom

**36.0919 > 19.6752 indicating a significant group difference at 5% significance level****55.919 > 19.6752 indicating a significant group difference at 5% significance level when adjusted for ties****Individual Well Comparisons at 1% Significance Level per Comparison**

1% Z score is 2.32634

Mean background rank is 58.9167

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	62.0833	3.16667	36.6829
GWC-1	73.5833	14.6667	36.6829
<b>PH1-GWA-1</b>	<b>105.833</b>	<b>46.9167</b>	<b>36.6829</b>
PH1-GWC-2	78.0833	19.1667	36.6829
PH1-GWC-3	55	-3.91667	36.6829
PH1-GWC-3A	87.25	28.3333	36.6829
PH1-GWA-2	61.1667	2.25	36.6829
PH1-GWB-1	80.6667	21.75	36.6829
<b>PH1-GWB-2</b>	<b>130.167</b>	<b>71.25</b>	<b>36.6829</b>
PH1-GWC-1	61.6667	2.75	36.6829
PH1-GWC-4	97.5	38.5833	39.052

**Individual Well Comparisons at Groupwise 5% Significance Level  
(0.454545% Significance Level per comparison)**

0.454545% Z score is 2.65209

Mean background rank is 58.9167

Well	Mean Rank	Dif from Bkg	Critical Value
PH1-GWA-1A	62.0833	3.16667	41.8194
GWC-1	73.5833	14.6667	41.8194
<b>PH1-GWA-1</b>	<b>105.833</b>	<b>46.9167</b>	<b>41.8194</b>
PH1-GWC-2	78.0833	19.1667	41.8194
PH1-GWC-3	55	-3.91667	41.8194
PH1-GWC-3A	87.25	28.3333	41.8194
PH1-GWA-2	61.1667	2.25	41.8194
PH1-GWB-1	80.6667	21.75	41.8194
<b>PH1-GWB-2</b>	<b>130.167</b>	<b>71.25</b>	<b>41.8194</b>
PH1-GWC-1	61.6667	2.75	41.8194
PH1-GWC-4	97.5	38.5833	44.5202



**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
1,1-Dichloroethane	GWA-1A	FALSE	1%
1,1-Dichloroethane	GWC-5	FALSE	1%
1,1-Dichloroethane	GWC-6	FALSE	1%
1,1-Dichloroethane	GWC-7	FALSE	1%
1,1-Dichloroethane	GWC-14	FALSE	1%
1,1-Dichloroethane	GWC-14A	TRUE	1%
1,1-Dichloroethane	GWC-14R	TRUE	1%
1,1-Dichloroethane	GWC-4A	FALSE	1%
1,1-Dichloroethane	GWC-8A	TRUE	1%
1,1-Dichloroethane	GWC-8R	TRUE	1%
1,1-Dichloroethane	GWA-3	FALSE	1%
1,1-Dichloroethane	GWC-11	FALSE	1%
1,1-Dichloroethane	GWC-12	FALSE	1%
1,1-Dichloroethane	GWC-12A	FALSE	1%
1,1-Dichloroethane	GWC-13	FALSE	1%
1,1-Dichloroethane	GWC-15	TRUE	1%
1,1-Dichloroethane	GWC-16A	FALSE	1%
1,1-Dichloroethane	GWC-17	FALSE	1%
1,1-Dichloroethane	GWC-18	FALSE	1%
1,1-Dichloroethane	GWC-19R	FALSE	1%
1,1-Dichloroethane	GWC-22	FALSE	1%
1,1-Dichloroethane	GWC-23	FALSE	1%
1,1-Dichloroethane	GWC-23A	FALSE	1%
1,1-Dichloroethane	GWC-24	FALSE	1%
1,1-Dichloroethane	GWC-10	FALSE	1%
1,1-Dichloroethane	GWC-10A	FALSE	1%
1,1-Dichloroethane	GWC-2	FALSE	1%
1,1-Dichloroethane	GWC-3	FALSE	1%
1,1-Dichloroethane	GWC-3A	FALSE	1%
1,1-Dichloroethane	GWC-9	FALSE	1%
1,1-Dichloroethane	GWC-8	FALSE	1%
1,1-Dichloroethane	GWC-4	FALSE	1%
1,1-Dichloroethane	GWA-1A	FALSE	0.16%
1,1-Dichloroethane	GWC-5	FALSE	0.16%
1,1-Dichloroethane	GWC-6	FALSE	0.16%
1,1-Dichloroethane	GWC-7	FALSE	0.16%
1,1-Dichloroethane	GWC-14	FALSE	0.16%

Notes:

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3. K-W detects are screened for false positives with NPTI.
4. Non-detects are replaced with 1/2 the detection limit.

**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
1,1-Dichloroethane	GWC-14A	TRUE	0.16%
1,1-Dichloroethane	GWC-14R	TRUE	0.16%
1,1-Dichloroethane	GWC-4A	FALSE	0.16%
1,1-Dichloroethane	GWC-8A	TRUE	0.16%
1,1-Dichloroethane	GWC-8R	TRUE	0.16%
1,1-Dichloroethane	GWA-3	FALSE	0.16%
1,1-Dichloroethane	GWC-11	FALSE	0.16%
1,1-Dichloroethane	GWC-12	FALSE	0.16%
1,1-Dichloroethane	GWC-12A	FALSE	0.16%
1,1-Dichloroethane	GWC-13	FALSE	0.16%
1,1-Dichloroethane	GWC-15	TRUE	0.16%
1,1-Dichloroethane	GWC-16A	FALSE	0.16%
1,1-Dichloroethane	GWC-17	FALSE	0.16%
1,1-Dichloroethane	GWC-18	FALSE	0.16%
1,1-Dichloroethane	GWC-19R	FALSE	0.16%
1,1-Dichloroethane	GWC-22	FALSE	0.16%
1,1-Dichloroethane	GWC-23	FALSE	0.16%
1,1-Dichloroethane	GWC-23A	FALSE	0.16%
1,1-Dichloroethane	GWC-24	FALSE	0.16%
1,1-Dichloroethane	GWC-10	FALSE	0.16%
1,1-Dichloroethane	GWC-10A	FALSE	0.16%
1,1-Dichloroethane	GWC-2	FALSE	0.16%
1,1-Dichloroethane	GWC-3	FALSE	0.16%
1,1-Dichloroethane	GWC-3A	FALSE	0.16%
1,1-Dichloroethane	GWC-9	FALSE	0.16%
1,1-Dichloroethane	GWC-8	FALSE	0.16%
1,1-Dichloroethane	GWC-4	FALSE	0.16%
Barium	GWA-1A	FALSE	1%
Barium	GWC-14A	TRUE	1%
Barium	GWC-5	FALSE	1%
Barium	GWC-6	FALSE	1%
Barium	GWC-7	TRUE	1%
Barium	GWC-15	TRUE	1%
Barium	GWC-4A	FALSE	1%
Barium	GWC-8A	TRUE	1%
Barium	GWA-3	FALSE	1%
Barium	GWC-11	FALSE	1%

Notes:

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**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Barium	GWC-12	FALSE	1%
Barium	GWC-12A	FALSE	1%
Barium	GWC-13	FALSE	1%
Barium	GWC-16A	FALSE	1%
Barium	GWC-17	TRUE	1%
Barium	GWC-18	TRUE	1%
Barium	GWC-19R	TRUE	1%
Barium	GWC-22	FALSE	1%
Barium	GWC-23	FALSE	1%
Barium	GWC-23A	FALSE	1%
Barium	GWC-24	FALSE	1%
Barium	GWC-10	FALSE	1%
Barium	GWC-10A	FALSE	1%
Barium	GWC-2	FALSE	1%
Barium	GWC-3A	FALSE	1%
Barium	GWC-9	TRUE	1%
Barium	GWC-8	FALSE	1%
Barium	GWC-14	FALSE	1%
Barium	GWC-3	FALSE	1%
Barium	GWC-4	FALSE	1%
Barium	GWC-14R	FALSE	1%
Barium	GWC-8R	FALSE	1%
Barium	GWA-1A	FALSE	0.16%
Barium	GWC-14A	TRUE	0.16%
Barium	GWC-5	FALSE	0.16%
Barium	GWC-6	FALSE	0.16%
Barium	GWC-7	FALSE	0.16%
Barium	GWC-15	TRUE	0.16%
Barium	GWC-4A	FALSE	0.16%
Barium	GWC-8A	TRUE	0.16%
Barium	GWA-3	FALSE	0.16%
Barium	GWC-11	FALSE	0.16%
Barium	GWC-12	FALSE	0.16%
Barium	GWC-12A	FALSE	0.16%
Barium	GWC-13	FALSE	0.16%
Barium	GWC-16A	FALSE	0.16%
Barium	GWC-17	FALSE	0.16%

Notes:

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4. Non-detects are replaced with 1/2 the detection limit.

**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Barium	GWC-18	TRUE	0.16%
Barium	GWC-19R	TRUE	0.16%
Barium	GWC-22	FALSE	0.16%
Barium	GWC-23	FALSE	0.16%
Barium	GWC-23A	FALSE	0.16%
Barium	GWC-24	FALSE	0.16%
Barium	GWC-10	FALSE	0.16%
Barium	GWC-10A	FALSE	0.16%
Barium	GWC-2	FALSE	0.16%
Barium	GWC-3A	FALSE	0.16%
Barium	GWC-9	TRUE	0.16%
Barium	GWC-8	FALSE	0.16%
Barium	GWC-14	FALSE	0.16%
Barium	GWC-3	FALSE	0.16%
Barium	GWC-4	FALSE	0.16%
Barium	GWC-14R	FALSE	0.16%
Barium	GWC-8R	FALSE	0.16%
Benzene	GWA-1A	FALSE	1%
Benzene	GWC-5	FALSE	1%
Benzene	GWC-6	FALSE	1%
Benzene	GWC-7	FALSE	1%
Benzene	GWC-14	FALSE	1%
Benzene	GWC-14A	TRUE	1%
Benzene	GWC-14R	FALSE	1%
Benzene	GWC-4A	FALSE	1%
Benzene	GWC-8A	TRUE	1%
Benzene	GWC-8R	FALSE	1%
Benzene	GWA-3	FALSE	1%
Benzene	GWC-11	FALSE	1%
Benzene	GWC-12	FALSE	1%
Benzene	GWC-12A	FALSE	1%
Benzene	GWC-13	FALSE	1%
Benzene	GWC-15	TRUE	1%
Benzene	GWC-16A	FALSE	1%
Benzene	GWC-17	FALSE	1%
Benzene	GWC-18	FALSE	1%
Benzene	GWC-19R	FALSE	1%

Notes:

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**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Benzene	GWC-22	FALSE	1%
Benzene	GWC-23	FALSE	1%
Benzene	GWC-23A	FALSE	1%
Benzene	GWC-24	FALSE	1%
Benzene	GWC-10	FALSE	1%
Benzene	GWC-10A	FALSE	1%
Benzene	GWC-2	FALSE	1%
Benzene	GWC-3	FALSE	1%
Benzene	GWC-3A	FALSE	1%
Benzene	GWC-9	FALSE	1%
Benzene	GWC-8	FALSE	1%
Benzene	GWC-4	FALSE	1%
Benzene	GWA-1A	FALSE	0.16%
Benzene	GWC-5	FALSE	0.16%
Benzene	GWC-6	FALSE	0.16%
Benzene	GWC-7	FALSE	0.16%
Benzene	GWC-14	FALSE	0.16%
Benzene	GWC-14A	TRUE	0.16%
Benzene	GWC-14R	FALSE	0.16%
Benzene	GWC-4A	FALSE	0.16%
Benzene	GWC-8A	TRUE	0.16%
Benzene	GWC-8R	FALSE	0.16%
Benzene	GWA-3	FALSE	0.16%
Benzene	GWC-11	FALSE	0.16%
Benzene	GWC-12	FALSE	0.16%
Benzene	GWC-12A	FALSE	0.16%
Benzene	GWC-13	FALSE	0.16%
Benzene	GWC-15	FALSE	0.16%
Benzene	GWC-16A	FALSE	0.16%
Benzene	GWC-17	FALSE	0.16%
Benzene	GWC-18	FALSE	0.16%
Benzene	GWC-19R	FALSE	0.16%
Benzene	GWC-22	FALSE	0.16%
Benzene	GWC-23	FALSE	0.16%
Benzene	GWC-23A	FALSE	0.16%
Benzene	GWC-24	FALSE	0.16%
Benzene	GWC-10	FALSE	0.16%

Notes:

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**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Benzene	GWC-10A	FALSE	0.16%
Benzene	GWC-2	FALSE	0.16%
Benzene	GWC-3	FALSE	0.16%
Benzene	GWC-3A	FALSE	0.16%
Benzene	GWC-9	FALSE	0.16%
Benzene	GWC-8	FALSE	0.16%
Benzene	GWC-4	FALSE	0.16%
Cadmium	GWA-1A	FALSE	5%
Cadmium	GWC-14A	FALSE	5%
Cadmium	GWC-5	FALSE	5%
Cadmium	GWC-6	FALSE	5%
Cadmium	GWC-7	FALSE	5%
Cadmium	GWC-15	FALSE	5%
Cadmium	GWC-4A	FALSE	5%
Cadmium	GWC-8A	FALSE	5%
Cadmium	GWA-3	FALSE	5%
Cadmium	GWC-11	FALSE	5%
Cadmium	GWC-12	FALSE	5%
Cadmium	GWC-12A	FALSE	5%
Cadmium	GWC-13	FALSE	5%
Cadmium	GWC-16A	FALSE	5%
Cadmium	GWC-17	FALSE	5%
Cadmium	GWC-18	FALSE	5%
Cadmium	GWC-19R	FALSE	5%
Cadmium	GWC-22	FALSE	5%
Cadmium	GWC-23	FALSE	5%
Cadmium	GWC-23A	FALSE	5%
Cadmium	GWC-24	FALSE	5%
Cadmium	GWC-10	FALSE	5%
Cadmium	GWC-10A	FALSE	5%
Cadmium	GWC-2	FALSE	5%
Cadmium	GWC-3A	FALSE	5%
Cadmium	GWC-9	FALSE	5%
Cadmium	GWC-8	FALSE	5%
Cadmium	GWC-14	FALSE	5%
Cadmium	GWC-3	FALSE	5%
Cadmium	GWC-4	FALSE	5%

Notes:

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2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.
4. Non-detects are replaced with 1/2 the detection limit.

**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Cadmium	GWC-14R	FALSE	5%
Cadmium	GWC-8R	FALSE	5%
Chlorobenzene	GWA-1A	FALSE	1%
Chlorobenzene	GWC-5	FALSE	1%
Chlorobenzene	GWC-6	FALSE	1%
Chlorobenzene	GWC-7	FALSE	1%
Chlorobenzene	GWC-14	FALSE	1%
Chlorobenzene	GWC-14A	TRUE	1%
Chlorobenzene	GWC-14R	FALSE	1%
Chlorobenzene	GWC-4A	FALSE	1%
Chlorobenzene	GWC-8A	FALSE	1%
Chlorobenzene	GWC-8R	FALSE	1%
Chlorobenzene	GWA-3	FALSE	1%
Chlorobenzene	GWC-11	FALSE	1%
Chlorobenzene	GWC-12	FALSE	1%
Chlorobenzene	GWC-12A	FALSE	1%
Chlorobenzene	GWC-13	FALSE	1%
Chlorobenzene	GWC-15	FALSE	1%
Chlorobenzene	GWC-16A	FALSE	1%
Chlorobenzene	GWC-17	FALSE	1%
Chlorobenzene	GWC-18	FALSE	1%
Chlorobenzene	GWC-19R	FALSE	1%
Chlorobenzene	GWC-22	FALSE	1%
Chlorobenzene	GWC-23	FALSE	1%
Chlorobenzene	GWC-23A	FALSE	1%
Chlorobenzene	GWC-24	FALSE	1%
Chlorobenzene	GWC-10	FALSE	1%
Chlorobenzene	GWC-10A	FALSE	1%
Chlorobenzene	GWC-2	FALSE	1%
Chlorobenzene	GWC-3	FALSE	1%
Chlorobenzene	GWC-3A	FALSE	1%
Chlorobenzene	GWC-9	FALSE	1%
Chlorobenzene	GWC-8	FALSE	1%
Chlorobenzene	GWC-4	FALSE	1%
Chlorobenzene	GWA-1A	FALSE	0.16%
Chlorobenzene	GWC-5	FALSE	0.16%
Chlorobenzene	GWC-6	FALSE	0.16%

Notes:

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4. Non-detects are replaced with 1/2 the detection limit.

**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Chlorobenzene	GWC-7	FALSE	0.16%
Chlorobenzene	GWC-14	FALSE	0.16%
Chlorobenzene	GWC-14A	FALSE	0.16%
Chlorobenzene	GWC-14R	FALSE	0.16%
Chlorobenzene	GWC-4A	FALSE	0.16%
Chlorobenzene	GWC-8A	FALSE	0.16%
Chlorobenzene	GWC-8R	FALSE	0.16%
Chlorobenzene	GWA-3	FALSE	0.16%
Chlorobenzene	GWC-11	FALSE	0.16%
Chlorobenzene	GWC-12	FALSE	0.16%
Chlorobenzene	GWC-12A	FALSE	0.16%
Chlorobenzene	GWC-13	FALSE	0.16%
Chlorobenzene	GWC-15	FALSE	0.16%
Chlorobenzene	GWC-16A	FALSE	0.16%
Chlorobenzene	GWC-17	FALSE	0.16%
Chlorobenzene	GWC-18	FALSE	0.16%
Chlorobenzene	GWC-19R	FALSE	0.16%
Chlorobenzene	GWC-22	FALSE	0.16%
Chlorobenzene	GWC-23	FALSE	0.16%
Chlorobenzene	GWC-23A	FALSE	0.16%
Chlorobenzene	GWC-24	FALSE	0.16%
Chlorobenzene	GWC-10	FALSE	0.16%
Chlorobenzene	GWC-10A	FALSE	0.16%
Chlorobenzene	GWC-2	FALSE	0.16%
Chlorobenzene	GWC-3	FALSE	0.16%
Chlorobenzene	GWC-3A	FALSE	0.16%
Chlorobenzene	GWC-9	FALSE	0.16%
Chlorobenzene	GWC-8	FALSE	0.16%
Chlorobenzene	GWC-4	FALSE	0.16%
Chloroethane	GWA-1A	FALSE	1%
Chloroethane	GWC-5	FALSE	1%
Chloroethane	GWC-6	FALSE	1%
Chloroethane	GWC-7	FALSE	1%
Chloroethane	GWC-14	FALSE	1%
Chloroethane	GWC-14A	TRUE	1%
Chloroethane	GWC-14R	FALSE	1%
Chloroethane	GWC-4A	FALSE	1%

Notes:

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**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Chloroethane	GWC-8A	FALSE	1%
Chloroethane	GWC-8R	FALSE	1%
Chloroethane	GWA-3	FALSE	1%
Chloroethane	GWC-11	FALSE	1%
Chloroethane	GWC-12	FALSE	1%
Chloroethane	GWC-12A	FALSE	1%
Chloroethane	GWC-13	FALSE	1%
Chloroethane	GWC-15	FALSE	1%
Chloroethane	GWC-16A	FALSE	1%
Chloroethane	GWC-17	FALSE	1%
Chloroethane	GWC-18	FALSE	1%
Chloroethane	GWC-19R	FALSE	1%
Chloroethane	GWC-22	FALSE	1%
Chloroethane	GWC-23	FALSE	1%
Chloroethane	GWC-23A	FALSE	1%
Chloroethane	GWC-24	FALSE	1%
Chloroethane	GWC-10	FALSE	1%
Chloroethane	GWC-10A	FALSE	1%
Chloroethane	GWC-2	FALSE	1%
Chloroethane	GWC-3	FALSE	1%
Chloroethane	GWC-3A	FALSE	1%
Chloroethane	GWC-9	FALSE	1%
Chloroethane	GWC-8	FALSE	1%
Chloroethane	GWC-4	FALSE	1%
Chloroethane	GWA-1A	FALSE	0.16%
Chloroethane	GWC-5	FALSE	0.16%
Chloroethane	GWC-6	FALSE	0.16%
Chloroethane	GWC-7	FALSE	0.16%
Chloroethane	GWC-14	FALSE	0.16%
Chloroethane	GWC-14A	TRUE	0.16%
Chloroethane	GWC-14R	FALSE	0.16%
Chloroethane	GWC-4A	FALSE	0.16%
Chloroethane	GWC-8A	FALSE	0.16%
Chloroethane	GWC-8R	FALSE	0.16%
Chloroethane	GWA-3	FALSE	0.16%
Chloroethane	GWC-11	FALSE	0.16%
Chloroethane	GWC-12	FALSE	0.16%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.
4. Non-detects are replaced with 1/2 the detection limit.

**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Chloroethane	GWC-12A	FALSE	0.16%
Chloroethane	GWC-13	FALSE	0.16%
Chloroethane	GWC-15	FALSE	0.16%
Chloroethane	GWC-16A	FALSE	0.16%
Chloroethane	GWC-17	FALSE	0.16%
Chloroethane	GWC-18	FALSE	0.16%
Chloroethane	GWC-19R	FALSE	0.16%
Chloroethane	GWC-22	FALSE	0.16%
Chloroethane	GWC-23	FALSE	0.16%
Chloroethane	GWC-23A	FALSE	0.16%
Chloroethane	GWC-24	FALSE	0.16%
Chloroethane	GWC-10	FALSE	0.16%
Chloroethane	GWC-10A	FALSE	0.16%
Chloroethane	GWC-2	FALSE	0.16%
Chloroethane	GWC-3	FALSE	0.16%
Chloroethane	GWC-3A	FALSE	0.16%
Chloroethane	GWC-9	FALSE	0.16%
Chloroethane	GWC-8	FALSE	0.16%
Chloroethane	GWC-4	FALSE	0.16%
cis-1,2-Dichloroethene	GWA-1A	FALSE	1%
cis-1,2-Dichloroethene	GWC-5	FALSE	1%
cis-1,2-Dichloroethene	GWC-6	FALSE	1%
cis-1,2-Dichloroethene	GWC-7	FALSE	1%
cis-1,2-Dichloroethene	GWC-14	FALSE	1%
cis-1,2-Dichloroethene	GWC-14A	TRUE	1%
cis-1,2-Dichloroethene	GWC-14R	TRUE	1%
cis-1,2-Dichloroethene	GWC-4A	FALSE	1%
cis-1,2-Dichloroethene	GWC-8A	TRUE	1%
cis-1,2-Dichloroethene	GWC-8R	TRUE	1%
cis-1,2-Dichloroethene	GWA-3	FALSE	1%
cis-1,2-Dichloroethene	GWC-11	FALSE	1%
cis-1,2-Dichloroethene	GWC-12	FALSE	1%
cis-1,2-Dichloroethene	GWC-12A	FALSE	1%
cis-1,2-Dichloroethene	GWC-13	FALSE	1%
cis-1,2-Dichloroethene	GWC-15	TRUE	1%
cis-1,2-Dichloroethene	GWC-16A	TRUE	1%
cis-1,2-Dichloroethene	GWC-17	TRUE	1%

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**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
cis-1,2-Dichloroethene	GWC-18	TRUE	1%
cis-1,2-Dichloroethene	GWC-19R	TRUE	1%
cis-1,2-Dichloroethene	GWC-22	FALSE	1%
cis-1,2-Dichloroethene	GWC-23	FALSE	1%
cis-1,2-Dichloroethene	GWC-23A	FALSE	1%
cis-1,2-Dichloroethene	GWC-24	FALSE	1%
cis-1,2-Dichloroethene	GWC-10	FALSE	1%
cis-1,2-Dichloroethene	GWC-10A	FALSE	1%
cis-1,2-Dichloroethene	GWC-2	FALSE	1%
cis-1,2-Dichloroethene	GWC-3	FALSE	1%
cis-1,2-Dichloroethene	GWC-3A	FALSE	1%
cis-1,2-Dichloroethene	GWC-9	FALSE	1%
cis-1,2-Dichloroethene	GWC-8	FALSE	1%
cis-1,2-Dichloroethene	GWC-4	FALSE	1%
cis-1,2-Dichloroethene	GWA-1A	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-5	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-6	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-7	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-14	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-14A	TRUE	0.16%
cis-1,2-Dichloroethene	GWC-14R	TRUE	0.16%
cis-1,2-Dichloroethene	GWC-4A	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-8A	TRUE	0.16%
cis-1,2-Dichloroethene	GWC-8R	TRUE	0.16%
cis-1,2-Dichloroethene	GWA-3	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-11	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-12	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-12A	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-13	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-15	TRUE	0.16%
cis-1,2-Dichloroethene	GWC-16A	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-17	TRUE	0.16%
cis-1,2-Dichloroethene	GWC-18	TRUE	0.16%
cis-1,2-Dichloroethene	GWC-19R	TRUE	0.16%
cis-1,2-Dichloroethene	GWC-22	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-23	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-23A	FALSE	0.16%

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**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
cis-1,2-Dichloroethene	GWC-24	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-10	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-10A	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-2	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-3	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-3A	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-9	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-8	FALSE	0.16%
cis-1,2-Dichloroethene	GWC-4	FALSE	0.16%
Cobalt	GWA-1A	FALSE	1%
Cobalt	GWC-14A	TRUE	1%
Cobalt	GWC-5	FALSE	1%
Cobalt	GWC-6	FALSE	1%
Cobalt	GWC-7	FALSE	1%
Cobalt	GWC-15	FALSE	1%
Cobalt	GWC-4A	FALSE	1%
Cobalt	GWC-8A	FALSE	1%
Cobalt	GWA-3	FALSE	1%
Cobalt	GWC-11	FALSE	1%
Cobalt	GWC-12	FALSE	1%
Cobalt	GWC-12A	FALSE	1%
Cobalt	GWC-13	FALSE	1%
Cobalt	GWC-16A	FALSE	1%
Cobalt	GWC-17	FALSE	1%
Cobalt	GWC-18	FALSE	1%
Cobalt	GWC-19R	FALSE	1%
Cobalt	GWC-22	FALSE	1%
Cobalt	GWC-23	FALSE	1%
Cobalt	GWC-23A	FALSE	1%
Cobalt	GWC-24	FALSE	1%
Cobalt	GWC-10	FALSE	1%
Cobalt	GWC-10A	FALSE	1%
Cobalt	GWC-2	FALSE	1%
Cobalt	GWC-3A	FALSE	1%
Cobalt	GWC-9	FALSE	1%
Cobalt	GWC-8	FALSE	1%
Cobalt	GWC-14	TRUE	1%

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**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Cobalt	GWC-3	FALSE	1%
Cobalt	GWC-4	FALSE	1%
Cobalt	GWC-14R	FALSE	1%
Cobalt	GWC-8R	FALSE	1%
Cobalt	GWA-1A	FALSE	0.16%
Cobalt	GWC-14A	TRUE	0.16%
Cobalt	GWC-5	FALSE	0.16%
Cobalt	GWC-6	FALSE	0.16%
Cobalt	GWC-7	FALSE	0.16%
Cobalt	GWC-15	FALSE	0.16%
Cobalt	GWC-4A	FALSE	0.16%
Cobalt	GWC-8A	FALSE	0.16%
Cobalt	GWA-3	FALSE	0.16%
Cobalt	GWC-11	FALSE	0.16%
Cobalt	GWC-12	FALSE	0.16%
Cobalt	GWC-12A	FALSE	0.16%
Cobalt	GWC-13	FALSE	0.16%
Cobalt	GWC-16A	FALSE	0.16%
Cobalt	GWC-17	FALSE	0.16%
Cobalt	GWC-18	FALSE	0.16%
Cobalt	GWC-19R	FALSE	0.16%
Cobalt	GWC-22	FALSE	0.16%
Cobalt	GWC-23	FALSE	0.16%
Cobalt	GWC-23A	FALSE	0.16%
Cobalt	GWC-24	FALSE	0.16%
Cobalt	GWC-10	FALSE	0.16%
Cobalt	GWC-10A	FALSE	0.16%
Cobalt	GWC-2	FALSE	0.16%
Cobalt	GWC-3A	FALSE	0.16%
Cobalt	GWC-9	FALSE	0.16%
Cobalt	GWC-8	FALSE	0.16%
Cobalt	GWC-14	TRUE	0.16%
Cobalt	GWC-3	FALSE	0.16%
Cobalt	GWC-4	FALSE	0.16%
Cobalt	GWC-14R	FALSE	0.16%
Cobalt	GWC-8R	FALSE	0.16%
Nickel	GWA-1A	FALSE	1%

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**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Nickel	GWC-14A	TRUE	1%
Nickel	GWC-5	FALSE	1%
Nickel	GWC-6	FALSE	1%
Nickel	GWC-7	FALSE	1%
Nickel	GWC-15	FALSE	1%
Nickel	GWC-4A	FALSE	1%
Nickel	GWC-8A	FALSE	1%
Nickel	GWA-3	FALSE	1%
Nickel	GWC-11	FALSE	1%
Nickel	GWC-12	FALSE	1%
Nickel	GWC-12A	FALSE	1%
Nickel	GWC-13	FALSE	1%
Nickel	GWC-16A	FALSE	1%
Nickel	GWC-17	FALSE	1%
Nickel	GWC-18	FALSE	1%
Nickel	GWC-19R	FALSE	1%
Nickel	GWC-22	FALSE	1%
Nickel	GWC-23	FALSE	1%
Nickel	GWC-23A	FALSE	1%
Nickel	GWC-24	FALSE	1%
Nickel	GWC-10	FALSE	1%
Nickel	GWC-10A	FALSE	1%
Nickel	GWC-2	FALSE	1%
Nickel	GWC-3A	FALSE	1%
Nickel	GWC-9	FALSE	1%
Nickel	GWC-8	FALSE	1%
Nickel	GWC-14	FALSE	1%
Nickel	GWC-3	FALSE	1%
Nickel	GWC-4	FALSE	1%
Nickel	GWC-14R	FALSE	1%
Nickel	GWC-8R	FALSE	1%
Nickel	GWA-1A	FALSE	0.16%
Nickel	GWC-14A	TRUE	0.16%
Nickel	GWC-5	FALSE	0.16%
Nickel	GWC-6	FALSE	0.16%
Nickel	GWC-7	FALSE	0.16%
Nickel	GWC-15	FALSE	0.16%

Notes:

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**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Nickel	GWC-4A	FALSE	0.16%
Nickel	GWC-8A	FALSE	0.16%
Nickel	GWA-3	FALSE	0.16%
Nickel	GWC-11	FALSE	0.16%
Nickel	GWC-12	FALSE	0.16%
Nickel	GWC-12A	FALSE	0.16%
Nickel	GWC-13	FALSE	0.16%
Nickel	GWC-16A	FALSE	0.16%
Nickel	GWC-17	FALSE	0.16%
Nickel	GWC-18	FALSE	0.16%
Nickel	GWC-19R	FALSE	0.16%
Nickel	GWC-22	FALSE	0.16%
Nickel	GWC-23	FALSE	0.16%
Nickel	GWC-23A	FALSE	0.16%
Nickel	GWC-24	FALSE	0.16%
Nickel	GWC-10	FALSE	0.16%
Nickel	GWC-10A	FALSE	0.16%
Nickel	GWC-2	FALSE	0.16%
Nickel	GWC-3A	FALSE	0.16%
Nickel	GWC-9	FALSE	0.16%
Nickel	GWC-8	FALSE	0.16%
Nickel	GWC-14	FALSE	0.16%
Nickel	GWC-3	FALSE	0.16%
Nickel	GWC-4	FALSE	0.16%
Nickel	GWC-14R	FALSE	0.16%
Nickel	GWC-8R	FALSE	0.16%
Tetrachloroethene	GWA-1A	FALSE	1%
Tetrachloroethene	GWC-5	FALSE	1%
Tetrachloroethene	GWC-6	FALSE	1%
Tetrachloroethene	GWC-7	FALSE	1%
Tetrachloroethene	GWC-14	FALSE	1%
Tetrachloroethene	GWC-14A	FALSE	1%
Tetrachloroethene	GWC-14R	FALSE	1%
Tetrachloroethene	GWC-4A	FALSE	1%
Tetrachloroethene	GWC-8A	FALSE	1%
Tetrachloroethene	GWC-8R	FALSE	1%
Tetrachloroethene	GWA-3	FALSE	1%

Notes:

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**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Tetrachloroethene	GWC-11	FALSE	1%
Tetrachloroethene	GWC-12	FALSE	1%
Tetrachloroethene	GWC-12A	FALSE	1%
Tetrachloroethene	GWC-13	FALSE	1%
Tetrachloroethene	GWC-15	TRUE	1%
Tetrachloroethene	GWC-16A	FALSE	1%
Tetrachloroethene	GWC-17	FALSE	1%
Tetrachloroethene	GWC-18	TRUE	1%
Tetrachloroethene	GWC-19R	FALSE	1%
Tetrachloroethene	GWC-22	FALSE	1%
Tetrachloroethene	GWC-23	FALSE	1%
Tetrachloroethene	GWC-23A	FALSE	1%
Tetrachloroethene	GWC-24	FALSE	1%
Tetrachloroethene	GWC-10	FALSE	1%
Tetrachloroethene	GWC-10A	FALSE	1%
Tetrachloroethene	GWC-2	FALSE	1%
Tetrachloroethene	GWC-3	FALSE	1%
Tetrachloroethene	GWC-3A	FALSE	1%
Tetrachloroethene	GWC-9	FALSE	1%
Tetrachloroethene	GWC-8	FALSE	1%
Tetrachloroethene	GWC-4	FALSE	1%
Tetrachloroethene	GWA-1A	FALSE	0.16%
Tetrachloroethene	GWC-5	FALSE	0.16%
Tetrachloroethene	GWC-6	FALSE	0.16%
Tetrachloroethene	GWC-7	FALSE	0.16%
Tetrachloroethene	GWC-14	FALSE	0.16%
Tetrachloroethene	GWC-14A	FALSE	0.16%
Tetrachloroethene	GWC-14R	FALSE	0.16%
Tetrachloroethene	GWC-4A	FALSE	0.16%
Tetrachloroethene	GWC-8A	FALSE	0.16%
Tetrachloroethene	GWC-8R	FALSE	0.16%
Tetrachloroethene	GWA-3	FALSE	0.16%
Tetrachloroethene	GWC-11	FALSE	0.16%
Tetrachloroethene	GWC-12	FALSE	0.16%
Tetrachloroethene	GWC-12A	FALSE	0.16%
Tetrachloroethene	GWC-13	FALSE	0.16%
Tetrachloroethene	GWC-15	TRUE	0.16%

Notes:

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**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Tetrachloroethene	GWC-16A	FALSE	0.16%
Tetrachloroethene	GWC-17	FALSE	0.16%
Tetrachloroethene	GWC-18	TRUE	0.16%
Tetrachloroethene	GWC-19R	FALSE	0.16%
Tetrachloroethene	GWC-22	FALSE	0.16%
Tetrachloroethene	GWC-23	FALSE	0.16%
Tetrachloroethene	GWC-23A	FALSE	0.16%
Tetrachloroethene	GWC-24	FALSE	0.16%
Tetrachloroethene	GWC-10	FALSE	0.16%
Tetrachloroethene	GWC-10A	FALSE	0.16%
Tetrachloroethene	GWC-2	FALSE	0.16%
Tetrachloroethene	GWC-3	FALSE	0.16%
Tetrachloroethene	GWC-3A	FALSE	0.16%
Tetrachloroethene	GWC-9	FALSE	0.16%
Tetrachloroethene	GWC-8	FALSE	0.16%
Tetrachloroethene	GWC-4	FALSE	0.16%
Trichloroethene	GWA-1A	FALSE	1%
Trichloroethene	GWC-5	FALSE	1%
Trichloroethene	GWC-6	FALSE	1%
Trichloroethene	GWC-7	FALSE	1%
Trichloroethene	GWC-14	FALSE	1%
Trichloroethene	GWC-14A	TRUE	1%
Trichloroethene	GWC-14R	TRUE	1%
Trichloroethene	GWC-4A	FALSE	1%
Trichloroethene	GWC-8A	FALSE	1%
Trichloroethene	GWC-8R	FALSE	1%
Trichloroethene	GWA-3	FALSE	1%
Trichloroethene	GWC-11	FALSE	1%
Trichloroethene	GWC-12	FALSE	1%
Trichloroethene	GWC-12A	FALSE	1%
Trichloroethene	GWC-13	FALSE	1%
Trichloroethene	GWC-15	TRUE	1%
Trichloroethene	GWC-16A	FALSE	1%
Trichloroethene	GWC-17	FALSE	1%
Trichloroethene	GWC-18	FALSE	1%
Trichloroethene	GWC-19R	FALSE	1%
Trichloroethene	GWC-22	FALSE	1%

Notes:

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**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

<b>Parameter Name</b>	<b>Well ID</b>	<b>Statistically Significant</b>	<b>Confidence Level</b>
Trichloroethene	GWC-23	FALSE	1%
Trichloroethene	GWC-23A	FALSE	1%
Trichloroethene	GWC-24	FALSE	1%
Trichloroethene	GWC-10	FALSE	1%
Trichloroethene	GWC-10A	FALSE	1%
Trichloroethene	GWC-2	FALSE	1%
Trichloroethene	GWC-3	FALSE	1%
Trichloroethene	GWC-3A	FALSE	1%
Trichloroethene	GWC-9	FALSE	1%
Trichloroethene	GWC-8	FALSE	1%
Trichloroethene	GWC-4	FALSE	1%
Trichloroethene	GWA-1A	FALSE	0.16%
Trichloroethene	GWC-5	FALSE	0.16%
Trichloroethene	GWC-6	FALSE	0.16%
Trichloroethene	GWC-7	FALSE	0.16%
Trichloroethene	GWC-14	FALSE	0.16%
Trichloroethene	GWC-14A	FALSE	0.16%
Trichloroethene	GWC-14R	TRUE	0.16%
Trichloroethene	GWC-4A	FALSE	0.16%
Trichloroethene	GWC-8A	FALSE	0.16%
Trichloroethene	GWC-8R	FALSE	0.16%
Trichloroethene	GWA-3	FALSE	0.16%
Trichloroethene	GWC-11	FALSE	0.16%
Trichloroethene	GWC-12	FALSE	0.16%
Trichloroethene	GWC-12A	FALSE	0.16%
Trichloroethene	GWC-13	FALSE	0.16%
Trichloroethene	GWC-15	TRUE	0.16%
Trichloroethene	GWC-16A	FALSE	0.16%
Trichloroethene	GWC-17	FALSE	0.16%
Trichloroethene	GWC-18	FALSE	0.16%
Trichloroethene	GWC-19R	FALSE	0.16%
Trichloroethene	GWC-22	FALSE	0.16%
Trichloroethene	GWC-23	FALSE	0.16%
Trichloroethene	GWC-23A	FALSE	0.16%
Trichloroethene	GWC-24	FALSE	0.16%
Trichloroethene	GWC-10	FALSE	0.16%
Trichloroethene	GWC-10A	FALSE	0.16%

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**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Trichloroethene	GWC-2	FALSE	0.16%
Trichloroethene	GWC-3	FALSE	0.16%
Trichloroethene	GWC-3A	FALSE	0.16%
Trichloroethene	GWC-9	FALSE	0.16%
Trichloroethene	GWC-8	FALSE	0.16%
Trichloroethene	GWC-4	FALSE	0.16%
Vinyl chloride	GWA-1A	FALSE	1%
Vinyl chloride	GWC-5	FALSE	1%
Vinyl chloride	GWC-6	FALSE	1%
Vinyl chloride	GWC-7	FALSE	1%
Vinyl chloride	GWC-14	FALSE	1%
Vinyl chloride	GWC-14A	TRUE	1%
Vinyl chloride	GWC-14R	FALSE	1%
Vinyl chloride	GWC-4A	FALSE	1%
Vinyl chloride	GWC-8A	FALSE	1%
Vinyl chloride	GWC-8R	FALSE	1%
Vinyl chloride	GWA-3	FALSE	1%
Vinyl chloride	GWC-11	FALSE	1%
Vinyl chloride	GWC-12	FALSE	1%
Vinyl chloride	GWC-12A	FALSE	1%
Vinyl chloride	GWC-13	FALSE	1%
Vinyl chloride	GWC-15	FALSE	1%
Vinyl chloride	GWC-16A	FALSE	1%
Vinyl chloride	GWC-17	FALSE	1%
Vinyl chloride	GWC-18	FALSE	1%
Vinyl chloride	GWC-19R	FALSE	1%
Vinyl chloride	GWC-22	FALSE	1%
Vinyl chloride	GWC-23	FALSE	1%
Vinyl chloride	GWC-23A	FALSE	1%
Vinyl chloride	GWC-24	FALSE	1%
Vinyl chloride	GWC-10	FALSE	1%
Vinyl chloride	GWC-10A	FALSE	1%
Vinyl chloride	GWC-2	FALSE	1%
Vinyl chloride	GWC-3	FALSE	1%
Vinyl chloride	GWC-3A	FALSE	1%
Vinyl chloride	GWC-9	FALSE	1%
Vinyl chloride	GWC-8	FALSE	1%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.
4. Non-detects are replaced with 1/2 the detection limit.

**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Vinyl chloride	GWC-4	FALSE	1%
Vinyl chloride	GWA-1A	FALSE	0.16%
Vinyl chloride	GWC-5	FALSE	0.16%
Vinyl chloride	GWC-6	FALSE	0.16%
Vinyl chloride	GWC-7	FALSE	0.16%
Vinyl chloride	GWC-14	FALSE	0.16%
Vinyl chloride	GWC-14A	TRUE	0.16%
Vinyl chloride	GWC-14R	FALSE	0.16%
Vinyl chloride	GWC-4A	FALSE	0.16%
Vinyl chloride	GWC-8A	FALSE	0.16%
Vinyl chloride	GWC-8R	FALSE	0.16%
Vinyl chloride	GWA-3	FALSE	0.16%
Vinyl chloride	GWC-11	FALSE	0.16%
Vinyl chloride	GWC-12	FALSE	0.16%
Vinyl chloride	GWC-12A	FALSE	0.16%
Vinyl chloride	GWC-13	FALSE	0.16%
Vinyl chloride	GWC-15	FALSE	0.16%
Vinyl chloride	GWC-16A	FALSE	0.16%
Vinyl chloride	GWC-17	FALSE	0.16%
Vinyl chloride	GWC-18	FALSE	0.16%
Vinyl chloride	GWC-19R	FALSE	0.16%
Vinyl chloride	GWC-22	FALSE	0.16%
Vinyl chloride	GWC-23	FALSE	0.16%
Vinyl chloride	GWC-23A	FALSE	0.16%
Vinyl chloride	GWC-24	FALSE	0.16%
Vinyl chloride	GWC-10	FALSE	0.16%
Vinyl chloride	GWC-10A	FALSE	0.16%
Vinyl chloride	GWC-2	FALSE	0.16%
Vinyl chloride	GWC-3	FALSE	0.16%
Vinyl chloride	GWC-3A	FALSE	0.16%
Vinyl chloride	GWC-9	FALSE	0.16%
Vinyl chloride	GWC-8	FALSE	0.16%
Vinyl chloride	GWC-4	FALSE	0.16%
Zinc	GWA-1A	FALSE	1%
Zinc	GWC-14A	FALSE	1%
Zinc	GWC-5	FALSE	1%
Zinc	GWC-6	FALSE	1%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.
4. Non-detects are replaced with 1/2 the detection limit.

**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Kruskal-Wallis Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Zinc	GWC-7	FALSE	1%
Zinc	GWC-15	FALSE	1%
Zinc	GWC-4A	FALSE	1%
Zinc	GWC-8A	FALSE	1%
Zinc	GWA-3	FALSE	1%
Zinc	GWC-11	FALSE	1%
Zinc	GWC-12	FALSE	1%
Zinc	GWC-12A	FALSE	1%
Zinc	GWC-13	FALSE	1%
Zinc	GWC-16A	FALSE	1%
Zinc	GWC-17	FALSE	1%
Zinc	GWC-18	FALSE	1%
Zinc	GWC-19R	FALSE	1%
Zinc	GWC-22	FALSE	1%
Zinc	GWC-23	FALSE	1%
Zinc	GWC-23A	FALSE	1%
Zinc	GWC-24	FALSE	1%
Zinc	GWC-10	FALSE	1%
Zinc	GWC-10A	FALSE	1%
Zinc	GWC-2	FALSE	1%
Zinc	GWC-3A	FALSE	1%
Zinc	GWC-9	TRUE	1%
Zinc	GWC-8	FALSE	1%
Zinc	GWC-14	FALSE	1%
Zinc	GWC-3	FALSE	1%
Zinc	GWC-4	FALSE	1%
Zinc	GWC-14R	FALSE	1%
Zinc	GWC-8R	FALSE	1%
Zinc	GWA-1A	FALSE	0.16%
Zinc	GWC-14A	FALSE	0.16%
Zinc	GWC-5	FALSE	0.16%
Zinc	GWC-6	FALSE	0.16%
Zinc	GWC-7	FALSE	0.16%
Zinc	GWC-15	FALSE	0.16%
Zinc	GWC-4A	FALSE	0.16%
Zinc	GWC-8A	FALSE	0.16%
Zinc	GWA-3	FALSE	0.16%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.
4. Non-detects are replaced with 1/2 the detection limit.

Forsyth County - Hightower Road MSWLF - Phases II-IV  
 Second 2022 Groundwater Monitoring Event  
 Kruskal-Wallis Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
Zinc	GWC-11	FALSE	0.16%
Zinc	GWC-12	FALSE	0.16%
Zinc	GWC-12A	FALSE	0.16%
Zinc	GWC-13	FALSE	0.16%
Zinc	GWC-16A	FALSE	0.16%
Zinc	GWC-17	FALSE	0.16%
Zinc	GWC-18	FALSE	0.16%
Zinc	GWC-19R	FALSE	0.16%
Zinc	GWC-22	FALSE	0.16%
Zinc	GWC-23	FALSE	0.16%
Zinc	GWC-23A	FALSE	0.16%
Zinc	GWC-24	FALSE	0.16%
Zinc	GWC-10	FALSE	0.16%
Zinc	GWC-10A	FALSE	0.16%
Zinc	GWC-2	FALSE	0.16%
Zinc	GWC-3A	FALSE	0.16%
Zinc	GWC-9	TRUE	0.16%
Zinc	GWC-8	FALSE	0.16%
Zinc	GWC-14	FALSE	0.16%
Zinc	GWC-3	FALSE	0.16%
Zinc	GWC-4	FALSE	0.16%
Zinc	GWC-14R	FALSE	0.16%
Zinc	GWC-8R	FALSE	0.16%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.
4. Non-detects are replaced with 1/2 the detection limit.

**Kruskal-Wallis Non-Parametric Test**

**Parameter: 1,1-Dichloroethane**

Original Data (Not Transformed)  
 Non-Detects Replaced with 1/2 DL

**Kruskal Wallis Ranks**

**Background Locations**

Loc. ID	Date	Value	Rank
GWA-1	6/13/2017	ND<1	171
	12/11/2017	ND<1	171
	6/19/2018	ND<1	171
	12/17/2018	ND<1	171
	6/10/2019	ND<1	171
	12/9/2019	ND<1	171
	6/23/2020	ND<1	171
	12/17/2020	ND<1	171
	6/15/2021	ND<1	171
	12/13/2021	ND<1	171
	6/8/2022	ND<1	171
	12/12/2022	ND<1	171
	12/15/2022	ND<1	171

Rank Sum = 2223  
 Rank Mean = 171

GWA-2	6/15/2017	ND<1	171
	12/11/2017	ND<1	171
	6/19/2018	ND<1	171
	12/17/2018	ND<1	171
	6/11/2019	ND<1	171
	12/11/2019	ND<1	171
	6/22/2020	ND<1	171
	12/17/2020	ND<1	171
	6/15/2021	ND<1	171
	12/13/2021	ND<1	171
	6/8/2022	ND<1	171
	12/12/2022	ND<1	171

Rank Sum = 2052  
 Rank Mean = 171

Background Rank Sum = 4275  
 Background Rank Mean = 171

**Compliance Locations**

Loc. ID	Date	Value	Rank
GWA-1A	6/12/2017	ND<1	171
	12/13/2017	ND<1	171
	6/19/2018	ND<1	171
	12/18/2018	ND<1	171
	6/10/2019	ND<1	171
	12/9/2019	ND<1	171
	6/23/2020	ND<1	171
	12/17/2020	ND<1	171
	6/17/2021	ND<1	171
	12/16/2021	ND<1	171

	6/8/2022	ND<1	171
	12/14/2022	ND<1	171

Rank Sum = 2052  
 Rank Mean = 171

GWC-5	6/12/2017	ND<1	171
	12/12/2017	ND<1	171
	6/21/2018	ND<1	171
	12/18/2018	ND<1	171
	6/12/2019	ND<1	171
	12/10/2019	ND<1	171
	6/23/2020	ND<1	171
	12/17/2020	ND<1	171
	6/15/2021	ND<1	171
	12/13/2021	ND<1	171
	6/8/2022	ND<1	171
	12/12/2022	ND<1	171

Rank Sum = 2052  
 Rank Mean = 171

GWC-6	6/12/2017	ND<1	171
	12/13/2017	ND<1	171
	6/21/2018	ND<1	171
	12/19/2018	ND<1	171
	6/12/2019	ND<1	171
	12/10/2019	ND<1	171
	6/24/2020	ND<1	171
	12/17/2020	ND<1	171
	6/15/2021	ND<1	171
	12/13/2021	ND<1	171
	6/8/2022	ND<1	171
	12/14/2022	ND<1	171

Rank Sum = 2052  
 Rank Mean = 171

GWC-7	6/12/2017	ND<1	171
	12/12/2017	ND<1	171
	6/19/2018	ND<1	171
	12/18/2018	ND<1	171
	6/12/2019	ND<1	171
	12/11/2019	ND<1	171
	6/24/2020	ND<1	171
	12/17/2020	ND<1	171
	6/15/2021	ND<1	171
	12/13/2021	ND<1	171
	6/8/2022	ND<1	171
	12/12/2022	ND<1	171

Rank Sum = 2052  
 Rank Mean = 171

GWC-14	6/13/2017	ND<1	171
	6/20/2018	ND<1	171
	6/11/2019	ND<1	171
	12/10/2019	ND<1	171
	6/24/2020	ND<1	171
	12/17/2020	ND<1	171
	6/15/2021	ND<1	171
	12/15/2021	ND<1	171
	6/9/2022	ND<1	171

1,1-Dichloroethane

12/13/2022 ND<1 171  
 Rank Sum = 1710  
 Rank Mean = 171

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GWC-14A 6/13/2017 16 379  
 12/12/2017 23 393  
 6/20/2018 17 383  
 12/19/2018 16 380  
 6/11/2019 9.2 360  
 12/10/2019 14 374  
 6/24/2020 10 364  
 12/15/2020 11 365  
 6/15/2021 9.2 361  
 12/14/2021 13 371  
 6/9/2022 9.5 363  
 12/13/2022 18 384

Rank Sum = 4477  
 Rank Mean = 373.083

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GWC-14R 6/13/2017 21 390  
 12/12/2017 20 389  
 6/20/2018 22 391  
 12/19/2018 18 385  
 6/12/2019 18 386  
 12/10/2019 14 375  
 6/23/2020 18 387  
 12/17/2020 19 388  
 6/16/2021 16 381  
 12/14/2021 14 376  
 6/9/2022 11 366  
 12/13/2022 12 368

Rank Sum = 4582  
 Rank Mean = 381.833

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GWC-4A 6/13/2017 ND<1 171  
 12/12/2017 ND<1 171  
 6/20/2018 ND<1 171  
 12/17/2018 ND<1 171  
 6/11/2019 ND<1 171  
 12/11/2019 ND<1 171  
 6/23/2020 ND<1 171  
 12/17/2020 ND<1 171  
 6/17/2021 ND<1 171  
 12/15/2021 ND<1 171  
 6/8/2022 ND<1 171  
 12/14/2022 ND<1 171

Rank Sum = 2052  
 Rank Mean = 171

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GWC-8A 6/13/2017 3 349  
 12/12/2017 4.9 357  
 6/20/2018 3.9 355  
 12/19/2018 4.2 356  
 6/12/2019 2.6 347  
 12/11/2019 3.7 352  
 6/23/2020 2.4 344  
 12/15/2020 3.2 351  
 6/16/2021 2.5 345  
 12/15/2021 2.3 343

1,1-Dichloroethane

6/9/2022 2.1 342  
 12/13/2022 2.5 346  
 Rank Sum = 4187  
 Rank Mean = 348.917

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GWC-8R 6/13/2017 14 377  
 12/12/2017 14 378  
 6/20/2018 22 392  
 12/19/2018 13 372  
 6/12/2019 12 369  
 12/11/2019 9.3 362  
 6/23/2020 13 373  
 12/15/2020 12 370  
 6/16/2021 16 382  
 12/15/2021 11 367  
 6/9/2022 8.8 358  
 12/13/2022 9 359

Rank Sum = 4459  
 Rank Mean = 371.583

---

GWA-3 6/14/2017 ND<1 171  
 12/11/2017 ND<1 171  
 6/18/2018 ND<1 171  
 12/17/2018 ND<1 171  
 6/11/2019 ND<1 171  
 12/10/2019 ND<1 171  
 6/22/2020 ND<1 171  
 12/16/2020 ND<1 171  
 6/14/2021 ND<1 171  
 12/14/2021 ND<1 171  
 6/6/2022 ND<1 171  
 12/13/2022 ND<1 171

Rank Sum = 2052  
 Rank Mean = 171

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GWC-11 6/14/2017 ND<1 171  
 12/13/2017 ND<1 171  
 6/19/2018 ND<1 171  
 12/19/2018 ND<1 171  
 6/12/2019 ND<1 171  
 12/12/2019 ND<1 171  
 6/24/2020 ND<1 171  
 12/15/2020 ND<1 171  
 6/15/2021 ND<1 171  
 12/13/2021 ND<1 171  
 6/7/2022 ND<1 171  
 12/12/2022 ND<1 171

Rank Sum = 2052  
 Rank Mean = 171

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GWC-12 6/14/2017 ND<1 171  
 12/13/2017 ND<1 171  
 6/19/2018 ND<1 171  
 12/19/2018 ND<1 171  
 6/11/2019 ND<1 171  
 12/9/2019 ND<1 171  
 6/24/2020 ND<1 171  
 12/15/2020 ND<1 171  
 6/15/2021 ND<1 171



1,1-Dichloroethane

	12/13/2021	ND<1	171
	6/7/2022	ND<1	171
	12/12/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

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GWC-12A	6/14/2017	ND<1	171
	12/13/2017	ND<1	171
	6/19/2018	ND<1	171
	12/19/2018	ND<1	171
	6/11/2019	ND<1	171
	12/9/2019	ND<1	171
	6/24/2020	ND<1	171
	12/15/2020	ND<1	171
	6/15/2021	ND<1	171
	12/13/2021	ND<1	171
	6/7/2022	ND<1	171
	12/12/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

---

GWC-13	6/14/2017	ND<1	171
	12/12/2017	ND<1	171
	6/19/2018	ND<1	171
	12/19/2018	ND<1	171
	6/12/2019	ND<1	171
	12/11/2019	ND<1	171
	6/23/2020	ND<1	171
	12/15/2020	ND<1	171
	6/15/2021	ND<1	171
	12/15/2021	ND<1	171
	6/8/2022	ND<1	171
	12/12/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

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GWC-15	6/14/2017	2.9	348
	12/13/2017	3.7	353
	6/19/2018	ND<1	171
	12/19/2018	3	350
	6/11/2019	38	396
	12/10/2019	23	394
	6/25/2020	39	397
	12/17/2020	33	395
	6/16/2021	42	400
	12/14/2021	39	398
	6/9/2022	39	399
	12/15/2022	ND<1	171

Rank Sum = 4172  
Rank Mean = 347.667

---

GWC-16A	6/14/2017	3.7	354
	12/13/2017	ND<1	171
	6/21/2018	ND<1	171
	12/19/2018	ND<1	171
	6/13/2019	ND<1	171
	12/11/2019	ND<1	171
	6/23/2020	ND<1	171
	12/17/2020	ND<1	171

1,1-Dichloroethane

	6/16/2021	ND<1	171
	12/16/2021	ND<1	171
	6/9/2022	ND<1	171
	12/14/2022	ND<1	171

Rank Sum = 2235  
Rank Mean = 186.25

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GWC-17	6/14/2017	ND<1	171
	12/12/2017	ND<1	171
	6/19/2018	ND<1	171
	12/19/2018	ND<1	171
	6/12/2019	ND<1	171
	12/10/2019	ND<1	171
	6/23/2020	ND<1	171
	12/15/2020	ND<1	171
	6/14/2021	ND<1	171
	12/14/2021	ND<1	171
	6/9/2022	ND<1	171
	12/14/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

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GWC-18	6/14/2017	ND<1	171
	12/13/2017	ND<1	171
	6/19/2018	ND<1	171
	12/18/2018	ND<1	171
	6/11/2019	ND<1	171
	12/9/2019	ND<1	171
	6/23/2020	ND<1	171
	12/15/2020	ND<1	171
	6/14/2021	ND<1	171
	12/14/2021	ND<1	171
	6/7/2022	ND<1	171
	12/14/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

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GWC-19R	6/14/2017	ND<1	171
	12/13/2017	ND<1	171
	6/19/2018	ND<1	171
	12/18/2018	ND<1	171
	6/11/2019	ND<1	171
	12/9/2019	ND<1	171
	6/23/2020	ND<1	171
	12/15/2020	ND<1	171
	6/14/2021	ND<1	171
	12/14/2021	ND<1	171
	6/6/2022	ND<1	171
	12/14/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

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GWC-22	6/14/2017	ND<1	171
	12/11/2017	ND<1	171
	6/19/2018	ND<1	171
	12/18/2018	ND<1	171
	6/12/2019	ND<1	171
	12/11/2019	ND<1	171
	6/23/2020	ND<1	171

1,1-Dichloroethane

12/17/2020	ND<1	171
6/14/2021	ND<1	171
12/13/2021	ND<1	171
6/6/2022	ND<1	171
12/12/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

---

GWC-23	6/14/2017	ND<1	171
	12/11/2017	ND<1	171
	6/18/2018	ND<1	171
	12/18/2018	ND<1	171
	6/12/2019	ND<1	171
	12/11/2019	ND<1	171
	6/24/2020	ND<1	171
	12/16/2020	ND<1	171
	6/14/2021	ND<1	171
	12/13/2021	ND<1	171
	6/6/2022	ND<1	171
	12/12/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

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GWC-23A	6/14/2017	ND<1	171
	12/11/2017	ND<1	171
	6/18/2018	ND<1	171
	12/18/2018	ND<1	171
	6/12/2019	ND<1	171
	12/11/2019	ND<1	171
	6/24/2020	ND<1	171
	12/16/2020	ND<1	171
	6/14/2021	ND<1	171
	12/13/2021	ND<1	171
	6/6/2022	ND<1	171
	12/12/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

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GWC-24	6/14/2017	ND<1	171
	12/13/2017	ND<1	171
	6/19/2018	ND<1	171
	12/19/2018	ND<1	171
	6/11/2019	ND<1	171
	12/9/2019	ND<1	171
	6/24/2020	ND<1	171
	12/15/2020	ND<1	171
	6/14/2021	ND<1	171
	12/14/2021	ND<1	171
	6/7/2022	ND<1	171
	12/14/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

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GWC-10	6/15/2017	ND<1	171
	12/12/2017	ND<1	171
	6/19/2018	ND<1	171
	12/17/2018	ND<1	171
	6/10/2019	ND<1	171
	12/12/2019	ND<1	171

1,1-Dichloroethane

6/24/2020	ND<1	171
12/15/2020	ND<1	171
6/15/2021	ND<1	171
12/15/2021	ND<1	171
6/7/2022	ND<1	171
12/14/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

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GWC-10A	6/15/2017	ND<1	171
	12/12/2017	ND<1	171
	6/19/2018	ND<1	171
	12/17/2018	ND<1	171
	6/10/2019	ND<1	171
	12/12/2019	ND<1	171
	6/24/2020	ND<1	171
	12/15/2020	ND<1	171
	6/15/2021	ND<1	171
	12/15/2021	ND<1	171
	6/7/2022	ND<1	171
	12/14/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

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GWC-2	6/15/2017	ND<1	171
	12/13/2017	ND<1	171
	6/20/2018	ND<1	171
	12/19/2018	ND<1	171
	6/12/2019	ND<1	171
	12/10/2019	ND<1	171
	6/22/2020	ND<1	171
	12/16/2020	ND<1	171
	6/15/2021	ND<1	171
	12/15/2021	ND<1	171
	6/7/2022	ND<1	171
	12/12/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

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GWC-3	6/15/2017	ND<1	171
	6/21/2018	ND<1	171
	12/17/2018	ND<1	171
	6/11/2019	ND<1	171
	12/10/2019	ND<1	171
	6/24/2020	ND<1	171
	12/16/2020	ND<1	171
	6/15/2021	ND<1	171
	12/15/2021	ND<1	171
	6/7/2022	ND<1	171
	12/12/2022	ND<1	171

Rank Sum = 1881  
Rank Mean = 171

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GWC-3A	6/15/2017	ND<1	171
	12/12/2017	ND<1	171
	6/20/2018	ND<1	171
	12/17/2018	ND<1	171
	6/11/2019	ND<1	171
	12/10/2019	ND<1	171

1,1-Dichloroethane

6/24/2020	ND<1	171
12/16/2020	ND<1	171
6/14/2021	ND<1	171
12/15/2021	ND<1	171
6/7/2022	ND<1	171
12/12/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

GWC-9	6/15/2017	ND<1	171
	12/13/2017	ND<1	171
	6/20/2018	ND<1	171
	12/18/2018	ND<1	171
	6/12/2019	ND<1	171
	12/12/2019	ND<1	171
	6/24/2020	ND<1	171
	12/17/2020	ND<1	171
	6/15/2021	ND<1	171
	12/13/2021	ND<1	171
	6/7/2022	ND<1	171
	12/14/2022	ND<1	171

Rank Sum = 2052  
Rank Mean = 171

GWC-8	12/12/2017	ND<1	171
	6/20/2018	ND<1	171
	12/19/2018	ND<1	171
	6/12/2019	ND<1	171
	12/11/2019	ND<1	171
	6/23/2020	ND<1	171
	12/16/2020	ND<1	171
	6/16/2021	ND<1	171
	12/15/2021	ND<1	171
	6/9/2022	ND<1	171
	12/13/2022	ND<1	171

Rank Sum = 1881  
Rank Mean = 171

GWC-4	6/20/2018	ND<1	171
	6/23/2020	ND<1	171
	12/17/2020	ND<1	171
	6/16/2021	ND<1	171
	12/14/2021	ND<1	171
	6/8/2022	ND<1	171
	12/12/2022	ND<1	171

Rank Sum = 1197  
Rank Mean = 171

**Calculation Results:**

Kruskal-Wallis H Statistic = 143.292

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 376.647

95% Confidence comparison value is 46.1942 at 32 degrees of freedom

143.292 > 46.1942 indicating a significant group difference at 5% significance level

376.647 > 46.1942 indicating a significant group difference at 5% significance level when adjusted for ties

**Individual Well Comparisons at 1% Significance Level per Comparison**

1,1-Dichloroethane

1% Z score is 2.32634

Mean background rank is 171

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	171	0	94.4551
GWC-5	171	0	94.4551
GWC-6	171	0	94.4551
GWC-7	171	0	94.4551
GWC-14	171	0	100.635
<b>GWC-14A</b>	<b>373.083</b>	<b>202.083</b>	<b>94.4551</b>
<b>GWC-14R</b>	<b>381.833</b>	<b>210.833</b>	<b>94.4551</b>
GWC-4A	171	0	94.4551
<b>GWC-8A</b>	<b>348.917</b>	<b>177.917</b>	<b>94.4551</b>
<b>GWC-8R</b>	<b>371.583</b>	<b>200.583</b>	<b>94.4551</b>
GWA-3	171	0	94.4551
GWC-11	171	0	94.4551
GWC-12	171	0	94.4551
GWC-12A	171	0	94.4551
GWC-13	171	0	94.4551
<b>GWC-15</b>	<b>347.667</b>	<b>176.667</b>	<b>94.4551</b>
GWC-16A	186.25	15.25	94.4551
GWC-17	171	0	94.4551
GWC-18	171	0	94.4551
GWC-19R	171	0	94.4551
GWC-22	171	0	94.4551
GWC-23	171	0	94.4551
GWC-23A	171	0	94.4551
GWC-24	171	0	94.4551
GWC-10	171	0	94.4551
GWC-10A	171	0	94.4551
GWC-2	171	0	94.4551
GWC-3	171	0	97.3128
GWC-3A	171	0	94.4551
GWC-9	171	0	94.4551
GWC-8	171	0	97.3128
GWC-4	171	0	115.011

**Individual Well Comparisons at Groupwise 5% Significance Level (0.15625% Significance Level per comparison)**

0.15625% Z score is 3.09024

Mean background rank is 171

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	171	0	125.471
GWC-5	171	0	125.471
GWC-6	171	0	125.471
GWC-7	171	0	125.471
GWC-14	171	0	133.681
<b>GWC-14A</b>	<b>373.083</b>	<b>202.083</b>	<b>125.471</b>
<b>GWC-14R</b>	<b>381.833</b>	<b>210.833</b>	<b>125.471</b>
GWC-4A	171	0	125.471
<b>GWC-8A</b>	<b>348.917</b>	<b>177.917</b>	<b>125.471</b>
<b>GWC-8R</b>	<b>371.583</b>	<b>200.583</b>	<b>125.471</b>
GWA-3	171	0	125.471
GWC-11	171	0	125.471
GWC-12	171	0	125.471
GWC-12A	171	0	125.471
GWC-13	171	0	125.471
<b>GWC-15</b>	<b>347.667</b>	<b>176.667</b>	<b>125.471</b>
GWC-16A	186.25	15.25	125.471

1,1-Dichloroethane

GWC-17	171	0	125.471
GWC-18	171	0	125.471
GWC-19R	171	0	125.471
GWC-22	171	0	125.471
GWC-23	171	0	125.471
GWC-23A	171	0	125.471
GWC-24	171	0	125.471
GWC-10	171	0	125.471
GWC-10A	171	0	125.471
GWC-2	171	0	125.471
GWC-3	171	0	129.267
GWC-3A	171	0	125.471
GWC-9	171	0	125.471
GWC-8	171	0	129.267
GWC-4	171	0	152.778

Barium

Kruskal-Wallis Non-Parametric Test

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

Kruskal Wallis Ranks

Background Locations

Loc. ID	Date	Value	Rank
GWA-1	6/14/2017	28	195
	12/12/2017	27	190
	6/20/2018	32	217
	12/18/2018	28	196
	6/11/2019	28	197
	12/10/2019	20.9	144
	6/24/2020	22.3	155
	12/18/2020	27	191
	6/16/2021	26.1	188
	12/14/2021	24.1	171
	6/9/2022	20.4	140
	12/12/2022	ND<10	67
	12/15/2022	27.7	194

Rank Sum = 2245

Rank Mean = 172.692

GWA-2	6/16/2017	26	186
	12/12/2017	25	178
	6/20/2018	23	159
	12/18/2018	32	218
	6/12/2019	23	160
	12/12/2019	39.5	271
	6/23/2020	20	134
	12/18/2020	22	150
	6/16/2021	24.2	173
	12/14/2021	24.9	177
	6/9/2022	22.4	156
	12/13/2022	20.6	142

Rank Sum = 2104

Rank Mean = 175.333

Background Rank Sum = 4349

Background Rank Mean = 173.96

Compliance Locations

Loc. ID	Date	Value	Rank
GWA-1A	6/12/2017	36	252
	12/13/2017	33	226
	6/20/2018	30	204
	12/18/2018	32	219
	6/10/2019	41	277
	12/9/2019	30	205
	6/23/2020	30.3	207
	12/17/2020	31.9	216
	6/17/2021	37.4	263
	12/16/2021	32.3	221

## Barium

6/8/2022	31.8	214
12/14/2022	34.8	241

Rank Sum = 2745  
Rank Mean = 228.75

GWC-14A	6/13/2017	210	367
	12/13/2017	180	359
	6/21/2018	190	365
	12/19/2018	180	360
	6/12/2019	170	351
	12/11/2019	170	352
	6/24/2020	171	354
	12/16/2020	171	355
	6/16/2021	173	356
	12/15/2021	179	358
	6/10/2022	167	349
	12/14/2022	181	363

Rank Sum = 4289  
Rank Mean = 357.417

GWC-5	6/13/2017	ND<10	67
	12/13/2017	ND<10	67
	6/21/2018	ND<10	67
	12/19/2018	ND<10	67
	6/13/2019	ND<10	67
	12/11/2019	ND<10	67
	6/24/2020	ND<10	67
	12/18/2020	ND<10	67
	6/16/2021	ND<10	67
	12/14/2021	ND<10	67
	6/9/2022	ND<10	67
	12/13/2022	ND<10	67

Rank Sum = 804  
Rank Mean = 67

GWC-6	6/13/2017	ND<10	67
	12/14/2017	ND<10	67
	6/21/2018	37	260
	12/20/2018	ND<10	67
	6/13/2019	ND<10	67
	12/11/2019	ND<10	67
	6/25/2020	ND<10	67
	12/18/2020	ND<10	67
	6/16/2021	ND<10	67
	12/14/2021	ND<10	67
	6/9/2022	ND<10	67
	12/15/2022	ND<10	67

Rank Sum = 997  
Rank Mean = 83.0833

GWC-7	6/13/2017	52	299
	12/13/2017	46	288
	6/20/2018	49	294
	12/19/2018	51	297
	6/13/2019	48	292
	12/12/2019	49.9	296
	6/25/2020	36.4	255
	12/18/2020	38.8	268
	6/16/2021	36.9	259

## Barium

12/14/2021	41.8	280
6/9/2022	36.4	256
12/13/2022	35.6	248

Rank Sum = 3332  
Rank Mean = 277.667

GWC-15	6/14/2017	120	341
	12/14/2017	99	339
	6/20/2018	98	338
	12/19/2018	58	309
	6/11/2019	60	311
	12/10/2019	42.3	283
	6/25/2020	62.7	312
	12/17/2020	54.7	305
	6/16/2021	69.4	317
	12/14/2021	73.4	321
	6/9/2022	70.8	318
	12/15/2022	34.4	240

Rank Sum = 3734  
Rank Mean = 311.167

GWC-4A	6/14/2017	33	227
	12/13/2017	81	326
	6/21/2018	22	151
	12/18/2018	25	179
	6/12/2019	74	322
	12/12/2019	ND<10	67
	6/24/2020	29.9	203
	12/18/2020	30.5	208
	6/18/2021	35.7	249
	12/16/2021	ND<10	67
	6/8/2022	36.3	254
	12/15/2022	33	228

Rank Sum = 2481  
Rank Mean = 206.75

GWC-8A	6/14/2017	66	314
	12/13/2017	42	281
	6/21/2018	51	298
	12/20/2018	55	306
	6/13/2019	33	229
	12/12/2019	56	308
	6/24/2020	43.9	286
	12/16/2020	46.8	290
	6/17/2021	52.4	300
	12/16/2021	49.7	295
	6/10/2022	39.9	272
	12/14/2022	52.7	302

Rank Sum = 3481  
Rank Mean = 290.083

GWA-3	6/15/2017	ND<10	67
	12/12/2017	ND<10	67
	6/19/2018	ND<10	67
	12/18/2018	ND<10	67
	6/12/2019	ND<10	67
	12/11/2019	22.9	158
	6/23/2020	ND<10	67
	12/17/2020	ND<10	67

## Barium

6/15/2021	ND<10	67
12/15/2021	ND<10	67
6/7/2022	ND<10	67
12/14/2022	ND<10	67

Rank Sum = 895  
Rank Mean = 74.5833

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GWC-11	6/15/2017	24	167
	12/14/2017	42	282
	6/20/2018	21	145
	12/20/2018	ND<10	67
	6/13/2019	40	273
	12/13/2019	35.9	251
	6/25/2020	25.9	185
	12/16/2020	25.4	181
	6/16/2021	22.1	153
	12/14/2021	23.3	163
	6/8/2022	ND<10	67
	12/13/2022	23.2	162

Rank Sum = 2096  
Rank Mean = 174.667

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GWC-12	6/15/2017	ND<10	67
	12/14/2017	ND<10	67
	6/20/2018	ND<10	67
	12/20/2018	34	235
	6/12/2019	20	135
	12/10/2019	ND<10	67
	6/25/2020	ND<10	67
	12/22/2020	22.6	157
	6/16/2021	ND<10	67
	12/14/2021	ND<10	67
	6/8/2022	ND<10	67
	12/13/2022	ND<10	67

Rank Sum = 1130  
Rank Mean = 94.1667

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GWC-12A	6/15/2017	ND<10	67
	12/14/2017	ND<10	67
	6/20/2018	ND<10	67
	12/20/2018	ND<10	67
	6/12/2019	ND<10	67
	12/10/2019	ND<10	67
	6/25/2020	ND<10	67
	12/16/2020	ND<10	67
	6/16/2021	ND<10	67
	12/14/2021	ND<10	67
	6/8/2022	ND<10	67
	12/13/2022	ND<10	67

Rank Sum = 804  
Rank Mean = 67

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GWC-13	6/15/2017	ND<10	67
	12/13/2017	ND<10	67
	6/20/2018	36	253
	12/20/2018	ND<10	67
	6/13/2019	ND<10	67
	12/12/2019	32.7	224
	6/24/2020	ND<10	67

## Barium

12/16/2020	ND<10	67
6/16/2021	ND<10	67
12/16/2021	ND<10	67
6/9/2022	ND<10	67
12/13/2022	ND<10	67

Rank Sum = 1147  
Rank Mean = 95.5833

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GWC-16A	6/15/2017	170	353
	12/14/2017	29	201
	6/21/2018	34	236
	12/20/2018	24	168
	6/13/2019	26	187
	12/12/2019	26.7	189
	6/23/2020	23.6	164
	12/17/2020	25.2	180
	6/16/2021	24.3	174
	12/16/2021	23.6	165
	6/10/2022	ND<10	67
	12/15/2022	23.6	166

Rank Sum = 2250  
Rank Mean = 187.5

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GWC-17	6/15/2017	45	287
	12/13/2017	35	242
	6/20/2018	34	237
	12/20/2018	69	316
	6/13/2019	43	285
	12/11/2019	37.1	261
	6/24/2020	30.9	209
	12/16/2020	40.7	275
	6/15/2021	38.3	266
	12/15/2021	39.2	270
	6/10/2022	41.1	278
	12/15/2022	36.5	257

Rank Sum = 3183  
Rank Mean = 265.25

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GWC-18	6/15/2017	180	361
	12/14/2017	150	345
	6/20/2018	280	369
	12/19/2018	140	343
	6/12/2019	230	368
	12/10/2019	181	364
	6/24/2020	168	350
	12/16/2020	160	346
	6/15/2021	165	348
	12/15/2021	141	344
	6/8/2022	196	366
	12/15/2022	178	357

Rank Sum = 4261  
Rank Mean = 355.083

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GWC-19R	6/15/2017	97	336
	12/14/2017	120	342
	6/20/2018	81	327
	12/19/2018	160	347
	6/12/2019	97	337
	12/10/2019	89.2	333

## Barium

6/24/2020	83	329
12/16/2020	76.5	323
6/15/2021	82.2	328
12/15/2021	87	331
6/7/2022	85.6	330
12/15/2022	180	362

Rank Sum = 4025  
Rank Mean = 335.417

GWC-22	6/15/2017	28	198
	12/12/2017	ND<10	67
	6/20/2018	24	169
	12/19/2018	21	146
	6/13/2019	21	147
	12/12/2019	21.5	149
	6/24/2020	22.1	154
	12/18/2020	20.4	141
	6/15/2021	28	199
	12/14/2021	24.6	176
	6/7/2022	25.8	183
	12/13/2022	24.1	172

Rank Sum = 1901  
Rank Mean = 158.417

GWC-23	6/15/2017	ND<10	67
	12/12/2017	ND<10	67
	6/19/2018	ND<10	67
	12/19/2018	ND<10	67
	6/13/2019	ND<10	67
	12/12/2019	ND<10	67
	6/24/2020	ND<10	67
	12/17/2020	ND<10	67
	6/15/2021	ND<10	67
	12/14/2021	ND<10	67
	6/7/2022	ND<10	67
	12/13/2022	ND<10	67

Rank Sum = 804  
Rank Mean = 67

GWC-23A	6/15/2017	ND<10	67
	12/12/2017	ND<10	67
	6/19/2018	ND<10	67
	12/19/2018	ND<10	67
	6/13/2019	ND<10	67
	12/12/2019	ND<10	67
	6/24/2020	ND<10	67
	12/17/2020	ND<10	67
	6/15/2021	ND<10	67
	12/14/2021	ND<10	67
	6/7/2022	ND<10	67
	12/13/2022	ND<10	67

Rank Sum = 804  
Rank Mean = 67

GWC-24	6/15/2017	ND<10	67
	6/20/2018	ND<10	67
	6/12/2019	20	136
	12/10/2019	27.4	192
	6/25/2020	25.8	184

## Barium

6/15/2021	ND<10	67
6/8/2022	ND<10	67
12/15/2022	ND<10	67

Rank Sum = 847  
Rank Mean = 105.875

GWC-10	6/16/2017	20	137
	12/13/2017	48	293
	6/20/2018	ND<10	67
	12/18/2018	ND<10	67
	6/11/2019	22	152
	12/13/2019	ND<10	67
	6/25/2020	ND<10	67
	12/16/2020	ND<10	67
	6/16/2021	ND<10	67
	12/16/2021	ND<10	67
	6/8/2022	ND<10	67
	12/15/2022	ND<10	67

Rank Sum = 1185  
Rank Mean = 98.75

GWC-10A	6/16/2017	31	210
	12/13/2017	32	220
	6/20/2018	34	238
	12/18/2018	35	243
	6/11/2019	33	230
	12/13/2019	35.2	246
	6/25/2020	29.6	202
	12/16/2020	32.5	223
	6/16/2021	31.5	211
	12/16/2021	33.5	232
	6/8/2022	31.8	215
	12/15/2022	38.6	267

Rank Sum = 2737  
Rank Mean = 228.083

GWC-2	6/16/2017	ND<10	67
	12/14/2017	ND<10	67
	6/21/2018	ND<10	67
	12/20/2018	ND<10	67
	6/13/2019	ND<10	67
	12/11/2019	ND<10	67
	6/23/2020	27.5	193
	12/17/2020	ND<10	67
	6/16/2021	ND<10	67
	12/16/2021	ND<10	67
	6/8/2022	ND<10	67
	12/13/2022	ND<10	67

Rank Sum = 930  
Rank Mean = 77.5

GWC-3A	6/16/2017	40	274
	12/13/2017	38	264
	6/21/2018	39	269
	12/18/2018	38	265
	6/12/2019	46	289
	12/11/2019	40.7	276
	6/25/2020	37.1	262
	12/17/2020	31.6	213

