



## Grumman Road Private Industrial Landfill

Port Wentworth, Georgia

PERMIT #: 025-061D(LI)

Chatham County

## 2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

*ACC*

ATLANTIC COAST  
CONSULTING, INC.



## PROFESSIONAL CERTIFICATION

This *2022 Annual Groundwater Monitoring and Corrective Action Report*, Georgia Power Company – Grumman Road Private Industrial Landfill has been prepared in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 and 391-3-4-.14 by a qualified groundwater scientist or engineer with Atlantic Coast Consulting, Inc. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management, and 40 CFR Part 258.50(g).

## ATLANTIC COAST CONSULTING, INC.

A handwritten signature in blue ink that reads 'William M. Malone'.

William M. Malone  
Project Scientist



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Date: 2022-07-29

## SUMMARY

This summary of the 2022 Annual Groundwater Monitoring and Corrective Action Report provides the groundwater monitoring and corrective action program status from July 2021 through June 2022 for Georgia Power Company (Georgia Power) Grumman Road Private Industrial Landfill (GRL). This summary was prepared by Atlantic Coast Consulting, Inc. (ACC) on behalf of Georgia Power.

GRL is located on Gulfstream Road, in Chatham County, Georgia, approximately 0.8 miles east of Savannah/Hilton Head International Airport and 1.3 miles west of the city of Port Wentworth. GRL received coal combustion residuals (CCR) from Georgia Power – Plant Kraft and operated under Georgia Environmental Protection Division (GA EPD) solid waste handling permit number 025-061D(LI). GRL is comprised of four cells or parcels: Parcel A [originally operated under permit number 025-034D(LI)], B1, B2, and B3.



**Grumman Road Private Industrial Landfill**

Groundwater at the site is monitored using a comprehensive monitoring system of wells installed to meet state monitoring requirements. Routine sampling and reporting began after background groundwater conditions were established in accordance with the Solid Waste Permit requirements specified in the Design and Operation (D&O) Plan. The monitoring program has been modified to include Appendix III and IV parameters to meet the requirements of the GA EPD Rules for Solid Waste Management 391-3-4-.10(6)(a) and 40 Code of Federal Regulations (CFR) § 257.95. Background groundwater conditions for Appendix III and IV parameters were established between September 2016 and July 2018.

Based on Site groundwater conditions, Georgia Power submitted a notification for the implementation of assessment monitoring under GA EPD Rule 391-3-4-.10(6)(a) on November 13, 2019. An Assessment of Corrective Measures (ACM) was initiated on July 9, 2020 based on the requirements of GA EPD Rule 391-3-4-.10(6)(a) which incorporates United States Environmental Protection Agency (USEPA) CCR Rule (40 CFR Part 257, Subpart D) by reference. Georgia Power submitted an ACM report on December 4, 2020 pursuant to GA EPD Rule 391-3-4-.10(6)(a) (Anchor 2020). The 2020 ACM supersedes previous documents submitted for the Site under the existing GA EPD Permit No. 025-061D(LI) (SCS 2013; ACC 2017, 2019).

During the July 2021 through June 2022 annual reporting period, ACC completed groundwater sampling events in September 2021 and February 2022. Groundwater samples were submitted to Pace Analytical Services, LLC (Pace) for analysis. Per the CCR



rule, groundwater results for September 2021 and February 2022 were evaluated in accordance with the certified statistical methods. That evaluation identified statistically significant values of Appendix III<sup>1</sup> constituents above background and statistically significant levels of Appendix IV<sup>2</sup> parameters above groundwater protection standards (GWPS), as summarized below. On February 22, 2022 GA EPD updated the Rules for Solid Waste Management 391-3-4-.10(6) to incorporate updated Federal GWPS where a maximum contaminant level (MCL) has not been established. These levels were specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L), except where site-specific background concentrations of these constituents are higher. Statistical evaluation for the February 2022 event was updated to reflect these changes.

Appendix III Parameter	September 2021	February 2022
Calcium	GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, GWC-12, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20	GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, GWC-12, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20, GWC-21
Chloride	GWC-17	GWC-17
Fluoride	GWC-17	GWC-17
pH	GWC-12, GWC-15	GWC-12, GWC-15
Sulfate	GWB-4R, GWB-5R, GWB-6R, GWC-11, GWC-12, GWC-14, GWC-16, GWC-17, GWC-20	GWB-4R, GWB-5R, GWB-6R, GWC-11, GWC-12, GWC-14, GWC-16, GWC-17, GWC-20, GWC-21
Appendix IV Parameter <sup>3</sup>	September 2021	February 2022
Arsenic	GWC-15, GWC-16, GWC-20	GWC-15, GWC-16, GWC-20
Molybdenum	GWB-4R, GWC-1, GWC-15, GWC-16, GWC-20, GWC-21	GWC-16, GWC-20

Based on review of the statistical results completed for the groundwater monitoring and corrective action program from July 2021 through June 2022, the Site will continue assessment monitoring and groundwater remedy selection. Georgia Power will continue routine groundwater monitoring and reporting at the Site, and reports will be posted to the website and provided to the GA EPD.

<sup>1</sup> Appendix III: Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS).  
<sup>2</sup> Appendix IV: Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, radium 226+228, selenium, and thallium.  
<sup>3</sup> A statistically significant level (SSL) parameter is determined by comparing the confidence intervals developed to either the constituent's maximum contaminant level (MCL), if available, the USEPA Rule Specified Level, if no MCL is available, or the calculated background interwell prediction limit.



## TABLE OF CONTENTS

Section	Page No.
1.0 INTRODUCTION .....	1
1.1 Site Description and Background .....	1
1.2 Regional Geology and Hydrogeologic Setting .....	1
1.3 Site Geology and Hydrogeologic Setting.....	2
1.4 Groundwater Monitoring System .....	2
2.0 GROUNDWATER MONITORING ACTIVITIES.....	3
2.1 Monitoring Well Installation/Maintenance .....	3
2.2 Assessment Monitoring Program.....	3
2.3 Assessment of Corrective Measures.....	4
2.4 Additional Sampling.....	4
3.0 SAMPLE METHODOLOGY AND ANALYSIS.....	4
3.1 Groundwater Flow Direction, Gradient, and Velocity.....	4
3.2 Groundwater Sampling.....	5
3.3 Laboratory Analyses .....	5
3.4 Quality Assurance and Quality Control .....	6
4.0 STATISTICAL ANALYSIS.....	6
4.1 Appendix I and III Statistical Methods.....	7
4.2 Appendix II and IV Statistical Methods.....	7
4.3 Statistical Analyses Results .....	8
4.3.1 Summary of Appendix IV Results for September 2021 .....	8
4.3.2 Summary of Appendix IV Results for February 2022 .....	8
5.0 NATURE AND EXTENT .....	8
6.0 MONITORING PROGRAM STATUS .....	9
6.1 Assessment of Corrective Measures.....	9
7.0 CONCLUSIONS AND FUTURE ACTIONS.....	9
8.0 REFERENCES .....	10

Tables

- Table 1A – Monitoring Network Well Summary
- Table 1B – Delineation Well and Piezometer Summary
- Table 2 – Groundwater Sampling Event Summary
- Table 3 – Summary of Groundwater Monitoring Parameters
- Table 4A – Summary of Groundwater Elevations – September 2021



Tables (continued)

- Table 4B – Summary of Groundwater Elevations – February 2022
- Table 5A – Groundwater Flow Velocity Calculations – September 2021
- Table 5B – Groundwater Flow Velocity Calculations – February 2022
- Table 6A – Summary of Groundwater Analytical Data – September 2021
- Table 6B – Summary of Groundwater Analytical Data – February 2022
- Table 7 – Statistical Method Summary
- Table 8 – Summary of Background Levels and Groundwater Protection Standards

Figures

- Figure 1 – Site Location Map
- Figure 2 – Well Location Map
- Figure 3A – Potentiometric Surface Map – September 2021
- Figure 3B – Potentiometric Surface Map – February 2022

Appendices

- Appendix A – Monitoring Well Repair Documentation
- Appendix B – Laboratory Analytical and Field Sampling Reports
  - Laboratory Analytical Reports – September 2021 Monitoring Event
  - Laboratory Data Validations – September 2021 Monitoring Event
  - Field Sampling Reports – September 2021 Monitoring Event
  - Daily Instrument Calibration Logs – September 2021 Monitoring Event
  - Well Inspection Forms - September 2021 Monitoring Event
  - Laboratory Analytical Reports – November 2021 Monitoring Event
  - Laboratory Data Validations – November 2021 Monitoring Event
  - Field Sampling Reports – November 2021 Monitoring Event
  - Daily Instrument Calibration Logs – November 2021 Monitoring Event
  - Laboratory Analytical Reports – February 2022 Monitoring Event
  - Laboratory Data Validations – February 2022 Monitoring Event
  - Field Sampling Reports – February 2022 Monitoring Event
  - Daily Instrument Calibration Logs – February 2022 Monitoring Event
  - Well Inspection Forms – February 2022 Monitoring Event
- Appendix C – Semiannual Remedy Selection and Design Progress Report
- Appendix D – Statistical Analyses
  - Statistical Analysis Report – September 2021 Monitoring Event
  - Statistical Analysis Report – February 2022 Monitoring Event



## 1.0 INTRODUCTION

In accordance with the Georgia Environmental Protection Division (GA EPD) Rules of Solid Waste Management 391-3-4-.10(6)(a)-(c) and 391-3-4-.14, Atlantic Coast Consulting, Inc. (ACC) has prepared this *2022 Annual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted during the second half of 2021 and first half of 2022 at Georgia Power Company's Grumman Road Private Industrial Landfill (GRL). To specify groundwater monitoring requirements, GA EPD Rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D.

To comply with GA EPD's Rule 391-3-4-.10, a permit application package for GRL was submitted to GA EPD in November 2018 and is currently under review. To meet the requirements of 391-3-4-.10(6), Appendix III and IV parameters listed in 40 CFR § 257 were incorporated into the routine groundwater monitoring program through a minor modification in August 2017. Semiannual reporting is completed pursuant to GA EPD Rule 391-3-4-.10(6)(c). This report documents groundwater activities conducted from July 2021 through June 2022.

Georgia Power submitted an Assessment of Corrective Measures (ACM) report in December 2020 pursuant to GA EPD Rule 391-3-4-.10(6)(a) (Anchor 2020). The 2020 ACM supersedes previous documents submitted for the Site under the existing GA EPD Permit No. 025-061D(LI) [Southern Company Services (SCS) 2013; ACC 2017, 2019]. The ACM was prepared to evaluate potential groundwater corrective measures for the occurrence of arsenic and molybdenum in groundwater at statistically significant levels (SSLs) at GRL.

### 1.1 Site Description and Background

GRL is located on Gulfstream Road, in Chatham County, Georgia, approximately 0.8 miles east of Savannah/Hilton Head International Airport and 1.3 miles west of the city of Port Wentworth. GRL occupies approximately 36 acres. The Site ceased accepting CCR prior to October 19, 2015 and is therefore not subject to Federal monitoring requirements. GRL received CCR from Georgia Power – Plant Kraft and operated under GA EPD solid waste handling permit number 025-061D(LI). GRL is comprised of four cells or parcels: Parcel A [originally operated under permit number 025-034D(LI)], B1, B2, and B3. Closure of parcels B1, B2, and B3 was completed after CCR disposal ceased. Capping of the last remaining uncapped portion of Parcel A has been completed and was documented to GA EPD in a submittal dated November 27, 2019.

Figure 1, Site Location Map, depicts the location of GRL relative to the surrounding area. Figure 2, Well Location Map, depicts the general configuration of GRL and the location of the monitoring wells.

### 1.2 Regional Geology and Hydrogeologic Setting

GRL is underlain by Atlantic Coastal Plain Physiographic Province strata consisting of unconsolidated to consolidated layers of sand, silt, and clay and semi-consolidated to dense layers of limestone and dolomite (Clarke et al, 2010). These sediments constitute three major aquifer systems, which are, from shallow to deep, the surficial aquifer system, the Brunswick aquifer system, and the Floridan aquifer system. In the Atlantic Coastal Plain, the surficial aquifer system consists of Miocene and younger interlayered sand, silt, clay, and thin limestone beds (Clarke et al, 2010). The surficial aquifer system is unconfined and generally at a depth less than 80 feet below ground surface.



The surficial aquifer is underlain by a confining unit that separates it from the Brunswick aquifer. The confining unit consists of silty clay and dense thin, phosphatic Miocene limestone. The Oligocene to Miocene Brunswick aquifer consists of two water-bearing zones. The upper Brunswick and lower Brunswick aquifers are separated by a low permeability, sandy phosphatic clay confining unit. The Brunswick aquifer is separated from the Upper Floridan aquifer with the Upper Confining unit and a non-water bearing limestone (NWBL) layer. The Floridan aquifer is confined by the overlying clay and NWBL layers.

### **1.3 Site Geology and Hydrogeologic Setting**

The sediments immediately underlying the Site are part of the regional surficial aquifer system described previously and consist of variable interbedded sands, silts, and clay comprising a near-surface aquifer system (SCS, 1998). Though complex with subtle distinctions, approximately 50 feet of the near-surface aquifer system (soil) can be divided into four units as described below:

- Upper Sands and Topsoil
- Unit 1 Uppermost Aquifer: Silty Fine Sand
- Unit 2 Low Permeability Zone: Interbedded Sand, Silt, and Clay
- Unit 3 Lower Sand Aquifer: Silty and/or Clayey Fine to Medium Sand

Unit 1 comprises the water-bearing soil unit monitored at the site and has a thickness ranging from approximately 22 to 28 feet across GRL. Although Units 1 through 3 are classified as the surficial aquifer system, layers of lower permeability may be present in the surficial aquifer system (Clarke, Hacke, and Peck 1990; SCS 1998). Generally, groundwater in the near-surface aquifer system flows from north to south at the GRL but is influenced by topography. Groundwater elevations observed across the site and adjacent landfills suggest that hydraulic communication exists between Units 1, 2, and 3. Unit 2 has a lower permeability than Units 1 and 3 and locally may act as an impediment to downward migration, creating perched water within Unit 1 or impeding migration within the near-surface aquifer system. Unit 2 does not appear to be continuous across the site such that it creates distinct groundwater flow systems. The geologic and hydrogeologic conditions at GRL were recently described in detail in the ACM report (Anchor 2020).

### **1.4 Groundwater Monitoring System**

A groundwater monitoring plan was submitted in November 1999 and approved by GA EPD in January 2000. Pursuant to GA EPD Rule 391-3-4-.10(6)(a) and 40 CFR § 257.91, a comprehensive monitoring system was designed to monitor groundwater passing the waste boundary of GRL within the uppermost aquifer. Wells were located to serve as upgradient and downgradient monitoring points based on groundwater flow direction (Table 1A, Monitoring Network Well Summary). Additional existing locations are presented in Table 1B, Delineation Well and Piezometer Summary.

As part of the assessment monitoring program, vertical delineation wells were installed in December 2020 and January 2021. Pursuant to GA EPD Rule 391-3-4-.10(6)(a) and 40 CFR § 257.95(g)(1)(iv), the wells, classified as “delineation wells”, will be sampled in addition to the compliance monitoring wells as part of the ongoing assessment groundwater monitoring program.





## 2.0 GROUNDWATER MONITORING ACTIVITIES

The following describes monitoring-related activities performed at the Site from July 2021 through June 2022 (the reporting period) and discusses any change in status of the monitoring program.

### 2.1 Monitoring Well Installation/Maintenance

There were no changes to the groundwater monitoring system during the current semiannual reporting period; the network remained the same as in the previous reporting year and is shown in Figure 2. With the exception of GWC-13, monitoring well-related activities were limited to visual inspection of well conditions prior to sampling, recording the Site conditions, and performing exterior maintenance necessary for sampling under safe and clean conditions.

In October 2021, personnel from Southern Company Services – Civil Field Services (CFS) mobilized to the site to install missing bollards and repair select well pads. The well pad for GWC-13 needed to be raised slightly to be on grade with the surrounding ground surface. The well pad and protective casing were removed, and inert gravel was installed to raise the subgrade. A polyvinyl chloride (PVC) coupler and new length of riser were attached to extend the well to approximately three feet above the raised ground surface, and a new aluminum protective casing and concrete pad were installed. Documentation of all well repairs, and survey data certified by a Georgia Registered Land Surveyor and a revised boring log for GWC-13 are provided in Appendix A, Monitoring Well Repair Documentation.

Monitoring wells are inspected semiannually to determine if any repairs or corrective actions are necessary to meet the requirements of the Georgia Water Well Standards Act (O.C.G.A. § 12-5-134(5)(d)(vii)). In September 2021 and February 2022, monitoring wells were inspected, and routine maintenance was performed as described in Appendix A. Well inspection checklists completed during semiannual sampling are included in Appendix B, Laboratory Analytical and Field Sampling Reports. The September 2021 documentation served as the required five year well inspection and was performed under the direction of a professional geologist registered in the State of Georgia.

### 2.2 Assessment Monitoring Program

Georgia Power has initiated an assessment monitoring program for CCR Appendix IV constituents. A notification for the implementation of assessment monitoring under GA EPD Rule 391-3-4-.10(6) was submitted on November 13, 2019. Statistical analyses of the 2019 groundwater data identified SSLs of arsenic in wells GWC-15, GWC-16, and GWC-20 and molybdenum in wells GWB-4R, GWC-1, GWC-15, GWC-16, GWC-20, and GWC-21. The facility had previously implemented an assessment monitoring program for an Appendix II metal (arsenic) included in its state permit.

Table 2, Groundwater Sampling Event Summary, presents a summary of groundwater sampling events completed at the Site during the reporting period. Semiannual assessment monitoring events were completed in September 2021 and February 2022. Groundwater samples were collected for the state-specific list of Appendix I/II metals specified in the permit and all Appendix III and Appendix IV constituents. A summary of the analytes required by Appendix III, Appendix IV, and the existing permit is provided in Table 3, Summary of Groundwater Monitoring Parameters. Samples were collected from each well in the network monitoring system, as well as the five vertical delineation wells, shown on Figure 2.



Details of this event and analytical results are discussed in Section 3, while the statistical results are discussed in Section 4. Results of sampling activities conducted during the reporting period are presented in Appendix B.

### **2.3 Assessment of Corrective Measures**

Based on statistical analysis of assessment monitoring results presented in the 2020 Annual Groundwater Monitoring and Corrective Action Report, a Notice of Assessment of Corrective Measures was placed in the operating record on July 9, 2020 for the State CCR Rule. An ACM for arsenic was previously established under GA EPD Rule 391-3-4-.14. An ACM completed by Anchor QEA, LLC in December 2020 (Anchor, 2020) under GA EPD Rule 391-3-4-.10(6)(a) and 40 CFR § 257.96 supersedes the previous ACM and incorporates arsenic and an additional Appendix IV constituent, molybdenum. A *Semiannual Remedy Selection and Design Progress Report* (Semiannual Progress Report) has been updated to include recent activities and is provided as Appendix C.

### **2.4 Additional Sampling**

As summarized in the Semiannual Progress Report, an active above-ground leachate seep has been observed on aerial imagery on the north side of the Clifton Landfill since approximately 2009. The seepage flows onto the Site near GWA-7. Samples of the leachate seepage were collected on the Site near GWA-7 during the September 2021 and February 2022 sampling events. The laboratory reports are included in Appendix B. These data were collected in support of the remedy evaluation and selection process and are discussed in Appendix C.

Due to an anomalous result for cobalt reported in the sample from GWB-5R during the September 2021 event, GWB-5R was resampled for cobalt in November 2021. The resample results are included in Appendix B.

## **3.0 SAMPLE METHODOLOGY AND ANALYSIS**

The following sections describe the methods used to conduct groundwater monitoring at the Site.

### **3.1 Groundwater Flow Direction, Gradient, and Velocity**

Prior to each sampling event, groundwater elevations are recorded from the certified well network and delineation wells at GRL. Groundwater elevations recorded during the monitoring events are summarized in Tables 4A and 4B, Summary of Groundwater Elevations – September 2021 and February 2022, respectively. Groundwater elevation data were used to develop Figures 3A and 3B, Potentiometric Surface Map – September 2021 and February 2022, respectively. A potentiometric high exists near well GWA-7 in the northern portion of the Site and groundwater flows semi-radially from this high. In the southern portion of the Site, groundwater flows to the south and southeast. The groundwater flow patterns observed during the monitoring events are consistent with historical patterns.

The groundwater flow velocity at GRL was calculated using a derivation of Darcy's Law.



Specifically:

Equation

$$v = \frac{K (dh/dl)}{P_e} \quad \text{where:} \quad \begin{array}{l} v = \text{groundwater velocity} \\ K = \text{hydraulic conductivity} \\ dh/dl = \text{hydraulic gradient} \\ P_e = \text{effective porosity} \end{array}$$

The groundwater flow velocity was calculated for the Site based on hydraulic gradients, average hydraulic conductivity based on previous slug test data, and an estimated effective porosity of 0.20 (based on a review of several sources, including Driscoll, 1986; USEPA, 1989; Freeze and Cherry, 1979). Groundwater flow velocities have been calculated and are tabulated on Tables 5A and 5B, Groundwater Flow Velocity Calculations – September 2021 and February 2022, respectively. The calculated maximum flow velocity was 0.32 feet per day for September 2021 and 0.31 feet per day for February 2022.

### 3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures in accordance with 40 CFR § 257.93(a). Purging and sampling was performed using a peristaltic pump. Tubing was lowered into the well so that the intake was at the midpoint of the well screen (or as appropriate determined by the water level). Peristaltic pump samples were collected using new disposable polyethylene tubing. All non-disposable equipment was decontaminated before use and between well locations.

Monitoring wells were purged and sampled using low-flow sampling procedures. A SmarTroll or Aqua Troll (In-Situ field instruments) was used to monitor and record field water quality parameters (pH, specific conductance, oxidation-reduction potential [ORP], dissolved oxygen [DO], and temperature) during well purging prior to sampling. Turbidity was measured using a Hach 2100Q portable turbidimeter. Groundwater samples were collected when the following stabilization criteria were met:

- ± 0.1 standard units for pH.
- ± 10% for specific conductance.
- ± 10% for dissolved oxygen or 0.2 milligrams per liter (mg/L), whichever is greater where DO > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L.
- Turbidity measurements less than 5 nephelometric turbidity units (NTU), or measured between 5 and 10 NTU following three additional hours of purging.

Once stabilization was achieved, samples were collected directly into appropriately preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to Pace Analytical Services, LLC (Pace) of Peachtree Corners, Georgia and Greensburg, Pennsylvania following chain-of-custody protocol. Stabilization logs and equipment calibration forms for each well during the reporting period, are included in Appendix B.

### 3.3 Laboratory Analyses

Analytical methods used for groundwater monitoring parameters are provided in laboratory reports in Appendix B. Analytical data collected in the monitoring event during the reporting



period are summarized in Tables 6A and 6B, Summary of Groundwater Analytical Data – September 2021 and February 2022, respectively.

Laboratory analyses were performed by Pace. Pace is accredited by the National Environmental Laboratory Accreditation Program (NELAP) and maintains a NELAP certification for all parameters analyzed for this project. In addition, Pace is certified to perform analysis by the State of Georgia. Laboratory reports and chain-of-custody records for the monitoring event are presented in Appendix B.

### **3.4 Quality Assurance and Quality Control**

During each sampling event, quality assurance/quality control (QA/QC) samples are collected at a rate of one QA/QC sample per every 10 groundwater assessment samples. Equipment blanks (where non-dedicated sampling equipment is used) and duplicate samples were collected during each sampling event. QA/QC sample data were evaluated during data validation and are included in Appendix B.

Groundwater quality data in this report were validated in accordance with USEPA guidance (USEPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spike/matrix spike duplicate recoveries and relative percent differences (RPDs), post digestion spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using USEPA procedures as guidance (USEPA, 2017). The data are considered usable for meeting project objectives and the results are considered valid.

Values followed by a "J" flag indicate that the value is an estimated analyte concentration detected between the method detection limit (MDL) and the laboratory practical quantitation limit (PQL). The estimated value is positively identified but is below the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions. "J" flagged data are used to establish background statistical limits but are not used when performing statistical analyses. Mercury was detected in the associated laboratory method blank during the September 2021 event, and is discussed further in the Level 2A Data Validations in Appendix B.

### **4.0 STATISTICAL ANALYSIS**

The statistical method used at GRL was developed by Groundwater Stats Consulting, LLC (GSC), using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, USEPA 530/ R-09-007 (USEPA, 2009).

Statistical analysis of the reporting period groundwater monitoring data was performed by GSC following the appropriate certified statistical methodology for GRL. Sanitas groundwater statistical software was used to screen the data and perform the statistical analyses. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations.

Appendix I and Appendix III statistical analysis was performed to determine if groundwater has returned to background levels. Appendix II and Appendix IV constituents were evaluated to determine if concentrations statistically exceeded the established Groundwater Protection Standards (GWPS).



A summary of the statistical methodology used at GRL for routine groundwater monitoring is provided in Table 7, Statistical Method Summary. Statistical analysis methods and results are provided in Appendix D, Statistical Analyses, and summarized in the following sections.

#### 4.1 Appendix I and III Statistical Methods

Based on guidance from GA EPD, statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits (PLs) combined with a 1-of-2 verification resample plan for each of the Appendix I and III parameters. Interwell PLs are constructed using pooled data from upgradient wells GWA-7 and GWA-8 to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs). An "initial exceedance" occurs when an Appendix I or III constituent reported in a downgradient groundwater compliance monitoring well exceeds the constituent's associated PL. The 1-of-2 resample plan allows for collection of an independent resample. A confirmed exceedance is noted only when the resample verifies the initial exceedance. If the resample result is less than its relevant PL, the initial exceedance is not verified.

#### 4.2 Appendix II and IV Statistical Methods

Appendix II constituents and Appendix IV constituents were sampled during the semiannual assessment sampling event. To statistically compare groundwater data to GWPS, confidence intervals are constructed for each of the detected Appendix II and IV parameters in each downgradient well. Those confidence intervals are compared to the respective GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its GWPS. If there is an exceedance of the established standard, an SSL exceedance is identified. In accordance with Section 21.1.1 of the Unified Guidance (USEPA, 2009), four independent data are the minimum population size recommended to construct confidence intervals required to assess SSLs for Appendix IV constituents. Due to non-routine (or ACM investigation) sampling, some Appendix IV constituents at a well location have differing numbers of analytical data points.

USEPA revised the federal CCR Rule on July 30, 2018, updating the GWPS for cobalt, lead, lithium, and molybdenum. USEPA's updated GWPS were incorporated by reference into GA EPD's CCR Rule 391-3-4-.10(6)(a) on February 22, 2022. As described in 40 CFR § 257.95(h)(1-3), GWPS are established as follows:

- (1) The maximum contaminant level (MCL) established under 40 CFR § 141.62 and 141.66.
- (2) Where an MCL has not been established:
  - (i) Cobalt 0.006 mg/L;
  - (ii) Lead 0.015 mg/L;
  - (iii) Lithium 0.040 mg/L; and
  - (iv) Molybdenum 0.100 mg/L.
- (3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

Therefore, the statistical analysis of the February 2022 data used the updated GWPS, while the statistical analysis of the September 2021 data used the GWPS established by the prior GA EPD CCR Rule as follows:

- (1) The federally established MCL.
- (2) Where an MCL has not been established, the background concentration.
- (3) Background levels for constituents where the background level is higher than the MCL.