Barium

6/15/2021	36.5	258
12/16/2021	32.8	225
6/8/2022	32.3	222
12/13/2022	35.4	247

Rank Sum = 3064  
Rank Mean = 255.333

GWC-9	6/16/2017	58	310
	12/14/2017	54	304
	6/21/2018	73	320
	12/19/2018	53	303
	6/13/2019	80	325
	12/13/2019	67.9	315
	6/25/2020	78.5	324
	12/18/2020	90	334
	6/16/2021	64.3	313
	12/14/2021	100	340
	6/8/2022	55.7	307
	12/15/2022	87.8	332

Rank Sum = 3827  
Rank Mean = 318.917

GWC-8	12/13/2017	23	161
	6/21/2018	ND<10	67
	6/13/2019	30	206
	12/12/2019	28.6	200
	6/24/2020	52.4	301
	12/17/2020	33	231
	6/17/2021	42.5	284
	12/16/2021	33.5	233
	6/10/2022	33.5	234
	12/14/2022	34	239

Rank Sum = 2156  
Rank Mean = 215.6

GWC-14	6/21/2018	35	244
	6/12/2019	35	245
	12/11/2019	41.2	279
	6/25/2020	ND<10	67
	12/18/2020	72.2	319
	6/16/2021	24	170
	12/16/2021	47.3	291
	6/10/2022	20.8	143

Rank Sum = 1758  
Rank Mean = 219.75

GWC-3	6/21/2018	ND<10	67
	12/18/2018	ND<10	67
	6/12/2019	ND<10	67
	12/11/2019	ND<10	67
	6/25/2020	ND<10	67
	12/17/2020	ND<10	67
	6/16/2021	ND<10	67
	12/16/2021	ND<10	67
	6/8/2022	ND<10	67

Rank Sum = 603  
Rank Mean = 67

GWC-4	6/21/2018	20	138
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Barium

6/24/2020	25.6	182
12/18/2020	31.5	212
6/17/2021	24.5	175
12/15/2021	21	148
6/9/2022	ND<10	67
12/13/2022	20	139

Rank Sum = 1061  
Rank Mean = 151.571

GWC-14R	6/9/2022	94.1	335
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Rank Sum = 335  
Rank Mean = 335

GWC-8R	6/9/2022	35.8	250
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Rank Sum = 250  
Rank Mean = 250

**Calculation Results:**

Kruskal-Wallis H Statistic = 299.605  
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 314.323  
95% Confidence comparison value is 46.1942 at 32 degrees of freedom  
**299.605 > 46.1942 indicating a significant group difference at 5% significance level**  
**314.323 > 46.1942 indicating a significant group difference at 5% significance level when adjusted for ties**

**Individual Well Comparisons at 1% Significance Level per Comparison**

1% Z score is 2.32634  
Mean background rank is 173.96

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	228.75	54.79	87.1439
<b>GWC-14A</b>	<b>357.417</b>	<b>183.457</b>	<b>87.1439</b>
GWC-5	67	-106.96	87.1439
GWC-6	83.0833	-90.8767	87.1439
<b>GWC-7</b>	<b>277.667</b>	<b>103.707</b>	<b>87.1439</b>
<b>GWC-15</b>	<b>311.167</b>	<b>137.207</b>	<b>87.1439</b>
GWC-4A	206.75	32.79	87.1439
<b>GWC-8A</b>	<b>290.083</b>	<b>116.123</b>	<b>87.1439</b>
GWA-3	74.5833	-99.3767	87.1439
GWC-11	174.667	0.706667	87.1439
GWC-12	94.1667	-79.7933	87.1439
GWC-12A	67	-106.96	87.1439
GWC-13	95.5833	-78.3767	87.1439
GWC-16A	187.5	13.54	87.1439
<b>GWC-17</b>	<b>265.25</b>	<b>91.29</b>	<b>87.1439</b>
<b>GWC-18</b>	<b>355.083</b>	<b>181.123</b>	<b>87.1439</b>
<b>GWC-19R</b>	<b>335.417</b>	<b>161.457</b>	<b>87.1439</b>
GWC-22	158.417	-15.5433	87.1439
GWC-23	67	-106.96	87.1439
GWC-23A	67	-106.96	87.1439
GWC-24	105.875	-68.085	100.795
GWC-10	98.75	-75.21	87.1439
GWC-10A	228.083	54.1233	87.1439
GWC-2	77.5	-96.46	87.1439
GWC-3A	255.333	81.3733	87.1439
<b>GWC-9</b>	<b>318.917</b>	<b>144.957</b>	<b>87.1439</b>
GWC-8	215.6	41.64	92.8455
GWC-14	219.75	45.79	100.795



## Barium

GWC-3	67	-106.96	96.4595
GWC-4	151.571	-22.3886	106.109
GWC-14R	335	161.04	253.054
GWC-8R	250	76.04	253.054

### Individual Well Comparisons at Groupwise 5% Significance Level (0.15625% Significance Level per comparison)

0.15625% Z score is 3.09024

Mean background rank is 173.96

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	228.75	54.79	115.759
<b>GWC-14A</b>	<b>357.417</b>	<b>183.457</b>	<b>115.759</b>
GWC-5	67	-106.96	115.759
GWC-6	83.0833	-90.8767	115.759
GWC-7	277.667	103.707	115.759
<b>GWC-15</b>	<b>311.167</b>	<b>137.207</b>	<b>115.759</b>
GWC-4A	206.75	32.79	115.759
<b>GWC-8A</b>	<b>290.083</b>	<b>116.123</b>	<b>115.759</b>
GWA-3	74.5833	-99.3767	115.759
GWC-11	174.667	0.706667	115.759
GWC-12	94.1667	-79.7933	115.759
GWC-12A	67	-106.96	115.759
GWC-13	95.5833	-78.3767	115.759
GWC-16A	187.5	13.54	115.759
GWC-17	265.25	91.29	115.759
<b>GWC-18</b>	<b>355.083</b>	<b>181.123</b>	<b>115.759</b>
<b>GWC-19R</b>	<b>335.417</b>	<b>161.457</b>	<b>115.759</b>
GWC-22	158.417	-15.5433	115.759
GWC-23	67	-106.96	115.759
GWC-23A	67	-106.96	115.759
GWC-24	105.875	-68.085	133.893
GWC-10	98.75	-75.21	115.759
GWC-10A	228.083	54.1233	115.759
GWC-2	77.5	-96.46	115.759
GWC-3A	255.333	81.3733	115.759
<b>GWC-9</b>	<b>318.917</b>	<b>144.957</b>	<b>115.759</b>
GWC-8	215.6	41.64	123.333
GWC-14	219.75	45.79	133.893
GWC-3	67	-106.96	128.134
GWC-4	151.571	-22.3886	140.952
GWC-14R	335	161.04	336.15
GWC-8R	250	76.04	336.15

## Benzene

## Kruskal-Wallis Non-Parametric Test

## Parameter: Benzene

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

## Kruskal Wallis Ranks

## Background Locations

Loc. ID	Date	Value	Rank	
GWA-1	6/13/2017	ND<1	187	
	12/11/2017	ND<1	187	
	6/19/2018	ND<1	187	
	12/17/2018	ND<1	187	
	6/10/2019	ND<1	187	
	12/9/2019	ND<1	187	
	6/23/2020	ND<1	187	
	12/17/2020	ND<1	187	
	6/15/2021	ND<1	187	
	12/13/2021	ND<1	187	
	6/8/2022	ND<1	187	
	12/12/2022	ND<1	187	
	12/15/2022	ND<1	187	
	Rank Sum = 2431			
Rank Mean = 187				
GWA-2	6/15/2017	ND<1	187	
	12/11/2017	ND<1	187	
	6/19/2018	ND<1	187	
	12/17/2018	ND<1	187	
	6/11/2019	ND<1	187	
	12/11/2019	ND<1	187	
	6/22/2020	ND<1	187	
	12/17/2020	ND<1	187	
	6/15/2021	ND<1	187	
	12/13/2021	ND<1	187	
	6/8/2022	ND<1	187	
	12/12/2022	ND<1	187	
	Rank Sum = 2244			
	Rank Mean = 187			
Background Rank Sum = 4675				
Background Rank Mean = 187				

## Compliance Locations

Loc. ID	Date	Value	Rank
GWA-1A	6/12/2017	ND<1	187
	12/13/2017	ND<1	187
	6/19/2018	ND<1	187
	12/18/2018	ND<1	187
	6/10/2019	ND<1	187
	12/9/2019	ND<1	187
	6/23/2020	ND<1	187
	12/17/2020	ND<1	187
	6/17/2021	ND<1	187
	12/16/2021	ND<1	187

## Benzene

	6/8/2022	ND<1	187
	12/14/2022	ND<1	187

Rank Sum = 2244

Rank Mean = 187

GWC-5	6/12/2017	ND<1	187
	12/12/2017	ND<1	187
	6/21/2018	ND<1	187
	12/18/2018	ND<1	187
	6/12/2019	ND<1	187
	12/10/2019	ND<1	187
	6/23/2020	ND<1	187
	12/17/2020	ND<1	187
	6/15/2021	ND<1	187
	12/13/2021	ND<1	187
	6/8/2022	ND<1	187
	12/12/2022	ND<1	187

Rank Sum = 2244

Rank Mean = 187

GWC-6	6/12/2017	ND<1	187
	12/13/2017	ND<1	187
	6/21/2018	ND<1	187
	12/19/2018	ND<1	187
	6/12/2019	ND<1	187
	12/10/2019	ND<1	187
	6/24/2020	ND<1	187
	12/17/2020	ND<1	187
	6/15/2021	ND<1	187
	12/13/2021	ND<1	187
	6/8/2022	ND<1	187
	12/14/2022	ND<1	187

Rank Sum = 2244

Rank Mean = 187

GWC-7	6/12/2017	ND<1	187
	12/12/2017	ND<1	187
	6/19/2018	ND<1	187
	12/18/2018	ND<1	187
	6/12/2019	ND<1	187
	12/11/2019	ND<1	187
	6/24/2020	ND<1	187
	12/17/2020	ND<1	187
	6/15/2021	ND<1	187
	12/13/2021	ND<1	187
	6/8/2022	ND<1	187
	12/12/2022	ND<1	187

Rank Sum = 2244

Rank Mean = 187

GWC-14	6/13/2017	ND<1	187
	6/20/2018	ND<1	187
	6/11/2019	ND<1	187
	12/10/2019	ND<1	187
	6/24/2020	ND<1	187
	12/17/2020	ND<1	187
	6/15/2021	ND<1	187
	12/15/2021	ND<1	187
	6/9/2022	ND<1	187

## Benzene

	12/13/2022	ND<1	187
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Rank Sum = 1870

Rank Mean = 187

GWC-14A	6/13/2017	2.8	386
	12/12/2017	3	390
	6/20/2018	2.8	387
	12/19/2018	2.5	380
	6/11/2019	2.1	376
	12/10/2019	2.6	383
	6/24/2020	2.5	381
	12/15/2020	2.9	389
	6/15/2021	2.6	384
	12/14/2021	3	391
	6/9/2022	2.5	382
	12/13/2022	3.3	394

Rank Sum = 4623

Rank Mean = 385.25

GWC-14R	6/13/2017	ND<1	187
	12/12/2017	ND<1	187
	6/20/2018	ND<1	187
	12/19/2018	ND<1	187
	6/12/2019	ND<1	187
	12/10/2019	ND<1	187
	6/23/2020	ND<1	187
	12/17/2020	ND<1	187
	6/16/2021	ND<1	187
	12/14/2021	ND<1	187
	6/9/2022	ND<1	187
	12/13/2022	ND<1	187

Rank Sum = 2244

Rank Mean = 187

GWC-4A	6/13/2017	ND<1	187
	12/12/2017	ND<1	187
	6/20/2018	ND<1	187
	12/17/2018	ND<1	187
	6/11/2019	ND<1	187
	12/11/2019	ND<1	187
	6/23/2020	ND<1	187
	12/17/2020	ND<1	187
	6/17/2021	ND<1	187
	12/15/2021	ND<1	187
	6/8/2022	ND<1	187
	12/14/2022	ND<1	187

Rank Sum = 2244

Rank Mean = 187

GWC-8A	6/13/2017	2.3	377
	12/12/2017	3.8	398
	6/20/2018	2.7	385
	12/19/2018	3.3	395
	6/12/2019	ND<1	187
	12/11/2019	2.8	388
	6/23/2020	ND<1	187
	12/15/2020	2.3	378
	6/16/2021	ND<1	187
	12/15/2021	ND<1	187

## Benzene

6/9/2022	2	374
12/13/2022	2.4	379

Rank Sum = 3822  
Rank Mean = 318.5

GWC-8R	6/13/2017	ND<1	187
	12/12/2017	ND<1	187
	6/20/2018	ND<1	187
	12/19/2018	ND<1	187
	6/12/2019	ND<1	187
	12/11/2019	ND<1	187
	6/23/2020	ND<1	187
	12/15/2020	ND<1	187
	6/16/2021	2	375
	12/15/2021	ND<1	187
	6/9/2022	ND<1	187
	12/13/2022	ND<1	187

Rank Sum = 2432  
Rank Mean = 202.667

GWA-3	6/14/2017	ND<1	187
	12/11/2017	ND<1	187
	6/18/2018	ND<1	187
	12/17/2018	ND<1	187
	6/11/2019	ND<1	187
	12/10/2019	ND<1	187
	6/22/2020	ND<1	187
	12/16/2020	ND<1	187
	6/14/2021	ND<1	187
	12/14/2021	ND<1	187
	6/6/2022	ND<1	187
	12/13/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-11	6/14/2017	ND<1	187
	12/13/2017	ND<1	187
	6/19/2018	ND<1	187
	12/19/2018	ND<1	187
	6/12/2019	ND<1	187
	12/12/2019	ND<1	187
	6/24/2020	ND<1	187
	12/15/2020	ND<1	187
	6/15/2021	ND<1	187
	12/13/2021	ND<1	187
	6/7/2022	ND<1	187
	12/12/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-12	6/14/2017	ND<1	187
	12/13/2017	ND<1	187
	6/19/2018	ND<1	187
	12/19/2018	ND<1	187
	6/11/2019	ND<1	187
	12/9/2019	ND<1	187
	6/24/2020	ND<1	187
	12/15/2020	ND<1	187
	6/15/2021	ND<1	187

## Benzene

12/13/2021	ND<1	187
6/7/2022	ND<1	187
12/12/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-12A	6/14/2017	ND<1	187
	12/13/2017	ND<1	187
	6/19/2018	ND<1	187
	12/19/2018	ND<1	187
	6/11/2019	ND<1	187
	12/9/2019	ND<1	187
	6/24/2020	ND<1	187
	12/15/2020	ND<1	187
	6/15/2021	ND<1	187
	12/13/2021	ND<1	187
	6/7/2022	ND<1	187
	12/12/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-13	6/14/2017	ND<1	187
	12/12/2017	ND<1	187
	6/19/2018	ND<1	187
	12/19/2018	ND<1	187
	6/12/2019	ND<1	187
	12/11/2019	ND<1	187
	6/23/2020	ND<1	187
	12/15/2020	ND<1	187
	6/15/2021	ND<1	187
	12/15/2021	ND<1	187
	6/8/2022	ND<1	187
	12/12/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-15	6/14/2017	ND<1	187
	12/13/2017	ND<1	187
	6/19/2018	ND<1	187
	12/19/2018	ND<1	187
	6/11/2019	3.1	392
	12/10/2019	ND<1	187
	6/25/2020	3.6	396
	12/17/2020	3.1	393
	6/16/2021	3.9	399
	12/14/2021	3.7	397
	6/9/2022	4.2	400
	12/15/2022	ND<1	187

Rank Sum = 3499  
Rank Mean = 291.583

GWC-16A	6/14/2017	ND<1	187
	12/13/2017	ND<1	187
	6/21/2018	ND<1	187
	12/19/2018	ND<1	187
	6/13/2019	ND<1	187
	12/11/2019	ND<1	187
	6/23/2020	ND<1	187
	12/17/2020	ND<1	187

## Benzene

6/16/2021	ND<1	187
12/16/2021	ND<1	187
6/9/2022	ND<1	187
12/14/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-17	6/14/2017	ND<1	187
	12/12/2017	ND<1	187
	6/19/2018	ND<1	187
	12/19/2018	ND<1	187
	6/12/2019	ND<1	187
	12/10/2019	ND<1	187
	6/23/2020	ND<1	187
	12/15/2020	ND<1	187
	6/14/2021	ND<1	187
	12/14/2021	ND<1	187
	6/9/2022	ND<1	187
	12/14/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-18	6/14/2017	ND<1	187
	12/13/2017	ND<1	187
	6/19/2018	ND<1	187
	12/18/2018	ND<1	187
	6/11/2019	ND<1	187
	12/9/2019	ND<1	187
	6/23/2020	ND<1	187
	12/15/2020	ND<1	187
	6/14/2021	ND<1	187
	12/14/2021	ND<1	187
	6/7/2022	ND<1	187
	12/14/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-19R	6/14/2017	ND<1	187
	12/13/2017	ND<1	187
	6/19/2018	ND<1	187
	12/18/2018	ND<1	187
	6/11/2019	ND<1	187
	12/9/2019	ND<1	187
	6/23/2020	ND<1	187
	12/15/2020	ND<1	187
	6/14/2021	ND<1	187
	12/14/2021	ND<1	187
	6/6/2022	ND<1	187
	12/14/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-22	6/14/2017	ND<1	187
	12/11/2017	ND<1	187
	6/19/2018	ND<1	187
	12/18/2018	ND<1	187
	6/12/2019	ND<1	187
	12/11/2019	ND<1	187
	6/23/2020	ND<1	187

## Benzene

12/17/2020	ND<1	187
6/14/2021	ND<1	187
12/13/2021	ND<1	187
6/6/2022	ND<1	187
12/12/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-23	6/14/2017	ND<1	187
	12/11/2017	ND<1	187
	6/18/2018	ND<1	187
	12/18/2018	ND<1	187
	6/12/2019	ND<1	187
	12/11/2019	ND<1	187
	6/24/2020	ND<1	187
	12/16/2020	ND<1	187
	6/14/2021	ND<1	187
	12/13/2021	ND<1	187
	6/6/2022	ND<1	187
	12/12/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-23A	6/14/2017	ND<1	187
	12/11/2017	ND<1	187
	6/18/2018	ND<1	187
	12/18/2018	ND<1	187
	6/12/2019	ND<1	187
	12/11/2019	ND<1	187
	6/24/2020	ND<1	187
	12/16/2020	ND<1	187
	6/14/2021	ND<1	187
	12/13/2021	ND<1	187
	6/6/2022	ND<1	187
	12/12/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-24	6/14/2017	ND<1	187
	12/13/2017	ND<1	187
	6/19/2018	ND<1	187
	12/19/2018	ND<1	187
	6/11/2019	ND<1	187
	12/9/2019	ND<1	187
	6/24/2020	ND<1	187
	12/15/2020	ND<1	187
	6/14/2021	ND<1	187
	12/14/2021	ND<1	187
	6/7/2022	ND<1	187
	12/14/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-10	6/15/2017	ND<1	187
	12/12/2017	ND<1	187
	6/19/2018	ND<1	187
	12/17/2018	ND<1	187
	6/10/2019	ND<1	187
	12/12/2019	ND<1	187

## Benzene

6/24/2020	ND<1	187
12/15/2020	ND<1	187
6/15/2021	ND<1	187
12/15/2021	ND<1	187
6/7/2022	ND<1	187
12/14/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-10A	6/15/2017	ND<1	187
	12/12/2017	ND<1	187
	6/19/2018	ND<1	187
	12/17/2018	ND<1	187
	6/10/2019	ND<1	187
	12/12/2019	ND<1	187
	6/24/2020	ND<1	187
	12/15/2020	ND<1	187
	6/15/2021	ND<1	187
	12/15/2021	ND<1	187
	6/7/2022	ND<1	187
	12/14/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-2	6/15/2017	ND<1	187
	12/13/2017	ND<1	187
	6/20/2018	ND<1	187
	12/19/2018	ND<1	187
	6/12/2019	ND<1	187
	12/10/2019	ND<1	187
	6/22/2020	ND<1	187
	12/16/2020	ND<1	187
	6/15/2021	ND<1	187
	12/15/2021	ND<1	187
	6/7/2022	ND<1	187
	12/12/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-3	6/15/2017	ND<1	187
	6/21/2018	ND<1	187
	12/17/2018	ND<1	187
	6/11/2019	ND<1	187
	12/10/2019	ND<1	187
	6/24/2020	ND<1	187
	12/16/2020	ND<1	187
	6/15/2021	ND<1	187
	12/15/2021	ND<1	187
	6/7/2022	ND<1	187
	12/12/2022	ND<1	187

Rank Sum = 2057  
Rank Mean = 187

GWC-3A	6/15/2017	ND<1	187
	12/12/2017	ND<1	187
	6/20/2018	ND<1	187
	12/17/2018	ND<1	187
	6/11/2019	ND<1	187
	12/10/2019	ND<1	187

## Benzene

6/24/2020	ND<1	187
12/16/2020	ND<1	187
6/14/2021	ND<1	187
12/15/2021	ND<1	187
6/7/2022	ND<1	187
12/12/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-9	6/15/2017	ND<1	187
	12/13/2017	ND<1	187
	6/20/2018	ND<1	187
	12/18/2018	ND<1	187
	6/12/2019	ND<1	187
	12/12/2019	ND<1	187
	6/24/2020	ND<1	187
	12/17/2020	ND<1	187
	6/15/2021	ND<1	187
	12/13/2021	ND<1	187
	6/7/2022	ND<1	187
	12/14/2022	ND<1	187

Rank Sum = 2244  
Rank Mean = 187

GWC-8	12/12/2017	ND<1	187
	6/20/2018	ND<1	187
	12/19/2018	ND<1	187
	6/12/2019	ND<1	187
	12/11/2019	ND<1	187
	6/23/2020	ND<1	187
	12/16/2020	ND<1	187
	6/16/2021	ND<1	187
	12/15/2021	ND<1	187
	6/9/2022	ND<1	187
	12/13/2022	ND<1	187

Rank Sum = 2057  
Rank Mean = 187

GWC-4	6/20/2018	ND<1	187
	6/23/2020	ND<1	187
	12/17/2020	ND<1	187
	6/16/2021	ND<1	187
	12/14/2021	ND<1	187
	6/8/2022	ND<1	187
	12/12/2022	ND<1	187

Rank Sum = 1309  
Rank Mean = 187

**Calculation Results:**

Kruskal-Wallis H Statistic = 55.3946

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 292.877

95% Confidence comparison value is 46.1942 at 32 degrees of freedom

**55.3946 > 46.1942 indicating a significant group difference at 5% significance level**

**292.877 > 46.1942 indicating a significant group difference at 5% significance level when adjusted for ties**

**Individual Well Comparisons at 1% Significance Level per Comparison**

## Benzene

1% Z score is 2.32634

Mean background rank is 187

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	187	0	94.4551
GWC-5	187	0	94.4551
GWC-6	187	0	94.4551
GWC-7	187	0	94.4551
GWC-14	187	0	100.635
<b>GWC-14A</b>	<b>385.25</b>	<b>198.25</b>	<b>94.4551</b>
GWC-14R	187	0	94.4551
GWC-4A	187	0	94.4551
<b>GWC-8A</b>	<b>318.5</b>	<b>131.5</b>	<b>94.4551</b>
GWC-8R	202.667	15.6667	94.4551
GWA-3	187	0	94.4551
GWC-11	187	0	94.4551
GWC-12	187	0	94.4551
GWC-12A	187	0	94.4551
GWC-13	187	0	94.4551
<b>GWC-15</b>	<b>291.583</b>	<b>104.583</b>	<b>94.4551</b>
GWC-16A	187	0	94.4551
GWC-17	187	0	94.4551
GWC-18	187	0	94.4551
GWC-19R	187	0	94.4551
GWC-22	187	0	94.4551
GWC-23	187	0	94.4551
GWC-23A	187	0	94.4551
GWC-24	187	0	94.4551
GWC-10	187	0	94.4551
GWC-10A	187	0	94.4551
GWC-2	187	0	94.4551
GWC-3	187	0	97.3128
GWC-3A	187	0	94.4551
GWC-9	187	0	94.4551
GWC-8	187	0	97.3128
GWC-4	187	0	115.011

**Individual Well Comparisons at Groupwise 5% Significance Level  
(0.15625% Significance Level per comparison)**

0.15625% Z score is 3.09024

Mean background rank is 187

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	187	0	125.471
GWC-5	187	0	125.471
GWC-6	187	0	125.471
GWC-7	187	0	125.471
GWC-14	187	0	133.681
<b>GWC-14A</b>	<b>385.25</b>	<b>198.25</b>	<b>125.471</b>
GWC-14R	187	0	125.471
GWC-4A	187	0	125.471
<b>GWC-8A</b>	<b>318.5</b>	<b>131.5</b>	<b>125.471</b>
GWC-8R	202.667	15.6667	125.471
GWA-3	187	0	125.471
GWC-11	187	0	125.471
GWC-12	187	0	125.471
GWC-12A	187	0	125.471
GWC-13	187	0	125.471
GWC-15	291.583	104.583	125.471
GWC-16A	187	0	125.471

## Benzene

GWC-17	187	0	125.471
GWC-18	187	0	125.471
GWC-19R	187	0	125.471
GWC-22	187	0	125.471
GWC-23	187	0	125.471
GWC-23A	187	0	125.471
GWC-24	187	0	125.471
GWC-10	187	0	125.471
GWC-10A	187	0	125.471
GWC-2	187	0	125.471
GWC-3	187	0	129.267
GWC-3A	187	0	125.471
GWC-9	187	0	125.471
GWC-8	187	0	129.267
GWC-4	187	0	152.778

**Kruskal-Wallis Non-Parametric Test**

**Parameter: Cadmium**

Original Data (Not Transformed)  
 Non-Detects Replaced with 1/2 DL

**Kruskal Wallis Ranks**

**Background Locations**

Loc. ID	Date	Value	Rank
GWA-1	6/14/2017	ND<2.5	184.5
	12/12/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/18/2018	ND<2.5	184.5
	6/11/2019	ND<2.5	184.5
	12/10/2019	ND<2.5	184.5
	6/24/2020	ND<2.5	184.5
	12/18/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/14/2021	ND<2.5	184.5
	6/9/2022	ND<2.5	184.5
	12/12/2022	ND<2.5	184.5
	12/15/2022	ND<2.5	184.5

Rank Sum = 2398.5  
 Rank Mean = 184.5

GWA-2	6/16/2017	ND<2.5	184.5
	12/12/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/18/2018	ND<2.5	184.5
	6/12/2019	ND<2.5	184.5
	12/12/2019	ND<2.5	184.5
	6/23/2020	ND<2.5	184.5
	12/18/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/14/2021	ND<2.5	184.5
	6/9/2022	ND<2.5	184.5
	12/13/2022	ND<2.5	184.5

Rank Sum = 2214  
 Rank Mean = 184.5

Background Rank Sum = 4612.5  
 Background Rank Mean = 184.5

**Compliance Locations**

Loc. ID	Date	Value	Rank
GWA-1A	6/12/2017	ND<2.5	184.5
	12/13/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/18/2018	ND<2.5	184.5
	6/10/2019	ND<2.5	184.5
	12/9/2019	ND<2.5	184.5
	6/23/2020	ND<2.5	184.5
	12/17/2020	ND<2.5	184.5
	6/17/2021	ND<2.5	184.5
	12/16/2021	ND<2.5	184.5

	6/8/2022	ND<2.5	184.5
	12/14/2022	ND<2.5	184.5

Rank Sum = 2214  
 Rank Mean = 184.5

GWC-14A	6/13/2017	ND<2.5	184.5
	12/13/2017	ND<2.5	184.5
	6/21/2018	ND<2.5	184.5
	12/19/2018	ND<2.5	184.5
	6/12/2019	ND<2.5	184.5
	12/11/2019	ND<2.5	184.5
	6/24/2020	ND<2.5	184.5
	12/16/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/15/2021	ND<2.5	184.5
	6/10/2022	ND<2.5	184.5

Rank Sum = 2214  
 Rank Mean = 184.5

GWC-5	6/13/2017	ND<2.5	184.5
	12/13/2017	ND<2.5	184.5
	6/21/2018	ND<2.5	184.5
	12/19/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/11/2019	ND<2.5	184.5
	6/24/2020	ND<2.5	184.5
	12/18/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/14/2021	ND<2.5	184.5
	6/9/2022	ND<2.5	184.5

Rank Sum = 2214  
 Rank Mean = 184.5

GWC-6	6/13/2017	ND<2.5	184.5
	12/14/2017	ND<2.5	184.5
	6/21/2018	ND<2.5	184.5
	12/20/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/11/2019	ND<2.5	184.5
	6/25/2020	ND<2.5	184.5
	12/18/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/14/2021	ND<2.5	184.5
	6/9/2022	ND<2.5	184.5

Rank Sum = 2214  
 Rank Mean = 184.5

GWC-7	6/13/2017	ND<2.5	184.5
	12/13/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/19/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/12/2019	ND<2.5	184.5
	6/25/2020	ND<2.5	184.5
	12/18/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5

## Cadmium

12/14/2021	ND<2.5	184.5
6/9/2022	ND<2.5	184.5
12/13/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-15	6/14/2017	ND<2.5	184.5
	12/14/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/19/2018	ND<2.5	184.5
	6/11/2019	ND<2.5	184.5
	12/10/2019	ND<2.5	184.5
	6/25/2020	ND<2.5	184.5
	12/17/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/14/2021	ND<2.5	184.5
	6/9/2022	ND<2.5	184.5
	12/15/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-4A	6/14/2017	ND<2.5	184.5
	12/13/2017	ND<2.5	184.5
	6/21/2018	ND<2.5	184.5
	12/18/2018	ND<2.5	184.5
	6/12/2019	ND<2.5	184.5
	12/12/2019	ND<2.5	184.5
	6/24/2020	ND<2.5	184.5
	12/18/2020	ND<2.5	184.5
	6/18/2021	ND<2.5	184.5
	12/16/2021	ND<2.5	184.5
	6/8/2022	ND<2.5	184.5
	12/15/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-8A	6/14/2017	ND<2.5	184.5
	12/13/2017	ND<2.5	184.5
	6/21/2018	ND<2.5	184.5
	12/20/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/12/2019	ND<2.5	184.5
	6/24/2020	ND<2.5	184.5
	12/16/2020	ND<2.5	184.5
	6/17/2021	ND<2.5	184.5
	12/16/2021	ND<2.5	184.5
	6/10/2022	ND<2.5	184.5
	12/14/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWA-3	6/15/2017	ND<2.5	184.5
	12/12/2017	ND<2.5	184.5
	6/19/2018	ND<2.5	184.5
	12/18/2018	ND<2.5	184.5
	6/12/2019	ND<2.5	184.5
	12/11/2019	ND<2.5	184.5
	6/23/2020	ND<2.5	184.5
	12/17/2020	ND<2.5	184.5

## Cadmium

6/15/2021	ND<2.5	184.5
12/15/2021	ND<2.5	184.5
6/7/2022	ND<2.5	184.5
12/14/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-11	6/15/2017	ND<2.5	184.5
	12/14/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/20/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/13/2019	ND<2.5	184.5
	6/25/2020	ND<2.5	184.5
	12/16/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/14/2021	ND<2.5	184.5
	6/8/2022	ND<2.5	184.5
	12/13/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-12	6/15/2017	ND<2.5	184.5
	12/14/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/20/2018	ND<2.5	184.5
	6/12/2019	ND<2.5	184.5
	12/10/2019	ND<2.5	184.5
	6/25/2020	ND<2.5	184.5
	12/22/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/14/2021	ND<2.5	184.5
	6/8/2022	ND<2.5	184.5
	12/13/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-12A	6/15/2017	ND<2.5	184.5
	12/14/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/20/2018	ND<2.5	184.5
	6/12/2019	ND<2.5	184.5
	12/10/2019	ND<2.5	184.5
	6/25/2020	ND<2.5	184.5
	12/16/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/14/2021	ND<2.5	184.5
	6/8/2022	ND<2.5	184.5
	12/13/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-13	6/15/2017	ND<2.5	184.5
	12/13/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/20/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/12/2019	ND<2.5	184.5
	6/24/2020	ND<2.5	184.5



## Cadmium

12/16/2020	ND<2.5	184.5
6/16/2021	ND<2.5	184.5
12/16/2021	ND<2.5	184.5
6/9/2022	ND<2.5	184.5
12/13/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-16A	6/15/2017	ND<2.5	184.5
	12/14/2017	ND<2.5	184.5
	6/21/2018	ND<2.5	184.5
	12/20/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/12/2019	ND<2.5	184.5
	6/23/2020	ND<2.5	184.5
	12/17/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/16/2021	ND<2.5	184.5
	6/10/2022	ND<2.5	184.5
	12/15/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-17	6/15/2017	ND<2.5	184.5
	12/13/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/20/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/11/2019	ND<2.5	184.5
	6/24/2020	ND<2.5	184.5
	12/16/2020	ND<2.5	184.5
	6/15/2021	ND<2.5	184.5
	12/15/2021	ND<2.5	184.5
	6/10/2022	ND<2.5	184.5
	12/15/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-18	6/15/2017	ND<2.5	184.5
	12/14/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/19/2018	ND<2.5	184.5
	6/12/2019	ND<2.5	184.5
	12/10/2019	ND<2.5	184.5
	6/24/2020	ND<2.5	184.5
	12/16/2020	ND<2.5	184.5
	6/15/2021	ND<2.5	184.5
	12/15/2021	ND<2.5	184.5
	6/8/2022	ND<2.5	184.5
	12/15/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-19R	6/15/2017	ND<2.5	184.5
	12/14/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/19/2018	ND<2.5	184.5
	6/12/2019	ND<2.5	184.5
	12/10/2019	ND<2.5	184.5

## Cadmium

6/24/2020	ND<2.5	184.5
12/16/2020	ND<2.5	184.5
6/15/2021	ND<2.5	184.5
12/15/2021	ND<2.5	184.5
6/7/2022	ND<2.5	184.5
12/15/2022	10	369

Rank Sum = 2398.5  
Rank Mean = 199.875

GWC-22	6/15/2017	ND<2.5	184.5
	12/12/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/19/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/12/2019	ND<2.5	184.5
	6/24/2020	ND<2.5	184.5
	12/18/2020	ND<2.5	184.5
	6/15/2021	ND<2.5	184.5
	12/14/2021	ND<2.5	184.5
	6/7/2022	ND<2.5	184.5
	12/13/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-23	6/15/2017	ND<2.5	184.5
	12/12/2017	ND<2.5	184.5
	6/19/2018	ND<2.5	184.5
	12/19/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/12/2019	ND<2.5	184.5
	6/24/2020	ND<2.5	184.5
	12/17/2020	ND<2.5	184.5
	6/15/2021	ND<2.5	184.5
	12/14/2021	ND<2.5	184.5
	6/7/2022	ND<2.5	184.5
	12/13/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-23A	6/15/2017	ND<2.5	184.5
	12/12/2017	ND<2.5	184.5
	6/19/2018	ND<2.5	184.5
	12/19/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/12/2019	ND<2.5	184.5
	6/24/2020	ND<2.5	184.5
	12/17/2020	ND<2.5	184.5
	6/15/2021	ND<2.5	184.5
	12/14/2021	ND<2.5	184.5
	6/7/2022	ND<2.5	184.5
	12/13/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

GWC-24	6/15/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	6/12/2019	ND<2.5	184.5
	12/10/2019	ND<2.5	184.5
	6/25/2020	ND<2.5	184.5

## Cadmium

6/15/2021	ND<2.5	184.5
6/8/2022	ND<2.5	184.5
12/15/2022	ND<2.5	184.5

Rank Sum = 1476  
Rank Mean = 184.5

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GWC-10	6/16/2017	ND<2.5	184.5
	12/13/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/18/2018	ND<2.5	184.5
	6/11/2019	ND<2.5	184.5
	12/13/2019	ND<2.5	184.5
	6/25/2020	ND<2.5	184.5
	12/16/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/16/2021	ND<2.5	184.5
	6/8/2022	ND<2.5	184.5
	12/15/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

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GWC-10A	6/16/2017	ND<2.5	184.5
	12/13/2017	ND<2.5	184.5
	6/20/2018	ND<2.5	184.5
	12/18/2018	ND<2.5	184.5
	6/11/2019	ND<2.5	184.5
	12/13/2019	ND<2.5	184.5
	6/25/2020	ND<2.5	184.5
	12/16/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/16/2021	ND<2.5	184.5
	6/8/2022	ND<2.5	184.5
	12/15/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

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GWC-2	6/16/2017	ND<2.5	184.5
	12/14/2017	ND<2.5	184.5
	6/21/2018	ND<2.5	184.5
	12/20/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/11/2019	ND<2.5	184.5
	6/23/2020	ND<2.5	184.5
	12/17/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/16/2021	ND<2.5	184.5
	6/8/2022	ND<2.5	184.5
	12/13/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

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GWC-3A	6/16/2017	ND<2.5	184.5
	12/13/2017	ND<2.5	184.5
	6/21/2018	ND<2.5	184.5
	12/18/2018	ND<2.5	184.5
	6/12/2019	ND<2.5	184.5
	12/11/2019	ND<2.5	184.5
	6/25/2020	ND<2.5	184.5
	12/17/2020	ND<2.5	184.5

## Cadmium

6/15/2021	ND<2.5	184.5
12/16/2021	ND<2.5	184.5
6/8/2022	ND<2.5	184.5
12/13/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

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GWC-9	6/16/2017	ND<2.5	184.5
	12/14/2017	ND<2.5	184.5
	6/21/2018	ND<2.5	184.5
	12/19/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/13/2019	ND<2.5	184.5
	6/25/2020	ND<2.5	184.5
	12/18/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/14/2021	ND<2.5	184.5
	6/8/2022	ND<2.5	184.5
	12/15/2022	ND<2.5	184.5

Rank Sum = 2214  
Rank Mean = 184.5

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GWC-8	12/13/2017	ND<2.5	184.5
	6/21/2018	ND<2.5	184.5
	6/13/2019	ND<2.5	184.5
	12/12/2019	ND<2.5	184.5
	6/24/2020	ND<2.5	184.5
	12/17/2020	ND<2.5	184.5
	6/17/2021	ND<2.5	184.5
	12/16/2021	ND<2.5	184.5
	6/10/2022	ND<2.5	184.5
	12/14/2022	ND<2.5	184.5

Rank Sum = 1845  
Rank Mean = 184.5

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GWC-14	6/21/2018	ND<2.5	184.5
	6/12/2019	ND<2.5	184.5
	12/11/2019	ND<2.5	184.5
	6/25/2020	ND<2.5	184.5
	12/18/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/16/2021	ND<2.5	184.5
	6/10/2022	ND<2.5	184.5

Rank Sum = 1476  
Rank Mean = 184.5

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GWC-3	6/21/2018	ND<2.5	184.5
	12/18/2018	ND<2.5	184.5
	6/12/2019	ND<2.5	184.5
	12/11/2019	ND<2.5	184.5
	6/25/2020	ND<2.5	184.5
	12/17/2020	ND<2.5	184.5
	6/16/2021	ND<2.5	184.5
	12/16/2021	ND<2.5	184.5
	6/8/2022	ND<2.5	184.5

Rank Sum = 1660.5  
Rank Mean = 184.5

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GWC-4	6/21/2018	ND<2.5	184.5
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Cadmium

6/24/2020	ND<2.5	184.5
12/18/2020	ND<2.5	184.5
6/17/2021	ND<2.5	184.5
12/15/2021	ND<2.5	184.5
6/9/2022	ND<2.5	184.5
12/13/2022	ND<2.5	184.5

Rank Sum = 1291.5  
Rank Mean = 184.5

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GWC-14R	6/9/2022	ND<2.5	184.5
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Rank Sum = 184.5  
Rank Mean = 184.5

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GWC-8R	6/9/2022	ND<2.5	184.5
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Rank Sum = 184.5  
Rank Mean = 184.5

**Calculation Results:**

Kruskal-Wallis H Statistic = 0.241216

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 29.75

95% Confidence comparison value is 46.1942 at 32 degrees of freedom

0.241216 < 46.1942 indicating no significant group difference at 5% significance level

29.75 < 46.1942 indicating no significant group difference at 5% significance level when adjusted for ties

Chlorobenzene

**Kruskal-Wallis Non-Parametric Test**

**Parameter: Chlorobenzene**

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

**Kruskal Wallis Ranks**

**Background Locations**

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Loc. ID	Date	Value	Rank
GWA-1	6/13/2017	ND<5	197.5
	12/11/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/17/2018	ND<5	197.5
	6/10/2019	ND<5	197.5
	12/9/2019	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/17/2020	ND<5	197.5
	6/15/2021	ND<5	197.5
	12/13/2021	ND<5	197.5
	6/8/2022	ND<5	197.5
	12/12/2022	ND<5	197.5
	12/15/2022	ND<5	197.5

Rank Sum = 2567.5  
Rank Mean = 197.5

GWA-2	6/15/2017	ND<5	197.5
	12/11/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/17/2018	ND<5	197.5
	6/11/2019	ND<5	197.5
	12/11/2019	ND<5	197.5
	6/22/2020	ND<5	197.5
	12/17/2020	ND<5	197.5
	6/15/2021	ND<5	197.5
	12/13/2021	ND<5	197.5
	6/8/2022	ND<5	197.5
	12/12/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

Background Rank Sum = 4937.5  
Background Rank Mean = 197.5

**Compliance Locations**

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Loc. ID	Date	Value	Rank
GWA-1A	6/12/2017	ND<5	197.5
	12/13/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/18/2018	ND<5	197.5
	6/10/2019	ND<5	197.5
	12/9/2019	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/17/2020	ND<5	197.5
	6/17/2021	ND<5	197.5
	12/16/2021	ND<5	197.5

## Chlorobenzene

	6/8/2022	ND<5	197.5
	12/14/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-5	6/12/2017	ND<5	197.5
	12/12/2017	ND<5	197.5
	6/21/2018	ND<5	197.5
	12/18/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/10/2019	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/17/2020	ND<5	197.5
	6/15/2021	ND<5	197.5
	12/13/2021	ND<5	197.5
	6/8/2022	ND<5	197.5
	12/12/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-6	6/12/2017	ND<5	197.5
	12/13/2017	ND<5	197.5
	6/21/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/10/2019	ND<5	197.5
	6/24/2020	ND<5	197.5
	12/17/2020	ND<5	197.5
	6/15/2021	ND<5	197.5
	12/13/2021	ND<5	197.5
	6/8/2022	ND<5	197.5
	12/14/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-7	6/12/2017	ND<5	197.5
	12/12/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/18/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/11/2019	ND<5	197.5
	6/24/2020	ND<5	197.5
	12/17/2020	ND<5	197.5
	6/15/2021	ND<5	197.5
	12/13/2021	ND<5	197.5
	6/8/2022	ND<5	197.5
	12/12/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-14	6/13/2017	ND<5	197.5
	6/20/2018	ND<5	197.5
	6/11/2019	ND<5	197.5
	12/10/2019	ND<5	197.5
	6/24/2020	ND<5	197.5
	12/17/2020	ND<5	197.5
	6/15/2021	ND<5	197.5
	12/15/2021	ND<5	197.5
	6/9/2022	ND<5	197.5

## Chlorobenzene

	12/13/2022	ND<5	197.5
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Rank Sum = 1975  
Rank Mean = 197.5

GWC-14A	6/13/2017	ND<5	197.5
	12/12/2017	ND<5	197.5
	6/20/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/11/2019	ND<5	197.5
	12/10/2019	ND<5	197.5
	6/24/2020	12	395
	12/15/2020	16	399
	6/15/2021	15	397
	12/14/2021	15	398
	6/9/2022	17	400
	12/13/2022	14	396

Rank Sum = 3570  
Rank Mean = 297.5

GWC-14R	6/13/2017	ND<5	197.5
	12/12/2017	ND<5	197.5
	6/20/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/10/2019	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/17/2020	ND<5	197.5
	6/16/2021	ND<5	197.5
	12/14/2021	ND<5	197.5
	6/9/2022	ND<5	197.5
	12/13/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-4A	6/13/2017	ND<5	197.5
	12/12/2017	ND<5	197.5
	6/20/2018	ND<5	197.5
	12/17/2018	ND<5	197.5
	6/11/2019	ND<5	197.5
	12/11/2019	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/17/2020	ND<5	197.5
	6/17/2021	ND<5	197.5
	12/15/2021	ND<5	197.5
	6/8/2022	ND<5	197.5
	12/14/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-8A	6/13/2017	ND<5	197.5
	12/12/2017	ND<5	197.5
	6/20/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/11/2019	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/15/2020	ND<5	197.5
	6/16/2021	ND<5	197.5
	12/15/2021	ND<5	197.5

## Chlorobenzene

	6/9/2022	ND<5	197.5
	12/13/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-8R	6/13/2017	ND<5	197.5
	12/12/2017	ND<5	197.5
	6/20/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/11/2019	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/15/2020	ND<5	197.5
	6/16/2021	ND<5	197.5
	12/15/2021	ND<5	197.5
	6/9/2022	ND<5	197.5
	12/13/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWA-3	6/14/2017	ND<5	197.5
	12/11/2017	ND<5	197.5
	6/18/2018	ND<5	197.5
	12/17/2018	ND<5	197.5
	6/11/2019	ND<5	197.5
	12/10/2019	ND<5	197.5
	6/22/2020	ND<5	197.5
	12/16/2020	ND<5	197.5
	6/14/2021	ND<5	197.5
	12/14/2021	ND<5	197.5
	6/6/2022	ND<5	197.5
	12/13/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-11	6/14/2017	ND<5	197.5
	12/13/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/12/2019	ND<5	197.5
	6/24/2020	ND<5	197.5
	12/15/2020	ND<5	197.5
	6/15/2021	ND<5	197.5
	12/13/2021	ND<5	197.5
	6/7/2022	ND<5	197.5
	12/12/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-12	6/14/2017	ND<5	197.5
	12/13/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/11/2019	ND<5	197.5
	12/9/2019	ND<5	197.5
	6/24/2020	ND<5	197.5
	12/15/2020	ND<5	197.5
	6/15/2021	ND<5	197.5

## Chlorobenzene

	12/13/2021	ND<5	197.5
	6/7/2022	ND<5	197.5
	12/12/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-12A	6/14/2017	ND<5	197.5
	12/13/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/11/2019	ND<5	197.5
	12/9/2019	ND<5	197.5
	6/24/2020	ND<5	197.5
	12/15/2020	ND<5	197.5
	6/15/2021	ND<5	197.5
	12/13/2021	ND<5	197.5
	6/7/2022	ND<5	197.5
	12/12/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-13	6/14/2017	ND<5	197.5
	12/12/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/11/2019	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/15/2020	ND<5	197.5
	6/15/2021	ND<5	197.5
	12/15/2021	ND<5	197.5
	6/8/2022	ND<5	197.5
	12/12/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-15	6/14/2017	ND<5	197.5
	12/13/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/11/2019	ND<5	197.5
	12/10/2019	ND<5	197.5
	6/25/2020	ND<5	197.5
	12/17/2020	ND<5	197.5
	6/16/2021	ND<5	197.5
	12/14/2021	ND<5	197.5
	6/9/2022	ND<5	197.5
	12/15/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-16A	6/14/2017	ND<5	197.5
	12/13/2017	ND<5	197.5
	6/21/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/13/2019	ND<5	197.5
	12/11/2019	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/17/2020	ND<5	197.5

## Chlorobenzene

6/16/2021	ND<5	197.5
12/16/2021	ND<5	197.5
6/9/2022	ND<5	197.5
12/14/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-17	6/14/2017	ND<5	197.5
	12/12/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/10/2019	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/15/2020	ND<5	197.5
	6/14/2021	ND<5	197.5
	12/14/2021	ND<5	197.5
	6/9/2022	ND<5	197.5
	12/14/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-18	6/14/2017	ND<5	197.5
	12/13/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/18/2018	ND<5	197.5
	6/11/2019	ND<5	197.5
	12/9/2019	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/15/2020	ND<5	197.5
	6/14/2021	ND<5	197.5
	12/14/2021	ND<5	197.5
	6/7/2022	ND<5	197.5
	12/14/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-19R	6/14/2017	ND<5	197.5
	12/13/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/18/2018	ND<5	197.5
	6/11/2019	ND<5	197.5
	12/9/2019	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/15/2020	ND<5	197.5
	6/14/2021	ND<5	197.5
	12/14/2021	ND<5	197.5
	6/6/2022	ND<5	197.5
	12/14/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-22	6/14/2017	ND<5	197.5
	12/11/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/18/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/11/2019	ND<5	197.5
	6/23/2020	ND<5	197.5

## Chlorobenzene

12/17/2020	ND<5	197.5
6/14/2021	ND<5	197.5
12/13/2021	ND<5	197.5
6/6/2022	ND<5	197.5
12/12/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-23	6/14/2017	ND<5	197.5
	12/11/2017	ND<5	197.5
	6/18/2018	ND<5	197.5
	12/18/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/11/2019	ND<5	197.5
	6/24/2020	ND<5	197.5
	12/16/2020	ND<5	197.5
	6/14/2021	ND<5	197.5
	12/13/2021	ND<5	197.5
	6/6/2022	ND<5	197.5
	12/12/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-23A	6/14/2017	ND<5	197.5
	12/11/2017	ND<5	197.5
	6/18/2018	ND<5	197.5
	12/18/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/11/2019	ND<5	197.5
	6/24/2020	ND<5	197.5
	12/16/2020	ND<5	197.5
	6/14/2021	ND<5	197.5
	12/13/2021	ND<5	197.5
	6/6/2022	ND<5	197.5
	12/12/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-24	6/14/2017	ND<5	197.5
	12/13/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/11/2019	ND<5	197.5
	12/9/2019	ND<5	197.5
	6/24/2020	ND<5	197.5
	12/15/2020	ND<5	197.5
	6/14/2021	ND<5	197.5
	12/14/2021	ND<5	197.5
	6/7/2022	ND<5	197.5
	12/14/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-10	6/15/2017	ND<5	197.5
	12/12/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/17/2018	ND<5	197.5
	6/10/2019	ND<5	197.5
	12/12/2019	ND<5	197.5

## Chlorobenzene

6/24/2020	ND<5	197.5
12/15/2020	ND<5	197.5
6/15/2021	ND<5	197.5
12/15/2021	ND<5	197.5
6/7/2022	ND<5	197.5
12/14/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-10A	6/15/2017	ND<5	197.5
	12/12/2017	ND<5	197.5
	6/19/2018	ND<5	197.5
	12/17/2018	ND<5	197.5
	6/10/2019	ND<5	197.5
	12/12/2019	ND<5	197.5
	6/24/2020	ND<5	197.5
	12/15/2020	ND<5	197.5
	6/15/2021	ND<5	197.5
	12/15/2021	ND<5	197.5
	6/7/2022	ND<5	197.5
	12/14/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-2	6/15/2017	ND<5	197.5
	12/13/2017	ND<5	197.5
	6/20/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/10/2019	ND<5	197.5
	6/22/2020	ND<5	197.5
	12/16/2020	ND<5	197.5
	6/15/2021	ND<5	197.5
	12/15/2021	ND<5	197.5
	6/7/2022	ND<5	197.5
	12/12/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-3	6/15/2017	ND<5	197.5
	6/21/2018	ND<5	197.5
	12/17/2018	ND<5	197.5
	6/11/2019	ND<5	197.5
	12/10/2019	ND<5	197.5
	6/24/2020	ND<5	197.5
	12/16/2020	ND<5	197.5
	6/15/2021	ND<5	197.5
	12/15/2021	ND<5	197.5
	6/7/2022	ND<5	197.5
	12/12/2022	ND<5	197.5

Rank Sum = 2172.5  
Rank Mean = 197.5

GWC-3A	6/15/2017	ND<5	197.5
	12/12/2017	ND<5	197.5
	6/20/2018	ND<5	197.5
	12/17/2018	ND<5	197.5
	6/11/2019	ND<5	197.5
	12/10/2019	ND<5	197.5

## Chlorobenzene

6/24/2020	ND<5	197.5
12/16/2020	ND<5	197.5
6/14/2021	ND<5	197.5
12/15/2021	ND<5	197.5
6/7/2022	ND<5	197.5
12/12/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-9	6/15/2017	ND<5	197.5
	12/13/2017	ND<5	197.5
	6/20/2018	ND<5	197.5
	12/18/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/12/2019	ND<5	197.5
	6/24/2020	ND<5	197.5
	12/17/2020	ND<5	197.5
	6/15/2021	ND<5	197.5
	12/13/2021	ND<5	197.5
	6/7/2022	ND<5	197.5
	12/14/2022	ND<5	197.5

Rank Sum = 2370  
Rank Mean = 197.5

GWC-8	12/12/2017	ND<5	197.5
	6/20/2018	ND<5	197.5
	12/19/2018	ND<5	197.5
	6/12/2019	ND<5	197.5
	12/11/2019	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/16/2020	ND<5	197.5
	6/16/2021	ND<5	197.5
	12/15/2021	ND<5	197.5
	6/9/2022	ND<5	197.5
	12/13/2022	ND<5	197.5

Rank Sum = 2172.5  
Rank Mean = 197.5

GWC-4	6/20/2018	ND<5	197.5
	6/23/2020	ND<5	197.5
	12/17/2020	ND<5	197.5
	6/16/2021	ND<5	197.5
	12/14/2021	ND<5	197.5
	6/8/2022	ND<5	197.5
	12/12/2022	ND<5	197.5

Rank Sum = 1382.5  
Rank Mean = 197.5

**Calculation Results:**

Kruskal-Wallis H Statistic = 8.70823

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 196.447

95% Confidence comparison value is 46.1942 at 32 degrees of freedom

8.70823 < 46.1942 indicating no significant group difference at 5% significance level

196.447 > 46.1942 indicating a significant group difference at 5% significance level when adjusted for ties

**Individual Well Comparisons at 1% Significance Level per Comparison**

## Chlorobenzene

1% Z score is 2.32634

Mean background rank is 197.5

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	197.5	0	94.4551
GWC-5	197.5	0	94.4551
GWC-6	197.5	0	94.4551
GWC-7	197.5	0	94.4551
GWC-14	197.5	0	100.635
<b>GWC-14A</b>	<b>297.5</b>	<b>100</b>	<b>94.4551</b>
GWC-14R	197.5	0	94.4551
GWC-4A	197.5	0	94.4551
GWC-8A	197.5	0	94.4551
GWC-8R	197.5	0	94.4551
GWA-3	197.5	0	94.4551
GWC-11	197.5	0	94.4551
GWC-12	197.5	0	94.4551
GWC-12A	197.5	0	94.4551
GWC-13	197.5	0	94.4551
GWC-15	197.5	0	94.4551
GWC-16A	197.5	0	94.4551
GWC-17	197.5	0	94.4551
GWC-18	197.5	0	94.4551
GWC-19R	197.5	0	94.4551
GWC-22	197.5	0	94.4551
GWC-23	197.5	0	94.4551
GWC-23A	197.5	0	94.4551
GWC-24	197.5	0	94.4551
GWC-10	197.5	0	94.4551
GWC-10A	197.5	0	94.4551
GWC-2	197.5	0	94.4551
GWC-3	197.5	0	97.3128
GWC-3A	197.5	0	94.4551
GWC-9	197.5	0	94.4551
GWC-8	197.5	0	97.3128
GWC-4	197.5	0	115.011

**Individual Well Comparisons at Groupwise 5% Significance Level  
(0.15625% Significance Level per comparison)**

0.15625% Z score is 3.09024

Mean background rank is 197.5

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	197.5	0	125.471
GWC-5	197.5	0	125.471
GWC-6	197.5	0	125.471
GWC-7	197.5	0	125.471
GWC-14	197.5	0	133.681
GWC-14A	297.5	100	125.471
GWC-14R	197.5	0	125.471
GWC-4A	197.5	0	125.471
GWC-8A	197.5	0	125.471
GWC-8R	197.5	0	125.471
GWA-3	197.5	0	125.471
GWC-11	197.5	0	125.471
GWC-12	197.5	0	125.471
GWC-12A	197.5	0	125.471
GWC-13	197.5	0	125.471
GWC-15	197.5	0	125.471
GWC-16A	197.5	0	125.471

## Chlorobenzene

GWC-17	197.5	0	125.471
GWC-18	197.5	0	125.471
GWC-19R	197.5	0	125.471
GWC-22	197.5	0	125.471
GWC-23	197.5	0	125.471
GWC-23A	197.5	0	125.471
GWC-24	197.5	0	125.471
GWC-10	197.5	0	125.471
GWC-10A	197.5	0	125.471
GWC-2	197.5	0	125.471
GWC-3	197.5	0	129.267
GWC-3A	197.5	0	125.471
GWC-9	197.5	0	125.471
GWC-8	197.5	0	129.267
GWC-4	197.5	0	152.778



## Kruskal-Wallis Non-Parametric Test

Parameter: Chloroethane  
 Original Data (Not Transformed)  
 Non-Detects Replaced with 1/2 DL

## Kruskal Wallis Ranks

## Background Locations

Loc. ID	Date	Value	Rank	
GWA-1	6/13/2017	ND<1	194	
	12/11/2017	ND<1	194	
	6/19/2018	ND<1	194	
	12/17/2018	ND<1	194	
	6/10/2019	ND<1	194	
	12/9/2019	ND<1	194	
	6/23/2020	ND<1	194	
	12/17/2020	ND<1	194	
	6/15/2021	ND<1	194	
	12/13/2021	ND<1	194	
	6/8/2022	ND<1	194	
	12/12/2022	ND<1	194	
	12/15/2022	ND<1	194	
	Rank Sum = 2522			
	Rank Mean = 194			
GWA-2	6/15/2017	ND<1	194	
	12/11/2017	ND<1	194	
	6/19/2018	ND<1	194	
	12/17/2018	ND<1	194	
	6/11/2019	ND<1	194	
	12/11/2019	ND<1	194	
	6/22/2020	ND<1	194	
	12/17/2020	ND<1	194	
	6/15/2021	ND<1	194	
	12/13/2021	ND<1	194	
	6/8/2022	ND<1	194	
	12/12/2022	ND<1	194	
	Rank Sum = 2328			
	Rank Mean = 194			
	Background Rank Sum = 4850			
Background Rank Mean = 194				

## Compliance Locations

Loc. ID	Date	Value	Rank
GWA-1A	6/12/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/18/2018	ND<1	194
	6/10/2019	ND<1	194
	12/9/2019	ND<1	194
	6/23/2020	ND<1	194
	12/17/2020	ND<1	194
	6/17/2021	ND<1	194
	12/16/2021	ND<1	194

	6/8/2022	ND<1	194	
	12/14/2022	ND<1	194	
Rank Sum = 2328				
Rank Mean = 194				
<hr/>				
GWC-5	6/12/2017	ND<1	194	
	12/12/2017	ND<1	194	
	6/21/2018	ND<1	194	
	12/18/2018	ND<1	194	
	6/12/2019	ND<1	194	
	12/10/2019	ND<1	194	
	6/23/2020	ND<1	194	
	12/17/2020	ND<1	194	
	6/15/2021	ND<1	194	
	12/13/2021	ND<1	194	
	6/8/2022	ND<1	194	
	12/12/2022	ND<1	194	
	Rank Sum = 2328			
	Rank Mean = 194			
<hr/>				
GWC-6	6/12/2017	ND<1	194	
	12/13/2017	ND<1	194	
	6/21/2018	ND<1	194	
	12/19/2018	ND<1	194	
	6/12/2019	ND<1	194	
	12/10/2019	ND<1	194	
	6/24/2020	ND<1	194	
	12/17/2020	ND<1	194	
	6/15/2021	ND<1	194	
	12/13/2021	ND<1	194	
	6/8/2022	ND<1	194	
	12/14/2022	ND<1	194	
	Rank Sum = 2328			
	Rank Mean = 194			
<hr/>				
GWC-7	6/12/2017	ND<1	194	
	12/12/2017	ND<1	194	
	6/19/2018	ND<1	194	
	12/18/2018	ND<1	194	
	6/12/2019	ND<1	194	
	12/11/2019	ND<1	194	
	6/24/2020	ND<1	194	
	12/17/2020	ND<1	194	
	6/15/2021	ND<1	194	
	12/13/2021	ND<1	194	
	6/8/2022	ND<1	194	
	12/12/2022	ND<1	194	
	Rank Sum = 2328			
	Rank Mean = 194			
<hr/>				
GWC-14	6/13/2017	ND<1	194	
	6/20/2018	ND<1	194	
	6/11/2019	ND<1	194	
	12/10/2019	ND<1	194	
	6/24/2020	ND<1	194	
	12/17/2020	ND<1	194	
	6/15/2021	ND<1	194	
	12/15/2021	ND<1	194	
	6/9/2022	ND<1	194	

## Chloroethane

12/13/2022 ND<1 194  
 Rank Sum = 1940  
 Rank Mean = 194

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GWC-14A	6/13/2017	5.8	398
	12/12/2017	7.7	399
	6/20/2018	8.5	400
	12/19/2018	5.4	397
	6/11/2019	4.4	395
	12/10/2019	3.6	392
	6/24/2020	3.3	389
	12/15/2020	4.2	394
	6/15/2021	3	388
	12/14/2021	5	396
	6/9/2022	3.7	393
	12/13/2022	3.4	391

Rank Sum = 4732  
 Rank Mean = 394.333

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GWC-14R	6/13/2017	ND<1	194
	12/12/2017	ND<1	194
	6/20/2018	ND<1	194
	12/19/2018	ND<1	194
	6/12/2019	ND<1	194
	12/10/2019	ND<1	194
	6/23/2020	ND<1	194
	12/17/2020	ND<1	194
	6/16/2021	ND<1	194
	12/14/2021	ND<1	194
	6/9/2022	ND<1	194
	12/13/2022	ND<1	194

Rank Sum = 2328  
 Rank Mean = 194

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GWC-4A	6/13/2017	ND<1	194
	12/12/2017	ND<1	194
	6/20/2018	ND<1	194
	12/17/2018	ND<1	194
	6/11/2019	ND<1	194
	12/11/2019	ND<1	194
	6/23/2020	ND<1	194
	12/17/2020	ND<1	194
	6/17/2021	ND<1	194
	12/15/2021	ND<1	194
	6/8/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328  
 Rank Mean = 194

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GWC-8A	6/13/2017	ND<1	194
	12/12/2017	ND<1	194
	6/20/2018	ND<1	194
	12/19/2018	ND<1	194
	6/12/2019	ND<1	194
	12/11/2019	ND<1	194
	6/23/2020	ND<1	194
	12/15/2020	ND<1	194
	6/16/2021	ND<1	194
	12/15/2021	ND<1	194

## Chloroethane

6/9/2022 ND<1 194  
 12/13/2022 ND<1 194  
 Rank Sum = 2328  
 Rank Mean = 194

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GWC-8R	6/13/2017	ND<1	194
	12/12/2017	ND<1	194
	6/20/2018	ND<1	194
	12/19/2018	ND<1	194
	6/12/2019	ND<1	194
	12/11/2019	ND<1	194
	6/23/2020	ND<1	194
	12/15/2020	ND<1	194
	6/16/2021	ND<1	194
	12/15/2021	ND<1	194
	6/9/2022	ND<1	194
	12/13/2022	ND<1	194

Rank Sum = 2328  
 Rank Mean = 194

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GWA-3	6/14/2017	ND<1	194
	12/11/2017	ND<1	194
	6/18/2018	ND<1	194
	12/17/2018	ND<1	194
	6/11/2019	ND<1	194
	12/10/2019	ND<1	194
	6/22/2020	ND<1	194
	12/16/2020	ND<1	194
	6/14/2021	ND<1	194
	12/14/2021	ND<1	194
	6/6/2022	ND<1	194
	12/13/2022	ND<1	194

Rank Sum = 2328  
 Rank Mean = 194

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GWC-11	6/14/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/19/2018	ND<1	194
	6/12/2019	ND<1	194
	12/12/2019	ND<1	194
	6/24/2020	ND<1	194
	12/15/2020	ND<1	194
	6/15/2021	ND<1	194
	12/13/2021	ND<1	194
	6/7/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328  
 Rank Mean = 194

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GWC-12	6/14/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/19/2018	ND<1	194
	6/11/2019	ND<1	194
	12/9/2019	ND<1	194
	6/24/2020	ND<1	194
	12/15/2020	ND<1	194
	6/15/2021	ND<1	194

## Chloroethane

12/13/2021	ND<1	194
6/7/2022	ND<1	194
12/12/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-12A	6/14/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/19/2018	ND<1	194
	6/11/2019	ND<1	194
	12/9/2019	ND<1	194
	6/24/2020	ND<1	194
	12/15/2020	ND<1	194
	6/15/2021	ND<1	194
	12/13/2021	ND<1	194
	6/7/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-13	6/14/2017	ND<1	194
	12/12/2017	ND<1	194
	6/19/2018	ND<1	194
	12/19/2018	ND<1	194
	6/12/2019	ND<1	194
	12/11/2019	ND<1	194
	6/23/2020	ND<1	194
	12/15/2020	ND<1	194
	6/15/2021	ND<1	194
	12/15/2021	ND<1	194
	6/8/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-15	6/14/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/19/2018	ND<1	194
	6/11/2019	ND<1	194
	12/10/2019	ND<1	194
	6/25/2020	ND<1	194
	12/17/2020	ND<1	194
	6/16/2021	ND<1	194
	12/14/2021	ND<1	194
	6/9/2022	ND<1	194
	12/15/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-16A	6/14/2017	3.3	390
	12/13/2017	ND<1	194
	6/21/2018	ND<1	194
	12/19/2018	ND<1	194
	6/13/2019	ND<1	194
	12/11/2019	ND<1	194
	6/23/2020	ND<1	194
	12/17/2020	ND<1	194

## Chloroethane

6/16/2021	ND<1	194
12/16/2021	ND<1	194
6/9/2022	ND<1	194
12/14/2022	ND<1	194

Rank Sum = 2524  
Rank Mean = 210.333

GWC-17	6/14/2017	ND<1	194
	12/12/2017	ND<1	194
	6/19/2018	ND<1	194
	12/19/2018	ND<1	194
	6/12/2019	ND<1	194
	12/10/2019	ND<1	194
	6/23/2020	ND<1	194
	12/15/2020	ND<1	194
	6/14/2021	ND<1	194
	12/14/2021	ND<1	194
	6/9/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-18	6/14/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/18/2018	ND<1	194
	6/11/2019	ND<1	194
	12/9/2019	ND<1	194
	6/23/2020	ND<1	194
	12/15/2020	ND<1	194
	6/14/2021	ND<1	194
	12/14/2021	ND<1	194
	6/7/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-19R	6/14/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/18/2018	ND<1	194
	6/11/2019	ND<1	194
	12/9/2019	ND<1	194
	6/23/2020	ND<1	194
	12/15/2020	ND<1	194
	6/14/2021	ND<1	194
	12/14/2021	ND<1	194
	6/6/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-22	6/14/2017	ND<1	194
	12/11/2017	ND<1	194
	6/19/2018	ND<1	194
	12/18/2018	ND<1	194
	6/12/2019	ND<1	194
	12/11/2019	ND<1	194
	6/23/2020	ND<1	194

## Chloroethane

12/17/2020	ND<1	194
6/14/2021	ND<1	194
12/13/2021	ND<1	194
6/6/2022	ND<1	194
12/12/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-23	6/14/2017	ND<1	194
	12/11/2017	ND<1	194
	6/18/2018	ND<1	194
	12/18/2018	ND<1	194
	6/12/2019	ND<1	194
	12/11/2019	ND<1	194
	6/24/2020	ND<1	194
	12/16/2020	ND<1	194
	6/14/2021	ND<1	194
	12/13/2021	ND<1	194
	6/6/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-23A	6/14/2017	ND<1	194
	12/11/2017	ND<1	194
	6/18/2018	ND<1	194
	12/18/2018	ND<1	194
	6/12/2019	ND<1	194
	12/11/2019	ND<1	194
	6/24/2020	ND<1	194
	12/16/2020	ND<1	194
	6/14/2021	ND<1	194
	12/13/2021	ND<1	194
	6/6/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-24	6/14/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/19/2018	ND<1	194
	6/11/2019	ND<1	194
	12/9/2019	ND<1	194
	6/24/2020	ND<1	194
	12/15/2020	ND<1	194
	6/14/2021	ND<1	194
	12/14/2021	ND<1	194
	6/7/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-10	6/15/2017	ND<1	194
	12/12/2017	ND<1	194
	6/19/2018	ND<1	194
	12/17/2018	ND<1	194
	6/10/2019	ND<1	194
	12/12/2019	ND<1	194

## Chloroethane

6/24/2020	ND<1	194
12/15/2020	ND<1	194
6/15/2021	ND<1	194
12/15/2021	ND<1	194
6/7/2022	ND<1	194
12/14/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-10A	6/15/2017	ND<1	194
	12/12/2017	ND<1	194
	6/19/2018	ND<1	194
	12/17/2018	ND<1	194
	6/10/2019	ND<1	194
	12/12/2019	ND<1	194
	6/24/2020	ND<1	194
	12/15/2020	ND<1	194
	6/15/2021	ND<1	194
	12/15/2021	ND<1	194
	6/7/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-2	6/15/2017	ND<1	194
	12/13/2017	ND<1	194
	6/20/2018	ND<1	194
	12/19/2018	ND<1	194
	6/12/2019	ND<1	194
	12/10/2019	ND<1	194
	6/22/2020	ND<1	194
	12/16/2020	ND<1	194
	6/15/2021	ND<1	194
	12/15/2021	ND<1	194
	6/7/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-3	6/15/2017	ND<1	194
	6/21/2018	ND<1	194
	12/17/2018	ND<1	194
	6/11/2019	ND<1	194
	12/10/2019	ND<1	194
	6/24/2020	ND<1	194
	12/16/2020	ND<1	194
	6/15/2021	ND<1	194
	12/15/2021	ND<1	194
	6/7/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2134  
Rank Mean = 194

GWC-3A	6/15/2017	ND<1	194
	12/12/2017	ND<1	194
	6/20/2018	ND<1	194
	12/17/2018	ND<1	194
	6/11/2019	ND<1	194
	12/10/2019	ND<1	194

Chloroethane

6/24/2020	ND<1	194
12/16/2020	ND<1	194
6/14/2021	ND<1	194
12/15/2021	ND<1	194
6/7/2022	ND<1	194
12/12/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-9	6/15/2017	ND<1	194
	12/13/2017	ND<1	194
	6/20/2018	ND<1	194
	12/18/2018	ND<1	194
	6/12/2019	ND<1	194
	12/12/2019	ND<1	194
	6/24/2020	ND<1	194
	12/17/2020	ND<1	194
	6/15/2021	ND<1	194
	12/13/2021	ND<1	194
	6/7/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-8	12/12/2017	ND<1	194
	6/20/2018	ND<1	194
	12/19/2018	ND<1	194
	6/12/2019	ND<1	194
	12/11/2019	ND<1	194
	6/23/2020	ND<1	194
	12/16/2020	ND<1	194
	6/16/2021	ND<1	194
	12/15/2021	ND<1	194
	6/9/2022	ND<1	194
	12/13/2022	ND<1	194

Rank Sum = 2134  
Rank Mean = 194

GWC-4	6/20/2018	ND<1	194
	6/23/2020	ND<1	194
	12/17/2020	ND<1	194
	6/16/2021	ND<1	194
	12/14/2021	ND<1	194
	6/8/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 1358  
Rank Mean = 194

**Calculation Results:**

Kruskal-Wallis H Statistic = 35.0052

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 370.951

95% Confidence comparison value is 46.1942 at 32 degrees of freedom

35.0052 < 46.1942 indicating no significant group difference at 5% significance level

**370.951 > 46.1942 indicating a significant group difference at 5% significance level when adjusted for ties**

**Individual Well Comparisons at 1% Significance Level per Comparison**

Chloroethane

1% Z score is 2.32634

Mean background rank is 194

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	194	0	94.4551
GWC-5	194	0	94.4551
GWC-6	194	0	94.4551
GWC-7	194	0	94.4551
GWC-14	194	0	100.635
<b>GWC-14A</b>	<b>394.333</b>	<b>200.333</b>	<b>94.4551</b>
GWC-14R	194	0	94.4551
GWC-4A	194	0	94.4551
GWC-8A	194	0	94.4551
GWC-8R	194	0	94.4551
GWA-3	194	0	94.4551
GWC-11	194	0	94.4551
GWC-12	194	0	94.4551
GWC-12A	194	0	94.4551
GWC-13	194	0	94.4551
GWC-15	194	0	94.4551
GWC-16A	210.333	16.3333	94.4551
GWC-17	194	0	94.4551
GWC-18	194	0	94.4551
GWC-19R	194	0	94.4551
GWC-22	194	0	94.4551
GWC-23	194	0	94.4551
GWC-23A	194	0	94.4551
GWC-24	194	0	94.4551
GWC-10	194	0	94.4551
GWC-10A	194	0	94.4551
GWC-2	194	0	94.4551
GWC-3	194	0	97.3128
GWC-3A	194	0	94.4551
GWC-9	194	0	94.4551
GWC-8	194	0	97.3128
GWC-4	194	0	115.011

**Individual Well Comparisons at Groupwise 5% Significance Level (0.15625% Significance Level per comparison)**

0.15625% Z score is 3.09024

Mean background rank is 194

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	194	0	125.471
GWC-5	194	0	125.471
GWC-6	194	0	125.471
GWC-7	194	0	125.471
GWC-14	194	0	133.681
<b>GWC-14A</b>	<b>394.333</b>	<b>200.333</b>	<b>125.471</b>
GWC-14R	194	0	125.471
GWC-4A	194	0	125.471
GWC-8A	194	0	125.471
GWC-8R	194	0	125.471
GWA-3	194	0	125.471
GWC-11	194	0	125.471
GWC-12	194	0	125.471
GWC-12A	194	0	125.471
GWC-13	194	0	125.471
GWC-15	194	0	125.471
GWC-16A	210.333	16.3333	125.471

## Chloroethane

GWC-17	194	0	125.471
GWC-18	194	0	125.471
GWC-19R	194	0	125.471
GWC-22	194	0	125.471
GWC-23	194	0	125.471
GWC-23A	194	0	125.471
GWC-24	194	0	125.471
GWC-10	194	0	125.471
GWC-10A	194	0	125.471
GWC-2	194	0	125.471
GWC-3	194	0	129.267
GWC-3A	194	0	125.471
GWC-9	194	0	125.471
GWC-8	194	0	129.267
GWC-4	194	0	152.778

## cis-1,2-Dichloroethene

## Kruskal-Wallis Non-Parametric Test

Parameter: cis-1,2-Dichloroethene

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

## Kruskal Wallis Ranks

## Background Locations

Loc. ID	Date	Value	Rank
GWA-1	6/13/2017	ND<1	145
	12/11/2017	ND<1	145
	6/19/2018	ND<1	145
	12/17/2018	ND<1	145
	6/10/2019	ND<1	145
	12/9/2019	ND<1	145
	6/23/2020	ND<1	145
	12/17/2020	ND<1	145
	6/15/2021	ND<1	145
	12/13/2021	ND<1	145
	6/8/2022	ND<1	145
	12/12/2022	ND<1	145
	12/15/2022	ND<1	145
	Rank Sum = 1885		
Rank Mean = 145			
GWA-2	6/15/2017	ND<1	145
	12/11/2017	ND<1	145
	6/19/2018	ND<1	145
	12/17/2018	ND<1	145
	6/11/2019	ND<1	145
	12/11/2019	ND<1	145
	6/22/2020	ND<1	145
	12/17/2020	ND<1	145
	6/15/2021	ND<1	145
	12/13/2021	ND<1	145
	6/8/2022	ND<1	145
	12/12/2022	ND<1	145
	Rank Sum = 1740		
Rank Mean = 145			

Background Rank Sum = 3625

Background Rank Mean = 145

## Compliance Locations

Loc. ID	Date	Value	Rank
GWA-1A	6/12/2017	ND<1	145
	12/13/2017	ND<1	145
	6/19/2018	ND<1	145
	12/18/2018	ND<1	145
	6/10/2019	ND<1	145
	12/9/2019	ND<1	145
	6/23/2020	ND<1	145
	12/17/2020	ND<1	145
	6/17/2021	ND<1	145
	12/16/2021	ND<1	145

cis-1,2-Dichloroethene

6/8/2022 ND<1 145  
12/14/2022 ND<1 145

Rank Sum = 1740  
Rank Mean = 145

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GWC-5 6/12/2017 ND<1 145  
12/12/2017 ND<1 145  
6/21/2018 ND<1 145  
12/18/2018 ND<1 145  
6/12/2019 ND<1 145  
12/10/2019 ND<1 145  
6/23/2020 ND<1 145  
12/17/2020 ND<1 145  
6/15/2021 ND<1 145  
12/13/2021 ND<1 145  
6/8/2022 ND<1 145  
12/12/2022 ND<1 145

Rank Sum = 1740  
Rank Mean = 145

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GWC-6 6/12/2017 ND<1 145  
12/13/2017 ND<1 145  
6/21/2018 ND<1 145  
12/19/2018 ND<1 145  
6/12/2019 ND<1 145  
12/10/2019 ND<1 145  
6/24/2020 ND<1 145  
12/17/2020 ND<1 145  
6/15/2021 ND<1 145  
12/13/2021 ND<1 145  
6/8/2022 ND<1 145  
12/14/2022 ND<1 145

Rank Sum = 1740  
Rank Mean = 145

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GWC-7 6/12/2017 ND<1 145  
12/12/2017 ND<1 145  
6/19/2018 ND<1 145  
12/18/2018 ND<1 145  
6/12/2019 ND<1 145  
12/11/2019 ND<1 145  
6/24/2020 ND<1 145  
12/17/2020 ND<1 145  
6/15/2021 ND<1 145  
12/13/2021 ND<1 145  
6/8/2022 ND<1 145  
12/12/2022 ND<1 145

Rank Sum = 1740  
Rank Mean = 145

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GWC-14 6/13/2017 ND<1 145  
6/20/2018 ND<1 145  
6/11/2019 ND<1 145  
12/10/2019 ND<1 145  
6/24/2020 ND<1 145  
12/17/2020 ND<1 145  
6/15/2021 ND<1 145  
12/15/2021 ND<1 145  
6/9/2022 ND<1 145

cis-1,2-Dichloroethene

12/13/2022 ND<1 145

Rank Sum = 1450  
Rank Mean = 145

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GWC-14A 6/13/2017 64 389  
12/12/2017 62 387  
6/20/2018 71 392  
12/19/2018 53 384  
6/11/2019 46 382  
12/10/2019 65 390  
6/24/2020 62 388  
12/15/2020 69 391  
6/15/2021 59 386  
12/14/2021 77 393  
6/9/2022 54 385  
12/13/2022 86 394

Rank Sum = 4661  
Rank Mean = 388.417

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GWC-14R 6/13/2017 26 363  
12/12/2017 20 344  
6/20/2018 24 355  
12/19/2018 17 340  
6/12/2019 21 346  
12/10/2019 19 343  
6/23/2020 26 364  
12/17/2020 28 370  
6/16/2021 26 365  
12/14/2021 24 356  
6/9/2022 21 347  
12/13/2022 22 350

Rank Sum = 4243  
Rank Mean = 353.583

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GWC-4A 6/13/2017 ND<1 145  
12/12/2017 ND<1 145  
6/20/2018 ND<1 145  
12/17/2018 ND<1 145  
6/11/2019 ND<1 145  
12/11/2019 ND<1 145  
6/23/2020 ND<1 145  
12/17/2020 ND<1 145  
6/17/2021 ND<1 145  
12/15/2021 ND<1 145  
6/8/2022 ND<1 145  
12/14/2022 ND<1 145