Following the above state rule requirements, GWPS have been established for statistical comparison of Appendix II and Appendix IV constituents and are presented in Table 8, Summary of Background Levels and Groundwater Protection Standards.

### **4.3 Statistical Analyses Results**

Based on review of the Appendix I and III statistical analyses presented in Appendix D, constituents have not returned to background levels and assessment monitoring should continue pursuant to GA EPD Rule 391-3-4-.10(6)(a).

#### **4.3.1 Summary of Appendix IV Results for September 2021**

Based on a review of the statistical analysis presented in Appendix D, the following parameters were found to statistically exceed the GWPS for the semiannual reporting period:

- Arsenic: GWC-15, GWC-16, and GWC-20
- Molybdenum: GWB-4R, GWC-1, GWC-15, GWC-16, GWC-20, and GWC-21

#### **4.3.2 Summary of Appendix IV Results for February 2022**

Based on a review of the statistical analysis presented in Appendix D, the following parameters were found to statistically exceed the GWPS for the semiannual reporting period:

- Arsenic: GWC-15, GWC-16, and GWC-20
- Molybdenum: GWC-16 and GWC-20

These results are consistent with those presented in the 2021 Semiannual Groundwater Monitoring and Corrective Action Report (ACC, 2022). Note the decrease in molybdenum exceedances during the February 2022 sampling event is due to GA EPD's adoption of the USEPA updated GWPS for molybdenum. An ACM report was submitted in December 2020 for arsenic and molybdenum, per GA EPD Rule 391-3-4-.10(6)(a) and 40 CFR § 257.96, and potential corrective measures are under evaluation.

## **5.0 NATURE AND EXTENT**

Wells MW-23D, MW-24D, and MW-25D were installed for vertical delineation of arsenic and molybdenum at wells GWC-20, GWC-16, and GWC-15, respectively, and wells MW-26D and MW-27D were installed for vertical delineation of molybdenum at GWB-4R and GWC-1, respectively, in December 2020 and January 2021. The location of these wells is shown on Figure 2.

Results from the September 2021 and February 2022 groundwater sampling events indicate that vertical delineation is complete: arsenic and molybdenum concentrations in the vertical delineation wells are below the relevant GWPS. Vertical delineation was determined with confidence intervals constructed for arsenic and molybdenum using four independent sampling events. The September 2021 and February 2022 delineation results are provided in Appendix B and results of the statistical analysis are provided in Appendix D.

Data from the August 2021 and February 2022 semiannual monitoring events at Savannah Regional Industrial Landfill (SRIL) show that arsenic concentrations in groundwater samples collected from monitoring wells GWA-6 and GWA-12B located along the northern boundary of SRIL, due south of the Site, are less than the analytical method reporting limit (<0.01 mg/L; CEC 2021 and 2022). This data is presented in further detail in Appendix C and suggests the arsenic impacts have not migrated far off-site. Molybdenum, however, is not a routine parameter analyzed at SRIL.



Horizontal delineation of molybdenum to the south is dependent on securing access from adjacent property owners. Per GA EPD guidance, where “denial of access prevents the installation of off-site delineation wells, a USEPA approved fate and transport model analysis may be used to delineate the limit of the contaminant plume” (GA EPD, 2018). Because off-site access has not been secured, a transport model was developed to complete horizontal delineation (Anchor, 2021) and is described in Appendix C. Molybdenum concentrations in groundwater above the GWPS that originate from the Site have likely migrated a short distance beneath SRIL but have not reached the southern boundary of SRIL. SRIL representatives were notified of the arsenic and molybdenum detections in neighbor notification correspondence dated September 25, 2020.

## 6.0 MONITORING PROGRAM STATUS

Pursuant to 40 CFR § 257.96(b), Georgia Power will continue to monitor the groundwater at the Site in accordance with the assessment monitoring program regulations of 40 CFR 257.95 while ACM efforts are implemented to evaluate SSL concentrations of arsenic and molybdenum. Pursuant to 40 CFR § 257.94(e)(1), Georgia Power will continue assessment monitoring in accordance with 40 CFR § 257.95. Pursuant to 40 CFR § 257.95(g)(1)(iv), the delineation wells will continue to be sampled as part of the ongoing semiannual assessment groundwater monitoring program.

### 6.1 Assessment of Corrective Measures

An ACM report was implemented on July 9, 2020 and submitted to EPD on December 4, 2020. The ACM efforts completed during the reporting period covered by this groundwater monitoring and corrective action report are presented in Appendix C. The Semiannual Progress Report summarizes:

- (i) the current conceptual site model applicable to evaluating groundwater corrective measures proposed in the ACM Report (Anchor, 2020).
- (ii) the analytical data obtained during supplemental ACM-specific field investigations.
- (iii) the status of applicable corrective measures evaluation; and
- (iv) the planned activities and anticipated schedule for the following semiannual reporting period.

Georgia Power will include Semiannual Progress Reports with each future groundwater monitoring and corrective action report.

## 7.0 CONCLUSIONS AND FUTURE ACTIONS

This 2022 Annual Groundwater Monitoring and Corrective Action Report was prepared to fulfill the requirements of GA EPD Rule 391-3-4-.10(6)(c). Statistical evaluations of the groundwater monitoring data identified the presence of SSLs of arsenic in three wells (GWC-15, GWC-16, and GWC-20) and molybdenum in six wells (GWB-4R, GWC-1, GWC-15, GWC-16, GWC-20, and GWC-21) above the GWPS for the September 2021 event, and arsenic in three wells (GWC-15, GWC-16, and GWC-20) and molybdenum in two wells (GWC-16 and GWC-20) for the February 2022 event. The arsenic and molybdenum SSLs are vertically delineated below the GWPS by MW-23D through MW-27D. Arsenic is horizontally delineated below the GWPS by upgradient SRIL wells GWA-6 and GWA-12B, just south of the Site. Based on the Transport Model submitted November 2021 to GA EPD, molybdenum is horizontally delineated to below the GWPS a short distance beneath SRIL but has not reached the southern boundary of SRIL. Georgia Power will continue



to monitor groundwater under the assessment monitoring program and evaluate potential corrective measures presented in the Semiannual Progress Report provided in Appendix C.

Due to the adoption of the federally promulgated GWPS by the GA EPD on February 22, 2022, wells GWB-4R and GWC-1 no longer demonstrate statistically significant exceedances. Moving forward, corresponding delineation wells MW-26D and MW-27D will be reclassified as piezometers. Georgia Power will discontinue routine collection of groundwater samples from wells GWB-4R and GWC-1. The piezometers will be used for water level measurements during semiannual assessment monitoring events to define groundwater flow directions and gradients downgradient of GRL.

The next semiannual assessment sampling event is planned to begin September 2022. The semiannual assessment monitoring event will include sampling and analysis of all Appendix III and IV constituents along with the state-specific list of Appendix I/II metals specified in the permit.

## 8.0 REFERENCES

ACC, 2017. *Assessment of Corrective Measures – Addendum*. Grumman Road Private Industrial Landfill.

ACC, 2019. *Assessment of Corrective Measures – 2019 Addendum*. Grumman Road Private Industrial Landfill.

ACC, 2020. *2020 Annual Groundwater Monitoring and Corrective Action Report*. Grumman Road Private Industrial Landfill.

ACC, 2021. *2021 Annual Groundwater Monitoring and Corrective Action Report*. Grumman Road Private Industrial Landfill.

ACC, 2022. *2021 Semiannual Groundwater Monitoring and Corrective Action Report*. Grumman Road Private Industrial Landfill.

Anchor, QEA, 2020. *Assessment of Corrective Measures*. Grumman Road Private Industrial Landfill.

Civil & Environmental Consultants, Inc. (CEC), 2021. *2<sup>nd</sup> 2021 Semiannual Groundwater Statistical Analysis Report*, Savannah Regional Industrial Landfill, Chatham County, Georgia, Permit No. 025-072D(L)(I).

Civil & Environmental Consultants, Inc. (CEC), 2022. *1<sup>st</sup> 2022 Semiannual Groundwater Statistical Analysis Report*, Savannah Regional Industrial Landfill, Chatham County, Georgia, Permit No. 025-072D(L)(I).

Clarke, J.S., Hacke, C.M., and Peck, M.F. 1990. *Geology and Ground-Water Resources of the Coastal Area of Georgia*, GGS Bulletin 113.

Clarke, J.S., Williams, L.J., and Cherry, G.C., 2010, *Hydrogeology and water quality of the Floridan aquifer system and effect of Lower Floridan aquifer pumping on the Upper Floridan aquifer at Hunter Army Airfield, Chatham County, Georgia*: U.S. Geological Survey Scientific Investigations Report 2010–5080, 56 p.

Driscoll, Fletcher G., 1986, *Groundwater and Wells*, Johnson Screens, Saint Paul, Minnesota, 1089 pp.





EPRI, 2015 Technical Report, Groundwater Monitoring Guidance for the Coal Combustion Residuals Rule.

Freeze, R.A. and Cherry, J.A. 1979, *Groundwater*, Prentice-Hall, Englewood Cliffs, New Jersey, 604 pp.

GA EPD, 2018. *Guidance Document for Groundwater Release Notification Requirements Under Rule 391-3-4-.17(6)*.

Groundwater Stats Consulting, LLC, 2019. *Statistical Analysis Plan – Grumman Road Landfill*.

Southern Company Services, 1998, *Grumman Road Monofill Groundwater Monitoring Plan*.

SCS, 2013. *Assessment of Corrective Measures: Landfill Parcel A*. Grumman Road Ash Landfill. Prepared for Georgia Power Company. February 2013.

State Waste Management Board. 2016. *State Solid Waste Management Regulations – (9VAC20 81 et seq.)*. January.

USEPA, 1989 Risk Assessment Guidance for Superfund (RAGS), Vol. I: Human Health Evaluation Manual (Part A) (540-1-89-002).

USEPA. 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance*. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March.

USEPA. 2011. *Data Validation Standard Operating Procedures*. Science and Ecosystem Support Division. Region IV. Athens, GA. September.

USEPA. 2017. *National Functional Guidelines for Inorganic Superfund Methods Data Review*. Office of Superfund Remediation and Technology Innovation. OLEM 9355.0-135 [EPA-540-R-2017-001]. Washington, DC. January.



## **TABLES**

**Grumman Road Private Industrial Landfill  
Chatham County, Georgia  
2022 Annual Groundwater Monitoring and Corrective Action Report**

**Table 1A**  
**Monitoring Network Well Summary**  
**Grumman Road Landfill**  
**Chatham County, Georgia**

Well ID	Installation Date (mm/dd/yyyy)	Northing (SD)	Easting (SD)	Top of Casing Elevation (SD)	Bottom Depth (ft BTOC)	Bottom Elevation (SD)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (SD)	Hydraulic Location
GWA-7	07/29/1998	780887.99	960553.30	47.10	21.20	25.90	16.20	30.90	Upgradient
GWA-8	07/29/1998	781167.66	960453.78	46.84	20.80	26.04	15.80	31.04	Upgradient
GWB-4R	10/09/2018	779975.87	960770.83	49.58	27.00	22.58	16.76	32.82	Sidegradient
GWB-5R	10/09/2018	780294.37	960686.46	47.82	26.50	21.32	16.51	31.31	Sidegradient
GWB-6R	10/08/2018	780573.41	960610.31	47.40	22.70	24.70	12.69	34.71	Sidegradient
GWC-1	03/10/1997	779574.06	960864.07	50.30	28.20	22.10	21.93	28.37	Downgradient
GWC-2	03/11/1997	779433.81	960353.99	51.84	32.73	19.11	26.73	25.11	Downgradient
GWC-9	07/24/1998	781007.52	959954.35	47.11	27.40	19.71	22.40	24.71	Downgradient
GWC-11	07/23/1998	780352.70	960115.63	49.38	22.60	26.78	17.60	31.78	Downgradient
GWC-12	07/22/1998	780099.06	960175.37	47.48	26.70	20.78	21.70	25.78	Downgradient
GWC-13	07/22/1998	779738.03	960269.62	48.21	23.80	24.41	18.80	29.41	Downgradient
GWC-14	07/22/1998	779112.64	960423.84	50.70	27.00	23.70	22.00	28.70	Downgradient
GWC-15	07/22/1998	778948.31	960660.49	48.12	26.80	21.32	21.80	26.32	Downgradient
GWC-16	07/21/1998	779034.61	960956.85	47.79	28.20	19.59	23.20	24.59	Downgradient
GWC-17	1998	781420.05	960041.65	44.09	23.50	20.59	18.20	25.89	Downgradient
GWC-20	05/07/2010	779294.68	960950.04	50.03	25.59	24.44	20.29	29.74	Downgradient
GWC-21	05/07/2010	779031.11	960941.58	47.94	24.54	23.40	19.24	28.70	Downgradient
GWC-22	05/07/2010	780712.60	960057.05	46.72	19.21	27.51	13.91	32.81	Downgradient

Notes:

1. SD indicates feet relative to Site Datum.
2. ft BTOC indicates feet below top of casing.

**Table 1B  
Delineation Well and Piezometer Summary  
Grumman Road Landfill  
Chatham County, Georgia**

Well ID	Installation Date (mm/dd/yyyy)	Northing (SD)	Easting (SD)	Top of Casing Elevation (SD)	Bottom Depth (ft BTOC)	Bottom Elevation (SD)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (SD)	Purpose
GWC-10	07/24/1998	780703.64	960030.15	47.43	20.60	26.79	15.60	31.79	Piezometer
MW-23D	12/17/2020	779280.61	960949.37	50.20	63.30	-13.10	58.00	-7.80	Delineation
MW-24D	01/04/2021	779043.12	960964.95	48.54	66.30	-17.76	61.00	-12.46	Delineation
MW-25D	01/06/2021	778944.95	960648.33	48.33	70.20	-21.87	64.90	-16.57	Delineation
MW-26D	01/10/2021	779994.12	960768.25	49.39	69.90	-20.51	64.60	-15.21	Delineation
MW-27D	01/08/2021	779559.74	960868.15	50.53	72.43	-21.90	67.13	-16.60	Delineation

Notes:

1. SD indicates feet relative to Site Datum.
2. ft BTOC indicates feet below top of casing.

**Table 2  
Groundwater Sampling Event Summary  
Grumman Road Landfill  
Chatham County, Georgia**

Well	Hydraulic Location	Sept. 21-23, 2021	November 10, 2021	Jan. 31 & Feb. 1-3, 2022
Purpose of Sampling Event		Assessment	Verification	Assessment
GWA-7	Upgradient	X	--	X
GWA-8	Upgradient	X	--	X
GWB-4R	Sidegradient	X	--	X
GWB-5R	Sidegradient	X	X	X
GWB-6R	Sidegradient	X	--	X
GWC-1	Downgradient	X	--	X
GWC-2	Downgradient	X	--	X
GWC-9	Downgradient	X	--	X
GWC-11	Downgradient	X	--	X
GWC-12	Downgradient	X	--	X
GWC-13	Downgradient	X	--	X
GWC-14	Downgradient	X	--	X
GWC-15	Downgradient	X	--	X
GWC-16	Downgradient	X	--	X
GWC-17	Downgradient	X	--	X
GWC-20	Downgradient	X	--	X
GWC-21	Downgradient	X	--	X
GWC-22	Downgradient	X	--	X
MW-23D	Delineation	X	--	X
MW-24D	Delineation	X	--	X
MW-25D	Delineation	X	--	X
MW-26D	Delineation	X	--	X
MW-27D	Delineation	X	--	X

Notes:

1. X indicates sample was collected.
2. Assessment Events included Appendix III and Appendix IV analytes.
3. -- = Not sampled.

**Table 3**  
**Summary of Groundwater Monitoring Parameters**  
**Grumman Road Landfill**  
**Chatham County, Georgia**

<b>Appendix III (40 CFR 257)</b>	<b>Appendix IV (40 CFR 257)</b>	<b>State Permit Appendix I and II Metals</b>
Boron	Antimony	Antimony
Calcium	Arsenic	Arsenic
Chloride	Barium	Barium
Fluoride	Beryllium	Chromium
pH	Cadmium	Lead
Sulfate	Chromium	Selenium
TDS	Cobalt	Vanadium
	Fluoride	Zinc
	Lead	
	Lithium	
	Mercury	
	Molybdenum	
	Radium 226 and 228 combined	
	Selenium	
	Thallium	



**Table 4A**  
**Summary of Groundwater Elevations**  
**September 2021**  
**Grumman Road Landfill**  
**Chatham County, Georgia**

Well ID	TOC Elevation (SD)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)
GWA-7	47.10	5.34	41.76
GWA-8	46.84	6.06	40.78
GWB-4R	49.58	13.20	36.38
GWB-5R	47.82	9.00	38.82
GWB-6R	47.40	6.46	40.94
GWC-1	50.30	18.41	31.89
GWC-2	51.84	18.37	33.47
GWC-9	47.11	7.94	39.17
GWC-11	49.38	11.58	37.80
GWC-12	47.48	11.48	36.00
GWC-13	47.82	12.43	35.39
GWC-14	50.70	18.53	32.17
GWC-15	48.12	18.79	29.33
GWC-16	47.79	20.14	27.65
GWC-17	44.09	4.37	39.72
GWC-20	50.03	20.47	29.56
GWC-21	47.94	20.08	27.86
GWC-22	46.72	7.26	39.46
MW-23D	50.20	22.28	27.92
MW-24D	48.54	22.22	26.32
MW-25D	48.33	20.34	27.99
MW-26D	49.39	18.97	30.42
MW-27D	50.53	20.83	29.70

Notes:

1. ft BTOC indicates feet below top of casing.
2. SD indicates feet relative to Site Datum.
3. Depths to water measured on September 20, 2021.



**Table 4B**  
**Summary of Groundwater Elevations**  
**February 2022**  
**Grumman Road Landfill**  
**Chatham County, Georgia**

Well ID	TOC Elevation (SD)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)
GWA-7	47.10	5.91	41.19
GWA-8	46.84	7.22	39.62
GWB-4R	49.58	14.54	35.04
GWB-5R	47.82	9.32	38.50
GWB-6R	47.40	6.90	40.50
GWC-1	50.30	18.77	31.53
GWC-2	51.84	18.87	32.97
GWC-9	47.11	8.44	38.67
GWC-11	49.38	12.30	37.08
GWC-12	47.48	12.29	35.19
GWC-13	48.21	14.03	34.18
GWC-14	50.70	19.12	31.58
GWC-15	48.12	19.03	29.09
GWC-16	47.79	20.29	27.50
GWC-17	44.09	5.99	38.10
GWC-20	50.03	20.79	29.24
GWC-21	47.94	20.23	27.71
GWC-22	46.72	8.02	38.70
MW-23D	50.20	22.62	27.58
MW-24D	48.54	22.51	26.03
MW-25D	48.33	20.62	27.71
MW-26D	49.39	19.51	29.88
MW-27D	50.53	21.26	29.27

Notes:

1. ft BTOC indicates feet below top of casing.
2. SD indicates feet relative to Site Datum.
3. Depths to water measured on January 31, 2022.



**Table 5A**  
**Groundwater Flow Velocity Calculations**  
**September 2021**  
**Grumman Road Landfill**  
**Chatham County, Georgia**

Equation

$$v = \frac{K ( dh/dl )}{P_e}$$

where: v = groundwater velocity  
K = hydraulic conductivity  
dh/dl = hydraulic gradient  
P<sub>e</sub> = effective porosity

Values Used in Calculation

Value	Source
K = 2.7E-03 cm/sec 7.60 ft/day	See note 1.
dh/dl <sub>max</sub> = 13.29/1576 ft/ft = 0.008	hydraulic gradient from GWB-6R to GWC-16
dh/dl <sub>min</sub> = 2.04/737 ft/ft = 0.003	hydraulic gradient from GWA-7 to GWC-17
P <sub>e</sub> = 0.20	See note 2.

$$v_{max} = \frac{(7.60)(0.008)}{0.20} \quad v_{max} = 0.32 \text{ ft/day}$$

$$v_{min} = \frac{(7.60)(0.003)}{0.20} \quad v_{min} = 0.11 \text{ ft/day}$$

Notes

- (1) Grumman Road Monofill Groundwater Monitoring Plan (SCS, 1999)
- (2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)



**Table 5B**  
**Groundwater Flow Velocity Calculations**  
**February 2022**  
**Grumman Road Landfill**  
**Chatham County, Georgia**

Equation

$$v = \frac{K ( dh/dl )}{P_e}$$

where: v = groundwater velocity  
K = hydraulic conductivity  
dh/dl = hydraulic gradient  
P<sub>e</sub> = effective porosity

Values Used in Calculation

Value	Source
K = 2.7E-03 cm/sec 7.60 ft/day	See note 1.
dh/dl <sub>max</sub> = 13/1576 ft/ft = 0.008	hydraulic gradient from GWB-6R to GWC-16
dh/dl <sub>min</sub> = 3.09/737 ft/ft = 0.004	hydraulic gradient from GWA-7 to GWC-17
P <sub>e</sub> = 0.20	See note 2.

$$v_{max} = \frac{(7.60)(0.008)}{0.20} \quad v_{max} = 0.31 \text{ ft/day}$$

$$v_{min} = \frac{(7.60)(0.004)}{0.20} \quad v_{min} = 0.16 \text{ ft/day}$$

Notes

- (1) Grumman Road Monofill Groundwater Monitoring Plan (SCS, 1999)
- (2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

**Table 6A**  
**Summary of Groundwater Analytical Data - September 2021**  
**Grumman Road Landfill**  
**Chatham County, Georgia**

Substance		Well ID							
		GWA-7	GWA-8	GWB-4R	GWB-5R	GWB-5R	GWB-6R	GWC-1	GWC-2
		9/21/2021	9/21/2021	9/21/2021	9/21/2021	11/10/2021	9/21/2021	9/23/2021	9/22/2021
APPENDIX III	Boron	4.4	0.13	6.4	4.1	--	4.2	0.59	0.017 J
	Calcium	2.7	18.5	67.5	140	--	110	69.1	0.19 J
	Chloride	92.2	12.2	13.9	38.8	--	53.8	8.8	7.4
	Fluoride	0.077 J	0.068 J	<0.050	<0.050	--	<0.050	<0.050	<0.050
	pH	6.03	4.44	5.78	4.68	4.49	5.40	6.06	4.71
	Sulfate	11.1	96.5	232	829	--	645	37.3	10.3
	TDS	1210	145	476	1240	--	985	360	33.0
APPENDIX IV	Antimony	<0.0039	<0.00078	<0.00078	0.0013 J	--	<0.00078	0.0016 J	<0.00078
	Arsenic	<0.0057	<0.0011	0.0027 J	<0.0011	--	0.0054	0.0048 J	<0.0011
	Barium	0.073	0.049	0.098	0.076	--	0.077	0.062	0.047
	Beryllium	<0.00027	0.00016 J	<0.000054	0.000099 J	--	<0.000054	<0.000054	<0.000054
	Cadmium	<0.00057	<0.00011	<0.00011	<0.00011	--	<0.00011	<0.00011	<0.00011
	Chromium	0.013 J	<0.0011	0.0018 J	<0.0011	--	0.0035 J	0.0023 J	<0.0011
	Cobalt	<0.0020	<0.00039	<0.00039	0.019	0.041	0.0049 J	<0.00039	<0.00039
	Lead	<0.0044	<0.00089	<0.00089	<0.00089	--	<0.00089	<0.00089	<0.00089
	Lithium	<0.0036	0.00092 J	0.016 J	<0.00073	--	<0.00073	<0.00073	<0.00073
	Mercury	0.00010 J	0.00011 J	0.00010 J	0.00010 J	--	0.00010 J	0.00010 J	0.00010 J
	Molybdenum	<0.0037	<0.00074	0.12	<0.00074	--	<0.00074	0.060	<0.00074
	Radium	10.3	0.730 U	2.45	3.10	--	5.07	1.48	0.769 U
	Selenium	<0.0068	<0.0014	<0.0014	<0.0014	--	0.0016 J	0.0018 J	<0.0014
	Thallium	<0.00090	<0.00018	<0.00018	<0.00018	--	<0.00018	<0.00018	<0.00018
See Note 8	Vanadium	0.096	<0.0019	0.0027 J	0.0039 J	--	0.015	0.0042 J	<0.0019
	Zinc	<0.035	<0.0070	<0.0070	<0.0070	--	<0.0070	<0.0070	<0.0070

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
2. Radium data are for Radium 226 & Radium 228 (combined).
3. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
4. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
5. TDS indicates total dissolved solids.
6. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
7. Appendix III = indicator parameters evaluated during Detection and Assessment Monitoring; Appendix IV = parameters included and evaluated during Assessment Monitoring.
8. Parameters required by Permit are Appendix I/II parameters included to meet EPD Rule 391-3-4-.14 requirements.
9. Mercury was detected in the associated laboratory method blank, and results are qualified as non-detect in the Level 2A Laboratory Data Validations in Appendix B.
10. -- indicates parameter not analyzed during verification sampling.

**Table 6A**  
**Summary of Groundwater Analytical Data - September 2021**  
**Grumman Road Landfill**  
**Chatham County, Georgia**

Substance		Well ID							
		GWC-9	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17
		9/22/2021	9/21/2021	9/21/2021	9/21/2021	9/22/2021	9/23/2021	9/22/2021	9/22/2021
APPENDIX III	Boron	0.015 J	0.80	5.8	0.38	0.052	0.72	11.5	1.4
	Calcium	5.0	87.0	63.4	3.6	185	146	267	94.6
	Chloride	19.3	103	63.8	7.9	28.0	7.1	55.8	517
	Fluoride	0.13	<0.050	0.31	<0.050	<0.050	<0.050	<0.050	0.79
	pH	4.70	4.92	4.05	4.83	5.76	6.48	5.57	4.63
	Sulfate	42.7	433	315	36.6	444	124	1040	394
	TDS	94.0	842	558	83.0	864	556	1680	1530
APPENDIX IV	Antimony	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	0.0014 J
	Arsenic	<0.0011	<0.0011	<0.0011	<0.0011	0.0014 J	0.21	0.081	<0.0011
	Barium	0.15	0.12	0.023	0.037	0.11	0.062	0.26	0.058
	Beryllium	0.00017 J	<0.000054	0.00047 J	<0.000054	<0.000054	<0.000054	0.000060 J	0.0017
	Cadmium	<0.00011	0.00036 J	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011
	Chromium	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	0.0013 J	0.0018 J	<0.0011
	Cobalt	0.00082 J	<0.00039	0.00065 J	<0.00039	<0.00039	<0.00039	<0.00039	0.0028 J
	Lead	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089
	Lithium	0.0015 J	<0.00073	0.00091 J	0.00087 J	<0.00073	<0.00073	<0.00073	0.0050 J
	Mercury	0.00011 J	0.00010 J	0.00010 J	0.00010 J	0.00011 J	0.00010 J	0.00010 J	0.00011 J
	Molybdenum	<0.00074	<0.00074	<0.00074	<0.00074	0.018	0.094	0.22	0.0053 J
	Radium	2.08	4.35	1.24 U	2.09	1.94 U	1.64	3.06	2.36
	Selenium	<0.0014	0.0038 J	<0.0014	<0.0014	0.0034 J	0.0016 J	0.0031 J	<0.0014
Thallium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	
See Note 8	Vanadium	<0.0019	0.0020 J	0.0051 J	<0.0019	0.0052 J	0.0022 J	0.0025 J	<0.0019
	Zinc	<0.0070	<0.0070	<0.0070	0.036	0.010	<0.0070	<0.0070	<0.0070

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
2. Radium data are for Radium 226 & Radium 228 (combined).
3. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
4. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
5. TDS indicates total dissolved solids.
6. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
7. Appendix III = indicator parameters evaluated during Detection and Assessment Monitoring; Appendix IV = parameters included and evaluated during Assessment Monitoring.
8. Parameters required by Permit are Appendix I/II parameters included to meet EPD Rule 391-3-4-.14 requirements.
9. Mercury was detected in the associated laboratory method blank, and results are qualified as non-detect in the Level 2A Laboratory Data Validations in Appendix B.
10. -- indicates parameter not analyzed during verification sampling.