Rank Sum = 1740  
Rank Mean = 145

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GWC-8A 6/13/2017 27 367  
12/12/2017 37 380  
6/20/2018 32 376  
12/19/2018 31 374  
6/12/2019 22 351  
12/11/2019 33 378  
6/23/2020 23 353  
12/15/2020 31 375  
6/16/2021 24 357  
12/15/2021 24 358

cis-1,2-Dichloroethene

6/9/2022 27 368  
12/13/2022 35 379

Rank Sum = 4416  
Rank Mean = 368

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GWC-8R 6/13/2017 23 354  
12/12/2017 21 348  
6/20/2018 24 359  
12/19/2018 18 342  
6/12/2019 21 349  
12/11/2019 24 360  
6/23/2020 27 369  
12/15/2020 30 372  
6/16/2021 32 377  
12/15/2021 24 361  
6/9/2022 24 362  
12/13/2022 29 371

Rank Sum = 4324  
Rank Mean = 360.333

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GWA-3 6/14/2017 ND<1 145  
12/11/2017 ND<1 145  
6/18/2018 ND<1 145  
12/17/2018 ND<1 145  
6/11/2019 ND<1 145  
12/10/2019 ND<1 145  
6/22/2020 ND<1 145  
12/16/2020 ND<1 145  
6/14/2021 ND<1 145  
12/14/2021 ND<1 145  
6/6/2022 ND<1 145  
12/13/2022 ND<1 145

Rank Sum = 1740  
Rank Mean = 145

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GWC-11 6/14/2017 ND<1 145  
12/13/2017 ND<1 145  
6/19/2018 ND<1 145  
12/19/2018 ND<1 145  
6/12/2019 ND<1 145  
12/12/2019 ND<1 145  
6/24/2020 ND<1 145  
12/15/2020 ND<1 145  
6/15/2021 ND<1 145  
12/13/2021 ND<1 145  
6/7/2022 ND<1 145  
12/12/2022 ND<1 145

Rank Sum = 1740  
Rank Mean = 145

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GWC-12 6/14/2017 ND<1 145  
12/13/2017 ND<1 145  
6/19/2018 ND<1 145  
12/19/2018 ND<1 145  
6/11/2019 ND<1 145  
12/9/2019 ND<1 145  
6/24/2020 ND<1 145  
12/15/2020 ND<1 145  
6/15/2021 ND<1 145

cis-1,2-Dichloroethene

12/13/2021 ND<1 145  
6/7/2022 ND<1 145  
12/12/2022 ND<1 145

Rank Sum = 1740  
Rank Mean = 145

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GWC-12A 6/14/2017 ND<1 145  
12/13/2017 ND<1 145  
6/19/2018 ND<1 145  
12/19/2018 ND<1 145  
6/11/2019 ND<1 145  
12/9/2019 ND<1 145  
6/24/2020 ND<1 145  
12/15/2020 ND<1 145  
6/15/2021 ND<1 145  
12/13/2021 ND<1 145  
6/7/2022 ND<1 145  
12/12/2022 ND<1 145

Rank Sum = 1740  
Rank Mean = 145

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GWC-13 6/14/2017 ND<1 145  
12/12/2017 ND<1 145  
6/19/2018 ND<1 145  
12/19/2018 ND<1 145  
6/12/2019 ND<1 145  
12/11/2019 ND<1 145  
6/23/2020 ND<1 145  
12/15/2020 ND<1 145  
6/15/2021 ND<1 145  
12/15/2021 ND<1 145  
6/8/2022 ND<1 145  
12/12/2022 ND<1 145

Rank Sum = 1740  
Rank Mean = 145

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GWC-15 6/14/2017 10 329  
12/13/2017 11 332  
6/19/2018 2 290  
12/19/2018 2.9 302  
6/11/2019 97 395  
12/10/2019 51 383  
6/25/2020 110 396  
12/17/2020 110 397  
6/16/2021 130 398  
12/14/2021 140 399  
6/9/2022 150 400  
12/15/2022 ND<1 145

Rank Sum = 4166  
Rank Mean = 347.167

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GWC-16A 6/14/2017 39 381  
12/13/2017 2.9 303  
6/21/2018 ND<1 145  
12/19/2018 2.5 299  
6/13/2019 ND<1 145  
12/11/2019 2.1 291  
6/23/2020 2.2 294  
12/17/2020 2.3 297



cis-1,2-Dichloroethene

6/16/2021	2.1	292
12/16/2021	ND<1	145
6/9/2022	ND<1	145
12/14/2022	ND<1	145

Rank Sum = 2882  
Rank Mean = 240.167

GWC-17	6/14/2017	8.4	326
	12/12/2017	17	341
	6/19/2018	4.7	312
	12/19/2018	8.7	327
	6/12/2019	ND<1	145
	12/10/2019	15	338
	6/23/2020	ND<1	145
	12/15/2020	22	352
	6/14/2021	2.2	295
	12/14/2021	7.6	320
	6/9/2022	5.4	316
	12/14/2022	2.1	293

Rank Sum = 3510  
Rank Mean = 292.5

GWC-18	6/14/2017	16	339
	12/13/2017	14	336
	6/19/2018	7.7	322
	12/18/2018	12	334
	6/11/2019	14	337
	12/9/2019	30	373
	6/23/2020	10	330
	12/15/2020	26	366
	6/14/2021	6.2	318
	12/14/2021	10	331
	6/7/2022	13	335
	12/14/2022	20	345

Rank Sum = 4066  
Rank Mean = 338.833

GWC-19R	6/14/2017	2.4	298
	12/13/2017	4.7	313
	6/19/2018	5.1	314
	12/18/2018	2.9	304
	6/11/2019	7.7	323
	12/9/2019	11	333
	6/23/2020	7.2	319
	12/15/2020	7.9	324
	6/14/2021	5.3	315
	12/14/2021	7.9	325
	6/6/2022	4	309
	12/14/2022	9.9	328

Rank Sum = 3805  
Rank Mean = 317.083

GWC-22	6/14/2017	ND<1	145
	12/11/2017	ND<1	145
	6/19/2018	ND<1	145
	12/18/2018	ND<1	145
	6/12/2019	ND<1	145
	12/11/2019	ND<1	145
	6/23/2020	ND<1	145

cis-1,2-Dichloroethene

12/17/2020	ND<1	145
6/14/2021	ND<1	145
12/13/2021	ND<1	145
6/6/2022	ND<1	145
12/12/2022	ND<1	145

Rank Sum = 1740  
Rank Mean = 145

GWC-23	6/14/2017	ND<1	145
	12/11/2017	ND<1	145
	6/18/2018	ND<1	145
	12/18/2018	ND<1	145
	6/12/2019	ND<1	145
	12/11/2019	ND<1	145
	6/24/2020	ND<1	145
	12/16/2020	ND<1	145
	6/14/2021	ND<1	145
	12/13/2021	ND<1	145
	6/6/2022	ND<1	145
	12/12/2022	ND<1	145

Rank Sum = 1740  
Rank Mean = 145

GWC-23A	6/14/2017	ND<1	145
	12/11/2017	ND<1	145
	6/18/2018	ND<1	145
	12/18/2018	ND<1	145
	6/12/2019	ND<1	145
	12/11/2019	ND<1	145
	6/24/2020	ND<1	145
	12/16/2020	ND<1	145
	6/14/2021	ND<1	145
	12/13/2021	ND<1	145
	6/6/2022	ND<1	145
	12/12/2022	ND<1	145

Rank Sum = 1740  
Rank Mean = 145

GWC-24	6/14/2017	ND<1	145
	12/13/2017	ND<1	145
	6/19/2018	2.2	296
	12/19/2018	3.7	308
	6/11/2019	4.4	311
	12/9/2019	6.1	317
	6/24/2020	3	305
	12/15/2020	3.5	307
	6/14/2021	ND<1	145
	12/14/2021	ND<1	145
	6/7/2022	ND<1	145
	12/14/2022	ND<1	145

Rank Sum = 2714  
Rank Mean = 226.167

GWC-10	6/15/2017	ND<1	145
	12/12/2017	ND<1	145
	6/19/2018	ND<1	145
	12/17/2018	ND<1	145
	6/10/2019	ND<1	145
	12/12/2019	ND<1	145

cis-1,2-Dichloroethene

6/24/2020	ND<1	145
12/15/2020	ND<1	145
6/15/2021	ND<1	145
12/15/2021	ND<1	145
6/7/2022	ND<1	145
12/14/2022	ND<1	145

Rank Sum = 1740  
Rank Mean = 145

GWC-10A	6/15/2017	ND<1	145
	12/12/2017	ND<1	145
	6/19/2018	ND<1	145
	12/17/2018	ND<1	145
	6/10/2019	ND<1	145
	12/12/2019	ND<1	145
	6/24/2020	ND<1	145
	12/15/2020	ND<1	145
	6/15/2021	ND<1	145
	12/15/2021	ND<1	145
	6/7/2022	ND<1	145
	12/14/2022	ND<1	145

Rank Sum = 1740  
Rank Mean = 145

GWC-2	6/15/2017	ND<1	145
	12/13/2017	ND<1	145
	6/20/2018	ND<1	145
	12/19/2018	ND<1	145
	6/12/2019	ND<1	145
	12/10/2019	ND<1	145
	6/22/2020	ND<1	145
	12/16/2020	ND<1	145
	6/15/2021	ND<1	145
	12/15/2021	ND<1	145
	6/7/2022	ND<1	145
	12/12/2022	ND<1	145

Rank Sum = 1740  
Rank Mean = 145

GWC-3	6/15/2017	ND<1	145
	6/21/2018	ND<1	145
	12/17/2018	ND<1	145
	6/11/2019	ND<1	145
	12/10/2019	ND<1	145
	6/24/2020	ND<1	145
	12/16/2020	ND<1	145
	6/15/2021	ND<1	145
	12/15/2021	ND<1	145
	6/7/2022	ND<1	145
	12/12/2022	ND<1	145

Rank Sum = 1595  
Rank Mean = 145

GWC-3A	6/15/2017	ND<1	145
	12/12/2017	ND<1	145
	6/20/2018	ND<1	145
	12/17/2018	ND<1	145
	6/11/2019	ND<1	145
	12/10/2019	ND<1	145

cis-1,2-Dichloroethene

6/24/2020	ND<1	145
12/16/2020	ND<1	145
6/14/2021	ND<1	145
12/15/2021	ND<1	145
6/7/2022	ND<1	145
12/12/2022	ND<1	145

Rank Sum = 1740  
Rank Mean = 145

GWC-9	6/15/2017	ND<1	145
	12/13/2017	ND<1	145
	6/20/2018	ND<1	145
	12/18/2018	ND<1	145
	6/12/2019	ND<1	145
	12/12/2019	ND<1	145
	6/24/2020	ND<1	145
	12/17/2020	ND<1	145
	6/15/2021	ND<1	145
	12/13/2021	ND<1	145
	6/7/2022	ND<1	145
	12/14/2022	ND<1	145

Rank Sum = 1740  
Rank Mean = 145

GWC-8	12/12/2017	7.6	321
	6/20/2018	2.6	300
	12/19/2018	4.3	310
	6/12/2019	ND<1	145
	12/11/2019	2.8	301
	6/23/2020	ND<1	145
	12/16/2020	ND<1	145
	6/16/2021	ND<1	145
	12/15/2021	ND<1	145
	6/9/2022	ND<1	145
	12/13/2022	3.4	306

Rank Sum = 2408  
Rank Mean = 218.909

GWC-4	6/20/2018	ND<1	145
	6/23/2020	ND<1	145
	12/17/2020	ND<1	145
	6/16/2021	ND<1	145
	12/14/2021	ND<1	145
	6/8/2022	ND<1	145
	12/12/2022	ND<1	145

Rank Sum = 1015  
Rank Mean = 145

**Calculation Results:**

Kruskal-Wallis H Statistic = 221.427

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 355.504

95% Confidence comparison value is 46.1942 at 32 degrees of freedom

**221.427 > 46.1942 indicating a significant group difference at 5% significance level**

**355.504 > 46.1942 indicating a significant group difference at 5% significance level when adjusted for ties**

**Individual Well Comparisons at 1% Significance Level per Comparison**

cis-1,2-Dichloroethene

1% Z score is 2.32634

Mean background rank is 145

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	145	0	94.4551
GWC-5	145	0	94.4551
GWC-6	145	0	94.4551
GWC-7	145	0	94.4551
GWC-14	145	0	100.635
<b>GWC-14A</b>	<b>388.417</b>	<b>243.417</b>	<b>94.4551</b>
<b>GWC-14R</b>	<b>353.583</b>	<b>208.583</b>	<b>94.4551</b>
GWC-4A	145	0	94.4551
<b>GWC-8A</b>	<b>368</b>	<b>223</b>	<b>94.4551</b>
<b>GWC-8R</b>	<b>360.333</b>	<b>215.333</b>	<b>94.4551</b>
GWA-3	145	0	94.4551
GWC-11	145	0	94.4551
GWC-12	145	0	94.4551
GWC-12A	145	0	94.4551
GWC-13	145	0	94.4551
<b>GWC-15</b>	<b>347.167</b>	<b>202.167</b>	<b>94.4551</b>
<b>GWC-16A</b>	<b>240.167</b>	<b>95.1667</b>	<b>94.4551</b>
<b>GWC-17</b>	<b>292.5</b>	<b>147.5</b>	<b>94.4551</b>
<b>GWC-18</b>	<b>338.833</b>	<b>193.833</b>	<b>94.4551</b>
<b>GWC-19R</b>	<b>317.083</b>	<b>172.083</b>	<b>94.4551</b>
GWC-22	145	0	94.4551
GWC-23	145	0	94.4551
GWC-23A	145	0	94.4551
GWC-24	226.167	81.1667	94.4551
GWC-10	145	0	94.4551
GWC-10A	145	0	94.4551
GWC-2	145	0	94.4551
GWC-3	145	0	97.3128
GWC-3A	145	0	94.4551
GWC-9	145	0	94.4551
GWC-8	218.909	73.9091	97.3128
GWC-4	145	0	115.011

**Individual Well Comparisons at Groupwise 5% Significance Level  
(0.15625% Significance Level per comparison)**

0.15625% Z score is 3.09024

Mean background rank is 145

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	145	0	125.471
GWC-5	145	0	125.471
GWC-6	145	0	125.471
GWC-7	145	0	125.471
GWC-14	145	0	133.681
<b>GWC-14A</b>	<b>388.417</b>	<b>243.417</b>	<b>125.471</b>
<b>GWC-14R</b>	<b>353.583</b>	<b>208.583</b>	<b>125.471</b>
GWC-4A	145	0	125.471
<b>GWC-8A</b>	<b>368</b>	<b>223</b>	<b>125.471</b>
<b>GWC-8R</b>	<b>360.333</b>	<b>215.333</b>	<b>125.471</b>
GWA-3	145	0	125.471
GWC-11	145	0	125.471
GWC-12	145	0	125.471
GWC-12A	145	0	125.471
GWC-13	145	0	125.471
<b>GWC-15</b>	<b>347.167</b>	<b>202.167</b>	<b>125.471</b>
<b>GWC-16A</b>	<b>240.167</b>	<b>95.1667</b>	<b>125.471</b>

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<b>GWC-17</b>	<b>292.5</b>	<b>147.5</b>	<b>125.471</b>
<b>GWC-18</b>	<b>338.833</b>	<b>193.833</b>	<b>125.471</b>
<b>GWC-19R</b>	<b>317.083</b>	<b>172.083</b>	<b>125.471</b>
GWC-22	145	0	125.471
GWC-23	145	0	125.471
GWC-23A	145	0	125.471
GWC-24	226.167	81.1667	125.471
GWC-10	145	0	125.471
GWC-10A	145	0	125.471
GWC-2	145	0	125.471
GWC-3	145	0	129.267
GWC-3A	145	0	125.471
GWC-9	145	0	125.471
GWC-8	218.909	73.9091	129.267
GWC-4	145	0	152.778

## Kruskal-Wallis Non-Parametric Test

## Parameter: Cobalt

Original Data (Not Transformed)  
Non-Detects Replaced with 1/2 DL

## Kruskal Wallis Ranks

## Background Locations

Loc. ID	Date	Value	Rank	
GWA-1	6/14/2017	ND<20	174	
	12/12/2017	ND<20	174	
	6/20/2018	ND<20	174	
	12/18/2018	ND<20	174	
	6/11/2019	ND<20	174	
	12/10/2019	ND<20	174	
	6/24/2020	ND<20	174	
	12/18/2020	ND<20	174	
	6/16/2021	ND<20	174	
	12/14/2021	ND<20	174	
	6/9/2022	ND<20	174	
	12/12/2022	ND<20	174	
	12/15/2022	ND<20	174	
	Rank Sum = 2262			
	Rank Mean = 174			
GWA-2	6/16/2017	ND<20	174	
	12/12/2017	ND<20	174	
	6/20/2018	ND<20	174	
	12/18/2018	ND<20	174	
	6/12/2019	ND<20	174	
	12/12/2019	ND<20	174	
	6/23/2020	ND<20	174	
	12/18/2020	ND<20	174	
	6/16/2021	ND<20	174	
	12/14/2021	ND<20	174	
	6/9/2022	ND<20	174	
	12/13/2022	ND<20	174	
	Rank Sum = 2088			
Rank Mean = 174				
Background Rank Sum = 4350				
Background Rank Mean = 174				

## Compliance Locations

Loc. ID	Date	Value	Rank
GWA-1A	6/12/2017	ND<20	174
	12/13/2017	ND<20	174
	6/20/2018	ND<20	174
	12/18/2018	ND<20	174
	6/10/2019	ND<20	174
	12/9/2019	ND<20	174
	6/23/2020	ND<20	174
	12/17/2020	ND<20	174
	6/17/2021	ND<20	174
	12/16/2021	ND<20	174

	6/8/2022	ND<20	174
	12/14/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-14A	6/13/2017	370	369
	12/13/2017	280	362
	6/21/2018	310	367
	12/19/2018	290	363
	6/12/2019	330	368
	12/11/2019	228	360
	6/24/2020	301	365
	12/16/2020	298	364
	6/16/2021	306	366
	12/15/2021	192	358
	6/10/2022	252	361
	12/14/2022	192	359

Rank Sum = 4362  
Rank Mean = 363.5

GWC-5	6/13/2017	ND<20	174
	12/13/2017	ND<20	174
	6/21/2018	ND<20	174
	12/19/2018	ND<20	174
	6/13/2019	ND<20	174
	12/11/2019	ND<20	174
	6/24/2020	ND<20	174
	12/18/2020	ND<20	174
	6/16/2021	ND<20	174
	12/14/2021	ND<20	174
	6/9/2022	ND<20	174
	12/13/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-6	6/13/2017	ND<20	174
	12/14/2017	ND<20	174
	6/21/2018	ND<20	174
	12/20/2018	ND<20	174
	6/13/2019	ND<20	174
	12/11/2019	ND<20	174
	6/25/2020	ND<20	174
	12/18/2020	ND<20	174
	6/16/2021	ND<20	174
	12/14/2021	ND<20	174
	6/9/2022	ND<20	174
	12/15/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-7	6/13/2017	ND<20	174
	12/13/2017	ND<20	174
	6/20/2018	ND<20	174
	12/19/2018	ND<20	174
	6/13/2019	ND<20	174
	12/12/2019	ND<20	174
	6/25/2020	ND<20	174
	12/18/2020	ND<20	174
	6/16/2021	ND<20	174

## Cobalt

12/14/2021	ND<20	174
6/9/2022	ND<20	174
12/13/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-15	6/14/2017	ND<20	174
	12/14/2017	ND<20	174
	6/20/2018	ND<20	174
	12/19/2018	ND<20	174
	6/11/2019	ND<20	174
	12/10/2019	ND<20	174
	6/25/2020	ND<20	174
	12/17/2020	ND<20	174
	6/16/2021	ND<20	174
	12/14/2021	ND<20	174
	6/9/2022	ND<20	174
	12/15/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-4A	6/14/2017	ND<20	174
	12/13/2017	ND<20	174
	6/21/2018	ND<20	174
	12/18/2018	ND<20	174
	6/12/2019	ND<20	174
	12/12/2019	ND<20	174
	6/24/2020	ND<20	174
	12/18/2020	ND<20	174
	6/18/2021	ND<20	174
	12/16/2021	ND<20	174
	6/8/2022	ND<20	174
	12/15/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-8A	6/14/2017	ND<20	174
	12/13/2017	ND<20	174
	6/21/2018	ND<20	174
	12/20/2018	ND<20	174
	6/13/2019	ND<20	174
	12/12/2019	ND<20	174
	6/24/2020	ND<20	174
	12/16/2020	ND<20	174
	6/17/2021	ND<20	174
	12/16/2021	ND<20	174
	6/10/2022	ND<20	174
	12/14/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWA-3	6/15/2017	ND<20	174
	12/12/2017	ND<20	174
	6/19/2018	ND<20	174
	12/18/2018	ND<20	174
	6/12/2019	ND<20	174
	12/11/2019	ND<20	174
	6/23/2020	ND<20	174
	12/17/2020	ND<20	174

## Cobalt

6/15/2021	ND<20	174
12/15/2021	ND<20	174
6/7/2022	ND<20	174
12/14/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-11	6/15/2017	ND<20	174
	12/14/2017	ND<20	174
	6/20/2018	ND<20	174
	12/20/2018	ND<20	174
	6/13/2019	ND<20	174
	12/13/2019	ND<20	174
	6/25/2020	ND<20	174
	12/16/2020	ND<20	174
	6/16/2021	ND<20	174
	12/14/2021	ND<20	174
	6/8/2022	ND<20	174
	12/13/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-12	6/15/2017	ND<20	174
	12/14/2017	ND<20	174
	6/20/2018	ND<20	174
	12/20/2018	ND<20	174
	6/12/2019	ND<20	174
	12/10/2019	ND<20	174
	6/25/2020	ND<20	174
	12/22/2020	ND<20	174
	6/16/2021	ND<20	174
	12/14/2021	ND<20	174
	6/8/2022	ND<20	174
	12/13/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-12A	6/15/2017	ND<20	174
	12/14/2017	ND<20	174
	6/20/2018	ND<20	174
	12/20/2018	ND<20	174
	6/12/2019	ND<20	174
	12/10/2019	ND<20	174
	6/25/2020	ND<20	174
	12/16/2020	ND<20	174
	6/16/2021	ND<20	174
	12/14/2021	ND<20	174
	6/8/2022	ND<20	174
	12/13/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-13	6/15/2017	ND<20	174
	12/13/2017	ND<20	174
	6/20/2018	ND<20	174
	12/20/2018	ND<20	174
	6/13/2019	ND<20	174
	12/12/2019	ND<20	174
	6/24/2020	ND<20	174

## Cobalt

12/16/2020	ND<20	174
6/16/2021	ND<20	174
12/16/2021	ND<20	174
6/9/2022	ND<20	174
12/13/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-16A	6/15/2017	81	354
	12/14/2017	ND<20	174
	6/21/2018	ND<20	174
	12/20/2018	ND<20	174
	6/13/2019	ND<20	174
	12/12/2019	ND<20	174
	6/23/2020	ND<20	174
	12/17/2020	ND<20	174
	6/16/2021	ND<20	174
	12/16/2021	ND<20	174
	6/10/2022	ND<25	174
	12/15/2022	ND<20	174

Rank Sum = 2268  
Rank Mean = 189

GWC-17	6/15/2017	ND<20	174
	12/13/2017	ND<20	174
	6/20/2018	ND<20	174
	12/20/2018	ND<20	174
	6/13/2019	ND<20	174
	12/11/2019	ND<20	174
	6/24/2020	ND<20	174
	12/16/2020	ND<20	174
	6/15/2021	ND<20	174
	12/15/2021	ND<20	174
	6/10/2022	ND<25	174
	12/15/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-18	6/15/2017	ND<20	174
	12/14/2017	ND<20	174
	6/20/2018	ND<20	174
	12/19/2018	ND<20	174
	6/12/2019	ND<20	174
	12/10/2019	ND<20	174
	6/24/2020	ND<20	174
	12/16/2020	ND<20	174
	6/15/2021	ND<20	174
	12/15/2021	ND<20	174
	6/8/2022	ND<25	174
	12/15/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-19R	6/15/2017	ND<20	174
	12/14/2017	ND<20	174
	6/20/2018	ND<20	174
	12/19/2018	ND<20	174
	6/12/2019	ND<20	174
	12/10/2019	ND<20	174

## Cobalt

6/24/2020	ND<20	174
12/16/2020	ND<20	174
6/15/2021	45.2	350
12/15/2021	40.4	348
6/7/2022	ND<25	174
12/15/2022	ND<20	174

Rank Sum = 2438  
Rank Mean = 203.167

GWC-22	6/15/2017	ND<20	174
	12/12/2017	ND<20	174
	6/20/2018	ND<20	174
	12/19/2018	ND<20	174
	6/13/2019	ND<20	174
	12/12/2019	ND<20	174
	6/24/2020	ND<20	174
	12/18/2020	ND<20	174
	6/15/2021	ND<20	174
	12/14/2021	ND<20	174
	6/7/2022	ND<20	174
	12/13/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-23	6/15/2017	ND<20	174
	12/12/2017	ND<20	174
	6/19/2018	ND<20	174
	12/19/2018	ND<20	174
	6/13/2019	ND<20	174
	12/12/2019	ND<20	174
	6/24/2020	ND<20	174
	12/17/2020	ND<20	174
	6/15/2021	ND<20	174
	12/14/2021	ND<20	174
	6/7/2022	ND<20	174
	12/13/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-23A	6/15/2017	ND<20	174
	12/12/2017	ND<20	174
	6/19/2018	ND<20	174
	12/19/2018	ND<20	174
	6/13/2019	ND<20	174
	12/12/2019	ND<20	174
	6/24/2020	ND<20	174
	12/17/2020	ND<20	174
	6/15/2021	ND<20	174
	12/14/2021	ND<20	174
	6/7/2022	ND<20	174
	12/13/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-24	6/15/2017	ND<20	174
	6/20/2018	ND<20	174
	6/12/2019	ND<20	174
	12/10/2019	ND<20	174
	6/25/2020	ND<20	174

## Cobalt

6/15/2021	ND<20	174
6/8/2022	ND<25	174
12/15/2022	ND<20	174

Rank Sum = 1392  
Rank Mean = 174

GWC-10	6/16/2017	ND<20	174
	12/13/2017	ND<20	174
	6/20/2018	ND<20	174
	12/18/2018	ND<20	174
	6/11/2019	ND<20	174
	12/13/2019	ND<20	174
	6/25/2020	ND<20	174
	12/16/2020	ND<20	174
	6/16/2021	ND<20	174
	12/16/2021	ND<20	174
	6/8/2022	ND<20	174
	12/15/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-10A	6/16/2017	ND<20	174
	12/13/2017	ND<20	174
	6/20/2018	ND<20	174
	12/18/2018	ND<20	174
	6/11/2019	ND<20	174
	12/13/2019	ND<20	174
	6/25/2020	ND<20	174
	12/16/2020	ND<20	174
	6/16/2021	ND<20	174
	12/16/2021	ND<20	174
	6/8/2022	ND<20	174
	12/15/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-2	6/16/2017	ND<20	174
	12/14/2017	ND<20	174
	6/21/2018	ND<20	174
	12/20/2018	ND<20	174
	6/13/2019	ND<20	174
	12/11/2019	ND<20	174
	6/23/2020	ND<20	174
	12/17/2020	ND<20	174
	6/16/2021	ND<20	174
	12/16/2021	ND<20	174
	6/8/2022	ND<20	174
	12/13/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-3A	6/16/2017	ND<20	174
	12/13/2017	ND<20	174
	6/21/2018	ND<20	174
	12/18/2018	ND<20	174
	6/12/2019	ND<20	174
	12/11/2019	ND<20	174
	6/25/2020	ND<20	174
	12/17/2020	ND<20	174

## Cobalt

6/15/2021	ND<20	174
12/16/2021	ND<20	174
6/8/2022	ND<20	174
12/13/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-9	6/16/2017	ND<20	174
	12/14/2017	ND<20	174
	6/21/2018	ND<20	174
	12/19/2018	ND<20	174
	6/13/2019	ND<20	174
	12/13/2019	ND<20	174
	6/25/2020	ND<20	174
	12/18/2020	ND<20	174
	6/16/2021	ND<20	174
	12/14/2021	ND<20	174
	6/8/2022	ND<20	174
	12/15/2022	ND<20	174

Rank Sum = 2088  
Rank Mean = 174

GWC-8	12/13/2017	ND<20	174
	6/21/2018	ND<20	174
	6/13/2019	ND<20	174
	12/12/2019	ND<20	174
	6/24/2020	ND<20	174
	12/17/2020	ND<20	174
	6/17/2021	ND<20	174
	12/16/2021	ND<20	174
	6/10/2022	ND<20	174
	12/14/2022	ND<20	174

Rank Sum = 1740  
Rank Mean = 174

GWC-14	6/21/2018	42	349
	6/12/2019	57	353
	12/11/2019	50.3	351
	6/25/2020	95.1	357
	12/18/2020	55.5	352
	6/16/2021	87.6	356
	12/16/2021	ND<20	174
	6/10/2022	85.5	355

Rank Sum = 2647  
Rank Mean = 330.875

GWC-3	6/21/2018	ND<20	174
	12/18/2018	ND<20	174
	6/12/2019	ND<20	174
	12/11/2019	ND<20	174
	6/25/2020	ND<20	174
	12/17/2020	ND<20	174
	6/16/2021	ND<20	174
	12/16/2021	ND<20	174
	6/8/2022	ND<20	174

Rank Sum = 1566  
Rank Mean = 174

GWC-4	6/21/2018	ND<20	174
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6/24/2020	ND<20	174
12/18/2020	ND<20	174
6/17/2021	ND<20	174
12/15/2021	ND<20	174
6/9/2022	ND<20	174
12/13/2022	ND<20	174

Rank Sum = 1218  
Rank Mean = 174

GWC-14R	6/9/2022	ND<20	174
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Rank Sum = 174  
Rank Mean = 174

GWC-8R	6/9/2022	ND<20	174
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Rank Sum = 174  
Rank Mean = 174

### Calculation Results:

Kruskal-Wallis H Statistic = 52.3894

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 311.081

95% Confidence comparison value is 46.1942 at 32 degrees of freedom

**52.3894 > 46.1942 indicating a significant group difference at 5% significance level**

**311.081 > 46.1942 indicating a significant group difference at 5% significance level when adjusted for ties**

### Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634

Mean background rank is 174

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	174	0	87.1439
<b>GWC-14A</b>	<b>363.5</b>	<b>189.5</b>	<b>87.1439</b>
GWC-5	174	0	87.1439
GWC-6	174	0	87.1439
GWC-7	174	0	87.1439
GWC-15	174	0	87.1439
GWC-4A	174	0	87.1439
GWC-8A	174	0	87.1439
GWA-3	174	0	87.1439
GWC-11	174	0	87.1439
GWC-12	174	0	87.1439
GWC-12A	174	0	87.1439
GWC-13	174	0	87.1439
GWC-16A	189	15	87.1439
GWC-17	174	0	87.1439
GWC-18	174	0	87.1439
GWC-19R	203.167	29.1667	87.1439
GWC-22	174	0	87.1439
GWC-23	174	0	87.1439
GWC-23A	174	0	87.1439
GWC-24	174	0	100.795
GWC-10	174	0	87.1439
GWC-10A	174	0	87.1439
GWC-2	174	0	87.1439
GWC-3A	174	0	87.1439
GWC-9	174	0	87.1439
GWC-8	174	0	92.8455
<b>GWC-14</b>	<b>330.875</b>	<b>156.875</b>	<b>100.795</b>

GWC-3	174	0	96.4595
GWC-4	174	0	106.109
GWC-14R	174	0	253.054
GWC-8R	174	0	253.054

### Individual Well Comparisons at Groupwise 5% Significance Level (0.15625% Significance Level per comparison)

0.15625% Z score is 3.09024

Mean background rank is 174

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	174	0	115.759
<b>GWC-14A</b>	<b>363.5</b>	<b>189.5</b>	<b>115.759</b>
GWC-5	174	0	115.759
GWC-6	174	0	115.759
GWC-7	174	0	115.759
GWC-15	174	0	115.759
GWC-4A	174	0	115.759
GWC-8A	174	0	115.759
GWA-3	174	0	115.759
GWC-11	174	0	115.759
GWC-12	174	0	115.759
GWC-12A	174	0	115.759
GWC-13	174	0	115.759
GWC-16A	189	15	115.759
GWC-17	174	0	115.759
GWC-18	174	0	115.759
GWC-19R	203.167	29.1667	115.759
GWC-22	174	0	115.759
GWC-23	174	0	115.759
GWC-23A	174	0	115.759
GWC-24	174	0	133.893
GWC-10	174	0	115.759
GWC-10A	174	0	115.759
GWC-2	174	0	115.759
GWC-3A	174	0	115.759
GWC-9	174	0	115.759
GWC-8	174	0	123.333
<b>GWC-14</b>	<b>330.875</b>	<b>156.875</b>	<b>133.893</b>
GWC-3	174	0	128.134
GWC-4	174	0	140.952
GWC-14R	174	0	336.15
GWC-8R	174	0	336.15



## Kruskal-Wallis Non-Parametric Test

## Parameter: Nickel

Original Data (Not Transformed)  
Non-Detects Replaced with 1/2 DL

## Kruskal Wallis Ranks

## Background Locations

Loc. ID	Date	Value	Rank	
GWA-1	6/14/2017	ND<10	178.5	
	12/12/2017	ND<10	178.5	
	6/20/2018	ND<10	178.5	
	12/18/2018	ND<10	178.5	
	6/11/2019	ND<10	178.5	
	12/10/2019	ND<10	178.5	
	6/24/2020	ND<10	178.5	
	12/18/2020	ND<10	178.5	
	6/16/2021	ND<10	178.5	
	12/14/2021	ND<10	178.5	
	6/9/2022	ND<10	178.5	
	12/12/2022	ND<10	178.5	
	12/15/2022	ND<10	178.5	
	Rank Sum = 2320.5			
	Rank Mean = 178.5			
GWA-2	6/16/2017	ND<10	178.5	
	12/12/2017	ND<10	178.5	
	6/20/2018	ND<10	178.5	
	12/18/2018	ND<10	178.5	
	6/12/2019	ND<10	178.5	
	12/12/2019	ND<10	178.5	
	6/23/2020	ND<10	178.5	
	12/18/2020	ND<10	178.5	
	6/16/2021	ND<10	178.5	
	12/14/2021	ND<10	178.5	
	6/9/2022	ND<10	178.5	
	12/13/2022	ND<10	178.5	
	Rank Sum = 2142			
Rank Mean = 178.5				

Background Rank Sum = 4462.5  
Background Rank Mean = 178.5

## Compliance Locations

Loc. ID	Date	Value	Rank
GWA-1A	6/12/2017	ND<10	178.5
	12/13/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	12/18/2018	ND<10	178.5
	6/10/2019	ND<10	178.5
	12/9/2019	ND<10	178.5
	6/23/2020	ND<10	178.5
	12/17/2020	ND<10	178.5
	6/17/2021	ND<10	178.5
	12/16/2021	ND<10	178.5

	6/8/2022	ND<10	178.5
	12/14/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-14A	6/13/2017	24	364
	12/13/2017	21	358
	6/21/2018	24	365
	12/19/2018	20	357
	6/12/2019	21	359
	12/11/2019	ND<10	178.5
	6/24/2020	22.2	361
	12/16/2020	23.6	363
	6/16/2021	22.2	362
	12/15/2021	ND<10	178.5
	6/10/2022	ND<10	178.5
	12/14/2022	ND<10	178.5

Rank Sum = 3603  
Rank Mean = 300.25

GWC-5	6/13/2017	ND<10	178.5
	12/13/2017	ND<10	178.5
	6/21/2018	ND<10	178.5
	12/19/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/11/2019	ND<10	178.5
	6/24/2020	ND<10	178.5
	12/18/2020	ND<10	178.5
	6/16/2021	ND<10	178.5
	12/14/2021	ND<10	178.5
	6/9/2022	ND<10	178.5
	12/13/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-6	6/13/2017	ND<10	178.5
	12/14/2017	ND<10	178.5
	6/21/2018	ND<10	178.5
	12/20/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/11/2019	ND<10	178.5
	6/25/2020	ND<10	178.5
	12/18/2020	ND<10	178.5
	6/16/2021	ND<10	178.5
	12/14/2021	ND<10	178.5
	6/9/2022	ND<10	178.5
	12/15/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-7	6/13/2017	ND<10	178.5
	12/13/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	12/19/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/12/2019	ND<10	178.5
	6/25/2020	ND<10	178.5
	12/18/2020	ND<10	178.5
	6/16/2021	ND<10	178.5

## Nickel

12/14/2021	ND<10	178.5
6/9/2022	ND<10	178.5
12/13/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-15	6/14/2017	ND<10	178.5
	12/14/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	12/19/2018	ND<10	178.5
	6/11/2019	ND<10	178.5
	12/10/2019	ND<10	178.5
	6/25/2020	ND<10	178.5
	12/17/2020	ND<10	178.5
	6/16/2021	ND<10	178.5
	12/14/2021	ND<10	178.5
	6/9/2022	ND<10	178.5
	12/15/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-4A	6/14/2017	ND<10	178.5
	12/13/2017	ND<10	178.5
	6/21/2018	ND<10	178.5
	12/18/2018	ND<10	178.5
	6/12/2019	22	360
	12/12/2019	ND<10	178.5
	6/24/2020	ND<10	178.5
	12/18/2020	ND<10	178.5
	6/18/2021	ND<10	178.5
	12/16/2021	ND<10	178.5
	6/8/2022	ND<10	178.5
	12/15/2022	ND<10	178.5

Rank Sum = 2323.5  
Rank Mean = 193.625

GWC-8A	6/14/2017	ND<10	178.5
	12/13/2017	ND<10	178.5
	6/21/2018	ND<10	178.5
	12/20/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/12/2019	ND<10	178.5
	6/24/2020	ND<10	178.5
	12/16/2020	ND<10	178.5
	6/17/2021	ND<10	178.5
	12/16/2021	ND<10	178.5
	6/10/2022	ND<10	178.5
	12/14/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWA-3	6/15/2017	ND<10	178.5
	12/12/2017	ND<10	178.5
	6/19/2018	ND<10	178.5
	12/18/2018	ND<10	178.5
	6/12/2019	ND<10	178.5
	12/11/2019	ND<10	178.5
	6/23/2020	ND<10	178.5
	12/17/2020	ND<10	178.5

## Nickel

6/15/2021	ND<10	178.5
12/15/2021	ND<10	178.5
6/7/2022	ND<10	178.5
12/14/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-11	6/15/2017	ND<10	178.5
	12/14/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	12/20/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/13/2019	ND<10	178.5
	6/25/2020	ND<10	178.5
	12/16/2020	ND<10	178.5
	6/16/2021	ND<10	178.5
	12/14/2021	ND<10	178.5
	6/8/2022	ND<10	178.5
	12/13/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-12	6/15/2017	ND<10	178.5
	12/14/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	12/20/2018	ND<10	178.5
	6/12/2019	ND<10	178.5
	12/10/2019	ND<10	178.5
	6/25/2020	ND<10	178.5
	12/22/2020	ND<10	178.5
	6/16/2021	ND<10	178.5
	12/14/2021	ND<10	178.5
	6/8/2022	ND<10	178.5
	12/13/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-12A	6/15/2017	ND<10	178.5
	12/14/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	12/20/2018	ND<10	178.5
	6/12/2019	ND<10	178.5
	12/10/2019	ND<10	178.5
	6/25/2020	ND<10	178.5
	12/16/2020	ND<10	178.5
	6/16/2021	ND<10	178.5
	12/14/2021	ND<10	178.5
	6/8/2022	ND<10	178.5
	12/13/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-13	6/15/2017	ND<10	178.5
	12/13/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	12/20/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/12/2019	ND<10	178.5
	6/24/2020	ND<10	178.5

## Nickel

12/16/2020	ND<10	178.5
6/16/2021	ND<10	178.5
12/16/2021	ND<10	178.5
6/9/2022	ND<10	178.5
12/13/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-16A	6/15/2017	ND<10	178.5
	12/14/2017	ND<10	178.5
	6/21/2018	ND<10	178.5
	12/20/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/12/2019	ND<10	178.5
	6/23/2020	ND<10	178.5
	12/17/2020	ND<10	178.5
	6/16/2021	ND<10	178.5
	12/16/2021	ND<10	178.5
	6/10/2022	ND<20	178.5
	12/15/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-17	6/15/2017	ND<10	178.5
	12/13/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	12/20/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/11/2019	ND<10	178.5
	6/24/2020	ND<10	178.5
	12/16/2020	ND<10	178.5
	6/15/2021	ND<10	178.5
	12/15/2021	ND<10	178.5
	6/10/2022	ND<20	178.5
	12/15/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-18	6/15/2017	34	369
	12/14/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	12/19/2018	ND<10	178.5
	6/12/2019	24	366
	12/10/2019	29.8	367
	6/24/2020	ND<10	178.5
	12/16/2020	ND<10	178.5
	6/15/2021	ND<10	178.5
	12/15/2021	33.7	368
	6/8/2022	ND<20	178.5
	12/15/2022	ND<10	178.5

Rank Sum = 2898  
Rank Mean = 241.5

GWC-19R	6/15/2017	ND<10	178.5
	12/14/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	12/19/2018	ND<10	178.5
	6/12/2019	ND<10	178.5
	12/10/2019	ND<10	178.5

## Nickel

6/24/2020	ND<10	178.5
12/16/2020	ND<10	178.5
6/15/2021	ND<10	178.5
12/15/2021	ND<10	178.5
6/7/2022	ND<20	178.5
12/15/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-22	6/15/2017	ND<10	178.5
	12/12/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	12/19/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/12/2019	ND<10	178.5
	6/24/2020	ND<10	178.5
	12/18/2020	ND<10	178.5
	6/15/2021	ND<10	178.5
	12/14/2021	ND<10	178.5
	6/7/2022	ND<10	178.5
	12/13/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-23	6/15/2017	ND<10	178.5
	12/12/2017	ND<10	178.5
	6/19/2018	ND<10	178.5
	12/19/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/12/2019	ND<10	178.5
	6/24/2020	ND<10	178.5
	12/17/2020	ND<10	178.5
	6/15/2021	ND<10	178.5
	12/14/2021	ND<10	178.5
	6/7/2022	ND<10	178.5
	12/13/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-23A	6/15/2017	ND<10	178.5
	12/12/2017	ND<10	178.5
	6/19/2018	ND<10	178.5
	12/19/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/12/2019	ND<10	178.5
	6/24/2020	ND<10	178.5
	12/17/2020	ND<10	178.5
	6/15/2021	ND<10	178.5
	12/14/2021	ND<10	178.5
	6/7/2022	ND<10	178.5
	12/13/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-24	6/15/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	6/12/2019	ND<10	178.5
	12/10/2019	ND<10	178.5
	6/25/2020	ND<10	178.5

## Nickel

6/15/2021	ND<10	178.5
6/8/2022	ND<20	178.5
12/15/2022	ND<10	178.5

Rank Sum = 1428  
Rank Mean = 178.5

GWC-10	6/16/2017	ND<10	178.5
	12/13/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	12/18/2018	ND<10	178.5
	6/11/2019	ND<10	178.5
	12/13/2019	ND<10	178.5
	6/25/2020	ND<10	178.5
	12/16/2020	ND<10	178.5
	6/16/2021	ND<10	178.5
	12/16/2021	ND<10	178.5
	6/8/2022	ND<10	178.5
	12/15/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-10A	6/16/2017	ND<10	178.5
	12/13/2017	ND<10	178.5
	6/20/2018	ND<10	178.5
	12/18/2018	ND<10	178.5
	6/11/2019	ND<10	178.5
	12/13/2019	ND<10	178.5
	6/25/2020	ND<10	178.5
	12/16/2020	ND<10	178.5
	6/16/2021	ND<10	178.5
	12/16/2021	ND<10	178.5
	6/8/2022	ND<10	178.5
	12/15/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-2	6/16/2017	ND<10	178.5
	12/14/2017	ND<10	178.5
	6/21/2018	ND<10	178.5
	12/20/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/11/2019	ND<10	178.5
	6/23/2020	ND<10	178.5
	12/17/2020	ND<10	178.5
	6/16/2021	ND<10	178.5
	12/16/2021	ND<10	178.5
	6/8/2022	ND<10	178.5
	12/13/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-3A	6/16/2017	ND<10	178.5
	12/13/2017	ND<10	178.5
	6/21/2018	ND<10	178.5
	12/18/2018	ND<10	178.5
	6/12/2019	ND<10	178.5
	12/11/2019	ND<10	178.5
	6/25/2020	ND<10	178.5
	12/17/2020	ND<10	178.5

## Nickel

6/15/2021	ND<10	178.5
12/16/2021	ND<10	178.5
6/8/2022	ND<10	178.5
12/13/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-9	6/16/2017	ND<10	178.5
	12/14/2017	ND<10	178.5
	6/21/2018	ND<10	178.5
	12/19/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/13/2019	ND<10	178.5
	6/25/2020	ND<10	178.5
	12/18/2020	ND<10	178.5
	6/16/2021	ND<10	178.5
	12/14/2021	ND<10	178.5
	6/8/2022	ND<10	178.5
	12/15/2022	ND<10	178.5

Rank Sum = 2142  
Rank Mean = 178.5

GWC-8	12/13/2017	ND<10	178.5
	6/21/2018	ND<10	178.5
	6/13/2019	ND<10	178.5
	12/12/2019	ND<10	178.5
	6/24/2020	ND<10	178.5
	12/17/2020	ND<10	178.5
	6/17/2021	ND<10	178.5
	12/16/2021	ND<10	178.5
	6/10/2022	ND<10	178.5
	12/14/2022	ND<10	178.5

Rank Sum = 1785  
Rank Mean = 178.5

GWC-14	6/21/2018	ND<10	178.5
	6/12/2019	ND<10	178.5
	12/11/2019	ND<10	178.5
	6/25/2020	ND<10	178.5
	12/18/2020	ND<10	178.5
	6/16/2021	ND<10	178.5
	12/16/2021	ND<10	178.5
	6/10/2022	ND<10	178.5

Rank Sum = 1428  
Rank Mean = 178.5

GWC-3	6/21/2018	ND<10	178.5
	12/18/2018	ND<10	178.5
	6/12/2019	ND<10	178.5
	12/11/2019	ND<10	178.5
	6/25/2020	ND<10	178.5
	12/17/2020	ND<10	178.5
	6/16/2021	ND<10	178.5
	12/16/2021	ND<10	178.5
	6/8/2022	ND<10	178.5

Rank Sum = 1606.5  
Rank Mean = 178.5

GWC-4	6/21/2018	ND<10	178.5
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6/24/2020	ND<10	178.5
12/18/2020	ND<10	178.5
6/17/2021	ND<10	178.5
12/15/2021	ND<10	178.5
6/9/2022	ND<10	178.5
12/13/2022	ND<10	178.5

Rank Sum = 1249.5  
Rank Mean = 178.5

GWC-14R	6/9/2022	ND<10	178.5
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Rank Sum = 178.5  
Rank Mean = 178.5

GWC-8R	6/9/2022	ND<10	178.5
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Rank Sum = 178.5  
Rank Mean = 178.5

**Calculation Results:**

Kruskal-Wallis H Statistic = 18.6912  
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 183.226  
95% Confidence comparison value is 46.1942 at 32 degrees of freedom  
18.6912 < 46.1942 indicating no significant group difference at 5% significance level  
**183.226 > 46.1942 indicating a significant group difference at 5% significance level when adjusted for ties**

**Individual Well Comparisons at 1% Significance Level per Comparison**

1% Z score is 2.32634  
Mean background rank is 178.5

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	178.5	0	87.1439
<b>GWC-14A</b>	<b>300.25</b>	<b>121.75</b>	<b>87.1439</b>
GWC-5	178.5	0	87.1439
GWC-6	178.5	0	87.1439
GWC-7	178.5	0	87.1439
GWC-15	178.5	0	87.1439
GWC-4A	193.625	15.125	87.1439
GWC-8A	178.5	0	87.1439
GWA-3	178.5	0	87.1439
GWC-11	178.5	0	87.1439
GWC-12	178.5	0	87.1439
GWC-12A	178.5	0	87.1439
GWC-13	178.5	0	87.1439
GWC-16A	178.5	0	87.1439
GWC-17	178.5	0	87.1439
GWC-18	241.5	63	87.1439
GWC-19R	178.5	0	87.1439
GWC-22	178.5	0	87.1439
GWC-23	178.5	0	87.1439
GWC-23A	178.5	0	87.1439
GWC-24	178.5	0	100.795
GWC-10	178.5	0	87.1439
GWC-10A	178.5	0	87.1439
GWC-2	178.5	0	87.1439
GWC-3A	178.5	0	87.1439
GWC-9	178.5	0	87.1439
GWC-8	178.5	0	92.8455
GWC-14	178.5	0	100.795

GWC-3	178.5	0	96.4595
GWC-4	178.5	0	106.109
GWC-14R	178.5	0	253.054
GWC-8R	178.5	0	253.054

**Individual Well Comparisons at Groupwise 5% Significance Level (0.15625% Significance Level per comparison)**

0.15625% Z score is 3.09024  
Mean background rank is 178.5

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	178.5	0	115.759
<b>GWC-14A</b>	<b>300.25</b>	<b>121.75</b>	<b>115.759</b>
GWC-5	178.5	0	115.759
GWC-6	178.5	0	115.759
GWC-7	178.5	0	115.759
GWC-15	178.5	0	115.759
GWC-4A	193.625	15.125	115.759
GWC-8A	178.5	0	115.759
GWA-3	178.5	0	115.759
GWC-11	178.5	0	115.759
GWC-12	178.5	0	115.759
GWC-12A	178.5	0	115.759
GWC-13	178.5	0	115.759
GWC-16A	178.5	0	115.759
GWC-17	178.5	0	115.759
GWC-18	241.5	63	115.759
GWC-19R	178.5	0	115.759
GWC-22	178.5	0	115.759
GWC-23	178.5	0	115.759
GWC-23A	178.5	0	115.759
GWC-24	178.5	0	133.893
GWC-10	178.5	0	115.759
GWC-10A	178.5	0	115.759
GWC-2	178.5	0	115.759
GWC-3A	178.5	0	115.759
GWC-9	178.5	0	115.759
GWC-8	178.5	0	123.333
GWC-14	178.5	0	133.893
GWC-3	178.5	0	128.134
GWC-4	178.5	0	140.952
GWC-14R	178.5	0	336.15
GWC-8R	178.5	0	336.15

## Kruskal-Wallis Non-Parametric Test

## Parameter: Tetrachloroethene

Original Data (Not Transformed)  
 Non-Detects Replaced with 1/2 DL

## Kruskal Wallis Ranks

## Background Locations

Loc. ID	Date	Value	Rank
GWA-1	6/13/2017	ND<1	186
	12/11/2017	ND<1	186
	6/19/2018	ND<1	186
	12/17/2018	ND<1	186
	6/10/2019	ND<1	186
	12/9/2019	ND<1	186
	6/23/2020	ND<1	186
	12/17/2020	ND<1	186
	6/15/2021	ND<1	186
	12/13/2021	ND<1	186
	6/8/2022	ND<1	186
	12/12/2022	ND<1	186
	12/15/2022	ND<1	186

Rank Sum = 2418

Rank Mean = 186

GWA-2	6/15/2017	ND<1	186
	12/11/2017	ND<1	186
	6/19/2018	ND<1	186
	12/17/2018	ND<1	186
	6/11/2019	ND<1	186
	12/11/2019	ND<1	186
	6/22/2020	ND<1	186
	12/17/2020	ND<1	186
	6/15/2021	ND<1	186
	12/13/2021	ND<1	186
	6/8/2022	ND<1	186
	12/12/2022	ND<1	186

Rank Sum = 2232

Rank Mean = 186

Background Rank Sum = 4650

Background Rank Mean = 186

## Compliance Locations

Loc. ID	Date	Value	Rank
GWA-1A	6/12/2017	ND<1	186
	12/13/2017	ND<1	186
	6/19/2018	ND<1	186
	12/18/2018	ND<1	186
	6/10/2019	ND<1	186
	12/9/2019	ND<1	186
	6/23/2020	ND<1	186
	12/17/2020	ND<1	186
	6/17/2021	ND<1	186
	12/16/2021	ND<1	186

	6/8/2022	ND<1	186
	12/14/2022	ND<1	186

Rank Sum = 2232

Rank Mean = 186

GWC-5	6/12/2017	ND<1	186
	12/12/2017	ND<1	186
	6/21/2018	ND<1	186
	12/18/2018	ND<1	186
	6/12/2019	ND<1	186
	12/10/2019	ND<1	186
	6/23/2020	ND<1	186
	12/17/2020	ND<1	186
	6/15/2021	ND<1	186
	12/13/2021	ND<1	186
	6/8/2022	ND<1	186
	12/12/2022	ND<1	186

Rank Sum = 2232

Rank Mean = 186

GWC-6	6/12/2017	ND<1	186
	12/13/2017	ND<1	186
	6/21/2018	ND<1	186
	12/19/2018	ND<1	186
	6/12/2019	ND<1	186
	12/10/2019	ND<1	186
	6/24/2020	ND<1	186
	12/17/2020	ND<1	186
	6/15/2021	ND<1	186
	12/13/2021	ND<1	186
	6/8/2022	ND<1	186
	12/14/2022	ND<1	186

Rank Sum = 2232

Rank Mean = 186

GWC-7	6/12/2017	ND<1	186
	12/12/2017	ND<1	186
	6/19/2018	ND<1	186
	12/18/2018	ND<1	186
	6/12/2019	ND<1	186
	12/11/2019	ND<1	186
	6/24/2020	ND<1	186
	12/17/2020	ND<1	186
	6/15/2021	ND<1	186
	12/13/2021	ND<1	186
	6/8/2022	ND<1	186
	12/12/2022	ND<1	186

Rank Sum = 2232

Rank Mean = 186

GWC-14	6/13/2017	ND<1	186
	6/20/2018	ND<1	186
	6/11/2019	ND<1	186
	12/10/2019	ND<1	186
	6/24/2020	ND<1	186
	12/17/2020	ND<1	186
	6/15/2021	ND<1	186
	12/15/2021	ND<1	186
	6/9/2022	ND<1	186

## Tetrachloroethene

12/13/2022 ND<1 186  
 Rank Sum = 1860  
 Rank Mean = 186

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GWC-14A 6/13/2017 ND<1 186  
 12/12/2017 ND<1 186  
 6/20/2018 ND<1 186  
 12/19/2018 ND<1 186  
 6/11/2019 ND<1 186  
 12/10/2019 ND<1 186  
 6/24/2020 ND<1 186  
 12/15/2020 ND<1 186  
 6/15/2021 ND<1 186  
 12/14/2021 ND<1 186  
 6/9/2022 ND<1 186  
 12/13/2022 ND<1 186

Rank Sum = 2232  
 Rank Mean = 186

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GWC-14R 6/13/2017 3.2 378  
 12/12/2017 2 372  
 6/20/2018 2 373  
 12/19/2018 ND<1 186  
 6/12/2019 ND<1 186  
 12/10/2019 ND<1 186  
 6/23/2020 ND<1 186  
 12/17/2020 ND<1 186  
 6/16/2021 ND<1 186  
 12/14/2021 ND<1 186  
 6/9/2022 ND<1 186  
 12/13/2022 ND<1 186

Rank Sum = 2797  
 Rank Mean = 233.083

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GWC-4A 6/13/2017 ND<1 186  
 12/12/2017 ND<1 186  
 6/20/2018 ND<1 186  
 12/17/2018 ND<1 186  
 6/11/2019 ND<1 186  
 12/11/2019 ND<1 186  
 6/23/2020 ND<1 186  
 12/17/2020 ND<1 186  
 6/17/2021 ND<1 186  
 12/15/2021 ND<1 186  
 6/8/2022 ND<1 186  
 12/14/2022 ND<1 186

Rank Sum = 2232  
 Rank Mean = 186

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GWC-8A 6/13/2017 ND<1 186  
 12/12/2017 ND<1 186  
 6/20/2018 ND<1 186  
 12/19/2018 ND<1 186  
 6/12/2019 ND<1 186  
 12/11/2019 ND<1 186  
 6/23/2020 ND<1 186  
 12/15/2020 ND<1 186  
 6/16/2021 ND<1 186  
 12/15/2021 ND<1 186

## Tetrachloroethene

6/9/2022 ND<1 186  
 12/13/2022 ND<1 186

Rank Sum = 2232  
 Rank Mean = 186

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GWC-8R 6/13/2017 ND<1 186  
 12/12/2017 ND<1 186  
 6/20/2018 2 374  
 12/19/2018 ND<1 186  
 6/12/2019 ND<1 186  
 12/11/2019 ND<1 186  
 6/23/2020 ND<1 186  
 12/15/2020 ND<1 186  
 6/16/2021 ND<1 186  
 12/15/2021 ND<1 186  
 6/9/2022 ND<1 186  
 12/13/2022 ND<1 186

Rank Sum = 2420  
 Rank Mean = 201.667

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GWA-3 6/14/2017 ND<1 186  
 12/11/2017 ND<1 186  
 6/18/2018 ND<1 186  
 12/17/2018 ND<1 186  
 6/11/2019 ND<1 186  
 12/10/2019 ND<1 186  
 6/22/2020 ND<1 186  
 12/16/2020 ND<1 186  
 6/14/2021 ND<1 186  
 12/14/2021 ND<1 186  
 6/6/2022 ND<1 186  
 12/13/2022 ND<1 186

Rank Sum = 2232  
 Rank Mean = 186

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GWC-11 6/14/2017 ND<1 186  
 12/13/2017 ND<1 186  
 6/19/2018 ND<1 186  
 12/19/2018 ND<1 186  
 6/12/2019 ND<1 186  
 12/12/2019 ND<1 186  
 6/24/2020 ND<1 186  
 12/15/2020 ND<1 186  
 6/15/2021 ND<1 186  
 12/13/2021 ND<1 186  
 6/7/2022 ND<1 186  
 12/12/2022 ND<1 186

Rank Sum = 2232  
 Rank Mean = 186

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GWC-12 6/14/2017 ND<1 186  
 12/13/2017 ND<1 186  
 6/19/2018 ND<1 186  
 12/19/2018 ND<1 186  
 6/11/2019 ND<1 186  
 12/9/2019 ND<1 186  
 6/24/2020 ND<1 186  
 12/15/2020 ND<1 186  
 6/15/2021 ND<1 186

## Tetrachloroethene

12/13/2021	ND<1	186
6/7/2022	ND<1	186
12/12/2022	ND<1	186

Rank Sum = 2232  
Rank Mean = 186

GWC-12A	6/14/2017	ND<1	186
	12/13/2017	ND<1	186
	6/19/2018	ND<1	186
	12/19/2018	ND<1	186
	6/11/2019	ND<1	186
	12/9/2019	ND<1	186
	6/24/2020	ND<1	186
	12/15/2020	ND<1	186
	6/15/2021	ND<1	186
	12/13/2021	ND<1	186
	6/7/2022	ND<1	186
	12/12/2022	ND<1	186

Rank Sum = 2232  
Rank Mean = 186

GWC-13	6/14/2017	ND<1	186
	12/12/2017	ND<1	186
	6/19/2018	ND<1	186
	12/19/2018	ND<1	186
	6/12/2019	ND<1	186
	12/11/2019	ND<1	186
	6/23/2020	ND<1	186
	12/15/2020	ND<1	186
	6/15/2021	ND<1	186
	12/15/2021	ND<1	186
	6/8/2022	ND<1	186
	12/12/2022	ND<1	186

Rank Sum = 2232  
Rank Mean = 186

GWC-15	6/14/2017	7.3	391
	12/13/2017	2.7	376
	6/19/2018	5	384
	12/19/2018	9.7	393
	6/11/2019	50	400
	12/10/2019	31	397
	6/25/2020	48	399
	12/17/2020	19	395
	6/16/2021	29	396
	12/14/2021	12	394
	6/9/2022	42	398
	12/15/2022	ND<1	186

Rank Sum = 4509  
Rank Mean = 375.75

GWC-16A	6/14/2017	6.3	387
	12/13/2017	ND<1	186
	6/21/2018	ND<1	186
	12/19/2018	ND<1	186
	6/13/2019	ND<1	186
	12/11/2019	ND<1	186
	6/23/2020	ND<1	186
	12/17/2020	ND<1	186

## Tetrachloroethene

6/16/2021	ND<1	186
12/16/2021	ND<1	186
6/9/2022	ND<1	186
12/14/2022	ND<1	186

Rank Sum = 2433  
Rank Mean = 202.75

GWC-17	6/14/2017	ND<1	186
	12/12/2017	ND<1	186
	6/19/2018	ND<1	186
	12/19/2018	ND<1	186
	6/12/2019	ND<1	186
	12/10/2019	ND<1	186
	6/23/2020	ND<1	186
	12/15/2020	ND<1	186
	6/14/2021	ND<1	186
	12/14/2021	ND<1	186
	6/9/2022	ND<1	186
	12/14/2022	ND<1	186

Rank Sum = 2232  
Rank Mean = 186

GWC-18	6/14/2017	4.1	382
	12/13/2017	6.5	389
	6/19/2018	4.6	383
	12/18/2018	7	390
	6/11/2019	3.9	381
	12/9/2019	7.4	392
	6/23/2020	5.7	386
	12/15/2020	6.4	388
	6/14/2021	3.1	377
	12/14/2021	3.4	379
	6/7/2022	5.2	385
	12/14/2022	3.8	380

Rank Sum = 4612  
Rank Mean = 384.333

GWC-19R	6/14/2017	ND<1	186
	12/13/2017	ND<1	186
	6/19/2018	ND<1	186
	12/18/2018	2	375
	6/11/2019	ND<1	186
	12/9/2019	ND<1	186
	6/23/2020	ND<1	186
	12/15/2020	ND<1	186
	6/14/2021	ND<1	186
	12/14/2021	ND<1	186
	6/6/2022	ND<1	186
	12/14/2022	ND<1	186

Rank Sum = 2421  
Rank Mean = 201.75

GWC-22	6/14/2017	ND<1	186
	12/11/2017	ND<1	186
	6/19/2018	ND<1	186
	12/18/2018	ND<1	186
	6/12/2019	ND<1	186
	12/11/2019	ND<1	186
	6/23/2020	ND<1	186



## Tetrachloroethene

12/17/2020	ND<1	186
6/14/2021	ND<1	186
12/13/2021	ND<1	186
6/6/2022	ND<1	186
12/12/2022	ND<1	186

Rank Sum = 2232  
Rank Mean = 186

GWC-23	6/14/2017	ND<1	186
	12/11/2017	ND<1	186
	6/18/2018	ND<1	186
	12/18/2018	ND<1	186
	6/12/2019	ND<1	186
	12/11/2019	ND<1	186
	6/24/2020	ND<1	186
	12/16/2020	ND<1	186
	6/14/2021	ND<1	186
	12/13/2021	ND<1	186
	6/6/2022	ND<1	186
	12/12/2022	ND<1	186

Rank Sum = 2232  
Rank Mean = 186

GWC-23A	6/14/2017	ND<1	186
	12/11/2017	ND<1	186
	6/18/2018	ND<1	186
	12/18/2018	ND<1	186
	6/12/2019	ND<1	186
	12/11/2019	ND<1	186
	6/24/2020	ND<1	186
	12/16/2020	ND<1	186
	6/14/2021	ND<1	186
	12/13/2021	ND<1	186
	6/6/2022	ND<1	186
	12/12/2022	ND<1	186

Rank Sum = 2232  
Rank Mean = 186

GWC-24	6/14/2017	ND<1	186
	12/13/2017	ND<1	186
	6/19/2018	ND<1	186
	12/19/2018	ND<1	186
	6/11/2019	ND<1	186
	12/9/2019	ND<1	186
	6/24/2020	ND<1	186
	12/15/2020	ND<1	186
	6/14/2021	ND<1	186
	12/14/2021	ND<1	186
	6/7/2022	ND<1	186
	12/14/2022	ND<1	186

Rank Sum = 2232  
Rank Mean = 186

GWC-10	6/15/2017	ND<1	186
	12/12/2017	ND<1	186
	6/19/2018	ND<1	186
	12/17/2018	ND<1	186
	6/10/2019	ND<1	186
	12/12/2019	ND<1	186

## Tetrachloroethene

6/24/2020	ND<1	186
12/15/2020	ND<1	186
6/15/2021	ND<1	186
12/15/2021	ND<1	186
6/7/2022	ND<1	186
12/14/2022	ND<1	186

Rank Sum = 2232  
Rank Mean = 186

GWC-10A	6/15/2017	ND<1	186
	12/12/2017	ND<1	186
	6/19/2018	ND<1	186
	12/17/2018	ND<1	186
	6/10/2019	ND<1	186
	12/12/2019	ND<1	186
	6/24/2020	ND<1	186
	12/15/2020	ND<1	186
	6/15/2021	ND<1	186
	12/15/2021	ND<1	186
	6/7/2022	ND<1	186
	12/14/2022	ND<1	186

Rank Sum = 2232  
Rank Mean = 186

GWC-2	6/15/2017	ND<1	186
	12/13/2017	ND<1	186
	6/20/2018	ND<1	186
	12/19/2018	ND<1	186
	6/12/2019	ND<1	186
	12/10/2019	ND<1	186
	6/22/2020	ND<1	186
	12/16/2020	ND<1	186
	6/15/2021	ND<1	186
	12/15/2021	ND<1	186
	6/7/2022	ND<1	186
	12/12/2022	ND<1	186

Rank Sum = 2232  
Rank Mean = 186

GWC-3	6/15/2017	ND<1	186
	6/21/2018	ND<1	186
	12/17/2018	ND<1	186
	6/11/2019	ND<1	186
	12/10/2019	ND<1	186
	6/24/2020	ND<1	186
	12/16/2020	ND<1	186
	6/15/2021	ND<1	186
	12/15/2021	ND<1	186
	6/7/2022	ND<1	186
	12/12/2022	ND<1	186

Rank Sum = 2046  
Rank Mean = 186

GWC-3A	6/15/2017	ND<1	186
	12/12/2017	ND<1	186
	6/20/2018	ND<1	186
	12/17/2018	ND<1	186
	6/11/2019	ND<1	186
	12/10/2019	ND<1	186

Tetrachloroethene

6/24/2020	ND<1	186
12/16/2020	ND<1	186
6/14/2021	ND<1	186
12/15/2021	ND<1	186
6/7/2022	ND<1	186
12/12/2022	ND<1	186

Rank Sum = 2232  
Rank Mean = 186

GWC-9	6/15/2017	ND<1	186
	12/13/2017	ND<1	186
	6/20/2018	ND<1	186
	12/18/2018	ND<1	186
	6/12/2019	ND<1	186
	12/12/2019	ND<1	186
	6/24/2020	ND<1	186
	12/17/2020	ND<1	186
	6/15/2021	ND<1	186
	12/13/2021	ND<1	186
	6/7/2022	ND<1	186
	12/14/2022	ND<1	186

Rank Sum = 2232  
Rank Mean = 186

GWC-8	12/12/2017	ND<1	186
	6/20/2018	ND<1	186
	12/19/2018	ND<1	186
	6/12/2019	ND<1	186
	12/11/2019	ND<1	186
	6/23/2020	ND<1	186
	12/16/2020	ND<1	186
	6/16/2021	ND<1	186
	12/15/2021	ND<1	186
	6/9/2022	ND<1	186
	12/13/2022	ND<1	186

Rank Sum = 2046  
Rank Mean = 186

GWC-4	6/20/2018	ND<1	186
	6/23/2020	ND<1	186
	12/17/2020	ND<1	186
	6/16/2021	ND<1	186
	12/14/2021	ND<1	186
	6/8/2022	ND<1	186
	12/12/2022	ND<1	186

Rank Sum = 1302  
Rank Mean = 186

**Calculation Results:**

Kruskal-Wallis H Statistic = 64.0313

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 316.809

95% Confidence comparison value is 46.1942 at 32 degrees of freedom

**64.0313 > 46.1942 indicating a significant group difference at 5% significance level**

**316.809 > 46.1942 indicating a significant group difference at 5% significance level when adjusted for ties**

**Individual Well Comparisons at 1% Significance Level per Comparison**

Tetrachloroethene

1% Z score is 2.32634

Mean background rank is 186

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	186	0	94.4551
GWC-5	186	0	94.4551
GWC-6	186	0	94.4551
GWC-7	186	0	94.4551
GWC-14	186	0	100.635
GWC-14A	186	0	94.4551
GWC-14R	233.083	47.0833	94.4551
GWC-4A	186	0	94.4551
GWC-8A	186	0	94.4551
GWC-8R	201.667	15.6667	94.4551
GWA-3	186	0	94.4551
GWC-11	186	0	94.4551
GWC-12	186	0	94.4551
GWC-12A	186	0	94.4551
GWC-13	186	0	94.4551
<b>GWC-15</b>	<b>375.75</b>	<b>189.75</b>	<b>94.4551</b>
GWC-16A	202.75	16.75	94.4551
GWC-17	186	0	94.4551
<b>GWC-18</b>	<b>384.333</b>	<b>198.333</b>	<b>94.4551</b>
GWC-19R	201.75	15.75	94.4551
GWC-22	186	0	94.4551
GWC-23	186	0	94.4551
GWC-23A	186	0	94.4551
GWC-24	186	0	94.4551
GWC-10	186	0	94.4551
GWC-10A	186	0	94.4551
GWC-2	186	0	94.4551
GWC-3	186	0	97.3128
GWC-3A	186	0	94.4551
GWC-9	186	0	94.4551
GWC-8	186	0	97.3128
GWC-4	186	0	115.011

**Individual Well Comparisons at Groupwise 5% Significance Level (0.15625% Significance Level per comparison)**

0.15625% Z score is 3.09024

Mean background rank is 186

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	186	0	125.471
GWC-5	186	0	125.471
GWC-6	186	0	125.471
GWC-7	186	0	125.471
GWC-14	186	0	133.681
GWC-14A	186	0	125.471
GWC-14R	233.083	47.0833	125.471
GWC-4A	186	0	125.471
GWC-8A	186	0	125.471
GWC-8R	201.667	15.6667	125.471
GWA-3	186	0	125.471
GWC-11	186	0	125.471
GWC-12	186	0	125.471
GWC-12A	186	0	125.471
GWC-13	186	0	125.471
<b>GWC-15</b>	<b>375.75</b>	<b>189.75</b>	<b>125.471</b>
GWC-16A	202.75	16.75	125.471

## Tetrachloroethene

GWC-17	186	0	125.471
<b>GWC-18</b>	<b>384.333</b>	<b>198.333</b>	<b>125.471</b>
GWC-19R	201.75	15.75	125.471
GWC-22	186	0	125.471
GWC-23	186	0	125.471
GWC-23A	186	0	125.471
GWC-24	186	0	125.471
GWC-10	186	0	125.471
GWC-10A	186	0	125.471
GWC-2	186	0	125.471
GWC-3	186	0	129.267
GWC-3A	186	0	125.471
GWC-9	186	0	125.471
GWC-8	186	0	129.267
GWC-4	186	0	152.778

## Trichloroethene

## Kruskal-Wallis Non-Parametric Test

Parameter: Trichloroethene

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

## Kruskal Wallis Ranks

## Background Locations

Loc. ID	Date	Value	Rank
GWA-1	6/13/2017	ND<1	183
	12/11/2017	ND<1	183
	6/19/2018	ND<1	183
	12/17/2018	ND<1	183
	6/10/2019	ND<1	183
	12/9/2019	ND<1	183
	6/23/2020	ND<1	183
	12/17/2020	ND<1	183
	6/15/2021	ND<1	183
	12/13/2021	ND<1	183
	6/8/2022	ND<1	183
	12/12/2022	ND<1	183
	12/15/2022	ND<1	183
	Rank Sum = 2379		
Rank Mean = 183			
GWA-2	6/15/2017	ND<1	183
	12/11/2017	ND<1	183
	6/19/2018	ND<1	183
	12/17/2018	ND<1	183
	6/11/2019	ND<1	183
	12/11/2019	ND<1	183
	6/22/2020	ND<1	183
	12/17/2020	ND<1	183
	6/15/2021	ND<1	183
	12/13/2021	ND<1	183
	6/8/2022	ND<1	183
	12/12/2022	ND<1	183
Rank Sum = 2196			
Rank Mean = 183			

Background Rank Sum = 4575

Background Rank Mean = 183

## Compliance Locations

Loc. ID	Date	Value	Rank
GWA-1A	6/12/2017	ND<1	183
	12/13/2017	ND<1	183
	6/19/2018	ND<1	183
	12/18/2018	ND<1	183
	6/10/2019	ND<1	183
	12/9/2019	ND<1	183
	6/23/2020	ND<1	183
	12/17/2020	ND<1	183
	6/17/2021	ND<1	183
	12/16/2021	ND<1	183

## Trichloroethene

	6/8/2022	ND<1	183
	12/14/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

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GWC-5	6/12/2017	ND<1	183
	12/12/2017	ND<1	183
	6/21/2018	ND<1	183
	12/18/2018	ND<1	183
	6/12/2019	ND<1	183
	12/10/2019	ND<1	183
	6/23/2020	ND<1	183
	12/17/2020	ND<1	183
	6/15/2021	ND<1	183
	12/13/2021	ND<1	183
	6/8/2022	ND<1	183
	12/12/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

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GWC-6	6/12/2017	ND<1	183
	12/13/2017	ND<1	183
	6/21/2018	ND<1	183
	12/19/2018	ND<1	183
	6/12/2019	ND<1	183
	12/10/2019	ND<1	183
	6/24/2020	ND<1	183
	12/17/2020	ND<1	183
	6/15/2021	ND<1	183
	12/13/2021	ND<1	183
	6/8/2022	ND<1	183
	12/14/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

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GWC-7	6/12/2017	ND<1	183
	12/12/2017	ND<1	183
	6/19/2018	ND<1	183
	12/18/2018	ND<1	183
	6/12/2019	ND<1	183
	12/11/2019	ND<1	183
	6/24/2020	ND<1	183
	12/17/2020	ND<1	183
	6/15/2021	ND<1	183
	12/13/2021	ND<1	183
	6/8/2022	ND<1	183
	12/12/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

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GWC-14	6/13/2017	ND<1	183
	6/20/2018	ND<1	183
	6/11/2019	ND<1	183
	12/10/2019	ND<1	183
	6/24/2020	ND<1	183
	12/17/2020	ND<1	183
	6/15/2021	ND<1	183
	12/15/2021	ND<1	183
	6/9/2022	ND<1	183

## Trichloroethene

	12/13/2022	ND<1	183
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Rank Sum = 1830

Rank Mean = 183

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GWC-14A	6/13/2017	3.5	380
	12/12/2017	3.8	382
	6/20/2018	2.1	366
	12/19/2018	2.2	370
	6/11/2019	ND<1	183
	12/10/2019	3.1	378
	6/24/2020	ND<1	183
	12/15/2020	ND<1	183
	6/15/2021	ND<1	183
	12/14/2021	ND<1	183
	6/9/2022	ND<1	183
	12/13/2022	3.3	379

Rank Sum = 3353

Rank Mean = 279.417

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GWC-14R	6/13/2017	6.8	393
	12/12/2017	4.8	389
	6/20/2018	5.2	391
	12/19/2018	4.9	390
	6/12/2019	4.7	388
	12/10/2019	4.3	386
	6/23/2020	4.3	387
	12/17/2020	3.9	383
	6/16/2021	3.9	384
	12/14/2021	2.8	374
	6/9/2022	2.8	375
	12/13/2022	3	377

Rank Sum = 4617

Rank Mean = 384.75

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GWC-4A	6/13/2017	ND<1	183
	12/12/2017	ND<1	183
	6/20/2018	ND<1	183
	12/17/2018	ND<1	183
	6/11/2019	ND<1	183
	12/11/2019	ND<1	183
	6/23/2020	ND<1	183
	12/17/2020	ND<1	183
	6/17/2021	ND<1	183
	12/15/2021	ND<1	183
	6/8/2022	ND<1	183
	12/14/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

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GWC-8A	6/13/2017	ND<1	183
	12/12/2017	ND<1	183
	6/20/2018	ND<1	183
	12/19/2018	ND<1	183
	6/12/2019	ND<1	183
	12/11/2019	ND<1	183
	6/23/2020	ND<1	183
	12/15/2020	ND<1	183
	6/16/2021	ND<1	183
	12/15/2021	ND<1	183

## Trichloroethene

	6/9/2022	ND<1	183
	12/13/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

GWC-8R	6/13/2017	2.9	376
	12/12/2017	ND<1	183
	6/20/2018	5.3	392
	12/19/2018	ND<1	183
	6/12/2019	ND<1	183
	12/11/2019	ND<1	183
	6/23/2020	ND<1	183
	12/15/2020	ND<1	183
	6/16/2021	2.1	367
	12/15/2021	ND<1	183
	6/9/2022	ND<1	183
	12/13/2022	ND<1	183

Rank Sum = 2782

Rank Mean = 231.833

GWA-3	6/14/2017	ND<1	183
	12/11/2017	ND<1	183
	6/18/2018	ND<1	183
	12/17/2018	ND<1	183
	6/11/2019	ND<1	183
	12/10/2019	ND<1	183
	6/22/2020	ND<1	183
	12/16/2020	ND<1	183
	6/14/2021	ND<1	183
	12/14/2021	ND<1	183
	6/6/2022	ND<1	183
	12/13/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

GWC-11	6/14/2017	ND<1	183
	12/13/2017	ND<1	183
	6/19/2018	ND<1	183
	12/19/2018	ND<1	183
	6/12/2019	ND<1	183
	12/12/2019	ND<1	183
	6/24/2020	ND<1	183
	12/15/2020	ND<1	183
	6/15/2021	ND<1	183
	12/13/2021	ND<1	183
	6/7/2022	ND<1	183
	12/12/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

GWC-12	6/14/2017	ND<1	183
	12/13/2017	ND<1	183
	6/19/2018	ND<1	183
	12/19/2018	ND<1	183
	6/11/2019	ND<1	183
	12/9/2019	ND<1	183
	6/24/2020	ND<1	183
	12/15/2020	ND<1	183
	6/15/2021	ND<1	183

## Trichloroethene

	12/13/2021	ND<1	183
	6/7/2022	ND<1	183
	12/12/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

GWC-12A	6/14/2017	ND<1	183
	12/13/2017	ND<1	183
	6/19/2018	ND<1	183
	12/19/2018	ND<1	183
	6/11/2019	ND<1	183
	12/9/2019	ND<1	183
	6/24/2020	ND<1	183
	12/15/2020	ND<1	183
	6/15/2021	ND<1	183
	12/13/2021	ND<1	183
	6/7/2022	ND<1	183
	12/12/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

GWC-13	6/14/2017	ND<1	183
	12/12/2017	ND<1	183
	6/19/2018	ND<1	183
	12/19/2018	ND<1	183
	6/12/2019	ND<1	183
	12/11/2019	ND<1	183
	6/23/2020	ND<1	183
	12/15/2020	ND<1	183
	6/15/2021	ND<1	183
	12/15/2021	ND<1	183
	6/8/2022	ND<1	183
	12/12/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