**Table 6A**  
**Summary of Groundwater Analytical Data - September 2021**  
**Grumman Road Landfill**  
**Chatham County, Georgia**

Substance		Well ID							
		GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
		9/22/2021	9/22/2021	9/21/2021	9/22/2021	9/22/2021	9/23/2021	9/21/2021	9/21/2021
APPENDIX III	Boron	11.3	0.095	0.19	0.033 J	0.014 J	0.012 J	0.025 J	0.012 J
	Calcium	266	5.8	15.3	14.9	4.7	3.4	2.5	2.1
	Chloride	38.9	6.0	9.4	7.1	4.9	5.5	6.7	6.1
	Fluoride	<0.050	<0.050	<0.050	<0.050	<0.050	0.096 J	<0.050	<0.050
	pH	6.00	5.39	4.72	6.39	6.76	6.21	5.88	5.97
	Sulfate	905	14.6	52.4	84.6	<0.50	0.70 J	<0.50	<0.50
	TDS	1430	51.0	87.0	184	53.0	56.0	37.0	37.0
APPENDIX IV	Antimony	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078
	Arsenic	0.23	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
	Barium	0.42	0.046	0.036	0.076	0.038	0.024	0.027	0.022
	Beryllium	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	0.000073 J	0.000066 J
	Cadmium	0.00013 J	<0.00011	<0.00011	0.00027 J	<0.00011	<0.00011	<0.00011	0.00042 J
	Chromium	0.0013 J	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
	Cobalt	<0.00039	<0.00039	<0.00039	<0.00039	<0.00039	<0.00039	<0.00039	<0.00039
	Lead	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089
	Lithium	<0.00073	<0.00073	<0.00073	<0.00073	<0.00073	<0.00073	<0.00073	<0.00073
	Mercury	0.00011 J	0.00011 J	0.00010 J	0.00011 J	0.00010 J	0.00010 J	0.00010 J	0.00011 J
	Molybdenum	0.50	0.0019 J	<0.00074	<0.00074	0.0032 J	<0.00074	<0.00074	<0.00074
	Radium	6.84	0.959 U	1.25 U	1.40	0.982 U	1.15	0.815 U	0.593 U
	Selenium	0.0024 J	0.0027 J	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
	Thallium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
See Note 8	Vanadium	0.0033 J	<0.0019	<0.0019	<0.0019	<0.0019	<0.0019	<0.0019	<0.0019
	Zinc	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
2. Radium data are for Radium 226 & Radium 228 (combined).
3. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
4. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
5. TDS indicates total dissolved solids.
6. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
7. Appendix III = indicator parameters evaluated during Detection and Assessment Monitoring; Appendix IV = parameters included and evaluated during Assessment Monitoring.
8. Parameters required by Permit are Appendix I/II parameters included to meet EPD Rule 391-3-4-.14 requirements.
9. Mercury was detected in the associated laboratory method blank, and results are qualified as non-detect in the Level 2A Laboratory Data Validations in Appendix B.
10. -- indicates parameter not analyzed during verification sampling.

**Table 6B**  
**Summary of Groundwater Analytical Data - February 2022**  
**Grumman Road Landfill**  
**Chatham County, Georgia**

Substance		Well ID							
		GWA-7	GWA-8	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-2	GWC-9
		1/31/2022	1/31/2022	2/2/2022	2/3/2022	2/2/2022	2/3/2022	2/2/2022	2/2/2022
APPENDIX III	Boron	3.9	0.13	6.2	4.9	6.2	0.59	0.023 J	0.011 J
	Calcium	3.4	17.2	98.2	130	293	58.2	0.16 J	4.6
	Chloride	83.4	11.2	14.5	38.5	42.3	8.0	6.9	17.5
	Fluoride	<0.050	0.090 J	<0.050	0.081 J	<0.050	<0.050	<0.050	<0.050
	pH	5.94	4.39	5.71	4.48	5.75	5.89	4.79	4.66
	Sulfate	15.0	89.7	338	797	1460	49.2	9.0	31.5
	TDS	1260	153	654	1240	2440	315	43.0	96.0
APPENDIX IV	Antimony	<0.0039	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078
	Arsenic	<0.0057	<0.0011	0.0036 J	0.0029 J	0.010	0.0057	<0.0011	<0.0011
	Barium	0.10	0.051	0.17	0.062	0.026	0.051	0.052	0.15
	Beryllium	<0.00027	0.00016 J	<0.000054	0.00014 J	<0.000054	<0.000054	<0.000054	0.00018 J
	Cadmium	<0.00057	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011
	Chromium	0.015 J	<0.0011	0.0030 J	0.0014 J	0.0033 J	0.0019 J	<0.0011	0.0012 J
	Cobalt	<0.0020	0.00044 J	0.0027 J	0.019	0.070	<0.00039	<0.00039	0.00096 J
	Lead	<0.0044	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089
	Lithium	<0.0036	0.00091 J	0.015 J	<0.00073	<0.00073	<0.00073	<0.00073	0.0017 J
	Mercury	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Molybdenum	<0.0037	<0.00074	0.11	<0.00074	0.00085 J	0.038	<0.00074	<0.00074
	Radium	8.46 U	1.01	3.17	2.65	4.79	1.00	0.854 U	0.967 U
	Selenium	<0.0068	<0.0014	<0.0014	<0.0014	0.0017 J	0.0022 J	<0.0014	<0.0014
Thallium	<0.00090	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	
See Note 8	Vanadium	0.10	<0.0019	0.0031 J	0.0046 J	0.0099 J	0.0028 J	<0.0019	<0.0019
	Zinc	<0.035	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070	<0.0070

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
2. Radium data are for Radium 226 & Radium 228 (combined).
3. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
4. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
5. TDS indicates total dissolved solids.
6. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
7. Appendix III = indicator parameters evaluated during Detection and Assessment Monitoring; Appendix IV = parameters included and evaluated during Assessment Monitoring.
8. Parameters required by Permit are Appendix I/II parameters included to meet EPD Rule 391-3-4-.14 requirements.

**Table 6B**  
**Summary of Groundwater Analytical Data - February 2022**  
**Grumman Road Landfill**  
**Chatham County, Georgia**

Substance	Well ID								
	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	
	2/3/2022	2/3/2022	2/3/2022	2/2/2022	2/3/2022	2/1/2022	2/1/2022	2/1/2022	
APPENDIX III	Boron	0.10	7.5	0.37	0.044	0.71	16.0	1.8	15.7
	Calcium	65.4	63.7	2.7	245	144	267	90.8	259
	Chloride	83.4	57.0	8.8	29.6	5.1	61.5	549	33.4
	Fluoride	<0.050	0.36	<0.050	<0.050	<0.050	<0.050	0.68	<0.050
	pH	4.98	4.04	4.97	5.98	6.61	5.57	4.53	5.90
	Sulfate	347	333	32.1	589	102	1010	416	862
	TDS	538	566	72.0	1130	516	1990	1580	1580
APPENDIX IV	Antimony	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078
	Arsenic	<0.0011	0.0016 J	0.0025 J	0.0036 J	0.23	0.095	<0.0011	0.22
	Barium	0.17	0.025	0.038	0.10	0.061	0.23	0.055	0.36
	Beryllium	<0.000054	0.00056	<0.000054	<0.000054	<0.000054	<0.000054	0.0020	<0.000054
	Cadmium	0.00019 J	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	0.00020 J
	Chromium	0.0011 J	0.0018 J	<0.0011	<0.0011	0.0016 J	<0.0011	0.0014 J	0.0036 J
	Cobalt	<0.00039	0.00072 J	<0.00039	<0.00039	<0.00039	<0.00039	0.0036 J	<0.00039
	Lead	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089
	Lithium	<0.00073	0.0010 J	0.00077 J	<0.00073	<0.00073	<0.00073	0.0061 J	<0.00073
	Mercury	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Molybdenum	<0.00074	<0.00074	<0.00074	0.015	0.086	0.18	0.0030 J	0.77
	Radium	4.04	0.957	1.18	0.881 U	0.580 U	2.73	2.51	5.11
	Selenium	0.019	<0.0014	<0.0014	0.0038 J	0.0031 J	0.0024 J	<0.0014	<0.0014
	Thallium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
See Note 8	Vanadium	0.0031 J	0.0052 J	<0.0019	0.0040 J	0.0023 J	0.0021 J	0.0022 J	0.0039 J
	Zinc	<0.0070	<0.0070	0.037	<0.0070	<0.0070	<0.0070	0.011	<0.0070

Notes:

1. Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
2. Radium data are for Radium 226 & Radium 228 (combined).
3. < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
4. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
5. TDS indicates total dissolved solids.
6. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
7. Appendix III = indicator parameters evaluated during Detection and Assessment Monitoring; Appendix IV = parameters included and evaluated during Assessment Monitoring.
8. Parameters required by Permit are Appendix I/II parameters included to meet EPD Rule 391-3-4-.14 requirements.

**Table 6B**  
**Summary of Groundwater Analytical Data - February 2022**  
**Grumman Road Landfill**  
**Chatham County, Georgia**

Substance		Well ID						
		GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
		2/1/2022	2/3/2022	2/3/2022	2/1/2022	2/3/2022	2/2/2022	2/2/2022
APPENDIX III	Boron	4.4	0.18	0.030 J	0.014 J	0.013 J	0.033 J	0.0091 J
	Calcium	125	14.6	11.6	3.7	3.0	2.3	2.1
	Chloride	29.3	10.8	7.5	5.4	6.3	6.6	6.0
	Fluoride	<0.050	<0.050	<0.050	<0.050	0.077 J	<0.050	<0.050
	pH	5.76	4.63	6.14	6.63	6.15	5.82	5.72
	Sulfate	374	46.2	64.8	<0.50	<0.50	<0.50	<0.50
	TDS	783	89.0	156	75.0	58.0	54.0	65.0
APPENDIX IV	Antimony	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078
	Arsenic	0.020	<0.0011	<0.0011	<0.0011	<0.0011	0.0015 J	0.0021 J
	Barium	0.24	0.038	0.079	0.036	0.024	0.026	0.024
	Beryllium	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	0.000088 J	0.000076 J
	Cadmium	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	0.00027 J
	Chromium	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
	Cobalt	<0.00039	<0.00039	<0.00039	<0.00039	<0.00039	<0.00039	<0.00039
	Lead	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089
	Lithium	<0.00073	<0.00073	<0.00073	<0.00073	<0.00073	<0.00073	<0.00073
	Mercury	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Molybdenum	0.042	<0.00074	<0.00074	0.0024 J	<0.00074	<0.00074	<0.00074
	Radium	2.51	1.40	1.21	0.360 U	0.278 U	0.249 U	0.962
	Selenium	0.0054	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
	Thallium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018
See Note 8	Vanadium	0.0036 J	<0.0019	<0.0019	<0.0019	<0.0019	<0.0019	<0.0019
	Zinc	<0.0070	<0.0070	<0.0070	<0.0070	0.051	<0.0070	0.017

Notes:

- Results for substances are reported in milligrams per liter (mg/L). Results for pH are reported in standard units (S.U.). Radium results are reported in picocuries per liter (pCi/L).
- Radium data are for Radium 226 & Radium 228 (combined).
- < indicates the substance was not detected above the relevant laboratory method detection limit (MDL).
- J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
- TDS indicates total dissolved solids.
- U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
- Appendix III = indicator parameters evaluated during Detection and Assessment Monitoring; Appendix IV = parameters included and evaluated during Assessment Monitoring.
- Parameters required by Permit are Appendix I/II parameters included to meet EPD Rule 391-3-4-.14 requirements.





**Table 7  
Statistical Method Summary  
Grumman Road Landfill  
Chatham County, Georgia**

Statistical Method Summary		
Monitoring Well Network	Upgradient Wells	GWA-7 and GWA-8
	Sidegradient Wells	GWB-4R, GWB-5R, and GWB-6R
	Downgradient Wells	GWC-1, GWC-2, GWC-9, GWC-11, GWC-12, GWC-13, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20, GWC-21, and GWC-22
CCR Monitoring Parameters	Appendix III (Detection Monitoring)	Boron, Calcium, Chloride, Fluoride, pH, Sulfate, and TDS
	Appendix IV (Assessment Monitoring)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, combined Radium 226 + 228, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, and Thallium
EPD Permit Metals	Appendix I (Detection Monitoring)	Antimony, Arsenic, Barium, Chromium, Lead, Selenium, Vanadium, and Zinc
	Appendix II (Assessment Monitoring)	Antimony, Arsenic, Barium, Chromium, Lead, Selenium, Vanadium, and Zinc
Statistical Methodology	Data Screening Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	Interwell statistical limits.

**Table 8**  
**Summary of Background Levels and Groundwater Protection Standards**  
**Grumman Road Landfill**  
**Chatham County, Georgia**

Constituent	Site Background	MCL	CCR-Rule Specified	GWPS
Antimony	0.003	0.006	N/A	0.006
Arsenic	0.029	0.01	N/A	0.029
Barium	0.22	2	N/A	2
Beryllium	0.0025	0.004	N/A	0.004
Cadmium	0.0007	0.005	N/A	0.005
Chromium	0.068	0.1	N/A	0.1
Cobalt	0.0102	N/A	0.006	0.0102
Fluoride	0.42	4	N/A	4
Lead	0.013	N/A	0.015	0.015
Lithium	0.03	N/A	0.04	0.04
Mercury	0.0002	0.002	N/A	0.002
Molybdenum	0.01	N/A	0.1	0.1
Radium	12.78	5	N/A	12.78
Selenium	0.044	0.05	N/A	0.05
Thallium	0.001	0.002	N/A	0.002
Vanadium	0.43	N/A	N/A	0.43
Zinc	0.16	N/A	N/A	0.16

Notes:

1. Site Background = Tolerance limits calculated from pooled upgradient well data through present.
2. MCL = Maximum Contaminant Level, per Georgia EPD Rule 391-3-5-.18(1)(a).
3. GWPS = Groundwater protection standard, per Georgia EPD Rule 391-3-4-.10(6)(a).
4. Units are milligrams per liter (mg/L), except for radium, which are picocuries per liter (pCi/L).
5. CCR-Rule specified GWPS as stipulated in 40 CFR § 257.95(h)(1-3) and incorporated into GA EPD's CCR Rule 391-3-4-.10(6)(a) on April 11, 2022.
6. Site Background was the same for September 2021 and February 2022, except for beryllium (lowered from 0.0030 to 0.0025 mg/L), fluoride (increased from 0.30 to 0.42 mg/L), and radium (lowered from 32.08 to 12.78 pCi/L). GWPS were the same for both events, except for cobalt (raised from 0.01 to 0.0102 mg/L), lead (raised from 0.013 to 0.015 mg/L), lithium (raised from 0.03 to 0.04 mg/L), molybdenum (raised from 0.01 to 0.1 mg/L), and radium (lowered from 32.08 pCi/L to 12.78 pCi/L).
7. N/A = There is no established MCL, per Georgia EPD Rule 391-3-5-.18(1)(a).

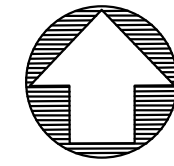


## FIGURES

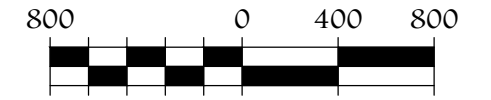
Grumman Road Private Industrial Landfill  
Chatham County, Georgia  
2022 Annual Groundwater Monitoring and Corrective Action Report



LOCATION IN THE STATE OF GEORGIA (NOT TO SCALE)



ATLANTIC COAST  
CONSULTING, INC.



SCALE (IN FEET)

## LEGEND:

EXISTING	DESCRIPTION
	PROPERTY BOUNDARY

### NOTES:

1. PROPERTY BOUNDARY SURVEYED BY GUNNIN LAND SURVEYING ON AUGUST 30, 2018.
2. AERIAL IMAGERY IS PROVIDED BY ESRI, DATED FEBRUARY 21, 2021.

### PROJECT



GEORGIA POWER COMPANY  
GRUMMAN ROAD PRIVATE INDUSTRIAL LANDFILL  
2022 ANNUAL GROUNDWATER MONITORING AND  
CORRECTIVE ACTION REPORT

### SITE LOCATION MAP

PROJECT NO. I054-110


March 2022

DRAWN BY: MM

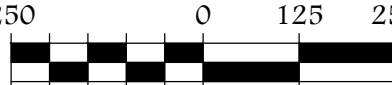
FIGURE:

CHECKED BY: RW

1

ATLANTIC COAST CONSULTING, INC.



SCALE (IN FEET)

**LEGEND:**

EXISTING	DESCRIPTION
	PROPERTY BOUNDARY
	GROUNDWATER MONITORING NETWORK WELL
	PIEZOMETER
	DELINEATION WELL

- NOTES:
1. PROPERTY BOUNDARY SURVEYED BY GUNNIN LAND SURVEYING ON AUGUST 30, 2018.
  2. AERIAL IMAGERY IS PROVIDED BY ESRI, DATED FEBRUARY 21, 2021.

PROJECT



GEORGIA POWER COMPANY  
GRUMMAN ROAD PRIVATE INDUSTRIAL LANDFILL

2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

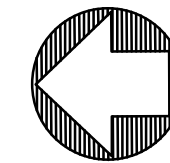
**WELL LOCATION MAP**

PROJECT NO. I054-110		March 2022
DRAWN BY:	MM	FIGURE:
CHECKED BY:	RW	2

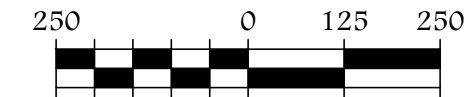
Groundwater Elevations and Well Depths  
Grumman Road Landfill September 2021

Monitoring Well ID	Well Depth (ft btoc)	Top of Casing (SD)	Depth to Water (ft btoc)	Groundwater Elevation (SD)
GWA-7	21.20	47.10	....	41.76
GWA-8	20.80	46.84	6.06	40.78
GWB-4R	27.00	49.58	13.20	36.38
GWB-5R	26.50	47.82	9.00	38.82
GWB-6R	22.70	47.40	6.46	40.94
GWC-1	28.20	50.30	18.41	31.89
GWC-2	32.73	51.84	18.37	33.47
GWC-9	27.40	47.11	7.94	39.17
GWC-11	22.60	49.38	11.58	37.80
GWC-12	26.70	47.48	11.48	36.00
GWC-13	23.80	47.82	12.43	35.39
GWC-14	27.00	50.70	18.53	32.17
GWC-15	26.80	48.12	18.79	29.33
GWC-16	28.20	47.79	20.14	27.65
GWC-17	23.50	44.09	4.37	39.72
GWC-20	25.59	50.03	20.47	29.56
GWC-21	25.54	47.94	20.08	27.86
GWC-22	19.21	46.72	7.26	39.46
MW-23D	63.30	50.20	22.28	27.92
MW-24D	66.30	48.54	22.22	26.32
MW-25D	70.20	48.33	20.34	27.99
MW-26D	69.90	49.39	18.97	30.42
MW-27D	72.43	50.53	20.83	29.70

- Notes:
1. ft btoc - feet below top of casing.
  2. SD indicates feet relative to Site Datum.
  3. Depths to water measured on September 20, 2021.



ATLANTIC COAST  
CONSULTING, INC.



SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	PROPERTY BOUNDARY
	GROUNDWATER MONITORING NETWORK WELL GROUNDWATER ELEVATION
	PIEZOMETER
	DELINEATION WELL
	GROUNDWATER ELEVATION CONTOUR
	GROUNDWATER FLOW DIRECTION

- NOTES:
1. PROPERTY BOUNDARY SURVEYED BY GUNNIN LAND SURVEYING ON AUGUST 30, 2018.
  2. VERTICAL DELINEATION WELLS MW-23D, MW-24D, MW-25D, MW-26D, AND MW-27D WERE INSTALLED IN DECEMBER 2020 AND JANUARY 2021.
  3. AERIAL IMAGERY IS PROVIDED BY ESRI, DATED FEBRUARY 21, 2021.

PROJECT



GEORGIA POWER COMPANY  
GRUMMAN ROAD PRIVATE INDUSTRIAL LANDFILL

2022 ANNUAL GROUNDWATER MONITORING AND  
CORRECTIVE ACTION REPORT

SEPTEMBER 2021 POTENTIOMETRIC  
SURFACE MAP

PROJECT NO. I054-110

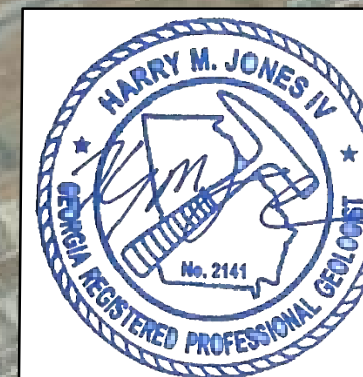
March 2022

DRAWN BY: RW

FIGURE:

CHECKED BY: MM

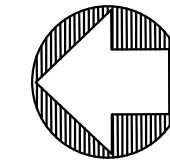
3A



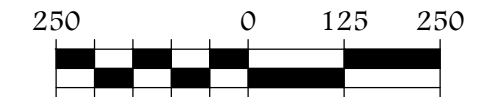
Groundwater Elevations and Well Depths  
Grumman Road Landfill February 2022

Monitoring Well ID	Well Depth (ft btoc)	Top of Casing (SD)	Depth to Water (ft btoc)	Groundwater Elevation (SD)
GWA-7	21.20	47.10	....	41.19
GWA-8	20.80	46.84	7.22	39.62
GWB-4R	27.00	49.58	14.54	35.04
GWB-5R	26.50	47.82	9.32	38.50
GWB-6R	22.70	47.40	6.90	40.50
GWC-1	28.20	50.30	18.77	31.53
GWC-2	32.73	51.84	18.87	32.97
GWC-9	27.40	47.11	8.44	38.67
GWC-11	22.60	49.38	12.30	37.08
GWC-12	26.70	47.48	12.29	35.19
GWC-13	24.53	48.21	14.03	34.18
GWC-14	27.00	50.70	19.12	31.58
GWC-15	26.80	48.12	19.03	29.09
GWC-16	28.20	47.79	20.29	27.50
GWC-17	23.50	44.09	5.99	38.10
GWC-20	25.59	50.03	20.79	29.24
GWC-21	25.54	47.94	20.23	27.71
GWC-22	19.21	46.72	8.02	38.70
MW-23D	63.30	50.20	22.62	27.58
MW-24D	66.30	48.54	22.51	26.03
MW-25D	70.20	48.33	20.62	27.71
MW-26D	69.90	49.39	19.51	29.88
MW-27D	72.43	50.53	21.26	29.27

- Notes:
1. ft btoc - feet below top of casing.
  2. SD indicates feet relative to Site Datum.
  3. Depths to water measured on January 31, 2022.



ATLANTIC COAST  
CONSULTING, INC.



SCALE (IN FEET)

LEGEND:

EXISTING	DESCRIPTION
	PROPERTY BOUNDARY
	GWC-1 GROUNDWATER MONITORING NETWORK WELL GROUNDWATER ELEVATION
	GWC-10 PIEZOMETER
	MW-23D DELINEATION WELL
	36 GROUNDWATER ELEVATION CONTOUR
	GROUNDWATER FLOW DIRECTION

- NOTES:
1. PROPERTY BOUNDARY SURVEYED BY GUNNIN LAND SURVEYING ON AUGUST 30, 2018.
  2. VERTICAL DELINEATION WELLS MW-23D, MW-24D, MW-25D, MW-26D, AND MW-27D WERE INSTALLED IN DECEMBER 2020 AND JANUARY 2021.
  3. GWC-13 RESURVEYED BY GUNNIN LAND SURVEYING ON NOVEMBER 10, 2021.
  4. AERIAL IMAGERY IS PROVIDED BY ESRI, DATED FEBRUARY 21, 2021.

PROJECT



GEORGIA POWER COMPANY  
GRUMMAN ROAD PRIVATE INDUSTRIAL LANDFILL

2022 ANNUAL GROUNDWATER MONITORING AND  
CORRECTIVE ACTION REPORT

FEBRUARY 2022 POTENTIOMETRIC  
SURFACE MAP

PROJECT NO. I054-110

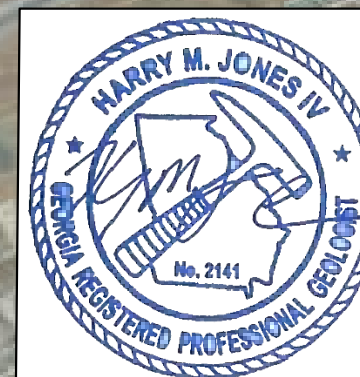
MARCH 2022

DRAWN BY: RW

FIGURE:

CHECKED BY: MM

3B





## **APPENDICES**

**Grumman Road Private Industrial Landfill  
Chatham County, Georgia  
2022 Annual Groundwater Monitoring and Corrective Action Report**





## **APPENDIX A**

### **Monitoring Well Repair Documentation**

**Grumman Road Private Industrial Landfill  
Chatham County, Georgia  
2022 Annual Groundwater Monitoring and Corrective Action Report**



1150 Northmeadow Parkway  
Suite 100  
Roswell GA 30076  
(770) 594-5998  
[www.atlcc.net](http://www.atlcc.net)

**MEMORANDUM**

Date: October 18, 2021

To: Kristen Jurinko – Southern Company

CC: Lauren Coker – Southern Company, Ben Hodges – Georgia Power

From: Atlantic Coast Consulting

Subject: Grumman Road Private Industrial Landfill - Well Maintenance and Repair Documentation  
Georgia Power Company

---

Atlantic Coast Consulting, Inc. (ACC) has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at Grumman Road during the 2021 Semiannual Groundwater Monitoring reporting period. Additional documentation of maintenance/repairs completed by Southern Company Services – Civil Field Services in October 2021 is also included in this memorandum. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GA EPD) guidance on routine visual inspections of groundwater monitoring wells.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Grumman Road	10/2021	GWA-7	Added 4 bollards
Grumman Road	10/2021	GWA-8	Repaired corner of pad and added 4 bollards
Grumman Road	10/2021	GWC-1	Added 2 bollards
Grumman Road	10/2021	GWC-2	Repaired corner of pad and added 4 bollards
Grumman Road	10/2021	GWB-4R	Added 4 bollards
Grumman Road	10/2021	GWC-9	Repaired corner of pad and added 4 bollards
Grumman Road	10/2021	GWC-10	Added 4 bollards
Grumman Road	10/2021	GWC-11	Added 4 bollards

<b>Georgia Power Site/Unit</b>	<b>Date Performed</b>	<b>Well ID</b>	<b>Maintenance/ Repair Performed</b>
Grumman Road	10/2021	GWC-12	Well pad cleaned off and added 4 bollards
Grumman Road	10/2021	GWC-13	Raised and replaced well pad, raised well riser, installed new aluminum protective cover, added pea gravel to annulus of protective cover, drilled vent and weep holes, and re-surveyed well
Grumman Road	10/2021	GWC-14	Added 2 bollards
Grumman Road	10/2021	GWC-16	Added 2 bollards
Grumman Road	10/2021	GWC-20	Added 4 bollards
Grumman Road	10/2021	GWC-21	Added 4 bollards
Grumman Road	10/2021	GWC-22	Added 2 bollards
Grumman Road	9/2021	MW-23D	Added well label.
Grumman Road	9/2021	MW-24D	Added well label.
Grumman Road	9/2021	MW-25D	Added well label.
Grumman Road	9/2021	MW-26D	Added well label.
Grumman Road	9/2021	MW-27D	Added well label.