GWC-15	6/14/2017	2.1	368
	12/13/2017	ND<1	183
	6/19/2018	ND<1	183
	12/19/2018	3.7	381
	6/11/2019	70	398
	12/10/2019	55	396
	6/25/2020	90	400
	12/17/2020	45	394
	6/16/2021	71	399
	12/14/2021	48	395
	6/9/2022	65	397
	12/15/2022	ND<1	183

Rank Sum = 4077

Rank Mean = 339.75

GWC-16A	6/14/2017	3.9	385
	12/13/2017	ND<1	183
	6/21/2018	ND<1	183
	12/19/2018	ND<1	183
	6/13/2019	ND<1	183
	12/11/2019	ND<1	183
	6/23/2020	ND<1	183
	12/17/2020	ND<1	183

## Trichloroethene

6/16/2021	ND<1	183
12/16/2021	ND<1	183
6/9/2022	ND<1	183
12/14/2022	ND<1	183

Rank Sum = 2398

Rank Mean = 199.833

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GWC-17	6/14/2017	ND<1	183
	12/12/2017	ND<1	183
	6/19/2018	ND<1	183
	12/19/2018	ND<1	183
	6/12/2019	ND<1	183
	12/10/2019	ND<1	183
	6/23/2020	ND<1	183
	12/15/2020	ND<1	183
	6/14/2021	ND<1	183
	12/14/2021	ND<1	183
	6/9/2022	ND<1	183
	12/14/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

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GWC-18	6/14/2017	ND<1	183
	12/13/2017	2.3	371
	6/19/2018	ND<1	183
	12/18/2018	2.1	369
	6/11/2019	ND<1	183
	12/9/2019	2.6	373
	6/23/2020	ND<1	183
	12/15/2020	2.4	372
	6/14/2021	ND<1	183
	12/14/2021	ND<1	183
	6/7/2022	ND<1	183
	12/14/2022	ND<1	183

Rank Sum = 2949

Rank Mean = 245.75

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GWC-19R	6/14/2017	ND<1	183
	12/13/2017	ND<1	183
	6/19/2018	ND<1	183
	12/18/2018	ND<1	183
	6/11/2019	ND<1	183
	12/9/2019	ND<1	183
	6/23/2020	ND<1	183
	12/15/2020	ND<1	183
	6/14/2021	ND<1	183
	12/14/2021	ND<1	183
	6/6/2022	ND<1	183
	12/14/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

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GWC-22	6/14/2017	ND<1	183
	12/11/2017	ND<1	183
	6/19/2018	ND<1	183
	12/18/2018	ND<1	183
	6/12/2019	ND<1	183
	12/11/2019	ND<1	183
	6/23/2020	ND<1	183

## Trichloroethene

12/17/2020	ND<1	183
6/14/2021	ND<1	183
12/13/2021	ND<1	183
6/6/2022	ND<1	183
12/12/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

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GWC-23	6/14/2017	ND<1	183
	12/11/2017	ND<1	183
	6/18/2018	ND<1	183
	12/18/2018	ND<1	183
	6/12/2019	ND<1	183
	12/11/2019	ND<1	183
	6/24/2020	ND<1	183
	12/16/2020	ND<1	183
	6/14/2021	ND<1	183
	12/13/2021	ND<1	183
	6/6/2022	ND<1	183
	12/12/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

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GWC-23A	6/14/2017	ND<1	183
	12/11/2017	ND<1	183
	6/18/2018	ND<1	183
	12/18/2018	ND<1	183
	6/12/2019	ND<1	183
	12/11/2019	ND<1	183
	6/24/2020	ND<1	183
	12/16/2020	ND<1	183
	6/14/2021	ND<1	183
	12/13/2021	ND<1	183
	6/6/2022	ND<1	183
	12/12/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

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GWC-24	6/14/2017	ND<1	183
	12/13/2017	ND<1	183
	6/19/2018	ND<1	183
	12/19/2018	ND<1	183
	6/11/2019	ND<1	183
	12/9/2019	ND<1	183
	6/24/2020	ND<1	183
	12/15/2020	ND<1	183
	6/14/2021	ND<1	183
	12/14/2021	ND<1	183
	6/7/2022	ND<1	183
	12/14/2022	ND<1	183

Rank Sum = 2196

Rank Mean = 183

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GWC-10	6/15/2017	ND<1	183
	12/12/2017	ND<1	183
	6/19/2018	ND<1	183
	12/17/2018	ND<1	183
	6/10/2019	ND<1	183
	12/12/2019	ND<1	183

## Trichloroethene

6/24/2020	ND<1	183
12/15/2020	ND<1	183
6/15/2021	ND<1	183
12/15/2021	ND<1	183
6/7/2022	ND<1	183
12/14/2022	ND<1	183

Rank Sum = 2196  
Rank Mean = 183

GWC-10A	6/15/2017	ND<1	183
	12/12/2017	ND<1	183
	6/19/2018	ND<1	183
	12/17/2018	ND<1	183
	6/10/2019	ND<1	183
	12/12/2019	ND<1	183
	6/24/2020	ND<1	183
	12/15/2020	ND<1	183
	6/15/2021	ND<1	183
	12/15/2021	ND<1	183
	6/7/2022	ND<1	183
	12/14/2022	ND<1	183

Rank Sum = 2196  
Rank Mean = 183

GWC-2	6/15/2017	ND<1	183
	12/13/2017	ND<1	183
	6/20/2018	ND<1	183
	12/19/2018	ND<1	183
	6/12/2019	ND<1	183
	12/10/2019	ND<1	183
	6/22/2020	ND<1	183
	12/16/2020	ND<1	183
	6/15/2021	ND<1	183
	12/15/2021	ND<1	183
	6/7/2022	ND<1	183
	12/12/2022	ND<1	183

Rank Sum = 2196  
Rank Mean = 183

GWC-3	6/15/2017	ND<1	183
	6/21/2018	ND<1	183
	12/17/2018	ND<1	183
	6/11/2019	ND<1	183
	12/10/2019	ND<1	183
	6/24/2020	ND<1	183
	12/16/2020	ND<1	183
	6/15/2021	ND<1	183
	12/15/2021	ND<1	183
	6/7/2022	ND<1	183
	12/12/2022	ND<1	183

Rank Sum = 2013  
Rank Mean = 183

GWC-3A	6/15/2017	ND<1	183
	12/12/2017	ND<1	183
	6/20/2018	ND<1	183
	12/17/2018	ND<1	183
	6/11/2019	ND<1	183
	12/10/2019	ND<1	183

## Trichloroethene

6/24/2020	ND<1	183
12/16/2020	ND<1	183
6/14/2021	ND<1	183
12/15/2021	ND<1	183
6/7/2022	ND<1	183
12/12/2022	ND<1	183

Rank Sum = 2196  
Rank Mean = 183

GWC-9	6/15/2017	ND<1	183
	12/13/2017	ND<1	183
	6/20/2018	ND<1	183
	12/18/2018	ND<1	183
	6/12/2019	ND<1	183
	12/12/2019	ND<1	183
	6/24/2020	ND<1	183
	12/17/2020	ND<1	183
	6/15/2021	ND<1	183
	12/13/2021	ND<1	183
	6/7/2022	ND<1	183
	12/14/2022	ND<1	183

Rank Sum = 2196  
Rank Mean = 183

GWC-8	12/12/2017	ND<1	183
	6/20/2018	ND<1	183
	12/19/2018	ND<1	183
	6/12/2019	ND<1	183
	12/11/2019	ND<1	183
	6/23/2020	ND<1	183
	12/16/2020	ND<1	183
	6/16/2021	ND<1	183
	12/15/2021	ND<1	183
	6/9/2022	ND<1	183
	12/13/2022	ND<1	183

Rank Sum = 2013  
Rank Mean = 183

GWC-4	6/20/2018	ND<1	183
	6/23/2020	ND<1	183
	12/17/2020	ND<1	183
	6/16/2021	ND<1	183
	12/14/2021	ND<1	183
	6/8/2022	ND<1	183
	12/12/2022	ND<1	183

Rank Sum = 1281  
Rank Mean = 183

**Calculation Results:**

Kruskal-Wallis H Statistic = 63.7111

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 265.24

95% Confidence comparison value is 46.1942 at 32 degrees of freedom

**63.7111 > 46.1942 indicating a significant group difference at 5% significance level**

**265.24 > 46.1942 indicating a significant group difference at 5% significance level when adjusted for ties**

**Individual Well Comparisons at 1% Significance Level per Comparison**

Trichloroethene

1% Z score is 2.32634

Mean background rank is 183

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	183	0	94.4551
GWC-5	183	0	94.4551
GWC-6	183	0	94.4551
GWC-7	183	0	94.4551
GWC-14	183	0	100.635
<b>GWC-14A</b>	<b>279.417</b>	<b>96.4167</b>	<b>94.4551</b>
<b>GWC-14R</b>	<b>384.75</b>	<b>201.75</b>	<b>94.4551</b>
GWC-4A	183	0	94.4551
GWC-8A	183	0	94.4551
GWC-8R	231.833	48.8333	94.4551
GWA-3	183	0	94.4551
GWC-11	183	0	94.4551
GWC-12	183	0	94.4551
GWC-12A	183	0	94.4551
GWC-13	183	0	94.4551
<b>GWC-15</b>	<b>339.75</b>	<b>156.75</b>	<b>94.4551</b>
GWC-16A	199.833	16.8333	94.4551
GWC-17	183	0	94.4551
GWC-18	245.75	62.75	94.4551
GWC-19R	183	0	94.4551
GWC-22	183	0	94.4551
GWC-23	183	0	94.4551
GWC-23A	183	0	94.4551
GWC-24	183	0	94.4551
GWC-10	183	0	94.4551
GWC-10A	183	0	94.4551
GWC-2	183	0	94.4551
GWC-3	183	0	97.3128
GWC-3A	183	0	94.4551
GWC-9	183	0	94.4551
GWC-8	183	0	97.3128
GWC-4	183	0	115.011

**Individual Well Comparisons at Groupwise 5% Significance Level  
(0.15625% Significance Level per comparison)**

0.15625% Z score is 3.09024

Mean background rank is 183

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	183	0	125.471
GWC-5	183	0	125.471
GWC-6	183	0	125.471
GWC-7	183	0	125.471
GWC-14	183	0	133.681
GWC-14A	279.417	96.4167	125.471
<b>GWC-14R</b>	<b>384.75</b>	<b>201.75</b>	<b>125.471</b>
GWC-4A	183	0	125.471
GWC-8A	183	0	125.471
GWC-8R	231.833	48.8333	125.471
GWA-3	183	0	125.471
GWC-11	183	0	125.471
GWC-12	183	0	125.471
GWC-12A	183	0	125.471
GWC-13	183	0	125.471
<b>GWC-15</b>	<b>339.75</b>	<b>156.75</b>	<b>125.471</b>
GWC-16A	199.833	16.8333	125.471

Trichloroethene

GWC-17	183	0	125.471
GWC-18	245.75	62.75	125.471
GWC-19R	183	0	125.471
GWC-22	183	0	125.471
GWC-23	183	0	125.471
GWC-23A	183	0	125.471
GWC-24	183	0	125.471
GWC-10	183	0	125.471
GWC-10A	183	0	125.471
GWC-2	183	0	125.471
GWC-3	183	0	129.267
GWC-3A	183	0	125.471
GWC-9	183	0	125.471
GWC-8	183	0	129.267
GWC-4	183	0	152.778



**Kruskal-Wallis Non-Parametric Test**

**Parameter: Vinyl chloride**

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

**Kruskal Wallis Ranks**

**Background Locations**

Loc. ID	Date	Value	Rank
GWA-1	6/13/2017	ND<1	194
	12/11/2017	ND<1	194
	6/19/2018	ND<1	194
	12/17/2018	ND<1	194
	6/10/2019	ND<1	194
	12/9/2019	ND<1	194
	6/23/2020	ND<1	194
	12/17/2020	ND<1	194
	6/15/2021	ND<1	194
	12/13/2021	ND<1	194
	6/8/2022	ND<1	194
	12/12/2022	ND<1	194
	12/15/2022	ND<1	194

Rank Sum = 2522

Rank Mean = 194

GWA-2	6/15/2017	ND<1	194
	12/11/2017	ND<1	194
	6/19/2018	ND<1	194
	12/17/2018	ND<1	194
	6/11/2019	ND<1	194
	12/11/2019	ND<1	194
	6/22/2020	ND<1	194
	12/17/2020	ND<1	194
	6/15/2021	ND<1	194
	12/13/2021	ND<1	194
	6/8/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328

Rank Mean = 194

Background Rank Sum = 4850

Background Rank Mean = 194

**Compliance Locations**

Loc. ID	Date	Value	Rank
GWA-1A	6/12/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/18/2018	ND<1	194
	6/10/2019	ND<1	194
	12/9/2019	ND<1	194
	6/23/2020	ND<1	194
	12/17/2020	ND<1	194
	6/17/2021	ND<1	194
	12/16/2021	ND<1	194

	6/8/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328

Rank Mean = 194

GWC-5	6/12/2017	ND<1	194
	12/12/2017	ND<1	194
	6/21/2018	ND<1	194
	12/18/2018	ND<1	194
	6/12/2019	ND<1	194
	12/10/2019	ND<1	194
	6/23/2020	ND<1	194
	12/17/2020	ND<1	194
	6/15/2021	ND<1	194
	12/13/2021	ND<1	194
	6/8/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328

Rank Mean = 194

GWC-6	6/12/2017	ND<1	194
	12/13/2017	ND<1	194
	6/21/2018	ND<1	194
	12/19/2018	ND<1	194
	6/12/2019	ND<1	194
	12/10/2019	ND<1	194
	6/24/2020	ND<1	194
	12/17/2020	ND<1	194
	6/15/2021	ND<1	194
	12/13/2021	ND<1	194
	6/8/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328

Rank Mean = 194

GWC-7	6/12/2017	ND<1	194
	12/12/2017	ND<1	194
	6/19/2018	ND<1	194
	12/18/2018	ND<1	194
	6/12/2019	ND<1	194
	12/11/2019	ND<1	194
	6/24/2020	ND<1	194
	12/17/2020	ND<1	194
	6/15/2021	ND<1	194
	12/13/2021	ND<1	194
	6/8/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328

Rank Mean = 194

GWC-14	6/13/2017	ND<1	194
	6/20/2018	ND<1	194
	6/11/2019	ND<1	194
	12/10/2019	ND<1	194
	6/24/2020	ND<1	194
	12/17/2020	ND<1	194
	6/15/2021	ND<1	194
	12/15/2021	ND<1	194
	6/9/2022	ND<1	194

## Vinyl chloride

12/13/2022 ND<1 194  
 Rank Sum = 1940  
 Rank Mean = 194

---

GWC-14A 6/13/2017 3.5 388  
 12/12/2017 6 393  
 6/20/2018 6.2 394  
 12/19/2018 4.9 392  
 6/11/2019 4.3 390  
 12/10/2019 4 389  
 6/24/2020 7.5 395  
 12/15/2020 11 396  
 6/15/2021 12 397  
 12/14/2021 19 399  
 6/9/2022 19 400  
 12/13/2022 14 398

Rank Sum = 4731  
 Rank Mean = 394.25

---

GWC-14R 6/13/2017 ND<1 194  
 12/12/2017 ND<1 194  
 6/20/2018 ND<1 194  
 12/19/2018 ND<1 194  
 6/12/2019 ND<1 194  
 12/10/2019 ND<1 194  
 6/23/2020 ND<1 194  
 12/17/2020 ND<1 194  
 6/16/2021 ND<1 194  
 12/14/2021 ND<1 194  
 6/9/2022 ND<1 194  
 12/13/2022 ND<1 194

Rank Sum = 2328  
 Rank Mean = 194

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GWC-4A 6/13/2017 ND<1 194  
 12/12/2017 ND<1 194  
 6/20/2018 ND<1 194  
 12/17/2018 ND<1 194  
 6/11/2019 ND<1 194  
 12/11/2019 ND<1 194  
 6/23/2020 ND<1 194  
 12/17/2020 ND<1 194  
 6/17/2021 ND<1 194  
 12/15/2021 ND<1 194  
 6/8/2022 ND<1 194  
 12/14/2022 ND<1 194

Rank Sum = 2328  
 Rank Mean = 194

---

GWC-8A 6/13/2017 ND<1 194  
 12/12/2017 ND<1 194  
 6/20/2018 ND<1 194  
 12/19/2018 ND<1 194  
 6/12/2019 ND<1 194  
 12/11/2019 ND<1 194  
 6/23/2020 ND<1 194  
 12/15/2020 ND<1 194  
 6/16/2021 ND<1 194  
 12/15/2021 ND<1 194

## Vinyl chloride

6/9/2022 ND<1 194  
 12/13/2022 ND<1 194  
 Rank Sum = 2328  
 Rank Mean = 194

---

GWC-8R 6/13/2017 ND<1 194  
 12/12/2017 ND<1 194  
 6/20/2018 ND<1 194  
 12/19/2018 ND<1 194  
 6/12/2019 ND<1 194  
 12/11/2019 ND<1 194  
 6/23/2020 ND<1 194  
 12/15/2020 ND<1 194  
 6/16/2021 ND<1 194  
 12/15/2021 ND<1 194  
 6/9/2022 ND<1 194  
 12/13/2022 ND<1 194

Rank Sum = 2328  
 Rank Mean = 194

---

GWA-3 6/14/2017 ND<1 194  
 12/11/2017 ND<1 194  
 6/18/2018 ND<1 194  
 12/17/2018 ND<1 194  
 6/11/2019 ND<1 194  
 12/10/2019 ND<1 194  
 6/22/2020 ND<1 194  
 12/16/2020 ND<1 194  
 6/14/2021 ND<1 194  
 12/14/2021 ND<1 194  
 6/6/2022 ND<1 194  
 12/13/2022 ND<1 194

Rank Sum = 2328  
 Rank Mean = 194

---

GWC-11 6/14/2017 ND<1 194  
 12/13/2017 ND<1 194  
 6/19/2018 ND<1 194  
 12/19/2018 ND<1 194  
 6/12/2019 ND<1 194  
 12/12/2019 ND<1 194  
 6/24/2020 ND<1 194  
 12/15/2020 ND<1 194  
 6/15/2021 ND<1 194  
 12/13/2021 ND<1 194  
 6/7/2022 ND<1 194  
 12/12/2022 ND<1 194

Rank Sum = 2328  
 Rank Mean = 194

---

GWC-12 6/14/2017 ND<1 194  
 12/13/2017 ND<1 194  
 6/19/2018 ND<1 194  
 12/19/2018 ND<1 194  
 6/11/2019 ND<1 194  
 12/9/2019 ND<1 194  
 6/24/2020 ND<1 194  
 12/15/2020 ND<1 194  
 6/15/2021 ND<1 194

## Vinyl chloride

12/13/2021	ND<1	194
6/7/2022	ND<1	194
12/12/2022	ND<1	194

Rank Sum = 2328

Rank Mean = 194

---

GWC-12A	6/14/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/19/2018	ND<1	194
	6/11/2019	ND<1	194
	12/9/2019	ND<1	194
	6/24/2020	ND<1	194
	12/15/2020	ND<1	194
	6/15/2021	ND<1	194
	12/13/2021	ND<1	194
	6/7/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328

Rank Mean = 194

---

GWC-13	6/14/2017	ND<1	194
	12/12/2017	ND<1	194
	6/19/2018	ND<1	194
	12/19/2018	ND<1	194
	6/12/2019	ND<1	194
	12/11/2019	ND<1	194
	6/23/2020	ND<1	194
	12/15/2020	ND<1	194
	6/15/2021	ND<1	194
	12/15/2021	ND<1	194
	6/8/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328

Rank Mean = 194

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GWC-15	6/14/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/19/2018	ND<1	194
	6/11/2019	ND<1	194
	12/10/2019	ND<1	194
	6/25/2020	ND<1	194
	12/17/2020	ND<1	194
	6/16/2021	ND<1	194
	12/14/2021	ND<1	194
	6/9/2022	ND<1	194
	12/15/2022	ND<1	194

Rank Sum = 2328

Rank Mean = 194

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GWC-16A	6/14/2017	4.8	391
	12/13/2017	ND<1	194
	6/21/2018	ND<1	194
	12/19/2018	ND<1	194
	6/13/2019	ND<1	194
	12/11/2019	ND<1	194
	6/23/2020	ND<1	194
	12/17/2020	ND<1	194

## Vinyl chloride

6/16/2021	ND<1	194
12/16/2021	ND<1	194
6/9/2022	ND<1	194
12/14/2022	ND<1	194

Rank Sum = 2525

Rank Mean = 210.417

---

GWC-17	6/14/2017	ND<1	194
	12/12/2017	ND<1	194
	6/19/2018	ND<1	194
	12/19/2018	ND<1	194
	6/12/2019	ND<1	194
	12/10/2019	ND<1	194
	6/23/2020	ND<1	194
	12/15/2020	ND<1	194
	6/14/2021	ND<1	194
	12/14/2021	ND<1	194
	6/9/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328

Rank Mean = 194

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GWC-18	6/14/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/18/2018	ND<1	194
	6/11/2019	ND<1	194
	12/9/2019	ND<1	194
	6/23/2020	ND<1	194
	12/15/2020	ND<1	194
	6/14/2021	ND<1	194
	12/14/2021	ND<1	194
	6/7/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328

Rank Mean = 194

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GWC-19R	6/14/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/18/2018	ND<1	194
	6/11/2019	ND<1	194
	12/9/2019	ND<1	194
	6/23/2020	ND<1	194
	12/15/2020	ND<1	194
	6/14/2021	ND<1	194
	12/14/2021	ND<1	194
	6/6/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328

Rank Mean = 194

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GWC-22	6/14/2017	ND<1	194
	12/11/2017	ND<1	194
	6/19/2018	ND<1	194
	12/18/2018	ND<1	194
	6/12/2019	ND<1	194
	12/11/2019	ND<1	194
	6/23/2020	ND<1	194

## Vinyl chloride

12/17/2020	ND<1	194
6/14/2021	ND<1	194
12/13/2021	ND<1	194
6/6/2022	ND<1	194
12/12/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-23	6/14/2017	ND<1	194
	12/11/2017	ND<1	194
	6/18/2018	ND<1	194
	12/18/2018	ND<1	194
	6/12/2019	ND<1	194
	12/11/2019	ND<1	194
	6/24/2020	ND<1	194
	12/16/2020	ND<1	194
	6/14/2021	ND<1	194
	12/13/2021	ND<1	194
	6/6/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-23A	6/14/2017	ND<1	194
	12/11/2017	ND<1	194
	6/18/2018	ND<1	194
	12/18/2018	ND<1	194
	6/12/2019	ND<1	194
	12/11/2019	ND<1	194
	6/24/2020	ND<1	194
	12/16/2020	ND<1	194
	6/14/2021	ND<1	194
	12/13/2021	ND<1	194
	6/6/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-24	6/14/2017	ND<1	194
	12/13/2017	ND<1	194
	6/19/2018	ND<1	194
	12/19/2018	ND<1	194
	6/11/2019	ND<1	194
	12/9/2019	ND<1	194
	6/24/2020	ND<1	194
	12/15/2020	ND<1	194
	6/14/2021	ND<1	194
	12/14/2021	ND<1	194
	6/7/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-10	6/15/2017	ND<1	194
	12/12/2017	ND<1	194
	6/19/2018	ND<1	194
	12/17/2018	ND<1	194
	6/10/2019	ND<1	194
	12/12/2019	ND<1	194

## Vinyl chloride

6/24/2020	ND<1	194
12/15/2020	ND<1	194
6/15/2021	ND<1	194
12/15/2021	ND<1	194
6/7/2022	ND<1	194
12/14/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-10A	6/15/2017	ND<1	194
	12/12/2017	ND<1	194
	6/19/2018	ND<1	194
	12/17/2018	ND<1	194
	6/10/2019	ND<1	194
	12/12/2019	ND<1	194
	6/24/2020	ND<1	194
	12/15/2020	ND<1	194
	6/15/2021	ND<1	194
	12/15/2021	ND<1	194
	6/7/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-2	6/15/2017	ND<1	194
	12/13/2017	ND<1	194
	6/20/2018	ND<1	194
	12/19/2018	ND<1	194
	6/12/2019	ND<1	194
	12/10/2019	ND<1	194
	6/22/2020	ND<1	194
	12/16/2020	ND<1	194
	6/15/2021	ND<1	194
	12/15/2021	ND<1	194
	6/7/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-3	6/15/2017	ND<1	194
	6/21/2018	ND<1	194
	12/17/2018	ND<1	194
	6/11/2019	ND<1	194
	12/10/2019	ND<1	194
	6/24/2020	ND<1	194
	12/16/2020	ND<1	194
	6/15/2021	ND<1	194
	12/15/2021	ND<1	194
	6/7/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 2134  
Rank Mean = 194

GWC-3A	6/15/2017	ND<1	194
	12/12/2017	ND<1	194
	6/20/2018	ND<1	194
	12/17/2018	ND<1	194
	6/11/2019	ND<1	194
	12/10/2019	ND<1	194

Vinyl chloride

6/24/2020	ND<1	194
12/16/2020	ND<1	194
6/14/2021	ND<1	194
12/15/2021	ND<1	194
6/7/2022	ND<1	194
12/12/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-9	6/15/2017	ND<1	194
	12/13/2017	ND<1	194
	6/20/2018	ND<1	194
	12/18/2018	ND<1	194
	6/12/2019	ND<1	194
	12/12/2019	ND<1	194
	6/24/2020	ND<1	194
	12/17/2020	ND<1	194
	6/15/2021	ND<1	194
	12/13/2021	ND<1	194
	6/7/2022	ND<1	194
	12/14/2022	ND<1	194

Rank Sum = 2328  
Rank Mean = 194

GWC-8	12/12/2017	ND<1	194
	6/20/2018	ND<1	194
	12/19/2018	ND<1	194
	6/12/2019	ND<1	194
	12/11/2019	ND<1	194
	6/23/2020	ND<1	194
	12/16/2020	ND<1	194
	6/16/2021	ND<1	194
	12/15/2021	ND<1	194
	6/9/2022	ND<1	194
	12/13/2022	ND<1	194

Rank Sum = 2134  
Rank Mean = 194

GWC-4	6/20/2018	ND<1	194
	6/23/2020	ND<1	194
	12/17/2020	ND<1	194
	6/16/2021	ND<1	194
	12/14/2021	ND<1	194
	6/8/2022	ND<1	194
	12/12/2022	ND<1	194

Rank Sum = 1358  
Rank Mean = 194

**Calculation Results:**

Kruskal-Wallis H Statistic = 34.9777

Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 370.66

95% Confidence comparison value is 46.1942 at 32 degrees of freedom

34.9777 < 46.1942 indicating no significant group difference at 5% significance level

**370.66 > 46.1942 indicating a significant group difference at 5% significance level when adjusted for ties**

**Individual Well Comparisons at 1% Significance Level per Comparison**

Vinyl chloride

1% Z score is 2.32634

Mean background rank is 194

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	194	0	94.4551
GWC-5	194	0	94.4551
GWC-6	194	0	94.4551
GWC-7	194	0	94.4551
GWC-14	194	0	100.635
<b>GWC-14A</b>	<b>394.25</b>	<b>200.25</b>	<b>94.4551</b>
GWC-14R	194	0	94.4551
GWC-4A	194	0	94.4551
GWC-8A	194	0	94.4551
GWC-8R	194	0	94.4551
GWA-3	194	0	94.4551
GWC-11	194	0	94.4551
GWC-12	194	0	94.4551
GWC-12A	194	0	94.4551
GWC-13	194	0	94.4551
GWC-15	194	0	94.4551
GWC-16A	210.417	16.4167	94.4551
GWC-17	194	0	94.4551
GWC-18	194	0	94.4551
GWC-19R	194	0	94.4551
GWC-22	194	0	94.4551
GWC-23	194	0	94.4551
GWC-23A	194	0	94.4551
GWC-24	194	0	94.4551
GWC-10	194	0	94.4551
GWC-10A	194	0	94.4551
GWC-2	194	0	94.4551
GWC-3	194	0	97.3128
GWC-3A	194	0	94.4551
GWC-9	194	0	94.4551
GWC-8	194	0	97.3128
GWC-4	194	0	115.011

**Individual Well Comparisons at Groupwise 5% Significance Level (0.15625% Significance Level per comparison)**

0.15625% Z score is 3.09024

Mean background rank is 194

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	194	0	125.471
GWC-5	194	0	125.471
GWC-6	194	0	125.471
GWC-7	194	0	125.471
GWC-14	194	0	133.681
<b>GWC-14A</b>	<b>394.25</b>	<b>200.25</b>	<b>125.471</b>
GWC-14R	194	0	125.471
GWC-4A	194	0	125.471
GWC-8A	194	0	125.471
GWC-8R	194	0	125.471
GWA-3	194	0	125.471
GWC-11	194	0	125.471
GWC-12	194	0	125.471
GWC-12A	194	0	125.471
GWC-13	194	0	125.471
GWC-15	194	0	125.471
GWC-16A	210.417	16.4167	125.471

Vinyl chloride

GWC-17	194	0	125.471
GWC-18	194	0	125.471
GWC-19R	194	0	125.471
GWC-22	194	0	125.471
GWC-23	194	0	125.471
GWC-23A	194	0	125.471
GWC-24	194	0	125.471
GWC-10	194	0	125.471
GWC-10A	194	0	125.471
GWC-2	194	0	125.471
GWC-3	194	0	129.267
GWC-3A	194	0	125.471
GWC-9	194	0	125.471
GWC-8	194	0	129.267
GWC-4	194	0	152.778

Zinc

**Kruskal-Wallis Non-Parametric Test**

**Parameter: Zinc**

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

**Kruskal Wallis Ranks**

**Background Locations**

Loc. ID	Date	Value	Rank
GWA-1	6/14/2017	23	284
	12/12/2017	38	332
	6/20/2018	48	353
	12/18/2018	44	348
	6/11/2019	42	344
	12/10/2019	30.4	321
	6/24/2020	30.7	322
	12/18/2020	21.1	278
	6/16/2021	21.6	279
	12/14/2021	22.3	283
	6/9/2022	30.8	323
	12/12/2022	ND<10	134
	12/15/2022	20.5	273

Rank Sum = 3874

Rank Mean = 298

GWA-2	6/16/2017	ND<10	134
	12/12/2017	ND<10	134
	6/20/2018	ND<10	134
	12/18/2018	ND<10	134
	6/12/2019	30	319
	12/12/2019	25.9	304
	6/23/2020	ND<10	134
	12/18/2020	ND<10	134
	6/16/2021	ND<10	134
	12/14/2021	ND<10	134
	6/9/2022	ND<10	134
	12/13/2022	ND<10	134

Rank Sum = 1963

Rank Mean = 163.583

Background Rank Sum = 5837

Background Rank Mean = 233.48

**Compliance Locations**

Loc. ID	Date	Value	Rank
GWA-1A	6/12/2017	ND<10	134
	12/13/2017	24	290
	6/20/2018	ND<10	134
	12/18/2018	ND<10	134
	6/10/2019	ND<10	134
	12/9/2019	ND<10	134
	6/23/2020	ND<10	134
	12/17/2020	ND<10	134
	6/17/2021	ND<10	134
	12/16/2021	ND<10	134

## Zinc

	6/8/2022	ND<10	134
	12/14/2022	ND<10	134

Rank Sum = 1764

Rank Mean = 147

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GWC-14A	6/13/2017	ND<10	134
	12/13/2017	ND<10	134
	6/21/2018	20	268
	12/19/2018	ND<10	134
	6/12/2019	ND<10	134
	12/11/2019	ND<10	134
	6/24/2020	ND<10	134
	12/16/2020	ND<10	134
	6/16/2021	ND<10	134
	12/15/2021	26	305
	6/10/2022	ND<10	134
	12/14/2022	ND<10	134

Rank Sum = 1913

Rank Mean = 159.417

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GWC-5	6/13/2017	20	269
	12/13/2017	ND<10	134
	6/21/2018	ND<10	134
	12/19/2018	26	306
	6/13/2019	ND<10	134
	12/11/2019	38.3	335
	6/24/2020	ND<10	134
	12/18/2020	ND<10	134
	6/16/2021	ND<10	134
	12/14/2021	ND<10	134
	6/9/2022	27.2	311
	12/13/2022	ND<10	134

Rank Sum = 2293

Rank Mean = 191.083

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GWC-6	6/13/2017	ND<10	134
	12/14/2017	ND<10	134
	6/21/2018	ND<10	134
	12/20/2018	ND<10	134
	6/13/2019	ND<10	134
	12/11/2019	ND<10	134
	6/25/2020	ND<10	134
	12/18/2020	ND<10	134
	6/16/2021	79	365
	12/14/2021	ND<10	134
	6/9/2022	ND<10	134
	12/15/2022	ND<10	134

Rank Sum = 1839

Rank Mean = 153.25

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GWC-7	6/13/2017	20	270
	12/13/2017	ND<10	134
	6/20/2018	30	320
	12/19/2018	110	369
	6/13/2019	23	285
	12/12/2019	42.2	346
	6/25/2020	ND<10	134
	12/18/2020	ND<10	134
	6/16/2021	ND<10	134

## Zinc

	12/14/2021	ND<10	134
	6/9/2022	24	291
	12/13/2022	35.3	331

Rank Sum = 2882

Rank Mean = 240.167

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GWC-15	6/14/2017	90	368
	12/14/2017	60	358
	6/20/2018	56	356
	12/19/2018	ND<10	134
	6/11/2019	ND<10	134
	12/10/2019	ND<10	134
	6/25/2020	ND<10	134
	12/17/2020	ND<10	134
	6/16/2021	ND<10	134
	12/14/2021	ND<10	134
	6/9/2022	24.9	298
	12/15/2022	ND<10	134

Rank Sum = 2452

Rank Mean = 204.333

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GWC-4A	6/14/2017	ND<10	134
	12/13/2017	25	299
	6/21/2018	ND<10	134
	12/18/2018	ND<10	134
	6/12/2019	23	286
	12/12/2019	50	355
	6/24/2020	ND<10	134
	12/18/2020	ND<10	134
	6/18/2021	ND<10	134
	12/16/2021	ND<10	134
	6/8/2022	24.5	296
	12/15/2022	ND<10	134

Rank Sum = 2308

Rank Mean = 192.333

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GWC-8A	6/14/2017	ND<10	134
	12/13/2017	ND<10	134
	6/21/2018	34	327
	12/20/2018	42	345
	6/13/2019	ND<10	134
	12/12/2019	ND<10	134
	6/24/2020	ND<10	134
	12/16/2020	ND<10	134
	6/17/2021	ND<10	134
	12/16/2021	ND<10	134
	6/10/2022	ND<10	134
	12/14/2022	ND<10	134

Rank Sum = 2012

Rank Mean = 167.667

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GWA-3	6/15/2017	ND<10	134
	12/12/2017	ND<10	134
	6/19/2018	41	339
	12/18/2018	ND<10	134
	6/12/2019	ND<10	134
	12/11/2019	71.5	362
	6/23/2020	20.3	272
	12/17/2020	ND<10	134

## Zinc

6/15/2021	ND<10	134
12/15/2021	ND<10	134
6/7/2022	ND<10	134
12/14/2022	ND<10	134

Rank Sum = 2179  
Rank Mean = 181.583

GWC-11	6/15/2017	ND<10	134
	12/14/2017	ND<10	134
	6/20/2018	26	307
	12/20/2018	ND<10	134
	6/13/2019	34	328
	12/13/2019	23.3	288
	6/25/2020	40	338
	12/16/2020	ND<10	134
	6/16/2021	ND<10	134
	12/14/2021	ND<10	134
	6/8/2022	ND<10	134
	12/13/2022	58.6	357

Rank Sum = 2556  
Rank Mean = 213

GWC-12	6/15/2017	ND<10	134
	12/14/2017	ND<10	134
	6/20/2018	ND<10	134
	12/20/2018	ND<10	134
	6/12/2019	ND<10	134
	12/10/2019	ND<10	134
	6/25/2020	ND<10	134
	12/22/2020	ND<10	134
	6/16/2021	ND<10	134
	12/14/2021	ND<10	134
	6/8/2022	ND<10	134
	12/13/2022	ND<10	134

Rank Sum = 1608  
Rank Mean = 134

GWC-12A	6/15/2017	ND<10	134
	12/14/2017	ND<10	134
	6/20/2018	26	308
	12/20/2018	ND<10	134
	6/12/2019	ND<10	134
	12/10/2019	ND<10	134
	6/25/2020	ND<10	134
	12/16/2020	ND<10	134
	6/16/2021	ND<10	134
	12/14/2021	ND<10	134
	6/8/2022	ND<10	134
	12/13/2022	ND<10	134

Rank Sum = 1782  
Rank Mean = 148.5

GWC-13	6/15/2017	ND<10	134
	12/13/2017	ND<10	134
	6/20/2018	ND<10	134
	12/20/2018	ND<10	134
	6/13/2019	ND<10	134
	12/12/2019	23.6	289
	6/24/2020	ND<10	134

## Zinc

12/16/2020	ND<10	134
6/16/2021	ND<10	134
12/16/2021	ND<10	134
6/9/2022	ND<10	134
12/13/2022	ND<10	134

Rank Sum = 1763  
Rank Mean = 146.917

GWC-16A	6/15/2017	79	366
	12/14/2017	ND<10	134
	6/21/2018	44	349
	12/20/2018	ND<10	134
	6/13/2019	ND<10	134
	12/12/2019	ND<10	134
	6/23/2020	ND<10	134
	12/17/2020	ND<10	134
	6/16/2021	ND<10	134
	12/16/2021	ND<10	134
	6/10/2022	34.1	330
	12/15/2022	ND<10	134

Rank Sum = 2251  
Rank Mean = 187.583

GWC-17	6/15/2017	20	271
	12/13/2017	ND<10	134
	6/20/2018	ND<10	134
	12/20/2018	27	310
	6/13/2019	24	292
	12/11/2019	ND<10	134
	6/24/2020	ND<10	134
	12/16/2020	ND<10	134
	6/15/2021	ND<10	134
	12/15/2021	ND<10	134
	6/10/2022	ND<10	134
	12/15/2022	ND<10	134

Rank Sum = 2079  
Rank Mean = 173.25

GWC-18	6/15/2017	21	275
	12/14/2017	29	318
	6/20/2018	ND<10	134
	12/19/2018	26	309
	6/12/2019	ND<10	134
	12/10/2019	38.7	336
	6/24/2020	ND<10	134
	12/16/2020	ND<10	134
	6/15/2021	ND<10	134
	12/15/2021	ND<10	134
	6/8/2022	ND<10	134
	12/15/2022	ND<10	134

Rank Sum = 2310  
Rank Mean = 192.5

GWC-19R	6/15/2017	ND<10	134
	12/14/2017	ND<10	134
	6/20/2018	21	276
	12/19/2018	ND<10	134
	6/12/2019	ND<10	134
	12/10/2019	ND<10	134



## Zinc

6/24/2020	ND<10	134
12/16/2020	ND<10	134
6/15/2021	ND<10	134
12/15/2021	ND<10	134
6/7/2022	ND<10	134
12/15/2022	ND<10	134

Rank Sum = 1750  
Rank Mean = 145.833

GWC-22	6/15/2017	ND<10	134
	12/12/2017	ND<10	134
	6/20/2018	21	277
	12/19/2018	ND<10	134
	6/13/2019	ND<10	134
	12/12/2019	ND<10	134
	6/24/2020	ND<10	134
	12/18/2020	ND<10	134
	6/15/2021	ND<10	134
	12/14/2021	ND<10	134
	6/7/2022	ND<10	134
	12/13/2022	ND<10	134

Rank Sum = 1751  
Rank Mean = 145.917

GWC-23	6/15/2017	ND<10	134
	12/12/2017	ND<10	134
	6/19/2018	ND<10	134
	12/19/2018	ND<10	134
	6/13/2019	ND<10	134
	12/12/2019	ND<10	134
	6/24/2020	ND<10	134
	12/17/2020	ND<10	134
	6/15/2021	ND<10	134
	12/14/2021	ND<10	134
	6/7/2022	ND<10	134
	12/13/2022	ND<10	134

Rank Sum = 1608  
Rank Mean = 134

GWC-23A	6/15/2017	ND<10	134
	12/12/2017	ND<10	134
	6/19/2018	ND<10	134
	12/19/2018	ND<10	134
	6/13/2019	ND<10	134
	12/12/2019	31.6	325
	6/24/2020	ND<10	134
	12/17/2020	ND<10	134
	6/15/2021	ND<10	134
	12/14/2021	ND<10	134
	6/7/2022	ND<10	134
	12/13/2022	ND<10	134

Rank Sum = 1799  
Rank Mean = 149.917

GWC-24	6/15/2017	ND<10	134
	6/20/2018	ND<10	134
	6/12/2019	ND<10	134
	12/10/2019	24	293
	6/25/2020	ND<10	134

## Zinc

6/15/2021	ND<10	134
6/8/2022	ND<10	134
12/15/2022	ND<10	134

Rank Sum = 1231  
Rank Mean = 153.875

GWC-10	6/16/2017	ND<10	134
	12/13/2017	28	315
	6/20/2018	41	340
	12/18/2018	22	281
	6/11/2019	24	294
	12/13/2019	86.4	367
	6/25/2020	27.9	314
	12/16/2020	ND<10	134
	6/16/2021	ND<10	134
	12/16/2021	ND<10	134
	6/8/2022	ND<10	134
	12/15/2022	ND<10	134

Rank Sum = 2715  
Rank Mean = 226.25

GWC-10A	6/16/2017	ND<10	134
	12/13/2017	ND<10	134
	6/20/2018	ND<10	134
	12/18/2018	38	333
	6/11/2019	ND<10	134
	12/13/2019	31.2	324
	6/25/2020	ND<10	134
	12/16/2020	ND<10	134
	6/16/2021	ND<10	134
	12/16/2021	ND<10	134
	6/8/2022	ND<10	134
	12/15/2022	21.6	280

Rank Sum = 2143  
Rank Mean = 178.583

GWC-2	6/16/2017	ND<10	134
	12/14/2017	ND<10	134
	6/21/2018	ND<10	134
	12/20/2018	23	287
	6/13/2019	28	316
	12/11/2019	25	300
	6/23/2020	27.8	313
	12/17/2020	ND<10	134
	6/16/2021	ND<10	134
	12/16/2021	ND<10	134
	6/8/2022	ND<10	134
	12/13/2022	ND<10	134

Rank Sum = 2288  
Rank Mean = 190.667

GWC-3A	6/16/2017	34	329
	12/13/2017	ND<10	134
	6/21/2018	ND<10	134
	12/18/2018	ND<10	134
	6/12/2019	24	295
	12/11/2019	28.8	317
	6/25/2020	33.1	326
	12/17/2020	ND<10	134

Zinc

6/15/2021	20.6	274
12/16/2021	ND<10	134
6/8/2022	ND<10	134
12/13/2022	ND<10	134

Rank Sum = 2479  
Rank Mean = 206.583

GWC-9	6/16/2017	73	363
	12/14/2017	46	352
	6/21/2018	45	350
	12/19/2018	38	334
	6/13/2019	60	359
	12/13/2019	78	364
	6/25/2020	45.9	351
	12/18/2020	41.9	343
	6/16/2021	41.8	342
	12/14/2021	49.9	354
	6/8/2022	68.7	361
	12/15/2022	41.6	341

Rank Sum = 4214  
Rank Mean = 351.167

GWC-8	12/13/2017	ND<10	134
	6/21/2018	ND<10	134
	6/13/2019	ND<10	134
	12/12/2019	ND<10	134
	6/24/2020	ND<10	134
	12/17/2020	ND<10	134
	6/17/2021	ND<10	134
	12/16/2021	ND<10	134
	6/10/2022	ND<10	134
	12/14/2022	ND<10	134

Rank Sum = 1340  
Rank Mean = 134

GWC-14	6/21/2018	67	360
	6/12/2019	ND<10	134
	12/11/2019	27.7	312
	6/25/2020	25.3	303
	12/18/2020	ND<10	134
	6/16/2021	ND<10	134
	12/16/2021	ND<10	134
	6/10/2022	22.1	282

Rank Sum = 1793  
Rank Mean = 224.125

GWC-3	6/21/2018	ND<10	134
	12/18/2018	ND<10	134
	6/12/2019	ND<10	134
	12/11/2019	ND<10	134
	6/25/2020	ND<10	134
	12/17/2020	ND<10	134
	6/16/2021	ND<10	134
	12/16/2021	ND<10	134
	6/8/2022	25.1	302

Rank Sum = 1374  
Rank Mean = 152.667

GWC-4	6/21/2018	25	301
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Zinc

6/24/2020	ND<10	134
12/18/2020	ND<10	134
6/17/2021	43.2	347
12/15/2021	ND<10	134
6/9/2022	39.4	337
12/13/2022	ND<10	134

Rank Sum = 1521  
Rank Mean = 217.286

GWC-14R	6/9/2022	ND<10	134
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Rank Sum = 134  
Rank Mean = 134

GWC-8R	6/9/2022	24.6	297
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Rank Sum = 297  
Rank Mean = 297

Calculation Results:

Kruskal-Wallis H Statistic = 64.7859  
Kruskal-Wallis H Statistic (adjusted for tied non-detects) = 104.298  
95% Confidence comparison value is 46.1942 at 32 degrees of freedom  
**64.7859 > 46.1942 indicating a significant group difference at 5% significance level**  
**104.298 > 46.1942 indicating a significant group difference at 5% significance level when adjusted for ties**

Individual Well Comparisons at 1% Significance Level per Comparison

1% Z score is 2.32634  
Mean background rank is 233.48

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	147	-86.48	87.1439
GWC-14A	159.417	-74.0633	87.1439
GWC-5	191.083	-42.3967	87.1439
GWC-6	153.25	-80.23	87.1439
GWC-7	240.167	6.68667	87.1439
GWC-15	204.333	-29.1467	87.1439
GWC-4A	192.333	-41.1467	87.1439
GWC-8A	167.667	-65.8133	87.1439
GWA-3	181.583	-51.8967	87.1439
GWC-11	213	-20.48	87.1439
GWC-12	134	-99.48	87.1439
GWC-12A	148.5	-84.98	87.1439
GWC-13	146.917	-86.5633	87.1439
GWC-16A	187.583	-45.8967	87.1439
GWC-17	173.25	-60.23	87.1439
GWC-18	192.5	-40.98	87.1439
GWC-19R	145.833	-87.6467	87.1439
GWC-22	145.917	-87.5633	87.1439
GWC-23	134	-99.48	87.1439
GWC-23A	149.917	-83.5633	87.1439
GWC-24	153.875	-79.605	100.795
GWC-10	226.25	-7.23	87.1439
GWC-10A	178.583	-54.8967	87.1439
GWC-2	190.667	-42.8133	87.1439
GWC-3A	206.583	-26.8967	87.1439
<b>GWC-9</b>	<b>351.167</b>	<b>117.687</b>	<b>87.1439</b>
GWC-8	134	-99.48	92.8455
GWC-14	224.125	-9.355	100.795

Zinc

GWC-3	152.667	-80.8133	96.4595
GWC-4	217.286	-16.1943	106.109
GWC-14R	134	-99.48	253.054
GWC-8R	297	63.52	253.054

**Individual Well Comparisons at Groupwise 5% Significance Level  
(0.15625% Significance Level per comparison)**

0.15625% Z score is 3.09024

Mean background rank is 233.48

Well	Mean Rank	Dif from Bkg	Critical Value
GWA-1A	147	-86.48	115.759
GWC-14A	159.417	-74.0633	115.759
GWC-5	191.083	-42.3967	115.759
GWC-6	153.25	-80.23	115.759
GWC-7	240.167	6.68667	115.759
GWC-15	204.333	-29.1467	115.759
GWC-4A	192.333	-41.1467	115.759
GWC-8A	167.667	-65.8133	115.759
GWA-3	181.583	-51.8967	115.759
GWC-11	213	-20.48	115.759
GWC-12	134	-99.48	115.759
GWC-12A	148.5	-84.98	115.759
GWC-13	146.917	-86.5633	115.759
GWC-16A	187.583	-45.8967	115.759
GWC-17	173.25	-60.23	115.759
GWC-18	192.5	-40.98	115.759
GWC-19R	145.833	-87.6467	115.759
GWC-22	145.917	-87.5633	115.759
GWC-23	134	-99.48	115.759
GWC-23A	149.917	-83.5633	115.759
GWC-24	153.875	-79.605	133.893
GWC-10	226.25	-7.23	115.759
GWC-10A	178.583	-54.8967	115.759
GWC-2	190.667	-42.8133	115.759
GWC-3A	206.583	-26.8967	115.759
<b>GWC-9</b>	<b>351.167</b>	<b>117.687</b>	<b>115.759</b>
GWC-8	134	-99.48	123.333
GWC-14	224.125	-9.355	133.893
GWC-3	152.667	-80.8133	128.134
GWC-4	217.286	-16.1943	140.952
GWC-14R	134	-99.48	336.15
GWC-8R	297	63.52	336.15

**STATISTICAL ANALYSIS:  
Non-Parametric Tolerance Interval Test**

Forsyth County - Hightower Road MSWLF - Phase I  
 Second 2022 Groundwater Monitoring Event  
 Non-Parametric Tolerance Interval Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
1,1-Dichloroethane	PH1-GWA-1A	FALSE	96%
1,1-Dichloroethane	GWC-1	FALSE	96%
1,1-Dichloroethane	PH1-GWA-1	FALSE	96%
1,1-Dichloroethane	PH1-GWA-2	FALSE	96%
1,1-Dichloroethane	PH1-GWB-1	FALSE	96%
1,1-Dichloroethane	PH1-GWB-2	FALSE	96%
1,1-Dichloroethane	PH1-GWC-1	FALSE	96%
1,1-Dichloroethane	PH1-GWC-4	FALSE	96%
1,1-Dichloroethane	PH1-GWC-2	TRUE	96%
1,1-Dichloroethane	PH1-GWC-3	TRUE	96%
1,1-Dichloroethane	PH1-GWC-3A	TRUE	96%
Barium	GWC-1	TRUE	96%
Barium	PH1-GWA-1A	FALSE	96%
Barium	PH1-GWA-2	TRUE	96%
Barium	PH1-GWA-1	FALSE	96%
Barium	PH1-GWC-2	FALSE	96%
Barium	PH1-GWC-3	FALSE	96%
Barium	PH1-GWC-3A	FALSE	96%
Barium	PH1-GWB-2	FALSE	96%
Barium	PH1-GWC-1	FALSE	96%
Barium	PH1-GWC-4	FALSE	96%
Barium	PH1-GWB-1	TRUE	96%
Chromium	PH1-GWA-1A	<i>PASSED KW</i>	96%
Chromium	GWC-1	FALSE	96%
Chromium	PH1-GWA-1	FALSE	96%
Chromium	PH1-GWC-2	<i>PASSED KW</i>	96%
Chromium	PH1-GWC-3	FALSE	96%
Chromium	PH1-GWC-3A	FALSE	96%
Chromium	PH1-GWA-2	FALSE	96%
Chromium	PH1-GWB-1	FALSE	96%
Chromium	PH1-GWB-2	FALSE	96%
Chromium	PH1-GWC-1	FALSE	96%
Chromium	PH1-GWC-4	FALSE	96%
cis-1,2-Dichloroethene	PH1-GWA-1	TRUE	96%
cis-1,2-Dichloroethene	PH1-GWA-2	TRUE	96%
cis-1,2-Dichloroethene	PH1-GWA-1A	FALSE	96%
cis-1,2-Dichloroethene	GWC-1	FALSE	96%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.

**Forsyth County - Hightower Road MSWLF - Phase I**  
**Second 2022 Groundwater Monitoring Event**  
**Non-Parametric Tolerance Interval Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
cis-1,2-Dichloroethene	PH1-GWC-2	TRUE	96%
cis-1,2-Dichloroethene	PH1-GWB-1	FALSE	96%
cis-1,2-Dichloroethene	PH1-GWB-2	FALSE	96%
cis-1,2-Dichloroethene	PH1-GWC-1	FALSE	96%
cis-1,2-Dichloroethene	PH1-GWC-4	FALSE	96%
cis-1,2-Dichloroethene	PH1-GWC-3	TRUE	96%
cis-1,2-Dichloroethene	PH1-GWC-3A	TRUE	96%
Cobalt	PH1-GWA-1	TRUE	96%
Cobalt	PH1-GWA-1A	FALSE	96%
Cobalt	GWC-1	FALSE	96%
Cobalt	PH1-GWC-2	FALSE	96%
Cobalt	PH1-GWC-3	FALSE	96%
Cobalt	PH1-GWC-3A	FALSE	96%
Cobalt	PH1-GWA-2	FALSE	96%
Cobalt	PH1-GWB-1	FALSE	96%
Cobalt	PH1-GWB-2	FALSE	96%
Cobalt	PH1-GWC-1	FALSE	96%
Cobalt	PH1-GWC-4	FALSE	96%
Tetrachloroethene	PH1-GWC-2	TRUE	96%
Tetrachloroethene	PH1-GWA-1A	FALSE	96%
Tetrachloroethene	GWC-1	FALSE	96%
Tetrachloroethene	PH1-GWA-1	FALSE	96%
Tetrachloroethene	PH1-GWC-3	TRUE	96%
Tetrachloroethene	PH1-GWA-2	FALSE	96%
Tetrachloroethene	PH1-GWB-1	FALSE	96%
Tetrachloroethene	PH1-GWB-2	FALSE	96%
Tetrachloroethene	PH1-GWC-1	FALSE	96%
Tetrachloroethene	PH1-GWC-4	FALSE	96%
Tetrachloroethene	PH1-GWC-3A	TRUE	96%
Trichloroethene	PH1-GWA-2	TRUE	96%
Trichloroethene	PH1-GWC-2	TRUE	96%
Trichloroethene	PH1-GWC-3	TRUE	96%
Trichloroethene	PH1-GWA-1A	FALSE	96%
Trichloroethene	GWC-1	FALSE	96%
Trichloroethene	PH1-GWA-1	FALSE	96%
Trichloroethene	PH1-GWC-3A	TRUE	96%
Trichloroethene	PH1-GWB-1	FALSE	96%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.

Forsyth County - Hightower Road MSWLF - Phase I  
 Second 2022 Groundwater Monitoring Event  
 Non-Parametric Tolerance Interval Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
Trichloroethene	PH1-GWB-2	FALSE	96%
Trichloroethene	PH1-GWC-1	FALSE	96%
Trichloroethene	PH1-GWC-4	FALSE	96%
Zinc	PH1-GWB-2	TRUE	96%
Zinc	PH1-GWA-1A	FALSE	96%
Zinc	GWC-1	FALSE	96%
Zinc	PH1-GWA-1	FALSE	96%
Zinc	PH1-GWC-2	FALSE	96%
Zinc	PH1-GWC-3	FALSE	96%
Zinc	PH1-GWC-3A	FALSE	96%
Zinc	PH1-GWA-2	FALSE	96%
Zinc	PH1-GWB-1	FALSE	96%
Zinc	PH1-GWC-1	FALSE	96%
Zinc	PH1-GWC-4	FALSE	96%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.

## Non-Parametric Tolerance Interval

## Parameter: 1,1-Dichloroethane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 78.5714%

Background measurements (n) = 24

Maximum Background Concentration = 2

Minimum Coverage = 88.3%

Average Coverage = 96%

Location	Date	Value	Significant
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PH1-GWA-1A	6/12/2017	ND<2	FALSE
PH1-GWA-1A	12/13/2017	ND<2	FALSE
PH1-GWA-1A	6/19/2018	ND<2	FALSE
PH1-GWA-1A	12/18/2018	ND<2	FALSE
PH1-GWA-1A	6/10/2019	ND<2	FALSE
PH1-GWA-1A	12/10/2019	ND<2	FALSE
PH1-GWA-1A	6/22/2020	ND<2	FALSE
PH1-GWA-1A	12/18/2020	ND<2	FALSE
PH1-GWA-1A	6/15/2021	ND<2	FALSE
PH1-GWA-1A	12/13/2021	ND<2	FALSE
PH1-GWA-1A	6/8/2022	ND<2	FALSE
PH1-GWA-1A	12/15/2022	ND<2	FALSE

GWC-1	6/13/2017	ND<2	FALSE
GWC-1	12/13/2017	ND<2	FALSE
GWC-1	6/19/2018	ND<2	FALSE
GWC-1	12/17/2018	ND<2	FALSE
GWC-1	6/13/2019	ND<2	FALSE
GWC-1	12/10/2019	ND<2	FALSE
GWC-1	6/22/2020	ND<2	FALSE
GWC-1	12/16/2020	ND<2	FALSE
GWC-1	6/15/2021	ND<2	FALSE
GWC-1	12/15/2021	ND<2	FALSE
GWC-1	6/7/2022	ND<2	FALSE
GWC-1	12/12/2022	ND<2	FALSE

PH1-GWA-1	6/13/2017	ND<2	FALSE
PH1-GWA-1	12/13/2017	ND<2	FALSE
PH1-GWA-1	6/19/2018	ND<2	FALSE
PH1-GWA-1	12/18/2018	ND<2	FALSE
PH1-GWA-1	6/10/2019	ND<2	FALSE
PH1-GWA-1	12/9/2019	ND<2	FALSE
PH1-GWA-1	6/22/2020	ND<2	FALSE
PH1-GWA-1	12/15/2020	ND<2	FALSE
PH1-GWA-1	6/15/2021	ND<2	FALSE
PH1-GWA-1	12/13/2021	ND<2	FALSE
PH1-GWA-1	6/8/2022	ND<2	FALSE
PH1-GWA-1	12/14/2022	ND<2	FALSE

PH1-GWC-2	6/13/2017	3	TRUE
PH1-GWC-2	12/13/2017	3.4	TRUE
PH1-GWC-2	6/19/2018	ND<2	FALSE

PH1-GWC-2	12/18/2018	2.8	TRUE
PH1-GWC-2	6/10/2019	3	TRUE
PH1-GWC-2	12/10/2019	3.7	TRUE
PH1-GWC-2	6/22/2020	3.1	TRUE
PH1-GWC-2	12/17/2020	3.8	TRUE
PH1-GWC-2	6/17/2021	3	TRUE
PH1-GWC-2	12/14/2021	2.9	TRUE
PH1-GWC-2	6/8/2022	ND<2	FALSE
PH1-GWC-2	12/14/2022	2.4	TRUE

PH1-GWC-3	6/13/2017	2.7	TRUE
PH1-GWC-3	12/12/2017	3.6	TRUE
PH1-GWC-3	6/19/2018	3.2	TRUE
PH1-GWC-3	12/18/2018	2.7	TRUE
PH1-GWC-3	6/10/2019	3.3	TRUE
PH1-GWC-3	12/9/2019	4	TRUE
PH1-GWC-3	6/22/2020	2.9	TRUE
PH1-GWC-3	12/15/2020	3.6	TRUE
PH1-GWC-3	6/14/2021	3.4	TRUE
PH1-GWC-3	12/14/2021	3.2	TRUE
PH1-GWC-3	6/7/2022	3.2	TRUE
PH1-GWC-3	12/15/2022	4.5	TRUE

PH1-GWC-3A	6/13/2017	2	FALSE
PH1-GWC-3A	12/12/2017	2.6	TRUE
PH1-GWC-3A	6/19/2018	2.6	TRUE
PH1-GWC-3A	12/18/2018	2.3	TRUE
PH1-GWC-3A	6/10/2019	2.5	TRUE
PH1-GWC-3A	12/9/2019	3.1	TRUE
PH1-GWC-3A	6/26/2020	ND<2	FALSE
PH1-GWC-3A	12/15/2020	3	TRUE
PH1-GWC-3A	6/14/2021	2.8	TRUE
PH1-GWC-3A	12/14/2021	2.3	TRUE
PH1-GWC-3A	6/7/2022	3.1	TRUE
PH1-GWC-3A	12/15/2022	3.6	TRUE

PH1-GWA-2	6/15/2017	ND<2	FALSE
PH1-GWA-2	12/13/2017	ND<2	FALSE
PH1-GWA-2	6/18/2018	ND<2	FALSE
PH1-GWA-2	12/18/2018	ND<2	FALSE
PH1-GWA-2	6/11/2019	ND<2	FALSE
PH1-GWA-2	12/9/2019	ND<2	FALSE
PH1-GWA-2	6/24/2020	ND<2	FALSE
PH1-GWA-2	12/15/2020	ND<2	FALSE
PH1-GWA-2	6/16/2021	ND<2	FALSE
PH1-GWA-2	12/14/2021	ND<2	FALSE
PH1-GWA-2	6/7/2022	ND<2	FALSE
PH1-GWA-2	12/14/2022	ND<2	FALSE

PH1-GWB-1	6/15/2017	ND<2	FALSE
PH1-GWB-1	12/12/2017	ND<2	FALSE
PH1-GWB-1	6/18/2018	ND<2	FALSE
PH1-GWB-1	12/17/2018	ND<2	FALSE
PH1-GWB-1	6/11/2019	ND<2	FALSE
PH1-GWB-1	12/10/2019	ND<2	FALSE



1,1-Dichloroethane

PH1-GWB-1	6/24/2020	ND<2	FALSE
PH1-GWB-1	12/17/2020	ND<2	FALSE
PH1-GWB-1	6/14/2021	ND<2	FALSE
PH1-GWB-1	12/13/2021	ND<2	FALSE
PH1-GWB-1	6/7/2022	ND<2	FALSE
PH1-GWB-1	12/12/2022	ND<2	FALSE

PH1-GWB-2	6/15/2017	ND<2	FALSE
PH1-GWB-2	12/11/2017	ND<2	FALSE
PH1-GWB-2	6/19/2018	ND<2	FALSE
PH1-GWB-2	12/17/2018	ND<2	FALSE
PH1-GWB-2	6/12/2019	ND<2	FALSE
PH1-GWB-2	12/12/2019	ND<2	FALSE
PH1-GWB-2	6/24/2020	ND<2	FALSE
PH1-GWB-2	12/17/2020	ND<2	FALSE
PH1-GWB-2	6/16/2021	ND<2	FALSE
PH1-GWB-2	12/13/2021	ND<2	FALSE
PH1-GWB-2	6/9/2022	ND<2	FALSE
PH1-GWB-2	12/12/2022	ND<2	FALSE

PH1-GWC-1	6/15/2017	ND<2	FALSE
PH1-GWC-1	12/11/2017	ND<2	FALSE
PH1-GWC-1	6/19/2018	ND<2	FALSE
PH1-GWC-1	12/19/2018	ND<2	FALSE
PH1-GWC-1	6/13/2019	ND<2	FALSE
PH1-GWC-1	12/11/2019	ND<2	FALSE
PH1-GWC-1	6/22/2020	ND<2	FALSE
PH1-GWC-1	12/17/2020	ND<2	FALSE
PH1-GWC-1	6/16/2021	ND<2	FALSE
PH1-GWC-1	12/15/2021	ND<2	FALSE
PH1-GWC-1	6/9/2022	ND<2	FALSE
PH1-GWC-1	12/14/2022	ND<2	FALSE

PH1-GWC-4	6/15/2017	ND<2	FALSE
PH1-GWC-4	12/11/2017	ND<2	FALSE
PH1-GWC-4	6/19/2018	ND<2	FALSE
PH1-GWC-4	12/19/2018	ND<2	FALSE
PH1-GWC-4	6/13/2019	ND<2	FALSE
PH1-GWC-4	6/22/2020	ND<2	FALSE
PH1-GWC-4	12/17/2020	ND<2	FALSE
PH1-GWC-4	6/16/2021	ND<2	FALSE
PH1-GWC-4	12/15/2021	ND<2	FALSE
PH1-GWC-4	6/6/2022	ND<2	FALSE

Barium

Non-Parametric Tolerance Interval

Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 26.6234%  
 Background measurements (n) = 24  
 Maximum Background Concentration = 37  
 Minimum Coverage = 88.3%  
 Average Coverage = 96%

Location	Date	Value	Significant
PH1-GWA-1A	6/12/2017	24	FALSE
PH1-GWA-1A	12/13/2017	27	FALSE
PH1-GWA-1A	6/20/2018	25	FALSE
PH1-GWA-1A	12/19/2018	27	FALSE
PH1-GWA-1A	6/11/2019	24	FALSE
PH1-GWA-1A	12/10/2019	23.4	FALSE
PH1-GWA-1A	6/22/2020	21.7	FALSE
PH1-GWA-1A	12/18/2020	27.4	FALSE
PH1-GWA-1A	6/16/2021	24.8	FALSE
PH1-GWA-1A	12/14/2021	22.6	FALSE
PH1-GWA-1A	6/8/2022	25.9	FALSE
PH1-GWA-1A	12/15/2022	35.1	FALSE

GWC-1	6/14/2017	92	TRUE
GWC-1	12/14/2017	88	TRUE
GWC-1	6/20/2018	94	TRUE
GWC-1	12/18/2018	150	TRUE
GWC-1	6/13/2019	93	TRUE
GWC-1	12/11/2019	85.2	TRUE
GWC-1	6/23/2020	95.3	TRUE
GWC-1	12/17/2020	81.1	TRUE
GWC-1	6/16/2021	86.1	TRUE
GWC-1	12/16/2021	84	TRUE
GWC-1	6/8/2022	79.1	TRUE
GWC-1	12/13/2022	93.1	TRUE

PH1-GWA-1	6/14/2017	21	FALSE
PH1-GWA-1	12/14/2017	20	FALSE
PH1-GWA-1	6/20/2018	34	FALSE
PH1-GWA-1	12/19/2018	24	FALSE
PH1-GWA-1	6/11/2019	24	FALSE
PH1-GWA-1	12/10/2019	20.3	FALSE
PH1-GWA-1	6/23/2020	27.7	FALSE
PH1-GWA-1	12/16/2020	ND<20	FALSE
PH1-GWA-1	6/16/2021	28.7	FALSE
PH1-GWA-1	12/14/2021	22.8	FALSE
PH1-GWA-1	6/9/2022	25.3	FALSE
PH1-GWA-1	12/15/2022	ND<20	FALSE

PH1-GWC-2	6/14/2017	51	TRUE
PH1-GWC-2	12/13/2017	ND<20	FALSE
PH1-GWC-2	6/19/2018	ND<20	FALSE

## Barium

PH1-GWC-2	12/18/2018	26	FALSE
<b>PH1-GWC-2</b>	<b>6/10/2019</b>	<b>39</b>	<b>TRUE</b>
PH1-GWC-2	12/10/2019	ND<20	FALSE
PH1-GWC-2	6/22/2020	33.6	FALSE
PH1-GWC-2	12/17/2020	ND<20	FALSE
PH1-GWC-2	6/17/2021	20.6	FALSE
PH1-GWC-2	12/17/2021	ND<20	FALSE
PH1-GWC-2	6/8/2022	20.9	FALSE
PH1-GWC-2	12/14/2022	24.7	FALSE

PH1-GWC-3	6/14/2017	26	FALSE
PH1-GWC-3	12/13/2017	27	FALSE
PH1-GWC-3	6/20/2018	23	FALSE
PH1-GWC-3	12/19/2018	27	FALSE
PH1-GWC-3	6/11/2019	30	FALSE
PH1-GWC-3	12/10/2019	24.7	FALSE
PH1-GWC-3	6/23/2020	23.6	FALSE
PH1-GWC-3	12/16/2020	25.6	FALSE
PH1-GWC-3	6/15/2021	24.3	FALSE
PH1-GWC-3	12/15/2021	28.8	FALSE
PH1-GWC-3	6/8/2022	25.5	FALSE
PH1-GWC-3	12/15/2022	29.2	FALSE

PH1-GWC-3A	6/14/2017	29	FALSE
PH1-GWC-3A	12/13/2017	27	FALSE
PH1-GWC-3A	6/28/2018	26	FALSE
PH1-GWC-3A	12/19/2018	24	FALSE
PH1-GWC-3A	6/11/2019	30	FALSE
PH1-GWC-3A	12/10/2019	24.9	FALSE
PH1-GWC-3A	6/23/2020	23.9	FALSE
PH1-GWC-3A	12/16/2020	25.9	FALSE
PH1-GWC-3A	6/15/2021	30.5	FALSE
PH1-GWC-3A	12/15/2021	28.5	FALSE
PH1-GWC-3A	6/8/2022	30.1	FALSE
PH1-GWC-3A	12/15/2022	28.2	FALSE

<b>PH1-GWA-2</b>	<b>6/16/2017</b>	<b>80</b>	<b>TRUE</b>
<b>PH1-GWA-2</b>	<b>12/14/2017</b>	<b>80</b>	<b>TRUE</b>
<b>PH1-GWA-2</b>	<b>6/19/2018</b>	<b>61</b>	<b>TRUE</b>
<b>PH1-GWA-2</b>	<b>12/19/2018</b>	<b>81</b>	<b>TRUE</b>
<b>PH1-GWA-2</b>	<b>6/12/2019</b>	<b>84</b>	<b>TRUE</b>
<b>PH1-GWA-2</b>	<b>12/10/2019</b>	<b>84.2</b>	<b>TRUE</b>
<b>PH1-GWA-2</b>	<b>6/25/2020</b>	<b>64.6</b>	<b>TRUE</b>
<b>PH1-GWA-2</b>	<b>12/16/2020</b>	<b>65.5</b>	<b>TRUE</b>
<b>PH1-GWA-2</b>	<b>6/17/2021</b>	<b>71.7</b>	<b>TRUE</b>
<b>PH1-GWA-2</b>	<b>12/15/2021</b>	<b>71.6</b>	<b>TRUE</b>
<b>PH1-GWA-2</b>	<b>6/8/2022</b>	<b>59</b>	<b>TRUE</b>
<b>PH1-GWA-2</b>	<b>12/15/2022</b>	<b>68.9</b>	<b>TRUE</b>

<b>PH1-GWB-1</b>	<b>6/16/2017</b>	<b>52</b>	<b>TRUE</b>
<b>PH1-GWB-1</b>	<b>12/13/2017</b>	<b>54</b>	<b>TRUE</b>
<b>PH1-GWB-1</b>	<b>6/19/2018</b>	<b>62</b>	<b>TRUE</b>
<b>PH1-GWB-1</b>	<b>12/18/2018</b>	<b>53</b>	<b>TRUE</b>
<b>PH1-GWB-1</b>	<b>6/12/2019</b>	<b>82</b>	<b>TRUE</b>
<b>PH1-GWB-1</b>	<b>12/11/2019</b>	<b>67</b>	<b>TRUE</b>

## Barium

<b>PH1-GWB-1</b>	<b>6/25/2020</b>	<b>79.3</b>	<b>TRUE</b>
<b>PH1-GWB-1</b>	<b>12/18/2020</b>	<b>50.5</b>	<b>TRUE</b>
<b>PH1-GWB-1</b>	<b>6/15/2021</b>	<b>63.1</b>	<b>TRUE</b>
<b>PH1-GWB-1</b>	<b>12/14/2021</b>	<b>56.8</b>	<b>TRUE</b>
<b>PH1-GWB-1</b>	<b>6/8/2022</b>	<b>53.7</b>	<b>TRUE</b>
<b>PH1-GWB-1</b>	<b>12/13/2022</b>	<b>40.1</b>	<b>TRUE</b>

PH1-GWB-2	6/16/2017	ND<20	FALSE
PH1-GWB-2	12/12/2017	ND<20	FALSE
PH1-GWB-2	6/20/2018	ND<20	FALSE
PH1-GWB-2	12/18/2018	22	FALSE
PH1-GWB-2	6/13/2019	ND<20	FALSE
PH1-GWB-2	12/13/2019	ND<20	FALSE
PH1-GWB-2	6/25/2020	ND<20	FALSE
PH1-GWB-2	12/18/2020	ND<20	FALSE
PH1-GWB-2	6/17/2021	ND<20	FALSE
PH1-GWB-2	12/14/2021	ND<20	FALSE
PH1-GWB-2	6/10/2022	ND<20	FALSE
PH1-GWB-2	12/13/2022	ND<20	FALSE

<b>PH1-GWC-1</b>	<b>6/16/2017</b>	<b>40</b>	<b>TRUE</b>
<b>PH1-GWC-1</b>	<b>12/12/2017</b>	<b>38</b>	<b>TRUE</b>
<b>PH1-GWC-1</b>	<b>6/20/2018</b>	<b>42</b>	<b>TRUE</b>
<b>PH1-GWC-1</b>	<b>12/20/2018</b>	<b>47</b>	<b>TRUE</b>
<b>PH1-GWC-1</b>	<b>6/13/2019</b>	<b>50</b>	<b>TRUE</b>
<b>PH1-GWC-1</b>	<b>12/12/2019</b>	<b>43.7</b>	<b>TRUE</b>
<b>PH1-GWC-1</b>	<b>6/23/2020</b>	<b>42.8</b>	<b>TRUE</b>
PH1-GWC-1	12/18/2020	32.1	FALSE
<b>PH1-GWC-1</b>	<b>6/17/2021</b>	<b>42.1</b>	<b>TRUE</b>
PH1-GWC-1	12/16/2021	30.6	FALSE
<b>PH1-GWC-1</b>	<b>6/10/2022</b>	<b>42</b>	<b>TRUE</b>
PH1-GWC-1	12/15/2022	34.3	FALSE

<b>PH1-GWC-4</b>	<b>6/16/2017</b>	<b>42</b>	<b>TRUE</b>
<b>PH1-GWC-4</b>	<b>12/12/2017</b>	<b>54</b>	<b>TRUE</b>
PH1-GWC-4	6/20/2018	34	FALSE
<b>PH1-GWC-4</b>	<b>12/20/2018</b>	<b>310</b>	<b>TRUE</b>
PH1-GWC-4	6/13/2019	32	FALSE
PH1-GWC-4	6/23/2020	25.2	FALSE
<b>PH1-GWC-4</b>	<b>12/18/2020</b>	<b>56.4</b>	<b>TRUE</b>
PH1-GWC-4	6/17/2021	33	FALSE
<b>PH1-GWC-4</b>	<b>12/16/2021</b>	<b>41.3</b>	<b>TRUE</b>
PH1-GWC-4	6/7/2022	26.6	FALSE

## Non-Parametric Tolerance Interval

## Parameter: Chromium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 94.1558%

Background measurements (n) = 24

Maximum Background Concentration = 10

Minimum Coverage = 88.3%

Average Coverage = 96%

Location	Date	Value	Significant
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PH1-GWA-1A	6/12/2017	ND<10	FALSE
PH1-GWA-1A	12/13/2017	ND<10	FALSE
PH1-GWA-1A	6/20/2018	ND<10	FALSE
PH1-GWA-1A	12/19/2018	ND<10	FALSE
<b>PH1-GWA-1A</b>	<b>6/11/2019</b>	<b>11</b>	<b>TRUE</b>
PH1-GWA-1A	12/10/2019	ND<10	FALSE
PH1-GWA-1A	6/22/2020	ND<10	FALSE
PH1-GWA-1A	12/18/2020	ND<10	FALSE
PH1-GWA-1A	6/16/2021	ND<10	FALSE
PH1-GWA-1A	12/14/2021	ND<10	FALSE
<b>PH1-GWA-1A</b>	<b>6/8/2022</b>	<b>19.9</b>	<b>TRUE</b>
<b>PH1-GWA-1A</b>	<b>12/15/2022</b>	<b>17.2</b>	<b>TRUE</b>

GWC-1	6/14/2017	ND<10	FALSE
GWC-1	12/14/2017	ND<10	FALSE
GWC-1	6/20/2018	ND<10	FALSE
GWC-1	12/18/2018	ND<10	FALSE
GWC-1	6/13/2019	ND<10	FALSE
GWC-1	12/11/2019	ND<10	FALSE
GWC-1	6/23/2020	ND<10	FALSE
GWC-1	12/17/2020	ND<10	FALSE
GWC-1	6/16/2021	ND<10	FALSE
GWC-1	12/16/2021	ND<10	FALSE
GWC-1	6/8/2022	ND<10	FALSE
GWC-1	12/13/2022	ND<10	FALSE

PH1-GWA-1	6/14/2017	ND<10	FALSE
PH1-GWA-1	12/14/2017	ND<10	FALSE
PH1-GWA-1	6/20/2018	ND<10	FALSE
PH1-GWA-1	12/19/2018	ND<10	FALSE
PH1-GWA-1	6/11/2019	ND<10	FALSE
PH1-GWA-1	12/10/2019	ND<10	FALSE
PH1-GWA-1	6/23/2020	ND<10	FALSE
PH1-GWA-1	12/16/2020	ND<10	FALSE
PH1-GWA-1	6/16/2021	ND<10	FALSE
PH1-GWA-1	12/14/2021	ND<10	FALSE
PH1-GWA-1	6/9/2022	ND<10	FALSE
PH1-GWA-1	12/15/2022	ND<10	FALSE

PH1-GWC-2	6/14/2017	ND<10	FALSE
PH1-GWC-2	12/13/2017	ND<10	FALSE
<b>PH1-GWC-2</b>	<b>6/19/2018</b>	<b>12</b>	<b>TRUE</b>

PH1-GWC-2	12/18/2018	ND<10	FALSE
<b>PH1-GWC-2</b>	<b>6/10/2019</b>	<b>69</b>	<b>TRUE</b>
PH1-GWC-2	12/10/2019	ND<10	FALSE
<b>PH1-GWC-2</b>	<b>6/22/2020</b>	<b>27.2</b>	<b>TRUE</b>
PH1-GWC-2	12/17/2020	ND<10	FALSE
PH1-GWC-2	6/17/2021	ND<10	FALSE
PH1-GWC-2	12/17/2021	ND<10	FALSE
<b>PH1-GWC-2</b>	<b>6/8/2022</b>	<b>15.7</b>	<b>TRUE</b>
<b>PH1-GWC-2</b>	<b>12/14/2022</b>	<b>11.5</b>	<b>TRUE</b>

PH1-GWC-3	6/14/2017	ND<10	FALSE
PH1-GWC-3	12/13/2017	ND<10	FALSE
PH1-GWC-3	6/20/2018	ND<10	FALSE
PH1-GWC-3	12/19/2018	ND<10	FALSE
PH1-GWC-3	6/11/2019	ND<10	FALSE
PH1-GWC-3	12/10/2019	ND<10	FALSE
PH1-GWC-3	6/23/2020	ND<10	FALSE
PH1-GWC-3	12/16/2020	ND<10	FALSE
PH1-GWC-3	6/15/2021	ND<10	FALSE
PH1-GWC-3	12/15/2021	ND<10	FALSE
<b>PH1-GWC-3</b>	<b>6/8/2022</b>	<b>ND&lt;20</b>	<b>TRUE</b>
PH1-GWC-3	12/15/2022	ND<10	FALSE

PH1-GWC-3A	6/14/2017	ND<10	FALSE
PH1-GWC-3A	12/13/2017	ND<10	FALSE
PH1-GWC-3A	6/28/2018	ND<10	FALSE
PH1-GWC-3A	12/19/2018	ND<10	FALSE
PH1-GWC-3A	6/11/2019	ND<10	FALSE
PH1-GWC-3A	12/10/2019	ND<10	FALSE
PH1-GWC-3A	6/23/2020	ND<10	FALSE
PH1-GWC-3A	12/16/2020	ND<10	FALSE
PH1-GWC-3A	6/15/2021	ND<10	FALSE
PH1-GWC-3A	12/15/2021	ND<10	FALSE
<b>PH1-GWC-3A</b>	<b>6/8/2022</b>	<b>ND&lt;20</b>	<b>TRUE</b>
PH1-GWC-3A	12/15/2022	ND<10	FALSE