141 Railroad Street, Suite 116  
Canton, GA 30114



www.gunninsurvey.com  
678.880.7502

DATE: November 22, 2021

TO: Atlantic Coastal Consulting, Inc  
1150 Northmeadow Parkway  
Suite 100  
Roswell, GA 30076

ATTN: Monte Jones of Atlantic Coastal Consulting

SUBJECT: Grumman Road Landfill: GWC-13

The following data has been established on the new well using existing site datum. The well was surveyed to the following tolerances: 0.01' vertical and 0.5' horizontal via conventional survey methods and level loops. Survey measurements were cross-checked for horizontal and vertical accuracy. Date of Survey: 11/10/2021.

WELL ID	NORTHING	EASTING	ELEVATION	ELEVATION	ELEVATION
	NAIL	NAIL	NAIL	TOP OF CASE	TOP OF PVC
GWC-13	779738.03	960269.62	45.45	48.51	48.21

Sincerely yours,

Gunnin Land Surveying, LLC.

A handwritten signature in blue ink, appearing to read 'J. Gunnin', is written over a circular official seal. The seal contains text around its perimeter, including 'STATE OF GEORGIA' and 'SURVEYOR', but it is partially obscured by the signature.

Jesse R. Gunnin, L.S. Principal Surveyor



PROJECT: <b>SEPSCO</b> Savannah, Georgia		WELL LOG		GWC-13	
PROJECT NO. :	044-08-085	ELEVATION:	45.45	NOTES: N-779738.03, E-960269.62 Elevations and Coordinates are in feet relative to Site Datum. Well resurveyed November 10, 2001.	
LOGGED BY:	AM	BORING DEPTH:	26.0 FEET		
DATE DRILLED:	07-22-08	WATER LEVEL:	40.35 Feet @ TGS		
DRILLING METHOD:	4-1/4" I.D. HSA	DRILL RIG:	Sisco 7400		

DEPTH (ft)	Description & Remarks	SAMPLE NUMBER	SAMPLE	GWT (feet)	SPS	ELEV.	WELL DIAGRAM	
							Well	Casing
0								
0 - 1	SILTY SAND Fine, Dark Gray	Q-1	☒					
1 - 2	Fine, Dark Brown Red Brown							
2 - 3	Fine, Orange Brown, Wet	Q-2	☒					
3 - 4	Fine, Brown to Light Brown with Mica	Q-3	☒					
4 - 5	Fine, Brown to Gray with Mica and Iron Concretions, Trace Clay	Q-4	☒					
5 - 6	Fine, Light Brown to Gray Very Silty Fine, and Olive Gray Clay	Q-5	☒					
6 - 26.0	Termination of Boring At 26.0 feet	Q-6	☒					

The well diagram shows a vertical cross-section of the well. From top to bottom, it includes: a concrete seal at the surface; a 4-inch diameter casing; a 2-inch diameter screen at the bottom; and a 2-inch diameter PVC Schedule 40 casing. The soil layers are indicated by different patterns: stippled for silty sand, horizontal lines for fine sand, and vertical lines for clay. The water level is shown at 40.35 feet.





## **APPENDIX B**

# **Laboratory Analytical and Field Sampling Reports**

**Grumman Road Private Industrial Landfill  
Chatham County, Georgia  
2022 Annual Groundwater Monitoring and Corrective Action Report**

## APPENDIX B

---

*Laboratory Analytical Reports  
September 2021 Monitoring Event*



October 12, 2021

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: GRUMMAN ROAD LANDFILL  
Pace Project No.: 92563313

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Owens Fuquea, ACC  
Monte Jones, Atlantic Coast Consulting, Inc.  
Kristen Jurinko  
Matt Malone, Atlantic Coast Consulting  
Betsy McDaniel, Atlantic Coast Consulting  
Ms. Lauren Petty, Southern Company



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## CERTIFICATIONS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

---

### Pace Analytical Services Charlotte

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Virginia/VELAP Certification #: 460221

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### Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

---

### Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

---

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: GRUMMAN ROAD LANDFILL  
Pace Project No.: 92563313

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92563313001	GWA-7	Water	09/21/21 09:55	09/24/21 09:18
92563313002	GWB-4R	Water	09/21/21 14:45	09/24/21 09:18
92563313003	GWB-5R	Water	09/21/21 12:35	09/24/21 09:18
92563313004	GWB-6R	Water	09/21/21 11:15	09/24/21 09:18
92563313005	MW-26D	Water	09/21/21 13:45	09/24/21 09:18
92563313006	MW-27D	Water	09/21/21 16:15	09/24/21 09:18
92563313007	GWA-8	Water	09/21/21 09:45	09/24/21 09:18
92563313008	GWC-11	Water	09/21/21 12:40	09/24/21 09:18
92563313009	GWC-12	Water	09/21/21 10:57	09/24/21 09:18
92563313010	GWC-13	Water	09/21/21 16:20	09/24/21 09:18
92563313011	GWC-22	Water	09/21/21 14:00	09/24/21 09:18
92563313012	FB-1	Water	09/21/21 09:45	09/24/21 09:18
92563313013	GWC-2	Water	09/22/21 14:38	09/24/21 09:18
92563313014	GWC-9	Water	09/22/21 13:03	09/24/21 09:18
92563313015	GWC-14	Water	09/22/21 16:10	09/24/21 09:18
92563313016	GWC-16	Water	09/22/21 11:00	09/24/21 09:18
92563313017	GWC-17	Water	09/22/21 12:00	09/24/21 09:18
92563313018	GWC-20	Water	09/22/21 14:05	09/24/21 09:18
92563313019	GWC-21	Water	09/22/21 09:40	09/24/21 09:18
92563313020	MW-23D	Water	09/22/21 16:00	09/24/21 09:18
92563313021	MW-24D	Water	09/22/21 12:25	09/24/21 09:18
92563313022	MW-25D	Water	09/23/21 10:05	09/24/21 09:18
92563313023	GWC-1	Water	09/23/21 09:10	09/24/21 09:18
92563313024	GWC-15	Water	09/23/21 08:55	09/24/21 09:18
92563313025	EB-1	Water	09/21/21 11:25	09/24/21 09:18
92563313026	DUP-1	Water	09/21/21 00:00	09/24/21 09:18
92563313027	EB-2	Water	09/22/21 08:45	09/24/21 09:18
92563313028	FB-2	Water	09/22/21 12:40	09/24/21 09:18
92563313029	DUP-2	Water	09/22/21 00:00	09/24/21 09:18
92563313030	EB-3	Water	09/23/21 09:00	09/24/21 09:18
92563313031	FB-3	Water	09/22/21 13:15	09/24/21 09:18
92563313032	DUP-3	Water	09/22/21 00:00	09/24/21 09:18
92563313033	GWA-7	Water	09/21/21 09:55	09/24/21 09:18

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92563313001	GWA-7	EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92563313002	GWB-4R	EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92563313003	GWB-5R	EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92563313004	GWB-6R	EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92563313005	MW-26D	EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92563313006	MW-27D	EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92563313007	GWA-8	EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92563313008	GWC-11	EPA 6010D	KH	1
		EPA 6020B	CW1	15

### REPORT OF LABORATORY ANALYSIS

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 without the written consent of Pace Analytical Services, LLC.



**SAMPLE ANALYTE COUNT**

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92563313009	GWC-12	EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
92563313010	GWC-13	SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
92563313011	GWC-22	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92563313012	FB-1	EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
92563313013	GWC-2	EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
92563313014	GWC-9	EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
92563313015	GWC-14	SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1

**REPORT OF LABORATORY ANALYSIS**

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**SAMPLE ANALYTE COUNT**

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92563313016	GWC-16	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
92563313017	GWC-17	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
92563313018	GWC-20	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
92563313019	GWC-21	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
92563313020	MW-23D	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
92563313021	MW-24D	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
92563313022	MW-25D	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
92563313023	GWC-1	EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1

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**SAMPLE ANALYTE COUNT**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92563313024	GWC-15	EPA 6020B	CW1, KH	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
92563313025	EB-1	EPA 6020B	CW1, KH	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
92563313026	DUP-1	EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
92563313027	EB-2	EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
92563313028	FB-2	EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
92563313029	DUP-2	EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
92563313030	EB-3	EPA 6020B	CW1	15
		EPA 7470A	VB	1

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**SAMPLE ANALYTE COUNT**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92563313031	FB-3	SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
92563313032	DUP-3	SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
92563313033	GWA-7	SM 2540C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	DRB	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1

PASI-A = Pace Analytical Services - Asheville  
 PASI-C = Pace Analytical Services - Charlotte  
 PASI-GA = Pace Analytical Services - Peachtree Corners, GA

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563313001</b>	<b>GWA-7</b>					
	Performed by	CUSTOMER			09/24/21 13:50	
	pH	6.03	Std. Units		09/24/21 13:50	
EPA 6010D	Calcium	2.7	mg/L	1.0	10/04/21 19:42	
EPA 6020B	Barium	0.073	mg/L	0.025	10/04/21 15:47	
EPA 6020B	Boron	4.4	mg/L	0.20	10/04/21 15:47	
EPA 6020B	Chromium	0.013J	mg/L	0.025	10/04/21 15:47	D3
EPA 6020B	Vanadium	0.096	mg/L	0.050	10/04/21 15:47	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 13:41	B
SM 2540C-2011	Total Dissolved Solids	1210	mg/L	50.0	09/27/21 10:20	
EPA 300.0 Rev 2.1 1993	Chloride	92.2	mg/L	1.0	09/27/21 08:34	
EPA 300.0 Rev 2.1 1993	Fluoride	0.077J	mg/L	0.10	09/27/21 08:34	
EPA 300.0 Rev 2.1 1993	Sulfate	11.1	mg/L	1.0	09/27/21 08:34	
<b>92563313002</b>	<b>GWB-4R</b>					
	Performed by	CUSTOMER			09/24/21 13:50	
	pH	5.78	Std. Units		09/24/21 13:50	
EPA 6010D	Calcium	67.5	mg/L	1.0	10/04/21 19:47	
EPA 6020B	Arsenic	0.0027J	mg/L	0.0050	10/04/21 15:52	
EPA 6020B	Barium	0.098	mg/L	0.0050	10/04/21 15:52	
EPA 6020B	Boron	6.4	mg/L	0.040	10/04/21 15:52	M1
EPA 6020B	Chromium	0.0018J	mg/L	0.0050	10/04/21 15:52	
EPA 6020B	Lithium	0.016J	mg/L	0.030	10/04/21 15:52	
EPA 6020B	Molybdenum	0.12	mg/L	0.010	10/04/21 15:52	
EPA 6020B	Vanadium	0.0027J	mg/L	0.010	10/04/21 15:52	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 13:43	B
SM 2540C-2011	Total Dissolved Solids	476	mg/L	20.0	09/27/21 10:20	
EPA 300.0 Rev 2.1 1993	Chloride	13.9	mg/L	1.0	09/27/21 08:49	
EPA 300.0 Rev 2.1 1993	Sulfate	232	mg/L	5.0	09/27/21 16:02	
<b>92563313003</b>	<b>GWB-5R</b>					
	Performed by	CUSTOMER			09/24/21 13:50	
	pH	4.68	Std. Units		09/24/21 13:50	
EPA 6010D	Calcium	140	mg/L	1.0	10/04/21 19:52	M1
EPA 6020B	Antimony	0.0013J	mg/L	0.0030	10/04/21 16:15	
EPA 6020B	Barium	0.076	mg/L	0.0050	10/04/21 16:15	
EPA 6020B	Beryllium	0.000099J	mg/L	0.00050	10/04/21 16:15	
EPA 6020B	Boron	4.1	mg/L	0.040	10/04/21 16:15	
EPA 6020B	Cobalt	0.019	mg/L	0.0050	10/04/21 16:15	
EPA 6020B	Vanadium	0.0039J	mg/L	0.010	10/04/21 16:15	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 13:46	B
SM 2540C-2011	Total Dissolved Solids	1240	mg/L	50.0	09/27/21 10:20	
EPA 300.0 Rev 2.1 1993	Chloride	38.8	mg/L	1.0	09/27/21 09:03	
EPA 300.0 Rev 2.1 1993	Sulfate	829	mg/L	18.0	09/27/21 16:17	
<b>92563313004</b>	<b>GWB-6R</b>					
	Performed by	CUSTOMER			09/24/21 13:51	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563313004</b>	<b>GWB-6R</b>					
	pH	5.40	Std. Units		09/24/21 13:51	
EPA 6010D	Calcium	110	mg/L	1.0	10/04/21 20:11	
EPA 6020B	Arsenic	0.0054	mg/L	0.0050	10/04/21 16:21	
EPA 6020B	Barium	0.077	mg/L	0.0050	10/04/21 16:21	
EPA 6020B	Boron	4.2	mg/L	0.040	10/04/21 16:21	
EPA 6020B	Chromium	0.0035J	mg/L	0.0050	10/04/21 16:21	
EPA 6020B	Cobalt	0.0049J	mg/L	0.0050	10/04/21 16:21	
EPA 6020B	Selenium	0.0016J	mg/L	0.0050	10/04/21 16:21	
EPA 6020B	Vanadium	0.015	mg/L	0.010	10/04/21 16:21	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 14:02	B
SM 2540C-2011	Total Dissolved Solids	985	mg/L	50.0	09/27/21 10:20	
EPA 300.0 Rev 2.1 1993	Chloride	53.8	mg/L	1.0	09/27/21 09:18	
EPA 300.0 Rev 2.1 1993	Sulfate	645	mg/L	14.0	09/27/21 17:02	
<b>92563313005</b>	<b>MW-26D</b>					
	Performed by	CUSTOMER			09/24/21 13:51	
	pH	5.88	Std. Units		09/24/21 13:51	
EPA 6010D	Calcium	2.5	mg/L	1.0	10/04/21 20:16	
EPA 6020B	Barium	0.027	mg/L	0.0050	10/04/21 16:27	
EPA 6020B	Beryllium	0.000073J	mg/L	0.00050	10/04/21 16:27	
EPA 6020B	Boron	0.025J	mg/L	0.040	10/04/21 16:27	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 14:04	B
SM 2540C-2011	Total Dissolved Solids	37.0	mg/L	10.0	09/27/21 10:21	
EPA 300.0 Rev 2.1 1993	Chloride	6.7	mg/L	1.0	09/27/21 09:33	
<b>92563313006</b>	<b>MW-27D</b>					
	Performed by	CUSTOMER			09/24/21 13:52	
	pH	5.97	Std. Units		09/24/21 13:52	
EPA 6010D	Calcium	2.1	mg/L	1.0	10/04/21 20:21	
EPA 6020B	Barium	0.022	mg/L	0.0050	10/04/21 16:48	
EPA 6020B	Beryllium	0.000066J	mg/L	0.00050	10/04/21 16:48	
EPA 6020B	Boron	0.012J	mg/L	0.040	10/04/21 16:48	
EPA 6020B	Cadmium	0.00042J	mg/L	0.00050	10/04/21 16:48	
EPA 7470A	Mercury	0.00011J	mg/L	0.00020	10/06/21 14:07	B
SM 2540C-2011	Total Dissolved Solids	37.0	mg/L	10.0	09/27/21 10:21	
EPA 300.0 Rev 2.1 1993	Chloride	6.1	mg/L	1.0	09/27/21 09:48	
<b>92563313007</b>	<b>GWA-8</b>					
	Performed by	CUSTOMER			09/24/21 13:52	
	pH	4.44	Std. Units		09/24/21 13:52	
EPA 6010D	Calcium	18.5	mg/L	1.0	10/04/21 20:35	
EPA 6020B	Barium	0.049	mg/L	0.0050	10/04/21 16:54	
EPA 6020B	Beryllium	0.00016J	mg/L	0.00050	10/04/21 16:54	
EPA 6020B	Boron	0.13	mg/L	0.040	10/04/21 16:54	
EPA 6020B	Lithium	0.00092J	mg/L	0.030	10/04/21 16:54	
EPA 7470A	Mercury	0.00011J	mg/L	0.00020	10/06/21 14:10	B