PH1-GWA-2	6/16/2017	ND<10	FALSE
PH1-GWA-2	12/14/2017	ND<10	FALSE
PH1-GWA-2	6/19/2018	ND<10	FALSE
PH1-GWA-2	12/19/2018	ND<10	FALSE
PH1-GWA-2	6/12/2019	ND<10	FALSE
PH1-GWA-2	12/10/2019	ND<10	FALSE
PH1-GWA-2	6/25/2020	ND<10	FALSE
PH1-GWA-2	12/16/2020	ND<10	FALSE
PH1-GWA-2	6/17/2021	ND<10	FALSE
PH1-GWA-2	12/15/2021	ND<10	FALSE
<b>PH1-GWA-2</b>	<b>6/8/2022</b>	<b>ND&lt;20</b>	<b>TRUE</b>
PH1-GWA-2	12/15/2022	ND<10	FALSE

PH1-GWB-1	6/16/2017	ND<10	FALSE
PH1-GWB-1	12/13/2017	ND<10	FALSE
PH1-GWB-1	6/19/2018	ND<10	FALSE
PH1-GWB-1	12/18/2018	ND<10	FALSE
PH1-GWB-1	6/12/2019	ND<10	FALSE
PH1-GWB-1	12/11/2019	ND<10	FALSE

## Chromium

PH1-GWB-1	6/25/2020	ND<10	FALSE
PH1-GWB-1	12/18/2020	ND<10	FALSE
PH1-GWB-1	6/15/2021	ND<10	FALSE
PH1-GWB-1	12/14/2021	ND<10	FALSE
PH1-GWB-1	6/8/2022	ND<10	FALSE
PH1-GWB-1	12/13/2022	ND<10	FALSE

PH1-GWB-2	6/16/2017	ND<10	FALSE
PH1-GWB-2	12/12/2017	ND<10	FALSE
PH1-GWB-2	6/20/2018	ND<10	FALSE
PH1-GWB-2	12/18/2018	ND<10	FALSE
PH1-GWB-2	6/13/2019	ND<10	FALSE
PH1-GWB-2	12/13/2019	ND<10	FALSE
PH1-GWB-2	6/25/2020	ND<10	FALSE
PH1-GWB-2	12/18/2020	ND<10	FALSE
PH1-GWB-2	6/17/2021	ND<10	FALSE
PH1-GWB-2	12/14/2021	ND<10	FALSE
PH1-GWB-2	6/10/2022	ND<10	FALSE
PH1-GWB-2	12/13/2022	ND<10	FALSE

PH1-GWC-1	6/16/2017	ND<10	FALSE
PH1-GWC-1	12/12/2017	ND<10	FALSE
PH1-GWC-1	6/20/2018	ND<10	FALSE
PH1-GWC-1	12/20/2018	ND<10	FALSE
PH1-GWC-1	6/13/2019	ND<10	FALSE
PH1-GWC-1	12/12/2019	ND<10	FALSE
PH1-GWC-1	6/23/2020	ND<10	FALSE
PH1-GWC-1	12/18/2020	ND<10	FALSE
PH1-GWC-1	6/17/2021	ND<10	FALSE
PH1-GWC-1	12/16/2021	ND<10	FALSE
PH1-GWC-1	6/10/2022	ND<10	FALSE
PH1-GWC-1	12/15/2022	ND<10	FALSE

PH1-GWC-4	6/16/2017	ND<10	FALSE
PH1-GWC-4	12/12/2017	ND<10	FALSE
PH1-GWC-4	6/20/2018	ND<10	FALSE
<b>PH1-GWC-4</b>	<b>12/20/2018</b>	<b>49</b>	<b>TRUE</b>
PH1-GWC-4	6/13/2019	ND<10	FALSE
PH1-GWC-4	6/23/2020	ND<10	FALSE
PH1-GWC-4	12/18/2020	ND<10	FALSE
PH1-GWC-4	6/17/2021	ND<10	FALSE
PH1-GWC-4	12/16/2021	ND<10	FALSE
PH1-GWC-4	6/7/2022	ND<10	FALSE

## Cobalt

## Non-Parametric Tolerance Interval

## Parameter: Cobalt

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 92.2078%

Background measurements (n) = 24

Maximum Background Concentration = 40

Minimum Coverage = 88.3%

Average Coverage = 96%

Location	Date	Value	Significant
PH1-GWA-1A	6/12/2017	ND<40	FALSE
PH1-GWA-1A	12/13/2017	ND<40	FALSE
PH1-GWA-1A	6/20/2018	ND<40	FALSE
PH1-GWA-1A	12/19/2018	ND<40	FALSE
PH1-GWA-1A	6/11/2019	ND<40	FALSE
PH1-GWA-1A	12/10/2019	ND<40	FALSE
PH1-GWA-1A	6/22/2020	ND<40	FALSE
PH1-GWA-1A	12/18/2020	ND<40	FALSE
PH1-GWA-1A	6/16/2021	ND<40	FALSE
PH1-GWA-1A	12/14/2021	ND<40	FALSE
PH1-GWA-1A	6/8/2022	ND<40	FALSE
PH1-GWA-1A	12/15/2022	ND<40	FALSE

GWC-1	6/14/2017	ND<40	FALSE
GWC-1	12/14/2017	ND<40	FALSE
GWC-1	6/20/2018	ND<40	FALSE
GWC-1	12/18/2018	ND<40	FALSE
GWC-1	6/13/2019	ND<40	FALSE
GWC-1	12/11/2019	ND<40	FALSE
GWC-1	6/23/2020	ND<40	FALSE
GWC-1	12/17/2020	ND<40	FALSE
GWC-1	6/16/2021	ND<40	FALSE
GWC-1	12/16/2021	ND<40	FALSE
GWC-1	6/8/2022	ND<40	FALSE
GWC-1	12/13/2022	ND<40	FALSE

<b>PH1-GWA-1</b>	<b>6/14/2017</b>	<b>100</b>	<b>TRUE</b>
<b>PH1-GWA-1</b>	<b>12/14/2017</b>	<b>76</b>	<b>TRUE</b>
<b>PH1-GWA-1</b>	<b>6/20/2018</b>	<b>75</b>	<b>TRUE</b>
<b>PH1-GWA-1</b>	<b>12/19/2018</b>	<b>82</b>	<b>TRUE</b>
<b>PH1-GWA-1</b>	<b>6/11/2019</b>	<b>91</b>	<b>TRUE</b>
<b>PH1-GWA-1</b>	<b>12/10/2019</b>	<b>90.1</b>	<b>TRUE</b>
<b>PH1-GWA-1</b>	<b>6/23/2020</b>	<b>76.6</b>	<b>TRUE</b>
<b>PH1-GWA-1</b>	<b>12/16/2020</b>	<b>95.6</b>	<b>TRUE</b>
<b>PH1-GWA-1</b>	<b>6/16/2021</b>	<b>83.5</b>	<b>TRUE</b>
<b>PH1-GWA-1</b>	<b>12/14/2021</b>	<b>111</b>	<b>TRUE</b>
<b>PH1-GWA-1</b>	<b>6/9/2022</b>	<b>74.7</b>	<b>TRUE</b>
<b>PH1-GWA-1</b>	<b>12/15/2022</b>	<b>94.7</b>	<b>TRUE</b>

PH1-GWC-2	6/14/2017	ND<40	FALSE
PH1-GWC-2	12/13/2017	ND<40	FALSE
PH1-GWC-2	6/19/2018	ND<40	FALSE

## Cobalt

PH1-GWC-2	12/18/2018	ND<40	FALSE
PH1-GWC-2	6/10/2019	ND<40	FALSE
PH1-GWC-2	12/10/2019	ND<40	FALSE
PH1-GWC-2	6/22/2020	ND<40	FALSE
PH1-GWC-2	12/17/2020	ND<40	FALSE
PH1-GWC-2	6/17/2021	ND<40	FALSE
PH1-GWC-2	12/17/2021	ND<40	FALSE
PH1-GWC-2	6/8/2022	ND<40	FALSE
PH1-GWC-2	12/14/2022	ND<40	FALSE

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PH1-GWC-3	6/14/2017	ND<40	FALSE
PH1-GWC-3	12/13/2017	ND<40	FALSE
PH1-GWC-3	6/20/2018	ND<40	FALSE
PH1-GWC-3	12/19/2018	ND<40	FALSE
PH1-GWC-3	6/11/2019	ND<40	FALSE
PH1-GWC-3	12/10/2019	ND<40	FALSE
PH1-GWC-3	6/23/2020	ND<40	FALSE
PH1-GWC-3	12/16/2020	ND<40	FALSE
PH1-GWC-3	6/15/2021	ND<40	FALSE
PH1-GWC-3	12/15/2021	ND<40	FALSE
<b>PH1-GWC-3</b>	<b>6/8/2022</b>	<b>ND&lt;50</b>	<b>TRUE</b>
PH1-GWC-3	12/15/2022	ND<40	FALSE

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PH1-GWC-3A	6/14/2017	ND<40	FALSE
PH1-GWC-3A	12/13/2017	ND<40	FALSE
PH1-GWC-3A	6/28/2018	ND<40	FALSE
PH1-GWC-3A	12/19/2018	ND<40	FALSE
PH1-GWC-3A	6/11/2019	ND<40	FALSE
PH1-GWC-3A	12/10/2019	ND<40	FALSE
PH1-GWC-3A	6/23/2020	ND<40	FALSE
PH1-GWC-3A	12/16/2020	ND<40	FALSE
PH1-GWC-3A	6/15/2021	ND<40	FALSE
PH1-GWC-3A	12/15/2021	ND<40	FALSE
<b>PH1-GWC-3A</b>	<b>6/8/2022</b>	<b>ND&lt;50</b>	<b>TRUE</b>
PH1-GWC-3A	12/15/2022	ND<40	FALSE

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PH1-GWA-2	6/16/2017	ND<40	FALSE
PH1-GWA-2	12/14/2017	ND<40	FALSE
PH1-GWA-2	6/19/2018	ND<40	FALSE
PH1-GWA-2	12/19/2018	ND<40	FALSE
PH1-GWA-2	6/12/2019	ND<40	FALSE
PH1-GWA-2	12/10/2019	ND<40	FALSE
PH1-GWA-2	6/25/2020	ND<40	FALSE
PH1-GWA-2	12/16/2020	ND<40	FALSE
PH1-GWA-2	6/17/2021	ND<40	FALSE
PH1-GWA-2	12/15/2021	ND<40	FALSE
<b>PH1-GWA-2</b>	<b>6/8/2022</b>	<b>ND&lt;50</b>	<b>TRUE</b>
PH1-GWA-2	12/15/2022	ND<40	FALSE

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PH1-GWB-1	6/16/2017	ND<40	FALSE
PH1-GWB-1	12/13/2017	ND<40	FALSE
PH1-GWB-1	6/19/2018	ND<40	FALSE
PH1-GWB-1	12/18/2018	ND<40	FALSE
PH1-GWB-1	6/12/2019	ND<40	FALSE
PH1-GWB-1	12/11/2019	ND<40	FALSE

## Cobalt

PH1-GWB-1	6/25/2020	ND<40	FALSE
PH1-GWB-1	12/18/2020	ND<40	FALSE
PH1-GWB-1	6/15/2021	ND<40	FALSE
PH1-GWB-1	12/14/2021	ND<40	FALSE
PH1-GWB-1	6/8/2022	ND<40	FALSE
PH1-GWB-1	12/13/2022	ND<40	FALSE

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PH1-GWB-2	6/16/2017	ND<40	FALSE
PH1-GWB-2	12/12/2017	ND<40	FALSE
PH1-GWB-2	6/20/2018	ND<40	FALSE
PH1-GWB-2	12/18/2018	ND<40	FALSE
PH1-GWB-2	6/13/2019	ND<40	FALSE
PH1-GWB-2	12/13/2019	ND<40	FALSE
PH1-GWB-2	6/25/2020	ND<40	FALSE
PH1-GWB-2	12/18/2020	ND<40	FALSE
PH1-GWB-2	6/17/2021	ND<40	FALSE
PH1-GWB-2	12/14/2021	ND<40	FALSE
PH1-GWB-2	6/10/2022	ND<40	FALSE
PH1-GWB-2	12/13/2022	ND<40	FALSE

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PH1-GWC-1	6/16/2017	ND<40	FALSE
PH1-GWC-1	12/12/2017	ND<40	FALSE
PH1-GWC-1	6/20/2018	ND<40	FALSE
PH1-GWC-1	12/20/2018	ND<40	FALSE
PH1-GWC-1	6/13/2019	ND<40	FALSE
PH1-GWC-1	12/12/2019	ND<40	FALSE
PH1-GWC-1	6/23/2020	ND<40	FALSE
PH1-GWC-1	12/18/2020	ND<40	FALSE
PH1-GWC-1	6/17/2021	ND<40	FALSE
PH1-GWC-1	12/16/2021	ND<40	FALSE
PH1-GWC-1	6/10/2022	ND<40	FALSE
PH1-GWC-1	12/15/2022	ND<40	FALSE

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PH1-GWC-4	6/16/2017	ND<40	FALSE
PH1-GWC-4	12/12/2017	ND<40	FALSE
PH1-GWC-4	6/20/2018	ND<40	FALSE
PH1-GWC-4	12/20/2018	ND<40	FALSE
PH1-GWC-4	6/13/2019	ND<40	FALSE
PH1-GWC-4	6/23/2020	ND<40	FALSE
PH1-GWC-4	12/18/2020	ND<40	FALSE
PH1-GWC-4	6/17/2021	ND<40	FALSE
PH1-GWC-4	12/16/2021	ND<40	FALSE
PH1-GWC-4	6/7/2022	ND<40	FALSE

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### Non-Parametric Tolerance Interval

Parameter: cis-1,2-Dichloroethene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 60.3896%

Background measurements (n) = 24

Maximum Background Concentration = 2

Minimum Coverage = 88.3%

Average Coverage = 96%

Location	Date	Value	Significant
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PH1-GWA-1A	6/12/2017	ND<2	FALSE
PH1-GWA-1A	12/13/2017	ND<2	FALSE
PH1-GWA-1A	6/19/2018	ND<2	FALSE
PH1-GWA-1A	12/18/2018	ND<2	FALSE
PH1-GWA-1A	6/10/2019	ND<2	FALSE
PH1-GWA-1A	12/10/2019	ND<2	FALSE
PH1-GWA-1A	6/22/2020	ND<2	FALSE
PH1-GWA-1A	12/18/2020	ND<2	FALSE
PH1-GWA-1A	6/15/2021	ND<2	FALSE
PH1-GWA-1A	12/13/2021	ND<2	FALSE
PH1-GWA-1A	6/8/2022	ND<2	FALSE
PH1-GWA-1A	12/15/2022	ND<2	FALSE

GWC-1	6/13/2017	ND<2	FALSE
GWC-1	12/13/2017	ND<2	FALSE
GWC-1	6/19/2018	ND<2	FALSE
GWC-1	12/17/2018	ND<2	FALSE
GWC-1	6/13/2019	ND<2	FALSE
GWC-1	12/10/2019	ND<2	FALSE
GWC-1	6/22/2020	ND<2	FALSE
GWC-1	12/16/2020	ND<2	FALSE
GWC-1	6/15/2021	ND<2	FALSE
GWC-1	12/15/2021	ND<2	FALSE
GWC-1	6/7/2022	ND<2	FALSE
GWC-1	12/12/2022	ND<2	FALSE

PH1-GWA-1	6/13/2017	5.2	TRUE
PH1-GWA-1	12/13/2017	3.5	TRUE
PH1-GWA-1	6/19/2018	3.1	TRUE
PH1-GWA-1	12/18/2018	2.4	TRUE
PH1-GWA-1	6/10/2019	5.2	TRUE
PH1-GWA-1	12/9/2019	3.7	TRUE
PH1-GWA-1	6/22/2020	4	TRUE
PH1-GWA-1	12/15/2020	4.3	TRUE
PH1-GWA-1	6/15/2021	5.8	TRUE
PH1-GWA-1	12/13/2021	4.1	TRUE
PH1-GWA-1	6/8/2022	2.3	TRUE
PH1-GWA-1	12/14/2022	2.5	TRUE

PH1-GWC-2	6/13/2017	4.4	TRUE
PH1-GWC-2	12/13/2017	3.1	TRUE
PH1-GWC-2	6/19/2018	2.2	TRUE

PH1-GWC-2	12/18/2018	3.3	TRUE
PH1-GWC-2	6/10/2019	5.1	TRUE
PH1-GWC-2	12/10/2019	5.7	TRUE
PH1-GWC-2	6/22/2020	6	TRUE
PH1-GWC-2	12/17/2020	7.8	TRUE
PH1-GWC-2	6/17/2021	7	TRUE
PH1-GWC-2	12/14/2021	6.7	TRUE
PH1-GWC-2	6/8/2022	5.6	TRUE
PH1-GWC-2	12/14/2022	7.7	TRUE

PH1-GWC-3	6/13/2017	14	TRUE
PH1-GWC-3	12/12/2017	15	TRUE
PH1-GWC-3	6/19/2018	15	TRUE
PH1-GWC-3	12/18/2018	15	TRUE
PH1-GWC-3	6/10/2019	19	TRUE
PH1-GWC-3	12/9/2019	27	TRUE
PH1-GWC-3	6/22/2020	20	TRUE
PH1-GWC-3	12/15/2020	26	TRUE
PH1-GWC-3	6/14/2021	28	TRUE
PH1-GWC-3	12/14/2021	25	TRUE
PH1-GWC-3	6/7/2022	26	TRUE
PH1-GWC-3	12/15/2022	36	TRUE

PH1-GWC-3A	6/13/2017	11	TRUE
PH1-GWC-3A	12/12/2017	10	TRUE
PH1-GWC-3A	6/19/2018	12	TRUE
PH1-GWC-3A	12/18/2018	9.2	TRUE
PH1-GWC-3A	6/10/2019	11	TRUE
PH1-GWC-3A	12/9/2019	16	TRUE
PH1-GWC-3A	6/26/2020	14	TRUE
PH1-GWC-3A	12/15/2020	16	TRUE
PH1-GWC-3A	6/14/2021	19	TRUE
PH1-GWC-3A	12/14/2021	14	TRUE
PH1-GWC-3A	6/7/2022	19	TRUE
PH1-GWC-3A	12/15/2022	23	TRUE

PH1-GWA-2	6/15/2017	49	TRUE
PH1-GWA-2	12/13/2017	64	TRUE
PH1-GWA-2	6/18/2018	46	TRUE
PH1-GWA-2	12/18/2018	55	TRUE
PH1-GWA-2	6/11/2019	26	TRUE
PH1-GWA-2	12/9/2019	120	TRUE
PH1-GWA-2	6/24/2020	42	TRUE
PH1-GWA-2	12/15/2020	52	TRUE
PH1-GWA-2	6/16/2021	34	TRUE
PH1-GWA-2	12/14/2021	35	TRUE
PH1-GWA-2	6/7/2022	26	TRUE
PH1-GWA-2	12/14/2022	35	TRUE

PH1-GWB-1	6/15/2017	ND<2	FALSE
PH1-GWB-1	12/12/2017	ND<2	FALSE
PH1-GWB-1	6/18/2018	ND<2	FALSE
PH1-GWB-1	12/17/2018	ND<2	FALSE
PH1-GWB-1	6/11/2019	ND<2	FALSE
PH1-GWB-1	12/10/2019	ND<2	FALSE

cis-1,2-Dichloroethene

PH1-GWB-1	6/24/2020	ND<2	FALSE
PH1-GWB-1	12/17/2020	ND<2	FALSE
PH1-GWB-1	6/14/2021	ND<2	FALSE
PH1-GWB-1	12/13/2021	ND<2	FALSE
PH1-GWB-1	6/7/2022	ND<2	FALSE
PH1-GWB-1	12/12/2022	ND<2	FALSE

PH1-GWB-2	6/15/2017	ND<2	FALSE
PH1-GWB-2	12/11/2017	ND<2	FALSE
PH1-GWB-2	6/19/2018	ND<2	FALSE
<b>PH1-GWB-2</b>	<b>12/17/2018</b>	<b>2.6</b>	<b>TRUE</b>
PH1-GWB-2	6/12/2019	ND<2	FALSE
PH1-GWB-2	12/12/2019	ND<2	FALSE
PH1-GWB-2	6/24/2020	ND<2	FALSE
PH1-GWB-2	12/17/2020	ND<2	FALSE
PH1-GWB-2	6/16/2021	ND<2	FALSE
PH1-GWB-2	12/13/2021	ND<2	FALSE
PH1-GWB-2	6/9/2022	ND<2	FALSE
PH1-GWB-2	12/12/2022	ND<2	FALSE

PH1-GWC-1	6/15/2017	ND<2	FALSE
PH1-GWC-1	12/11/2017	ND<2	FALSE
PH1-GWC-1	6/19/2018	ND<2	FALSE
PH1-GWC-1	12/19/2018	ND<2	FALSE
PH1-GWC-1	6/13/2019	ND<2	FALSE
PH1-GWC-1	12/11/2019	ND<2	FALSE
PH1-GWC-1	6/22/2020	ND<2	FALSE
PH1-GWC-1	12/17/2020	ND<2	FALSE
PH1-GWC-1	6/16/2021	ND<2	FALSE
PH1-GWC-1	12/15/2021	ND<2	FALSE
PH1-GWC-1	6/9/2022	ND<2	FALSE
PH1-GWC-1	12/14/2022	ND<2	FALSE

PH1-GWC-4	6/15/2017	ND<2	FALSE
PH1-GWC-4	12/11/2017	ND<2	FALSE
PH1-GWC-4	6/19/2018	ND<2	FALSE
PH1-GWC-4	12/19/2018	ND<2	FALSE
PH1-GWC-4	6/13/2019	ND<2	FALSE
PH1-GWC-4	6/22/2020	ND<2	FALSE
PH1-GWC-4	12/17/2020	ND<2	FALSE
PH1-GWC-4	6/16/2021	ND<2	FALSE
PH1-GWC-4	12/15/2021	ND<2	FALSE
PH1-GWC-4	6/6/2022	ND<2	FALSE

Zinc

Non-Parametric Tolerance Interval

Parameter: Zinc

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 70.7792%  
 Background measurements (n) = 24  
 Maximum Background Concentration = 48.9  
 Minimum Coverage = 88.3%  
 Average Coverage = 96%

Location	Date	Value	Significant
PH1-GWA-1A	6/12/2017	ND<20	FALSE
PH1-GWA-1A	12/13/2017	ND<20	FALSE
PH1-GWA-1A	6/20/2018	ND<20	FALSE
PH1-GWA-1A	12/19/2018	ND<20	FALSE
PH1-GWA-1A	6/11/2019	ND<20	FALSE
PH1-GWA-1A	12/10/2019	ND<20	FALSE
PH1-GWA-1A	6/22/2020	ND<20	FALSE
PH1-GWA-1A	12/18/2020	ND<20	FALSE
PH1-GWA-1A	6/16/2021	ND<20	FALSE
PH1-GWA-1A	12/14/2021	ND<20	FALSE
PH1-GWA-1A	6/8/2022	38.2	FALSE
PH1-GWA-1A	12/15/2022	ND<20	FALSE

GWC-1	6/14/2017	ND<20	FALSE
GWC-1	12/14/2017	ND<20	FALSE
GWC-1	6/20/2018	20	FALSE
GWC-1	12/18/2018	ND<20	FALSE
GWC-1	6/13/2019	ND<20	FALSE
GWC-1	12/11/2019	27.1	FALSE
<b>GWC-1</b>	<b>6/23/2020</b>	<b>55.4</b>	<b>TRUE</b>
GWC-1	12/17/2020	ND<20	FALSE
GWC-1	6/16/2021	ND<20	FALSE
GWC-1	12/16/2021	ND<20	FALSE
GWC-1	6/8/2022	ND<20	FALSE
GWC-1	12/13/2022	ND<20	FALSE

PH1-GWA-1	6/14/2017	43	FALSE
<b>PH1-GWA-1</b>	<b>12/14/2017</b>	<b>51</b>	<b>TRUE</b>
<b>PH1-GWA-1</b>	<b>6/20/2018</b>	<b>55</b>	<b>TRUE</b>
PH1-GWA-1	12/19/2018	40	FALSE
PH1-GWA-1	6/11/2019	34	FALSE
PH1-GWA-1	12/10/2019	32.4	FALSE
PH1-GWA-1	6/23/2020	ND<20	FALSE
PH1-GWA-1	12/16/2020	ND<20	FALSE
PH1-GWA-1	6/16/2021	ND<20	FALSE
PH1-GWA-1	12/14/2021	31	FALSE
PH1-GWA-1	6/9/2022	ND<20	FALSE
PH1-GWA-1	12/15/2022	ND<20	FALSE

PH1-GWC-2	6/14/2017	ND<20	FALSE
PH1-GWC-2	12/13/2017	ND<20	FALSE
PH1-GWC-2	6/19/2018	20	FALSE

## Zinc

PH1-GWC-2	12/18/2018	ND<20	FALSE
PH1-GWC-2	6/10/2019	26	FALSE
PH1-GWC-2	12/10/2019	ND<20	FALSE
PH1-GWC-2	6/22/2020	ND<20	FALSE
PH1-GWC-2	12/17/2020	ND<20	FALSE
PH1-GWC-2	6/17/2021	ND<20	FALSE
PH1-GWC-2	12/17/2021	ND<20	FALSE
PH1-GWC-2	6/8/2022	45.9	FALSE
PH1-GWC-2	12/14/2022	21.6	FALSE

PH1-GWC-3	6/14/2017	ND<20	FALSE
PH1-GWC-3	12/13/2017	ND<20	FALSE
PH1-GWC-3	6/20/2018	ND<20	FALSE
PH1-GWC-3	12/19/2018	ND<20	FALSE
PH1-GWC-3	6/11/2019	ND<20	FALSE
PH1-GWC-3	12/10/2019	ND<20	FALSE
PH1-GWC-3	6/23/2020	ND<20	FALSE
PH1-GWC-3	12/16/2020	ND<20	FALSE
PH1-GWC-3	6/15/2021	ND<20	FALSE
PH1-GWC-3	12/15/2021	ND<20	FALSE
PH1-GWC-3	6/8/2022	ND<20	FALSE
PH1-GWC-3	12/15/2022	ND<20	FALSE

PH1-GWC-3A	6/14/2017	ND<20	FALSE
PH1-GWC-3A	12/13/2017	ND<20	FALSE
PH1-GWC-3A	6/28/2018	21	FALSE
PH1-GWC-3A	12/19/2018	ND<20	FALSE
PH1-GWC-3A	6/11/2019	ND<20	FALSE
PH1-GWC-3A	12/10/2019	ND<20	FALSE
PH1-GWC-3A	6/23/2020	36.9	FALSE
PH1-GWC-3A	12/16/2020	ND<20	FALSE
PH1-GWC-3A	6/15/2021	23.6	FALSE
PH1-GWC-3A	12/15/2021	43.6	FALSE
PH1-GWC-3A	6/8/2022	38.8	FALSE
PH1-GWC-3A	12/15/2022	ND<20	FALSE

PH1-GWA-2	6/16/2017	ND<20	FALSE
PH1-GWA-2	12/14/2017	ND<20	FALSE
PH1-GWA-2	6/19/2018	ND<20	FALSE
PH1-GWA-2	12/19/2018	29	FALSE
PH1-GWA-2	6/12/2019	ND<20	FALSE
PH1-GWA-2	12/10/2019	ND<20	FALSE
PH1-GWA-2	6/25/2020	ND<20	FALSE
PH1-GWA-2	12/16/2020	ND<20	FALSE
PH1-GWA-2	6/17/2021	ND<20	FALSE
PH1-GWA-2	12/15/2021	ND<20	FALSE
PH1-GWA-2	6/8/2022	ND<20	FALSE
PH1-GWA-2	12/15/2022	ND<20	FALSE

PH1-GWB-1	6/16/2017	ND<20	FALSE
PH1-GWB-1	12/13/2017	ND<20	FALSE
PH1-GWB-1	6/19/2018	39	FALSE
PH1-GWB-1	12/18/2018	ND<20	FALSE
PH1-GWB-1	6/12/2019	22	FALSE
PH1-GWB-1	12/11/2019	38.2	FALSE

## Zinc

PH1-GWB-1	6/25/2020	26.8	FALSE
PH1-GWB-1	12/18/2020	ND<20	FALSE
PH1-GWB-1	6/15/2021	ND<20	FALSE
PH1-GWB-1	12/14/2021	ND<20	FALSE
PH1-GWB-1	6/8/2022	ND<20	FALSE
PH1-GWB-1	12/13/2022	ND<20	FALSE

PH1-GWB-2	6/16/2017	36	FALSE
PH1-GWB-2	12/12/2017	25	FALSE
PH1-GWB-2	6/20/2018	31	FALSE
PH1-GWB-2	12/18/2018	28	FALSE
PH1-GWB-2	6/13/2019	33	FALSE
PH1-GWB-2	12/13/2019	38.3	FALSE
PH1-GWB-2	6/25/2020	25.4	FALSE
PH1-GWB-2	12/18/2020	21.6	FALSE
PH1-GWB-2	6/17/2021	26.3	FALSE
PH1-GWB-2	12/14/2021	23.8	FALSE
PH1-GWB-2	6/10/2022	29.4	FALSE
<b>PH1-GWB-2</b>	<b>12/13/2022</b>	<b>62.9</b>	<b>TRUE</b>

PH1-GWC-1	6/16/2017	ND<20	FALSE
PH1-GWC-1	12/12/2017	ND<20	FALSE
PH1-GWC-1	6/20/2018	ND<20	FALSE
PH1-GWC-1	12/20/2018	ND<20	FALSE
PH1-GWC-1	6/13/2019	ND<20	FALSE
PH1-GWC-1	12/12/2019	ND<20	FALSE
PH1-GWC-1	6/23/2020	32.5	FALSE
PH1-GWC-1	12/18/2020	ND<20	FALSE
PH1-GWC-1	6/17/2021	ND<20	FALSE
PH1-GWC-1	12/16/2021	ND<20	FALSE
PH1-GWC-1	6/10/2022	ND<20	FALSE
PH1-GWC-1	12/15/2022	ND<20	FALSE

PH1-GWC-4	6/16/2017	20	FALSE
PH1-GWC-4	12/12/2017	28	FALSE
PH1-GWC-4	6/20/2018	ND<20	FALSE
<b>PH1-GWC-4</b>	<b>12/20/2018</b>	<b>120</b>	<b>TRUE</b>
PH1-GWC-4	6/13/2019	20	FALSE
PH1-GWC-4	6/23/2020	ND<20	FALSE
PH1-GWC-4	12/18/2020	ND<20	FALSE
PH1-GWC-4	6/17/2021	ND<20	FALSE
PH1-GWC-4	12/16/2021	21.7	FALSE
PH1-GWC-4	6/7/2022	30.7	FALSE



## Tetrachloroethene

## Non-Parametric Tolerance Interval

## Parameter: Tetrachloroethene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 75.3247%

Background measurements (n) = 24

Maximum Background Concentration = 2

Minimum Coverage = 88.3%

Average Coverage = 96%

Location	Date	Value	Significant
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PH1-GWA-1A	6/12/2017	ND<2	FALSE
PH1-GWA-1A	12/13/2017	ND<2	FALSE
PH1-GWA-1A	6/19/2018	ND<2	FALSE
PH1-GWA-1A	12/18/2018	ND<2	FALSE
PH1-GWA-1A	6/10/2019	ND<2	FALSE
PH1-GWA-1A	12/10/2019	ND<2	FALSE
PH1-GWA-1A	6/22/2020	ND<2	FALSE
PH1-GWA-1A	12/18/2020	ND<2	FALSE
PH1-GWA-1A	6/15/2021	ND<2	FALSE
PH1-GWA-1A	12/13/2021	ND<2	FALSE
PH1-GWA-1A	6/8/2022	ND<2	FALSE
PH1-GWA-1A	12/15/2022	ND<2	FALSE

GWC-1	6/13/2017	ND<2	FALSE
GWC-1	12/13/2017	ND<2	FALSE
GWC-1	6/19/2018	ND<2	FALSE
GWC-1	12/17/2018	ND<2	FALSE
GWC-1	6/13/2019	ND<2	FALSE
GWC-1	12/10/2019	ND<2	FALSE
GWC-1	6/22/2020	ND<2	FALSE
GWC-1	12/16/2020	ND<2	FALSE
GWC-1	6/15/2021	ND<2	FALSE
GWC-1	12/15/2021	ND<2	FALSE
GWC-1	6/7/2022	ND<2	FALSE
GWC-1	12/12/2022	ND<2	FALSE

PH1-GWA-1	6/13/2017	ND<2	FALSE
PH1-GWA-1	12/13/2017	ND<2	FALSE
<b>PH1-GWA-1</b>	<b>6/19/2018</b>	<b>2.1</b>	<b>TRUE</b>
PH1-GWA-1	12/18/2018	ND<2	FALSE
PH1-GWA-1	6/10/2019	ND<2	FALSE
PH1-GWA-1	12/9/2019	ND<2	FALSE
PH1-GWA-1	6/22/2020	ND<2	FALSE
PH1-GWA-1	12/15/2020	ND<2	FALSE
PH1-GWA-1	6/15/2021	ND<2	FALSE
PH1-GWA-1	12/13/2021	ND<2	FALSE
PH1-GWA-1	6/8/2022	ND<2	FALSE
PH1-GWA-1	12/14/2022	ND<2	FALSE

<b>PH1-GWC-2</b>	<b>6/13/2017</b>	<b>6.7</b>	<b>TRUE</b>
<b>PH1-GWC-2</b>	<b>12/13/2017</b>	<b>5.1</b>	<b>TRUE</b>
PH1-GWC-2	6/19/2018	ND<2	FALSE

## Tetrachloroethene

PH1-GWC-2	12/18/2018	5.1	TRUE
PH1-GWC-2	6/10/2019	4.2	TRUE
PH1-GWC-2	12/10/2019	6.3	TRUE
PH1-GWC-2	6/22/2020	4.6	TRUE
PH1-GWC-2	12/17/2020	5.3	TRUE
PH1-GWC-2	6/17/2021	3.7	TRUE
PH1-GWC-2	12/14/2021	2.9	TRUE
PH1-GWC-2	6/8/2022	3.4	TRUE
PH1-GWC-2	12/14/2022	4.4	TRUE

PH1-GWC-3	6/13/2017	11	TRUE
PH1-GWC-3	12/12/2017	13	TRUE
PH1-GWC-3	6/19/2018	11	TRUE
PH1-GWC-3	12/18/2018	10	TRUE
PH1-GWC-3	6/10/2019	11	TRUE
PH1-GWC-3	12/9/2019	13	TRUE
PH1-GWC-3	6/22/2020	9	TRUE
PH1-GWC-3	12/15/2020	9.1	TRUE
PH1-GWC-3	6/14/2021	9.3	TRUE
PH1-GWC-3	12/14/2021	8.8	TRUE
PH1-GWC-3	6/7/2022	8.3	TRUE
PH1-GWC-3	12/15/2022	9.5	TRUE

PH1-GWC-3A	6/13/2017	8.9	TRUE
PH1-GWC-3A	12/12/2017	10	TRUE
PH1-GWC-3A	6/19/2018	11	TRUE
PH1-GWC-3A	12/18/2018	8.7	TRUE
PH1-GWC-3A	6/10/2019	8.8	TRUE
PH1-GWC-3A	12/9/2019	7.4	TRUE
PH1-GWC-3A	6/26/2020	ND<2	FALSE
PH1-GWC-3A	12/15/2020	5.7	TRUE
PH1-GWC-3A	6/14/2021	8.1	TRUE
PH1-GWC-3A	12/14/2021	7.2	TRUE
PH1-GWC-3A	6/7/2022	8.6	TRUE
PH1-GWC-3A	12/15/2022	6.5	TRUE

PH1-GWA-2	6/15/2017	2.1	TRUE
PH1-GWA-2	12/13/2017	2.3	TRUE
PH1-GWA-2	6/18/2018	ND<2	FALSE
PH1-GWA-2	12/18/2018	ND<2	FALSE
PH1-GWA-2	6/11/2019	ND<2	FALSE
<b>PH1-GWA-2</b>	<b>12/9/2019</b>	<b>2.4</b>	<b>TRUE</b>
PH1-GWA-2	6/24/2020	ND<2	FALSE
PH1-GWA-2	12/15/2020	ND<2	FALSE
PH1-GWA-2	6/16/2021	ND<2	FALSE
PH1-GWA-2	12/14/2021	ND<2	FALSE
PH1-GWA-2	6/7/2022	ND<2	FALSE
PH1-GWA-2	12/14/2022	ND<2	FALSE

PH1-GWB-1	6/15/2017	ND<2	FALSE
PH1-GWB-1	12/12/2017	ND<2	FALSE
PH1-GWB-1	6/18/2018	ND<2	FALSE
PH1-GWB-1	12/17/2018	ND<2	FALSE
PH1-GWB-1	6/11/2019	ND<2	FALSE
PH1-GWB-1	12/10/2019	ND<2	FALSE

## Tetrachloroethene

PH1-GWB-1	6/24/2020	ND<2	FALSE
PH1-GWB-1	12/17/2020	ND<2	FALSE
PH1-GWB-1	6/14/2021	ND<2	FALSE
PH1-GWB-1	12/13/2021	ND<2	FALSE
PH1-GWB-1	6/7/2022	ND<2	FALSE
PH1-GWB-1	12/12/2022	ND<2	FALSE

PH1-GWB-2	6/15/2017	ND<2	FALSE
PH1-GWB-2	12/11/2017	ND<2	FALSE
PH1-GWB-2	6/19/2018	ND<2	FALSE
PH1-GWB-2	12/17/2018	ND<2	FALSE
PH1-GWB-2	6/12/2019	ND<2	FALSE
PH1-GWB-2	12/12/2019	ND<2	FALSE
PH1-GWB-2	6/24/2020	ND<2	FALSE
PH1-GWB-2	12/17/2020	ND<2	FALSE
PH1-GWB-2	6/16/2021	ND<2	FALSE
PH1-GWB-2	12/13/2021	ND<2	FALSE
PH1-GWB-2	6/9/2022	ND<2	FALSE
PH1-GWB-2	12/12/2022	ND<2	FALSE

PH1-GWC-1	6/15/2017	ND<2	FALSE
PH1-GWC-1	12/11/2017	ND<2	FALSE
PH1-GWC-1	6/19/2018	ND<2	FALSE
PH1-GWC-1	12/19/2018	ND<2	FALSE
PH1-GWC-1	6/13/2019	ND<2	FALSE
PH1-GWC-1	12/11/2019	ND<2	FALSE
PH1-GWC-1	6/22/2020	ND<2	FALSE
PH1-GWC-1	12/17/2020	ND<2	FALSE
PH1-GWC-1	6/16/2021	ND<2	FALSE
PH1-GWC-1	12/15/2021	ND<2	FALSE
PH1-GWC-1	6/9/2022	ND<2	FALSE
PH1-GWC-1	12/14/2022	ND<2	FALSE

PH1-GWC-4	6/15/2017	ND<2	FALSE
PH1-GWC-4	12/11/2017	ND<2	FALSE
PH1-GWC-4	6/19/2018	ND<2	FALSE
PH1-GWC-4	12/19/2018	ND<2	FALSE
PH1-GWC-4	6/13/2019	ND<2	FALSE
PH1-GWC-4	6/22/2020	ND<2	FALSE
PH1-GWC-4	12/17/2020	ND<2	FALSE
PH1-GWC-4	6/16/2021	ND<2	FALSE
PH1-GWC-4	12/15/2021	ND<2	FALSE
PH1-GWC-4	6/6/2022	ND<2	FALSE

## Trichloroethene

## Non-Parametric Tolerance Interval

## Parameter: Trichloroethene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 70.1299%

Background measurements (n) = 24

Maximum Background Concentration = 2

Minimum Coverage = 88.3%

Average Coverage = 96%

Location	Date	Value	Significant
PH1-GWA-1A	6/12/2017	ND<2	FALSE
PH1-GWA-1A	12/13/2017	ND<2	FALSE
PH1-GWA-1A	6/19/2018	ND<2	FALSE
PH1-GWA-1A	12/18/2018	ND<2	FALSE
PH1-GWA-1A	6/10/2019	ND<2	FALSE
PH1-GWA-1A	12/10/2019	ND<2	FALSE
PH1-GWA-1A	6/22/2020	ND<2	FALSE
PH1-GWA-1A	12/18/2020	ND<2	FALSE
PH1-GWA-1A	6/15/2021	ND<2	FALSE
PH1-GWA-1A	12/13/2021	ND<2	FALSE
PH1-GWA-1A	6/8/2022	ND<2	FALSE
PH1-GWA-1A	12/15/2022	ND<2	FALSE

GWC-1	6/13/2017	ND<2	FALSE
GWC-1	12/13/2017	ND<2	FALSE
GWC-1	6/19/2018	ND<2	FALSE
GWC-1	12/17/2018	ND<2	FALSE
GWC-1	6/13/2019	ND<2	FALSE
GWC-1	12/10/2019	ND<2	FALSE
GWC-1	6/22/2020	ND<2	FALSE
GWC-1	12/16/2020	ND<2	FALSE
GWC-1	6/15/2021	ND<2	FALSE
GWC-1	12/15/2021	ND<2	FALSE
GWC-1	6/7/2022	ND<2	FALSE
GWC-1	12/12/2022	ND<2	FALSE

PH1-GWA-1	6/13/2017	ND<2	FALSE
PH1-GWA-1	12/13/2017	ND<2	FALSE
PH1-GWA-1	6/19/2018	ND<2	FALSE
PH1-GWA-1	12/18/2018	ND<2	FALSE
PH1-GWA-1	6/10/2019	ND<2	FALSE
<b>PH1-GWA-1</b>	<b>12/9/2019</b>	<b>3.1</b>	<b>TRUE</b>
PH1-GWA-1	6/22/2020	ND<2	FALSE
PH1-GWA-1	12/15/2020	ND<2	FALSE
PH1-GWA-1	6/15/2021	ND<2	FALSE
PH1-GWA-1	12/13/2021	ND<2	FALSE
PH1-GWA-1	6/8/2022	ND<2	FALSE
PH1-GWA-1	12/14/2022	ND<2	FALSE

<b>PH1-GWC-2</b>	<b>6/13/2017</b>	<b>2.4</b>	<b>TRUE</b>
PH1-GWC-2	12/13/2017	ND<2	FALSE
PH1-GWC-2	6/19/2018	ND<2	FALSE

## Trichloroethene

PH1-GWC-2	12/18/2018	2	FALSE
PH1-GWC-2	6/10/2019	2	FALSE
PH1-GWC-2	12/10/2019	2.6	TRUE
PH1-GWC-2	6/22/2020	2.1	TRUE
PH1-GWC-2	12/17/2020	2.5	TRUE
PH1-GWC-2	6/17/2021	2.7	TRUE
PH1-GWC-2	12/14/2021	3	TRUE
PH1-GWC-2	6/8/2022	2.1	TRUE
PH1-GWC-2	12/14/2022	2.7	TRUE

PH1-GWC-3	6/13/2017	7	TRUE
PH1-GWC-3	12/12/2017	8.4	TRUE
PH1-GWC-3	6/19/2018	6.9	TRUE
PH1-GWC-3	12/18/2018	6.8	TRUE
PH1-GWC-3	6/10/2019	7.4	TRUE
PH1-GWC-3	12/9/2019	8.7	TRUE
PH1-GWC-3	6/22/2020	7.1	TRUE
PH1-GWC-3	12/15/2020	7.6	TRUE
PH1-GWC-3	6/14/2021	7.5	TRUE
PH1-GWC-3	12/14/2021	7.1	TRUE
PH1-GWC-3	6/7/2022	7.2	TRUE
PH1-GWC-3	12/15/2022	9.5	TRUE

PH1-GWC-3A	6/13/2017	6	TRUE
PH1-GWC-3A	12/12/2017	6.6	TRUE
PH1-GWC-3A	6/19/2018	6.8	TRUE
PH1-GWC-3A	12/18/2018	5.8	TRUE
PH1-GWC-3A	6/10/2019	5.7	TRUE
PH1-GWC-3A	12/9/2019	8.4	TRUE
PH1-GWC-3A	6/26/2020	2.8	TRUE
PH1-GWC-3A	12/15/2020	8.1	TRUE
PH1-GWC-3A	6/14/2021	6.1	TRUE
PH1-GWC-3A	12/14/2021	5.7	TRUE
PH1-GWC-3A	6/7/2022	6.8	TRUE
PH1-GWC-3A	12/15/2022	8	TRUE

PH1-GWA-2	6/15/2017	4.1	TRUE
PH1-GWA-2	12/13/2017	5.8	TRUE
PH1-GWA-2	6/18/2018	4.2	TRUE
PH1-GWA-2	12/18/2018	4	TRUE
PH1-GWA-2	6/11/2019	2.1	TRUE
PH1-GWA-2	12/9/2019	7.3	TRUE
PH1-GWA-2	6/24/2020	2.4	TRUE
PH1-GWA-2	12/15/2020	2.5	TRUE
PH1-GWA-2	6/16/2021	2.4	TRUE
PH1-GWA-2	12/14/2021	2	FALSE
PH1-GWA-2	6/7/2022	ND<2	FALSE
PH1-GWA-2	12/14/2022	2.2	TRUE

PH1-GWB-1	6/15/2017	ND<2	FALSE
PH1-GWB-1	12/12/2017	ND<2	FALSE
PH1-GWB-1	6/18/2018	ND<2	FALSE
PH1-GWB-1	12/17/2018	ND<2	FALSE
PH1-GWB-1	6/11/2019	ND<2	FALSE
PH1-GWB-1	12/10/2019	ND<2	FALSE

## Trichloroethene

PH1-GWB-1	6/24/2020	ND<2	FALSE
PH1-GWB-1	12/17/2020	ND<2	FALSE
PH1-GWB-1	6/14/2021	ND<2	FALSE
PH1-GWB-1	12/13/2021	ND<2	FALSE
PH1-GWB-1	6/7/2022	ND<2	FALSE
PH1-GWB-1	12/12/2022	ND<2	FALSE

PH1-GWB-2	6/15/2017	ND<2	FALSE
PH1-GWB-2	12/11/2017	ND<2	FALSE
PH1-GWB-2	6/19/2018	ND<2	FALSE
PH1-GWB-2	12/17/2018	ND<2	FALSE
PH1-GWB-2	6/12/2019	ND<2	FALSE
PH1-GWB-2	12/12/2019	ND<2	FALSE
PH1-GWB-2	6/24/2020	ND<2	FALSE
PH1-GWB-2	12/17/2020	ND<2	FALSE
PH1-GWB-2	6/16/2021	ND<2	FALSE
PH1-GWB-2	12/13/2021	ND<2	FALSE
PH1-GWB-2	6/9/2022	ND<2	FALSE
PH1-GWB-2	12/12/2022	ND<2	FALSE

PH1-GWC-1	6/15/2017	ND<2	FALSE
PH1-GWC-1	12/11/2017	ND<2	FALSE
PH1-GWC-1	6/19/2018	ND<2	FALSE
PH1-GWC-1	12/19/2018	ND<2	FALSE
PH1-GWC-1	6/13/2019	ND<2	FALSE
PH1-GWC-1	12/11/2019	ND<2	FALSE
PH1-GWC-1	6/22/2020	ND<2	FALSE
PH1-GWC-1	12/17/2020	ND<2	FALSE
PH1-GWC-1	6/16/2021	ND<2	FALSE
PH1-GWC-1	12/15/2021	ND<2	FALSE
PH1-GWC-1	6/9/2022	ND<2	FALSE
PH1-GWC-1	12/14/2022	ND<2	FALSE

PH1-GWC-4	6/15/2017	ND<2	FALSE
PH1-GWC-4	12/11/2017	ND<2	FALSE
PH1-GWC-4	6/19/2018	ND<2	FALSE
PH1-GWC-4	12/19/2018	ND<2	FALSE
PH1-GWC-4	6/13/2019	ND<2	FALSE
PH1-GWC-4	6/22/2020	ND<2	FALSE
PH1-GWC-4	12/17/2020	ND<2	FALSE
PH1-GWC-4	6/16/2021	ND<2	FALSE
PH1-GWC-4	12/15/2021	ND<2	FALSE
PH1-GWC-4	6/6/2022	ND<2	FALSE

Forsyth County - Hightower Road MSWLF - Phases II-IV  
 Second 2022 Groundwater Monitoring Event  
 Non-Parametric Tolerance Interval Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
1,1-Dichloroethane	GWA-1A	FALSE	96.15%
1,1-Dichloroethane	GWC-5	FALSE	96.15%
1,1-Dichloroethane	GWC-6	FALSE	96.15%
1,1-Dichloroethane	GWC-7	FALSE	96.15%
1,1-Dichloroethane	GWC-14	FALSE	96.15%
1,1-Dichloroethane	GWC-4A	FALSE	96.15%
1,1-Dichloroethane	GWC-14A	TRUE	96.15%
1,1-Dichloroethane	GWA-3	FALSE	96.15%
1,1-Dichloroethane	GWC-11	FALSE	96.15%
1,1-Dichloroethane	GWC-12	FALSE	96.15%
1,1-Dichloroethane	GWC-12A	FALSE	96.15%
1,1-Dichloroethane	GWC-13	FALSE	96.15%
1,1-Dichloroethane	GWC-15	FALSE	96.15%
1,1-Dichloroethane	GWC-16A	FALSE	96.15%
1,1-Dichloroethane	GWC-17	FALSE	96.15%
1,1-Dichloroethane	GWC-18	FALSE	96.15%
1,1-Dichloroethane	GWC-19R	FALSE	96.15%
1,1-Dichloroethane	GWC-22	FALSE	96.15%
1,1-Dichloroethane	GWC-23	FALSE	96.15%
1,1-Dichloroethane	GWC-23A	FALSE	96.15%
1,1-Dichloroethane	GWC-24	FALSE	96.15%
1,1-Dichloroethane	GWC-10	FALSE	96.15%
1,1-Dichloroethane	GWC-10A	FALSE	96.15%
1,1-Dichloroethane	GWC-2	FALSE	96.15%
1,1-Dichloroethane	GWC-3	FALSE	96.15%
1,1-Dichloroethane	GWC-3A	FALSE	96.15%
1,1-Dichloroethane	GWC-9	FALSE	96.15%
1,1-Dichloroethane	GWC-8	FALSE	96.15%
1,1-Dichloroethane	GWC-4	FALSE	96.15%
1,1-Dichloroethane	GWC-14R	TRUE	96.15%
1,1-Dichloroethane	GWC-8A	TRUE	96.15%
1,1-Dichloroethane	GWC-8R	TRUE	96.15%
Barium	GWC-14A	TRUE	96.15%
Barium	GWA-1A	FALSE	96.15%
Barium	GWC-5	FALSE	96.15%
Barium	GWC-6	FALSE	96.15%
Barium	GWC-7	FALSE	96.15%
Barium	GWC-15	FALSE	96.15%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.

Forsyth County - Hightower Road MSWLF - Phases II-IV  
 Second 2022 Groundwater Monitoring Event  
 Non-Parametric Tolerance Interval Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
Barium	GWC-4A	FALSE	96.15%
Barium	GWA-3	FALSE	96.15%
Barium	GWC-11	FALSE	96.15%
Barium	GWC-12	FALSE	96.15%
Barium	GWC-12A	FALSE	96.15%
Barium	GWC-13	FALSE	96.15%
Barium	GWC-16A	FALSE	96.15%
Barium	GWC-17	FALSE	96.15%
Barium	GWC-22	FALSE	96.15%
Barium	GWC-23	FALSE	96.15%
Barium	GWC-23A	FALSE	96.15%
Barium	GWC-24	FALSE	96.15%
Barium	GWC-10	FALSE	96.15%
Barium	GWC-10A	FALSE	96.15%
Barium	GWC-2	FALSE	96.15%
Barium	GWC-3A	FALSE	96.15%
Barium	GWC-8	FALSE	96.15%
Barium	GWC-14	FALSE	96.15%
Barium	GWC-3	FALSE	96.15%
Barium	GWC-4	FALSE	96.15%
Barium	GWC-14R	FALSE	96.15%
Barium	GWC-8R	FALSE	96.15%
Barium	GWC-18	TRUE	96.15%
Barium	GWC-19R	TRUE	96.15%
Barium	GWC-8A	TRUE	96.15%
Barium	GWC-9	TRUE	96.15%
Benzene	GWC-14A	TRUE	96.15%
Benzene	GWA-1A	FALSE	96.15%
Benzene	GWC-5	FALSE	96.15%
Benzene	GWC-6	FALSE	96.15%
Benzene	GWC-7	FALSE	96.15%
Benzene	GWC-14	FALSE	96.15%
Benzene	GWC-14R	FALSE	96.15%
Benzene	GWC-4A	FALSE	96.15%
Benzene	GWC-8R	FALSE	96.15%
Benzene	GWA-3	FALSE	96.15%
Benzene	GWC-11	FALSE	96.15%
Benzene	GWC-12	FALSE	96.15%

Notes:

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Forsyth County - Hightower Road MSWLF - Phases II-IV  
 Second 2022 Groundwater Monitoring Event  
 Non-Parametric Tolerance Interval Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
Benzene	GWC-12A	FALSE	96.15%
Benzene	GWC-13	FALSE	96.15%
Benzene	GWC-15	FALSE	96.15%
Benzene	GWC-16A	FALSE	96.15%
Benzene	GWC-17	FALSE	96.15%
Benzene	GWC-18	FALSE	96.15%
Benzene	GWC-19R	FALSE	96.15%
Benzene	GWC-22	FALSE	96.15%
Benzene	GWC-23	FALSE	96.15%
Benzene	GWC-23A	FALSE	96.15%
Benzene	GWC-24	FALSE	96.15%
Benzene	GWC-10	FALSE	96.15%
Benzene	GWC-10A	FALSE	96.15%
Benzene	GWC-2	FALSE	96.15%
Benzene	GWC-3	FALSE	96.15%
Benzene	GWC-3A	FALSE	96.15%
Benzene	GWC-9	FALSE	96.15%
Benzene	GWC-8	FALSE	96.15%
Benzene	GWC-4	FALSE	96.15%
Benzene	GWC-8A	TRUE	96.15%
Cadmium	GWA-1A	FALSE	96.15%
Cadmium	GWC-14A	FALSE	96.15%
Cadmium	GWC-5	FALSE	96.15%
Cadmium	GWC-6	FALSE	96.15%
Cadmium	GWC-7	FALSE	96.15%
Cadmium	GWC-15	FALSE	96.15%
Cadmium	GWC-4A	FALSE	96.15%
Cadmium	GWC-8A	FALSE	96.15%
Cadmium	GWA-3	FALSE	96.15%
Cadmium	GWC-11	FALSE	96.15%
Cadmium	GWC-12	FALSE	96.15%
Cadmium	GWC-12A	FALSE	96.15%
Cadmium	GWC-13	FALSE	96.15%
Cadmium	GWC-16A	FALSE	96.15%
Cadmium	GWC-17	FALSE	96.15%
Cadmium	GWC-18	FALSE	96.15%
Cadmium	GWC-22	FALSE	96.15%
Cadmium	GWC-23	FALSE	96.15%

Notes:

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Forsyth County - Hightower Road MSWLF - Phases II-IV  
 Second 2022 Groundwater Monitoring Event  
 Non-Parametric Tolerance Interval Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
Cadmium	GWC-23A	FALSE	96.15%
Cadmium	GWC-24	FALSE	96.15%
Cadmium	GWC-10	FALSE	96.15%
Cadmium	GWC-10A	FALSE	96.15%
Cadmium	GWC-2	FALSE	96.15%
Cadmium	GWC-3A	FALSE	96.15%
Cadmium	GWC-9	FALSE	96.15%
Cadmium	GWC-8	FALSE	96.15%
Cadmium	GWC-14	FALSE	96.15%
Cadmium	GWC-3	FALSE	96.15%
Cadmium	GWC-4	FALSE	96.15%
Cadmium	GWC-14R	FALSE	96.15%
Cadmium	GWC-8R	FALSE	96.15%
Cadmium	GWC-19R	PASSED KW	96.15%
Chlorobenzene	GWC-14A	TRUE	96.15%
Chlorobenzene	GWA-1A	FALSE	96.15%
Chlorobenzene	GWC-5	FALSE	96.15%
Chlorobenzene	GWC-6	FALSE	96.15%
Chlorobenzene	GWC-7	FALSE	96.15%
Chlorobenzene	GWC-14	FALSE	96.15%
Chlorobenzene	GWC-14R	FALSE	96.15%
Chlorobenzene	GWC-4A	FALSE	96.15%
Chlorobenzene	GWC-8A	FALSE	96.15%
Chlorobenzene	GWC-8R	FALSE	96.15%
Chlorobenzene	GWA-3	FALSE	96.15%
Chlorobenzene	GWC-11	FALSE	96.15%
Chlorobenzene	GWC-12	FALSE	96.15%
Chlorobenzene	GWC-12A	FALSE	96.15%
Chlorobenzene	GWC-13	FALSE	96.15%
Chlorobenzene	GWC-15	FALSE	96.15%
Chlorobenzene	GWC-16A	FALSE	96.15%
Chlorobenzene	GWC-17	FALSE	96.15%
Chlorobenzene	GWC-18	FALSE	96.15%
Chlorobenzene	GWC-19R	FALSE	96.15%
Chlorobenzene	GWC-22	FALSE	96.15%
Chlorobenzene	GWC-23	FALSE	96.15%
Chlorobenzene	GWC-23A	FALSE	96.15%
Chlorobenzene	GWC-24	FALSE	96.15%

Notes:

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Forsyth County - Hightower Road MSWLF - Phases II-IV  
 Second 2022 Groundwater Monitoring Event  
 Non-Parametric Tolerance Interval Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
Chlorobenzene	GWC-10	FALSE	96.15%
Chlorobenzene	GWC-10A	FALSE	96.15%
Chlorobenzene	GWC-2	FALSE	96.15%
Chlorobenzene	GWC-3	FALSE	96.15%
Chlorobenzene	GWC-3A	FALSE	96.15%
Chlorobenzene	GWC-9	FALSE	96.15%
Chlorobenzene	GWC-8	FALSE	96.15%
Chlorobenzene	GWC-4	FALSE	96.15%
Chloroethane	GWC-14A	TRUE	96.15%
Chloroethane	GWA-1A	FALSE	96.15%
Chloroethane	GWC-5	FALSE	96.15%
Chloroethane	GWC-6	FALSE	96.15%
Chloroethane	GWC-7	FALSE	96.15%
Chloroethane	GWC-14	FALSE	96.15%
Chloroethane	GWC-14R	FALSE	96.15%
Chloroethane	GWC-4A	FALSE	96.15%
Chloroethane	GWC-8A	FALSE	96.15%
Chloroethane	GWC-8R	FALSE	96.15%
Chloroethane	GWA-3	FALSE	96.15%
Chloroethane	GWC-11	FALSE	96.15%
Chloroethane	GWC-12	FALSE	96.15%
Chloroethane	GWC-12A	FALSE	96.15%
Chloroethane	GWC-13	FALSE	96.15%
Chloroethane	GWC-15	FALSE	96.15%
Chloroethane	GWC-16A	FALSE	96.15%
Chloroethane	GWC-17	FALSE	96.15%
Chloroethane	GWC-18	FALSE	96.15%
Chloroethane	GWC-19R	FALSE	96.15%
Chloroethane	GWC-22	FALSE	96.15%
Chloroethane	GWC-23	FALSE	96.15%
Chloroethane	GWC-23A	FALSE	96.15%
Chloroethane	GWC-24	FALSE	96.15%
Chloroethane	GWC-10	FALSE	96.15%
Chloroethane	GWC-10A	FALSE	96.15%
Chloroethane	GWC-2	FALSE	96.15%
Chloroethane	GWC-3	FALSE	96.15%
Chloroethane	GWC-3A	FALSE	96.15%
Chloroethane	GWC-9	FALSE	96.15%

Notes:

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3. K-W detects are screened for false positives with NPTI.



Forsyth County - Hightower Road MSWLF - Phases II-IV  
 Second 2022 Groundwater Monitoring Event  
 Non-Parametric Tolerance Interval Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
Chloroethane	GWC-8	FALSE	96.15%
Chloroethane	GWC-4	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-14A	TRUE	96.15%
cis-1,2-Dichloroethene	GWC-14R	TRUE	96.15%
cis-1,2-Dichloroethene	GWA-1A	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-5	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-6	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-7	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-14	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-17	TRUE	96.15%
cis-1,2-Dichloroethene	GWC-4A	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-18	TRUE	96.15%
cis-1,2-Dichloroethene	GWA-3	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-11	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-12	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-12A	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-13	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-15	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-16A	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-19R	TRUE	96.15%
cis-1,2-Dichloroethene	GWC-22	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-23	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-23A	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-24	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-10	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-10A	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-2	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-3	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-3A	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-9	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-8	PASSED KW	96.15%
cis-1,2-Dichloroethene	GWC-4	FALSE	96.15%
cis-1,2-Dichloroethene	GWC-8A	TRUE	96.15%
cis-1,2-Dichloroethene	GWC-8R	TRUE	96.15%
Cobalt	GWC-14	FALSE	96.15%
Cobalt	GWC-14A	TRUE	96.15%
Cobalt	GWA-1A	FALSE	96.15%
Cobalt	GWC-5	FALSE	96.15%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.

**Forsyth County - Hightower Road MSWLF - Phases II-IV**  
**Second 2022 Groundwater Monitoring Event**  
**Non-Parametric Tolerance Interval Statistical Analysis Summary**

Parameter Name	Well ID	Statistically Significant	Confidence Level
Cobalt	GWC-6	FALSE	96.15%
Cobalt	GWC-7	FALSE	96.15%
Cobalt	GWC-15	FALSE	96.15%
Cobalt	GWC-4A	FALSE	96.15%
Cobalt	GWC-8A	FALSE	96.15%
Cobalt	GWA-3	FALSE	96.15%
Cobalt	GWC-11	FALSE	96.15%
Cobalt	GWC-12	FALSE	96.15%
Cobalt	GWC-12A	FALSE	96.15%
Cobalt	GWC-13	FALSE	96.15%
Cobalt	GWC-16A	FALSE	96.15%
Cobalt	GWC-17	FALSE	96.15%
Cobalt	GWC-18	FALSE	96.15%
Cobalt	GWC-19R	FALSE	96.15%
Cobalt	GWC-22	FALSE	96.15%
Cobalt	GWC-23	FALSE	96.15%
Cobalt	GWC-23A	FALSE	96.15%
Cobalt	GWC-24	FALSE	96.15%
Cobalt	GWC-10	FALSE	96.15%
Cobalt	GWC-10A	FALSE	96.15%
Cobalt	GWC-2	FALSE	96.15%
Cobalt	GWC-3A	FALSE	96.15%
Cobalt	GWC-9	FALSE	96.15%
Cobalt	GWC-8	FALSE	96.15%
Cobalt	GWC-3	FALSE	96.15%
Cobalt	GWC-4	FALSE	96.15%
Cobalt	GWC-14R	FALSE	96.15%
Cobalt	GWC-8R	FALSE	96.15%
Nickel	GWA-1A	FALSE	96.15%
Nickel	GWC-14A	FALSE	96.15%
Nickel	GWC-5	FALSE	96.15%
Nickel	GWC-6	FALSE	96.15%
Nickel	GWC-7	FALSE	96.15%
Nickel	GWC-15	FALSE	96.15%
Nickel	GWC-4A	FALSE	96.15%
Nickel	GWC-8A	FALSE	96.15%
Nickel	GWA-3	FALSE	96.15%
Nickel	GWC-11	FALSE	96.15%

Notes:

1. Original data are not transformed.
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Forsyth County - Hightower Road MSWLF - Phases II-IV  
 Second 2022 Groundwater Monitoring Event  
 Non-Parametric Tolerance Interval Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
Nickel	GWC-12	FALSE	96.15%
Nickel	GWC-12A	FALSE	96.15%
Nickel	GWC-13	FALSE	96.15%
Nickel	GWC-16A	FALSE	96.15%
Nickel	GWC-17	FALSE	96.15%
Nickel	GWC-18	FALSE	96.15%
Nickel	GWC-19R	FALSE	96.15%
Nickel	GWC-22	FALSE	96.15%
Nickel	GWC-23	FALSE	96.15%
Nickel	GWC-23A	FALSE	96.15%
Nickel	GWC-24	FALSE	96.15%
Nickel	GWC-10	FALSE	96.15%
Nickel	GWC-10A	FALSE	96.15%
Nickel	GWC-2	FALSE	96.15%
Nickel	GWC-3A	FALSE	96.15%
Nickel	GWC-9	FALSE	96.15%
Nickel	GWC-8	FALSE	96.15%
Nickel	GWC-14	FALSE	96.15%
Nickel	GWC-3	FALSE	96.15%
Nickel	GWC-4	FALSE	96.15%
Nickel	GWC-14R	FALSE	96.15%
Nickel	GWC-8R	FALSE	96.15%
Tetrachloroethene	GWC-18	TRUE	96.15%
Tetrachloroethene	GWA-1A	FALSE	96.15%
Tetrachloroethene	GWC-5	FALSE	96.15%
Tetrachloroethene	GWC-6	FALSE	96.15%
Tetrachloroethene	GWC-7	FALSE	96.15%
Tetrachloroethene	GWC-14	FALSE	96.15%
Tetrachloroethene	GWC-14A	FALSE	96.15%
Tetrachloroethene	GWC-14R	FALSE	96.15%
Tetrachloroethene	GWC-4A	FALSE	96.15%
Tetrachloroethene	GWC-8A	FALSE	96.15%
Tetrachloroethene	GWC-8R	FALSE	96.15%
Tetrachloroethene	GWA-3	FALSE	96.15%
Tetrachloroethene	GWC-11	FALSE	96.15%
Tetrachloroethene	GWC-12	FALSE	96.15%
Tetrachloroethene	GWC-12A	FALSE	96.15%
Tetrachloroethene	GWC-13	FALSE	96.15%

Notes:

1. Original data are not transformed.
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Forsyth County - Hightower Road MSWLF - Phases II-IV  
 Second 2022 Groundwater Monitoring Event  
 Non-Parametric Tolerance Interval Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
Tetrachloroethene	GWC-15	FALSE	96.15%
Tetrachloroethene	GWC-16A	FALSE	96.15%
Tetrachloroethene	GWC-17	FALSE	96.15%
Tetrachloroethene	GWC-19R	FALSE	96.15%
Tetrachloroethene	GWC-22	FALSE	96.15%
Tetrachloroethene	GWC-23	FALSE	96.15%
Tetrachloroethene	GWC-23A	FALSE	96.15%
Tetrachloroethene	GWC-24	FALSE	96.15%
Tetrachloroethene	GWC-10	FALSE	96.15%
Tetrachloroethene	GWC-10A	FALSE	96.15%
Tetrachloroethene	GWC-2	FALSE	96.15%
Tetrachloroethene	GWC-3	FALSE	96.15%
Tetrachloroethene	GWC-3A	FALSE	96.15%
Tetrachloroethene	GWC-9	FALSE	96.15%
Tetrachloroethene	GWC-8	FALSE	96.15%
Tetrachloroethene	GWC-4	FALSE	96.15%
Trichloroethene	GWC-14A	TRUE	96.15%
Trichloroethene	GWC-14R	TRUE	96.15%
Trichloroethene	GWA-1A	FALSE	96.15%
Trichloroethene	GWC-5	FALSE	96.15%
Trichloroethene	GWC-6	FALSE	96.15%
Trichloroethene	GWC-7	FALSE	96.15%
Trichloroethene	GWC-14	FALSE	96.15%
Trichloroethene	GWC-4A	FALSE	96.15%
Trichloroethene	GWC-8A	FALSE	96.15%
Trichloroethene	GWC-8R	FALSE	96.15%
Trichloroethene	GWA-3	FALSE	96.15%
Trichloroethene	GWC-11	FALSE	96.15%
Trichloroethene	GWC-12	FALSE	96.15%
Trichloroethene	GWC-12A	FALSE	96.15%
Trichloroethene	GWC-13	FALSE	96.15%
Trichloroethene	GWC-15	FALSE	96.15%
Trichloroethene	GWC-16A	FALSE	96.15%
Trichloroethene	GWC-17	FALSE	96.15%
Trichloroethene	GWC-18	FALSE	96.15%
Trichloroethene	GWC-19R	FALSE	96.15%
Trichloroethene	GWC-22	FALSE	96.15%
Trichloroethene	GWC-23	FALSE	96.15%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.

Forsyth County - Hightower Road MSWLF - Phases II-IV  
 Second 2022 Groundwater Monitoring Event  
 Non-Parametric Tolerance Interval Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
Trichloroethene	GWC-23A	FALSE	96.15%
Trichloroethene	GWC-24	FALSE	96.15%
Trichloroethene	GWC-10	FALSE	96.15%
Trichloroethene	GWC-10A	FALSE	96.15%
Trichloroethene	GWC-2	FALSE	96.15%
Trichloroethene	GWC-3	FALSE	96.15%
Trichloroethene	GWC-3A	FALSE	96.15%
Trichloroethene	GWC-9	FALSE	96.15%
Trichloroethene	GWC-8	FALSE	96.15%
Trichloroethene	GWC-4	FALSE	96.15%
Vinyl chloride	GWC-14A	<b>TRUE</b>	96.15%
Vinyl chloride	GWA-1A	FALSE	96.15%
Vinyl chloride	GWC-5	FALSE	96.15%
Vinyl chloride	GWC-6	FALSE	96.15%
Vinyl chloride	GWC-7	FALSE	96.15%
Vinyl chloride	GWC-14	FALSE	96.15%
Vinyl chloride	GWC-14R	FALSE	96.15%
Vinyl chloride	GWC-4A	FALSE	96.15%
Vinyl chloride	GWC-8A	FALSE	96.15%
Vinyl chloride	GWC-8R	FALSE	96.15%
Vinyl chloride	GWA-3	FALSE	96.15%
Vinyl chloride	GWC-11	FALSE	96.15%
Vinyl chloride	GWC-12	FALSE	96.15%
Vinyl chloride	GWC-12A	FALSE	96.15%
Vinyl chloride	GWC-13	FALSE	96.15%
Vinyl chloride	GWC-15	FALSE	96.15%
Vinyl chloride	GWC-16A	FALSE	96.15%
Vinyl chloride	GWC-17	FALSE	96.15%
Vinyl chloride	GWC-18	FALSE	96.15%
Vinyl chloride	GWC-19R	FALSE	96.15%
Vinyl chloride	GWC-22	FALSE	96.15%
Vinyl chloride	GWC-23	FALSE	96.15%
Vinyl chloride	GWC-23A	FALSE	96.15%
Vinyl chloride	GWC-24	FALSE	96.15%
Vinyl chloride	GWC-10	FALSE	96.15%
Vinyl chloride	GWC-10A	FALSE	96.15%
Vinyl chloride	GWC-2	FALSE	96.15%
Vinyl chloride	GWC-3	FALSE	96.15%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.

Forsyth County - Hightower Road MSWLF - Phases II-IV  
 Second 2022 Groundwater Monitoring Event  
 Non-Parametric Tolerance Interval Statistical Analysis Summary

Parameter Name	Well ID	Statistically Significant	Confidence Level
Vinyl chloride	GWC-3A	FALSE	96.15%
Vinyl chloride	GWC-9	FALSE	96.15%
Vinyl chloride	GWC-8	FALSE	96.15%
Vinyl chloride	GWC-4	FALSE	96.15%
Zinc	GWC-11	<i>PASSED KW</i>	96.15%
Zinc	GWA-1A	FALSE	96.15%
Zinc	GWC-14A	FALSE	96.15%
Zinc	GWC-5	FALSE	96.15%
Zinc	GWC-6	FALSE	96.15%
Zinc	GWC-7	FALSE	96.15%
Zinc	GWC-15	FALSE	96.15%
Zinc	GWC-4A	FALSE	96.15%
Zinc	GWC-8A	FALSE	96.15%
Zinc	GWA-3	FALSE	96.15%
Zinc	GWC-12	FALSE	96.15%
Zinc	GWC-12A	FALSE	96.15%
Zinc	GWC-13	FALSE	96.15%
Zinc	GWC-16A	FALSE	96.15%
Zinc	GWC-17	FALSE	96.15%
Zinc	GWC-18	FALSE	96.15%
Zinc	GWC-19R	FALSE	96.15%
Zinc	GWC-22	FALSE	96.15%
Zinc	GWC-23	FALSE	96.15%
Zinc	GWC-23A	FALSE	96.15%
Zinc	GWC-24	FALSE	96.15%
Zinc	GWC-10	FALSE	96.15%
Zinc	GWC-10A	FALSE	96.15%
Zinc	GWC-2	FALSE	96.15%
Zinc	GWC-3A	FALSE	96.15%
Zinc	GWC-9	FALSE	96.15%
Zinc	GWC-8	FALSE	96.15%
Zinc	GWC-14	FALSE	96.15%
Zinc	GWC-3	FALSE	96.15%
Zinc	GWC-4	FALSE	96.15%
Zinc	GWC-14R	FALSE	96.15%
Zinc	GWC-8R	FALSE	96.15%

Notes:

1. Original data are not transformed.
2. Kruskal-Wallis (K-W) non-parametric test is performed on all samples.
3. K-W detects are screened for false positives with NPTI.