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563313007 GWA-8</b>						
SM 2540C-2011	Total Dissolved Solids	145	mg/L	10.0	09/27/21 10:21	
EPA 300.0 Rev 2.1 1993	Chloride	12.2	mg/L	1.0	09/27/21 10:03	
EPA 300.0 Rev 2.1 1993	Fluoride	0.068J	mg/L	0.10	09/27/21 10:03	
EPA 300.0 Rev 2.1 1993	Sulfate	96.5	mg/L	1.0	09/27/21 10:03	
<b>92563313008 GWC-11</b>						
	Performed by	CUSTOMER			09/24/21 13:52	
	pH	4.92	Std. Units		09/24/21 13:52	
EPA 6010D	Calcium	87.0	mg/L	1.0	10/04/21 20:40	
EPA 6020B	Barium	0.12	mg/L	0.0050	10/04/21 17:00	
EPA 6020B	Boron	0.80	mg/L	0.040	10/04/21 17:00	
EPA 6020B	Cadmium	0.00036J	mg/L	0.00050	10/04/21 17:00	
EPA 6020B	Selenium	0.0038J	mg/L	0.0050	10/04/21 17:00	
EPA 6020B	Vanadium	0.0020J	mg/L	0.010	10/04/21 17:00	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 14:12	B
SM 2540C-2011	Total Dissolved Solids	842	mg/L	20.0	09/27/21 10:21	
EPA 300.0 Rev 2.1 1993	Chloride	103	mg/L	10.0	09/27/21 17:17	
EPA 300.0 Rev 2.1 1993	Sulfate	433	mg/L	10.0	09/27/21 17:17	
<b>92563313009 GWC-12</b>						
	Performed by	CUSTOMER			09/24/21 13:53	
	pH	4.05	Std. Units		09/24/21 13:53	
EPA 6010D	Calcium	63.4	mg/L	1.0	10/04/21 20:44	
EPA 6020B	Barium	0.023	mg/L	0.0050	10/04/21 17:05	
EPA 6020B	Beryllium	0.00047J	mg/L	0.00050	10/04/21 17:05	
EPA 6020B	Boron	5.8	mg/L	0.040	10/04/21 17:05	
EPA 6020B	Cobalt	0.00065J	mg/L	0.0050	10/04/21 17:05	
EPA 6020B	Lithium	0.00091J	mg/L	0.030	10/04/21 17:05	
EPA 6020B	Vanadium	0.0051J	mg/L	0.010	10/04/21 17:05	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 14:15	B
SM 2540C-2011	Total Dissolved Solids	558	mg/L	20.0	09/27/21 10:21	
EPA 300.0 Rev 2.1 1993	Chloride	63.8	mg/L	1.0	09/27/21 11:33	
EPA 300.0 Rev 2.1 1993	Fluoride	0.31	mg/L	0.10	09/27/21 11:33	
EPA 300.0 Rev 2.1 1993	Sulfate	315	mg/L	8.0	09/27/21 18:01	
<b>92563313010 GWC-13</b>						
	Performed by	CUSTOMER			09/24/21 13:53	
	pH	4.83	Std. Units		09/24/21 13:53	
EPA 6010D	Calcium	3.6	mg/L	1.0	10/04/21 20:49	
EPA 6020B	Barium	0.037	mg/L	0.0050	10/04/21 17:11	
EPA 6020B	Boron	0.38	mg/L	0.040	10/04/21 17:11	
EPA 6020B	Lithium	0.00087J	mg/L	0.030	10/04/21 17:11	
EPA 6020B	Zinc	0.036	mg/L	0.010	10/04/21 17:11	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 14:17	B
SM 2540C-2011	Total Dissolved Solids	83.0	mg/L	10.0	09/27/21 10:22	
EPA 300.0 Rev 2.1 1993	Chloride	7.9	mg/L	1.0	09/27/21 11:48	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563313010</b>	<b>GWC-13</b>					
EPA 300.0 Rev 2.1 1993	Sulfate	36.6	mg/L	1.0	09/27/21 11:48	
<b>92563313011</b>	<b>GWC-22</b>					
	Performed by	CUSTOMER			09/24/21 13:53	
	pH	4.72	Std. Units		09/24/21 13:53	
EPA 6010D	Calcium	15.3	mg/L	1.0	10/04/21 20:54	
EPA 6020B	Barium	0.036	mg/L	0.0050	10/04/21 17:17	
EPA 6020B	Boron	0.19	mg/L	0.040	10/04/21 17:17	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 14:25	B
SM 2540C-2011	Total Dissolved Solids	87.0	mg/L	10.0	09/27/21 10:22	
EPA 300.0 Rev 2.1 1993	Chloride	9.4	mg/L	1.0	09/27/21 12:03	
EPA 300.0 Rev 2.1 1993	Sulfate	52.4	mg/L	1.0	09/27/21 12:03	
<b>92563313012</b>	<b>FB-1</b>					
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 14:28	B
<b>92563313013</b>	<b>GWC-2</b>					
	Performed by	CUSTOMER			09/24/21 13:54	
	pH	4.71	Std. Units		09/24/21 13:54	
EPA 6010D	Calcium	0.19J	mg/L	1.0	10/04/21 21:03	
EPA 6020B	Barium	0.047	mg/L	0.0050	10/04/21 17:28	
EPA 6020B	Boron	0.017J	mg/L	0.040	10/04/21 17:28	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 14:31	B
SM 2540C-2011	Total Dissolved Solids	33.0	mg/L	10.0	09/29/21 18:45	
EPA 300.0 Rev 2.1 1993	Chloride	7.4	mg/L	1.0	09/27/21 12:33	
EPA 300.0 Rev 2.1 1993	Sulfate	10.3	mg/L	1.0	09/27/21 12:33	
<b>92563313014</b>	<b>GWC-9</b>					
	Performed by	CUSTOMER			09/24/21 13:54	
	pH	4.70	Std. Units		09/24/21 13:54	
EPA 6010D	Calcium	5.0	mg/L	1.0	10/04/21 21:08	
EPA 6020B	Barium	0.15	mg/L	0.0050	10/04/21 17:34	
EPA 6020B	Beryllium	0.00017J	mg/L	0.00050	10/04/21 17:34	
EPA 6020B	Boron	0.015J	mg/L	0.040	10/04/21 17:34	
EPA 6020B	Cobalt	0.00082J	mg/L	0.0050	10/04/21 17:34	
EPA 6020B	Lithium	0.0015J	mg/L	0.030	10/04/21 17:34	
EPA 7470A	Mercury	0.00011J	mg/L	0.00020	10/06/21 14:33	B
SM 2540C-2011	Total Dissolved Solids	94.0	mg/L	10.0	09/29/21 18:45	
EPA 300.0 Rev 2.1 1993	Chloride	19.3	mg/L	1.0	09/27/21 12:48	
EPA 300.0 Rev 2.1 1993	Fluoride	0.13	mg/L	0.10	09/27/21 12:48	
EPA 300.0 Rev 2.1 1993	Sulfate	42.7	mg/L	1.0	09/27/21 12:48	
<b>92563313015</b>	<b>GWC-14</b>					
	Performed by	CUSTOMER			09/24/21 13:54	
	pH	5.76	Std. Units		09/24/21 13:54	
EPA 6010D	Calcium	185	mg/L	1.0	10/04/21 21:13	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563313015</b>	<b>GWC-14</b>					
EPA 6020B	Arsenic	0.0014J	mg/L	0.0050	10/04/21 17:40	
EPA 6020B	Barium	0.11	mg/L	0.0050	10/04/21 17:40	
EPA 6020B	Boron	0.052	mg/L	0.040	10/04/21 17:40	
EPA 6020B	Molybdenum	0.018	mg/L	0.010	10/04/21 17:40	
EPA 6020B	Selenium	0.0034J	mg/L	0.0050	10/04/21 17:40	
EPA 6020B	Vanadium	0.0052J	mg/L	0.010	10/04/21 17:40	
EPA 6020B	Zinc	0.010	mg/L	0.010	10/04/21 17:40	
EPA 7470A	Mercury	0.00011J	mg/L	0.00020	10/06/21 14:36	B
SM 2540C-2011	Total Dissolved Solids	864	mg/L	20.0	09/29/21 18:45	
EPA 300.0 Rev 2.1 1993	Chloride	28.0	mg/L	1.0	09/27/21 13:03	
EPA 300.0 Rev 2.1 1993	Sulfate	444	mg/L	10.0	09/27/21 18:16	
<b>92563313016</b>	<b>GWC-16</b>					
	Performed by	CUSTOMER			09/24/21 13:54	
	pH	5.57	Std. Units		09/24/21 13:54	
EPA 6010D	Calcium	267	mg/L	1.0	10/04/21 21:18	
EPA 6020B	Arsenic	0.081	mg/L	0.0050	10/04/21 18:13	
EPA 6020B	Barium	0.26	mg/L	0.0050	10/04/21 18:13	
EPA 6020B	Beryllium	0.000060J	mg/L	0.00050	10/04/21 18:13	
EPA 6020B	Boron	11.5	mg/L	2.0	10/05/21 13:54	
EPA 6020B	Chromium	0.0018J	mg/L	0.0050	10/04/21 18:13	
EPA 6020B	Molybdenum	0.22	mg/L	0.010	10/04/21 18:13	
EPA 6020B	Selenium	0.0031J	mg/L	0.0050	10/04/21 18:13	
EPA 6020B	Vanadium	0.0025J	mg/L	0.010	10/05/21 14:18	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 14:39	B
SM 2540C-2011	Total Dissolved Solids	1680	mg/L	100	09/29/21 18:45	
EPA 300.0 Rev 2.1 1993	Chloride	55.8	mg/L	1.0	09/27/21 13:18	
EPA 300.0 Rev 2.1 1993	Sulfate	1040	mg/L	23.0	09/27/21 18:30	
<b>92563313017</b>	<b>GWC-17</b>					
	Performed by	CUSTOMER			09/24/21 13:55	
	pH	4.63	Std. Units		09/24/21 13:55	
EPA 6010D	Calcium	94.6	mg/L	1.0	10/04/21 21:32	
EPA 6020B	Antimony	0.0014J	mg/L	0.0030	10/04/21 18:18	
EPA 6020B	Barium	0.058	mg/L	0.0050	10/04/21 18:18	
EPA 6020B	Beryllium	0.0017	mg/L	0.00050	10/04/21 18:18	
EPA 6020B	Boron	1.4	mg/L	0.040	10/04/21 18:18	
EPA 6020B	Cobalt	0.0028J	mg/L	0.0050	10/04/21 18:18	
EPA 6020B	Lithium	0.0050J	mg/L	0.030	10/04/21 18:18	
EPA 6020B	Molybdenum	0.0053J	mg/L	0.010	10/04/21 18:18	
EPA 7470A	Mercury	0.00011J	mg/L	0.00020	10/06/21 14:41	B
SM 2540C-2011	Total Dissolved Solids	1530	mg/L	100	09/29/21 18:45	
EPA 300.0 Rev 2.1 1993	Chloride	517	mg/L	12.0	09/27/21 18:45	
EPA 300.0 Rev 2.1 1993	Fluoride	0.79	mg/L	0.10	09/27/21 14:03	
EPA 300.0 Rev 2.1 1993	Sulfate	394	mg/L	12.0	09/27/21 18:45	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563313018</b>	<b>GWC-20</b>					
	Performed by	CUSTOME			09/24/21 13:55	
		R				
	pH	6.00	Std. Units		09/24/21 13:55	
EPA 6010D	Calcium	266	mg/L	1.0	10/04/21 21:37	
EPA 6020B	Arsenic	0.23	mg/L	0.0050	10/04/21 18:24	
EPA 6020B	Barium	0.42	mg/L	0.0050	10/04/21 18:24	
EPA 6020B	Boron	11.3	mg/L	2.0	10/05/21 14:00	
EPA 6020B	Cadmium	0.00013J	mg/L	0.00050	10/04/21 18:24	
EPA 6020B	Chromium	0.0013J	mg/L	0.0050	10/04/21 18:24	
EPA 6020B	Molybdenum	0.50	mg/L	0.010	10/04/21 18:24	
EPA 6020B	Selenium	0.0024J	mg/L	0.0050	10/04/21 18:24	
EPA 6020B	Vanadium	0.0033J	mg/L	0.010	10/05/21 14:29	
EPA 7470A	Mercury	0.00011J	mg/L	0.00020	10/06/21 14:44	B
SM 2540C-2011	Total Dissolved Solids	1430	mg/L	100	09/29/21 18:45	
EPA 300.0 Rev 2.1 1993	Chloride	38.9	mg/L	1.0	09/27/21 00:28	
EPA 300.0 Rev 2.1 1993	Sulfate	905	mg/L	20.0	09/27/21 06:51	
<b>92563313019</b>	<b>GWC-21</b>					
	Performed by	CUSTOME			09/24/21 13:55	
		R				
	pH	5.39	Std. Units		09/24/21 13:55	
EPA 6010D	Calcium	5.8	mg/L	1.0	10/04/21 21:42	
EPA 6020B	Barium	0.046	mg/L	0.0050	10/04/21 18:30	
EPA 6020B	Boron	0.095	mg/L	0.040	10/04/21 18:30	
EPA 6020B	Molybdenum	0.0019J	mg/L	0.010	10/04/21 18:30	
EPA 6020B	Selenium	0.0027J	mg/L	0.0050	10/04/21 18:30	
EPA 7470A	Mercury	0.00011J	mg/L	0.00020	10/06/21 14:46	B
SM 2540C-2011	Total Dissolved Solids	51.0	mg/L	10.0	09/29/21 18:45	
EPA 300.0 Rev 2.1 1993	Chloride	6.0	mg/L	1.0	09/27/21 01:16	
EPA 300.0 Rev 2.1 1993	Sulfate	14.6	mg/L	1.0	09/27/21 01:16	
<b>92563313020</b>	<b>MW-23D</b>					
	Performed by	CUSTOME			09/24/21 13:56	
		R				
	pH	6.39	Std. Units		09/24/21 13:56	
EPA 6010D	Calcium	14.9	mg/L	1.0	10/04/21 21:47	
EPA 6020B	Barium	0.076	mg/L	0.0050	10/04/21 18:36	
EPA 6020B	Boron	0.033J	mg/L	0.040	10/04/21 18:36	
EPA 6020B	Cadmium	0.00027J	mg/L	0.00050	10/04/21 18:36	
EPA 7470A	Mercury	0.00011J	mg/L	0.00020	10/06/21 14:49	B
SM 2540C-2011	Total Dissolved Solids	184	mg/L	10.0	09/29/21 18:46	
EPA 300.0 Rev 2.1 1993	Chloride	7.1	mg/L	1.0	09/27/21 01:32	
EPA 300.0 Rev 2.1 1993	Sulfate	84.6	mg/L	1.0	09/27/21 01:32	
<b>92563313021</b>	<b>MW-24D</b>					
	Performed by	CUSTOME			09/24/21 13:56	
		R				
	pH	6.76	Std. Units		09/24/21 13:56	
EPA 6010D	Calcium	4.7	mg/L	1.0	10/05/21 15:59	
EPA 6020B	Barium	0.038	mg/L	0.0050	10/05/21 15:53	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563313021</b>	<b>MW-24D</b>					
EPA 6020B	Boron	0.014J	mg/L	0.040	10/05/21 15:53	
EPA 6020B	Molybdenum	0.0032J	mg/L	0.010	10/05/21 15:53	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 15:02	B
SM 2540C-2011	Total Dissolved Solids	53.0	mg/L	10.0	09/29/21 18:46	
EPA 300.0 Rev 2.1 1993	Chloride	4.9	mg/L	1.0	09/27/21 01:48	
<b>92563313022</b>	<b>MW-25D</b>					
	Performed by	CUSTOMER			09/24/21 13:56	
	pH	6.21	Std. Units		09/24/21 13:56	
EPA 6010D	Calcium	3.4	mg/L	1.0	10/05/21 16:18	
EPA 6020B	Barium	0.024	mg/L	0.0050	10/05/21 15:59	
EPA 6020B	Boron	0.012J	mg/L	0.040	10/05/21 15:59	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 15:13	B
SM 2540C-2011	Total Dissolved Solids	56.0	mg/L	10.0	09/30/21 18:58	
EPA 300.0 Rev 2.1 1993	Chloride	5.5	mg/L	1.0	09/27/21 02:04	
EPA 300.0 Rev 2.1 1993	Fluoride	0.096J	mg/L	0.10	09/27/21 02:04	
EPA 300.0 Rev 2.1 1993	Sulfate	0.70J	mg/L	1.0	09/27/21 02:04	
<b>92563313023</b>	<b>GWC-1</b>					
	Performed by	CUSTOMER			09/24/21 13:57	
	pH	6.06	Std. Units		09/24/21 13:57	
EPA 6010D	Calcium	69.1	mg/L	1.0	10/05/21 16:23	
EPA 6020B	Antimony	0.0016J	mg/L	0.0030	10/05/21 16:22	
EPA 6020B	Arsenic	0.0048J	mg/L	0.0050	10/05/21 16:22	
EPA 6020B	Barium	0.062	mg/L	0.0050	10/05/21 16:22	
EPA 6020B	Boron	0.59	mg/L	0.040	10/05/21 16:22	
EPA 6020B	Chromium	0.0023J	mg/L	0.0050	10/05/21 16:22	
EPA 6020B	Molybdenum	0.060	mg/L	0.010	10/08/21 14:38	
EPA 6020B	Selenium	0.0018J	mg/L	0.0050	10/05/21 16:22	
EPA 6020B	Vanadium	0.0042J	mg/L	0.010	10/05/21 16:22	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 15:15	B
SM 2540C-2011	Total Dissolved Solids	360	mg/L	10.0	09/30/21 18:58	
EPA 300.0 Rev 2.1 1993	Chloride	8.8	mg/L	1.0	09/27/21 02:20	
EPA 300.0 Rev 2.1 1993	Sulfate	37.3	mg/L	1.0	09/27/21 02:20	
<b>92563313024</b>	<b>GWC-15</b>					
	Performed by	CUSTOMER			09/24/21 13:57	
	pH	6.48	Std. Units		09/24/21 13:57	
EPA 6010D	Calcium	146	mg/L	1.0	10/05/21 16:28	
EPA 6020B	Arsenic	0.21	mg/L	0.0050	10/05/21 16:28	
EPA 6020B	Barium	0.062	mg/L	0.0050	10/05/21 16:28	
EPA 6020B	Boron	0.72	mg/L	0.040	10/05/21 16:28	
EPA 6020B	Chromium	0.0013J	mg/L	0.0050	10/05/21 16:28	
EPA 6020B	Molybdenum	0.094	mg/L	0.010	10/08/21 14:44	
EPA 6020B	Selenium	0.0016J	mg/L	0.0050	10/05/21 16:28	
EPA 6020B	Vanadium	0.0022J	mg/L	0.010	10/05/21 16:28	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563313024</b>	<b>GWC-15</b>					
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 15:18	B
SM 2540C-2011	Total Dissolved Solids	556	mg/L	20.0	09/30/21 18:58	
EPA 300.0 Rev 2.1 1993	Chloride	7.1	mg/L	1.0	09/27/21 03:07	
EPA 300.0 Rev 2.1 1993	Sulfate	124	mg/L	3.0	09/27/21 07:38	
<b>92563313025</b>	<b>EB-1</b>					
EPA 6010D	Calcium	0.13J	mg/L	1.0	10/05/21 16:33	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 15:21	B
<b>92563313026</b>	<b>DUP-1</b>					
EPA 6010D	Calcium	69.2	mg/L	1.0	10/05/21 16:37	
EPA 6020B	Arsenic	0.0031J	mg/L	0.0050	10/01/21 17:50	
EPA 6020B	Barium	0.099	mg/L	0.0050	10/01/21 17:50	
EPA 6020B	Boron	6.5	mg/L	0.040	10/01/21 17:50	
EPA 6020B	Chromium	0.0017J	mg/L	0.0050	10/01/21 17:50	
EPA 6020B	Lithium	0.015J	mg/L	0.030	10/01/21 17:50	
EPA 6020B	Molybdenum	0.12	mg/L	0.010	10/01/21 17:50	
EPA 6020B	Vanadium	0.0030J	mg/L	0.010	10/01/21 17:50	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 15:29	B
SM 2540C-2011	Total Dissolved Solids	527	mg/L	10.0	09/28/21 10:55	
EPA 300.0 Rev 2.1 1993	Chloride	12.8	mg/L	1.0	09/27/21 03:39	
EPA 300.0 Rev 2.1 1993	Sulfate	226	mg/L	5.0	09/27/21 07:53	
<b>92563313027</b>	<b>EB-2</b>					
EPA 6010D	Calcium	0.24J	mg/L	1.0	10/05/21 16:52	
EPA 6020B	Barium	0.00079J	mg/L	0.0050	10/01/21 17:56	
EPA 6020B	Boron	0.011J	mg/L	0.040	10/01/21 17:56	
EPA 6020B	Chromium	0.0013J	mg/L	0.0050	10/01/21 17:56	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 15:31	B
<b>92563313028</b>	<b>FB-2</b>					
EPA 6010D	Calcium	0.13J	mg/L	1.0	10/05/21 16:57	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 15:34	B
<b>92563313029</b>	<b>DUP-2</b>					
EPA 6010D	Calcium	5.7	mg/L	1.0	10/05/21 17:01	
EPA 6020B	Barium	0.047	mg/L	0.0050	10/01/21 18:20	
EPA 6020B	Boron	0.074	mg/L	0.040	10/01/21 18:20	
EPA 6020B	Molybdenum	0.0016J	mg/L	0.010	10/01/21 18:20	
EPA 6020B	Selenium	0.0027J	mg/L	0.0050	10/01/21 18:20	
EPA 6020B	Vanadium	0.0020J	mg/L	0.010	10/01/21 18:20	
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 15:37	B
SM 2540C-2011	Total Dissolved Solids	47.0	mg/L	10.0	09/29/21 18:46	
EPA 300.0 Rev 2.1 1993	Chloride	6.0	mg/L	1.0	09/27/21 04:59	
EPA 300.0 Rev 2.1 1993	Sulfate	14.6	mg/L	1.0	09/27/21 04:59	
<b>92563313030</b>	<b>EB-3</b>					
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 15:39	B

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563313031</b>	<b>FB-3</b>					
EPA 7470A	Mercury	0.00010J	mg/L	0.00020	10/06/21 15:42	B
<b>92563313032</b>	<b>DUP-3</b>					
EPA 6010D	Calcium	0.16J	mg/L	1.0	10/05/21 17:16	
EPA 6020B	Barium	0.053	mg/L	0.0050	10/01/21 18:37	
EPA 6020B	Beryllium	0.000056J	mg/L	0.00050	10/01/21 18:37	
EPA 6020B	Boron	0.016J	mg/L	0.040	10/01/21 18:37	
EPA 7470A	Mercury	0.00011J	mg/L	0.00020	10/06/21 15:44	B
SM 2540C-2011	Total Dissolved Solids	28.0	mg/L	10.0	09/29/21 18:46	
EPA 300.0 Rev 2.1 1993	Chloride	6.6	mg/L	1.0	09/27/21 06:19	
EPA 300.0 Rev 2.1 1993	Sulfate	9.6	mg/L	1.0	09/27/21 06:19	
<b>92563313033</b>	<b>GWA-7</b>					
EPA 6010D	Calcium, Dissolved	3.1	mg/L	1.0	10/05/21 14:57	
EPA 6020B	Barium, Dissolved	0.064	mg/L	0.025	10/11/21 14:33	
EPA 6020B	Boron, Dissolved	4.1	mg/L	0.20	10/11/21 14:33	
EPA 6020B	Chromium, Dissolved	0.0096J	mg/L	0.025	10/11/21 14:33	D3
EPA 6020B	Vanadium, Dissolved	0.097	mg/L	0.050	10/11/21 14:33	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: GWA-7		Lab ID: 92563313001		Collected: 09/21/21 09:55		Received: 09/24/21 09:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:50		
pH	<b>6.03</b>	Std. Units			1		09/24/21 13:50		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>2.7</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 19:42	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.015	0.0039	1	10/04/21 11:20	10/04/21 15:47	7440-36-0	D3
Arsenic	ND	mg/L	0.025	0.0057	1	10/04/21 11:20	10/04/21 15:47	7440-38-2	D3
Barium	<b>0.073</b>	mg/L	0.025	0.0034	1	10/04/21 11:20	10/04/21 15:47	7440-39-3	
Beryllium	ND	mg/L	0.0025	0.00027	1	10/04/21 11:20	10/04/21 15:47	7440-41-7	D3
Boron	<b>4.4</b>	mg/L	0.20	0.043	1	10/04/21 11:20	10/04/21 15:47	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00057	1	10/04/21 11:20	10/04/21 15:47	7440-43-9	D3
Chromium	<b>0.013J</b>	mg/L	0.025	0.0055	1	10/04/21 11:20	10/04/21 15:47	7440-47-3	D3
Cobalt	ND	mg/L	0.025	0.0020	1	10/04/21 11:20	10/04/21 15:47	7440-48-4	D3
Lead	ND	mg/L	0.0050	0.0044	1	10/04/21 11:20	10/04/21 15:47	7439-92-1	D3
Lithium	ND	mg/L	0.15	0.0036	1	10/04/21 11:20	10/04/21 15:47	7439-93-2	D3
Molybdenum	ND	mg/L	0.050	0.0037	1	10/04/21 11:20	10/04/21 15:47	7439-98-7	D3
Selenium	ND	mg/L	0.025	0.0068	1	10/04/21 11:20	10/04/21 15:47	7782-49-2	D3
Thallium	ND	mg/L	0.0050	0.00090	1	10/04/21 11:20	10/04/21 15:47	7440-28-0	D3
Vanadium	<b>0.096</b>	mg/L	0.050	0.0093	1	10/04/21 11:20	10/04/21 15:47	7440-62-2	
Zinc	ND	mg/L	0.050	0.035	1	10/04/21 11:20	10/04/21 15:47	7440-66-6	D3
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 13:41	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1210</b>	mg/L	50.0	50.0	1		09/27/21 10:20		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>92.2</b>	mg/L	1.0	0.60	1		09/27/21 08:34	16887-00-6	
Fluoride	<b>0.077J</b>	mg/L	0.10	0.050	1		09/27/21 08:34	16984-48-8	
Sulfate	<b>11.1</b>	mg/L	1.0	0.50	1		09/27/21 08:34	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: <b>GWB-4R</b>		Lab ID: <b>92563313002</b>		Collected: 09/21/21 14:45	Received: 09/24/21 09:18	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:50		
pH	<b>5.78</b>	Std. Units			1		09/24/21 13:50		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>67.5</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 19:47	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 15:52	7440-36-0	
Arsenic	<b>0.0027J</b>	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 15:52	7440-38-2	
Barium	<b>0.098</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 15:52	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 15:52	7440-41-7	
Boron	<b>6.4</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 15:52	7440-42-8	M1
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 15:52	7440-43-9	
Chromium	<b>0.0018J</b>	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 15:52	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 15:52	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 15:52	7439-92-1	
Lithium	<b>0.016J</b>	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 15:52	7439-93-2	
Molybdenum	<b>0.12</b>	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 15:52	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 15:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 15:52	7440-28-0	
Vanadium	<b>0.0027J</b>	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 15:52	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 15:52	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 13:43	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>476</b>	mg/L	20.0	20.0	1		09/27/21 10:20		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>13.9</b>	mg/L	1.0	0.60	1		09/27/21 08:49	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 08:49	16984-48-8	
Sulfate	<b>232</b>	mg/L	5.0	2.5	5		09/27/21 16:02	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: <b>GWB-5R</b>		Lab ID: <b>92563313003</b>		Collected: 09/21/21 12:35	Received: 09/24/21 09:18	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:50		
pH	<b>4.68</b>	Std. Units			1		09/24/21 13:50		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>140</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 19:52	7440-70-2	M1
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.0013J</b>	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 16:15	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 16:15	7440-38-2	
Barium	<b>0.076</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 16:15	7440-39-3	
Beryllium	<b>0.000099J</b>	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 16:15	7440-41-7	
Boron	<b>4.1</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 16:15	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 16:15	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 16:15	7440-47-3	
Cobalt	<b>0.019</b>	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 16:15	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 16:15	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 16:15	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 16:15	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 16:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 16:15	7440-28-0	
Vanadium	<b>0.0039J</b>	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 16:15	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 16:15	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 13:46	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1240</b>	mg/L	50.0	50.0	1		09/27/21 10:20		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>38.8</b>	mg/L	1.0	0.60	1		09/27/21 09:03	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 09:03	16984-48-8	
Sulfate	<b>829</b>	mg/L	18.0	9.0	18		09/27/21 16:17	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: <b>GWB-6R</b>		Lab ID: <b>92563313004</b>		Collected: 09/21/21 11:15		Received: 09/24/21 09:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:51		
pH	<b>5.40</b>	Std. Units			1		09/24/21 13:51		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>110</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 20:11	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 16:21	7440-36-0	
Arsenic	<b>0.0054</b>	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 16:21	7440-38-2	
Barium	<b>0.077</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 16:21	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 16:21	7440-41-7	
Boron	<b>4.2</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 16:21	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 16:21	7440-43-9	
Chromium	<b>0.0035J</b>	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 16:21	7440-47-3	
Cobalt	<b>0.0049J</b>	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 16:21	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 16:21	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 16:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 16:21	7439-98-7	
Selenium	<b>0.0016J</b>	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 16:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 16:21	7440-28-0	
Vanadium	<b>0.015</b>	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 16:21	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 16:21	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:02	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>985</b>	mg/L	50.0	50.0	1		09/27/21 10:20		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>53.8</b>	mg/L	1.0	0.60	1		09/27/21 09:18	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 09:18	16984-48-8	
Sulfate	<b>645</b>	mg/L	14.0	7.0	14		09/27/21 17:02	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Sample: MW-26D		Lab ID: 92563313005		Collected: 09/21/21 13:45		Received: 09/24/21 09:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:51		
pH	<b>5.88</b>	Std. Units			1		09/24/21 13:51		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>2.5</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 20:16	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 16:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 16:27	7440-38-2	
Barium	<b>0.027</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 16:27	7440-39-3	
Beryllium	<b>0.000073J</b>	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 16:27	7440-41-7	
Boron	<b>0.025J</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 16:27	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 16:27	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 16:27	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 16:27	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 16:27	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 16:27	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 16:27	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 16:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 16:27	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 16:27	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 16:27	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:04	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>37.0</b>	mg/L	10.0	10.0	1		09/27/21 10:21		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>6.7</b>	mg/L	1.0	0.60	1		09/27/21 09:33	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 09:33	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/27/21 09:33	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

**Sample: MW-27D**      **Lab ID: 92563313006**      Collected: 09/21/21 16:15      Received: 09/24/21 09:18      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:52		
pH	<b>5.97</b>	Std. Units			1		09/24/21 13:52		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>2.1</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 20:21	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 16:48	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 16:48	7440-38-2	
Barium	<b>0.022</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 16:48	7440-39-3	
Beryllium	<b>0.000066J</b>	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 16:48	7440-41-7	
Boron	<b>0.012J</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 16:48	7440-42-8	
Cadmium	<b>0.00042J</b>	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 16:48	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 16:48	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 16:48	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 16:48	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 16:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 16:48	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 16:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 16:48	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 16:48	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 16:48	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00011J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:07	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>37.0</b>	mg/L	10.0	10.0	1		09/27/21 10:21		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>6.1</b>	mg/L	1.0	0.60	1		09/27/21 09:48	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 09:48	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/27/21 09:48	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: GWA-8		Lab ID: 92563313007		Collected: 09/21/21 09:45		Received: 09/24/21 09:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:52		
pH	<b>4.44</b>	Std. Units			1		09/24/21 13:52		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>18.5</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 20:35	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 16:54	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 16:54	7440-38-2	
Barium	<b>0.049</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 16:54	7440-39-3	
Beryllium	<b>0.00016J</b>	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 16:54	7440-41-7	
Boron	<b>0.13</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 16:54	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 16:54	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 16:54	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 16:54	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 16:54	7439-92-1	
Lithium	<b>0.00092J</b>	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 16:54	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 16:54	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 16:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 16:54	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 16:54	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 16:54	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00011J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:10	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>145</b>	mg/L	10.0	10.0	1		09/27/21 10:21		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>12.2</b>	mg/L	1.0	0.60	1		09/27/21 10:03	16887-00-6	
Fluoride	<b>0.068J</b>	mg/L	0.10	0.050	1		09/27/21 10:03	16984-48-8	
Sulfate	<b>96.5</b>	mg/L	1.0	0.50	1		09/27/21 10:03	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Sample: GWC-11		Lab ID: 92563313008		Collected: 09/21/21 12:40		Received: 09/24/21 09:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:52		
pH	<b>4.92</b>	Std. Units			1		09/24/21 13:52		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>87.0</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 20:40	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 17:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:00	7440-38-2	
Barium	<b>0.12</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 17:00	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 17:00	7440-41-7	
Boron	<b>0.80</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 17:00	7440-42-8	
Cadmium	<b>0.00036J</b>	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 17:00	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:00	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 17:00	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 17:00	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 17:00	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 17:00	7439-98-7	
Selenium	<b>0.0038J</b>	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 17:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 17:00	7440-28-0	
Vanadium	<b>0.0020J</b>	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 17:00	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 17:00	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:12	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>842</b>	mg/L	20.0	20.0	1		09/27/21 10:21		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>103</b>	mg/L	10.0	6.0	10		09/27/21 17:17	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 10:18	16984-48-8	M1
Sulfate	<b>433</b>	mg/L	10.0	5.0	10		09/27/21 17:17	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: <b>GWC-12</b>		Lab ID: <b>92563313009</b>		Collected: 09/21/21 10:57	Received: 09/24/21 09:18	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:53		
pH	<b>4.05</b>	Std. Units			1		09/24/21 13:53		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>63.4</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 20:44	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 17:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:05	7440-38-2	
Barium	<b>0.023</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 17:05	7440-39-3	
Beryllium	<b>0.00047J</b>	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 17:05	7440-41-7	
Boron	<b>5.8</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 17:05	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 17:05	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:05	7440-47-3	
Cobalt	<b>0.00065J</b>	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 17:05	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 17:05	7439-92-1	
Lithium	<b>0.00091J</b>	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 17:05	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 17:05	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 17:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 17:05	7440-28-0	
Vanadium	<b>0.0051J</b>	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 17:05	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 17:05	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:15	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>558</b>	mg/L	20.0	20.0	1		09/27/21 10:21		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>63.8</b>	mg/L	1.0	0.60	1		09/27/21 11:33	16887-00-6	
Fluoride	<b>0.31</b>	mg/L	0.10	0.050	1		09/27/21 11:33	16984-48-8	
Sulfate	<b>315</b>	mg/L	8.0	4.0	8		09/27/21 18:01	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: <b>GWC-13</b>		Lab ID: <b>92563313010</b>		Collected: 09/21/21 16:20	Received: 09/24/21 09:18	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:53		
pH	<b>4.83</b>	Std. Units			1		09/24/21 13:53		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>3.6</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 20:49	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 17:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:11	7440-38-2	
Barium	<b>0.037</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 17:11	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 17:11	7440-41-7	
Boron	<b>0.38</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 17:11	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 17:11	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:11	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 17:11	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 17:11	7439-92-1	
Lithium	<b>0.00087J</b>	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 17:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 17:11	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 17:11	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 17:11	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 17:11	7440-62-2	
Zinc	<b>0.036</b>	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 17:11	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:17	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>83.0</b>	mg/L	10.0	10.0	1		09/27/21 10:22		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>7.9</b>	mg/L	1.0	0.60	1		09/27/21 11:48	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 11:48	16984-48-8	
Sulfate	<b>36.6</b>	mg/L	1.0	0.50	1		09/27/21 11:48	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: <b>GWC-22</b>		Lab ID: <b>92563313011</b>		Collected: 09/21/21 14:00	Received: 09/24/21 09:18	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:53		
pH	<b>4.72</b>	Std. Units			1		09/24/21 13:53		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>15.3</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 20:54	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 17:17	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:17	7440-38-2	
Barium	<b>0.036</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 17:17	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 17:17	7440-41-7	
Boron	<b>0.19</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 17:17	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 17:17	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:17	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 17:17	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 17:17	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 17:17	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 17:17	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 17:17	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 17:17	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 17:17	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 17:17	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:25	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>87.0</b>	mg/L	10.0	10.0	1		09/27/21 10:22		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>9.4</b>	mg/L	1.0	0.60	1		09/27/21 12:03	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 12:03	16984-48-8	
Sulfate	<b>52.4</b>	mg/L	1.0	0.50	1		09/27/21 12:03	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Sample: FB-1		Lab ID: 92563313012		Collected: 09/21/21 09:45	Received: 09/24/21 09:18	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 20:59	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 17:22	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:22	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 17:22	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 17:22	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 17:22	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 17:22	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:22	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 17:22	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 17:22	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 17:22	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 17:22	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 17:22	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 17:22	7440-28-0		
Vanadium	ND	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 17:22	7440-62-2		
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 17:22	7440-66-6		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:28	7439-97-6	B	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/27/21 10:22			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/27/21 12:18	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 12:18	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/27/21 12:18	14808-79-8		