## Non-Parametric Tolerance Interval

### Parameter: 1,1-Dichloroethane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 85.25%

Background measurements (n) = 25

Maximum Background Concentration = 2

Minimum Coverage = 88.7%

Average Coverage = 96.1538%

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Location	Date	Value	Significant
GWA-1A	6/12/2017	ND<2	FALSE
GWA-1A	12/13/2017	ND<2	FALSE
GWA-1A	6/19/2018	ND<2	FALSE
GWA-1A	12/18/2018	ND<2	FALSE
GWA-1A	6/10/2019	ND<2	FALSE
GWA-1A	12/9/2019	ND<2	FALSE
GWA-1A	6/23/2020	ND<2	FALSE
GWA-1A	12/17/2020	ND<2	FALSE
GWA-1A	6/17/2021	ND<2	FALSE
GWA-1A	12/16/2021	ND<2	FALSE
GWA-1A	6/8/2022	ND<2	FALSE
GWA-1A	12/14/2022	ND<2	FALSE

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GWC-5	6/12/2017	ND<2	FALSE
GWC-5	12/12/2017	ND<2	FALSE
GWC-5	6/21/2018	ND<2	FALSE
GWC-5	12/18/2018	ND<2	FALSE
GWC-5	6/12/2019	ND<2	FALSE
GWC-5	12/10/2019	ND<2	FALSE
GWC-5	6/23/2020	ND<2	FALSE
GWC-5	12/17/2020	ND<2	FALSE
GWC-5	6/15/2021	ND<2	FALSE
GWC-5	12/13/2021	ND<2	FALSE
GWC-5	6/8/2022	ND<2	FALSE
GWC-5	12/12/2022	ND<2	FALSE

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GWC-6	6/12/2017	ND<2	FALSE
GWC-6	12/13/2017	ND<2	FALSE
GWC-6	6/21/2018	ND<2	FALSE
GWC-6	12/19/2018	ND<2	FALSE
GWC-6	6/12/2019	ND<2	FALSE
GWC-6	12/10/2019	ND<2	FALSE
GWC-6	6/24/2020	ND<2	FALSE
GWC-6	12/17/2020	ND<2	FALSE
GWC-6	6/15/2021	ND<2	FALSE
GWC-6	12/13/2021	ND<2	FALSE
GWC-6	6/8/2022	ND<2	FALSE
GWC-6	12/14/2022	ND<2	FALSE

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GWC-7	6/12/2017	ND<2	FALSE
GWC-7	12/12/2017	ND<2	FALSE
GWC-7	6/19/2018	ND<2	FALSE

GWC-7	12/18/2018	ND<2	FALSE
GWC-7	6/12/2019	ND<2	FALSE
GWC-7	12/11/2019	ND<2	FALSE
GWC-7	6/24/2020	ND<2	FALSE
GWC-7	12/17/2020	ND<2	FALSE
GWC-7	6/15/2021	ND<2	FALSE
GWC-7	12/13/2021	ND<2	FALSE
GWC-7	6/8/2022	ND<2	FALSE
GWC-7	12/12/2022	ND<2	FALSE

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GWC-14	6/13/2017	ND<2	FALSE
GWC-14	6/20/2018	ND<2	FALSE
GWC-14	6/11/2019	ND<2	FALSE
GWC-14	12/10/2019	ND<2	FALSE
GWC-14	6/24/2020	ND<2	FALSE
GWC-14	12/17/2020	ND<2	FALSE
GWC-14	6/15/2021	ND<2	FALSE
GWC-14	12/15/2021	ND<2	FALSE
GWC-14	6/9/2022	ND<2	FALSE
GWC-14	12/13/2022	ND<2	FALSE

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<b>GWC-14A</b>	<b>6/13/2017</b>	<b>16</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/12/2017</b>	<b>23</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/20/2018</b>	<b>17</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/19/2018</b>	<b>16</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/11/2019</b>	<b>9.2</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/10/2019</b>	<b>14</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/24/2020</b>	<b>10</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/15/2020</b>	<b>11</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/15/2021</b>	<b>9.2</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/14/2021</b>	<b>13</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/9/2022</b>	<b>9.5</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/13/2022</b>	<b>18</b>	<b>TRUE</b>

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<b>GWC-14R</b>	<b>6/13/2017</b>	<b>21</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/12/2017</b>	<b>20</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/20/2018</b>	<b>22</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/19/2018</b>	<b>18</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/12/2019</b>	<b>18</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/10/2019</b>	<b>14</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/23/2020</b>	<b>18</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/17/2020</b>	<b>19</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/16/2021</b>	<b>16</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/14/2021</b>	<b>14</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/9/2022</b>	<b>11</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/13/2022</b>	<b>12</b>	<b>TRUE</b>

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GWC-4A	6/13/2017	ND<2	FALSE
GWC-4A	12/12/2017	ND<2	FALSE
GWC-4A	6/20/2018	ND<2	FALSE
GWC-4A	12/17/2018	ND<2	FALSE
GWC-4A	6/11/2019	ND<2	FALSE
GWC-4A	12/11/2019	ND<2	FALSE
GWC-4A	6/23/2020	ND<2	FALSE
GWC-4A	12/17/2020	ND<2	FALSE



GWC-4A	6/17/2021	ND<2	FALSE
GWC-4A	12/15/2021	ND<2	FALSE
GWC-4A	6/8/2022	ND<2	FALSE
GWC-4A	12/14/2022	ND<2	FALSE

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<b>GWC-8A</b>	<b>6/13/2017</b>	<b>3</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/12/2017</b>	<b>4.9</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/20/2018</b>	<b>3.9</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/19/2018</b>	<b>4.2</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/12/2019</b>	<b>2.6</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/11/2019</b>	<b>3.7</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/23/2020</b>	<b>2.4</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/15/2020</b>	<b>3.2</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/16/2021</b>	<b>2.5</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/15/2021</b>	<b>2.3</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/9/2022</b>	<b>2.1</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/13/2022</b>	<b>2.5</b>	<b>TRUE</b>

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<b>GWC-8R</b>	<b>6/13/2017</b>	<b>14</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>12/12/2017</b>	<b>14</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>6/20/2018</b>	<b>22</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>12/19/2018</b>	<b>13</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>6/12/2019</b>	<b>12</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>12/11/2019</b>	<b>9.3</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>6/23/2020</b>	<b>13</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>12/15/2020</b>	<b>12</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>6/16/2021</b>	<b>16</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>12/15/2021</b>	<b>11</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>6/9/2022</b>	<b>8.8</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>12/13/2022</b>	<b>9</b>	<b>TRUE</b>

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GWA-3	6/14/2017	ND<2	FALSE
GWA-3	12/11/2017	ND<2	FALSE
GWA-3	6/18/2018	ND<2	FALSE
GWA-3	12/17/2018	ND<2	FALSE
GWA-3	6/11/2019	ND<2	FALSE
GWA-3	12/10/2019	ND<2	FALSE
GWA-3	6/22/2020	ND<2	FALSE
GWA-3	12/16/2020	ND<2	FALSE
GWA-3	6/14/2021	ND<2	FALSE
GWA-3	12/14/2021	ND<2	FALSE
GWA-3	6/6/2022	ND<2	FALSE
GWA-3	12/13/2022	ND<2	FALSE

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GWC-11	6/14/2017	ND<2	FALSE
GWC-11	12/13/2017	ND<2	FALSE
GWC-11	6/19/2018	ND<2	FALSE
GWC-11	12/19/2018	ND<2	FALSE
GWC-11	6/12/2019	ND<2	FALSE
GWC-11	12/12/2019	ND<2	FALSE
GWC-11	6/24/2020	ND<2	FALSE
GWC-11	12/15/2020	ND<2	FALSE
GWC-11	6/15/2021	ND<2	FALSE
GWC-11	12/13/2021	ND<2	FALSE
GWC-11	6/7/2022	ND<2	FALSE

GWC-11	12/12/2022	ND<2	FALSE
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GWC-12	6/14/2017	ND<2	FALSE
GWC-12	12/13/2017	ND<2	FALSE
GWC-12	6/19/2018	ND<2	FALSE
GWC-12	12/19/2018	ND<2	FALSE
GWC-12	6/11/2019	ND<2	FALSE
GWC-12	12/9/2019	ND<2	FALSE
GWC-12	6/24/2020	ND<2	FALSE
GWC-12	12/15/2020	ND<2	FALSE
GWC-12	6/15/2021	ND<2	FALSE
GWC-12	12/13/2021	ND<2	FALSE
GWC-12	6/7/2022	ND<2	FALSE
GWC-12	12/12/2022	ND<2	FALSE

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GWC-12A	6/14/2017	ND<2	FALSE
GWC-12A	12/13/2017	ND<2	FALSE
GWC-12A	6/19/2018	ND<2	FALSE
GWC-12A	12/19/2018	ND<2	FALSE
GWC-12A	6/11/2019	ND<2	FALSE
GWC-12A	12/9/2019	ND<2	FALSE
GWC-12A	6/24/2020	ND<2	FALSE
GWC-12A	12/15/2020	ND<2	FALSE
GWC-12A	6/15/2021	ND<2	FALSE
GWC-12A	12/13/2021	ND<2	FALSE
GWC-12A	6/7/2022	ND<2	FALSE
GWC-12A	12/12/2022	ND<2	FALSE

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GWC-13	6/14/2017	ND<2	FALSE
GWC-13	12/12/2017	ND<2	FALSE
GWC-13	6/19/2018	ND<2	FALSE
GWC-13	12/19/2018	ND<2	FALSE
GWC-13	6/12/2019	ND<2	FALSE
GWC-13	12/11/2019	ND<2	FALSE
GWC-13	6/23/2020	ND<2	FALSE
GWC-13	12/15/2020	ND<2	FALSE
GWC-13	6/15/2021	ND<2	FALSE
GWC-13	12/15/2021	ND<2	FALSE
GWC-13	6/8/2022	ND<2	FALSE
GWC-13	12/12/2022	ND<2	FALSE

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<b>GWC-15</b>	<b>6/14/2017</b>	<b>2.9</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/13/2017</b>	<b>3.7</b>	<b>TRUE</b>
GWC-15	6/19/2018	ND<2	FALSE
<b>GWC-15</b>	<b>12/19/2018</b>	<b>3</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/11/2019</b>	<b>38</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/10/2019</b>	<b>23</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/25/2020</b>	<b>39</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/17/2020</b>	<b>33</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/16/2021</b>	<b>42</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/14/2021</b>	<b>39</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/9/2022</b>	<b>39</b>	<b>TRUE</b>
GWC-15	12/15/2022	ND<2	FALSE

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<b>GWC-16A</b>	<b>6/14/2017</b>	<b>3.7</b>	<b>TRUE</b>
GWC-16A	12/13/2017	ND<2	FALSE
GWC-16A	6/21/2018	ND<2	FALSE
GWC-16A	12/19/2018	ND<2	FALSE
GWC-16A	6/13/2019	ND<2	FALSE
GWC-16A	12/11/2019	ND<2	FALSE
GWC-16A	6/23/2020	ND<2	FALSE
GWC-16A	12/17/2020	ND<2	FALSE
GWC-16A	6/16/2021	ND<2	FALSE
GWC-16A	12/16/2021	ND<2	FALSE
GWC-16A	6/9/2022	ND<2	FALSE
GWC-16A	12/14/2022	ND<2	FALSE

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GWC-17	6/14/2017	ND<2	FALSE
GWC-17	12/12/2017	ND<2	FALSE
GWC-17	6/19/2018	ND<2	FALSE
GWC-17	12/19/2018	ND<2	FALSE
GWC-17	6/12/2019	ND<2	FALSE
GWC-17	12/10/2019	ND<2	FALSE
GWC-17	6/23/2020	ND<2	FALSE
GWC-17	12/15/2020	ND<2	FALSE
GWC-17	6/14/2021	ND<2	FALSE
GWC-17	12/14/2021	ND<2	FALSE
GWC-17	6/9/2022	ND<2	FALSE
GWC-17	12/14/2022	ND<2	FALSE

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GWC-18	6/14/2017	ND<2	FALSE
GWC-18	12/13/2017	ND<2	FALSE
GWC-18	6/19/2018	ND<2	FALSE
GWC-18	12/18/2018	ND<2	FALSE
GWC-18	6/11/2019	ND<2	FALSE
GWC-18	12/9/2019	ND<2	FALSE
GWC-18	6/23/2020	ND<2	FALSE
GWC-18	12/15/2020	ND<2	FALSE
GWC-18	6/14/2021	ND<2	FALSE
GWC-18	12/14/2021	ND<2	FALSE
GWC-18	6/7/2022	ND<2	FALSE
GWC-18	12/14/2022	ND<2	FALSE

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GWC-19R	6/14/2017	ND<2	FALSE
GWC-19R	12/13/2017	ND<2	FALSE
GWC-19R	6/19/2018	ND<2	FALSE
GWC-19R	12/18/2018	ND<2	FALSE
GWC-19R	6/11/2019	ND<2	FALSE
GWC-19R	12/9/2019	ND<2	FALSE
GWC-19R	6/23/2020	ND<2	FALSE
GWC-19R	12/15/2020	ND<2	FALSE
GWC-19R	6/14/2021	ND<2	FALSE
GWC-19R	12/14/2021	ND<2	FALSE
GWC-19R	6/6/2022	ND<2	FALSE
GWC-19R	12/14/2022	ND<2	FALSE

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GWC-22	6/14/2017	ND<2	FALSE
GWC-22	12/11/2017	ND<2	FALSE
GWC-22	6/19/2018	ND<2	FALSE

GWC-22	12/18/2018	ND<2	FALSE
GWC-22	6/12/2019	ND<2	FALSE
GWC-22	12/11/2019	ND<2	FALSE
GWC-22	6/23/2020	ND<2	FALSE
GWC-22	12/17/2020	ND<2	FALSE
GWC-22	6/14/2021	ND<2	FALSE
GWC-22	12/13/2021	ND<2	FALSE
GWC-22	6/6/2022	ND<2	FALSE
GWC-22	12/12/2022	ND<2	FALSE

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GWC-23	6/14/2017	ND<2	FALSE
GWC-23	12/11/2017	ND<2	FALSE
GWC-23	6/18/2018	ND<2	FALSE
GWC-23	12/18/2018	ND<2	FALSE
GWC-23	6/12/2019	ND<2	FALSE
GWC-23	12/11/2019	ND<2	FALSE
GWC-23	6/24/2020	ND<2	FALSE
GWC-23	12/16/2020	ND<2	FALSE
GWC-23	6/14/2021	ND<2	FALSE
GWC-23	12/13/2021	ND<2	FALSE
GWC-23	6/6/2022	ND<2	FALSE
GWC-23	12/12/2022	ND<2	FALSE

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GWC-23A	6/14/2017	ND<2	FALSE
GWC-23A	12/11/2017	ND<2	FALSE
GWC-23A	6/18/2018	ND<2	FALSE
GWC-23A	12/18/2018	ND<2	FALSE
GWC-23A	6/12/2019	ND<2	FALSE
GWC-23A	12/11/2019	ND<2	FALSE
GWC-23A	6/24/2020	ND<2	FALSE
GWC-23A	12/16/2020	ND<2	FALSE
GWC-23A	6/14/2021	ND<2	FALSE
GWC-23A	12/13/2021	ND<2	FALSE
GWC-23A	6/6/2022	ND<2	FALSE
GWC-23A	12/12/2022	ND<2	FALSE

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GWC-24	6/14/2017	ND<2	FALSE
GWC-24	12/13/2017	ND<2	FALSE
GWC-24	6/19/2018	ND<2	FALSE
GWC-24	12/19/2018	ND<2	FALSE
GWC-24	6/11/2019	ND<2	FALSE
GWC-24	12/9/2019	ND<2	FALSE
GWC-24	6/24/2020	ND<2	FALSE
GWC-24	12/15/2020	ND<2	FALSE
GWC-24	6/14/2021	ND<2	FALSE
GWC-24	12/14/2021	ND<2	FALSE
GWC-24	6/7/2022	ND<2	FALSE
GWC-24	12/14/2022	ND<2	FALSE

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GWC-10	6/15/2017	ND<2	FALSE
GWC-10	12/12/2017	ND<2	FALSE
GWC-10	6/19/2018	ND<2	FALSE
GWC-10	12/17/2018	ND<2	FALSE
GWC-10	6/10/2019	ND<2	FALSE
GWC-10	12/12/2019	ND<2	FALSE

GWC-10	6/24/2020	ND<2	FALSE
GWC-10	12/15/2020	ND<2	FALSE
GWC-10	6/15/2021	ND<2	FALSE
GWC-10	12/15/2021	ND<2	FALSE
GWC-10	6/7/2022	ND<2	FALSE
GWC-10	12/14/2022	ND<2	FALSE

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GWC-10A	6/15/2017	ND<2	FALSE
GWC-10A	12/12/2017	ND<2	FALSE
GWC-10A	6/19/2018	ND<2	FALSE
GWC-10A	12/17/2018	ND<2	FALSE
GWC-10A	6/10/2019	ND<2	FALSE
GWC-10A	12/12/2019	ND<2	FALSE
GWC-10A	6/24/2020	ND<2	FALSE
GWC-10A	12/15/2020	ND<2	FALSE
GWC-10A	6/15/2021	ND<2	FALSE
GWC-10A	12/15/2021	ND<2	FALSE
GWC-10A	6/7/2022	ND<2	FALSE
GWC-10A	12/14/2022	ND<2	FALSE

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GWC-2	6/15/2017	ND<2	FALSE
GWC-2	12/13/2017	ND<2	FALSE
GWC-2	6/20/2018	ND<2	FALSE
GWC-2	12/19/2018	ND<2	FALSE
GWC-2	6/12/2019	ND<2	FALSE
GWC-2	12/10/2019	ND<2	FALSE
GWC-2	6/22/2020	ND<2	FALSE
GWC-2	12/16/2020	ND<2	FALSE
GWC-2	6/15/2021	ND<2	FALSE
GWC-2	12/15/2021	ND<2	FALSE
GWC-2	6/7/2022	ND<2	FALSE
GWC-2	12/12/2022	ND<2	FALSE

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GWC-3	6/15/2017	ND<2	FALSE
GWC-3	6/21/2018	ND<2	FALSE
GWC-3	12/17/2018	ND<2	FALSE
GWC-3	6/11/2019	ND<2	FALSE
GWC-3	12/10/2019	ND<2	FALSE
GWC-3	6/24/2020	ND<2	FALSE
GWC-3	12/16/2020	ND<2	FALSE
GWC-3	6/15/2021	ND<2	FALSE
GWC-3	12/15/2021	ND<2	FALSE
GWC-3	6/7/2022	ND<2	FALSE
GWC-3	12/12/2022	ND<2	FALSE

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GWC-3A	6/15/2017	ND<2	FALSE
GWC-3A	12/12/2017	ND<2	FALSE
GWC-3A	6/20/2018	ND<2	FALSE
GWC-3A	12/17/2018	ND<2	FALSE
GWC-3A	6/11/2019	ND<2	FALSE
GWC-3A	12/10/2019	ND<2	FALSE
GWC-3A	6/24/2020	ND<2	FALSE
GWC-3A	12/16/2020	ND<2	FALSE
GWC-3A	6/14/2021	ND<2	FALSE
GWC-3A	12/15/2021	ND<2	FALSE

GWC-3A	6/7/2022	ND<2	FALSE
GWC-3A	12/12/2022	ND<2	FALSE

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GWC-9	6/15/2017	ND<2	FALSE
GWC-9	12/13/2017	ND<2	FALSE
GWC-9	6/20/2018	ND<2	FALSE
GWC-9	12/18/2018	ND<2	FALSE
GWC-9	6/12/2019	ND<2	FALSE
GWC-9	12/12/2019	ND<2	FALSE
GWC-9	6/24/2020	ND<2	FALSE
GWC-9	12/17/2020	ND<2	FALSE
GWC-9	6/15/2021	ND<2	FALSE
GWC-9	12/13/2021	ND<2	FALSE
GWC-9	6/7/2022	ND<2	FALSE
GWC-9	12/14/2022	ND<2	FALSE

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GWC-8	12/12/2017	ND<2	FALSE
GWC-8	6/20/2018	ND<2	FALSE
GWC-8	12/19/2018	ND<2	FALSE
GWC-8	6/12/2019	ND<2	FALSE
GWC-8	12/11/2019	ND<2	FALSE
GWC-8	6/23/2020	ND<2	FALSE
GWC-8	12/16/2020	ND<2	FALSE
GWC-8	6/16/2021	ND<2	FALSE
GWC-8	12/15/2021	ND<2	FALSE
GWC-8	6/9/2022	ND<2	FALSE
GWC-8	12/13/2022	ND<2	FALSE

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GWC-4	6/20/2018	ND<2	FALSE
GWC-4	6/23/2020	ND<2	FALSE
GWC-4	12/17/2020	ND<2	FALSE
GWC-4	6/16/2021	ND<2	FALSE
GWC-4	12/14/2021	ND<2	FALSE
GWC-4	6/8/2022	ND<2	FALSE
GWC-4	12/12/2022	ND<2	FALSE

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## Non-Parametric Tolerance Interval

### Parameter: Barium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 36.0434%

Background measurements (n) = 25

Maximum Background Concentration = 39.5

Minimum Coverage = 88.7%

Average Coverage = 96.1538%

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Location	Date	Value	Significant
GWA-1A	6/12/2017	36	FALSE
GWA-1A	12/13/2017	33	FALSE
GWA-1A	6/20/2018	30	FALSE
GWA-1A	12/18/2018	32	FALSE
<b>GWA-1A</b>	<b>6/10/2019</b>	<b>41</b>	<b>TRUE</b>
GWA-1A	12/9/2019	30	FALSE
GWA-1A	6/23/2020	30.3	FALSE
GWA-1A	12/17/2020	31.9	FALSE
GWA-1A	6/17/2021	37.4	FALSE
GWA-1A	12/16/2021	32.3	FALSE
GWA-1A	6/8/2022	31.8	FALSE
GWA-1A	12/14/2022	34.8	FALSE

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<b>GWC-14A</b>	<b>6/13/2017</b>	<b>210</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/13/2017</b>	<b>180</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/21/2018</b>	<b>190</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/19/2018</b>	<b>180</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/12/2019</b>	<b>170</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/11/2019</b>	<b>170</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/24/2020</b>	<b>171</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/16/2020</b>	<b>171</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/16/2021</b>	<b>173</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/15/2021</b>	<b>179</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/10/2022</b>	<b>167</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/14/2022</b>	<b>181</b>	<b>TRUE</b>

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GWC-5	6/13/2017	ND<20	FALSE
GWC-5	12/13/2017	ND<20	FALSE
GWC-5	6/21/2018	ND<20	FALSE
GWC-5	12/19/2018	ND<20	FALSE
GWC-5	6/13/2019	ND<20	FALSE
GWC-5	12/11/2019	ND<20	FALSE
GWC-5	6/24/2020	ND<20	FALSE
GWC-5	12/18/2020	ND<20	FALSE
GWC-5	6/16/2021	ND<20	FALSE
GWC-5	12/14/2021	ND<20	FALSE
GWC-5	6/9/2022	ND<20	FALSE
GWC-5	12/13/2022	ND<20	FALSE

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GWC-6	6/13/2017	ND<20	FALSE
GWC-6	12/14/2017	ND<20	FALSE
GWC-6	6/21/2018	37	FALSE

GWC-6	12/20/2018	ND<20	FALSE
GWC-6	6/13/2019	ND<20	FALSE
GWC-6	12/11/2019	ND<20	FALSE
GWC-6	6/25/2020	ND<20	FALSE
GWC-6	12/18/2020	ND<20	FALSE
GWC-6	6/16/2021	ND<20	FALSE
GWC-6	12/14/2021	ND<20	FALSE
GWC-6	6/9/2022	ND<20	FALSE
GWC-6	12/15/2022	ND<20	FALSE

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<b>GWC-7</b>	<b>6/13/2017</b>	<b>52</b>	<b>TRUE</b>
<b>GWC-7</b>	<b>12/13/2017</b>	<b>46</b>	<b>TRUE</b>
<b>GWC-7</b>	<b>6/20/2018</b>	<b>49</b>	<b>TRUE</b>
<b>GWC-7</b>	<b>12/19/2018</b>	<b>51</b>	<b>TRUE</b>
<b>GWC-7</b>	<b>6/13/2019</b>	<b>48</b>	<b>TRUE</b>
<b>GWC-7</b>	<b>12/12/2019</b>	<b>49.9</b>	<b>TRUE</b>
GWC-7	6/25/2020	36.4	FALSE
GWC-7	12/18/2020	38.8	FALSE
GWC-7	6/16/2021	36.9	FALSE
<b>GWC-7</b>	<b>12/14/2021</b>	<b>41.8</b>	<b>TRUE</b>
GWC-7	6/9/2022	36.4	FALSE
GWC-7	12/13/2022	35.6	FALSE

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<b>GWC-15</b>	<b>6/14/2017</b>	<b>120</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/14/2017</b>	<b>99</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/20/2018</b>	<b>98</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/19/2018</b>	<b>58</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/11/2019</b>	<b>60</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/10/2019</b>	<b>42.3</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/25/2020</b>	<b>62.7</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/17/2020</b>	<b>54.7</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/16/2021</b>	<b>69.4</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/14/2021</b>	<b>73.4</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/9/2022</b>	<b>70.8</b>	<b>TRUE</b>
GWC-15	12/15/2022	34.4	FALSE

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GWC-4A	6/14/2017	33	FALSE
<b>GWC-4A</b>	<b>12/13/2017</b>	<b>81</b>	<b>TRUE</b>
GWC-4A	6/21/2018	22	FALSE
GWC-4A	12/18/2018	25	FALSE
<b>GWC-4A</b>	<b>6/12/2019</b>	<b>74</b>	<b>TRUE</b>
GWC-4A	12/12/2019	ND<20	FALSE
GWC-4A	6/24/2020	29.9	FALSE
GWC-4A	12/18/2020	30.5	FALSE
GWC-4A	6/18/2021	35.7	FALSE
GWC-4A	12/16/2021	ND<20	FALSE
GWC-4A	6/8/2022	36.3	FALSE
GWC-4A	12/15/2022	33	FALSE

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<b>GWC-8A</b>	<b>6/14/2017</b>	<b>66</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/13/2017</b>	<b>42</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/21/2018</b>	<b>51</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/20/2018</b>	<b>55</b>	<b>TRUE</b>
GWC-8A	6/13/2019	33	FALSE
<b>GWC-8A</b>	<b>12/12/2019</b>	<b>56</b>	<b>TRUE</b>



<b>GWC-8A</b>	<b>6/24/2020</b>	<b>43.9</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/16/2020</b>	<b>46.8</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/17/2021</b>	<b>52.4</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/16/2021</b>	<b>49.7</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/10/2022</b>	<b>39.9</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/14/2022</b>	<b>52.7</b>	<b>TRUE</b>

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GWA-3	6/15/2017	ND<20	FALSE
GWA-3	12/12/2017	ND<20	FALSE
GWA-3	6/19/2018	ND<20	FALSE
GWA-3	12/18/2018	ND<20	FALSE
GWA-3	6/12/2019	ND<20	FALSE
GWA-3	12/11/2019	22.9	FALSE
GWA-3	6/23/2020	ND<20	FALSE
GWA-3	12/17/2020	ND<20	FALSE
GWA-3	6/15/2021	ND<20	FALSE
GWA-3	12/15/2021	ND<20	FALSE
GWA-3	6/7/2022	ND<20	FALSE
GWA-3	12/14/2022	ND<20	FALSE

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GWC-11	6/15/2017	24	FALSE
<b>GWC-11</b>	<b>12/14/2017</b>	<b>42</b>	<b>TRUE</b>
GWC-11	6/20/2018	21	FALSE
GWC-11	12/20/2018	ND<20	FALSE
<b>GWC-11</b>	<b>6/13/2019</b>	<b>40</b>	<b>TRUE</b>
GWC-11	12/13/2019	35.9	FALSE
GWC-11	6/25/2020	25.9	FALSE
GWC-11	12/16/2020	25.4	FALSE
GWC-11	6/16/2021	22.1	FALSE
GWC-11	12/14/2021	23.3	FALSE
GWC-11	6/8/2022	ND<20	FALSE
GWC-11	12/13/2022	23.2	FALSE

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GWC-12	6/15/2017	ND<20	FALSE
GWC-12	12/14/2017	ND<20	FALSE
GWC-12	6/20/2018	ND<20	FALSE
GWC-12	12/20/2018	34	FALSE
GWC-12	6/12/2019	20	FALSE
GWC-12	12/10/2019	ND<20	FALSE
GWC-12	6/25/2020	ND<20	FALSE
GWC-12	12/22/2020	22.6	FALSE
GWC-12	6/16/2021	ND<20	FALSE
GWC-12	12/14/2021	ND<20	FALSE
GWC-12	6/8/2022	ND<20	FALSE
GWC-12	12/13/2022	ND<20	FALSE

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GWC-12A	6/15/2017	ND<20	FALSE
GWC-12A	12/14/2017	ND<20	FALSE
GWC-12A	6/20/2018	ND<20	FALSE
GWC-12A	12/20/2018	ND<20	FALSE
GWC-12A	6/12/2019	ND<20	FALSE
GWC-12A	12/10/2019	ND<20	FALSE
GWC-12A	6/25/2020	ND<20	FALSE
GWC-12A	12/16/2020	ND<20	FALSE
GWC-12A	6/16/2021	ND<20	FALSE

GWC-12A	12/14/2021	ND<20	FALSE
GWC-12A	6/8/2022	ND<20	FALSE
GWC-12A	12/13/2022	ND<20	FALSE

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GWC-13	6/15/2017	ND<20	FALSE
GWC-13	12/13/2017	ND<20	FALSE
GWC-13	6/20/2018	36	FALSE
GWC-13	12/20/2018	ND<20	FALSE
GWC-13	6/13/2019	ND<20	FALSE
GWC-13	12/12/2019	32.7	FALSE
GWC-13	6/24/2020	ND<20	FALSE
GWC-13	12/16/2020	ND<20	FALSE
GWC-13	6/16/2021	ND<20	FALSE
GWC-13	12/16/2021	ND<20	FALSE
GWC-13	6/9/2022	ND<20	FALSE
GWC-13	12/13/2022	ND<20	FALSE

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<b>GWC-16A</b>	<b>6/15/2017</b>	<b>170</b>	<b>TRUE</b>
GWC-16A	12/14/2017	29	FALSE
GWC-16A	6/21/2018	34	FALSE
GWC-16A	12/20/2018	24	FALSE
GWC-16A	6/13/2019	26	FALSE
GWC-16A	12/12/2019	26.7	FALSE
GWC-16A	6/23/2020	23.6	FALSE
GWC-16A	12/17/2020	25.2	FALSE
GWC-16A	6/16/2021	24.3	FALSE
GWC-16A	12/16/2021	23.6	FALSE
GWC-16A	6/10/2022	ND<20	FALSE
GWC-16A	12/15/2022	23.6	FALSE

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<b>GWC-17</b>	<b>6/15/2017</b>	<b>45</b>	<b>TRUE</b>
GWC-17	12/13/2017	35	FALSE
GWC-17	6/20/2018	34	FALSE
<b>GWC-17</b>	<b>12/20/2018</b>	<b>69</b>	<b>TRUE</b>
<b>GWC-17</b>	<b>6/13/2019</b>	<b>43</b>	<b>TRUE</b>
GWC-17	12/11/2019	37.1	FALSE
GWC-17	6/24/2020	30.9	FALSE
<b>GWC-17</b>	<b>12/16/2020</b>	<b>40.7</b>	<b>TRUE</b>
GWC-17	6/15/2021	38.3	FALSE
GWC-17	12/15/2021	39.2	FALSE
<b>GWC-17</b>	<b>6/10/2022</b>	<b>41.1</b>	<b>TRUE</b>
GWC-17	12/15/2022	36.5	FALSE

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<b>GWC-18</b>	<b>6/15/2017</b>	<b>180</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>12/14/2017</b>	<b>150</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>6/20/2018</b>	<b>280</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>12/19/2018</b>	<b>140</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>6/12/2019</b>	<b>230</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>12/10/2019</b>	<b>181</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>6/24/2020</b>	<b>168</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>12/16/2020</b>	<b>160</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>6/15/2021</b>	<b>165</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>12/15/2021</b>	<b>141</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>6/8/2022</b>	<b>196</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>12/15/2022</b>	<b>178</b>	<b>TRUE</b>

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<b>GWC-19R</b>	<b>6/15/2017</b>	<b>97</b>	<b>TRUE</b>
<b>GWC-19R</b>	<b>12/14/2017</b>	<b>120</b>	<b>TRUE</b>
<b>GWC-19R</b>	<b>6/20/2018</b>	<b>81</b>	<b>TRUE</b>
<b>GWC-19R</b>	<b>12/19/2018</b>	<b>160</b>	<b>TRUE</b>
<b>GWC-19R</b>	<b>6/12/2019</b>	<b>97</b>	<b>TRUE</b>
<b>GWC-19R</b>	<b>12/10/2019</b>	<b>89.2</b>	<b>TRUE</b>
<b>GWC-19R</b>	<b>6/24/2020</b>	<b>83</b>	<b>TRUE</b>
<b>GWC-19R</b>	<b>12/16/2020</b>	<b>76.5</b>	<b>TRUE</b>
<b>GWC-19R</b>	<b>6/15/2021</b>	<b>82.2</b>	<b>TRUE</b>
<b>GWC-19R</b>	<b>12/15/2021</b>	<b>87</b>	<b>TRUE</b>
<b>GWC-19R</b>	<b>6/7/2022</b>	<b>85.6</b>	<b>TRUE</b>
<b>GWC-19R</b>	<b>12/15/2022</b>	<b>180</b>	<b>TRUE</b>

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GWC-22	6/15/2017	28	FALSE
GWC-22	12/12/2017	ND<20	FALSE
GWC-22	6/20/2018	24	FALSE
GWC-22	12/19/2018	21	FALSE
GWC-22	6/13/2019	21	FALSE
GWC-22	12/12/2019	21.5	FALSE
GWC-22	6/24/2020	22.1	FALSE
GWC-22	12/18/2020	20.4	FALSE
GWC-22	6/15/2021	28	FALSE
GWC-22	12/14/2021	24.6	FALSE
GWC-22	6/7/2022	25.8	FALSE
GWC-22	12/13/2022	24.1	FALSE

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GWC-23	6/15/2017	ND<20	FALSE
GWC-23	12/12/2017	ND<20	FALSE
GWC-23	6/19/2018	ND<20	FALSE
GWC-23	12/19/2018	ND<20	FALSE
GWC-23	6/13/2019	ND<20	FALSE
GWC-23	12/12/2019	ND<20	FALSE
GWC-23	6/24/2020	ND<20	FALSE
GWC-23	12/17/2020	ND<20	FALSE
GWC-23	6/15/2021	ND<20	FALSE
GWC-23	12/14/2021	ND<20	FALSE
GWC-23	6/7/2022	ND<20	FALSE
GWC-23	12/13/2022	ND<20	FALSE

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GWC-23A	6/15/2017	ND<20	FALSE
GWC-23A	12/12/2017	ND<20	FALSE
GWC-23A	6/19/2018	ND<20	FALSE
GWC-23A	12/19/2018	ND<20	FALSE
GWC-23A	6/13/2019	ND<20	FALSE
GWC-23A	12/12/2019	ND<20	FALSE
GWC-23A	6/24/2020	ND<20	FALSE
GWC-23A	12/17/2020	ND<20	FALSE
GWC-23A	6/15/2021	ND<20	FALSE
GWC-23A	12/14/2021	ND<20	FALSE
GWC-23A	6/7/2022	ND<20	FALSE
GWC-23A	12/13/2022	ND<20	FALSE

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GWC-24	6/15/2017	ND<20	FALSE
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GWC-24	6/20/2018	ND<20	FALSE
GWC-24	6/12/2019	20	FALSE
GWC-24	12/10/2019	27.4	FALSE
GWC-24	6/25/2020	25.8	FALSE
GWC-24	6/15/2021	ND<20	FALSE
GWC-24	6/8/2022	ND<20	FALSE
GWC-24	12/15/2022	ND<20	FALSE

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GWC-10	6/16/2017	20	FALSE
<b>GWC-10</b>	<b>12/13/2017</b>	<b>48</b>	<b>TRUE</b>
GWC-10	6/20/2018	ND<20	FALSE
GWC-10	12/18/2018	ND<20	FALSE
GWC-10	6/11/2019	22	FALSE
GWC-10	12/13/2019	ND<20	FALSE
GWC-10	6/25/2020	ND<20	FALSE
GWC-10	12/16/2020	ND<20	FALSE
GWC-10	6/16/2021	ND<20	FALSE
GWC-10	12/16/2021	ND<20	FALSE
GWC-10	6/8/2022	ND<20	FALSE
GWC-10	12/15/2022	ND<20	FALSE

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GWC-10A	6/16/2017	31	FALSE
GWC-10A	12/13/2017	32	FALSE
GWC-10A	6/20/2018	34	FALSE
GWC-10A	12/18/2018	35	FALSE
GWC-10A	6/11/2019	33	FALSE
GWC-10A	12/13/2019	35.2	FALSE
GWC-10A	6/25/2020	29.6	FALSE
GWC-10A	12/16/2020	32.5	FALSE
GWC-10A	6/16/2021	31.5	FALSE
GWC-10A	12/16/2021	33.5	FALSE
GWC-10A	6/8/2022	31.8	FALSE
GWC-10A	12/15/2022	38.6	FALSE

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GWC-2	6/16/2017	ND<20	FALSE
GWC-2	12/14/2017	ND<20	FALSE
GWC-2	6/21/2018	ND<20	FALSE
GWC-2	12/20/2018	ND<20	FALSE
GWC-2	6/13/2019	ND<20	FALSE
GWC-2	12/11/2019	ND<20	FALSE
GWC-2	6/23/2020	27.5	FALSE
GWC-2	12/17/2020	ND<20	FALSE
GWC-2	6/16/2021	ND<20	FALSE
GWC-2	12/16/2021	ND<20	FALSE
GWC-2	6/8/2022	ND<20	FALSE
GWC-2	12/13/2022	ND<20	FALSE

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<b>GWC-3A</b>	<b>6/16/2017</b>	<b>40</b>	<b>TRUE</b>
GWC-3A	12/13/2017	38	FALSE
GWC-3A	6/21/2018	39	FALSE
GWC-3A	12/18/2018	38	FALSE
<b>GWC-3A</b>	<b>6/12/2019</b>	<b>46</b>	<b>TRUE</b>
<b>GWC-3A</b>	<b>12/11/2019</b>	<b>40.7</b>	<b>TRUE</b>
GWC-3A	6/25/2020	37.1	FALSE
GWC-3A	12/17/2020	31.6	FALSE

GWC-3A	6/15/2021	36.5	FALSE
GWC-3A	12/16/2021	32.8	FALSE
GWC-3A	6/8/2022	32.3	FALSE
GWC-3A	12/13/2022	35.4	FALSE

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<b>GWC-9</b>	<b>6/16/2017</b>	<b>58</b>	<b>TRUE</b>
<b>GWC-9</b>	<b>12/14/2017</b>	<b>54</b>	<b>TRUE</b>
<b>GWC-9</b>	<b>6/21/2018</b>	<b>73</b>	<b>TRUE</b>
<b>GWC-9</b>	<b>12/19/2018</b>	<b>53</b>	<b>TRUE</b>
<b>GWC-9</b>	<b>6/13/2019</b>	<b>80</b>	<b>TRUE</b>
<b>GWC-9</b>	<b>12/13/2019</b>	<b>67.9</b>	<b>TRUE</b>
<b>GWC-9</b>	<b>6/25/2020</b>	<b>78.5</b>	<b>TRUE</b>
<b>GWC-9</b>	<b>12/18/2020</b>	<b>90</b>	<b>TRUE</b>
<b>GWC-9</b>	<b>6/16/2021</b>	<b>64.3</b>	<b>TRUE</b>
<b>GWC-9</b>	<b>12/14/2021</b>	<b>100</b>	<b>TRUE</b>
<b>GWC-9</b>	<b>6/8/2022</b>	<b>55.7</b>	<b>TRUE</b>
<b>GWC-9</b>	<b>12/15/2022</b>	<b>87.8</b>	<b>TRUE</b>

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GWC-8	12/13/2017	23	FALSE
GWC-8	6/21/2018	ND<20	FALSE
GWC-8	6/13/2019	30	FALSE
GWC-8	12/12/2019	28.6	FALSE
<b>GWC-8</b>	<b>6/24/2020</b>	<b>52.4</b>	<b>TRUE</b>
GWC-8	12/17/2020	33	FALSE
<b>GWC-8</b>	<b>6/17/2021</b>	<b>42.5</b>	<b>TRUE</b>
GWC-8	12/16/2021	33.5	FALSE
GWC-8	6/10/2022	33.5	FALSE
GWC-8	12/14/2022	34	FALSE

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GWC-14	6/21/2018	35	FALSE
GWC-14	6/12/2019	35	FALSE
<b>GWC-14</b>	<b>12/11/2019</b>	<b>41.2</b>	<b>TRUE</b>
GWC-14	6/25/2020	ND<20	FALSE
<b>GWC-14</b>	<b>12/18/2020</b>	<b>72.2</b>	<b>TRUE</b>
GWC-14	6/16/2021	24	FALSE
<b>GWC-14</b>	<b>12/16/2021</b>	<b>47.3</b>	<b>TRUE</b>
GWC-14	6/10/2022	20.8	FALSE

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GWC-3	6/21/2018	ND<20	FALSE
GWC-3	12/18/2018	ND<20	FALSE
GWC-3	6/12/2019	ND<20	FALSE
GWC-3	12/11/2019	ND<20	FALSE
GWC-3	6/25/2020	ND<20	FALSE
GWC-3	12/17/2020	ND<20	FALSE
GWC-3	6/16/2021	ND<20	FALSE
GWC-3	12/16/2021	ND<20	FALSE
GWC-3	6/8/2022	ND<20	FALSE

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GWC-4	6/21/2018	20	FALSE
GWC-4	6/24/2020	25.6	FALSE
GWC-4	12/18/2020	31.5	FALSE
GWC-4	6/17/2021	24.5	FALSE
GWC-4	12/15/2021	21	FALSE
GWC-4	6/9/2022	ND<20	FALSE

GWC-4	12/13/2022	20	FALSE
<b>GWC-14R</b>	<b>6/9/2022</b>	<b>94.1</b>	<b>TRUE</b>
GWC-8R	6/9/2022	35.8	FALSE

## Non-Parametric Tolerance Interval

### Parameter: Benzene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 93.25%

Background measurements (n) = 25

Maximum Background Concentration = 2

Minimum Coverage = 88.7%

Average Coverage = 96.1538%

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Location	Date	Value	Significant
GWA-1A	6/12/2017	ND<2	FALSE
GWA-1A	12/13/2017	ND<2	FALSE
GWA-1A	6/19/2018	ND<2	FALSE
GWA-1A	12/18/2018	ND<2	FALSE
GWA-1A	6/10/2019	ND<2	FALSE
GWA-1A	12/9/2019	ND<2	FALSE
GWA-1A	6/23/2020	ND<2	FALSE
GWA-1A	12/17/2020	ND<2	FALSE
GWA-1A	6/17/2021	ND<2	FALSE
GWA-1A	12/16/2021	ND<2	FALSE
GWA-1A	6/8/2022	ND<2	FALSE
GWA-1A	12/14/2022	ND<2	FALSE

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GWC-5	6/12/2017	ND<2	FALSE
GWC-5	12/12/2017	ND<2	FALSE
GWC-5	6/21/2018	ND<2	FALSE
GWC-5	12/18/2018	ND<2	FALSE
GWC-5	6/12/2019	ND<2	FALSE
GWC-5	12/10/2019	ND<2	FALSE
GWC-5	6/23/2020	ND<2	FALSE
GWC-5	12/17/2020	ND<2	FALSE
GWC-5	6/15/2021	ND<2	FALSE
GWC-5	12/13/2021	ND<2	FALSE
GWC-5	6/8/2022	ND<2	FALSE
GWC-5	12/12/2022	ND<2	FALSE

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GWC-6	6/12/2017	ND<2	FALSE
GWC-6	12/13/2017	ND<2	FALSE
GWC-6	6/21/2018	ND<2	FALSE
GWC-6	12/19/2018	ND<2	FALSE
GWC-6	6/12/2019	ND<2	FALSE
GWC-6	12/10/2019	ND<2	FALSE
GWC-6	6/24/2020	ND<2	FALSE
GWC-6	12/17/2020	ND<2	FALSE
GWC-6	6/15/2021	ND<2	FALSE
GWC-6	12/13/2021	ND<2	FALSE
GWC-6	6/8/2022	ND<2	FALSE
GWC-6	12/14/2022	ND<2	FALSE

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GWC-7	6/12/2017	ND<2	FALSE
GWC-7	12/12/2017	ND<2	FALSE
GWC-7	6/19/2018	ND<2	FALSE

GWC-7	12/18/2018	ND<2	FALSE
GWC-7	6/12/2019	ND<2	FALSE
GWC-7	12/11/2019	ND<2	FALSE
GWC-7	6/24/2020	ND<2	FALSE
GWC-7	12/17/2020	ND<2	FALSE
GWC-7	6/15/2021	ND<2	FALSE
GWC-7	12/13/2021	ND<2	FALSE
GWC-7	6/8/2022	ND<2	FALSE
GWC-7	12/12/2022	ND<2	FALSE

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GWC-14	6/13/2017	ND<2	FALSE
GWC-14	6/20/2018	ND<2	FALSE
GWC-14	6/11/2019	ND<2	FALSE
GWC-14	12/10/2019	ND<2	FALSE
GWC-14	6/24/2020	ND<2	FALSE
GWC-14	12/17/2020	ND<2	FALSE
GWC-14	6/15/2021	ND<2	FALSE
GWC-14	12/15/2021	ND<2	FALSE
GWC-14	6/9/2022	ND<2	FALSE
GWC-14	12/13/2022	ND<2	FALSE

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<b>GWC-14A</b>	<b>6/13/2017</b>	<b>2.8</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/12/2017</b>	<b>3</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/20/2018</b>	<b>2.8</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/19/2018</b>	<b>2.5</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/11/2019</b>	<b>2.1</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/10/2019</b>	<b>2.6</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/24/2020</b>	<b>2.5</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/15/2020</b>	<b>2.9</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/15/2021</b>	<b>2.6</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/14/2021</b>	<b>3</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/9/2022</b>	<b>2.5</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/13/2022</b>	<b>3.3</b>	<b>TRUE</b>

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GWC-14R	6/13/2017	ND<2	FALSE
GWC-14R	12/12/2017	ND<2	FALSE
GWC-14R	6/20/2018	ND<2	FALSE
GWC-14R	12/19/2018	ND<2	FALSE
GWC-14R	6/12/2019	ND<2	FALSE
GWC-14R	12/10/2019	ND<2	FALSE
GWC-14R	6/23/2020	ND<2	FALSE
GWC-14R	12/17/2020	ND<2	FALSE
GWC-14R	6/16/2021	ND<2	FALSE
GWC-14R	12/14/2021	ND<2	FALSE
GWC-14R	6/9/2022	ND<2	FALSE
GWC-14R	12/13/2022	ND<2	FALSE

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GWC-4A	6/13/2017	ND<2	FALSE
GWC-4A	12/12/2017	ND<2	FALSE
GWC-4A	6/20/2018	ND<2	FALSE
GWC-4A	12/17/2018	ND<2	FALSE
GWC-4A	6/11/2019	ND<2	FALSE
GWC-4A	12/11/2019	ND<2	FALSE
GWC-4A	6/23/2020	ND<2	FALSE
GWC-4A	12/17/2020	ND<2	FALSE



GWC-4A	6/17/2021	ND<2	FALSE
GWC-4A	12/15/2021	ND<2	FALSE
GWC-4A	6/8/2022	ND<2	FALSE
GWC-4A	12/14/2022	ND<2	FALSE

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<b>GWC-8A</b>	<b>6/13/2017</b>	<b>2.3</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/12/2017</b>	<b>3.8</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/20/2018</b>	<b>2.7</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/19/2018</b>	<b>3.3</b>	<b>TRUE</b>
GWC-8A	6/12/2019	ND<2	FALSE
<b>GWC-8A</b>	<b>12/11/2019</b>	<b>2.8</b>	<b>TRUE</b>
GWC-8A	6/23/2020	ND<2	FALSE
<b>GWC-8A</b>	<b>12/15/2020</b>	<b>2.3</b>	<b>TRUE</b>
GWC-8A	6/16/2021	ND<2	FALSE
GWC-8A	12/15/2021	ND<2	FALSE
GWC-8A	6/9/2022	2	FALSE
<b>GWC-8A</b>	<b>12/13/2022</b>	<b>2.4</b>	<b>TRUE</b>

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GWC-8R	6/13/2017	ND<2	FALSE
GWC-8R	12/12/2017	ND<2	FALSE
GWC-8R	6/20/2018	ND<2	FALSE
GWC-8R	12/19/2018	ND<2	FALSE
GWC-8R	6/12/2019	ND<2	FALSE
GWC-8R	12/11/2019	ND<2	FALSE
GWC-8R	6/23/2020	ND<2	FALSE
GWC-8R	12/15/2020	ND<2	FALSE
GWC-8R	6/16/2021	2	FALSE
GWC-8R	12/15/2021	ND<2	FALSE
GWC-8R	6/9/2022	ND<2	FALSE
GWC-8R	12/13/2022	ND<2	FALSE

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GWA-3	6/14/2017	ND<2	FALSE
GWA-3	12/11/2017	ND<2	FALSE
GWA-3	6/18/2018	ND<2	FALSE
GWA-3	12/17/2018	ND<2	FALSE
GWA-3	6/11/2019	ND<2	FALSE
GWA-3	12/10/2019	ND<2	FALSE
GWA-3	6/22/2020	ND<2	FALSE
GWA-3	12/16/2020	ND<2	FALSE
GWA-3	6/14/2021	ND<2	FALSE
GWA-3	12/14/2021	ND<2	FALSE
GWA-3	6/6/2022	ND<2	FALSE
GWA-3	12/13/2022	ND<2	FALSE

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GWC-11	6/14/2017	ND<2	FALSE
GWC-11	12/13/2017	ND<2	FALSE
GWC-11	6/19/2018	ND<2	FALSE
GWC-11	12/19/2018	ND<2	FALSE
GWC-11	6/12/2019	ND<2	FALSE
GWC-11	12/12/2019	ND<2	FALSE
GWC-11	6/24/2020	ND<2	FALSE
GWC-11	12/15/2020	ND<2	FALSE
GWC-11	6/15/2021	ND<2	FALSE
GWC-11	12/13/2021	ND<2	FALSE
GWC-11	6/7/2022	ND<2	FALSE

GWC-11	12/12/2022	ND<2	FALSE
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GWC-12	6/14/2017	ND<2	FALSE
GWC-12	12/13/2017	ND<2	FALSE
GWC-12	6/19/2018	ND<2	FALSE
GWC-12	12/19/2018	ND<2	FALSE
GWC-12	6/11/2019	ND<2	FALSE
GWC-12	12/9/2019	ND<2	FALSE
GWC-12	6/24/2020	ND<2	FALSE
GWC-12	12/15/2020	ND<2	FALSE
GWC-12	6/15/2021	ND<2	FALSE
GWC-12	12/13/2021	ND<2	FALSE
GWC-12	6/7/2022	ND<2	FALSE
GWC-12	12/12/2022	ND<2	FALSE

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GWC-12A	6/14/2017	ND<2	FALSE
GWC-12A	12/13/2017	ND<2	FALSE
GWC-12A	6/19/2018	ND<2	FALSE
GWC-12A	12/19/2018	ND<2	FALSE
GWC-12A	6/11/2019	ND<2	FALSE
GWC-12A	12/9/2019	ND<2	FALSE
GWC-12A	6/24/2020	ND<2	FALSE
GWC-12A	12/15/2020	ND<2	FALSE
GWC-12A	6/15/2021	ND<2	FALSE
GWC-12A	12/13/2021	ND<2	FALSE
GWC-12A	6/7/2022	ND<2	FALSE
GWC-12A	12/12/2022	ND<2	FALSE

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GWC-13	6/14/2017	ND<2	FALSE
GWC-13	12/12/2017	ND<2	FALSE
GWC-13	6/19/2018	ND<2	FALSE
GWC-13	12/19/2018	ND<2	FALSE
GWC-13	6/12/2019	ND<2	FALSE
GWC-13	12/11/2019	ND<2	FALSE
GWC-13	6/23/2020	ND<2	FALSE
GWC-13	12/15/2020	ND<2	FALSE
GWC-13	6/15/2021	ND<2	FALSE
GWC-13	12/15/2021	ND<2	FALSE
GWC-13	6/8/2022	ND<2	FALSE
GWC-13	12/12/2022	ND<2	FALSE

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GWC-15	6/14/2017	ND<2	FALSE
GWC-15	12/13/2017	ND<2	FALSE
GWC-15	6/19/2018	ND<2	FALSE
GWC-15	12/19/2018	ND<2	FALSE
<b>GWC-15</b>	<b>6/11/2019</b>	<b>3.1</b>	<b>TRUE</b>
GWC-15	12/10/2019	ND<2	FALSE
<b>GWC-15</b>	<b>6/25/2020</b>	<b>3.6</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/17/2020</b>	<b>3.1</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/16/2021</b>	<b>3.9</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/14/2021</b>	<b>3.7</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/9/2022</b>	<b>4.2</b>	<b>TRUE</b>
GWC-15	12/15/2022	ND<2	FALSE

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GWC-16A	6/14/2017	ND<2	FALSE
GWC-16A	12/13/2017	ND<2	FALSE
GWC-16A	6/21/2018	ND<2	FALSE
GWC-16A	12/19/2018	ND<2	FALSE
GWC-16A	6/13/2019	ND<2	FALSE
GWC-16A	12/11/2019	ND<2	FALSE
GWC-16A	6/23/2020	ND<2	FALSE
GWC-16A	12/17/2020	ND<2	FALSE
GWC-16A	6/16/2021	ND<2	FALSE
GWC-16A	12/16/2021	ND<2	FALSE
GWC-16A	6/9/2022	ND<2	FALSE
GWC-16A	12/14/2022	ND<2	FALSE

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GWC-17	6/14/2017	ND<2	FALSE
GWC-17	12/12/2017	ND<2	FALSE
GWC-17	6/19/2018	ND<2	FALSE
GWC-17	12/19/2018	ND<2	FALSE
GWC-17	6/12/2019	ND<2	FALSE
GWC-17	12/10/2019	ND<2	FALSE
GWC-17	6/23/2020	ND<2	FALSE
GWC-17	12/15/2020	ND<2	FALSE
GWC-17	6/14/2021	ND<2	FALSE
GWC-17	12/14/2021	ND<2	FALSE
GWC-17	6/9/2022	ND<2	FALSE
GWC-17	12/14/2022	ND<2	FALSE

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GWC-18	6/14/2017	ND<2	FALSE
GWC-18	12/13/2017	ND<2	FALSE
GWC-18	6/19/2018	ND<2	FALSE
GWC-18	12/18/2018	ND<2	FALSE
GWC-18	6/11/2019	ND<2	FALSE
GWC-18	12/9/2019	ND<2	FALSE
GWC-18	6/23/2020	ND<2	FALSE
GWC-18	12/15/2020	ND<2	FALSE
GWC-18	6/14/2021	ND<2	FALSE
GWC-18	12/14/2021	ND<2	FALSE
GWC-18	6/7/2022	ND<2	FALSE
GWC-18	12/14/2022	ND<2	FALSE

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GWC-19R	6/14/2017	ND<2	FALSE
GWC-19R	12/13/2017	ND<2	FALSE
GWC-19R	6/19/2018	ND<2	FALSE
GWC-19R	12/18/2018	ND<2	FALSE
GWC-19R	6/11/2019	ND<2	FALSE
GWC-19R	12/9/2019	ND<2	FALSE
GWC-19R	6/23/2020	ND<2	FALSE
GWC-19R	12/15/2020	ND<2	FALSE
GWC-19R	6/14/2021	ND<2	FALSE
GWC-19R	12/14/2021	ND<2	FALSE
GWC-19R	6/6/2022	ND<2	FALSE
GWC-19R	12/14/2022	ND<2	FALSE

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GWC-22	6/14/2017	ND<2	FALSE
GWC-22	12/11/2017	ND<2	FALSE
GWC-22	6/19/2018	ND<2	FALSE

GWC-22	12/18/2018	ND<2	FALSE
GWC-22	6/12/2019	ND<2	FALSE
GWC-22	12/11/2019	ND<2	FALSE
GWC-22	6/23/2020	ND<2	FALSE
GWC-22	12/17/2020	ND<2	FALSE
GWC-22	6/14/2021	ND<2	FALSE
GWC-22	12/13/2021	ND<2	FALSE
GWC-22	6/6/2022	ND<2	FALSE
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GWC-23	6/14/2017	ND<2	FALSE
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GWC-23	6/18/2018	ND<2	FALSE
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GWC-23	6/12/2019	ND<2	FALSE
GWC-23	12/11/2019	ND<2	FALSE
GWC-23	6/24/2020	ND<2	FALSE
GWC-23	12/16/2020	ND<2	FALSE
GWC-23	6/14/2021	ND<2	FALSE
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GWC-23	12/12/2022	ND<2	FALSE

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GWC-23A	6/14/2017	ND<2	FALSE
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GWC-23A	6/18/2018	ND<2	FALSE
GWC-23A	12/18/2018	ND<2	FALSE
GWC-23A	6/12/2019	ND<2	FALSE
GWC-23A	12/11/2019	ND<2	FALSE
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GWC-23A	6/14/2021	ND<2	FALSE
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GWC-24	6/14/2017	ND<2	FALSE
GWC-24	12/13/2017	ND<2	FALSE
GWC-24	6/19/2018	ND<2	FALSE
GWC-24	12/19/2018	ND<2	FALSE
GWC-24	6/11/2019	ND<2	FALSE
GWC-24	12/9/2019	ND<2	FALSE
GWC-24	6/24/2020	ND<2	FALSE
GWC-24	12/15/2020	ND<2	FALSE
GWC-24	6/14/2021	ND<2	FALSE
GWC-24	12/14/2021	ND<2	FALSE
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GWC-24	12/14/2022	ND<2	FALSE

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GWC-10	6/15/2017	ND<2	FALSE
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GWC-10	6/19/2018	ND<2	FALSE
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GWC-10	6/24/2020	ND<2	FALSE
GWC-10	12/15/2020	ND<2	FALSE
GWC-10	6/15/2021	ND<2	FALSE
GWC-10	12/15/2021	ND<2	FALSE
GWC-10	6/7/2022	ND<2	FALSE
GWC-10	12/14/2022	ND<2	FALSE

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GWC-10A	6/15/2017	ND<2	FALSE
GWC-10A	12/12/2017	ND<2	FALSE
GWC-10A	6/19/2018	ND<2	FALSE
GWC-10A	12/17/2018	ND<2	FALSE
GWC-10A	6/10/2019	ND<2	FALSE
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GWC-10A	6/24/2020	ND<2	FALSE
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GWC-10A	6/15/2021	ND<2	FALSE
GWC-10A	12/15/2021	ND<2	FALSE
GWC-10A	6/7/2022	ND<2	FALSE
GWC-10A	12/14/2022	ND<2	FALSE

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GWC-2	6/15/2017	ND<2	FALSE
GWC-2	12/13/2017	ND<2	FALSE
GWC-2	6/20/2018	ND<2	FALSE
GWC-2	12/19/2018	ND<2	FALSE
GWC-2	6/12/2019	ND<2	FALSE
GWC-2	12/10/2019	ND<2	FALSE
GWC-2	6/22/2020	ND<2	FALSE
GWC-2	12/16/2020	ND<2	FALSE
GWC-2	6/15/2021	ND<2	FALSE
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GWC-2	12/12/2022	ND<2	FALSE

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GWC-3	6/15/2017	ND<2	FALSE
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GWC-3	12/17/2018	ND<2	FALSE
GWC-3	6/11/2019	ND<2	FALSE
GWC-3	12/10/2019	ND<2	FALSE
GWC-3	6/24/2020	ND<2	FALSE
GWC-3	12/16/2020	ND<2	FALSE
GWC-3	6/15/2021	ND<2	FALSE
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GWC-3	12/12/2022	ND<2	FALSE

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GWC-3A	6/15/2017	ND<2	FALSE
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GWC-3A	6/20/2018	ND<2	FALSE
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GWC-3A	6/11/2019	ND<2	FALSE
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GWC-3A	12/16/2020	ND<2	FALSE
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GWC-3A	6/7/2022	ND<2	FALSE
GWC-3A	12/12/2022	ND<2	FALSE

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GWC-9	6/15/2017	ND<2	FALSE
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GWC-9	12/18/2018	ND<2	FALSE
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GWC-9	12/17/2020	ND<2	FALSE
GWC-9	6/15/2021	ND<2	FALSE
GWC-9	12/13/2021	ND<2	FALSE
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GWC-9	12/14/2022	ND<2	FALSE

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GWC-8	12/12/2017	ND<2	FALSE
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GWC-8	12/19/2018	ND<2	FALSE
GWC-8	6/12/2019	ND<2	FALSE
GWC-8	12/11/2019	ND<2	FALSE
GWC-8	6/23/2020	ND<2	FALSE
GWC-8	12/16/2020	ND<2	FALSE
GWC-8	6/16/2021	ND<2	FALSE
GWC-8	12/15/2021	ND<2	FALSE
GWC-8	6/9/2022	ND<2	FALSE
GWC-8	12/13/2022	ND<2	FALSE

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GWC-4	6/20/2018	ND<2	FALSE
GWC-4	6/23/2020	ND<2	FALSE
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GWC-4	12/14/2021	ND<2	FALSE
GWC-4	6/8/2022	ND<2	FALSE
GWC-4	12/12/2022	ND<2	FALSE

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## Non-Parametric Tolerance Interval

### Parameter: Cadmium

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 99.729%

Background measurements (n) = 25

Maximum Background Concentration = 5

Minimum Coverage = 88.7%

Average Coverage = 96.1538%

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Location	Date	Value	Significant
GWA-1A	6/12/2017	ND<5	FALSE
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GWA-1A	6/20/2018	ND<5	FALSE
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GWA-1A	6/10/2019	ND<5	FALSE
GWA-1A	12/9/2019	ND<5	FALSE
GWA-1A	6/23/2020	ND<5	FALSE
GWA-1A	12/17/2020	ND<5	FALSE
GWA-1A	6/17/2021	ND<5	FALSE
GWA-1A	12/16/2021	ND<5	FALSE
GWA-1A	6/8/2022	ND<5	FALSE
GWA-1A	12/14/2022	ND<5	FALSE

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GWC-14A	6/13/2017	ND<5	FALSE
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GWC-14A	6/21/2018	ND<5	FALSE
GWC-14A	12/19/2018	ND<5	FALSE
GWC-14A	6/12/2019	ND<5	FALSE
GWC-14A	12/11/2019	ND<5	FALSE
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GWC-14A	12/16/2020	ND<5	FALSE
GWC-14A	6/16/2021	ND<5	FALSE
GWC-14A	12/15/2021	ND<5	FALSE
GWC-14A	6/10/2022	ND<5	FALSE
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GWC-5	6/13/2017	ND<5	FALSE
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GWC-7	6/16/2021	ND<5	FALSE
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GWC-7	12/13/2022	ND<5	FALSE

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GWC-4A	12/15/2022	ND<5	FALSE

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<b>GWC-19R</b>	<b>12/15/2022</b>	<b>10</b>	<b>TRUE</b>

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GWC-23	6/15/2017	ND<5	FALSE
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GWC-23	12/17/2020	ND<5	FALSE
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GWC-23A	6/15/2017	ND<5	FALSE
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GWC-23A	12/13/2022	ND<5	FALSE

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GWC-24	6/15/2017	ND<5	FALSE
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GWC-10	6/16/2017	ND<5	FALSE
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GWC-2	6/8/2022	ND<5	FALSE
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GWC-3A	12/13/2022	ND<5	FALSE

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GWC-9	6/16/2017	ND<5	FALSE
GWC-9	12/14/2017	ND<5	FALSE
GWC-9	6/21/2018	ND<5	FALSE
GWC-9	12/19/2018	ND<5	FALSE
GWC-9	6/13/2019	ND<5	FALSE
GWC-9	12/13/2019	ND<5	FALSE
GWC-9	6/25/2020	ND<5	FALSE
GWC-9	12/18/2020	ND<5	FALSE
GWC-9	6/16/2021	ND<5	FALSE
GWC-9	12/14/2021	ND<5	FALSE
GWC-9	6/8/2022	ND<5	FALSE
GWC-9	12/15/2022	ND<5	FALSE

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GWC-8	12/13/2017	ND<5	FALSE
GWC-8	6/21/2018	ND<5	FALSE
GWC-8	6/13/2019	ND<5	FALSE
GWC-8	12/12/2019	ND<5	FALSE
GWC-8	6/24/2020	ND<5	FALSE
GWC-8	12/17/2020	ND<5	FALSE
GWC-8	6/17/2021	ND<5	FALSE
GWC-8	12/16/2021	ND<5	FALSE
GWC-8	6/10/2022	ND<5	FALSE
GWC-8	12/14/2022	ND<5	FALSE

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GWC-14	6/21/2018	ND<5	FALSE
GWC-14	6/12/2019	ND<5	FALSE
GWC-14	12/11/2019	ND<5	FALSE
GWC-14	6/25/2020	ND<5	FALSE
GWC-14	12/18/2020	ND<5	FALSE
GWC-14	6/16/2021	ND<5	FALSE
GWC-14	12/16/2021	ND<5	FALSE
GWC-14	6/10/2022	ND<5	FALSE

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GWC-3	6/21/2018	ND<5	FALSE
GWC-3	12/18/2018	ND<5	FALSE
GWC-3	6/12/2019	ND<5	FALSE
GWC-3	12/11/2019	ND<5	FALSE
GWC-3	6/25/2020	ND<5	FALSE
GWC-3	12/17/2020	ND<5	FALSE
GWC-3	6/16/2021	ND<5	FALSE
GWC-3	12/16/2021	ND<5	FALSE
GWC-3	6/8/2022	ND<5	FALSE

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GWC-4	6/21/2018	ND<5	FALSE
GWC-4	6/24/2020	ND<5	FALSE
GWC-4	12/18/2020	ND<5	FALSE
GWC-4	6/17/2021	ND<5	FALSE
GWC-4	12/15/2021	ND<5	FALSE
GWC-4	6/9/2022	ND<5	FALSE

GWC-4	12/13/2022	ND<5	FALSE
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GWC-14R	6/9/2022	ND<5	FALSE
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GWC-8R	6/9/2022	ND<5	FALSE
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## Non-Parametric Tolerance Interval

### Parameter: Chlorobenzene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 98.5%

Background measurements (n) = 25

Maximum Background Concentration = 10

Minimum Coverage = 88.7%

Average Coverage = 96.1538%

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Location	Date	Value	Significant
GWA-1A	6/12/2017	ND<10	FALSE
GWA-1A	12/13/2017	ND<10	FALSE
GWA-1A	6/19/2018	ND<10	FALSE
GWA-1A	12/18/2018	ND<10	FALSE
GWA-1A	6/10/2019	ND<10	FALSE
GWA-1A	12/9/2019	ND<10	FALSE
GWA-1A	6/23/2020	ND<10	FALSE
GWA-1A	12/17/2020	ND<10	FALSE
GWA-1A	6/17/2021	ND<10	FALSE
GWA-1A	12/16/2021	ND<10	FALSE
GWA-1A	6/8/2022	ND<10	FALSE
GWA-1A	12/14/2022	ND<10	FALSE

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GWC-5	6/12/2017	ND<10	FALSE
GWC-5	12/12/2017	ND<10	FALSE
GWC-5	6/21/2018	ND<10	FALSE
GWC-5	12/18/2018	ND<10	FALSE
GWC-5	6/12/2019	ND<10	FALSE
GWC-5	12/10/2019	ND<10	FALSE
GWC-5	6/23/2020	ND<10	FALSE
GWC-5	12/17/2020	ND<10	FALSE
GWC-5	6/15/2021	ND<10	FALSE
GWC-5	12/13/2021	ND<10	FALSE
GWC-5	6/8/2022	ND<10	FALSE
GWC-5	12/12/2022	ND<10	FALSE

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GWC-6	6/12/2017	ND<10	FALSE
GWC-6	12/13/2017	ND<10	FALSE
GWC-6	6/21/2018	ND<10	FALSE
GWC-6	12/19/2018	ND<10	FALSE
GWC-6	6/12/2019	ND<10	FALSE
GWC-6	12/10/2019	ND<10	FALSE
GWC-6	6/24/2020	ND<10	FALSE
GWC-6	12/17/2020	ND<10	FALSE
GWC-6	6/15/2021	ND<10	FALSE
GWC-6	12/13/2021	ND<10	FALSE
GWC-6	6/8/2022	ND<10	FALSE
GWC-6	12/14/2022	ND<10	FALSE

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GWC-7	6/12/2017	ND<10	FALSE
GWC-7	12/12/2017	ND<10	FALSE
GWC-7	6/19/2018	ND<10	FALSE

GWC-7	12/18/2018	ND<10	FALSE
GWC-7	6/12/2019	ND<10	FALSE
GWC-7	12/11/2019	ND<10	FALSE
GWC-7	6/24/2020	ND<10	FALSE
GWC-7	12/17/2020	ND<10	FALSE
GWC-7	6/15/2021	ND<10	FALSE
GWC-7	12/13/2021	ND<10	FALSE
GWC-7	6/8/2022	ND<10	FALSE
GWC-7	12/12/2022	ND<10	FALSE

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GWC-14	6/13/2017	ND<10	FALSE
GWC-14	6/20/2018	ND<10	FALSE
GWC-14	6/11/2019	ND<10	FALSE
GWC-14	12/10/2019	ND<10	FALSE
GWC-14	6/24/2020	ND<10	FALSE
GWC-14	12/17/2020	ND<10	FALSE
GWC-14	6/15/2021	ND<10	FALSE
GWC-14	12/15/2021	ND<10	FALSE
GWC-14	6/9/2022	ND<10	FALSE
GWC-14	12/13/2022	ND<10	FALSE

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GWC-14A	6/13/2017	ND<10	FALSE
GWC-14A	12/12/2017	ND<10	FALSE
GWC-14A	6/20/2018	ND<10	FALSE
GWC-14A	12/19/2018	ND<10	FALSE
GWC-14A	6/11/2019	ND<10	FALSE
GWC-14A	12/10/2019	ND<10	FALSE
<b>GWC-14A</b>	<b>6/24/2020</b>	<b>12</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/15/2020</b>	<b>16</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/15/2021</b>	<b>15</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/14/2021</b>	<b>15</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/9/2022</b>	<b>17</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/13/2022</b>	<b>14</b>	<b>TRUE</b>

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GWC-14R	6/13/2017	ND<10	FALSE
GWC-14R	12/12/2017	ND<10	FALSE
GWC-14R	6/20/2018	ND<10	FALSE
GWC-14R	12/19/2018	ND<10	FALSE
GWC-14R	6/12/2019	ND<10	FALSE
GWC-14R	12/10/2019	ND<10	FALSE
GWC-14R	6/23/2020	ND<10	FALSE
GWC-14R	12/17/2020	ND<10	FALSE
GWC-14R	6/16/2021	ND<10	FALSE
GWC-14R	12/14/2021	ND<10	FALSE
GWC-14R	6/9/2022	ND<10	FALSE
GWC-14R	12/13/2022	ND<10	FALSE

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GWC-4A	6/13/2017	ND<10	FALSE
GWC-4A	12/12/2017	ND<10	FALSE
GWC-4A	6/20/2018	ND<10	FALSE
GWC-4A	12/17/2018	ND<10	FALSE
GWC-4A	6/11/2019	ND<10	FALSE
GWC-4A	12/11/2019	ND<10	FALSE
GWC-4A	6/23/2020	ND<10	FALSE
GWC-4A	12/17/2020	ND<10	FALSE



GWC-4A	6/17/2021	ND<10	FALSE
GWC-4A	12/15/2021	ND<10	FALSE
GWC-4A	6/8/2022	ND<10	FALSE
GWC-4A	12/14/2022	ND<10	FALSE

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GWC-8A	6/13/2017	ND<10	FALSE
GWC-8A	12/12/2017	ND<10	FALSE
GWC-8A	6/20/2018	ND<10	FALSE
GWC-8A	12/19/2018	ND<10	FALSE
GWC-8A	6/12/2019	ND<10	FALSE
GWC-8A	12/11/2019	ND<10	FALSE
GWC-8A	6/23/2020	ND<10	FALSE
GWC-8A	12/15/2020	ND<10	FALSE
GWC-8A	6/16/2021	ND<10	FALSE
GWC-8A	12/15/2021	ND<10	FALSE
GWC-8A	6/9/2022	ND<10	FALSE
GWC-8A	12/13/2022	ND<10	FALSE

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GWC-8R	6/13/2017	ND<10	FALSE
GWC-8R	12/12/2017	ND<10	FALSE
GWC-8R	6/20/2018	ND<10	FALSE
GWC-8R	12/19/2018	ND<10	FALSE
GWC-8R	6/12/2019	ND<10	FALSE
GWC-8R	12/11/2019	ND<10	FALSE
GWC-8R	6/23/2020	ND<10	FALSE
GWC-8R	12/15/2020	ND<10	FALSE
GWC-8R	6/16/2021	ND<10	FALSE
GWC-8R	12/15/2021	ND<10	FALSE
GWC-8R	6/9/2022	ND<10	FALSE
GWC-8R	12/13/2022	ND<10	FALSE

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GWA-3	6/14/2017	ND<10	FALSE
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GWA-3	6/22/2020	ND<10	FALSE
GWA-3	12/16/2020	ND<10	FALSE
GWA-3	6/14/2021	ND<10	FALSE
GWA-3	12/14/2021	ND<10	FALSE
GWA-3	6/6/2022	ND<10	FALSE
GWA-3	12/13/2022	ND<10	FALSE

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GWC-11	6/14/2017	ND<10	FALSE
GWC-11	12/13/2017	ND<10	FALSE
GWC-11	6/19/2018	ND<10	FALSE
GWC-11	12/19/2018	ND<10	FALSE
GWC-11	6/12/2019	ND<10	FALSE
GWC-11	12/12/2019	ND<10	FALSE
GWC-11	6/24/2020	ND<10	FALSE
GWC-11	12/15/2020	ND<10	FALSE
GWC-11	6/15/2021	ND<10	FALSE
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GWC-11	6/7/2022	ND<10	FALSE

GWC-11	12/12/2022	ND<10	FALSE
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GWC-12	6/14/2017	ND<10	FALSE
GWC-12	12/13/2017	ND<10	FALSE
GWC-12	6/19/2018	ND<10	FALSE
GWC-12	12/19/2018	ND<10	FALSE
GWC-12	6/11/2019	ND<10	FALSE
GWC-12	12/9/2019	ND<10	FALSE
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GWC-12	12/15/2020	ND<10	FALSE
GWC-12	6/15/2021	ND<10	FALSE
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GWC-12	6/7/2022	ND<10	FALSE
GWC-12	12/12/2022	ND<10	FALSE

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GWC-12A	6/14/2017	ND<10	FALSE
GWC-12A	12/13/2017	ND<10	FALSE
GWC-12A	6/19/2018	ND<10	FALSE
GWC-12A	12/19/2018	ND<10	FALSE
GWC-12A	6/11/2019	ND<10	FALSE
GWC-12A	12/9/2019	ND<10	FALSE
GWC-12A	6/24/2020	ND<10	FALSE
GWC-12A	12/15/2020	ND<10	FALSE
GWC-12A	6/15/2021	ND<10	FALSE
GWC-12A	12/13/2021	ND<10	FALSE
GWC-12A	6/7/2022	ND<10	FALSE
GWC-12A	12/12/2022	ND<10	FALSE

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GWC-13	6/14/2017	ND<10	FALSE
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GWC-13	6/19/2018	ND<10	FALSE
GWC-13	12/19/2018	ND<10	FALSE
GWC-13	6/12/2019	ND<10	FALSE
GWC-13	12/11/2019	ND<10	FALSE
GWC-13	6/23/2020	ND<10	FALSE
GWC-13	12/15/2020	ND<10	FALSE
GWC-13	6/15/2021	ND<10	FALSE
GWC-13	12/15/2021	ND<10	FALSE
GWC-13	6/8/2022	ND<10	FALSE
GWC-13	12/12/2022	ND<10	FALSE

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GWC-15	6/14/2017	ND<10	FALSE
GWC-15	12/13/2017	ND<10	FALSE
GWC-15	6/19/2018	ND<10	FALSE
GWC-15	12/19/2018	ND<10	FALSE
GWC-15	6/11/2019	ND<10	FALSE
GWC-15	12/10/2019	ND<10	FALSE
GWC-15	6/25/2020	ND<10	FALSE
GWC-15	12/17/2020	ND<10	FALSE
GWC-15	6/16/2021	ND<10	FALSE
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GWC-15	6/9/2022	ND<10	FALSE
GWC-15	12/15/2022	ND<10	FALSE

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GWC-16A	6/14/2017	ND<10	FALSE
GWC-16A	12/13/2017	ND<10	FALSE
GWC-16A	6/21/2018	ND<10	FALSE
GWC-16A	12/19/2018	ND<10	FALSE
GWC-16A	6/13/2019	ND<10	FALSE
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GWC-16A	12/17/2020	ND<10	FALSE
GWC-16A	6/16/2021	ND<10	FALSE
GWC-16A	12/16/2021	ND<10	FALSE
GWC-16A	6/9/2022	ND<10	FALSE
GWC-16A	12/14/2022	ND<10	FALSE

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GWC-17	6/14/2017	ND<10	FALSE
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GWC-17	12/19/2018	ND<10	FALSE
GWC-17	6/12/2019	ND<10	FALSE
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GWC-17	6/14/2021	ND<10	FALSE
GWC-17	12/14/2021	ND<10	FALSE
GWC-17	6/9/2022	ND<10	FALSE
GWC-17	12/14/2022	ND<10	FALSE

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GWC-18	6/14/2017	ND<10	FALSE
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GWC-18	6/19/2018	ND<10	FALSE
GWC-18	12/18/2018	ND<10	FALSE
GWC-18	6/11/2019	ND<10	FALSE
GWC-18	12/9/2019	ND<10	FALSE
GWC-18	6/23/2020	ND<10	FALSE
GWC-18	12/15/2020	ND<10	FALSE
GWC-18	6/14/2021	ND<10	FALSE
GWC-18	12/14/2021	ND<10	FALSE
GWC-18	6/7/2022	ND<10	FALSE
GWC-18	12/14/2022	ND<10	FALSE

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GWC-19R	6/14/2017	ND<10	FALSE
GWC-19R	12/13/2017	ND<10	FALSE
GWC-19R	6/19/2018	ND<10	FALSE
GWC-19R	12/18/2018	ND<10	FALSE
GWC-19R	6/11/2019	ND<10	FALSE
GWC-19R	12/9/2019	ND<10	FALSE
GWC-19R	6/23/2020	ND<10	FALSE
GWC-19R	12/15/2020	ND<10	FALSE
GWC-19R	6/14/2021	ND<10	FALSE
GWC-19R	12/14/2021	ND<10	FALSE
GWC-19R	6/6/2022	ND<10	FALSE
GWC-19R	12/14/2022	ND<10	FALSE

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GWC-22	6/14/2017	ND<10	FALSE
GWC-22	12/11/2017	ND<10	FALSE
GWC-22	6/19/2018	ND<10	FALSE

GWC-22	12/18/2018	ND<10	FALSE
GWC-22	6/12/2019	ND<10	FALSE
GWC-22	12/11/2019	ND<10	FALSE
GWC-22	6/23/2020	ND<10	FALSE
GWC-22	12/17/2020	ND<10	FALSE
GWC-22	6/14/2021	ND<10	FALSE
GWC-22	12/13/2021	ND<10	FALSE
GWC-22	6/6/2022	ND<10	FALSE
GWC-22	12/12/2022	ND<10	FALSE

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GWC-23	6/14/2017	ND<10	FALSE
GWC-23	12/11/2017	ND<10	FALSE
GWC-23	6/18/2018	ND<10	FALSE
GWC-23	12/18/2018	ND<10	FALSE
GWC-23	6/12/2019	ND<10	FALSE
GWC-23	12/11/2019	ND<10	FALSE
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GWC-23	6/14/2021	ND<10	FALSE
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GWC-23	6/6/2022	ND<10	FALSE
GWC-23	12/12/2022	ND<10	FALSE

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GWC-23A	6/14/2017	ND<10	FALSE
GWC-23A	12/11/2017	ND<10	FALSE
GWC-23A	6/18/2018	ND<10	FALSE
GWC-23A	12/18/2018	ND<10	FALSE
GWC-23A	6/12/2019	ND<10	FALSE
GWC-23A	12/11/2019	ND<10	FALSE
GWC-23A	6/24/2020	ND<10	FALSE
GWC-23A	12/16/2020	ND<10	FALSE
GWC-23A	6/14/2021	ND<10	FALSE
GWC-23A	12/13/2021	ND<10	FALSE
GWC-23A	6/6/2022	ND<10	FALSE
GWC-23A	12/12/2022	ND<10	FALSE

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GWC-24	6/14/2017	ND<10	FALSE
GWC-24	12/13/2017	ND<10	FALSE
GWC-24	6/19/2018	ND<10	FALSE
GWC-24	12/19/2018	ND<10	FALSE
GWC-24	6/11/2019	ND<10	FALSE
GWC-24	12/9/2019	ND<10	FALSE
GWC-24	6/24/2020	ND<10	FALSE
GWC-24	12/15/2020	ND<10	FALSE
GWC-24	6/14/2021	ND<10	FALSE
GWC-24	12/14/2021	ND<10	FALSE
GWC-24	6/7/2022	ND<10	FALSE
GWC-24	12/14/2022	ND<10	FALSE

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GWC-10	6/15/2017	ND<10	FALSE
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GWC-10	6/19/2018	ND<10	FALSE
GWC-10	12/17/2018	ND<10	FALSE
GWC-10	6/10/2019	ND<10	FALSE
GWC-10	12/12/2019	ND<10	FALSE

GWC-10	6/24/2020	ND<10	FALSE
GWC-10	12/15/2020	ND<10	FALSE
GWC-10	6/15/2021	ND<10	FALSE
GWC-10	12/15/2021	ND<10	FALSE
GWC-10	6/7/2022	ND<10	FALSE
GWC-10	12/14/2022	ND<10	FALSE

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GWC-10A	6/19/2018	ND<10	FALSE
GWC-10A	12/17/2018	ND<10	FALSE
GWC-10A	6/10/2019	ND<10	FALSE
GWC-10A	12/12/2019	ND<10	FALSE
GWC-10A	6/24/2020	ND<10	FALSE
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GWC-10A	6/15/2021	ND<10	FALSE
GWC-10A	12/15/2021	ND<10	FALSE
GWC-10A	6/7/2022	ND<10	FALSE
GWC-10A	12/14/2022	ND<10	FALSE

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GWC-2	6/15/2017	ND<10	FALSE
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GWC-2	6/20/2018	ND<10	FALSE
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GWC-2	6/12/2019	ND<10	FALSE
GWC-2	12/10/2019	ND<10	FALSE
GWC-2	6/22/2020	ND<10	FALSE
GWC-2	12/16/2020	ND<10	FALSE
GWC-2	6/15/2021	ND<10	FALSE
GWC-2	12/15/2021	ND<10	FALSE
GWC-2	6/7/2022	ND<10	FALSE
GWC-2	12/12/2022	ND<10	FALSE

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GWC-3	6/15/2017	ND<10	FALSE
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GWC-3	6/24/2020	ND<10	FALSE
GWC-3	12/16/2020	ND<10	FALSE
GWC-3	6/15/2021	ND<10	FALSE
GWC-3	12/15/2021	ND<10	FALSE
GWC-3	6/7/2022	ND<10	FALSE
GWC-3	12/12/2022	ND<10	FALSE

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GWC-3A	6/15/2017	ND<10	FALSE
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GWC-3A	6/20/2018	ND<10	FALSE
GWC-3A	12/17/2018	ND<10	FALSE
GWC-3A	6/11/2019	ND<10	FALSE
GWC-3A	12/10/2019	ND<10	FALSE
GWC-3A	6/24/2020	ND<10	FALSE
GWC-3A	12/16/2020	ND<10	FALSE
GWC-3A	6/14/2021	ND<10	FALSE
GWC-3A	12/15/2021	ND<10	FALSE

GWC-3A	6/7/2022	ND<10	FALSE
GWC-3A	12/12/2022	ND<10	FALSE

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GWC-9	6/15/2017	ND<10	FALSE
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GWC-9	6/20/2018	ND<10	FALSE
GWC-9	12/18/2018	ND<10	FALSE
GWC-9	6/12/2019	ND<10	FALSE
GWC-9	12/12/2019	ND<10	FALSE
GWC-9	6/24/2020	ND<10	FALSE
GWC-9	12/17/2020	ND<10	FALSE
GWC-9	6/15/2021	ND<10	FALSE
GWC-9	12/13/2021	ND<10	FALSE
GWC-9	6/7/2022	ND<10	FALSE
GWC-9	12/14/2022	ND<10	FALSE