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

**Sample: GWC-2**      **Lab ID: 92563313013**      Collected: 09/22/21 14:38      Received: 09/24/21 09:18      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:54		
pH	<b>4.71</b>	Std. Units			1		09/24/21 13:54		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>0.19J</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 21:03	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 17:28	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:28	7440-38-2	
Barium	<b>0.047</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 17:28	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 17:28	7440-41-7	
Boron	<b>0.017J</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 17:28	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 17:28	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:28	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 17:28	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 17:28	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 17:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 17:28	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 17:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 17:28	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 17:28	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 17:28	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:31	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>33.0</b>	mg/L	10.0	10.0	1		09/29/21 18:45		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>7.4</b>	mg/L	1.0	0.60	1		09/27/21 12:33	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 12:33	16984-48-8	
Sulfate	<b>10.3</b>	mg/L	1.0	0.50	1		09/27/21 12:33	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: GWC-9		Lab ID: 92563313014		Collected: 09/22/21 13:03		Received: 09/24/21 09:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:54		
pH	<b>4.70</b>	Std. Units			1		09/24/21 13:54		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>5.0</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 21:08	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 17:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:34	7440-38-2	
Barium	<b>0.15</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 17:34	7440-39-3	
Beryllium	<b>0.00017J</b>	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 17:34	7440-41-7	
Boron	<b>0.015J</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 17:34	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 17:34	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:34	7440-47-3	
Cobalt	<b>0.00082J</b>	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 17:34	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 17:34	7439-92-1	
Lithium	<b>0.0015J</b>	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 17:34	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 17:34	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 17:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 17:34	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 17:34	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 17:34	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00011J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:33	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>94.0</b>	mg/L	10.0	10.0	1		09/29/21 18:45		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>19.3</b>	mg/L	1.0	0.60	1		09/27/21 12:48	16887-00-6	
Fluoride	<b>0.13</b>	mg/L	0.10	0.050	1		09/27/21 12:48	16984-48-8	
Sulfate	<b>42.7</b>	mg/L	1.0	0.50	1		09/27/21 12:48	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: <b>GWC-14</b>	Lab ID: <b>92563313015</b>	Collected: 09/22/21 16:10		Received: 09/24/21 09:18		Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:54		
pH	<b>5.76</b>	Std. Units			1		09/24/21 13:54		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>185</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 21:13	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 17:40	7440-36-0	
Arsenic	<b>0.0014J</b>	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:40	7440-38-2	
Barium	<b>0.11</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 17:40	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 17:40	7440-41-7	
Boron	<b>0.052</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 17:40	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 17:40	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 17:40	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 17:40	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 17:40	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 17:40	7439-93-2	
Molybdenum	<b>0.018</b>	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 17:40	7439-98-7	
Selenium	<b>0.0034J</b>	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 17:40	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 17:40	7440-28-0	
Vanadium	<b>0.0052J</b>	mg/L	0.010	0.0019	1	10/04/21 11:20	10/04/21 17:40	7440-62-2	
Zinc	<b>0.010</b>	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 17:40	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00011J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:36	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>864</b>	mg/L	20.0	20.0	1		09/29/21 18:45		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>28.0</b>	mg/L	1.0	0.60	1		09/27/21 13:03	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 13:03	16984-48-8	
Sulfate	<b>444</b>	mg/L	10.0	5.0	10		09/27/21 18:16	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: GWC-16		Lab ID: 92563313016		Collected: 09/22/21 11:00		Received: 09/24/21 09:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:54		
pH	<b>5.57</b>	Std. Units			1		09/24/21 13:54		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>267</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 21:18	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 18:13	7440-36-0	
Arsenic	<b>0.081</b>	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 18:13	7440-38-2	
Barium	<b>0.26</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 18:13	7440-39-3	
Beryllium	<b>0.000060J</b>	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 18:13	7440-41-7	
Boron	<b>11.5</b>	mg/L	2.0	0.43	50	10/04/21 11:20	10/05/21 13:54	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 18:13	7440-43-9	
Chromium	<b>0.0018J</b>	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 18:13	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 18:13	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 18:13	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 18:13	7439-93-2	
Molybdenum	<b>0.22</b>	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 18:13	7439-98-7	
Selenium	<b>0.0031J</b>	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 18:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 18:13	7440-28-0	
Vanadium	<b>0.0025J</b>	mg/L	0.010	0.0019	1	10/04/21 11:20	10/05/21 14:18	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 18:13	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:39	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1680</b>	mg/L	100	100	1		09/29/21 18:45		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>55.8</b>	mg/L	1.0	0.60	1		09/27/21 13:18	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 13:18	16984-48-8	
Sulfate	<b>1040</b>	mg/L	23.0	11.5	23		09/27/21 18:30	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

**Sample: GWC-17**      **Lab ID: 92563313017**      Collected: 09/22/21 12:00      Received: 09/24/21 09:18      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:55		
pH	<b>4.63</b>	Std. Units			1		09/24/21 13:55		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>94.6</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 21:32	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.0014J</b>	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 18:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 18:18	7440-38-2	
Barium	<b>0.058</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 18:18	7440-39-3	
Beryllium	<b>0.0017</b>	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 18:18	7440-41-7	
Boron	<b>1.4</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 18:18	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 18:18	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 18:18	7440-47-3	
Cobalt	<b>0.0028J</b>	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 18:18	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 18:18	7439-92-1	
Lithium	<b>0.0050J</b>	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 18:18	7439-93-2	
Molybdenum	<b>0.0053J</b>	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 18:18	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 18:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 18:18	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	10/04/21 11:20	10/05/21 14:23	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 18:18	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00011J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:41	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1530</b>	mg/L	100	100	1		09/29/21 18:45		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>517</b>	mg/L	12.0	7.2	12		09/27/21 18:45	16887-00-6	
Fluoride	<b>0.79</b>	mg/L	0.10	0.050	1		09/27/21 14:03	16984-48-8	
Sulfate	<b>394</b>	mg/L	12.0	6.0	12		09/27/21 18:45	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: <b>GWC-20</b>	Lab ID: <b>92563313018</b>	Collected: 09/22/21 14:05	Received: 09/24/21 09:18	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:55		
pH	<b>6.00</b>	Std. Units			1		09/24/21 13:55		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>266</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 21:37	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 18:24	7440-36-0	
Arsenic	<b>0.23</b>	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 18:24	7440-38-2	
Barium	<b>0.42</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 18:24	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 18:24	7440-41-7	
Boron	<b>11.3</b>	mg/L	2.0	0.43	50	10/04/21 11:20	10/05/21 14:00	7440-42-8	
Cadmium	<b>0.00013J</b>	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 18:24	7440-43-9	
Chromium	<b>0.0013J</b>	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 18:24	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 18:24	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 18:24	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 18:24	7439-93-2	
Molybdenum	<b>0.50</b>	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 18:24	7439-98-7	
Selenium	<b>0.0024J</b>	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 18:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 18:24	7440-28-0	
Vanadium	<b>0.0033J</b>	mg/L	0.010	0.0019	1	10/04/21 11:20	10/05/21 14:29	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 18:24	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00011J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:44	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1430</b>	mg/L	100	100	1		09/29/21 18:45		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>38.9</b>	mg/L	1.0	0.60	1		09/27/21 00:28	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 00:28	16984-48-8	M1
Sulfate	<b>905</b>	mg/L	20.0	10.0	20		09/27/21 06:51	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: <b>GWC-21</b>		Lab ID: <b>92563313019</b>		Collected: 09/22/21 09:40		Received: 09/24/21 09:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:55		
pH	<b>5.39</b>	Std. Units			1		09/24/21 13:55		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>5.8</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 21:42	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 18:30	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 18:30	7440-38-2	
Barium	<b>0.046</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 18:30	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 18:30	7440-41-7	
Boron	<b>0.095</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 18:30	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 18:30	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 18:30	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 18:30	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 18:30	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 18:30	7439-93-2	
Molybdenum	<b>0.0019J</b>	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 18:30	7439-98-7	
Selenium	<b>0.0027J</b>	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 18:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 18:30	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	10/04/21 11:20	10/05/21 14:35	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 18:30	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00011J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:46	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>51.0</b>	mg/L	10.0	10.0	1		09/29/21 18:45		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>6.0</b>	mg/L	1.0	0.60	1		09/27/21 01:16	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 01:16	16984-48-8	
Sulfate	<b>14.6</b>	mg/L	1.0	0.50	1		09/27/21 01:16	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: MW-23D		Lab ID: 92563313020		Collected: 09/22/21 16:00		Received: 09/24/21 09:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:56		
pH	<b>6.39</b>	Std. Units			1		09/24/21 13:56		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>14.9</b>	mg/L	1.0	0.12	1	10/04/21 13:15	10/04/21 21:47	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/04/21 11:20	10/04/21 18:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 18:36	7440-38-2	
Barium	<b>0.076</b>	mg/L	0.0050	0.00067	1	10/04/21 11:20	10/04/21 18:36	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/04/21 11:20	10/04/21 18:36	7440-41-7	
Boron	<b>0.033J</b>	mg/L	0.040	0.0086	1	10/04/21 11:20	10/04/21 18:36	7440-42-8	
Cadmium	<b>0.00027J</b>	mg/L	0.00050	0.00011	1	10/04/21 11:20	10/04/21 18:36	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/04/21 11:20	10/04/21 18:36	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/04/21 11:20	10/04/21 18:36	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/04/21 11:20	10/04/21 18:36	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/04/21 11:20	10/04/21 18:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/04/21 11:20	10/04/21 18:36	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/04/21 11:20	10/04/21 18:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/04/21 11:20	10/04/21 18:36	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	10/04/21 11:20	10/05/21 14:41	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/04/21 11:20	10/04/21 18:36	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00011J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 14:49	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>184</b>	mg/L	10.0	10.0	1		09/29/21 18:46		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>7.1</b>	mg/L	1.0	0.60	1		09/27/21 01:32	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 01:32	16984-48-8	
Sulfate	<b>84.6</b>	mg/L	1.0	0.50	1		09/27/21 01:32	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: MW-24D		Lab ID: 92563313021		Collected: 09/22/21 12:25		Received: 09/24/21 09:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:56		
pH	<b>6.76</b>	Std. Units			1		09/24/21 13:56		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>4.7</b>	mg/L	1.0	0.12	1	10/05/21 11:40	10/05/21 15:59	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/05/21 10:20	10/05/21 15:53	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/05/21 10:20	10/05/21 15:53	7440-38-2	
Barium	<b>0.038</b>	mg/L	0.0050	0.00067	1	10/05/21 10:20	10/05/21 15:53	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/05/21 10:20	10/05/21 15:53	7440-41-7	
Boron	<b>0.014J</b>	mg/L	0.040	0.0086	1	10/05/21 10:20	10/05/21 15:53	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/05/21 10:20	10/05/21 15:53	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/05/21 10:20	10/05/21 15:53	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/05/21 10:20	10/05/21 15:53	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/05/21 10:20	10/05/21 15:53	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/05/21 10:20	10/05/21 15:53	7439-93-2	
Molybdenum	<b>0.0032J</b>	mg/L	0.010	0.00074	1	10/05/21 10:20	10/05/21 15:53	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/05/21 10:20	10/05/21 15:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/05/21 10:20	10/05/21 15:53	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	10/05/21 10:20	10/05/21 15:53	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/05/21 10:20	10/05/21 15:53	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 15:02	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>53.0</b>	mg/L	10.0	10.0	1		09/29/21 18:46		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>4.9</b>	mg/L	1.0	0.60	1		09/27/21 01:48	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 01:48	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/27/21 01:48	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: MW-25D		Lab ID: 92563313022		Collected: 09/23/21 10:05		Received: 09/24/21 09:18		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:56		
pH	<b>6.21</b>	Std. Units			1		09/24/21 13:56		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>3.4</b>	mg/L	1.0	0.12	1	10/05/21 11:40	10/05/21 16:18	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/05/21 10:20	10/05/21 15:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/05/21 10:20	10/05/21 15:59	7440-38-2	
Barium	<b>0.024</b>	mg/L	0.0050	0.00067	1	10/05/21 10:20	10/05/21 15:59	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/05/21 10:20	10/05/21 15:59	7440-41-7	
Boron	<b>0.012J</b>	mg/L	0.040	0.0086	1	10/05/21 10:20	10/05/21 15:59	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/05/21 10:20	10/05/21 15:59	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/05/21 10:20	10/05/21 15:59	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/05/21 10:20	10/05/21 15:59	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/05/21 10:20	10/05/21 15:59	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/05/21 10:20	10/05/21 15:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/05/21 10:20	10/05/21 15:59	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/05/21 10:20	10/05/21 15:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/05/21 10:20	10/05/21 15:59	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	10/05/21 10:20	10/05/21 15:59	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/05/21 10:20	10/05/21 15:59	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 15:13	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>56.0</b>	mg/L	10.0	10.0	1		09/30/21 18:58		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>5.5</b>	mg/L	1.0	0.60	1		09/27/21 02:04	16887-00-6	
Fluoride	<b>0.096J</b>	mg/L	0.10	0.050	1		09/27/21 02:04	16984-48-8	
Sulfate	<b>0.70J</b>	mg/L	1.0	0.50	1		09/27/21 02:04	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

**Sample: GWC-1**      **Lab ID: 92563313023**      Collected: 09/23/21 09:10      Received: 09/24/21 09:18      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:57		
pH	<b>6.06</b>	Std. Units			1		09/24/21 13:57		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>69.1</b>	mg/L	1.0	0.12	1	10/05/21 11:40	10/05/21 16:23	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	<b>0.0016J</b>	mg/L	0.0030	0.00078	1	10/05/21 10:20	10/05/21 16:22	7440-36-0	
Arsenic	<b>0.0048J</b>	mg/L	0.0050	0.0011	1	10/05/21 10:20	10/05/21 16:22	7440-38-2	
Barium	<b>0.062</b>	mg/L	0.0050	0.00067	1	10/05/21 10:20	10/05/21 16:22	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/05/21 10:20	10/05/21 16:22	7440-41-7	
Boron	<b>0.59</b>	mg/L	0.040	0.0086	1	10/05/21 10:20	10/05/21 16:22	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/05/21 10:20	10/05/21 16:22	7440-43-9	
Chromium	<b>0.0023J</b>	mg/L	0.0050	0.0011	1	10/05/21 10:20	10/05/21 16:22	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/05/21 10:20	10/05/21 16:22	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/05/21 10:20	10/05/21 16:22	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/05/21 10:20	10/05/21 16:22	7439-93-2	
Molybdenum	<b>0.060</b>	mg/L	0.010	0.00074	1	10/05/21 10:20	10/08/21 14:38	7439-98-7	
Selenium	<b>0.0018J</b>	mg/L	0.0050	0.0014	1	10/05/21 10:20	10/05/21 16:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/05/21 10:20	10/05/21 16:22	7440-28-0	
Vanadium	<b>0.0042J</b>	mg/L	0.010	0.0019	1	10/05/21 10:20	10/05/21 16:22	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/05/21 10:20	10/05/21 16:22	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 15:15	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>360</b>	mg/L	10.0	10.0	1		09/30/21 18:58		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>8.8</b>	mg/L	1.0	0.60	1		09/27/21 02:20	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 02:20	16984-48-8	
Sulfate	<b>37.3</b>	mg/L	1.0	0.50	1		09/27/21 02:20	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

**Sample: GWC-15**      **Lab ID: 92563313024**      Collected: 09/23/21 08:55      Received: 09/24/21 09:18      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		09/24/21 13:57		
pH	<b>6.48</b>	Std. Units			1		09/24/21 13:57		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>146</b>	mg/L	1.0	0.12	1	10/05/21 11:40	10/05/21 16:28	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/05/21 10:20	10/05/21 16:28	7440-36-0	
Arsenic	<b>0.21</b>	mg/L	0.0050	0.0011	1	10/05/21 10:20	10/05/21 16:28	7440-38-2	
Barium	<b>0.062</b>	mg/L	0.0050	0.00067	1	10/05/21 10:20	10/05/21 16:28	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/05/21 10:20	10/05/21 16:28	7440-41-7	
Boron	<b>0.72</b>	mg/L	0.040	0.0086	1	10/05/21 10:20	10/05/21 16:28	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/05/21 10:20	10/05/21 16:28	7440-43-9	
Chromium	<b>0.0013J</b>	mg/L	0.0050	0.0011	1	10/05/21 10:20	10/05/21 16:28	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/05/21 10:20	10/05/21 16:28	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/05/21 10:20	10/05/21 16:28	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/05/21 10:20	10/05/21 16:28	7439-93-2	
Molybdenum	<b>0.094</b>	mg/L	0.010	0.00074	1	10/05/21 10:20	10/08/21 14:44	7439-98-7	
Selenium	<b>0.0016J</b>	mg/L	0.0050	0.0014	1	10/05/21 10:20	10/05/21 16:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/05/21 10:20	10/05/21 16:28	7440-28-0	
Vanadium	<b>0.0022J</b>	mg/L	0.010	0.0019	1	10/05/21 10:20	10/05/21 16:28	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/05/21 10:20	10/05/21 16:28	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 15:18	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>556</b>	mg/L	20.0	20.0	1		09/30/21 18:58		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>7.1</b>	mg/L	1.0	0.60	1		09/27/21 03:07	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 03:07	16984-48-8	
Sulfate	<b>124</b>	mg/L	3.0	1.5	3		09/27/21 07:38	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: EB-1		Lab ID: 92563313025		Collected: 09/21/21 11:25		Received: 09/24/21 09:18		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	<b>0.13J</b>	mg/L	1.0	0.12	1	10/05/21 11:40	10/05/21 16:33	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/21 10:25	10/01/21 17:44	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 17:44	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	10/01/21 10:25	10/01/21 17:44	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	10/01/21 10:25	10/01/21 17:44	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	10/01/21 10:25	10/01/21 17:44	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	10/01/21 10:25	10/01/21 17:44	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 17:44	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	10/01/21 10:25	10/01/21 17:44	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/01/21 10:25	10/01/21 17:44	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	10/01/21 10:25	10/01/21 17:44	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	10/01/21 10:25	10/01/21 17:44	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	10/01/21 10:25	10/01/21 17:44	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/01/21 10:25	10/01/21 17:44	7440-28-0		
Vanadium	ND	mg/L	0.010	0.0019	1	10/01/21 10:25	10/01/21 17:44	7440-62-2		
Zinc	ND	mg/L	0.010	0.0070	1	10/01/21 10:25	10/01/21 17:44	7440-66-6		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 15:21	7439-97-6	B	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/27/21 10:22			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/27/21 03:23	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 03:23	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/27/21 03:23	14808-79-8		

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Sample: DUP-1		Lab ID: 92563313026		Collected: 09/21/21 00:00	Received: 09/24/21 09:18	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>69.2</b>	mg/L	1.0	0.12	1	10/05/21 11:40	10/05/21 16:37	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/21 10:25	10/01/21 17:50	7440-36-0	
Arsenic	<b>0.0031J</b>	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 17:50	7440-38-2	
Barium	<b>0.099</b>	mg/L	0.0050	0.00067	1	10/01/21 10:25	10/01/21 17:50	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/01/21 10:25	10/01/21 17:50	7440-41-7	
Boron	<b>6.5</b>	mg/L	0.040	0.0086	1	10/01/21 10:25	10/01/21 17:50	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/01/21 10:25	10/01/21 17:50	7440-43-9	
Chromium	<b>0.0017J</b>	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 17:50	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/01/21 10:25	10/01/21 17:50	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/01/21 10:25	10/01/21 17:50	7439-92-1	
Lithium	<b>0.015J</b>	mg/L	0.030	0.00073	1	10/01/21 10:25	10/01/21 17:50	7439-93-2	
Molybdenum	<b>0.12</b>	mg/L	0.010	0.00074	1	10/01/21 10:25	10/01/21 17:50	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/01/21 10:25	10/01/21 17:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/01/21 10:25	10/01/21 17:50	7440-28-0	
Vanadium	<b>0.0030J</b>	mg/L	0.010	0.0019	1	10/01/21 10:25	10/01/21 17:50	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/01/21 10:25	10/01/21 17:50	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 15:29	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>527</b>	mg/L	10.0	10.0	1		09/28/21 10:55		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>12.8</b>	mg/L	1.0	0.60	1		09/27/21 03:39	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 03:39	16984-48-8	
Sulfate	<b>226</b>	mg/L	5.0	2.5	5		09/27/21 07:53	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Sample: EB-2		Lab ID: 92563313027		Collected: 09/22/21 08:45	Received: 09/24/21 09:18	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	<b>0.24J</b>	mg/L	1.0	0.12	1	10/05/21 11:40	10/05/21 16:52	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/21 10:25	10/01/21 17:56	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 17:56	7440-38-2		
Barium	<b>0.00079J</b>	mg/L	0.0050	0.00067	1	10/01/21 10:25	10/01/21 17:56	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	10/01/21 10:25	10/01/21 17:56	7440-41-7		
Boron	<b>0.011J</b>	mg/L	0.040	0.0086	1	10/01/21 10:25	10/01/21 17:56	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	10/01/21 10:25	10/01/21 17:56	7440-43-9		
Chromium	<b>0.0013J</b>	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 17:56	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	10/01/21 10:25	10/01/21 17:56	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/01/21 10:25	10/01/21 17:56	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	10/01/21 10:25	10/01/21 17:56	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	10/01/21 10:25	10/01/21 17:56	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	10/01/21 10:25	10/01/21 17:56	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/01/21 10:25	10/01/21 17:56	7440-28-0		
Vanadium	ND	mg/L	0.010	0.0019	1	10/01/21 10:25	10/01/21 17:56	7440-62-2		
Zinc	ND	mg/L	0.010	0.0070	1	10/01/21 10:25	10/01/21 17:56	7440-66-6		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 15:31	7439-97-6	B	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/29/21 18:46			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/27/21 03:55	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 03:55	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/27/21 03:55	14808-79-8		

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Sample: <b>FB-2</b>		Lab ID: <b>92563313028</b>		Collected: 09/22/21 12:40	Received: 09/24/21 09:18	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	<b>0.13J</b>	mg/L	1.0	0.12	1	10/05/21 11:40	10/05/21 16:57	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/21 10:25	10/01/21 18:14	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 18:14	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	10/01/21 10:25	10/01/21 18:14	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	10/01/21 10:25	10/01/21 18:14	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	10/01/21 10:25	10/01/21 18:14	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	10/01/21 10:25	10/01/21 18:14	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 18:14	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	10/01/21 10:25	10/01/21 18:14	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/01/21 10:25	10/01/21 18:14	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	10/01/21 10:25	10/01/21 18:14	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	10/01/21 10:25	10/01/21 18:14	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	10/01/21 10:25	10/01/21 18:14	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/01/21 10:25	10/01/21 18:14	7440-28-0		
Vanadium	ND	mg/L	0.010	0.0019	1	10/01/21 10:25	10/01/21 18:14	7440-62-2		
Zinc	ND	mg/L	0.010	0.0070	1	10/01/21 10:25	10/01/21 18:14	7440-66-6		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 15:34	7439-97-6	B	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/29/21 18:46			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/27/21 04:11	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 04:11	16984-48-8	M1	
Sulfate	ND	mg/L	1.0	0.50	1		09/27/21 04:11	14808-79-8	M1	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Sample: DUP-2		Lab ID: 92563313029		Collected: 09/22/21 00:00	Received: 09/24/21 09:18	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	5.7	mg/L	1.0	0.12	1	10/05/21 11:40	10/05/21 17:01	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/21 10:25	10/01/21 18:20	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 18:20	7440-38-2		
Barium	0.047	mg/L	0.0050	0.00067	1	10/01/21 10:25	10/01/21 18:20	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	10/01/21 10:25	10/01/21 18:20	7440-41-7		
Boron	0.074	mg/L	0.040	0.0086	1	10/01/21 10:25	10/01/21 18:20	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	10/01/21 10:25	10/01/21 18:20	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 18:20	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	10/01/21 10:25	10/01/21 18:20	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/01/21 10:25	10/01/21 18:20	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	10/01/21 10:25	10/01/21 18:20	7439-93-2		
Molybdenum	0.0016J	mg/L	0.010	0.00074	1	10/01/21 10:25	10/01/21 18:20	7439-98-7		
Selenium	0.0027J	mg/L	0.0050	0.0014	1	10/01/21 10:25	10/01/21 18:20	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/01/21 10:25	10/01/21 18:20	7440-28-0		
Vanadium	0.0020J	mg/L	0.010	0.0019	1	10/01/21 10:25	10/01/21 18:20	7440-62-2		
Zinc	ND	mg/L	0.010	0.0070	1	10/01/21 10:25	10/01/21 18:20	7440-66-6		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	0.00010J	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 15:37	7439-97-6	B	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	47.0	mg/L	10.0	10.0	1		09/29/21 18:46			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	6.0	mg/L	1.0	0.60	1		09/27/21 04:59	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 04:59	16984-48-8		
Sulfate	14.6	mg/L	1.0	0.50	1		09/27/21 04:59	14808-79-8		

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Sample: EB-3		Lab ID: 92563313030		Collected: 09/23/21 09:00	Received: 09/24/21 09:18	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	10/05/21 11:40	10/05/21 17:06	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/21 10:25	10/01/21 18:26	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 18:26	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	10/01/21 10:25	10/01/21 18:26	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	10/01/21 10:25	10/01/21 18:26	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	10/01/21 10:25	10/01/21 18:26	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	10/01/21 10:25	10/01/21 18:26	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 18:26	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	10/01/21 10:25	10/01/21 18:26	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/01/21 10:25	10/01/21 18:26	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	10/01/21 10:25	10/01/21 18:26	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	10/01/21 10:25	10/01/21 18:26	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	10/01/21 10:25	10/01/21 18:26	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/01/21 10:25	10/01/21 18:26	7440-28-0		
Vanadium	ND	mg/L	0.010	0.0019	1	10/01/21 10:25	10/01/21 18:26	7440-62-2		
Zinc	ND	mg/L	0.010	0.0070	1	10/01/21 10:25	10/01/21 18:26	7440-66-6		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 15:39	7439-97-6	B	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/30/21 18:58			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/27/21 05:15	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 05:15	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		09/27/21 05:15	14808-79-8		

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Sample: FB-3</b>									
<b>Lab ID: 92563313031</b>									
Collected: 09/22/21 13:15 Received: 09/24/21 09:18 Matrix: Water									
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	ND	mg/L	1.0	0.12	1	10/05/21 11:40	10/05/21 17:11	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/21 10:25	10/01/21 18:31	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 18:31	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	10/01/21 10:25	10/01/21 18:31	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	10/01/21 10:25	10/01/21 18:31	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	10/01/21 10:25	10/01/21 18:31	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	10/01/21 10:25	10/01/21 18:31	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 18:31	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	10/01/21 10:25	10/01/21 18:31	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	10/01/21 10:25	10/01/21 18:31	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	10/01/21 10:25	10/01/21 18:31	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	10/01/21 10:25	10/01/21 18:31	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	10/01/21 10:25	10/01/21 18:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	10/01/21 10:25	10/01/21 18:31	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	10/01/21 10:25	10/01/21 18:31	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	10/01/21 10:25	10/01/21 18:31	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	<b>0.00010J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 15:42	7439-97-6	B
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/29/21 18:46		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		09/27/21 05:31	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 05:31	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/27/21 05:31	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Sample: DUP-3		Lab ID: 92563313032		Collected: 09/22/21 00:00	Received: 09/24/21 09:18	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	<b>0.16J</b>	mg/L	1.0	0.12	1	10/05/21 11:40	10/05/21 17:16	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/21 10:25	10/01/21 18:37	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 18:37	7440-38-2		
Barium	<b>0.053</b>	mg/L	0.0050	0.00067	1	10/01/21 10:25	10/01/21 18:37	7440-39-3		
Beryllium	<b>0.000056J</b>	mg/L	0.00050	0.000054	1	10/01/21 10:25	10/01/21 18:37	7440-41-7		
Boron	<b>0.016J</b>	mg/L	0.040	0.0086	1	10/01/21 10:25	10/01/21 18:37	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	10/01/21 10:25	10/01/21 18:37	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	10/01/21 10:25	10/01/21 18:37	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	10/01/21 10:25	10/01/21 18:37	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	10/01/21 10:25	10/01/21 18:37	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	10/01/21 10:25	10/01/21 18:37	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	10/01/21 10:25	10/01/21 18:37	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	10/01/21 10:25	10/01/21 18:37	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	10/01/21 10:25	10/01/21 18:37	7440-28-0		
Vanadium	ND	mg/L	0.010	0.0019	1	10/01/21 10:25	10/01/21 18:37	7440-62-2		
Zinc	ND	mg/L	0.010	0.0070	1	10/01/21 10:25	10/01/21 18:37	7440-66-6		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	<b>0.00011J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 15:44	7439-97-6	B	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>28.0</b>	mg/L	10.0	10.0	1		09/29/21 18:46			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>6.6</b>	mg/L	1.0	0.60	1		09/27/21 06:19	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/27/21 06:19	16984-48-8		
Sulfate	<b>9.6</b>	mg/L	1.0	0.50	1		09/27/21 06:19	14808-79-8		

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

**Sample: GWA-7**      **Lab ID: 92563313033**      Collected: 09/21/21 09:55      Received: 09/24/21 09:18      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010 MET ICP, Dissolved</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium, Dissolved	3.1	mg/L	1.0	0.12	1	10/05/21 11:30	10/05/21 14:57	7440-70-2	
<b>6020 MET ICPMS, Dissolved</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony, Dissolved	ND	mg/L	0.015	0.0039	5	10/08/21 09:48	10/11/21 14:33	7440-36-0	D3
Arsenic, Dissolved	ND	mg/L	0.025	0.0057	5	10/08/21 09:48	10/11/21 14:33	7440-38-2	D3
Barium, Dissolved	0.064	mg/L	0.025	0.0034	5	10/08/21 09:48	10/11/21 14:33	7440-39-3	
Beryllium, Dissolved	ND	mg/L	0.0025	0.00027	5	10/08/21 09:48	10/11/21 14:33	7440-41-7	D3
Boron, Dissolved	4.1	mg/L	0.20	0.043	5	10/08/21 09:48	10/11/21 14:33	7440-42-8	
Cadmium, Dissolved	ND	mg/L	0.0025	0.00057	5	10/08/21 09:48	10/11/21 14:33	7440-43-9	D3
Chromium, Dissolved	0.0096J	mg/L	0.025	0.0055	5	10/08/21 09:48	10/11/21 14:33	7440-47-3	D3
Cobalt, Dissolved	ND	mg/L	0.025	0.0020	5	10/08/21 09:48	10/11/21 14:33	7440-48-4	D3
Lead, Dissolved	ND	mg/L	0.0050	0.0044	5	10/08/21 09:48	10/11/21 14:33	7439-92-1	D3
Lithium, Dissolved	ND	mg/L	0.15	0.0036	5	10/08/21 09:48	10/11/21 14:33	7439-93-2	D3
Molybdenum, Dissolved	ND	mg/L	0.050	0.0037	5	10/08/21 09:48	10/11/21 14:33	7439-98-7	D3
Selenium, Dissolved	ND	mg/L	0.025	0.0068	5	10/08/21 09:48	10/11/21 14:33	7782-49-2	D3
Thallium, Dissolved	ND	mg/L	0.0050	0.00090	5	10/08/21 09:48	10/11/21 14:33	7440-28-0	D3
Vanadium, Dissolved	0.097	mg/L	0.050	0.0093	5	10/08/21 09:48	10/11/21 14:33	7440-62-2	
Zinc, Dissolved	ND	mg/L	0.050	0.035	5	10/08/21 09:48	10/11/21 14:33	7440-66-6	D3
<b>7470 Mercury, Dissolved</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury, Dissolved	ND	mg/L	0.00020	0.000078	1	10/07/21 09:30	10/07/21 14:08	7439-97-6	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

QC Batch: 650645 Analysis Method: EPA 6010D  
 QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563313001, 92563313002, 92563313003, 92563313004, 92563313005, 92563313006, 92563313007, 92563313008, 92563313009, 92563313010, 92563313011, 92563313012, 92563313013, 92563313014, 92563313015, 92563313016, 92563313017, 92563313018, 92563313019, 92563313020

METHOD BLANK: 3412418 Matrix: Water  
 Associated Lab Samples: 92563313001, 92563313002, 92563313003, 92563313004, 92563313005, 92563313006, 92563313007, 92563313008, 92563313009, 92563313010, 92563313011, 92563313012, 92563313013, 92563313014, 92563313015, 92563313016, 92563313017, 92563313018, 92563313019, 92563313020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	10/04/21 19:23	

LABORATORY CONTROL SAMPLE: 3412419

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3412420 3412421

Parameter	Units	92563313003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	140	1	1	148	146	856	604	75-125	2	20	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

QC Batch: 650835 Analysis Method: EPA 6010D  
 QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563313021, 92563313022, 92563313023, 92563313024, 92563313025, 92563313026, 92563313027, 92563313028, 92563313029, 92563313030, 92563313031, 92563313032

METHOD BLANK: 3412995 Matrix: Water  
 Associated Lab Samples: 92563313021, 92563313022, 92563313023, 92563313024, 92563313025, 92563313026, 92563313027, 92563313028, 92563313029, 92563313030, 92563313031, 92563313032

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	10/05/21 15:22	

LABORATORY CONTROL SAMPLE: 3412996

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3412997 3412998

Parameter	Units	92563313021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	4.7	1	1	5.7	5.6	104	98	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

QC Batch: 650878

Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A

Analysis Description: 6010 MET Filtered Diss.

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92563313033

METHOD BLANK: 3413292

Matrix: Water

Associated Lab Samples: 92563313033

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium, Dissolved	mg/L	ND	1.0	0.12	10/05/21 14:48	

LABORATORY CONTROL SAMPLE: 3413293

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	mg/L	1	1.1	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3413294 3413295

Parameter	Units	3413294		3413295		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92563313033 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium, Dissolved	mg/L	3.1	1	1	4.1	4.1	92	97	75-125	1	20

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

QC Batch: 650361 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563313025, 92563313026, 92563313027, 92563313028, 92563313029, 92563313030, 92563313031, 92563313032

METHOD BLANK: 3411035 Matrix: Water  
 Associated Lab Samples: 92563313025, 92563313026, 92563313027, 92563313028, 92563313029, 92563313030, 92563313031, 92563313032

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	10/01/21 17:04	
Arsenic	mg/L	ND	0.0050	0.0011	10/01/21 17:04	
Barium	mg/L	ND	0.0050	0.00067	10/01/21 17:04	
Beryllium	mg/L	ND	0.00050	0.000054	10/01/21 17:04	
Boron	mg/L	ND	0.040	0.0086	10/01/21 17:04	
Cadmium	mg/L	ND	0.00050	0.00011	10/01/21 17:04	
Chromium	mg/L	ND	0.0050	0.0011	10/01/21 17:04	
Cobalt	mg/L	ND	0.0050	0.00039	10/01/21 17:04	
Lead	mg/L	ND	0.0010	0.00089	10/01/21 17:04	
Lithium	mg/L	ND	0.030	0.00073	10/01/21 17:04	
Molybdenum	mg/L	ND	0.010	0.00074	10/01/21 17:04	
Selenium	mg/L	ND	0.0050	0.0014	10/01/21 17:04	
Thallium	mg/L	ND	0.0010	0.00018	10/01/21 17:04	
Vanadium	mg/L	ND	0.010	0.0019	10/01/21 17:04	
Zinc	mg/L	ND	0.010	0.0070	10/01/21 17:04	

LABORATORY CONTROL SAMPLE: 3411036

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.097	97	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.092	92	80-120	
Beryllium	mg/L	0.1	0.10	100	80-120	
Boron	mg/L	1	1.0	102	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.095	95	80-120	
Lead	mg/L	0.1	0.094	94	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.092	92	80-120	
Vanadium	mg/L	0.1	0.098	98	80-120	
Zinc	mg/L	0.1	0.099	99	80-120	

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### QUALITY CONTROL DATA

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Parameter	Units	92562974009		3411037		3411038		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	112	113	75-125	1	20			
Arsenic	mg/L	0.0020J	0.1	0.1	0.10	0.10	102	103	75-125	1	20			
Barium	mg/L	0.014	0.1	0.1	0.12	0.12	105	106	75-125	0	20			
Beryllium	mg/L	0.0071	0.1	0.1	0.099	0.098	92	91	75-125	1	20			
Boron	mg/L	1.4	1	1	2.3	2.4	84	95	75-125	5	20			
Cadmium	mg/L	0.00048J	0.1	0.1	0.10	0.10	103	101	75-125	2	20			
Chromium	mg/L	0.0040J	0.1	0.1	0.11	0.11	101	101	75-125	0	20			
Cobalt	mg/L	0.17	0.1	0.1	0.28	0.27	106	100	75-125	2	20			
Lead	mg/L	ND	0.1	0.1	0.090	0.090	90	90	75-125	0	20			
Lithium	mg/L	0.019J	0.1	0.1	0.11	0.11	95	90	75-125	4	20			
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	109	112	75-125	3	20			
Selenium	mg/L	0.031	0.1	0.1	0.13	0.13	103	101	75-125	2	20			
Thallium	mg/L	0.00022J	0.1	0.1	0.089	0.090	89	90	75-125	1	20			
Vanadium	mg/L	ND	0.1	0.1	0.10	0.11	103	105	75-125	1	20			
Zinc	mg/L	0.19	0.1	0.1	0.30	0.29	106	101	75-125	2	20			

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

QC Batch: 650620 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563313001, 92563313002, 92563313003, 92563313004, 92563313005, 92563313006, 92563313007, 92563313008, 92563313009, 92563313010, 92563313011, 92563313012, 92563313013, 92563313014, 92563313015, 92563313016, 92563313017, 92563313018, 92563313019, 92563313020

METHOD BLANK: 3412289 Matrix: Water  
 Associated Lab Samples: 92563313001, 92563313002, 92563313003, 92563313004, 92563313005, 92563313006, 92563313007, 92563313008, 92563313009, 92563313010, 92563313011, 92563313012, 92563313013, 92563313014, 92563313015, 92563313016, 92563313017, 92563313018, 92563313019, 92563313020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	10/04/21 15:35	
Arsenic	mg/L	ND	0.0050	0.0011	10/04/21 15:35	
Barium	mg/L	ND	0.0050	0.00067	10/04/21 15:35	
Beryllium	mg/L	ND	0.00050	0.000054	10/04/21 15:35	
Boron	mg/L	ND	0.040	0.0086	10/04/21 15:35	
Cadmium	mg/L	ND	0.00050	0.00011	10/04/21 15:35	
Chromium	mg/L	ND	0.0050	0.0011	10/04/21 15:35	
Cobalt	mg/L	ND	0.0050	0.00039	10/04/21 15:35	
Lead	mg/L	ND	0.0010	0.00089	10/04/21 15:35	
Lithium	mg/L	ND	0.030	0.00073	10/04/21 15:35	
Molybdenum	mg/L	ND	0.010	0.00074	10/04/21 15:35	
Selenium	mg/L	ND	0.0050	0.0014	10/04/21 15:35	
Thallium	mg/L	ND	0.0010	0.00018	10/04/21 15:35	
Vanadium	mg/L	ND	0.010	0.0019	10/04/21 15:35	
Zinc	mg/L	ND	0.010	0.0070	10/04/21 15:35	

LABORATORY CONTROL SAMPLE: 3412290

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.099	99	80-120	
Arsenic	mg/L	0.1	0.093	93	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	100	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.095	95	80-120	
Cobalt	mg/L	0.1	0.096	96	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.096	96	80-120	
Selenium	mg/L	0.1	0.094	94	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	
Vanadium	mg/L	0.1	0.098	98	80-120	
Zinc	mg/L	0.1	0.098	98	80-120	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Parameter	Units	3412303		3412304		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92563313002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Antimony	mg/L	ND	0.1	0.1	0.097	0.099	97	99	75-125	1	20		
Arsenic	mg/L	0.0027J	0.1	0.1	0.099	0.097	96	94	75-125	2	20		
Barium	mg/L	0.098	0.1	0.1	0.21	0.21	116	116	75-125	0	20		
Beryllium	mg/L	ND	0.1	0.1	0.087	0.088	87	88	75-125	1	20		
Boron	mg/L	6.4	1	1	6.9	6.9	51	55	75-125	1	20	M1	
Cadmium	mg/L	ND	0.1	0.1	0.093	0.094	93	94	75-125	1	20		
Chromium	mg/L	0.0018J	0.1	0.1	0.096	0.096	94	94	75-125	0	20		
Cobalt	mg/L	ND	0.1	0.1	0.093	0.094	93	94	75-125	1	20		
Lead	mg/L	ND	0.1	0.1	0.094	0.094	94	94	75-125	0	20		
Lithium	mg/L	0.016J	0.1	0.1	0.10	0.10	87	86	75-125	1	20		
Molybdenum	mg/L	0.12	0.1	0.1	0.22	0.22	94	99	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.098	0.096	97	95	75-125	2	20		
Thallium	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	1	20		
Vanadium	mg/L	0.0027J	0.1	0.1	0.099	0.099	96	96	75-125	0	20		
Zinc	mg/L	ND	0.1	0.1	0.099	0.096	98	95	75-125	3	20		

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

QC Batch: 650836 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563313021, 92563313022, 92563313023, 92563313024

METHOD BLANK: 3412999 Matrix: Water  
 Associated Lab Samples: 92563313021, 92563313022, 92563313023, 92563313024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	10/05/21 15:42	
Arsenic	mg/L	ND	0.0050	0.0011	10/05/21 15:42	
Barium	mg/L	ND	0.0050	0.00067	10/05/21 15:42	
Beryllium	mg/L	ND	0.00050	0.000054	10/05/21 15:42	
Boron	mg/L	ND	0.040	0.0086	10/05/21 15:42	
Cadmium	mg/L	ND	0.00050	0.00011	10/05/21 15:42	
Chromium	mg/L	ND	0.0050	0.0011	10/05/21 15:42	
Cobalt	mg/L	ND	0.0050	0.00039	10/05/21 15:42	
Lead	mg/L	ND	0.0010	0.00089	10/05/21 15:42	
Lithium	mg/L	ND	0.030	0.00073	10/05/21 15:42	
Molybdenum	mg/L	ND	0.010	0.00074	10/05/21 15:42	
Selenium	mg/L	ND	0.0050	0.0014	10/05/21 15:42	
Thallium	mg/L	ND	0.0010	0.00018	10/05/21 15:42	
Vanadium	mg/L	ND	0.010	0.0019	10/05/21 15:42	
Zinc	mg/L	ND	0.010	0.0070	10/05/21 15:42	

LABORATORY CONTROL SAMPLE: 3413000

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.099	99	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.093	93	80-120	
Beryllium	mg/L	0.1	0.091	91	80-120	
Boron	mg/L	1	0.90	90	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.096	96	80-120	
Cobalt	mg/L	0.1	0.095	95	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.090	90	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	
Vanadium	mg/L	0.1	0.098	98	80-120	
Zinc	mg/L	0.1	0.10	102	80-120	

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### QUALITY CONTROL DATA

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Parameter	Units	3413001		3413002		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		92563313022 Result	MS Spike Conc.	MSD Spike Conc.								
Antimony	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20	
Barium	mg/L	0.024	0.1	0.1	0.12	0.12	95	93	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.088	0.087	88	87	75-125	2	20	
Boron	mg/L	0.012J	1	1	0.89	0.89	87	88	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.099	103	99	75-125	4	20	
Chromium	mg/L	ND	0.1	0.1	0.097	0.096	97	96	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20	
Lead	mg/L	ND	0.1	0.1	0.098	0.095	98	95	75-125	4	20	
Lithium	mg/L	ND	0.1	0.1	0.090	0.089	90	88	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	103	99	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.095	0.094	95	94	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.097	0.093	97	93	75-125	4	20	
Vanadium	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	1	20	
Zinc	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20	

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### QUALITY CONTROL DATA

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

QC Batch: 651668 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A Analysis Description: 6020 MET Dissolved  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92563313033

METHOD BLANK: 3417465 Matrix: Water  
 Associated Lab Samples: 92563313033

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony, Dissolved	mg/L	ND	0.0030	0.00078	10/08/21 14:49	
Arsenic, Dissolved	mg/L	ND	0.0050	0.0011	10/08/21 14:49	
Barium, Dissolved	mg/L	ND	0.0050	0.00067	10/08/21 14:49	
Beryllium, Dissolved	mg/L	ND	0.00050	0.000054	10/08/21 14:49	
Boron, Dissolved	mg/L	ND	0.040	0.0086	10/08/21 14:49	
Cadmium, Dissolved	mg/L	ND	0.00050	0.00011	10/08/21 14:49	
Chromium, Dissolved	mg/L	ND	0.0050	0.0011	10/08/21 14:49	
Cobalt, Dissolved	mg/L	ND	0.0050	0.00039	10/08/21 14:49	
Lead, Dissolved	mg/L	ND	0.0010	0.00089	10/08/21 14:49	
Lithium, Dissolved	mg/L	ND	0.030	0.00073	10/08/21 14:49	
Molybdenum, Dissolved	mg/L	ND	0.010	0.00074	10/08/21 14:49	
Selenium, Dissolved	mg/L	ND	0.0050	0.0014	10/08/21 14:49	
Thallium, Dissolved	mg/L	ND	0.0010	0.00018	10/08/21 14:49	
Vanadium, Dissolved	mg/L	ND	0.010	0.0019	10/08/21 14:49	
Zinc, Dissolved	mg/L	ND	0.010	0.0070	10/08/21 14:49	

LABORATORY CONTROL SAMPLE: 3417466

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	0.1	0.11	109	80-120	
Arsenic, Dissolved	mg/L	0.1	0.099	99	80-120	
Barium, Dissolved	mg/L	0.1	0.10	103	80-120	
Beryllium, Dissolved	mg/L	0.1	0.10	100	80-120	
Boron, Dissolved	mg/L	1	1.0	100	80-120	
Cadmium, Dissolved	mg/L	0.1	0.10	103	80-120	
Chromium, Dissolved	mg/L	0.1	0.097	97	80-120	
Cobalt, Dissolved	mg/L	0.1	0.096	96	80-120	
Lead, Dissolved	mg/L	0.1	0.099	99	80-120	
Lithium, Dissolved	mg/L	0.1	0.10	101	80-120	
Molybdenum, Dissolved	mg/L	0.1	0.10	101	80-120	
Selenium, Dissolved	mg/L	0.1	0.10	101	80-120	
Thallium, Dissolved	mg/L	0.1	0.098	98	80-120	
Vanadium, Dissolved	mg/L	0.1	0.097	97	80-120	
Zinc, Dissolved	mg/L	0.1	0.11	107	80-120	

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### QUALITY CONTROL DATA

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Parameter	Units	92563578001		MS		MSD		3417467		3417468		Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	
Antimony, Dissolved	mg/L	ND	0.1	0.1	0.11	0.11	106	107	75-125	0	20	
Arsenic, Dissolved	mg/L	ND	0.1	0.1	0.10	0.10	98	98	75-125	0	20	
Barium, Dissolved	mg/L	ND	0.1	0.1	0.10	0.11	98	99	75-125	1	20	
Beryllium, Dissolved	mg/L	ND	0.1	0.1	0.091	0.091	91	91	75-125	0	20	
Boron, Dissolved	mg/L	ND	1	1	0.96	0.93	94	91	75-125	3	20	
Cadmium, Dissolved	mg/L	ND	0.1	0.1	0.10	0.099	102	99	75-125	3	20	
Chromium, Dissolved	mg/L	ND	0.1	0.1	0.091	0.092	91	92	75-125	1	20	
Cobalt, Dissolved	mg/L	ND	0.1	0.1	0.090	0.090	90	90	75-125	0	20	
Lead, Dissolved	mg/L	ND	0.1	0.1	0.095	0.090	94	90	75-125	5	20	
Lithium, Dissolved	mg/L	ND	0.1	0.1	0.094	0.092	94	92	75-125	3	20	
Molybdenum, Dissolved	mg/L	ND	0.1	0.1	0.099	0.096	98	96	75-125	3	20	
Selenium, Dissolved	mg/L	ND	0.1	0.1	0.097	0.097	96	96	75-125	0	20	
Thallium, Dissolved	mg/L	ND	0.1	0.1	0.094	0.089	94	89	75-125	5	20	
Vanadium, Dissolved	mg/L	ND	0.1	0.1	0.094	0.092	94	92	75-125	2	20	
Zinc, Dissolved	mg/L	ND	0.1	0.1	0.10	0.11	98	100	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

QC Batch: 650960 Analysis Method: EPA 7470A  
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563313001, 92563313002, 92563313003, 92563313004, 92563313005, 92563313006, 92563313007, 92563313008, 92563313009, 92563313010, 92563313011, 92563313012, 92563313013, 92563313014, 92563313015, 92563313016, 92563313017, 92563313018, 92563313019, 92563313020

METHOD BLANK: 3413803 Matrix: Water  
 Associated Lab Samples: 92563313001, 92563313002, 92563313003, 92563313004, 92563313005, 92563313006, 92563313007, 92563313008, 92563313009, 92563313010, 92563313011, 92563313012, 92563313013, 92563313014, 92563313015, 92563313016, 92563313017, 92563313018, 92563313019, 92563313020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.00010J	0.00020	0.000078	10/06/21 13:36	

LABORATORY CONTROL SAMPLE: 3413804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3414368 3414369

Parameter	Units	92563313003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	0.00010J	0.0025	0.0025	0.0023	0.0022	87	84	75-125	3	20	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

QC Batch: 650962 Analysis Method: EPA 7470A  
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563313021, 92563313022, 92563313023, 92563313024, 92563313025, 92563313026, 92563313027, 92563313028, 92563313029, 92563313030, 92563313031, 92563313032

METHOD BLANK: 3413822 Matrix: Water  
 Associated Lab Samples: 92563313021, 92563313022, 92563313023, 92563313024, 92563313025, 92563313026, 92563313027, 92563313028, 92563313029, 92563313030, 92563313031, 92563313032

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.00010J	0.00020	0.000078	10/06/21 14:57	

LABORATORY CONTROL SAMPLE: 3413823

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3413824 3413825

Parameter	Units	92563313021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	0.00010J	0.0025	0.0025	0.0025	0.0024	94	94	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

QC Batch: 651340 Analysis Method: EPA 7470A  
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury Dissolved  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563313033

METHOD BLANK: 3415817 Matrix: Water  
 Associated Lab Samples: 92563313033

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	ND	0.00020	0.000078	10/07/21 14:02	

LABORATORY CONTROL SAMPLE: 3415818

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	0.0025	0.0026	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3415819 3415820

Parameter	Units	3415819		3415820		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury, Dissolved	mg/L	ND	0.0025	0.0022	0.0024	87	94	75-125	7	20	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

QC Batch: 649295 Analysis Method: SM 2540C-2011  
 QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563313001, 92563313002, 92563313003, 92563313004, 92563313005, 92563313006, 92563313007, 92563313008, 92563313009, 92563313010, 92563313011, 92563313012, 92563313025

METHOD BLANK: 3405734 Matrix: Water  
 Associated Lab Samples: 92563313001, 92563313002, 92563313003, 92563313004, 92563313005, 92563313006, 92563313007, 92563313008, 92563313009, 92563313010, 92563313011, 92563313012, 92563313025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/27/21 10:19	

LABORATORY CONTROL SAMPLE: 3405735

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	394	98	90-111	

SAMPLE DUPLICATE: 3405736

Parameter	Units	92562283002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	174	168	4	10	

SAMPLE DUPLICATE: 3405737

Parameter	Units	92563313004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	985	1080	9	10	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

QC Batch: 649491 Analysis Method: SM 2540C-2011  
 QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563313026

METHOD BLANK: 3406451 Matrix: Water  
 Associated Lab Samples: 92563313026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/28/21 10:55	

LABORATORY CONTROL SAMPLE: 3406452

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	394	98	90-111	

SAMPLE DUPLICATE: 3406453

Parameter	Units	92563313026 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	527	536	2	10	

SAMPLE DUPLICATE: 3406454

Parameter	Units	92562857001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	86.0	80.0	7	10	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

QC Batch: 649722 Analysis Method: SM 2540C-2011  
 QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563313013, 92563313014, 92563313015, 92563313016, 92563313017, 92563313018, 92563313019, 92563313020, 92563313021, 92563313027, 92563313028, 92563313029, 92563313031, 92563313032

METHOD BLANK: 3407437 Matrix: Water  
 Associated Lab Samples: 92563313013, 92563313014, 92563313015, 92563313016, 92563313017, 92563313018, 92563313019, 92563313020, 92563313021, 92563313027, 92563313028, 92563313029, 92563313031, 92563313032

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/29/21 18:44	

LABORATORY CONTROL SAMPLE: 3407438

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	403	101	90-111	

SAMPLE DUPLICATE: 3407439

Parameter	Units	92562974003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	406	412	1	10	

SAMPLE DUPLICATE: 3407440

Parameter	Units	92563313019 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	51.0	47.0	8	10	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

QC Batch: 650109 Analysis Method: SM 2540C-2011  
 QC Batch Method: SM 2540C-2011 Analysis Description: 2540C Total Dissolved Solids  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563313022, 92563313023, 92563313024, 92563313030

METHOD BLANK: 3409662 Matrix: Water  
 Associated Lab Samples: 92563313022, 92563313023, 92563313024, 92563313030

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/30/21 18:57	

LABORATORY CONTROL SAMPLE: 3409663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	396	99	90-111	

SAMPLE DUPLICATE: 3409664

Parameter	Units	92563226001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	277	284	2	10	

SAMPLE DUPLICATE: 3409665

Parameter	Units	92563599002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	78.0	85.0	9	10	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