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GWC-8	12/12/2017	ND<10	FALSE
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GWC-8	6/12/2019	ND<10	FALSE
GWC-8	12/11/2019	ND<10	FALSE
GWC-8	6/23/2020	ND<10	FALSE
GWC-8	12/16/2020	ND<10	FALSE
GWC-8	6/16/2021	ND<10	FALSE
GWC-8	12/15/2021	ND<10	FALSE
GWC-8	6/9/2022	ND<10	FALSE
GWC-8	12/13/2022	ND<10	FALSE

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GWC-4	6/20/2018	ND<10	FALSE
GWC-4	6/23/2020	ND<10	FALSE
GWC-4	12/17/2020	ND<10	FALSE
GWC-4	6/16/2021	ND<10	FALSE
GWC-4	12/14/2021	ND<10	FALSE
GWC-4	6/8/2022	ND<10	FALSE
GWC-4	12/12/2022	ND<10	FALSE

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## Non-Parametric Tolerance Interval

### Parameter: Chloroethane

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 96.75%

Background measurements (n) = 25

Maximum Background Concentration = 2

Minimum Coverage = 88.7%

Average Coverage = 96.1538%

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Location	Date	Value	Significant
GWA-1A	6/12/2017	ND<2	FALSE
GWA-1A	12/13/2017	ND<2	FALSE
GWA-1A	6/19/2018	ND<2	FALSE
GWA-1A	12/18/2018	ND<2	FALSE
GWA-1A	6/10/2019	ND<2	FALSE
GWA-1A	12/9/2019	ND<2	FALSE
GWA-1A	6/23/2020	ND<2	FALSE
GWA-1A	12/17/2020	ND<2	FALSE
GWA-1A	6/17/2021	ND<2	FALSE
GWA-1A	12/16/2021	ND<2	FALSE
GWA-1A	6/8/2022	ND<2	FALSE
GWA-1A	12/14/2022	ND<2	FALSE

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GWC-5	6/12/2017	ND<2	FALSE
GWC-5	12/12/2017	ND<2	FALSE
GWC-5	6/21/2018	ND<2	FALSE
GWC-5	12/18/2018	ND<2	FALSE
GWC-5	6/12/2019	ND<2	FALSE
GWC-5	12/10/2019	ND<2	FALSE
GWC-5	6/23/2020	ND<2	FALSE
GWC-5	12/17/2020	ND<2	FALSE
GWC-5	6/15/2021	ND<2	FALSE
GWC-5	12/13/2021	ND<2	FALSE
GWC-5	6/8/2022	ND<2	FALSE
GWC-5	12/12/2022	ND<2	FALSE

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GWC-6	6/12/2017	ND<2	FALSE
GWC-6	12/13/2017	ND<2	FALSE
GWC-6	6/21/2018	ND<2	FALSE
GWC-6	12/19/2018	ND<2	FALSE
GWC-6	6/12/2019	ND<2	FALSE
GWC-6	12/10/2019	ND<2	FALSE
GWC-6	6/24/2020	ND<2	FALSE
GWC-6	12/17/2020	ND<2	FALSE
GWC-6	6/15/2021	ND<2	FALSE
GWC-6	12/13/2021	ND<2	FALSE
GWC-6	6/8/2022	ND<2	FALSE
GWC-6	12/14/2022	ND<2	FALSE

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GWC-7	6/12/2017	ND<2	FALSE
GWC-7	12/12/2017	ND<2	FALSE
GWC-7	6/19/2018	ND<2	FALSE

GWC-7	12/18/2018	ND<2	FALSE
GWC-7	6/12/2019	ND<2	FALSE
GWC-7	12/11/2019	ND<2	FALSE
GWC-7	6/24/2020	ND<2	FALSE
GWC-7	12/17/2020	ND<2	FALSE
GWC-7	6/15/2021	ND<2	FALSE
GWC-7	12/13/2021	ND<2	FALSE
GWC-7	6/8/2022	ND<2	FALSE
GWC-7	12/12/2022	ND<2	FALSE

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GWC-14	6/13/2017	ND<2	FALSE
GWC-14	6/20/2018	ND<2	FALSE
GWC-14	6/11/2019	ND<2	FALSE
GWC-14	12/10/2019	ND<2	FALSE
GWC-14	6/24/2020	ND<2	FALSE
GWC-14	12/17/2020	ND<2	FALSE
GWC-14	6/15/2021	ND<2	FALSE
GWC-14	12/15/2021	ND<2	FALSE
GWC-14	6/9/2022	ND<2	FALSE
GWC-14	12/13/2022	ND<2	FALSE

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<b>GWC-14A</b>	<b>6/13/2017</b>	<b>5.8</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/12/2017</b>	<b>7.7</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/20/2018</b>	<b>8.5</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/19/2018</b>	<b>5.4</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/11/2019</b>	<b>4.4</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/10/2019</b>	<b>3.6</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/24/2020</b>	<b>3.3</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/15/2020</b>	<b>4.2</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/15/2021</b>	<b>3</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/14/2021</b>	<b>5</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/9/2022</b>	<b>3.7</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/13/2022</b>	<b>3.4</b>	<b>TRUE</b>

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GWC-14R	6/13/2017	ND<2	FALSE
GWC-14R	12/12/2017	ND<2	FALSE
GWC-14R	6/20/2018	ND<2	FALSE
GWC-14R	12/19/2018	ND<2	FALSE
GWC-14R	6/12/2019	ND<2	FALSE
GWC-14R	12/10/2019	ND<2	FALSE
GWC-14R	6/23/2020	ND<2	FALSE
GWC-14R	12/17/2020	ND<2	FALSE
GWC-14R	6/16/2021	ND<2	FALSE
GWC-14R	12/14/2021	ND<2	FALSE
GWC-14R	6/9/2022	ND<2	FALSE
GWC-14R	12/13/2022	ND<2	FALSE

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GWC-4A	6/13/2017	ND<2	FALSE
GWC-4A	12/12/2017	ND<2	FALSE
GWC-4A	6/20/2018	ND<2	FALSE
GWC-4A	12/17/2018	ND<2	FALSE
GWC-4A	6/11/2019	ND<2	FALSE
GWC-4A	12/11/2019	ND<2	FALSE
GWC-4A	6/23/2020	ND<2	FALSE
GWC-4A	12/17/2020	ND<2	FALSE



GWC-4A	6/17/2021	ND<2	FALSE
GWC-4A	12/15/2021	ND<2	FALSE
GWC-4A	6/8/2022	ND<2	FALSE
GWC-4A	12/14/2022	ND<2	FALSE

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GWC-8A	6/13/2017	ND<2	FALSE
GWC-8A	12/12/2017	ND<2	FALSE
GWC-8A	6/20/2018	ND<2	FALSE
GWC-8A	12/19/2018	ND<2	FALSE
GWC-8A	6/12/2019	ND<2	FALSE
GWC-8A	12/11/2019	ND<2	FALSE
GWC-8A	6/23/2020	ND<2	FALSE
GWC-8A	12/15/2020	ND<2	FALSE
GWC-8A	6/16/2021	ND<2	FALSE
GWC-8A	12/15/2021	ND<2	FALSE
GWC-8A	6/9/2022	ND<2	FALSE
GWC-8A	12/13/2022	ND<2	FALSE

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GWC-8R	6/13/2017	ND<2	FALSE
GWC-8R	12/12/2017	ND<2	FALSE
GWC-8R	6/20/2018	ND<2	FALSE
GWC-8R	12/19/2018	ND<2	FALSE
GWC-8R	6/12/2019	ND<2	FALSE
GWC-8R	12/11/2019	ND<2	FALSE
GWC-8R	6/23/2020	ND<2	FALSE
GWC-8R	12/15/2020	ND<2	FALSE
GWC-8R	6/16/2021	ND<2	FALSE
GWC-8R	12/15/2021	ND<2	FALSE
GWC-8R	6/9/2022	ND<2	FALSE
GWC-8R	12/13/2022	ND<2	FALSE

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GWA-3	6/14/2017	ND<2	FALSE
GWA-3	12/11/2017	ND<2	FALSE
GWA-3	6/18/2018	ND<2	FALSE
GWA-3	12/17/2018	ND<2	FALSE
GWA-3	6/11/2019	ND<2	FALSE
GWA-3	12/10/2019	ND<2	FALSE
GWA-3	6/22/2020	ND<2	FALSE
GWA-3	12/16/2020	ND<2	FALSE
GWA-3	6/14/2021	ND<2	FALSE
GWA-3	12/14/2021	ND<2	FALSE
GWA-3	6/6/2022	ND<2	FALSE
GWA-3	12/13/2022	ND<2	FALSE

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GWC-11	6/14/2017	ND<2	FALSE
GWC-11	12/13/2017	ND<2	FALSE
GWC-11	6/19/2018	ND<2	FALSE
GWC-11	12/19/2018	ND<2	FALSE
GWC-11	6/12/2019	ND<2	FALSE
GWC-11	12/12/2019	ND<2	FALSE
GWC-11	6/24/2020	ND<2	FALSE
GWC-11	12/15/2020	ND<2	FALSE
GWC-11	6/15/2021	ND<2	FALSE
GWC-11	12/13/2021	ND<2	FALSE
GWC-11	6/7/2022	ND<2	FALSE

GWC-11	12/12/2022	ND<2	FALSE
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GWC-12	6/14/2017	ND<2	FALSE
GWC-12	12/13/2017	ND<2	FALSE
GWC-12	6/19/2018	ND<2	FALSE
GWC-12	12/19/2018	ND<2	FALSE
GWC-12	6/11/2019	ND<2	FALSE
GWC-12	12/9/2019	ND<2	FALSE
GWC-12	6/24/2020	ND<2	FALSE
GWC-12	12/15/2020	ND<2	FALSE
GWC-12	6/15/2021	ND<2	FALSE
GWC-12	12/13/2021	ND<2	FALSE
GWC-12	6/7/2022	ND<2	FALSE
GWC-12	12/12/2022	ND<2	FALSE

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GWC-12A	6/14/2017	ND<2	FALSE
GWC-12A	12/13/2017	ND<2	FALSE
GWC-12A	6/19/2018	ND<2	FALSE
GWC-12A	12/19/2018	ND<2	FALSE
GWC-12A	6/11/2019	ND<2	FALSE
GWC-12A	12/9/2019	ND<2	FALSE
GWC-12A	6/24/2020	ND<2	FALSE
GWC-12A	12/15/2020	ND<2	FALSE
GWC-12A	6/15/2021	ND<2	FALSE
GWC-12A	12/13/2021	ND<2	FALSE
GWC-12A	6/7/2022	ND<2	FALSE
GWC-12A	12/12/2022	ND<2	FALSE

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GWC-13	6/14/2017	ND<2	FALSE
GWC-13	12/12/2017	ND<2	FALSE
GWC-13	6/19/2018	ND<2	FALSE
GWC-13	12/19/2018	ND<2	FALSE
GWC-13	6/12/2019	ND<2	FALSE
GWC-13	12/11/2019	ND<2	FALSE
GWC-13	6/23/2020	ND<2	FALSE
GWC-13	12/15/2020	ND<2	FALSE
GWC-13	6/15/2021	ND<2	FALSE
GWC-13	12/15/2021	ND<2	FALSE
GWC-13	6/8/2022	ND<2	FALSE
GWC-13	12/12/2022	ND<2	FALSE

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GWC-15	6/14/2017	ND<2	FALSE
GWC-15	12/13/2017	ND<2	FALSE
GWC-15	6/19/2018	ND<2	FALSE
GWC-15	12/19/2018	ND<2	FALSE
GWC-15	6/11/2019	ND<2	FALSE
GWC-15	12/10/2019	ND<2	FALSE
GWC-15	6/25/2020	ND<2	FALSE
GWC-15	12/17/2020	ND<2	FALSE
GWC-15	6/16/2021	ND<2	FALSE
GWC-15	12/14/2021	ND<2	FALSE
GWC-15	6/9/2022	ND<2	FALSE
GWC-15	12/15/2022	ND<2	FALSE

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<b>GWC-16A</b>	<b>6/14/2017</b>	<b>3.3</b>	<b>TRUE</b>
GWC-16A	12/13/2017	ND<2	FALSE
GWC-16A	6/21/2018	ND<2	FALSE
GWC-16A	12/19/2018	ND<2	FALSE
GWC-16A	6/13/2019	ND<2	FALSE
GWC-16A	12/11/2019	ND<2	FALSE
GWC-16A	6/23/2020	ND<2	FALSE
GWC-16A	12/17/2020	ND<2	FALSE
GWC-16A	6/16/2021	ND<2	FALSE
GWC-16A	12/16/2021	ND<2	FALSE
GWC-16A	6/9/2022	ND<2	FALSE
GWC-16A	12/14/2022	ND<2	FALSE

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GWC-17	6/14/2017	ND<2	FALSE
GWC-17	12/12/2017	ND<2	FALSE
GWC-17	6/19/2018	ND<2	FALSE
GWC-17	12/19/2018	ND<2	FALSE
GWC-17	6/12/2019	ND<2	FALSE
GWC-17	12/10/2019	ND<2	FALSE
GWC-17	6/23/2020	ND<2	FALSE
GWC-17	12/15/2020	ND<2	FALSE
GWC-17	6/14/2021	ND<2	FALSE
GWC-17	12/14/2021	ND<2	FALSE
GWC-17	6/9/2022	ND<2	FALSE
GWC-17	12/14/2022	ND<2	FALSE

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GWC-18	6/14/2017	ND<2	FALSE
GWC-18	12/13/2017	ND<2	FALSE
GWC-18	6/19/2018	ND<2	FALSE
GWC-18	12/18/2018	ND<2	FALSE
GWC-18	6/11/2019	ND<2	FALSE
GWC-18	12/9/2019	ND<2	FALSE
GWC-18	6/23/2020	ND<2	FALSE
GWC-18	12/15/2020	ND<2	FALSE
GWC-18	6/14/2021	ND<2	FALSE
GWC-18	12/14/2021	ND<2	FALSE
GWC-18	6/7/2022	ND<2	FALSE
GWC-18	12/14/2022	ND<2	FALSE

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GWC-19R	6/14/2017	ND<2	FALSE
GWC-19R	12/13/2017	ND<2	FALSE
GWC-19R	6/19/2018	ND<2	FALSE
GWC-19R	12/18/2018	ND<2	FALSE
GWC-19R	6/11/2019	ND<2	FALSE
GWC-19R	12/9/2019	ND<2	FALSE
GWC-19R	6/23/2020	ND<2	FALSE
GWC-19R	12/15/2020	ND<2	FALSE
GWC-19R	6/14/2021	ND<2	FALSE
GWC-19R	12/14/2021	ND<2	FALSE
GWC-19R	6/6/2022	ND<2	FALSE
GWC-19R	12/14/2022	ND<2	FALSE

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GWC-22	6/14/2017	ND<2	FALSE
GWC-22	12/11/2017	ND<2	FALSE
GWC-22	6/19/2018	ND<2	FALSE

GWC-22	12/18/2018	ND<2	FALSE
GWC-22	6/12/2019	ND<2	FALSE
GWC-22	12/11/2019	ND<2	FALSE
GWC-22	6/23/2020	ND<2	FALSE
GWC-22	12/17/2020	ND<2	FALSE
GWC-22	6/14/2021	ND<2	FALSE
GWC-22	12/13/2021	ND<2	FALSE
GWC-22	6/6/2022	ND<2	FALSE
GWC-22	12/12/2022	ND<2	FALSE

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GWC-23	6/14/2017	ND<2	FALSE
GWC-23	12/11/2017	ND<2	FALSE
GWC-23	6/18/2018	ND<2	FALSE
GWC-23	12/18/2018	ND<2	FALSE
GWC-23	6/12/2019	ND<2	FALSE
GWC-23	12/11/2019	ND<2	FALSE
GWC-23	6/24/2020	ND<2	FALSE
GWC-23	12/16/2020	ND<2	FALSE
GWC-23	6/14/2021	ND<2	FALSE
GWC-23	12/13/2021	ND<2	FALSE
GWC-23	6/6/2022	ND<2	FALSE
GWC-23	12/12/2022	ND<2	FALSE

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GWC-23A	6/14/2017	ND<2	FALSE
GWC-23A	12/11/2017	ND<2	FALSE
GWC-23A	6/18/2018	ND<2	FALSE
GWC-23A	12/18/2018	ND<2	FALSE
GWC-23A	6/12/2019	ND<2	FALSE
GWC-23A	12/11/2019	ND<2	FALSE
GWC-23A	6/24/2020	ND<2	FALSE
GWC-23A	12/16/2020	ND<2	FALSE
GWC-23A	6/14/2021	ND<2	FALSE
GWC-23A	12/13/2021	ND<2	FALSE
GWC-23A	6/6/2022	ND<2	FALSE
GWC-23A	12/12/2022	ND<2	FALSE

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GWC-24	6/14/2017	ND<2	FALSE
GWC-24	12/13/2017	ND<2	FALSE
GWC-24	6/19/2018	ND<2	FALSE
GWC-24	12/19/2018	ND<2	FALSE
GWC-24	6/11/2019	ND<2	FALSE
GWC-24	12/9/2019	ND<2	FALSE
GWC-24	6/24/2020	ND<2	FALSE
GWC-24	12/15/2020	ND<2	FALSE
GWC-24	6/14/2021	ND<2	FALSE
GWC-24	12/14/2021	ND<2	FALSE
GWC-24	6/7/2022	ND<2	FALSE
GWC-24	12/14/2022	ND<2	FALSE

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GWC-10	6/15/2017	ND<2	FALSE
GWC-10	12/12/2017	ND<2	FALSE
GWC-10	6/19/2018	ND<2	FALSE
GWC-10	12/17/2018	ND<2	FALSE
GWC-10	6/10/2019	ND<2	FALSE
GWC-10	12/12/2019	ND<2	FALSE

GWC-10	6/24/2020	ND<2	FALSE
GWC-10	12/15/2020	ND<2	FALSE
GWC-10	6/15/2021	ND<2	FALSE
GWC-10	12/15/2021	ND<2	FALSE
GWC-10	6/7/2022	ND<2	FALSE
GWC-10	12/14/2022	ND<2	FALSE

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GWC-10A	6/15/2017	ND<2	FALSE
GWC-10A	12/12/2017	ND<2	FALSE
GWC-10A	6/19/2018	ND<2	FALSE
GWC-10A	12/17/2018	ND<2	FALSE
GWC-10A	6/10/2019	ND<2	FALSE
GWC-10A	12/12/2019	ND<2	FALSE
GWC-10A	6/24/2020	ND<2	FALSE
GWC-10A	12/15/2020	ND<2	FALSE
GWC-10A	6/15/2021	ND<2	FALSE
GWC-10A	12/15/2021	ND<2	FALSE
GWC-10A	6/7/2022	ND<2	FALSE
GWC-10A	12/14/2022	ND<2	FALSE

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GWC-2	6/15/2017	ND<2	FALSE
GWC-2	12/13/2017	ND<2	FALSE
GWC-2	6/20/2018	ND<2	FALSE
GWC-2	12/19/2018	ND<2	FALSE
GWC-2	6/12/2019	ND<2	FALSE
GWC-2	12/10/2019	ND<2	FALSE
GWC-2	6/22/2020	ND<2	FALSE
GWC-2	12/16/2020	ND<2	FALSE
GWC-2	6/15/2021	ND<2	FALSE
GWC-2	12/15/2021	ND<2	FALSE
GWC-2	6/7/2022	ND<2	FALSE
GWC-2	12/12/2022	ND<2	FALSE

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GWC-3	6/15/2017	ND<2	FALSE
GWC-3	6/21/2018	ND<2	FALSE
GWC-3	12/17/2018	ND<2	FALSE
GWC-3	6/11/2019	ND<2	FALSE
GWC-3	12/10/2019	ND<2	FALSE
GWC-3	6/24/2020	ND<2	FALSE
GWC-3	12/16/2020	ND<2	FALSE
GWC-3	6/15/2021	ND<2	FALSE
GWC-3	12/15/2021	ND<2	FALSE
GWC-3	6/7/2022	ND<2	FALSE
GWC-3	12/12/2022	ND<2	FALSE

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GWC-3A	6/15/2017	ND<2	FALSE
GWC-3A	12/12/2017	ND<2	FALSE
GWC-3A	6/20/2018	ND<2	FALSE
GWC-3A	12/17/2018	ND<2	FALSE
GWC-3A	6/11/2019	ND<2	FALSE
GWC-3A	12/10/2019	ND<2	FALSE
GWC-3A	6/24/2020	ND<2	FALSE
GWC-3A	12/16/2020	ND<2	FALSE
GWC-3A	6/14/2021	ND<2	FALSE
GWC-3A	12/15/2021	ND<2	FALSE

GWC-3A	6/7/2022	ND<2	FALSE
GWC-3A	12/12/2022	ND<2	FALSE

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GWC-9	6/15/2017	ND<2	FALSE
GWC-9	12/13/2017	ND<2	FALSE
GWC-9	6/20/2018	ND<2	FALSE
GWC-9	12/18/2018	ND<2	FALSE
GWC-9	6/12/2019	ND<2	FALSE
GWC-9	12/12/2019	ND<2	FALSE
GWC-9	6/24/2020	ND<2	FALSE
GWC-9	12/17/2020	ND<2	FALSE
GWC-9	6/15/2021	ND<2	FALSE
GWC-9	12/13/2021	ND<2	FALSE
GWC-9	6/7/2022	ND<2	FALSE
GWC-9	12/14/2022	ND<2	FALSE

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GWC-8	12/12/2017	ND<2	FALSE
GWC-8	6/20/2018	ND<2	FALSE
GWC-8	12/19/2018	ND<2	FALSE
GWC-8	6/12/2019	ND<2	FALSE
GWC-8	12/11/2019	ND<2	FALSE
GWC-8	6/23/2020	ND<2	FALSE
GWC-8	12/16/2020	ND<2	FALSE
GWC-8	6/16/2021	ND<2	FALSE
GWC-8	12/15/2021	ND<2	FALSE
GWC-8	6/9/2022	ND<2	FALSE
GWC-8	12/13/2022	ND<2	FALSE

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GWC-4	6/20/2018	ND<2	FALSE
GWC-4	6/23/2020	ND<2	FALSE
GWC-4	12/17/2020	ND<2	FALSE
GWC-4	6/16/2021	ND<2	FALSE
GWC-4	12/14/2021	ND<2	FALSE
GWC-4	6/8/2022	ND<2	FALSE
GWC-4	12/12/2022	ND<2	FALSE

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## Non-Parametric Tolerance Interval

### Parameter: cis-1,2-Dichloroethene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 72.25%

Background measurements (n) = 25

Maximum Background Concentration = 2

Minimum Coverage = 88.7%

Average Coverage = 96.1538%

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Location	Date	Value	Significant
GWA-1A	6/12/2017	ND<2	FALSE
GWA-1A	12/13/2017	ND<2	FALSE
GWA-1A	6/19/2018	ND<2	FALSE
GWA-1A	12/18/2018	ND<2	FALSE
GWA-1A	6/10/2019	ND<2	FALSE
GWA-1A	12/9/2019	ND<2	FALSE
GWA-1A	6/23/2020	ND<2	FALSE
GWA-1A	12/17/2020	ND<2	FALSE
GWA-1A	6/17/2021	ND<2	FALSE
GWA-1A	12/16/2021	ND<2	FALSE
GWA-1A	6/8/2022	ND<2	FALSE
GWA-1A	12/14/2022	ND<2	FALSE

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GWC-5	6/12/2017	ND<2	FALSE
GWC-5	12/12/2017	ND<2	FALSE
GWC-5	6/21/2018	ND<2	FALSE
GWC-5	12/18/2018	ND<2	FALSE
GWC-5	6/12/2019	ND<2	FALSE
GWC-5	12/10/2019	ND<2	FALSE
GWC-5	6/23/2020	ND<2	FALSE
GWC-5	12/17/2020	ND<2	FALSE
GWC-5	6/15/2021	ND<2	FALSE
GWC-5	12/13/2021	ND<2	FALSE
GWC-5	6/8/2022	ND<2	FALSE
GWC-5	12/12/2022	ND<2	FALSE

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GWC-6	6/12/2017	ND<2	FALSE
GWC-6	12/13/2017	ND<2	FALSE
GWC-6	6/21/2018	ND<2	FALSE
GWC-6	12/19/2018	ND<2	FALSE
GWC-6	6/12/2019	ND<2	FALSE
GWC-6	12/10/2019	ND<2	FALSE
GWC-6	6/24/2020	ND<2	FALSE
GWC-6	12/17/2020	ND<2	FALSE
GWC-6	6/15/2021	ND<2	FALSE
GWC-6	12/13/2021	ND<2	FALSE
GWC-6	6/8/2022	ND<2	FALSE
GWC-6	12/14/2022	ND<2	FALSE

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GWC-7	6/12/2017	ND<2	FALSE
GWC-7	12/12/2017	ND<2	FALSE
GWC-7	6/19/2018	ND<2	FALSE

GWC-7	12/18/2018	ND<2	FALSE
GWC-7	6/12/2019	ND<2	FALSE
GWC-7	12/11/2019	ND<2	FALSE
GWC-7	6/24/2020	ND<2	FALSE
GWC-7	12/17/2020	ND<2	FALSE
GWC-7	6/15/2021	ND<2	FALSE
GWC-7	12/13/2021	ND<2	FALSE
GWC-7	6/8/2022	ND<2	FALSE
GWC-7	12/12/2022	ND<2	FALSE

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GWC-14	6/13/2017	ND<2	FALSE
GWC-14	6/20/2018	ND<2	FALSE
GWC-14	6/11/2019	ND<2	FALSE
GWC-14	12/10/2019	ND<2	FALSE
GWC-14	6/24/2020	ND<2	FALSE
GWC-14	12/17/2020	ND<2	FALSE
GWC-14	6/15/2021	ND<2	FALSE
GWC-14	12/15/2021	ND<2	FALSE
GWC-14	6/9/2022	ND<2	FALSE
GWC-14	12/13/2022	ND<2	FALSE

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<b>GWC-14A</b>	<b>6/13/2017</b>	<b>64</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/12/2017</b>	<b>62</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/20/2018</b>	<b>71</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/19/2018</b>	<b>53</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/11/2019</b>	<b>46</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/10/2019</b>	<b>65</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/24/2020</b>	<b>62</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/15/2020</b>	<b>69</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/15/2021</b>	<b>59</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/14/2021</b>	<b>77</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/9/2022</b>	<b>54</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/13/2022</b>	<b>86</b>	<b>TRUE</b>

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<b>GWC-14R</b>	<b>6/13/2017</b>	<b>26</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/12/2017</b>	<b>20</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/20/2018</b>	<b>24</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/19/2018</b>	<b>17</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/12/2019</b>	<b>21</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/10/2019</b>	<b>19</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/23/2020</b>	<b>26</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/17/2020</b>	<b>28</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/16/2021</b>	<b>26</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/14/2021</b>	<b>24</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/9/2022</b>	<b>21</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/13/2022</b>	<b>22</b>	<b>TRUE</b>

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GWC-4A	6/13/2017	ND<2	FALSE
GWC-4A	12/12/2017	ND<2	FALSE
GWC-4A	6/20/2018	ND<2	FALSE
GWC-4A	12/17/2018	ND<2	FALSE
GWC-4A	6/11/2019	ND<2	FALSE
GWC-4A	12/11/2019	ND<2	FALSE
GWC-4A	6/23/2020	ND<2	FALSE
GWC-4A	12/17/2020	ND<2	FALSE



GWC-4A	6/17/2021	ND<2	FALSE
GWC-4A	12/15/2021	ND<2	FALSE
GWC-4A	6/8/2022	ND<2	FALSE
GWC-4A	12/14/2022	ND<2	FALSE

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<b>GWC-8A</b>	<b>6/13/2017</b>	<b>27</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/12/2017</b>	<b>37</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/20/2018</b>	<b>32</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/19/2018</b>	<b>31</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/12/2019</b>	<b>22</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/11/2019</b>	<b>33</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/23/2020</b>	<b>23</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/15/2020</b>	<b>31</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/16/2021</b>	<b>24</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/15/2021</b>	<b>24</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>6/9/2022</b>	<b>27</b>	<b>TRUE</b>
<b>GWC-8A</b>	<b>12/13/2022</b>	<b>35</b>	<b>TRUE</b>

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<b>GWC-8R</b>	<b>6/13/2017</b>	<b>23</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>12/12/2017</b>	<b>21</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>6/20/2018</b>	<b>24</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>12/19/2018</b>	<b>18</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>6/12/2019</b>	<b>21</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>12/11/2019</b>	<b>24</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>6/23/2020</b>	<b>27</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>12/15/2020</b>	<b>30</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>6/16/2021</b>	<b>32</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>12/15/2021</b>	<b>24</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>6/9/2022</b>	<b>24</b>	<b>TRUE</b>
<b>GWC-8R</b>	<b>12/13/2022</b>	<b>29</b>	<b>TRUE</b>

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GWA-3	6/14/2017	ND<2	FALSE
GWA-3	12/11/2017	ND<2	FALSE
GWA-3	6/18/2018	ND<2	FALSE
GWA-3	12/17/2018	ND<2	FALSE
GWA-3	6/11/2019	ND<2	FALSE
GWA-3	12/10/2019	ND<2	FALSE
GWA-3	6/22/2020	ND<2	FALSE
GWA-3	12/16/2020	ND<2	FALSE
GWA-3	6/14/2021	ND<2	FALSE
GWA-3	12/14/2021	ND<2	FALSE
GWA-3	6/6/2022	ND<2	FALSE
GWA-3	12/13/2022	ND<2	FALSE

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GWC-11	6/14/2017	ND<2	FALSE
GWC-11	12/13/2017	ND<2	FALSE
GWC-11	6/19/2018	ND<2	FALSE
GWC-11	12/19/2018	ND<2	FALSE
GWC-11	6/12/2019	ND<2	FALSE
GWC-11	12/12/2019	ND<2	FALSE
GWC-11	6/24/2020	ND<2	FALSE
GWC-11	12/15/2020	ND<2	FALSE
GWC-11	6/15/2021	ND<2	FALSE
GWC-11	12/13/2021	ND<2	FALSE
GWC-11	6/7/2022	ND<2	FALSE

GWC-11	12/12/2022	ND<2	FALSE
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GWC-12	6/14/2017	ND<2	FALSE
GWC-12	12/13/2017	ND<2	FALSE
GWC-12	6/19/2018	ND<2	FALSE
GWC-12	12/19/2018	ND<2	FALSE
GWC-12	6/11/2019	ND<2	FALSE
GWC-12	12/9/2019	ND<2	FALSE
GWC-12	6/24/2020	ND<2	FALSE
GWC-12	12/15/2020	ND<2	FALSE
GWC-12	6/15/2021	ND<2	FALSE
GWC-12	12/13/2021	ND<2	FALSE
GWC-12	6/7/2022	ND<2	FALSE
GWC-12	12/12/2022	ND<2	FALSE

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GWC-12A	6/14/2017	ND<2	FALSE
GWC-12A	12/13/2017	ND<2	FALSE
GWC-12A	6/19/2018	ND<2	FALSE
GWC-12A	12/19/2018	ND<2	FALSE
GWC-12A	6/11/2019	ND<2	FALSE
GWC-12A	12/9/2019	ND<2	FALSE
GWC-12A	6/24/2020	ND<2	FALSE
GWC-12A	12/15/2020	ND<2	FALSE
GWC-12A	6/15/2021	ND<2	FALSE
GWC-12A	12/13/2021	ND<2	FALSE
GWC-12A	6/7/2022	ND<2	FALSE
GWC-12A	12/12/2022	ND<2	FALSE

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GWC-13	6/14/2017	ND<2	FALSE
GWC-13	12/12/2017	ND<2	FALSE
GWC-13	6/19/2018	ND<2	FALSE
GWC-13	12/19/2018	ND<2	FALSE
GWC-13	6/12/2019	ND<2	FALSE
GWC-13	12/11/2019	ND<2	FALSE
GWC-13	6/23/2020	ND<2	FALSE
GWC-13	12/15/2020	ND<2	FALSE
GWC-13	6/15/2021	ND<2	FALSE
GWC-13	12/15/2021	ND<2	FALSE
GWC-13	6/8/2022	ND<2	FALSE
GWC-13	12/12/2022	ND<2	FALSE

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<b>GWC-15</b>	<b>6/14/2017</b>	<b>10</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/13/2017</b>	<b>11</b>	<b>TRUE</b>
GWC-15	6/19/2018	2	FALSE
<b>GWC-15</b>	<b>12/19/2018</b>	<b>2.9</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/11/2019</b>	<b>97</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/10/2019</b>	<b>51</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/25/2020</b>	<b>110</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/17/2020</b>	<b>110</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/16/2021</b>	<b>130</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/14/2021</b>	<b>140</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/9/2022</b>	<b>150</b>	<b>TRUE</b>
GWC-15	12/15/2022	ND<2	FALSE

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GWC-16A	6/14/2017	39	TRUE
GWC-16A	12/13/2017	2.9	TRUE
GWC-16A	6/21/2018	ND<2	FALSE
GWC-16A	12/19/2018	2.5	TRUE
GWC-16A	6/13/2019	ND<2	FALSE
GWC-16A	12/11/2019	2.1	TRUE
GWC-16A	6/23/2020	2.2	TRUE
GWC-16A	12/17/2020	2.3	TRUE
GWC-16A	6/16/2021	2.1	TRUE
GWC-16A	12/16/2021	ND<2	FALSE
GWC-16A	6/9/2022	ND<2	FALSE
GWC-16A	12/14/2022	ND<2	FALSE

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GWC-17	6/14/2017	8.4	TRUE
GWC-17	12/12/2017	17	TRUE
GWC-17	6/19/2018	4.7	TRUE
GWC-17	12/19/2018	8.7	TRUE
GWC-17	6/12/2019	ND<2	FALSE
GWC-17	12/10/2019	15	TRUE
GWC-17	6/23/2020	ND<2	FALSE
GWC-17	12/15/2020	22	TRUE
GWC-17	6/14/2021	2.2	TRUE
GWC-17	12/14/2021	7.6	TRUE
GWC-17	6/9/2022	5.4	TRUE
GWC-17	12/14/2022	2.1	TRUE

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GWC-18	6/14/2017	16	TRUE
GWC-18	12/13/2017	14	TRUE
GWC-18	6/19/2018	7.7	TRUE
GWC-18	12/18/2018	12	TRUE
GWC-18	6/11/2019	14	TRUE
GWC-18	12/9/2019	30	TRUE
GWC-18	6/23/2020	10	TRUE
GWC-18	12/15/2020	26	TRUE
GWC-18	6/14/2021	6.2	TRUE
GWC-18	12/14/2021	10	TRUE
GWC-18	6/7/2022	13	TRUE
GWC-18	12/14/2022	20	TRUE

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GWC-19R	6/14/2017	2.4	TRUE
GWC-19R	12/13/2017	4.7	TRUE
GWC-19R	6/19/2018	5.1	TRUE
GWC-19R	12/18/2018	2.9	TRUE
GWC-19R	6/11/2019	7.7	TRUE
GWC-19R	12/9/2019	11	TRUE
GWC-19R	6/23/2020	7.2	TRUE
GWC-19R	12/15/2020	7.9	TRUE
GWC-19R	6/14/2021	5.3	TRUE
GWC-19R	12/14/2021	7.9	TRUE
GWC-19R	6/6/2022	4	TRUE
GWC-19R	12/14/2022	9.9	TRUE

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GWC-22	6/14/2017	ND<2	FALSE
GWC-22	12/11/2017	ND<2	FALSE
GWC-22	6/19/2018	ND<2	FALSE

GWC-22	12/18/2018	ND<2	FALSE
GWC-22	6/12/2019	ND<2	FALSE
GWC-22	12/11/2019	ND<2	FALSE
GWC-22	6/23/2020	ND<2	FALSE
GWC-22	12/17/2020	ND<2	FALSE
GWC-22	6/14/2021	ND<2	FALSE
GWC-22	12/13/2021	ND<2	FALSE
GWC-22	6/6/2022	ND<2	FALSE
GWC-22	12/12/2022	ND<2	FALSE

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GWC-23	6/14/2017	ND<2	FALSE
GWC-23	12/11/2017	ND<2	FALSE
GWC-23	6/18/2018	ND<2	FALSE
GWC-23	12/18/2018	ND<2	FALSE
GWC-23	6/12/2019	ND<2	FALSE
GWC-23	12/11/2019	ND<2	FALSE
GWC-23	6/24/2020	ND<2	FALSE
GWC-23	12/16/2020	ND<2	FALSE
GWC-23	6/14/2021	ND<2	FALSE
GWC-23	12/13/2021	ND<2	FALSE
GWC-23	6/6/2022	ND<2	FALSE
GWC-23	12/12/2022	ND<2	FALSE

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GWC-23A	6/14/2017	ND<2	FALSE
GWC-23A	12/11/2017	ND<2	FALSE
GWC-23A	6/18/2018	ND<2	FALSE
GWC-23A	12/18/2018	ND<2	FALSE
GWC-23A	6/12/2019	ND<2	FALSE
GWC-23A	12/11/2019	ND<2	FALSE
GWC-23A	6/24/2020	ND<2	FALSE
GWC-23A	12/16/2020	ND<2	FALSE
GWC-23A	6/14/2021	ND<2	FALSE
GWC-23A	12/13/2021	ND<2	FALSE
GWC-23A	6/6/2022	ND<2	FALSE
GWC-23A	12/12/2022	ND<2	FALSE

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GWC-24	6/14/2017	ND<2	FALSE
GWC-24	12/13/2017	ND<2	FALSE
<b>GWC-24</b>	<b>6/19/2018</b>	<b>2.2</b>	<b>TRUE</b>
<b>GWC-24</b>	<b>12/19/2018</b>	<b>3.7</b>	<b>TRUE</b>
<b>GWC-24</b>	<b>6/11/2019</b>	<b>4.4</b>	<b>TRUE</b>
<b>GWC-24</b>	<b>12/9/2019</b>	<b>6.1</b>	<b>TRUE</b>
<b>GWC-24</b>	<b>6/24/2020</b>	<b>3</b>	<b>TRUE</b>
<b>GWC-24</b>	<b>12/15/2020</b>	<b>3.5</b>	<b>TRUE</b>
GWC-24	6/14/2021	ND<2	FALSE
GWC-24	12/14/2021	ND<2	FALSE
GWC-24	6/7/2022	ND<2	FALSE
GWC-24	12/14/2022	ND<2	FALSE

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GWC-10	6/15/2017	ND<2	FALSE
GWC-10	12/12/2017	ND<2	FALSE
GWC-10	6/19/2018	ND<2	FALSE
GWC-10	12/17/2018	ND<2	FALSE
GWC-10	6/10/2019	ND<2	FALSE
GWC-10	12/12/2019	ND<2	FALSE

GWC-10	6/24/2020	ND<2	FALSE
GWC-10	12/15/2020	ND<2	FALSE
GWC-10	6/15/2021	ND<2	FALSE
GWC-10	12/15/2021	ND<2	FALSE
GWC-10	6/7/2022	ND<2	FALSE
GWC-10	12/14/2022	ND<2	FALSE

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GWC-10A	6/15/2017	ND<2	FALSE
GWC-10A	12/12/2017	ND<2	FALSE
GWC-10A	6/19/2018	ND<2	FALSE
GWC-10A	12/17/2018	ND<2	FALSE
GWC-10A	6/10/2019	ND<2	FALSE
GWC-10A	12/12/2019	ND<2	FALSE
GWC-10A	6/24/2020	ND<2	FALSE
GWC-10A	12/15/2020	ND<2	FALSE
GWC-10A	6/15/2021	ND<2	FALSE
GWC-10A	12/15/2021	ND<2	FALSE
GWC-10A	6/7/2022	ND<2	FALSE
GWC-10A	12/14/2022	ND<2	FALSE

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GWC-2	6/15/2017	ND<2	FALSE
GWC-2	12/13/2017	ND<2	FALSE
GWC-2	6/20/2018	ND<2	FALSE
GWC-2	12/19/2018	ND<2	FALSE
GWC-2	6/12/2019	ND<2	FALSE
GWC-2	12/10/2019	ND<2	FALSE
GWC-2	6/22/2020	ND<2	FALSE
GWC-2	12/16/2020	ND<2	FALSE
GWC-2	6/15/2021	ND<2	FALSE
GWC-2	12/15/2021	ND<2	FALSE
GWC-2	6/7/2022	ND<2	FALSE
GWC-2	12/12/2022	ND<2	FALSE

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GWC-3	6/15/2017	ND<2	FALSE
GWC-3	6/21/2018	ND<2	FALSE
GWC-3	12/17/2018	ND<2	FALSE
GWC-3	6/11/2019	ND<2	FALSE
GWC-3	12/10/2019	ND<2	FALSE
GWC-3	6/24/2020	ND<2	FALSE
GWC-3	12/16/2020	ND<2	FALSE
GWC-3	6/15/2021	ND<2	FALSE
GWC-3	12/15/2021	ND<2	FALSE
GWC-3	6/7/2022	ND<2	FALSE
GWC-3	12/12/2022	ND<2	FALSE

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GWC-3A	6/15/2017	ND<2	FALSE
GWC-3A	12/12/2017	ND<2	FALSE
GWC-3A	6/20/2018	ND<2	FALSE
GWC-3A	12/17/2018	ND<2	FALSE
GWC-3A	6/11/2019	ND<2	FALSE
GWC-3A	12/10/2019	ND<2	FALSE
GWC-3A	6/24/2020	ND<2	FALSE
GWC-3A	12/16/2020	ND<2	FALSE
GWC-3A	6/14/2021	ND<2	FALSE
GWC-3A	12/15/2021	ND<2	FALSE

GWC-3A	6/7/2022	ND<2	FALSE
GWC-3A	12/12/2022	ND<2	FALSE

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GWC-9	6/15/2017	ND<2	FALSE
GWC-9	12/13/2017	ND<2	FALSE
GWC-9	6/20/2018	ND<2	FALSE
GWC-9	12/18/2018	ND<2	FALSE
GWC-9	6/12/2019	ND<2	FALSE
GWC-9	12/12/2019	ND<2	FALSE
GWC-9	6/24/2020	ND<2	FALSE
GWC-9	12/17/2020	ND<2	FALSE
GWC-9	6/15/2021	ND<2	FALSE
GWC-9	12/13/2021	ND<2	FALSE
GWC-9	6/7/2022	ND<2	FALSE
GWC-9	12/14/2022	ND<2	FALSE

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<b>GWC-8</b>	<b>12/12/2017</b>	<b>7.6</b>	<b>TRUE</b>
<b>GWC-8</b>	<b>6/20/2018</b>	<b>2.6</b>	<b>TRUE</b>
<b>GWC-8</b>	<b>12/19/2018</b>	<b>4.3</b>	<b>TRUE</b>
GWC-8	6/12/2019	ND<2	FALSE
<b>GWC-8</b>	<b>12/11/2019</b>	<b>2.8</b>	<b>TRUE</b>
GWC-8	6/23/2020	ND<2	FALSE
GWC-8	12/16/2020	ND<2	FALSE
GWC-8	6/16/2021	ND<2	FALSE
GWC-8	12/15/2021	ND<2	FALSE
GWC-8	6/9/2022	ND<2	FALSE
<b>GWC-8</b>	<b>12/13/2022</b>	<b>3.4</b>	<b>TRUE</b>

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GWC-4	6/20/2018	ND<2	FALSE
GWC-4	6/23/2020	ND<2	FALSE
GWC-4	12/17/2020	ND<2	FALSE
GWC-4	6/16/2021	ND<2	FALSE
GWC-4	12/14/2021	ND<2	FALSE
GWC-4	6/8/2022	ND<2	FALSE
GWC-4	12/12/2022	ND<2	FALSE

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## Non-Parametric Tolerance Interval

### Parameter: Cobalt

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 94.0379%

Background measurements (n) = 25

Maximum Background Concentration = 40

Minimum Coverage = 88.7%

Average Coverage = 96.1538%

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Location	Date	Value	Significant
GWA-1A	6/12/2017	ND<40	FALSE
GWA-1A	12/13/2017	ND<40	FALSE
GWA-1A	6/20/2018	ND<40	FALSE
GWA-1A	12/18/2018	ND<40	FALSE
GWA-1A	6/10/2019	ND<40	FALSE
GWA-1A	12/9/2019	ND<40	FALSE
GWA-1A	6/23/2020	ND<40	FALSE
GWA-1A	12/17/2020	ND<40	FALSE
GWA-1A	6/17/2021	ND<40	FALSE
GWA-1A	12/16/2021	ND<40	FALSE
GWA-1A	6/8/2022	ND<40	FALSE
GWA-1A	12/14/2022	ND<40	FALSE

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<b>GWC-14A</b>	<b>6/13/2017</b>	<b>370</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/13/2017</b>	<b>280</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/21/2018</b>	<b>310</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/19/2018</b>	<b>290</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/12/2019</b>	<b>330</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/11/2019</b>	<b>228</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/24/2020</b>	<b>301</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/16/2020</b>	<b>298</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/16/2021</b>	<b>306</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/15/2021</b>	<b>192</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/10/2022</b>	<b>252</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/14/2022</b>	<b>192</b>	<b>TRUE</b>

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GWC-5	6/13/2017	ND<40	FALSE
GWC-5	12/13/2017	ND<40	FALSE
GWC-5	6/21/2018	ND<40	FALSE
GWC-5	12/19/2018	ND<40	FALSE
GWC-5	6/13/2019	ND<40	FALSE
GWC-5	12/11/2019	ND<40	FALSE
GWC-5	6/24/2020	ND<40	FALSE
GWC-5	12/18/2020	ND<40	FALSE
GWC-5	6/16/2021	ND<40	FALSE
GWC-5	12/14/2021	ND<40	FALSE
GWC-5	6/9/2022	ND<40	FALSE
GWC-5	12/13/2022	ND<40	FALSE

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GWC-6	6/13/2017	ND<40	FALSE
GWC-6	12/14/2017	ND<40	FALSE
GWC-6	6/21/2018	ND<40	FALSE

GWC-6	12/20/2018	ND<40	FALSE
GWC-6	6/13/2019	ND<40	FALSE
GWC-6	12/11/2019	ND<40	FALSE
GWC-6	6/25/2020	ND<40	FALSE
GWC-6	12/18/2020	ND<40	FALSE
GWC-6	6/16/2021	ND<40	FALSE
GWC-6	12/14/2021	ND<40	FALSE
GWC-6	6/9/2022	ND<40	FALSE
GWC-6	12/15/2022	ND<40	FALSE

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GWC-7	6/13/2017	ND<40	FALSE
GWC-7	12/13/2017	ND<40	FALSE
GWC-7	6/20/2018	ND<40	FALSE
GWC-7	12/19/2018	ND<40	FALSE
GWC-7	6/13/2019	ND<40	FALSE
GWC-7	12/12/2019	ND<40	FALSE
GWC-7	6/25/2020	ND<40	FALSE
GWC-7	12/18/2020	ND<40	FALSE
GWC-7	6/16/2021	ND<40	FALSE
GWC-7	12/14/2021	ND<40	FALSE
GWC-7	6/9/2022	ND<40	FALSE
GWC-7	12/13/2022	ND<40	FALSE

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GWC-15	6/14/2017	ND<40	FALSE
GWC-15	12/14/2017	ND<40	FALSE
GWC-15	6/20/2018	ND<40	FALSE
GWC-15	12/19/2018	ND<40	FALSE
GWC-15	6/11/2019	ND<40	FALSE
GWC-15	12/10/2019	ND<40	FALSE
GWC-15	6/25/2020	ND<40	FALSE
GWC-15	12/17/2020	ND<40	FALSE
GWC-15	6/16/2021	ND<40	FALSE
GWC-15	12/14/2021	ND<40	FALSE
GWC-15	6/9/2022	ND<40	FALSE
GWC-15	12/15/2022	ND<40	FALSE

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GWC-4A	6/14/2017	ND<40	FALSE
GWC-4A	12/13/2017	ND<40	FALSE
GWC-4A	6/21/2018	ND<40	FALSE
GWC-4A	12/18/2018	ND<40	FALSE
GWC-4A	6/12/2019	ND<40	FALSE
GWC-4A	12/12/2019	ND<40	FALSE
GWC-4A	6/24/2020	ND<40	FALSE
GWC-4A	12/18/2020	ND<40	FALSE
GWC-4A	6/18/2021	ND<40	FALSE
GWC-4A	12/16/2021	ND<40	FALSE
GWC-4A	6/8/2022	ND<40	FALSE
GWC-4A	12/15/2022	ND<40	FALSE

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GWC-8A	6/14/2017	ND<40	FALSE
GWC-8A	12/13/2017	ND<40	FALSE
GWC-8A	6/21/2018	ND<40	FALSE
GWC-8A	12/20/2018	ND<40	FALSE
GWC-8A	6/13/2019	ND<40	FALSE
GWC-8A	12/12/2019	ND<40	FALSE



GWC-8A	6/24/2020	ND<40	FALSE
GWC-8A	12/16/2020	ND<40	FALSE
GWC-8A	6/17/2021	ND<40	FALSE
GWC-8A	12/16/2021	ND<40	FALSE
GWC-8A	6/10/2022	ND<40	FALSE
GWC-8A	12/14/2022	ND<40	FALSE

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GWA-3	6/15/2017	ND<40	FALSE
GWA-3	12/12/2017	ND<40	FALSE
GWA-3	6/19/2018	ND<40	FALSE
GWA-3	12/18/2018	ND<40	FALSE
GWA-3	6/12/2019	ND<40	FALSE
GWA-3	12/11/2019	ND<40	FALSE
GWA-3	6/23/2020	ND<40	FALSE
GWA-3	12/17/2020	ND<40	FALSE
GWA-3	6/15/2021	ND<40	FALSE
GWA-3	12/15/2021	ND<40	FALSE
GWA-3	6/7/2022	ND<40	FALSE
GWA-3	12/14/2022	ND<40	FALSE

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GWC-11	6/15/2017	ND<40	FALSE
GWC-11	12/14/2017	ND<40	FALSE
GWC-11	6/20/2018	ND<40	FALSE
GWC-11	12/20/2018	ND<40	FALSE
GWC-11	6/13/2019	ND<40	FALSE
GWC-11	12/13/2019	ND<40	FALSE
GWC-11	6/25/2020	ND<40	FALSE
GWC-11	12/16/2020	ND<40	FALSE
GWC-11	6/16/2021	ND<40	FALSE
GWC-11	12/14/2021	ND<40	FALSE
GWC-11	6/8/2022	ND<40	FALSE
GWC-11	12/13/2022	ND<40	FALSE

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GWC-12	6/15/2017	ND<40	FALSE
GWC-12	12/14/2017	ND<40	FALSE
GWC-12	6/20/2018	ND<40	FALSE
GWC-12	12/20/2018	ND<40	FALSE
GWC-12	6/12/2019	ND<40	FALSE
GWC-12	12/10/2019	ND<40	FALSE
GWC-12	6/25/2020	ND<40	FALSE
GWC-12	12/22/2020	ND<40	FALSE
GWC-12	6/16/2021	ND<40	FALSE
GWC-12	12/14/2021	ND<40	FALSE
GWC-12	6/8/2022	ND<40	FALSE
GWC-12	12/13/2022	ND<40	FALSE

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GWC-12A	6/15/2017	ND<40	FALSE
GWC-12A	12/14/2017	ND<40	FALSE
GWC-12A	6/20/2018	ND<40	FALSE
GWC-12A	12/20/2018	ND<40	FALSE
GWC-12A	6/12/2019	ND<40	FALSE
GWC-12A	12/10/2019	ND<40	FALSE
GWC-12A	6/25/2020	ND<40	FALSE
GWC-12A	12/16/2020	ND<40	FALSE
GWC-12A	6/16/2021	ND<40	FALSE

GWC-12A	12/14/2021	ND<40	FALSE
GWC-12A	6/8/2022	ND<40	FALSE
GWC-12A	12/13/2022	ND<40	FALSE
<hr/>			
GWC-13	6/15/2017	ND<40	FALSE
GWC-13	12/13/2017	ND<40	FALSE
GWC-13	6/20/2018	ND<40	FALSE
GWC-13	12/20/2018	ND<40	FALSE
GWC-13	6/13/2019	ND<40	FALSE
GWC-13	12/12/2019	ND<40	FALSE
GWC-13	6/24/2020	ND<40	FALSE
GWC-13	12/16/2020	ND<40	FALSE
GWC-13	6/16/2021	ND<40	FALSE
GWC-13	12/16/2021	ND<40	FALSE
GWC-13	6/9/2022	ND<40	FALSE
GWC-13	12/13/2022	ND<40	FALSE
<hr/>			
<b>GWC-16A</b>	<b>6/15/2017</b>	<b>81</b>	<b>TRUE</b>
GWC-16A	12/14/2017	ND<40	FALSE
GWC-16A	6/21/2018	ND<40	FALSE
GWC-16A	12/20/2018	ND<40	FALSE
GWC-16A	6/13/2019	ND<40	FALSE
GWC-16A	12/12/2019	ND<40	FALSE
GWC-16A	6/23/2020	ND<40	FALSE
GWC-16A	12/17/2020	ND<40	FALSE
GWC-16A	6/16/2021	ND<40	FALSE
GWC-16A	12/16/2021	ND<40	FALSE
<b>GWC-16A</b>	<b>6/10/2022</b>	<b>ND&lt;50</b>	<b>TRUE</b>
GWC-16A	12/15/2022	ND<40	FALSE
<hr/>			
GWC-17	6/15/2017	ND<40	FALSE
GWC-17	12/13/2017	ND<40	FALSE
GWC-17	6/20/2018	ND<40	FALSE
GWC-17	12/20/2018	ND<40	FALSE
GWC-17	6/13/2019	ND<40	FALSE
GWC-17	12/11/2019	ND<40	FALSE
GWC-17	6/24/2020	ND<40	FALSE
GWC-17	12/16/2020	ND<40	FALSE
GWC-17	6/15/2021	ND<40	FALSE
GWC-17	12/15/2021	ND<40	FALSE
<b>GWC-17</b>	<b>6/10/2022</b>	<b>ND&lt;50</b>	<b>TRUE</b>
GWC-17	12/15/2022	ND<40	FALSE
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GWC-18	6/15/2017	ND<40	FALSE
GWC-18	12/14/2017	ND<40	FALSE
GWC-18	6/20/2018	ND<40	FALSE
GWC-18	12/19/2018	ND<40	FALSE
GWC-18	6/12/2019	ND<40	FALSE
GWC-18	12/10/2019	ND<40	FALSE
GWC-18	6/24/2020	ND<40	FALSE
GWC-18	12/16/2020	ND<40	FALSE
GWC-18	6/15/2021	ND<40	FALSE
GWC-18	12/15/2021	ND<40	FALSE
<b>GWC-18</b>	<b>6/8/2022</b>	<b>ND&lt;50</b>	<b>TRUE</b>
GWC-18	12/15/2022	ND<40	FALSE

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GWC-19R	6/15/2017	ND<40	FALSE
GWC-19R	12/14/2017	ND<40	FALSE
GWC-19R	6/20/2018	ND<40	FALSE
GWC-19R	12/19/2018	ND<40	FALSE
GWC-19R	6/12/2019	ND<40	FALSE
GWC-19R	12/10/2019	ND<40	FALSE
GWC-19R	6/24/2020	ND<40	FALSE
GWC-19R	12/16/2020	ND<40	FALSE
<b>GWC-19R</b>	<b>6/15/2021</b>	<b>45.2</b>	<b>TRUE</b>
<b>GWC-19R</b>	<b>12/15/2021</b>	<b>40.4</b>	<b>TRUE</b>
<b>GWC-19R</b>	<b>6/7/2022</b>	<b>ND&lt;50</b>	<b>TRUE</b>
GWC-19R	12/15/2022	ND<40	FALSE

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GWC-22	6/15/2017	ND<40	FALSE
GWC-22	12/12/2017	ND<40	FALSE
GWC-22	6/20/2018	ND<40	FALSE
GWC-22	12/19/2018	ND<40	FALSE
GWC-22	6/13/2019	ND<40	FALSE
GWC-22	12/12/2019	ND<40	FALSE
GWC-22	6/24/2020	ND<40	FALSE
GWC-22	12/18/2020	ND<40	FALSE
GWC-22	6/15/2021	ND<40	FALSE
GWC-22	12/14/2021	ND<40	FALSE
GWC-22	6/7/2022	ND<40	FALSE
GWC-22	12/13/2022	ND<40	FALSE

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GWC-23	6/15/2017	ND<40	FALSE
GWC-23	12/12/2017	ND<40	FALSE
GWC-23	6/19/2018	ND<40	FALSE
GWC-23	12/19/2018	ND<40	FALSE
GWC-23	6/13/2019	ND<40	FALSE
GWC-23	12/12/2019	ND<40	FALSE
GWC-23	6/24/2020	ND<40	FALSE
GWC-23	12/17/2020	ND<40	FALSE
GWC-23	6/15/2021	ND<40	FALSE
GWC-23	12/14/2021	ND<40	FALSE
GWC-23	6/7/2022	ND<40	FALSE
GWC-23	12/13/2022	ND<40	FALSE

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GWC-23A	6/15/2017	ND<40	FALSE
GWC-23A	12/12/2017	ND<40	FALSE
GWC-23A	6/19/2018	ND<40	FALSE
GWC-23A	12/19/2018	ND<40	FALSE
GWC-23A	6/13/2019	ND<40	FALSE
GWC-23A	12/12/2019	ND<40	FALSE
GWC-23A	6/24/2020	ND<40	FALSE
GWC-23A	12/17/2020	ND<40	FALSE
GWC-23A	6/15/2021	ND<40	FALSE
GWC-23A	12/14/2021	ND<40	FALSE
GWC-23A	6/7/2022	ND<40	FALSE
GWC-23A	12/13/2022	ND<40	FALSE

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GWC-24	6/15/2017	ND<40	FALSE
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GWC-24	6/20/2018	ND<40	FALSE
GWC-24	6/12/2019	ND<40	FALSE
GWC-24	12/10/2019	ND<40	FALSE
GWC-24	6/25/2020	ND<40	FALSE
GWC-24	6/15/2021	ND<40	FALSE
<b>GWC-24</b>	<b>6/8/2022</b>	<b>ND&lt;50</b>	<b>TRUE</b>
GWC-24	12/15/2022	ND<40	FALSE

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GWC-10	6/16/2017	ND<40	FALSE
GWC-10	12/13/2017	ND<40	FALSE
GWC-10	6/20/2018	ND<40	FALSE
GWC-10	12/18/2018	ND<40	FALSE
GWC-10	6/11/2019	ND<40	FALSE
GWC-10	12/13/2019	ND<40	FALSE
GWC-10	6/25/2020	ND<40	FALSE
GWC-10	12/16/2020	ND<40	FALSE
GWC-10	6/16/2021	ND<40	FALSE
GWC-10	12/16/2021	ND<40	FALSE
GWC-10	6/8/2022	ND<40	FALSE
GWC-10	12/15/2022	ND<40	FALSE

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GWC-10A	6/16/2017	ND<40	FALSE
GWC-10A	12/13/2017	ND<40	FALSE
GWC-10A	6/20/2018	ND<40	FALSE
GWC-10A	12/18/2018	ND<40	FALSE
GWC-10A	6/11/2019	ND<40	FALSE
GWC-10A	12/13/2019	ND<40	FALSE
GWC-10A	6/25/2020	ND<40	FALSE
GWC-10A	12/16/2020	ND<40	FALSE
GWC-10A	6/16/2021	ND<40	FALSE
GWC-10A	12/16/2021	ND<40	FALSE
GWC-10A	6/8/2022	ND<40	FALSE
GWC-10A	12/15/2022	ND<40	FALSE

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GWC-2	6/16/2017	ND<40	FALSE
GWC-2	12/14/2017	ND<40	FALSE
GWC-2	6/21/2018	ND<40	FALSE
GWC-2	12/20/2018	ND<40	FALSE
GWC-2	6/13/2019	ND<40	FALSE
GWC-2	12/11/2019	ND<40	FALSE
GWC-2	6/23/2020	ND<40	FALSE
GWC-2	12/17/2020	ND<40	FALSE
GWC-2	6/16/2021	ND<40	FALSE
GWC-2	12/16/2021	ND<40	FALSE
GWC-2	6/8/2022	ND<40	FALSE
GWC-2	12/13/2022	ND<40	FALSE

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GWC-3A	6/16/2017	ND<40	FALSE
GWC-3A	12/13/2017	ND<40	FALSE
GWC-3A	6/21/2018	ND<40	FALSE
GWC-3A	12/18/2018	ND<40	FALSE
GWC-3A	6/12/2019	ND<40	FALSE
GWC-3A	12/11/2019	ND<40	FALSE
GWC-3A	6/25/2020	ND<40	FALSE
GWC-3A	12/17/2020	ND<40	FALSE

GWC-3A	6/15/2021	ND<40	FALSE
GWC-3A	12/16/2021	ND<40	FALSE
GWC-3A	6/8/2022	ND<40	FALSE
GWC-3A	12/13/2022	ND<40	FALSE

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GWC-9	6/16/2017	ND<40	FALSE
GWC-9	12/14/2017	ND<40	FALSE
GWC-9	6/21/2018	ND<40	FALSE
GWC-9	12/19/2018	ND<40	FALSE
GWC-9	6/13/2019	ND<40	FALSE
GWC-9	12/13/2019	ND<40	FALSE
GWC-9	6/25/2020	ND<40	FALSE
GWC-9	12/18/2020	ND<40	FALSE
GWC-9	6/16/2021	ND<40	FALSE
GWC-9	12/14/2021	ND<40	FALSE
GWC-9	6/8/2022	ND<40	FALSE
GWC-9	12/15/2022	ND<40	FALSE

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GWC-8	12/13/2017	ND<40	FALSE
GWC-8	6/21/2018	ND<40	FALSE
GWC-8	6/13/2019	ND<40	FALSE
GWC-8	12/12/2019	ND<40	FALSE
GWC-8	6/24/2020	ND<40	FALSE
GWC-8	12/17/2020	ND<40	FALSE
GWC-8	6/17/2021	ND<40	FALSE
GWC-8	12/16/2021	ND<40	FALSE
GWC-8	6/10/2022	ND<40	FALSE
GWC-8	12/14/2022	ND<40	FALSE

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<b>GWC-14</b>	<b>6/21/2018</b>	<b>42</b>	<b>TRUE</b>
<b>GWC-14</b>	<b>6/12/2019</b>	<b>57</b>	<b>TRUE</b>
<b>GWC-14</b>	<b>12/11/2019</b>	<b>50.3</b>	<b>TRUE</b>
<b>GWC-14</b>	<b>6/25/2020</b>	<b>95.1</b>	<b>TRUE</b>
<b>GWC-14</b>	<b>12/18/2020</b>	<b>55.5</b>	<b>TRUE</b>
<b>GWC-14</b>	<b>6/16/2021</b>	<b>87.6</b>	<b>TRUE</b>
GWC-14	12/16/2021	ND<40	FALSE
<b>GWC-14</b>	<b>6/10/2022</b>	<b>85.5</b>	<b>TRUE</b>

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GWC-3	6/21/2018	ND<40	FALSE
GWC-3	12/18/2018	ND<40	FALSE
GWC-3	6/12/2019	ND<40	FALSE
GWC-3	12/11/2019	ND<40	FALSE
GWC-3	6/25/2020	ND<40	FALSE
GWC-3	12/17/2020	ND<40	FALSE
GWC-3	6/16/2021	ND<40	FALSE
GWC-3	12/16/2021	ND<40	FALSE
GWC-3	6/8/2022	ND<40	FALSE

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GWC-4	6/21/2018	ND<40	FALSE
GWC-4	6/24/2020	ND<40	FALSE
GWC-4	12/18/2020	ND<40	FALSE
GWC-4	6/17/2021	ND<40	FALSE
GWC-4	12/15/2021	ND<40	FALSE
GWC-4	6/9/2022	ND<40	FALSE

GWC-4	12/13/2022	ND<40	FALSE
GWC-14R	6/9/2022	ND<40	FALSE
GWC-8R	6/9/2022	ND<40	FALSE

## Non-Parametric Tolerance Interval

### Parameter: Nickel

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 96.477%

Background measurements (n) = 25

Maximum Background Concentration = 20

Minimum Coverage = 88.7%

Average Coverage = 96.1538%

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Location	Date	Value	Significant
GWA-1A	6/12/2017	ND<20	FALSE
GWA-1A	12/13/2017	ND<20	FALSE
GWA-1A	6/20/2018	ND<20	FALSE
GWA-1A	12/18/2018	ND<20	FALSE
GWA-1A	6/10/2019	ND<20	FALSE
GWA-1A	12/9/2019	ND<20	FALSE
GWA-1A	6/23/2020	ND<20	FALSE
GWA-1A	12/17/2020	ND<20	FALSE
GWA-1A	6/17/2021	ND<20	FALSE
GWA-1A	12/16/2021	ND<20	FALSE
GWA-1A	6/8/2022	ND<20	FALSE
GWA-1A	12/14/2022	ND<20	FALSE

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<b>GWC-14A</b>	<b>6/13/2017</b>	<b>24</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/13/2017</b>	<b>21</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/21/2018</b>	<b>24</b>	<b>TRUE</b>
GWC-14A	12/19/2018	20	FALSE
<b>GWC-14A</b>	<b>6/12/2019</b>	<b>21</b>	<b>TRUE</b>
GWC-14A	12/11/2019	ND<20	FALSE
<b>GWC-14A</b>	<b>6/24/2020</b>	<b>22.2</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/16/2020</b>	<b>23.6</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/16/2021</b>	<b>22.2</b>	<b>TRUE</b>
GWC-14A	12/15/2021	ND<20	FALSE
GWC-14A	6/10/2022	ND<20	FALSE
GWC-14A	12/14/2022	ND<20	FALSE

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GWC-5	6/13/2017	ND<20	FALSE
GWC-5	12/13/2017	ND<20	FALSE
GWC-5	6/21/2018	ND<20	FALSE
GWC-5	12/19/2018	ND<20	FALSE
GWC-5	6/13/2019	ND<20	FALSE
GWC-5	12/11/2019	ND<20	FALSE
GWC-5	6/24/2020	ND<20	FALSE
GWC-5	12/18/2020	ND<20	FALSE
GWC-5	6/16/2021	ND<20	FALSE
GWC-5	12/14/2021	ND<20	FALSE
GWC-5	6/9/2022	ND<20	FALSE
GWC-5	12/13/2022	ND<20	FALSE

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GWC-6	6/13/2017	ND<20	FALSE
GWC-6	12/14/2017	ND<20	FALSE
GWC-6	6/21/2018	ND<20	FALSE

GWC-6	12/20/2018	ND<20	FALSE
GWC-6	6/13/2019	ND<20	FALSE
GWC-6	12/11/2019	ND<20	FALSE
GWC-6	6/25/2020	ND<20	FALSE
GWC-6	12/18/2020	ND<20	FALSE
GWC-6	6/16/2021	ND<20	FALSE
GWC-6	12/14/2021	ND<20	FALSE
GWC-6	6/9/2022	ND<20	FALSE
GWC-6	12/15/2022	ND<20	FALSE

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GWC-7	6/13/2017	ND<20	FALSE
GWC-7	12/13/2017	ND<20	FALSE
GWC-7	6/20/2018	ND<20	FALSE
GWC-7	12/19/2018	ND<20	FALSE
GWC-7	6/13/2019	ND<20	FALSE
GWC-7	12/12/2019	ND<20	FALSE
GWC-7	6/25/2020	ND<20	FALSE
GWC-7	12/18/2020	ND<20	FALSE
GWC-7	6/16/2021	ND<20	FALSE
GWC-7	12/14/2021	ND<20	FALSE
GWC-7	6/9/2022	ND<20	FALSE
GWC-7	12/13/2022	ND<20	FALSE

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GWC-15	6/14/2017	ND<20	FALSE
GWC-15	12/14/2017	ND<20	FALSE
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GWC-15	12/19/2018	ND<20	FALSE
GWC-15	6/11/2019	ND<20	FALSE
GWC-15	12/10/2019	ND<20	FALSE
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GWC-15	12/17/2020	ND<20	FALSE
GWC-15	6/16/2021	ND<20	FALSE
GWC-15	12/14/2021	ND<20	FALSE
GWC-15	6/9/2022	ND<20	FALSE
GWC-15	12/15/2022	ND<20	FALSE

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GWC-4A	6/14/2017	ND<20	FALSE
GWC-4A	12/13/2017	ND<20	FALSE
GWC-4A	6/21/2018	ND<20	FALSE
GWC-4A	12/18/2018	ND<20	FALSE
<b>GWC-4A</b>	<b>6/12/2019</b>	<b>22</b>	<b>TRUE</b>
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GWC-4A	12/16/2021	ND<20	FALSE
GWC-4A	6/8/2022	ND<20	FALSE
GWC-4A	12/15/2022	ND<20	FALSE

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GWC-8A	6/14/2017	ND<20	FALSE
GWC-8A	12/13/2017	ND<20	FALSE
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GWC-8A	6/24/2020	ND<20	FALSE
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GWA-3	6/15/2017	ND<20	FALSE
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GWA-3	12/11/2019	ND<20	FALSE
GWA-3	6/23/2020	ND<20	FALSE
GWA-3	12/17/2020	ND<20	FALSE
GWA-3	6/15/2021	ND<20	FALSE
GWA-3	12/15/2021	ND<20	FALSE
GWA-3	6/7/2022	ND<20	FALSE
GWA-3	12/14/2022	ND<20	FALSE

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GWC-11	6/15/2017	ND<20	FALSE
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GWC-11	12/20/2018	ND<20	FALSE
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GWC-11	12/16/2020	ND<20	FALSE
GWC-11	6/16/2021	ND<20	FALSE
GWC-11	12/14/2021	ND<20	FALSE
GWC-11	6/8/2022	ND<20	FALSE
GWC-11	12/13/2022	ND<20	FALSE

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GWC-12	6/15/2017	ND<20	FALSE
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GWC-12	12/22/2020	ND<20	FALSE
GWC-12	6/16/2021	ND<20	FALSE
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GWC-12A	12/14/2021	ND<20	FALSE
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GWC-13	12/16/2021	ND<20	FALSE
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<b>GWC-16A</b>	<b>6/10/2022</b>	<b>ND&lt;40</b>	<b>TRUE</b>
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GWC-17	12/16/2020	ND<20	FALSE
GWC-17	6/15/2021	ND<20	FALSE
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GWC-17	12/15/2022	ND<20	FALSE
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<b>GWC-18</b>	<b>6/12/2019</b>	<b>24</b>	<b>TRUE</b>
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<b>GWC-18</b>	<b>6/8/2022</b>	<b>ND&lt;40</b>	<b>TRUE</b>
GWC-18	12/15/2022	ND<20	FALSE

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GWC-19R	6/15/2017	ND<20	FALSE
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GWC-19R	12/16/2020	ND<20	FALSE
GWC-19R	6/15/2021	ND<20	FALSE
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<b>GWC-19R</b>	<b>6/7/2022</b>	<b>ND&lt;40</b>	<b>TRUE</b>
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GWC-22	6/15/2017	ND<20	FALSE
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GWC-23	6/15/2017	ND<20	FALSE
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GWC-23	12/17/2020	ND<20	FALSE
GWC-23	6/15/2021	ND<20	FALSE
GWC-23	12/14/2021	ND<20	FALSE
GWC-23	6/7/2022	ND<20	FALSE
GWC-23	12/13/2022	ND<20	FALSE

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GWC-23A	6/15/2017	ND<20	FALSE
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GWC-23A	6/24/2020	ND<20	FALSE
GWC-23A	12/17/2020	ND<20	FALSE
GWC-23A	6/15/2021	ND<20	FALSE
GWC-23A	12/14/2021	ND<20	FALSE
GWC-23A	6/7/2022	ND<20	FALSE
GWC-23A	12/13/2022	ND<20	FALSE

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GWC-24	6/15/2017	ND<20	FALSE
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GWC-24	6/20/2018	ND<20	FALSE
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GWC-24	12/10/2019	ND<20	FALSE
GWC-24	6/25/2020	ND<20	FALSE
GWC-24	6/15/2021	ND<20	FALSE
<b>GWC-24</b>	<b>6/8/2022</b>	<b>ND&lt;40</b>	<b>TRUE</b>
GWC-24	12/15/2022	ND<20	FALSE

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GWC-10	6/16/2017	ND<20	FALSE
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GWC-10	6/11/2019	ND<20	FALSE
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GWC-10	12/16/2020	ND<20	FALSE
GWC-10	6/16/2021	ND<20	FALSE
GWC-10	12/16/2021	ND<20	FALSE
GWC-10	6/8/2022	ND<20	FALSE
GWC-10	12/15/2022	ND<20	FALSE

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GWC-10A	6/16/2017	ND<20	FALSE
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GWC-10A	12/16/2021	ND<20	FALSE
GWC-10A	6/8/2022	ND<20	FALSE
GWC-10A	12/15/2022	ND<20	FALSE

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GWC-2	6/13/2019	ND<20	FALSE
GWC-2	12/11/2019	ND<20	FALSE
GWC-2	6/23/2020	ND<20	FALSE
GWC-2	12/17/2020	ND<20	FALSE
GWC-2	6/16/2021	ND<20	FALSE
GWC-2	12/16/2021	ND<20	FALSE
GWC-2	6/8/2022	ND<20	FALSE
GWC-2	12/13/2022	ND<20	FALSE

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GWC-3A	6/16/2017	ND<20	FALSE
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GWC-3A	6/21/2018	ND<20	FALSE
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GWC-3A	6/15/2021	ND<20	FALSE
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GWC-3A	6/8/2022	ND<20	FALSE
GWC-3A	12/13/2022	ND<20	FALSE

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GWC-9	6/16/2017	ND<20	FALSE
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GWC-9	12/18/2020	ND<20	FALSE
GWC-9	6/16/2021	ND<20	FALSE
GWC-9	12/14/2021	ND<20	FALSE
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GWC-9	12/15/2022	ND<20	FALSE

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GWC-8	12/13/2017	ND<20	FALSE
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GWC-8	12/12/2019	ND<20	FALSE
GWC-8	6/24/2020	ND<20	FALSE
GWC-8	12/17/2020	ND<20	FALSE
GWC-8	6/17/2021	ND<20	FALSE
GWC-8	12/16/2021	ND<20	FALSE
GWC-8	6/10/2022	ND<20	FALSE
GWC-8	12/14/2022	ND<20	FALSE

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GWC-14	6/21/2018	ND<20	FALSE
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GWC-14	12/11/2019	ND<20	FALSE
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GWC-14	12/18/2020	ND<20	FALSE
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GWC-14	12/16/2021	ND<20	FALSE
GWC-14	6/10/2022	ND<20	FALSE

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GWC-3	6/21/2018	ND<20	FALSE
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GWC-3	12/11/2019	ND<20	FALSE
GWC-3	6/25/2020	ND<20	FALSE
GWC-3	12/17/2020	ND<20	FALSE
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GWC-3	12/16/2021	ND<20	FALSE
GWC-3	6/8/2022	ND<20	FALSE

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GWC-4	6/21/2018	ND<20	FALSE
GWC-4	6/24/2020	ND<20	FALSE
GWC-4	12/18/2020	ND<20	FALSE
GWC-4	6/17/2021	ND<20	FALSE
GWC-4	12/15/2021	ND<20	FALSE
GWC-4	6/9/2022	ND<20	FALSE

GWC-4	12/13/2022	ND<20	FALSE
GWC-14R	6/9/2022	ND<20	FALSE
GWC-8R	6/9/2022	ND<20	FALSE

## Non-Parametric Tolerance Interval

### Parameter: Tetrachloroethene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 92.75%

Background measurements (n) = 25

Maximum Background Concentration = 2

Minimum Coverage = 88.7%

Average Coverage = 96.1538%

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Location	Date	Value	Significant
GWA-1A	6/12/2017	ND<2	FALSE
GWA-1A	12/13/2017	ND<2	FALSE
GWA-1A	6/19/2018	ND<2	FALSE
GWA-1A	12/18/2018	ND<2	FALSE
GWA-1A	6/10/2019	ND<2	FALSE
GWA-1A	12/9/2019	ND<2	FALSE
GWA-1A	6/23/2020	ND<2	FALSE
GWA-1A	12/17/2020	ND<2	FALSE
GWA-1A	6/17/2021	ND<2	FALSE
GWA-1A	12/16/2021	ND<2	FALSE
GWA-1A	6/8/2022	ND<2	FALSE
GWA-1A	12/14/2022	ND<2	FALSE

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GWC-5	6/12/2017	ND<2	FALSE
GWC-5	12/12/2017	ND<2	FALSE
GWC-5	6/21/2018	ND<2	FALSE
GWC-5	12/18/2018	ND<2	FALSE
GWC-5	6/12/2019	ND<2	FALSE
GWC-5	12/10/2019	ND<2	FALSE
GWC-5	6/23/2020	ND<2	FALSE
GWC-5	12/17/2020	ND<2	FALSE
GWC-5	6/15/2021	ND<2	FALSE
GWC-5	12/13/2021	ND<2	FALSE
GWC-5	6/8/2022	ND<2	FALSE
GWC-5	12/12/2022	ND<2	FALSE

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GWC-6	6/12/2017	ND<2	FALSE
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GWC-6	12/19/2018	ND<2	FALSE
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GWC-6	12/10/2019	ND<2	FALSE
GWC-6	6/24/2020	ND<2	FALSE
GWC-6	12/17/2020	ND<2	FALSE
GWC-6	6/15/2021	ND<2	FALSE
GWC-6	12/13/2021	ND<2	FALSE
GWC-6	6/8/2022	ND<2	FALSE
GWC-6	12/14/2022	ND<2	FALSE

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GWC-7	6/12/2017	ND<2	FALSE
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GWC-7	12/18/2018	ND<2	FALSE
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GWC-7	6/8/2022	ND<2	FALSE
GWC-7	12/12/2022	ND<2	FALSE

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GWC-14	12/13/2022	ND<2	FALSE

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GWC-14A	6/13/2017	ND<2	FALSE
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GWC-14A	6/15/2021	ND<2	FALSE
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GWC-14A	12/13/2022	ND<2	FALSE

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<b>GWC-14R</b>	<b>6/13/2017</b>	<b>3.2</b>	<b>TRUE</b>
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GWC-14R	12/17/2020	ND<2	FALSE
GWC-14R	6/16/2021	ND<2	FALSE
GWC-14R	12/14/2021	ND<2	FALSE
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GWC-14R	12/13/2022	ND<2	FALSE

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GWC-4A	6/13/2017	ND<2	FALSE
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GWC-4A	6/20/2018	ND<2	FALSE
GWC-4A	12/17/2018	ND<2	FALSE
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GWC-4A	6/23/2020	ND<2	FALSE
GWC-4A	12/17/2020	ND<2	FALSE



GWC-4A	6/17/2021	ND<2	FALSE
GWC-4A	12/15/2021	ND<2	FALSE
GWC-4A	6/8/2022	ND<2	FALSE
GWC-4A	12/14/2022	ND<2	FALSE

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GWC-8A	6/13/2017	ND<2	FALSE
GWC-8A	12/12/2017	ND<2	FALSE
GWC-8A	6/20/2018	ND<2	FALSE
GWC-8A	12/19/2018	ND<2	FALSE
GWC-8A	6/12/2019	ND<2	FALSE
GWC-8A	12/11/2019	ND<2	FALSE
GWC-8A	6/23/2020	ND<2	FALSE
GWC-8A	12/15/2020	ND<2	FALSE
GWC-8A	6/16/2021	ND<2	FALSE
GWC-8A	12/15/2021	ND<2	FALSE
GWC-8A	6/9/2022	ND<2	FALSE
GWC-8A	12/13/2022	ND<2	FALSE

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GWC-8R	6/13/2017	ND<2	FALSE
GWC-8R	12/12/2017	ND<2	FALSE
GWC-8R	6/20/2018	2	FALSE
GWC-8R	12/19/2018	ND<2	FALSE
GWC-8R	6/12/2019	ND<2	FALSE
GWC-8R	12/11/2019	ND<2	FALSE
GWC-8R	6/23/2020	ND<2	FALSE
GWC-8R	12/15/2020	ND<2	FALSE
GWC-8R	6/16/2021	ND<2	FALSE
GWC-8R	12/15/2021	ND<2	FALSE
GWC-8R	6/9/2022	ND<2	FALSE
GWC-8R	12/13/2022	ND<2	FALSE

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GWA-3	6/14/2017	ND<2	FALSE
GWA-3	12/11/2017	ND<2	FALSE
GWA-3	6/18/2018	ND<2	FALSE
GWA-3	12/17/2018	ND<2	FALSE
GWA-3	6/11/2019	ND<2	FALSE
GWA-3	12/10/2019	ND<2	FALSE
GWA-3	6/22/2020	ND<2	FALSE
GWA-3	12/16/2020	ND<2	FALSE
GWA-3	6/14/2021	ND<2	FALSE
GWA-3	12/14/2021	ND<2	FALSE
GWA-3	6/6/2022	ND<2	FALSE
GWA-3	12/13/2022	ND<2	FALSE

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GWC-11	6/14/2017	ND<2	FALSE
GWC-11	12/13/2017	ND<2	FALSE
GWC-11	6/19/2018	ND<2	FALSE
GWC-11	12/19/2018	ND<2	FALSE
GWC-11	6/12/2019	ND<2	FALSE
GWC-11	12/12/2019	ND<2	FALSE
GWC-11	6/24/2020	ND<2	FALSE
GWC-11	12/15/2020	ND<2	FALSE
GWC-11	6/15/2021	ND<2	FALSE
GWC-11	12/13/2021	ND<2	FALSE
GWC-11	6/7/2022	ND<2	FALSE

GWC-11	12/12/2022	ND<2	FALSE
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GWC-12	6/14/2017	ND<2	FALSE
GWC-12	12/13/2017	ND<2	FALSE
GWC-12	6/19/2018	ND<2	FALSE
GWC-12	12/19/2018	ND<2	FALSE
GWC-12	6/11/2019	ND<2	FALSE
GWC-12	12/9/2019	ND<2	FALSE
GWC-12	6/24/2020	ND<2	FALSE
GWC-12	12/15/2020	ND<2	FALSE
GWC-12	6/15/2021	ND<2	FALSE
GWC-12	12/13/2021	ND<2	FALSE
GWC-12	6/7/2022	ND<2	FALSE
GWC-12	12/12/2022	ND<2	FALSE

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GWC-12A	6/14/2017	ND<2	FALSE
GWC-12A	12/13/2017	ND<2	FALSE
GWC-12A	6/19/2018	ND<2	FALSE
GWC-12A	12/19/2018	ND<2	FALSE
GWC-12A	6/11/2019	ND<2	FALSE
GWC-12A	12/9/2019	ND<2	FALSE
GWC-12A	6/24/2020	ND<2	FALSE
GWC-12A	12/15/2020	ND<2	FALSE
GWC-12A	6/15/2021	ND<2	FALSE
GWC-12A	12/13/2021	ND<2	FALSE
GWC-12A	6/7/2022	ND<2	FALSE
GWC-12A	12/12/2022	ND<2	FALSE

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GWC-13	6/14/2017	ND<2	FALSE
GWC-13	12/12/2017	ND<2	FALSE
GWC-13	6/19/2018	ND<2	FALSE
GWC-13	12/19/2018	ND<2	FALSE
GWC-13	6/12/2019	ND<2	FALSE
GWC-13	12/11/2019	ND<2	FALSE
GWC-13	6/23/2020	ND<2	FALSE
GWC-13	12/15/2020	ND<2	FALSE
GWC-13	6/15/2021	ND<2	FALSE
GWC-13	12/15/2021	ND<2	FALSE
GWC-13	6/8/2022	ND<2	FALSE
GWC-13	12/12/2022	ND<2	FALSE

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<b>GWC-15</b>	<b>6/14/2017</b>	<b>7.3</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/13/2017</b>	<b>2.7</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/19/2018</b>	<b>5</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/19/2018</b>	<b>9.7</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/11/2019</b>	<b>50</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/10/2019</b>	<b>31</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/25/2020</b>	<b>48</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/17/2020</b>	<b>19</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/16/2021</b>	<b>29</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/14/2021</b>	<b>12</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/9/2022</b>	<b>42</b>	<b>TRUE</b>
GWC-15	12/15/2022	ND<2	FALSE

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<b>GWC-16A</b>	<b>6/14/2017</b>	<b>6.3</b>	<b>TRUE</b>
GWC-16A	12/13/2017	ND<2	FALSE
GWC-16A	6/21/2018	ND<2	FALSE
GWC-16A	12/19/2018	ND<2	FALSE
GWC-16A	6/13/2019	ND<2	FALSE
GWC-16A	12/11/2019	ND<2	FALSE
GWC-16A	6/23/2020	ND<2	FALSE
GWC-16A	12/17/2020	ND<2	FALSE
GWC-16A	6/16/2021	ND<2	FALSE
GWC-16A	12/16/2021	ND<2	FALSE
GWC-16A	6/9/2022	ND<2	FALSE
GWC-16A	12/14/2022	ND<2	FALSE

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GWC-17	6/14/2017	ND<2	FALSE
GWC-17	12/12/2017	ND<2	FALSE
GWC-17	6/19/2018	ND<2	FALSE
GWC-17	12/19/2018	ND<2	FALSE
GWC-17	6/12/2019	ND<2	FALSE
GWC-17	12/10/2019	ND<2	FALSE
GWC-17	6/23/2020	ND<2	FALSE
GWC-17	12/15/2020	ND<2	FALSE
GWC-17	6/14/2021	ND<2	FALSE
GWC-17	12/14/2021	ND<2	FALSE
GWC-17	6/9/2022	ND<2	FALSE
GWC-17	12/14/2022	ND<2	FALSE

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<b>GWC-18</b>	<b>6/14/2017</b>	<b>4.1</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>12/13/2017</b>	<b>6.5</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>6/19/2018</b>	<b>4.6</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>12/18/2018</b>	<b>7</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>6/11/2019</b>	<b>3.9</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>12/9/2019</b>	<b>7.4</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>6/23/2020</b>	<b>5.7</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>12/15/2020</b>	<b>6.4</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>6/14/2021</b>	<b>3.1</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>12/14/2021</b>	<b>3.4</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>6/7/2022</b>	<b>5.2</b>	<b>TRUE</b>
<b>GWC-18</b>	<b>12/14/2022</b>	<b>3.8</b>	<b>TRUE</b>

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GWC-19R	6/14/2017	ND<2	FALSE
GWC-19R	12/13/2017	ND<2	FALSE
GWC-19R	6/19/2018	ND<2	FALSE
GWC-19R	12/18/2018	2	FALSE
GWC-19R	6/11/2019	ND<2	FALSE
GWC-19R	12/9/2019	ND<2	FALSE
GWC-19R	6/23/2020	ND<2	FALSE
GWC-19R	12/15/2020	ND<2	FALSE
GWC-19R	6/14/2021	ND<2	FALSE
GWC-19R	12/14/2021	ND<2	FALSE
GWC-19R	6/6/2022	ND<2	FALSE
GWC-19R	12/14/2022	ND<2	FALSE

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GWC-22	6/14/2017	ND<2	FALSE
GWC-22	12/11/2017	ND<2	FALSE
GWC-22	6/19/2018	ND<2	FALSE

GWC-22	12/18/2018	ND<2	FALSE
GWC-22	6/12/2019	ND<2	FALSE
GWC-22	12/11/2019	ND<2	FALSE
GWC-22	6/23/2020	ND<2	FALSE
GWC-22	12/17/2020	ND<2	FALSE
GWC-22	6/14/2021	ND<2	FALSE
GWC-22	12/13/2021	ND<2	FALSE
GWC-22	6/6/2022	ND<2	FALSE
GWC-22	12/12/2022	ND<2	FALSE

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GWC-23	6/14/2017	ND<2	FALSE
GWC-23	12/11/2017	ND<2	FALSE
GWC-23	6/18/2018	ND<2	FALSE
GWC-23	12/18/2018	ND<2	FALSE
GWC-23	6/12/2019	ND<2	FALSE
GWC-23	12/11/2019	ND<2	FALSE
GWC-23	6/24/2020	ND<2	FALSE
GWC-23	12/16/2020	ND<2	FALSE
GWC-23	6/14/2021	ND<2	FALSE
GWC-23	12/13/2021	ND<2	FALSE
GWC-23	6/6/2022	ND<2	FALSE
GWC-23	12/12/2022	ND<2	FALSE

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GWC-23A	6/14/2017	ND<2	FALSE
GWC-23A	12/11/2017	ND<2	FALSE
GWC-23A	6/18/2018	ND<2	FALSE
GWC-23A	12/18/2018	ND<2	FALSE
GWC-23A	6/12/2019	ND<2	FALSE
GWC-23A	12/11/2019	ND<2	FALSE
GWC-23A	6/24/2020	ND<2	FALSE
GWC-23A	12/16/2020	ND<2	FALSE
GWC-23A	6/14/2021	ND<2	FALSE
GWC-23A	12/13/2021	ND<2	FALSE
GWC-23A	6/6/2022	ND<2	FALSE
GWC-23A	12/12/2022	ND<2	FALSE

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GWC-24	6/14/2017	ND<2	FALSE
GWC-24	12/13/2017	ND<2	FALSE
GWC-24	6/19/2018	ND<2	FALSE
GWC-24	12/19/2018	ND<2	FALSE
GWC-24	6/11/2019	ND<2	FALSE
GWC-24	12/9/2019	ND<2	FALSE
GWC-24	6/24/2020	ND<2	FALSE
GWC-24	12/15/2020	ND<2	FALSE
GWC-24	6/14/2021	ND<2	FALSE
GWC-24	12/14/2021	ND<2	FALSE
GWC-24	6/7/2022	ND<2	FALSE
GWC-24	12/14/2022	ND<2	FALSE

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GWC-10	6/15/2017	ND<2	FALSE
GWC-10	12/12/2017	ND<2	FALSE
GWC-10	6/19/2018	ND<2	FALSE
GWC-10	12/17/2018	ND<2	FALSE
GWC-10	6/10/2019	ND<2	FALSE
GWC-10	12/12/2019	ND<2	FALSE

GWC-10	6/24/2020	ND<2	FALSE
GWC-10	12/15/2020	ND<2	FALSE
GWC-10	6/15/2021	ND<2	FALSE
GWC-10	12/15/2021	ND<2	FALSE
GWC-10	6/7/2022	ND<2	FALSE
GWC-10	12/14/2022	ND<2	FALSE

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GWC-10A	6/15/2017	ND<2	FALSE
GWC-10A	12/12/2017	ND<2	FALSE
GWC-10A	6/19/2018	ND<2	FALSE
GWC-10A	12/17/2018	ND<2	FALSE
GWC-10A	6/10/2019	ND<2	FALSE
GWC-10A	12/12/2019	ND<2	FALSE
GWC-10A	6/24/2020	ND<2	FALSE
GWC-10A	12/15/2020	ND<2	FALSE
GWC-10A	6/15/2021	ND<2	FALSE
GWC-10A	12/15/2021	ND<2	FALSE
GWC-10A	6/7/2022	ND<2	FALSE
GWC-10A	12/14/2022	ND<2	FALSE

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GWC-2	6/15/2017	ND<2	FALSE
GWC-2	12/13/2017	ND<2	FALSE
GWC-2	6/20/2018	ND<2	FALSE
GWC-2	12/19/2018	ND<2	FALSE
GWC-2	6/12/2019	ND<2	FALSE
GWC-2	12/10/2019	ND<2	FALSE
GWC-2	6/22/2020	ND<2	FALSE
GWC-2	12/16/2020	ND<2	FALSE
GWC-2	6/15/2021	ND<2	FALSE
GWC-2	12/15/2021	ND<2	FALSE
GWC-2	6/7/2022	ND<2	FALSE
GWC-2	12/12/2022	ND<2	FALSE

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GWC-3	6/15/2017	ND<2	FALSE
GWC-3	6/21/2018	ND<2	FALSE
GWC-3	12/17/2018	ND<2	FALSE
GWC-3	6/11/2019	ND<2	FALSE
GWC-3	12/10/2019	ND<2	FALSE
GWC-3	6/24/2020	ND<2	FALSE
GWC-3	12/16/2020	ND<2	FALSE
GWC-3	6/15/2021	ND<2	FALSE
GWC-3	12/15/2021	ND<2	FALSE
GWC-3	6/7/2022	ND<2	FALSE
GWC-3	12/12/2022	ND<2	FALSE

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GWC-3A	6/15/2017	ND<2	FALSE
GWC-3A	12/12/2017	ND<2	FALSE
GWC-3A	6/20/2018	ND<2	FALSE
GWC-3A	12/17/2018	ND<2	FALSE
GWC-3A	6/11/2019	ND<2	FALSE
GWC-3A	12/10/2019	ND<2	FALSE
GWC-3A	6/24/2020	ND<2	FALSE
GWC-3A	12/16/2020	ND<2	FALSE
GWC-3A	6/14/2021	ND<2	FALSE
GWC-3A	12/15/2021	ND<2	FALSE

GWC-3A	6/7/2022	ND<2	FALSE
GWC-3A	12/12/2022	ND<2	FALSE

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GWC-9	6/15/2017	ND<2	FALSE
GWC-9	12/13/2017	ND<2	FALSE
GWC-9	6/20/2018	ND<2	FALSE
GWC-9	12/18/2018	ND<2	FALSE
GWC-9	6/12/2019	ND<2	FALSE
GWC-9	12/12/2019	ND<2	FALSE
GWC-9	6/24/2020	ND<2	FALSE
GWC-9	12/17/2020	ND<2	FALSE
GWC-9	6/15/2021	ND<2	FALSE
GWC-9	12/13/2021	ND<2	FALSE
GWC-9	6/7/2022	ND<2	FALSE
GWC-9	12/14/2022	ND<2	FALSE

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GWC-8	12/12/2017	ND<2	FALSE
GWC-8	6/20/2018	ND<2	FALSE
GWC-8	12/19/2018	ND<2	FALSE
GWC-8	6/12/2019	ND<2	FALSE
GWC-8	12/11/2019	ND<2	FALSE
GWC-8	6/23/2020	ND<2	FALSE
GWC-8	12/16/2020	ND<2	FALSE
GWC-8	6/16/2021	ND<2	FALSE
GWC-8	12/15/2021	ND<2	FALSE
GWC-8	6/9/2022	ND<2	FALSE
GWC-8	12/13/2022	ND<2	FALSE

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GWC-4	6/20/2018	ND<2	FALSE
GWC-4	6/23/2020	ND<2	FALSE
GWC-4	12/17/2020	ND<2	FALSE
GWC-4	6/16/2021	ND<2	FALSE
GWC-4	12/14/2021	ND<2	FALSE
GWC-4	6/8/2022	ND<2	FALSE
GWC-4	12/12/2022	ND<2	FALSE

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## Non-Parametric Tolerance Interval

### Parameter: Trichloroethene

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 91.25%

Background measurements (n) = 25

Maximum Background Concentration = 2

Minimum Coverage = 88.7%

Average Coverage = 96.1538%

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Location	Date	Value	Significant
GWA-1A	6/12/2017	ND<2	FALSE
GWA-1A	12/13/2017	ND<2	FALSE
GWA-1A	6/19/2018	ND<2	FALSE
GWA-1A	12/18/2018	ND<2	FALSE
GWA-1A	6/10/2019	ND<2	FALSE
GWA-1A	12/9/2019	ND<2	FALSE
GWA-1A	6/23/2020	ND<2	FALSE
GWA-1A	12/17/2020	ND<2	FALSE
GWA-1A	6/17/2021	ND<2	FALSE
GWA-1A	12/16/2021	ND<2	FALSE
GWA-1A	6/8/2022	ND<2	FALSE
GWA-1A	12/14/2022	ND<2	FALSE

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GWC-5	6/12/2017	ND<2	FALSE
GWC-5	12/12/2017	ND<2	FALSE
GWC-5	6/21/2018	ND<2	FALSE
GWC-5	12/18/2018	ND<2	FALSE
GWC-5	6/12/2019	ND<2	FALSE
GWC-5	12/10/2019	ND<2	FALSE
GWC-5	6/23/2020	ND<2	FALSE
GWC-5	12/17/2020	ND<2	FALSE
GWC-5	6/15/2021	ND<2	FALSE
GWC-5	12/13/2021	ND<2	FALSE
GWC-5	6/8/2022	ND<2	FALSE
GWC-5	12/12/2022	ND<2	FALSE

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GWC-6	6/12/2017	ND<2	FALSE
GWC-6	12/13/2017	ND<2	FALSE
GWC-6	6/21/2018	ND<2	FALSE
GWC-6	12/19/2018	ND<2	FALSE
GWC-6	6/12/2019	ND<2	FALSE
GWC-6	12/10/2019	ND<2	FALSE
GWC-6	6/24/2020	ND<2	FALSE
GWC-6	12/17/2020	ND<2	FALSE
GWC-6	6/15/2021	ND<2	FALSE
GWC-6	12/13/2021	ND<2	FALSE
GWC-6	6/8/2022	ND<2	FALSE
GWC-6	12/14/2022	ND<2	FALSE

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GWC-7	6/12/2017	ND<2	FALSE
GWC-7	12/12/2017	ND<2	FALSE
GWC-7	6/19/2018	ND<2	FALSE

GWC-7	12/18/2018	ND<2	FALSE
GWC-7	6/12/2019	ND<2	FALSE
GWC-7	12/11/2019	ND<2	FALSE
GWC-7	6/24/2020	ND<2	FALSE
GWC-7	12/17/2020	ND<2	FALSE
GWC-7	6/15/2021	ND<2	FALSE
GWC-7	12/13/2021	ND<2	FALSE
GWC-7	6/8/2022	ND<2	FALSE
GWC-7	12/12/2022	ND<2	FALSE

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GWC-14	6/13/2017	ND<2	FALSE
GWC-14	6/20/2018	ND<2	FALSE
GWC-14	6/11/2019	ND<2	FALSE
GWC-14	12/10/2019	ND<2	FALSE
GWC-14	6/24/2020	ND<2	FALSE
GWC-14	12/17/2020	ND<2	FALSE
GWC-14	6/15/2021	ND<2	FALSE
GWC-14	12/15/2021	ND<2	FALSE
GWC-14	6/9/2022	ND<2	FALSE
GWC-14	12/13/2022	ND<2	FALSE

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<b>GWC-14A</b>	<b>6/13/2017</b>	<b>3.5</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/12/2017</b>	<b>3.8</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/20/2018</b>	<b>2.1</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/19/2018</b>	<b>2.2</b>	<b>TRUE</b>
GWC-14A	6/11/2019	ND<2	FALSE
<b>GWC-14A</b>	<b>12/10/2019</b>	<b>3.1</b>	<b>TRUE</b>
GWC-14A	6/24/2020	ND<2	FALSE
GWC-14A	12/15/2020	ND<2	FALSE
GWC-14A	6/15/2021	ND<2	FALSE
GWC-14A	12/14/2021	ND<2	FALSE
GWC-14A	6/9/2022	ND<2	FALSE
<b>GWC-14A</b>	<b>12/13/2022</b>	<b>3.3</b>	<b>TRUE</b>

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<b>GWC-14R</b>	<b>6/13/2017</b>	<b>6.8</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/12/2017</b>	<b>4.8</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/20/2018</b>	<b>5.2</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/19/2018</b>	<b>4.9</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/12/2019</b>	<b>4.7</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/10/2019</b>	<b>4.3</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/23/2020</b>	<b>4.3</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/17/2020</b>	<b>3.9</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/16/2021</b>	<b>3.9</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/14/2021</b>	<b>2.8</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>6/9/2022</b>	<b>2.8</b>	<b>TRUE</b>
<b>GWC-14R</b>	<b>12/13/2022</b>	<b>3</b>	<b>TRUE</b>

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GWC-4A	6/13/2017	ND<2	FALSE
GWC-4A	12/12/2017	ND<2	FALSE
GWC-4A	6/20/2018	ND<2	FALSE
GWC-4A	12/17/2018	ND<2	FALSE
GWC-4A	6/11/2019	ND<2	FALSE
GWC-4A	12/11/2019	ND<2	FALSE
GWC-4A	6/23/2020	ND<2	FALSE
GWC-4A	12/17/2020	ND<2	FALSE



GWC-4A	6/17/2021	ND<2	FALSE
GWC-4A	12/15/2021	ND<2	FALSE
GWC-4A	6/8/2022	ND<2	FALSE
GWC-4A	12/14/2022	ND<2	FALSE

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GWC-8A	6/13/2017	ND<2	FALSE
GWC-8A	12/12/2017	ND<2	FALSE
GWC-8A	6/20/2018	ND<2	FALSE
GWC-8A	12/19/2018	ND<2	FALSE
GWC-8A	6/12/2019	ND<2	FALSE
GWC-8A	12/11/2019	ND<2	FALSE
GWC-8A	6/23/2020	ND<2	FALSE
GWC-8A	12/15/2020	ND<2	FALSE
GWC-8A	6/16/2021	ND<2	FALSE
GWC-8A	12/15/2021	ND<2	FALSE
GWC-8A	6/9/2022	ND<2	FALSE
GWC-8A	12/13/2022	ND<2	FALSE

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<b>GWC-8R</b>	<b>6/13/2017</b>	<b>2.9</b>	<b>TRUE</b>
GWC-8R	12/12/2017	ND<2	FALSE
<b>GWC-8R</b>	<b>6/20/2018</b>	<b>5.3</b>	<b>TRUE</b>
GWC-8R	12/19/2018	ND<2	FALSE
GWC-8R	6/12/2019	ND<2	FALSE
GWC-8R	12/11/2019	ND<2	FALSE
GWC-8R	6/23/2020	ND<2	FALSE
GWC-8R	12/15/2020	ND<2	FALSE
<b>GWC-8R</b>	<b>6/16/2021</b>	<b>2.1</b>	<b>TRUE</b>
GWC-8R	12/15/2021	ND<2	FALSE
GWC-8R	6/9/2022	ND<2	FALSE
GWC-8R	12/13/2022	ND<2	FALSE

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GWA-3	6/14/2017	ND<2	FALSE
GWA-3	12/11/2017	ND<2	FALSE
GWA-3	6/18/2018	ND<2	FALSE
GWA-3	12/17/2018	ND<2	FALSE
GWA-3	6/11/2019	ND<2	FALSE
GWA-3	12/10/2019	ND<2	FALSE
GWA-3	6/22/2020	ND<2	FALSE
GWA-3	12/16/2020	ND<2	FALSE
GWA-3	6/14/2021	ND<2	FALSE
GWA-3	12/14/2021	ND<2	FALSE
GWA-3	6/6/2022	ND<2	FALSE
GWA-3	12/13/2022	ND<2	FALSE

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GWC-11	6/14/2017	ND<2	FALSE
GWC-11	12/13/2017	ND<2	FALSE
GWC-11	6/19/2018	ND<2	FALSE
GWC-11	12/19/2018	ND<2	FALSE
GWC-11	6/12/2019	ND<2	FALSE
GWC-11	12/12/2019	ND<2	FALSE
GWC-11	6/24/2020	ND<2	FALSE
GWC-11	12/15/2020	ND<2	FALSE
GWC-11	6/15/2021	ND<2	FALSE
GWC-11	12/13/2021	ND<2	FALSE
GWC-11	6/7/2022	ND<2	FALSE

GWC-11	12/12/2022	ND<2	FALSE
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GWC-12	6/14/2017	ND<2	FALSE
GWC-12	12/13/2017	ND<2	FALSE
GWC-12	6/19/2018	ND<2	FALSE
GWC-12	12/19/2018	ND<2	FALSE
GWC-12	6/11/2019	ND<2	FALSE
GWC-12	12/9/2019	ND<2	FALSE
GWC-12	6/24/2020	ND<2	FALSE
GWC-12	12/15/2020	ND<2	FALSE
GWC-12	6/15/2021	ND<2	FALSE
GWC-12	12/13/2021	ND<2	FALSE
GWC-12	6/7/2022	ND<2	FALSE
GWC-12	12/12/2022	ND<2	FALSE

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GWC-12A	6/14/2017	ND<2	FALSE
GWC-12A	12/13/2017	ND<2	FALSE
GWC-12A	6/19/2018	ND<2	FALSE
GWC-12A	12/19/2018	ND<2	FALSE
GWC-12A	6/11/2019	ND<2	FALSE
GWC-12A	12/9/2019	ND<2	FALSE
GWC-12A	6/24/2020	ND<2	FALSE
GWC-12A	12/15/2020	ND<2	FALSE
GWC-12A	6/15/2021	ND<2	FALSE
GWC-12A	12/13/2021	ND<2	FALSE
GWC-12A	6/7/2022	ND<2	FALSE
GWC-12A	12/12/2022	ND<2	FALSE

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GWC-13	6/14/2017	ND<2	FALSE
GWC-13	12/12/2017	ND<2	FALSE
GWC-13	6/19/2018	ND<2	FALSE
GWC-13	12/19/2018	ND<2	FALSE
GWC-13	6/12/2019	ND<2	FALSE
GWC-13	12/11/2019	ND<2	FALSE
GWC-13	6/23/2020	ND<2	FALSE
GWC-13	12/15/2020	ND<2	FALSE
GWC-13	6/15/2021	ND<2	FALSE
GWC-13	12/15/2021	ND<2	FALSE
GWC-13	6/8/2022	ND<2	FALSE
GWC-13	12/12/2022	ND<2	FALSE

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<b>GWC-15</b>	<b>6/14/2017</b>	<b>2.1</b>	<b>TRUE</b>
GWC-15	12/13/2017	ND<2	FALSE
GWC-15	6/19/2018	ND<2	FALSE
<b>GWC-15</b>	<b>12/19/2018</b>	<b>3.7</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/11/2019</b>	<b>70</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/10/2019</b>	<b>55</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/25/2020</b>	<b>90</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/17/2020</b>	<b>45</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/16/2021</b>	<b>71</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/14/2021</b>	<b>48</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/9/2022</b>	<b>65</b>	<b>TRUE</b>
GWC-15	12/15/2022	ND<2	FALSE

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<b>GWC-16A</b>	<b>6/14/2017</b>	<b>3.9</b>	<b>TRUE</b>
GWC-16A	12/13/2017	ND<2	FALSE
GWC-16A	6/21/2018	ND<2	FALSE
GWC-16A	12/19/2018	ND<2	FALSE
GWC-16A	6/13/2019	ND<2	FALSE
GWC-16A	12/11/2019	ND<2	FALSE
GWC-16A	6/23/2020	ND<2	FALSE
GWC-16A	12/17/2020	ND<2	FALSE
GWC-16A	6/16/2021	ND<2	FALSE
GWC-16A	12/16/2021	ND<2	FALSE
GWC-16A	6/9/2022	ND<2	FALSE
GWC-16A	12/14/2022	ND<2	FALSE

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GWC-17	6/14/2017	ND<2	FALSE
GWC-17	12/12/2017	ND<2	FALSE
GWC-17	6/19/2018	ND<2	FALSE
GWC-17	12/19/2018	ND<2	FALSE
GWC-17	6/12/2019	ND<2	FALSE
GWC-17	12/10/2019	ND<2	FALSE
GWC-17	6/23/2020	ND<2	FALSE
GWC-17	12/15/2020	ND<2	FALSE
GWC-17	6/14/2021	ND<2	FALSE
GWC-17	12/14/2021	ND<2	FALSE
GWC-17	6/9/2022	ND<2	FALSE
GWC-17	12/14/2022	ND<2	FALSE

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GWC-18	6/14/2017	ND<2	FALSE
<b>GWC-18</b>	<b>12/13/2017</b>	<b>2.3</b>	<b>TRUE</b>
GWC-18	6/19/2018	ND<2	FALSE
<b>GWC-18</b>	<b>12/18/2018</b>	<b>2.1</b>	<b>TRUE</b>
GWC-18	6/11/2019	ND<2	FALSE
<b>GWC-18</b>	<b>12/9/2019</b>	<b>2.6</b>	<b>TRUE</b>
GWC-18	6/23/2020	ND<2	FALSE
<b>GWC-18</b>	<b>12/15/2020</b>	<b>2.4</b>	<b>TRUE</b>
GWC-18	6/14/2021	ND<2	FALSE
GWC-18	12/14/2021	ND<2	FALSE
GWC-18	6/7/2022	ND<2	FALSE
GWC-18	12/14/2022	ND<2	FALSE

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GWC-19R	6/14/2017	ND<2	FALSE
GWC-19R	12/13/2017	ND<2	FALSE
GWC-19R	6/19/2018	ND<2	FALSE
GWC-19R	12/18/2018	ND<2	FALSE
GWC-19R	6/11/2019	ND<2	FALSE
GWC-19R	12/9/2019	ND<2	FALSE
GWC-19R	6/23/2020	ND<2	FALSE
GWC-19R	12/15/2020	ND<2	FALSE
GWC-19R	6/14/2021	ND<2	FALSE
GWC-19R	12/14/2021	ND<2	FALSE
GWC-19R	6/6/2022	ND<2	FALSE
GWC-19R	12/14/2022	ND<2	FALSE

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GWC-22	6/14/2017	ND<2	FALSE
GWC-22	12/11/2017	ND<2	FALSE
GWC-22	6/19/2018	ND<2	FALSE

GWC-22	12/18/2018	ND<2	FALSE
GWC-22	6/12/2019	ND<2	FALSE
GWC-22	12/11/2019	ND<2	FALSE
GWC-22	6/23/2020	ND<2	FALSE
GWC-22	12/17/2020	ND<2	FALSE
GWC-22	6/14/2021	ND<2	FALSE
GWC-22	12/13/2021	ND<2	FALSE
GWC-22	6/6/2022	ND<2	FALSE
GWC-22	12/12/2022	ND<2	FALSE

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GWC-23	6/14/2017	ND<2	FALSE
GWC-23	12/11/2017	ND<2	FALSE
GWC-23	6/18/2018	ND<2	FALSE
GWC-23	12/18/2018	ND<2	FALSE
GWC-23	6/12/2019	ND<2	FALSE
GWC-23	12/11/2019	ND<2	FALSE
GWC-23	6/24/2020	ND<2	FALSE
GWC-23	12/16/2020	ND<2	FALSE
GWC-23	6/14/2021	ND<2	FALSE
GWC-23	12/13/2021	ND<2	FALSE
GWC-23	6/6/2022	ND<2	FALSE
GWC-23	12/12/2022	ND<2	FALSE

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GWC-23A	6/14/2017	ND<2	FALSE
GWC-23A	12/11/2017	ND<2	FALSE
GWC-23A	6/18/2018	ND<2	FALSE
GWC-23A	12/18/2018	ND<2	FALSE
GWC-23A	6/12/2019	ND<2	FALSE
GWC-23A	12/11/2019	ND<2	FALSE
GWC-23A	6/24/2020	ND<2	FALSE
GWC-23A	12/16/2020	ND<2	FALSE
GWC-23A	6/14/2021	ND<2	FALSE
GWC-23A	12/13/2021	ND<2	FALSE
GWC-23A	6/6/2022	ND<2	FALSE
GWC-23A	12/12/2022	ND<2	FALSE

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GWC-24	6/14/2017	ND<2	FALSE
GWC-24	12/13/2017	ND<2	FALSE
GWC-24	6/19/2018	ND<2	FALSE
GWC-24	12/19/2018	ND<2	FALSE
GWC-24	6/11/2019	ND<2	FALSE
GWC-24	12/9/2019	ND<2	FALSE
GWC-24	6/24/2020	ND<2	FALSE
GWC-24	12/15/2020	ND<2	FALSE
GWC-24	6/14/2021	ND<2	FALSE
GWC-24	12/14/2021	ND<2	FALSE
GWC-24	6/7/2022	ND<2	FALSE
GWC-24	12/14/2022	ND<2	FALSE

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GWC-10	6/15/2017	ND<2	FALSE
GWC-10	12/12/2017	ND<2	FALSE
GWC-10	6/19/2018	ND<2	FALSE
GWC-10	12/17/2018	ND<2	FALSE
GWC-10	6/10/2019	ND<2	FALSE
GWC-10	12/12/2019	ND<2	FALSE

GWC-10	6/24/2020	ND<2	FALSE
GWC-10	12/15/2020	ND<2	FALSE
GWC-10	6/15/2021	ND<2	FALSE
GWC-10	12/15/2021	ND<2	FALSE
GWC-10	6/7/2022	ND<2	FALSE
GWC-10	12/14/2022	ND<2	FALSE

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GWC-10A	6/15/2017	ND<2	FALSE
GWC-10A	12/12/2017	ND<2	FALSE
GWC-10A	6/19/2018	ND<2	FALSE
GWC-10A	12/17/2018	ND<2	FALSE
GWC-10A	6/10/2019	ND<2	FALSE
GWC-10A	12/12/2019	ND<2	FALSE
GWC-10A	6/24/2020	ND<2	FALSE
GWC-10A	12/15/2020	ND<2	FALSE
GWC-10A	6/15/2021	ND<2	FALSE
GWC-10A	12/15/2021	ND<2	FALSE
GWC-10A	6/7/2022	ND<2	FALSE
GWC-10A	12/14/2022	ND<2	FALSE

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GWC-2	6/15/2017	ND<2	FALSE
GWC-2	12/13/2017	ND<2	FALSE
GWC-2	6/20/2018	ND<2	FALSE
GWC-2	12/19/2018	ND<2	FALSE
GWC-2	6/12/2019	ND<2	FALSE
GWC-2	12/10/2019	ND<2	FALSE
GWC-2	6/22/2020	ND<2	FALSE
GWC-2	12/16/2020	ND<2	FALSE
GWC-2	6/15/2021	ND<2	FALSE
GWC-2	12/15/2021	ND<2	FALSE
GWC-2	6/7/2022	ND<2	FALSE
GWC-2	12/12/2022	ND<2	FALSE

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GWC-3	6/15/2017	ND<2	FALSE
GWC-3	6/21/2018	ND<2	FALSE
GWC-3	12/17/2018	ND<2	FALSE
GWC-3	6/11/2019	ND<2	FALSE
GWC-3	12/10/2019	ND<2	FALSE
GWC-3	6/24/2020	ND<2	FALSE
GWC-3	12/16/2020	ND<2	FALSE
GWC-3	6/15/2021	ND<2	FALSE
GWC-3	12/15/2021	ND<2	FALSE
GWC-3	6/7/2022	ND<2	FALSE
GWC-3	12/12/2022	ND<2	FALSE

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GWC-3A	6/15/2017	ND<2	FALSE
GWC-3A	12/12/2017	ND<2	FALSE
GWC-3A	6/20/2018	ND<2	FALSE
GWC-3A	12/17/2018	ND<2	FALSE
GWC-3A	6/11/2019	ND<2	FALSE
GWC-3A	12/10/2019	ND<2	FALSE
GWC-3A	6/24/2020	ND<2	FALSE
GWC-3A	12/16/2020	ND<2	FALSE
GWC-3A	6/14/2021	ND<2	FALSE
GWC-3A	12/15/2021	ND<2	FALSE

GWC-3A	6/7/2022	ND<2	FALSE
GWC-3A	12/12/2022	ND<2	FALSE

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GWC-9	6/15/2017	ND<2	FALSE
GWC-9	12/13/2017	ND<2	FALSE
GWC-9	6/20/2018	ND<2	FALSE
GWC-9	12/18/2018	ND<2	FALSE
GWC-9	6/12/2019	ND<2	FALSE
GWC-9	12/12/2019	ND<2	FALSE
GWC-9	6/24/2020	ND<2	FALSE
GWC-9	12/17/2020	ND<2	FALSE
GWC-9	6/15/2021	ND<2	FALSE
GWC-9	12/13/2021	ND<2	FALSE
GWC-9	6/7/2022	ND<2	FALSE
GWC-9	12/14/2022	ND<2	FALSE

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GWC-8	12/12/2017	ND<2	FALSE
GWC-8	6/20/2018	ND<2	FALSE
GWC-8	12/19/2018	ND<2	FALSE
GWC-8	6/12/2019	ND<2	FALSE
GWC-8	12/11/2019	ND<2	FALSE
GWC-8	6/23/2020	ND<2	FALSE
GWC-8	12/16/2020	ND<2	FALSE
GWC-8	6/16/2021	ND<2	FALSE
GWC-8	12/15/2021	ND<2	FALSE
GWC-8	6/9/2022	ND<2	FALSE
GWC-8	12/13/2022	ND<2	FALSE

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GWC-4	6/20/2018	ND<2	FALSE
GWC-4	6/23/2020	ND<2	FALSE
GWC-4	12/17/2020	ND<2	FALSE
GWC-4	6/16/2021	ND<2	FALSE
GWC-4	12/14/2021	ND<2	FALSE
GWC-4	6/8/2022	ND<2	FALSE
GWC-4	12/12/2022	ND<2	FALSE

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## Non-Parametric Tolerance Interval

### Parameter: Vinyl chloride

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 96.75%

Background measurements (n) = 25

Maximum Background Concentration = 2

Minimum Coverage = 88.7%

Average Coverage = 96.1538%

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Location	Date	Value	Significant
GWA-1A	6/12/2017	ND<2	FALSE
GWA-1A	12/13/2017	ND<2	FALSE
GWA-1A	6/19/2018	ND<2	FALSE
GWA-1A	12/18/2018	ND<2	FALSE
GWA-1A	6/10/2019	ND<2	FALSE
GWA-1A	12/9/2019	ND<2	FALSE
GWA-1A	6/23/2020	ND<2	FALSE
GWA-1A	12/17/2020	ND<2	FALSE
GWA-1A	6/17/2021	ND<2	FALSE
GWA-1A	12/16/2021	ND<2	FALSE
GWA-1A	6/8/2022	ND<2	FALSE
GWA-1A	12/14/2022	ND<2	FALSE

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GWC-5	6/12/2017	ND<2	FALSE
GWC-5	12/12/2017	ND<2	FALSE
GWC-5	6/21/2018	ND<2	FALSE
GWC-5	12/18/2018	ND<2	FALSE
GWC-5	6/12/2019	ND<2	FALSE
GWC-5	12/10/2019	ND<2	FALSE
GWC-5	6/23/2020	ND<2	FALSE
GWC-5	12/17/2020	ND<2	FALSE
GWC-5	6/15/2021	ND<2	FALSE
GWC-5	12/13/2021	ND<2	FALSE
GWC-5	6/8/2022	ND<2	FALSE
GWC-5	12/12/2022	ND<2	FALSE

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GWC-6	6/12/2017	ND<2	FALSE
GWC-6	12/13/2017	ND<2	FALSE
GWC-6	6/21/2018	ND<2	FALSE
GWC-6	12/19/2018	ND<2	FALSE
GWC-6	6/12/2019	ND<2	FALSE
GWC-6	12/10/2019	ND<2	FALSE
GWC-6	6/24/2020	ND<2	FALSE
GWC-6	12/17/2020	ND<2	FALSE
GWC-6	6/15/2021	ND<2	FALSE
GWC-6	12/13/2021	ND<2	FALSE
GWC-6	6/8/2022	ND<2	FALSE
GWC-6	12/14/2022	ND<2	FALSE

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GWC-7	6/12/2017	ND<2	FALSE
GWC-7	12/12/2017	ND<2	FALSE
GWC-7	6/19/2018	ND<2	FALSE

GWC-7	12/18/2018	ND<2	FALSE
GWC-7	6/12/2019	ND<2	FALSE
GWC-7	12/11/2019	ND<2	FALSE
GWC-7	6/24/2020	ND<2	FALSE
GWC-7	12/17/2020	ND<2	FALSE
GWC-7	6/15/2021	ND<2	FALSE
GWC-7	12/13/2021	ND<2	FALSE
GWC-7	6/8/2022	ND<2	FALSE
GWC-7	12/12/2022	ND<2	FALSE

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GWC-14	6/13/2017	ND<2	FALSE
GWC-14	6/20/2018	ND<2	FALSE
GWC-14	6/11/2019	ND<2	FALSE
GWC-14	12/10/2019	ND<2	FALSE
GWC-14	6/24/2020	ND<2	FALSE
GWC-14	12/17/2020	ND<2	FALSE
GWC-14	6/15/2021	ND<2	FALSE
GWC-14	12/15/2021	ND<2	FALSE
GWC-14	6/9/2022	ND<2	FALSE
GWC-14	12/13/2022	ND<2	FALSE

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<b>GWC-14A</b>	<b>6/13/2017</b>	<b>3.5</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/12/2017</b>	<b>6</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/20/2018</b>	<b>6.2</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/19/2018</b>	<b>4.9</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/11/2019</b>	<b>4.3</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/10/2019</b>	<b>4</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/24/2020</b>	<b>7.5</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/15/2020</b>	<b>11</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/15/2021</b>	<b>12</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/14/2021</b>	<b>19</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>6/9/2022</b>	<b>19</b>	<b>TRUE</b>
<b>GWC-14A</b>	<b>12/13/2022</b>	<b>14</b>	<b>TRUE</b>

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GWC-14R	6/13/2017	ND<2	FALSE
GWC-14R	12/12/2017	ND<2	FALSE
GWC-14R	6/20/2018	ND<2	FALSE
GWC-14R	12/19/2018	ND<2	FALSE
GWC-14R	6/12/2019	ND<2	FALSE
GWC-14R	12/10/2019	ND<2	FALSE
GWC-14R	6/23/2020	ND<2	FALSE
GWC-14R	12/17/2020	ND<2	FALSE
GWC-14R	6/16/2021	ND<2	FALSE
GWC-14R	12/14/2021	ND<2	FALSE
GWC-14R	6/9/2022	ND<2	FALSE
GWC-14R	12/13/2022	ND<2	FALSE

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GWC-4A	6/13/2017	ND<2	FALSE
GWC-4A	12/12/2017	ND<2	FALSE
GWC-4A	6/20/2018	ND<2	FALSE
GWC-4A	12/17/2018	ND<2	FALSE
GWC-4A	6/11/2019	ND<2	FALSE
GWC-4A	12/11/2019	ND<2	FALSE
GWC-4A	6/23/2020	ND<2	FALSE
GWC-4A	12/17/2020	ND<2	FALSE



GWC-4A	6/17/2021	ND<2	FALSE
GWC-4A	12/15/2021	ND<2	FALSE
GWC-4A	6/8/2022	ND<2	FALSE
GWC-4A	12/14/2022	ND<2	FALSE

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GWC-8A	6/13/2017	ND<2	FALSE
GWC-8A	12/12/2017	ND<2	FALSE
GWC-8A	6/20/2018	ND<2	FALSE
GWC-8A	12/19/2018	ND<2	FALSE
GWC-8A	6/12/2019	ND<2	FALSE
GWC-8A	12/11/2019	ND<2	FALSE
GWC-8A	6/23/2020	ND<2	FALSE
GWC-8A	12/15/2020	ND<2	FALSE
GWC-8A	6/16/2021	ND<2	FALSE
GWC-8A	12/15/2021	ND<2	FALSE
GWC-8A	6/9/2022	ND<2	FALSE
GWC-8A	12/13/2022	ND<2	FALSE

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GWC-8R	6/13/2017	ND<2	FALSE
GWC-8R	12/12/2017	ND<2	FALSE
GWC-8R	6/20/2018	ND<2	FALSE
GWC-8R	12/19/2018	ND<2	FALSE
GWC-8R	6/12/2019	ND<2	FALSE
GWC-8R	12/11/2019	ND<2	FALSE
GWC-8R	6/23/2020	ND<2	FALSE
GWC-8R	12/15/2020	ND<2	FALSE
GWC-8R	6/16/2021	ND<2	FALSE
GWC-8R	12/15/2021	ND<2	FALSE
GWC-8R	6/9/2022	ND<2	FALSE
GWC-8R	12/13/2022	ND<2	FALSE

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GWA-3	6/14/2017	ND<2	FALSE
GWA-3	12/11/2017	ND<2	FALSE
GWA-3	6/18/2018	ND<2	FALSE
GWA-3	12/17/2018	ND<2	FALSE
GWA-3	6/11/2019	ND<2	FALSE
GWA-3	12/10/2019	ND<2	FALSE
GWA-3	6/22/2020	ND<2	FALSE
GWA-3	12/16/2020	ND<2	FALSE
GWA-3	6/14/2021	ND<2	FALSE
GWA-3	12/14/2021	ND<2	FALSE
GWA-3	6/6/2022	ND<2	FALSE
GWA-3	12/13/2022	ND<2	FALSE

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GWC-11	6/14/2017	ND<2	FALSE
GWC-11	12/13/2017	ND<2	FALSE
GWC-11	6/19/2018	ND<2	FALSE
GWC-11	12/19/2018	ND<2	FALSE
GWC-11	6/12/2019	ND<2	FALSE
GWC-11	12/12/2019	ND<2	FALSE
GWC-11	6/24/2020	ND<2	FALSE
GWC-11	12/15/2020	ND<2	FALSE
GWC-11	6/15/2021	ND<2	FALSE
GWC-11	12/13/2021	ND<2	FALSE
GWC-11	6/7/2022	ND<2	FALSE

GWC-11	12/12/2022	ND<2	FALSE
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GWC-12	6/14/2017	ND<2	FALSE
GWC-12	12/13/2017	ND<2	FALSE
GWC-12	6/19/2018	ND<2	FALSE
GWC-12	12/19/2018	ND<2	FALSE
GWC-12	6/11/2019	ND<2	FALSE
GWC-12	12/9/2019	ND<2	FALSE
GWC-12	6/24/2020	ND<2	FALSE
GWC-12	12/15/2020	ND<2	FALSE
GWC-12	6/15/2021	ND<2	FALSE
GWC-12	12/13/2021	ND<2	FALSE
GWC-12	6/7/2022	ND<2	FALSE
GWC-12	12/12/2022	ND<2	FALSE

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GWC-12A	6/14/2017	ND<2	FALSE
GWC-12A	12/13/2017	ND<2	FALSE
GWC-12A	6/19/2018	ND<2	FALSE
GWC-12A	12/19/2018	ND<2	FALSE
GWC-12A	6/11/2019	ND<2	FALSE
GWC-12A	12/9/2019	ND<2	FALSE
GWC-12A	6/24/2020	ND<2	FALSE
GWC-12A	12/15/2020	ND<2	FALSE
GWC-12A	6/15/2021	ND<2	FALSE
GWC-12A	12/13/2021	ND<2	FALSE
GWC-12A	6/7/2022	ND<2	FALSE
GWC-12A	12/12/2022	ND<2	FALSE

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GWC-13	6/14/2017	ND<2	FALSE
GWC-13	12/12/2017	ND<2	FALSE
GWC-13	6/19/2018	ND<2	FALSE
GWC-13	12/19/2018	ND<2	FALSE
GWC-13	6/12/2019	ND<2	FALSE
GWC-13	12/11/2019	ND<2	FALSE
GWC-13	6/23/2020	ND<2	FALSE
GWC-13	12/15/2020	ND<2	FALSE
GWC-13	6/15/2021	ND<2	FALSE
GWC-13	12/15/2021	ND<2	FALSE
GWC-13	6/8/2022	ND<2	FALSE
GWC-13	12/12/2022	ND<2	FALSE

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GWC-15	6/14/2017	ND<2	FALSE
GWC-15	12/13/2017	ND<2	FALSE
GWC-15	6/19/2018	ND<2	FALSE
GWC-15	12/19/2018	ND<2	FALSE
GWC-15	6/11/2019	ND<2	FALSE
GWC-15	12/10/2019	ND<2	FALSE
GWC-15	6/25/2020	ND<2	FALSE
GWC-15	12/17/2020	ND<2	FALSE
GWC-15	6/16/2021	ND<2	FALSE
GWC-15	12/14/2021	ND<2	FALSE
GWC-15	6/9/2022	ND<2	FALSE
GWC-15	12/15/2022	ND<2	FALSE

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<b>GWC-16A</b>	<b>6/14/2017</b>	<b>4.8</b>	<b>TRUE</b>
GWC-16A	12/13/2017	ND<2	FALSE
GWC-16A	6/21/2018	ND<2	FALSE
GWC-16A	12/19/2018	ND<2	FALSE
GWC-16A	6/13/2019	ND<2	FALSE
GWC-16A	12/11/2019	ND<2	FALSE
GWC-16A	6/23/2020	ND<2	FALSE
GWC-16A	12/17/2020	ND<2	FALSE
GWC-16A	6/16/2021	ND<2	FALSE
GWC-16A	12/16/2021	ND<2	FALSE
GWC-16A	6/9/2022	ND<2	FALSE
GWC-16A	12/14/2022	ND<2	FALSE

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GWC-17	6/14/2017	ND<2	FALSE
GWC-17	12/12/2017	ND<2	FALSE
GWC-17	6/19/2018	ND<2	FALSE
GWC-17	12/19/2018	ND<2	FALSE
GWC-17	6/12/2019	ND<2	FALSE
GWC-17	12/10/2019	ND<2	FALSE
GWC-17	6/23/2020	ND<2	FALSE
GWC-17	12/15/2020	ND<2	FALSE
GWC-17	6/14/2021	ND<2	FALSE
GWC-17	12/14/2021	ND<2	FALSE
GWC-17	6/9/2022	ND<2	FALSE
GWC-17	12/14/2022	ND<2	FALSE

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GWC-18	6/14/2017	ND<2	FALSE
GWC-18	12/13/2017	ND<2	FALSE
GWC-18	6/19/2018	ND<2	FALSE
GWC-18	12/18/2018	ND<2	FALSE
GWC-18	6/11/2019	ND<2	FALSE
GWC-18	12/9/2019	ND<2	FALSE
GWC-18	6/23/2020	ND<2	FALSE
GWC-18	12/15/2020	ND<2	FALSE
GWC-18	6/14/2021	ND<2	FALSE
GWC-18	12/14/2021	ND<2	FALSE
GWC-18	6/7/2022	ND<2	FALSE
GWC-18	12/14/2022	ND<2	FALSE

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GWC-19R	6/14/2017	ND<2	FALSE
GWC-19R	12/13/2017	ND<2	FALSE
GWC-19R	6/19/2018	ND<2	FALSE
GWC-19R	12/18/2018	ND<2	FALSE
GWC-19R	6/11/2019	ND<2	FALSE
GWC-19R	12/9/2019	ND<2	FALSE
GWC-19R	6/23/2020	ND<2	FALSE
GWC-19R	12/15/2020	ND<2	FALSE
GWC-19R	6/14/2021	ND<2	FALSE
GWC-19R	12/14/2021	ND<2	FALSE
GWC-19R	6/6/2022	ND<2	FALSE
GWC-19R	12/14/2022	ND<2	FALSE

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GWC-22	6/14/2017	ND<2	FALSE
GWC-22	12/11/2017	ND<2	FALSE
GWC-22	6/19/2018	ND<2	FALSE

GWC-22	12/18/2018	ND<2	FALSE
GWC-22	6/12/2019	ND<2	FALSE
GWC-22	12/11/2019	ND<2	FALSE
GWC-22	6/23/2020	ND<2	FALSE
GWC-22	12/17/2020	ND<2	FALSE
GWC-22	6/14/2021	ND<2	FALSE
GWC-22	12/13/2021	ND<2	FALSE
GWC-22	6/6/2022	ND<2	FALSE
GWC-22	12/12/2022	ND<2	FALSE

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GWC-23	6/14/2017	ND<2	FALSE
GWC-23	12/11/2017	ND<2	FALSE
GWC-23	6/18/2018	ND<2	FALSE
GWC-23	12/18/2018	ND<2	FALSE
GWC-23	6/12/2019	ND<2	FALSE
GWC-23	12/11/2019	ND<2	FALSE
GWC-23	6/24/2020	ND<2	FALSE
GWC-23	12/16/2020	ND<2	FALSE
GWC-23	6/14/2021	ND<2	FALSE
GWC-23	12/13/2021	ND<2	FALSE
GWC-23	6/6/2022	ND<2	FALSE
GWC-23	12/12/2022	ND<2	FALSE

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GWC-23A	6/14/2017	ND<2	FALSE
GWC-23A	12/11/2017	ND<2	FALSE
GWC-23A	6/18/2018	ND<2	FALSE
GWC-23A	12/18/2018	ND<2	FALSE
GWC-23A	6/12/2019	ND<2	FALSE
GWC-23A	12/11/2019	ND<2	FALSE
GWC-23A	6/24/2020	ND<2	FALSE
GWC-23A	12/16/2020	ND<2	FALSE
GWC-23A	6/14/2021	ND<2	FALSE
GWC-23A	12/13/2021	ND<2	FALSE
GWC-23A	6/6/2022	ND<2	FALSE
GWC-23A	12/12/2022	ND<2	FALSE

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GWC-24	6/14/2017	ND<2	FALSE
GWC-24	12/13/2017	ND<2	FALSE
GWC-24	6/19/2018	ND<2	FALSE
GWC-24	12/19/2018	ND<2	FALSE
GWC-24	6/11/2019	ND<2	FALSE
GWC-24	12/9/2019	ND<2	FALSE
GWC-24	6/24/2020	ND<2	FALSE
GWC-24	12/15/2020	ND<2	FALSE
GWC-24	6/14/2021	ND<2	FALSE
GWC-24	12/14/2021	ND<2	FALSE
GWC-24	6/7/2022	ND<2	FALSE
GWC-24	12/14/2022	ND<2	FALSE

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GWC-10	6/15/2017	ND<2	FALSE
GWC-10	12/12/2017	ND<2	FALSE
GWC-10	6/19/2018	ND<2	FALSE
GWC-10	12/17/2018	ND<2	FALSE
GWC-10	6/10/2019	ND<2	FALSE
GWC-10	12/12/2019	ND<2	FALSE

GWC-10	6/24/2020	ND<2	FALSE
GWC-10	12/15/2020	ND<2	FALSE
GWC-10	6/15/2021	ND<2	FALSE
GWC-10	12/15/2021	ND<2	FALSE
GWC-10	6/7/2022	ND<2	FALSE
GWC-10	12/14/2022	ND<2	FALSE

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GWC-10A	6/15/2017	ND<2	FALSE
GWC-10A	12/12/2017	ND<2	FALSE
GWC-10A	6/19/2018	ND<2	FALSE
GWC-10A	12/17/2018	ND<2	FALSE
GWC-10A	6/10/2019	ND<2	FALSE
GWC-10A	12/12/2019	ND<2	FALSE
GWC-10A	6/24/2020	ND<2	FALSE
GWC-10A	12/15/2020	ND<2	FALSE
GWC-10A	6/15/2021	ND<2	FALSE
GWC-10A	12/15/2021	ND<2	FALSE
GWC-10A	6/7/2022	ND<2	FALSE
GWC-10A	12/14/2022	ND<2	FALSE

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GWC-2	6/15/2017	ND<2	FALSE
GWC-2	12/13/2017	ND<2	FALSE
GWC-2	6/20/2018	ND<2	FALSE
GWC-2	12/19/2018	ND<2	FALSE
GWC-2	6/12/2019	ND<2	FALSE
GWC-2	12/10/2019	ND<2	FALSE
GWC-2	6/22/2020	ND<2	FALSE
GWC-2	12/16/2020	ND<2	FALSE
GWC-2	6/15/2021	ND<2	FALSE
GWC-2	12/15/2021	ND<2	FALSE
GWC-2	6/7/2022	ND<2	FALSE
GWC-2	12/12/2022	ND<2	FALSE

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GWC-3	6/15/2017	ND<2	FALSE
GWC-3	6/21/2018	ND<2	FALSE
GWC-3	12/17/2018	ND<2	FALSE
GWC-3	6/11/2019	ND<2	FALSE
GWC-3	12/10/2019	ND<2	FALSE
GWC-3	6/24/2020	ND<2	FALSE
GWC-3	12/16/2020	ND<2	FALSE
GWC-3	6/15/2021	ND<2	FALSE
GWC-3	12/15/2021	ND<2	FALSE
GWC-3	6/7/2022	ND<2	FALSE
GWC-3	12/12/2022	ND<2	FALSE

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GWC-3A	6/15/2017	ND<2	FALSE
GWC-3A	12/12/2017	ND<2	FALSE
GWC-3A	6/20/2018	ND<2	FALSE
GWC-3A	12/17/2018	ND<2	FALSE
GWC-3A	6/11/2019	ND<2	FALSE
GWC-3A	12/10/2019	ND<2	FALSE
GWC-3A	6/24/2020	ND<2	FALSE
GWC-3A	12/16/2020	ND<2	FALSE
GWC-3A	6/14/2021	ND<2	FALSE
GWC-3A	12/15/2021	ND<2	FALSE

GWC-3A	6/7/2022	ND<2	FALSE
GWC-3A	12/12/2022	ND<2	FALSE

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GWC-9	6/15/2017	ND<2	FALSE
GWC-9	12/13/2017	ND<2	FALSE
GWC-9	6/20/2018	ND<2	FALSE
GWC-9	12/18/2018	ND<2	FALSE
GWC-9	6/12/2019	ND<2	FALSE
GWC-9	12/12/2019	ND<2	FALSE
GWC-9	6/24/2020	ND<2	FALSE
GWC-9	12/17/2020	ND<2	FALSE
GWC-9	6/15/2021	ND<2	FALSE
GWC-9	12/13/2021	ND<2	FALSE
GWC-9	6/7/2022	ND<2	FALSE
GWC-9	12/14/2022	ND<2	FALSE

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GWC-8	12/12/2017	ND<2	FALSE
GWC-8	6/20/2018	ND<2	FALSE
GWC-8	12/19/2018	ND<2	FALSE
GWC-8	6/12/2019	ND<2	FALSE
GWC-8	12/11/2019	ND<2	FALSE
GWC-8	6/23/2020	ND<2	FALSE
GWC-8	12/16/2020	ND<2	FALSE
GWC-8	6/16/2021	ND<2	FALSE
GWC-8	12/15/2021	ND<2	FALSE
GWC-8	6/9/2022	ND<2	FALSE
GWC-8	12/13/2022	ND<2	FALSE

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GWC-4	6/20/2018	ND<2	FALSE
GWC-4	6/23/2020	ND<2	FALSE
GWC-4	12/17/2020	ND<2	FALSE
GWC-4	6/16/2021	ND<2	FALSE
GWC-4	12/14/2021	ND<2	FALSE
GWC-4	6/8/2022	ND<2	FALSE
GWC-4	12/12/2022	ND<2	FALSE

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## Non-Parametric Tolerance Interval

### Parameter: Zinc

Original Data (Not Transformed)

Non-Detects Replaced with Detection Limit

Total Percent Non-Detects = 72.3577%

Background measurements (n) = 25

Maximum Background Concentration = 48

Minimum Coverage = 88.7%

Average Coverage = 96.1538%

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Location	Date	Value	Significant
GWA-1A	6/12/2017	ND<20	FALSE
GWA-1A	12/13/2017	24	FALSE
GWA-1A	6/20/2018	ND<20	FALSE
GWA-1A	12/18/2018	ND<20	FALSE
GWA-1A	6/10/2019	ND<20	FALSE
GWA-1A	12/9/2019	ND<20	FALSE
GWA-1A	6/23/2020	ND<20	FALSE
GWA-1A	12/17/2020	ND<20	FALSE
GWA-1A	6/17/2021	ND<20	FALSE
GWA-1A	12/16/2021	ND<20	FALSE
GWA-1A	6/8/2022	ND<20	FALSE
GWA-1A	12/14/2022	ND<20	FALSE

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GWC-14A	6/13/2017	ND<20	FALSE
GWC-14A	12/13/2017	ND<20	FALSE
GWC-14A	6/21/2018	20	FALSE
GWC-14A	12/19/2018	ND<20	FALSE
GWC-14A	6/12/2019	ND<20	FALSE
GWC-14A	12/11/2019	ND<20	FALSE
GWC-14A	6/24/2020	ND<20	FALSE
GWC-14A	12/16/2020	ND<20	FALSE
GWC-14A	6/16/2021	ND<20	FALSE
GWC-14A	12/15/2021	26	FALSE
GWC-14A	6/10/2022	ND<20	FALSE
GWC-14A	12/14/2022	ND<20	FALSE

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GWC-5	6/13/2017	20	FALSE
GWC-5	12/13/2017	ND<20	FALSE
GWC-5	6/21/2018	ND<20	FALSE
GWC-5	12/19/2018	26	FALSE
GWC-5	6/13/2019	ND<20	FALSE
GWC-5	12/11/2019	38.3	FALSE
GWC-5	6/24/2020	ND<20	FALSE
GWC-5	12/18/2020	ND<20	FALSE
GWC-5	6/16/2021	ND<20	FALSE
GWC-5	12/14/2021	ND<20	FALSE
GWC-5	6/9/2022	27.2	FALSE
GWC-5	12/13/2022	ND<20	FALSE

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GWC-6	6/13/2017	ND<20	FALSE
GWC-6	12/14/2017	ND<20	FALSE
GWC-6	6/21/2018	ND<20	FALSE

GWC-6	12/20/2018	ND<20	FALSE
GWC-6	6/13/2019	ND<20	FALSE
GWC-6	12/11/2019	ND<20	FALSE
GWC-6	6/25/2020	ND<20	FALSE
GWC-6	12/18/2020	ND<20	FALSE
<b>GWC-6</b>	<b>6/16/2021</b>	<b>79</b>	<b>TRUE</b>
GWC-6	12/14/2021	ND<20	FALSE
GWC-6	6/9/2022	ND<20	FALSE
GWC-6	12/15/2022	ND<20	FALSE

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GWC-7	6/13/2017	20	FALSE
GWC-7	12/13/2017	ND<20	FALSE
GWC-7	6/20/2018	30	FALSE
<b>GWC-7</b>	<b>12/19/2018</b>	<b>110</b>	<b>TRUE</b>
GWC-7	6/13/2019	23	FALSE
GWC-7	12/12/2019	42.2	FALSE
GWC-7	6/25/2020	ND<20	FALSE
GWC-7	12/18/2020	ND<20	FALSE
GWC-7	6/16/2021	ND<20	FALSE
GWC-7	12/14/2021	ND<20	FALSE
GWC-7	6/9/2022	24	FALSE
GWC-7	12/13/2022	35.3	FALSE

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<b>GWC-15</b>	<b>6/14/2017</b>	<b>90</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>12/14/2017</b>	<b>60</b>	<b>TRUE</b>
<b>GWC-15</b>	<b>6/20/2018</b>	<b>56</b>	<b>TRUE</b>
GWC-15	12/19/2018	ND<20	FALSE
GWC-15	6/11/2019	ND<20	FALSE
GWC-15	12/10/2019	ND<20	FALSE
GWC-15	6/25/2020	ND<20	FALSE
GWC-15	12/17/2020	ND<20	FALSE
GWC-15	6/16/2021	ND<20	FALSE
GWC-15	12/14/2021	ND<20	FALSE
GWC-15	6/9/2022	24.9	FALSE
GWC-15	12/15/2022	ND<20	FALSE

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GWC-4A	6/14/2017	ND<20	FALSE
GWC-4A	12/13/2017	25	FALSE
GWC-4A	6/21/2018	ND<20	FALSE
GWC-4A	12/18/2018	ND<20	FALSE
GWC-4A	6/12/2019	23	FALSE
<b>GWC-4A</b>	<b>12/12/2019</b>	<b>50</b>	<b>TRUE</b>
GWC-4A	6/24/2020	ND<20	FALSE
GWC-4A	12/18/2020	ND<20	FALSE
GWC-4A	6/18/2021	ND<20	FALSE
GWC-4A	12/16/2021	ND<20	FALSE
GWC-4A	6/8/2022	24.5	FALSE
GWC-4A	12/15/2022	ND<20	FALSE

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GWC-8A	6/14/2017	ND<20	FALSE
GWC-8A	12/13/2017	ND<20	FALSE
GWC-8A	6/21/2018	34	FALSE
GWC-8A	12/20/2018	42	FALSE
GWC-8A	6/13/2019	ND<20	FALSE
GWC-8A	12/12/2019	ND<20	FALSE



GWC-8A	6/24/2020	ND<20	FALSE
GWC-8A	12/16/2020	ND<20	FALSE
GWC-8A	6/17/2021	ND<20	FALSE
GWC-8A	12/16/2021	ND<20	FALSE
GWC-8A	6/10/2022	ND<20	FALSE
GWC-8A	12/14/2022	ND<20	FALSE

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GWA-3	6/15/2017	ND<20	FALSE
GWA-3	12/12/2017	ND<20	FALSE
GWA-3	6/19/2018	41	FALSE
GWA-3	12/18/2018	ND<20	FALSE
GWA-3	6/12/2019	ND<20	FALSE
<b>GWA-3</b>	<b>12/11/2019</b>	<b>71.5</b>	<b>TRUE</b>
GWA-3	6/23/2020	20.3	FALSE
GWA-3	12/17/2020	ND<20	FALSE
GWA-3	6/15/2021	ND<20	FALSE
GWA-3	12/15/2021	ND<20	FALSE
GWA-3	6/7/2022	ND<20	FALSE
GWA-3	12/14/2022	ND<20	FALSE

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GWC-11	6/15/2017	ND<20	FALSE
GWC-11	12/14/2017	ND<20	FALSE
GWC-11	6/20/2018	26	FALSE
GWC-11	12/20/2018	ND<20	FALSE
GWC-11	6/13/2019	34	FALSE
GWC-11	12/13/2019	23.3	FALSE
GWC-11	6/25/2020	40	FALSE
GWC-11	12/16/2020	ND<20	FALSE
GWC-11	6/16/2021	ND<20	FALSE
GWC-11	12/14/2021	ND<20	FALSE
GWC-11	6/8/2022	ND<20	FALSE
<b>GWC-11</b>	<b>12/13/2022</b>	<b>58.6</b>	<b>TRUE</b>

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GWC-12	6/15/2017	ND<20	FALSE
GWC-12	12/14/2017	ND<20	FALSE
GWC-12	6/20/2018	ND<20	FALSE
GWC-12	12/20/2018	ND<20	FALSE
GWC-12	6/12/2019	ND<20	FALSE
GWC-12	12/10/2019	ND<20	FALSE
GWC-12	6/25/2020	ND<20	FALSE
GWC-12	12/22/2020	ND<20	FALSE
GWC-12	6/16/2021	ND<20	FALSE
GWC-12	12/14/2021	ND<20	FALSE
GWC-12	6/8/2022	ND<20	FALSE
GWC-12	12/13/2022	ND<20	FALSE

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GWC-12A	6/15/2017	ND<20	FALSE
GWC-12A	12/14/2017	ND<20	FALSE
GWC-12A	6/20/2018	26	FALSE
GWC-12A	12/20/2018	ND<20	FALSE
GWC-12A	6/12/2019	ND<20	FALSE
GWC-12A	12/10/2019	ND<20	FALSE
GWC-12A	6/25/2020	ND<20	FALSE
GWC-12A	12/16/2020	ND<20	FALSE
GWC-12A	6/16/2021	ND<20	FALSE

GWC-12A	12/14/2021	ND<20	FALSE
GWC-12A	6/8/2022	ND<20	FALSE
GWC-12A	12/13/2022	ND<20	FALSE
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GWC-13	6/15/2017	ND<20	FALSE
GWC-13	12/13/2017	ND<20	FALSE
GWC-13	6/20/2018	ND<20	FALSE
GWC-13	12/20/2018	ND<20	FALSE
GWC-13	6/13/2019	ND<20	FALSE
GWC-13	12/12/2019	23.6	FALSE
GWC-13	6/24/2020	ND<20	FALSE
GWC-13	12/16/2020	ND<20	FALSE
GWC-13	6/16/2021	ND<20	FALSE
GWC-13	12/16/2021	ND<20	FALSE
GWC-13	6/9/2022	ND<20	FALSE
GWC-13	12/13/2022	ND<20	FALSE
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<b>GWC-16A</b>	<b>6/15/2017</b>	<b>79</b>	<b>TRUE</b>
GWC-16A	12/14/2017	ND<20	FALSE
GWC-16A	6/21/2018	44	FALSE
GWC-16A	12/20/2018	ND<20	FALSE
GWC-16A	6/13/2019	ND<20	FALSE
GWC-16A	12/12/2019	ND<20	FALSE
GWC-16A	6/23/2020	ND<20	FALSE
GWC-16A	12/17/2020	ND<20	FALSE
GWC-16A	6/16/2021	ND<20	FALSE
GWC-16A	12/16/2021	ND<20	FALSE
GWC-16A	6/10/2022	34.1	FALSE
GWC-16A	12/15/2022	ND<20	FALSE
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GWC-17	6/15/2017	20	FALSE
GWC-17	12/13/2017	ND<20	FALSE
GWC-17	6/20/2018	ND<20	FALSE
GWC-17	12/20/2018	27	FALSE
GWC-17	6/13/2019	24	FALSE
GWC-17	12/11/2019	ND<20	FALSE
GWC-17	6/24/2020	ND<20	FALSE
GWC-17	12/16/2020	ND<20	FALSE
GWC-17	6/15/2021	ND<20	FALSE
GWC-17	12/15/2021	ND<20	FALSE
GWC-17	6/10/2022	ND<20	FALSE
GWC-17	12/15/2022	ND<20	FALSE
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GWC-18	6/15/2017	21	FALSE
GWC-18	12/14/2017	29	FALSE
GWC-18	6/20/2018	ND<20	FALSE
GWC-18	12/19/2018	26	FALSE
GWC-18	6/12/2019	ND<20	FALSE
GWC-18	12/10/2019	38.7	FALSE
GWC-18	6/24/2020	ND<20	FALSE
GWC-18	12/16/2020	ND<20	FALSE
GWC-18	6/15/2021	ND<20	FALSE
GWC-18	12/15/2021	ND<20	FALSE
GWC-18	6/8/2022	ND<20	FALSE
GWC-18	12/15/2022	ND<20	FALSE

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GWC-19R	6/15/2017	ND<20	FALSE
GWC-19R	12/14/2017	ND<20	FALSE
GWC-19R	6/20/2018	21	FALSE
GWC-19R	12/19/2018	ND<20	FALSE
GWC-19R	6/12/2019	ND<20	FALSE
GWC-19R	12/10/2019	ND<20	FALSE
GWC-19R	6/24/2020	ND<20	FALSE
GWC-19R	12/16/2020	ND<20	FALSE
GWC-19R	6/15/2021	ND<20	FALSE
GWC-19R	12/15/2021	ND<20	FALSE
GWC-19R	6/7/2022	ND<20	FALSE
GWC-19R	12/15/2022	ND<20	FALSE

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GWC-22	6/15/2017	ND<20	FALSE
GWC-22	12/12/2017	ND<20	FALSE
GWC-22	6/20/2018	21	FALSE
GWC-22	12/19/2018	ND<20	FALSE
GWC-22	6/13/2019	ND<20	FALSE
GWC-22	12/12/2019	ND<20	FALSE
GWC-22	6/24/2020	ND<20	FALSE
GWC-22	12/18/2020	ND<20	FALSE
GWC-22	6/15/2021	ND<20	FALSE
GWC-22	12/14/2021	ND<20	FALSE
GWC-22	6/7/2022	ND<20	FALSE
GWC-22	12/13/2022	ND<20	FALSE

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GWC-23	6/15/2017	ND<20	FALSE
GWC-23	12/12/2017	ND<20	FALSE
GWC-23	6/19/2018	ND<20	FALSE
GWC-23	12/19/2018	ND<20	FALSE
GWC-23	6/13/2019	ND<20	FALSE
GWC-23	12/12/2019	ND<20	FALSE
GWC-23	6/24/2020	ND<20	FALSE
GWC-23	12/17/2020	ND<20	FALSE
GWC-23	6/15/2021	ND<20	FALSE
GWC-23	12/14/2021	ND<20	FALSE
GWC-23	6/7/2022	ND<20	FALSE
GWC-23	12/13/2022	ND<20	FALSE

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GWC-23A	6/15/2017	ND<20	FALSE
GWC-23A	12/12/2017	ND<20	FALSE
GWC-23A	6/19/2018	ND<20	FALSE
GWC-23A	12/19/2018	ND<20	FALSE
GWC-23A	6/13/2019	ND<20	FALSE
GWC-23A	12/12/2019	31.6	FALSE
GWC-23A	6/24/2020	ND<20	FALSE
GWC-23A	12/17/2020	ND<20	FALSE
GWC-23A	6/15/2021	ND<20	FALSE
GWC-23A	12/14/2021	ND<20	FALSE
GWC-23A	6/7/2022	ND<20	FALSE
GWC-23A	12/13/2022	ND<20	FALSE

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GWC-24	6/15/2017	ND<20	FALSE
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GWC-24	6/20/2018	ND<20	FALSE
GWC-24	6/12/2019	ND<20	FALSE
GWC-24	12/10/2019	24	FALSE
GWC-24	6/25/2020	ND<20	FALSE
GWC-24	6/15/2021	ND<20	FALSE
GWC-24	6/8/2022	ND<20	FALSE
GWC-24	12/15/2022	ND<20	FALSE

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GWC-10	6/16/2017	ND<20	FALSE
GWC-10	12/13/2017	28	FALSE
GWC-10	6/20/2018	41	FALSE
GWC-10	12/18/2018	22	FALSE
GWC-10	6/11/2019	24	FALSE
<b>GWC-10</b>	<b>12/13/2019</b>	<b>86.4</b>	<b>TRUE</b>
GWC-10	6/25/2020	27.9	FALSE
GWC-10	12/16/2020	ND<20	FALSE
GWC-10	6/16/2021	ND<20	FALSE
GWC-10	12/16/2021	ND<20	FALSE
GWC-10	6/8/2022	ND<20	FALSE
GWC-10	12/15/2022	ND<20	FALSE

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GWC-10A	6/16/2017	ND<20	FALSE
GWC-10A	12/13/2017	ND<20	FALSE
GWC-10A	6/20/2018	ND<20	FALSE
GWC-10A	12/18/2018	38	FALSE
GWC-10A	6/11/2019	ND<20	FALSE
GWC-10A	12/13/2019	31.2	FALSE
GWC-10A	6/25/2020	ND<20	FALSE
GWC-10A	12/16/2020	ND<20	FALSE
GWC-10A	6/16/2021	ND<20	FALSE
GWC-10A	12/16/2021	ND<20	FALSE
GWC-10A	6/8/2022	ND<20	FALSE
GWC-10A	12/15/2022	21.6	FALSE

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GWC-2	6/16/2017	ND<20	FALSE
GWC-2	12/14/2017	ND<20	FALSE
GWC-2	6/21/2018	ND<20	FALSE
GWC-2	12/20/2018	23	FALSE
GWC-2	6/13/2019	28	FALSE
GWC-2	12/11/2019	25	FALSE
GWC-2	6/23/2020	27.8	FALSE
GWC-2	12/17/2020	ND<20	FALSE
GWC-2	6/16/2021	ND<20	FALSE
GWC-2	12/16/2021	ND<20	FALSE
GWC-2	6/8/2022	ND<20	FALSE
GWC-2	12/13/2022	ND<20	FALSE

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GWC-3A	6/16/2017	34	FALSE
GWC-3A	12/13/2017	ND<20	FALSE
GWC-3A	6/21/2018	ND<20	FALSE
GWC-3A	12/18/2018	ND<20	FALSE
GWC-3A	6/12/2019	24	FALSE
GWC-3A	12/11/2019	28.8	FALSE
GWC-3A	6/25/2020	33.1	FALSE
GWC-3A	12/17/2020	ND<20	FALSE

GWC-3A	6/15/2021	20.6	FALSE
GWC-3A	12/16/2021	ND<20	FALSE
GWC-3A	6/8/2022	ND<20	FALSE
GWC-3A	12/13/2022	ND<20	FALSE

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<b>GWC-9</b>	<b>6/16/2017</b>	<b>73</b>	<b>TRUE</b>
GWC-9	12/14/2017	46	FALSE
GWC-9	6/21/2018	45	FALSE
GWC-9	12/19/2018	38	FALSE
<b>GWC-9</b>	<b>6/13/2019</b>	<b>60</b>	<b>TRUE</b>
<b>GWC-9</b>	<b>12/13/2019</b>	<b>78</b>	<b>TRUE</b>
GWC-9	6/25/2020	45.9	FALSE
GWC-9	12/18/2020	41.9	FALSE
GWC-9	6/16/2021	41.8	FALSE
<b>GWC-9</b>	<b>12/14/2021</b>	<b>49.9</b>	<b>TRUE</b>
<b>GWC-9</b>	<b>6/8/2022</b>	<b>68.7</b>	<b>TRUE</b>
GWC-9	12/15/2022	41.6	FALSE

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GWC-8	12/13/2017	ND<20	FALSE
GWC-8	6/21/2018	ND<20	FALSE
GWC-8	6/13/2019	ND<20	FALSE
GWC-8	12/12/2019	ND<20	FALSE
GWC-8	6/24/2020	ND<20	FALSE
GWC-8	12/17/2020	ND<20	FALSE
GWC-8	6/17/2021	ND<20	FALSE
GWC-8	12/16/2021	ND<20	FALSE
GWC-8	6/10/2022	ND<20	FALSE
GWC-8	12/14/2022	ND<20	FALSE

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<b>GWC-14</b>	<b>6/21/2018</b>	<b>67</b>	<b>TRUE</b>
GWC-14	6/12/2019	ND<20	FALSE
GWC-14	12/11/2019	27.7	FALSE
GWC-14	6/25/2020	25.3	FALSE
GWC-14	12/18/2020	ND<20	FALSE
GWC-14	6/16/2021	ND<20	FALSE
GWC-14	12/16/2021	ND<20	FALSE
GWC-14	6/10/2022	22.1	FALSE

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GWC-3	6/21/2018	ND<20	FALSE
GWC-3	12/18/2018	ND<20	FALSE
GWC-3	6/12/2019	ND<20	FALSE
GWC-3	12/11/2019	ND<20	FALSE
GWC-3	6/25/2020	ND<20	FALSE
GWC-3	12/17/2020	ND<20	FALSE
GWC-3	6/16/2021	ND<20	FALSE
GWC-3	12/16/2021	ND<20	FALSE
GWC-3	6/8/2022	25.1	FALSE

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GWC-4	6/21/2018	25	FALSE
GWC-4	6/24/2020	ND<20	FALSE
GWC-4	12/18/2020	ND<20	FALSE
GWC-4	6/17/2021	43.2	FALSE
GWC-4	12/15/2021	ND<20	FALSE
GWC-4	6/9/2022	39.4	FALSE

GWC-4	12/13/2022	ND<20	FALSE
GWC-14R	6/9/2022	ND<20	FALSE
GWC-8R	6/9/2022	24.6	FALSE



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