QC Batch:	649415	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville

Associated Lab Samples: 92563313001, 92563313002, 92563313003, 92563313004, 92563313005, 92563313006, 92563313007, 92563313008, 92563313009, 92563313010, 92563313011, 92563313012, 92563313013, 92563313014, 92563313015, 92563313016, 92563313017

METHOD BLANK: 3406128 Matrix: Water

Associated Lab Samples: 92563313001, 92563313002, 92563313003, 92563313004, 92563313005, 92563313006, 92563313007, 92563313008, 92563313009, 92563313010, 92563313011, 92563313012, 92563313013, 92563313014, 92563313015, 92563313016, 92563313017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/27/21 06:19	
Fluoride	mg/L	ND	0.10	0.050	09/27/21 06:19	
Sulfate	mg/L	ND	1.0	0.50	09/27/21 06:19	

LABORATORY CONTROL SAMPLE: 3406129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.0	100	90-110	
Fluoride	mg/L	2.5	2.5	102	90-110	
Sulfate	mg/L	50	51.5	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406130 3406131

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92562974010 Result	Spike Conc.	Spike Conc.	Result						
Chloride	mg/L	6.1	50	50	59.7	60.7	107	109	90-110	2	10
Fluoride	mg/L	0.071J	2.5	2.5	2.9	2.9	114	115	90-110	1	10 M1
Sulfate	mg/L	258	50	50	303	305	91	94	90-110	0	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406132 3406133

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92563313008 Result	Spike Conc.	Spike Conc.	Result						
Chloride	mg/L	103	50	50	150	150	94	94	90-110	0	10
Fluoride	mg/L	ND	2.5	2.5	3.9	3.7	156	146	90-110	6	10 M1
Sulfate	mg/L	433	50	50	482	481	98	96	90-110	0	10

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

QC Batch:	649417	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville
Associated Lab Samples:	92563313018, 92563313019, 92563313020, 92563313021, 92563313022, 92563313023, 92563313024, 92563313025, 92563313026, 92563313027, 92563313028, 92563313029, 92563313030, 92563313031, 92563313032		

METHOD BLANK:	3406135	Matrix:	Water
Associated Lab Samples:	92563313018, 92563313019, 92563313020, 92563313021, 92563313022, 92563313023, 92563313024, 92563313025, 92563313026, 92563313027, 92563313028, 92563313029, 92563313030, 92563313031, 92563313032		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/26/21 23:56	
Fluoride	mg/L	ND	0.10	0.050	09/26/21 23:56	
Sulfate	mg/L	ND	1.0	0.50	09/26/21 23:56	

LABORATORY CONTROL SAMPLE:	3406136					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	45.2	90	90-110	
Fluoride	mg/L	2.5	2.3	93	90-110	
Sulfate	mg/L	50	48.2	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	3406137											
		MS	MSD									
	92563313018	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L	38.9	50	50	91.2	92.8	105	108	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.8	110	114	90-110	4	10	M1
Sulfate	mg/L	905	50	50	955	950	99	90	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	3406139											
		MS	MSD									
	92563313028	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L	ND	50	50	52.1	53.7	104	107	90-110	3	10	
Fluoride	mg/L	ND	2.5	2.5	2.8	2.9	112	114	90-110	2	10	M1
Sulfate	mg/L	ND	50	50	57.6	59.4	115	119	90-110	3	10	M1

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## QUALIFIERS

Project: GRUMMAN ROAD LANDFILL  
Pace Project No.: 92563313

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92563313

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563313001	GWA-7				
92563313002	GWB-4R				
92563313003	GWB-5R				
92563313004	GWB-6R				
92563313005	MW-26D				
92563313006	MW-27D				
92563313007	GWA-8				
92563313008	GWC-11				
92563313009	GWC-12				
92563313010	GWC-13				
92563313011	GWC-22				
92563313013	GWC-2				
92563313014	GWC-9				
92563313015	GWC-14				
92563313016	GWC-16				
92563313017	GWC-17				
92563313018	GWC-20				
92563313019	GWC-21				
92563313020	MW-23D				
92563313021	MW-24D				
92563313022	MW-25D				
92563313023	GWC-1				
92563313024	GWC-15				
92563313001	GWA-7	EPA 3010A	650645	EPA 6010D	650720
92563313002	GWB-4R	EPA 3010A	650645	EPA 6010D	650720
92563313003	GWB-5R	EPA 3010A	650645	EPA 6010D	650720
92563313004	GWB-6R	EPA 3010A	650645	EPA 6010D	650720
92563313005	MW-26D	EPA 3010A	650645	EPA 6010D	650720
92563313006	MW-27D	EPA 3010A	650645	EPA 6010D	650720
92563313007	GWA-8	EPA 3010A	650645	EPA 6010D	650720
92563313008	GWC-11	EPA 3010A	650645	EPA 6010D	650720
92563313009	GWC-12	EPA 3010A	650645	EPA 6010D	650720
92563313010	GWC-13	EPA 3010A	650645	EPA 6010D	650720
92563313011	GWC-22	EPA 3010A	650645	EPA 6010D	650720
92563313012	FB-1	EPA 3010A	650645	EPA 6010D	650720
92563313013	GWC-2	EPA 3010A	650645	EPA 6010D	650720
92563313014	GWC-9	EPA 3010A	650645	EPA 6010D	650720
92563313015	GWC-14	EPA 3010A	650645	EPA 6010D	650720
92563313016	GWC-16	EPA 3010A	650645	EPA 6010D	650720
92563313017	GWC-17	EPA 3010A	650645	EPA 6010D	650720
92563313018	GWC-20	EPA 3010A	650645	EPA 6010D	650720
92563313019	GWC-21	EPA 3010A	650645	EPA 6010D	650720
92563313020	MW-23D	EPA 3010A	650645	EPA 6010D	650720
92563313021	MW-24D	EPA 3010A	650835	EPA 6010D	650941
92563313022	MW-25D	EPA 3010A	650835	EPA 6010D	650941
92563313023	GWC-1	EPA 3010A	650835	EPA 6010D	650941
92563313024	GWC-15	EPA 3010A	650835	EPA 6010D	650941
92563313025	EB-1	EPA 3010A	650835	EPA 6010D	650941

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563313026	DUP-1	EPA 3010A	650835	EPA 6010D	650941
92563313027	EB-2	EPA 3010A	650835	EPA 6010D	650941
92563313028	FB-2	EPA 3010A	650835	EPA 6010D	650941
92563313029	DUP-2	EPA 3010A	650835	EPA 6010D	650941
92563313030	EB-3	EPA 3010A	650835	EPA 6010D	650941
92563313031	FB-3	EPA 3010A	650835	EPA 6010D	650941
92563313032	DUP-3	EPA 3010A	650835	EPA 6010D	650941
92563313033	GWA-7	EPA 3010A	650878	EPA 6010D	650935
92563313001	GWA-7	EPA 3005A	650620	EPA 6020B	650691
92563313002	GWB-4R	EPA 3005A	650620	EPA 6020B	650691
92563313003	GWB-5R	EPA 3005A	650620	EPA 6020B	650691
92563313004	GWB-6R	EPA 3005A	650620	EPA 6020B	650691
92563313005	MW-26D	EPA 3005A	650620	EPA 6020B	650691
92563313006	MW-27D	EPA 3005A	650620	EPA 6020B	650691
92563313007	GWA-8	EPA 3005A	650620	EPA 6020B	650691
92563313008	GWC-11	EPA 3005A	650620	EPA 6020B	650691
92563313009	GWC-12	EPA 3005A	650620	EPA 6020B	650691
92563313010	GWC-13	EPA 3005A	650620	EPA 6020B	650691
92563313011	GWC-22	EPA 3005A	650620	EPA 6020B	650691
92563313012	FB-1	EPA 3005A	650620	EPA 6020B	650691
92563313013	GWC-2	EPA 3005A	650620	EPA 6020B	650691
92563313014	GWC-9	EPA 3005A	650620	EPA 6020B	650691
92563313015	GWC-14	EPA 3005A	650620	EPA 6020B	650691
92563313016	GWC-16	EPA 3005A	650620	EPA 6020B	650691
92563313017	GWC-17	EPA 3005A	650620	EPA 6020B	650691
92563313018	GWC-20	EPA 3005A	650620	EPA 6020B	650691
92563313019	GWC-21	EPA 3005A	650620	EPA 6020B	650691
92563313020	MW-23D	EPA 3005A	650620	EPA 6020B	650691
92563313021	MW-24D	EPA 3005A	650836	EPA 6020B	650948
92563313022	MW-25D	EPA 3005A	650836	EPA 6020B	650948
92563313023	GWC-1	EPA 3005A	650836	EPA 6020B	650948
92563313024	GWC-15	EPA 3005A	650836	EPA 6020B	650948
92563313025	EB-1	EPA 3005A	650361	EPA 6020B	650438
92563313026	DUP-1	EPA 3005A	650361	EPA 6020B	650438
92563313027	EB-2	EPA 3005A	650361	EPA 6020B	650438
92563313028	FB-2	EPA 3005A	650361	EPA 6020B	650438
92563313029	DUP-2	EPA 3005A	650361	EPA 6020B	650438
92563313030	EB-3	EPA 3005A	650361	EPA 6020B	650438
92563313031	FB-3	EPA 3005A	650361	EPA 6020B	650438
92563313032	DUP-3	EPA 3005A	650361	EPA 6020B	650438
92563313033	GWA-7	EPA 3005A	651668	EPA 6020B	651701
92563313001	GWA-7	EPA 7470A	650960	EPA 7470A	651159
92563313002	GWB-4R	EPA 7470A	650960	EPA 7470A	651159
92563313003	GWB-5R	EPA 7470A	650960	EPA 7470A	651159
92563313004	GWB-6R	EPA 7470A	650960	EPA 7470A	651159
92563313005	MW-26D	EPA 7470A	650960	EPA 7470A	651159

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563313006	MW-27D	EPA 7470A	650960	EPA 7470A	651159
92563313007	GWA-8	EPA 7470A	650960	EPA 7470A	651159
92563313008	GWC-11	EPA 7470A	650960	EPA 7470A	651159
92563313009	GWC-12	EPA 7470A	650960	EPA 7470A	651159
92563313010	GWC-13	EPA 7470A	650960	EPA 7470A	651159
92563313011	GWC-22	EPA 7470A	650960	EPA 7470A	651159
92563313012	FB-1	EPA 7470A	650960	EPA 7470A	651159
92563313013	GWC-2	EPA 7470A	650960	EPA 7470A	651159
92563313014	GWC-9	EPA 7470A	650960	EPA 7470A	651159
92563313015	GWC-14	EPA 7470A	650960	EPA 7470A	651159
92563313016	GWC-16	EPA 7470A	650960	EPA 7470A	651159
92563313017	GWC-17	EPA 7470A	650960	EPA 7470A	651159
92563313018	GWC-20	EPA 7470A	650960	EPA 7470A	651159
92563313019	GWC-21	EPA 7470A	650960	EPA 7470A	651159
92563313020	MW-23D	EPA 7470A	650960	EPA 7470A	651159
92563313021	MW-24D	EPA 7470A	650962	EPA 7470A	651162
92563313022	MW-25D	EPA 7470A	650962	EPA 7470A	651162
92563313023	GWC-1	EPA 7470A	650962	EPA 7470A	651162
92563313024	GWC-15	EPA 7470A	650962	EPA 7470A	651162
92563313025	EB-1	EPA 7470A	650962	EPA 7470A	651162
92563313026	DUP-1	EPA 7470A	650962	EPA 7470A	651162
92563313027	EB-2	EPA 7470A	650962	EPA 7470A	651162
92563313028	FB-2	EPA 7470A	650962	EPA 7470A	651162
92563313029	DUP-2	EPA 7470A	650962	EPA 7470A	651162
92563313030	EB-3	EPA 7470A	650962	EPA 7470A	651162
92563313031	FB-3	EPA 7470A	650962	EPA 7470A	651162
92563313032	DUP-3	EPA 7470A	650962	EPA 7470A	651162
92563313033	GWA-7	EPA 7470A	651340	EPA 7470A	651423
92563313001	GWA-7	SM 2540C-2011	649295		
92563313002	GWB-4R	SM 2540C-2011	649295		
92563313003	GWB-5R	SM 2540C-2011	649295		
92563313004	GWB-6R	SM 2540C-2011	649295		
92563313005	MW-26D	SM 2540C-2011	649295		
92563313006	MW-27D	SM 2540C-2011	649295		
92563313007	GWA-8	SM 2540C-2011	649295		
92563313008	GWC-11	SM 2540C-2011	649295		
92563313009	GWC-12	SM 2540C-2011	649295		
92563313010	GWC-13	SM 2540C-2011	649295		
92563313011	GWC-22	SM 2540C-2011	649295		
92563313012	FB-1	SM 2540C-2011	649295		
92563313013	GWC-2	SM 2540C-2011	649722		
92563313014	GWC-9	SM 2540C-2011	649722		
92563313015	GWC-14	SM 2540C-2011	649722		
92563313016	GWC-16	SM 2540C-2011	649722		
92563313017	GWC-17	SM 2540C-2011	649722		
92563313018	GWC-20	SM 2540C-2011	649722		
92563313019	GWC-21	SM 2540C-2011	649722		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: GRUMMAN ROAD LANDFILL  
 Pace Project No.: 92563313

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563313020	MW-23D	SM 2540C-2011	649722		
92563313021	MW-24D	SM 2540C-2011	649722		
92563313022	MW-25D	SM 2540C-2011	650109		
92563313023	GWC-1	SM 2540C-2011	650109		
92563313024	GWC-15	SM 2540C-2011	650109		
92563313025	EB-1	SM 2540C-2011	649295		
92563313026	DUP-1	SM 2540C-2011	649491		
92563313027	EB-2	SM 2540C-2011	649722		
92563313028	FB-2	SM 2540C-2011	649722		
92563313029	DUP-2	SM 2540C-2011	649722		
92563313030	EB-3	SM 2540C-2011	650109		
92563313031	FB-3	SM 2540C-2011	649722		
92563313032	DUP-3	SM 2540C-2011	649722		
92563313001	GWA-7	EPA 300.0 Rev 2.1 1993	649415		
92563313002	GWB-4R	EPA 300.0 Rev 2.1 1993	649415		
92563313003	GWB-5R	EPA 300.0 Rev 2.1 1993	649415		
92563313004	GWB-6R	EPA 300.0 Rev 2.1 1993	649415		
92563313005	MW-26D	EPA 300.0 Rev 2.1 1993	649415		
92563313006	MW-27D	EPA 300.0 Rev 2.1 1993	649415		
92563313007	GWA-8	EPA 300.0 Rev 2.1 1993	649415		
92563313008	GWC-11	EPA 300.0 Rev 2.1 1993	649415		
92563313009	GWC-12	EPA 300.0 Rev 2.1 1993	649415		
92563313010	GWC-13	EPA 300.0 Rev 2.1 1993	649415		
92563313011	GWC-22	EPA 300.0 Rev 2.1 1993	649415		
92563313012	FB-1	EPA 300.0 Rev 2.1 1993	649415		
92563313013	GWC-2	EPA 300.0 Rev 2.1 1993	649415		
92563313014	GWC-9	EPA 300.0 Rev 2.1 1993	649415		
92563313015	GWC-14	EPA 300.0 Rev 2.1 1993	649415		
92563313016	GWC-16	EPA 300.0 Rev 2.1 1993	649415		
92563313017	GWC-17	EPA 300.0 Rev 2.1 1993	649415		
92563313018	GWC-20	EPA 300.0 Rev 2.1 1993	649417		
92563313019	GWC-21	EPA 300.0 Rev 2.1 1993	649417		
92563313020	MW-23D	EPA 300.0 Rev 2.1 1993	649417		
92563313021	MW-24D	EPA 300.0 Rev 2.1 1993	649417		
92563313022	MW-25D	EPA 300.0 Rev 2.1 1993	649417		
92563313023	GWC-1	EPA 300.0 Rev 2.1 1993	649417		
92563313024	GWC-15	EPA 300.0 Rev 2.1 1993	649417		
92563313025	EB-1	EPA 300.0 Rev 2.1 1993	649417		
92563313026	DUP-1	EPA 300.0 Rev 2.1 1993	649417		
92563313027	EB-2	EPA 300.0 Rev 2.1 1993	649417		
92563313028	FB-2	EPA 300.0 Rev 2.1 1993	649417		
92563313029	DUP-2	EPA 300.0 Rev 2.1 1993	649417		
92563313030	EB-3	EPA 300.0 Rev 2.1 1993	649417		
92563313031	FB-3	EPA 300.0 Rev 2.1 1993	649417		
92563313032	DUP-3	EPA 300.0 Rev 2.1 1993	649417		

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GRUMMAN ROAD LANDFILL  
Pace Project No.: 92563313

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
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### REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:  
 Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt  
 Client Name: GA Power Project #: **WO# : 92563313**  
 Courier:  Fed Ex  UPS  USPS  Other  
 Commercial  Pace  Other: \_\_\_\_\_  
 Barcode:  92563313

Custody Seal Present?  Yes  No Seals Intact?  Yes  No  
 Packing Material:  Bubble Wrap  Bubble Bags  None  Other  
 Thermometer:  IR Gun ID: 230 Type of Ice:  Dry  Wet  None  
 Biological Tissue Frozen?  Yes  No  N/A

Cooler Temp: 3.3 Correction Factor: 10.1  
 Add/Subtract (°C) \_\_\_\_\_  
 Cooler Temp Corrected (°C): 5.4  
 Temp should be above freezing to 6°C  
 Samples out of temp criteria. Samples on ice, cooling process has begun.

USDA Regulated Soil?  N/A, water sample)  
 Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?  
 Yes  No  
 Did samples originate from a foreign source (intentionally or unintentionally) including Hawaii and Puerto Rico?  Yes  No

			Comments/Discrepancy
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Batch Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix	<u>GW</u>		
Headspace in VOA Vials (>5mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY \_\_\_\_\_ Field Data Required?  Yes  No

CLIENT NOTIFICATION/RESOLUTION \_\_\_\_\_ Let ID of split containers: \_\_\_\_\_

Person contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager SCUR Review: \_\_\_\_\_ Date: \_\_\_\_\_  
 Project Manager SRF Review: \_\_\_\_\_ Date: \_\_\_\_\_



Document Name:  
 Sample Condition Upon Receipt (SCUR)  
 Document No.:  
 F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020  
 Page 2 of 2  
 Issuing Authority:  
 Pace Carolina Quality Office

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRG/ROCS (water) DOC, LUIG

\*\*Bottom half of box is to list number of bottles

Project #

**WO# : 92563313**

PR: NMS

Due Date: 10/08/21

CLIENT: GR-OR Power

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #
BP40-125 ml Plastic Unpreserved (N/A) (D-)						
BP40-250 ml Plastic Unpreserved (N/A)						
BP50-500 ml Plastic Unpreserved (N/A)						
BP50-1 liter Plastic Unpreserved (N/A)						
BP45-125 ml Plastic H2SO4 (pH < 2) (C-)						
BP45-250 ml plastic H2SO4 (pH < 2)						
BP45-125 ml Plastic 2N Acetate & NaOH (C-)						
BP45-125 ml Plastic NaOH (pH > 12) (C-)						
BP45-Wide-mouthed Glass Jar Unpreserved						
AG10-1 liter Amber Unpreserved (N/A) (C-)						
AG10-1 liter Amber 102 (pH < 2)						
AG10-250 ml Amber Unpreserved (N/A) (C-)						
AG10-1 liter Amber H2SO4 (pH < 2)						
AG10-250 ml Amber H2SO4 (pH < 2)						
AG10(200ml)-250 ml Amber 102 (N/A)						
DO40-40 ml VOA 102 (N/A)						
V007-40 ml VOA Na2S2O3 (N/A)						
V008-40 ml VOA LUIG (N/A)						
DO40-40 ml VOA H2PO4 (N/A)						
V008 (6 vials per lot)-102 (N/A)						
V008 (6 vials per lot)-102/NaOH lot (N/A)						
SP07-125 ml Sterile Plastic (N/A - 100)						
SP07-250 ml Sterile Plastic (N/A - 100)						
BP40-250 ml Plastic (N/A) (B-3-B-7)						
AG10-100 ml Amber Unpreserved vials (N/A)						
V008-20 ml Substrate vials (N/A)						
DO40-40 ml Amber Unpreserved vials (N/A)						

**pH Adjustment Log for Preserved Samples**

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form w/1 be sent to the North Carolina District Certification Office (Sun, Out of field, incorrect preservative, out of temp, incorrect containers.



Document Name:  
**Sample Condition Upon Receipt (SCUR)**  
 Document No.1  
**F-CAR-03-033-Rev.07**

Document Revised: October 28, 2020  
 Page 2 of 2  
 Issuing Authority:  
 Pace Carolina Quality Office

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRB/8015 (water) DOC, UHG

\*\*Bottom half of box is to list number of bottles

Project #

**WO# : 92563313**

PH: NHD

Due Date: 10/08/21

CLIENT: GA-GA Power

Item #	Description	1	2	3	4	5	6	7	8	9	10	11	12
BP90-125 ml, Plastic, Unpreserved (N/A) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
BP90-250 ml, Plastic, Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP90-500 ml, Plastic, Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP10-1 liter Plastic Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP90-125 ml, Plastic H3504 (pH < 2) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
BP90-250 ml, plastic H403 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
BP90-125 ml, Plastic 2N Acetate & NaOH (1-9)		/	/	/	/	/	/	/	/	/	/	/	/
BP90-125 ml, Plastic NaOH (pH < 12) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
W80U-Wide-mouthed Glass Jar Unpreserved		/	/	/	/	/	/	/	/	/	/	/	/
A62U-1 liter Amber Unpreserved (N/A) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
A62U-1 liter Amber (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
A62U-250 ml, Amber Unpreserved (N/A) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
A62U-1 liter Amber H3504 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
A62U-250 ml, Amber H3504 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
A62U-500 ml, Amber H3504 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
A62U-250 ml, Amber H403 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
D60H-60 ml, VOA H1 (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V62T-60 ml, VOA NaClO2 (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V62U-60 ml, VOA Urp (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
D60P-60 ml, VOA H3PO4 (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V62M (6 vials per bag) 5015 kit (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V62R (8 vials per bag) 5015 kit (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
SP5T-125 ml, Sterile Plastic (N/A - 144)		/	/	/	/	/	/	/	/	/	/	/	/
SP5T-250 ml, Sterile Plastic (N/A - 144)		/	/	/	/	/	/	/	/	/	/	/	/
BP10-1 liter Plastic Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP10-250 ml, Plastic (PH-1) 2108 (D-1 & 1-7)		/	/	/	/	/	/	/	/	/	/	/	/
A600-100 ml, Amber Unpreserved vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V62U-20 ml, Scintillation vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
D60H-60 ml, Amber Unpreserved vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/

**pH Adjustment Log for Preserved Samples**

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of field, incorrect preservative, out of temp, incorrect containers).



Document Name:  
Sample Condition Upon Receipt(SOUR)  
Document No.:  
F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020  
Page 2 of 2  
Issuing Authority:  
Pace Carolinas Quality Office

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRQ/BGLS (water), DOC, U/Ig

\*\*Bottom half of box is to list number of bottles

Project #

**WO# : 92563313**

PM: NRG

Due Date: 10/08/21

CLIENT: GR-GR Power

Item#	Description	1	2	3	4	5	6	7	8	9	10	11	12
BP40-125 ml, Plastic, Unpreserved (N/A) (C-)		/	/	/	/	/	/	/	/	/	/	/	/
BP20-250 ml, Plastic, Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP30-500 ml, Plastic, Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP10-1 liter Plastic, Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP40-125 ml, Plastic, H2SO4 (pH < 2) (C-)		/	/	/	/	/	/	/	/	/	/	/	/
BP20-250 ml, plastic, HNO3 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
BP40-125 ml, Plastic, 2N Acetate & NaOH (pH)		/	/	/	/	/	/	/	/	/	/	/	/
BP40-125 ml, Plastic, NaOH (pH > 12) (C-)		/	/	/	/	/	/	/	/	/	/	/	/
W051U-Wide-mouthed Glass Jar Unpreserved		/	/	/	/	/	/	/	/	/	/	/	/
AG10-1 liter Amber Unpreserved (N/A) (C-)		/	/	/	/	/	/	/	/	/	/	/	/
AG10-1 liter Amber HCl (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AG20-250 ml Amber Unpreserved (N/A) (C-)		/	/	/	/	/	/	/	/	/	/	/	/
AG20-250 ml Amber H2SO4 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AG30-250 ml Amber H2SO4 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AD1000(250) 250 ml Amber HNO3 (N/A)(C-)		/	/	/	/	/	/	/	/	/	/	/	/
D020-40 ml VOA HCl (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V020-40 ml VOA Na2SO3 (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V020-40 ml VOA Up (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
D020-40 ml VOA H3PO4 (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V040 (3 vials per bag) 500 ml (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V040 (3 vials per bag) 500 ml (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
SP20-125 ml, Sterile Plastic (N/A - hot)		/	/	/	/	/	/	/	/	/	/	/	/
SP20-250 ml, Sterile Plastic (N/A - hot)		/	/	/	/	/	/	/	/	/	/	/	/
B.P.P.A.													
BP10-100 ml Plastic (N/A)(B.L.B.L)		/	/	/	/	/	/	/	/	/	/	/	/
AG00-100 ml Amber unpreserved vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
W05U-20 ml, Scintillation vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
D020-40 ml Amber Depressed vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/

**pH Adjustment Log for Preserved Samples**

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHEM Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).



**CHAIN-OF-CUSTODY / Analytical Request Document**  
 The Chain-of-Custody is a record, procedure, or protocol that must be completed accurately.

1 of 4

Page 1 of 4  
 15/15

<b>Section A</b> Request Client Information Requester: <u>QA Project</u> Date: <u>Atlanta, GA</u>	<b>Section B</b> Requested Project Information Project Name: <u>SCS Contacts</u> Client: <u>SCS Contacts</u>	<b>Section C</b> Requester Information Name: <u>                    </u> Title: <u>                    </u> Company: <u>                    </u>	<b>REGULATORY AGENCY</b> <input type="checkbox"/> AIRS <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> LIST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER <u>                    </u> Site Location: <u>                    </u> State: <u>GA</u>
--	---	--	---

Line #	Section D Requested Sample Information Sample ID <u>SWA-7</u> <small>(1-2, 4-6, 7) Sample to be used for analysis</small>	Section E Total Spills, Discharges, Releases, etc. MATERIAL SOURCE MATERIAL TYPE MATERIAL QUANTITY MATERIAL DESCRIPTION MATERIAL ID MATERIAL QUANTITY MATERIAL DESCRIPTION	Section F Date & Time Collected DATE TIME	Section G Sample Type G-1 G-2 G-3 G-4 G-5 G-6 G-7 G-8 G-9 G-10 G-11 G-12 G-13 G-14 G-15 G-16 G-17 G-18 G-19 G-20 G-21 G-22 G-23 G-24 G-25 G-26 G-27 G-28 G-29 G-30 G-31 G-32 G-33 G-34 G-35 G-36 G-37 G-38 G-39 G-40 G-41 G-42 G-43 G-44 G-45 G-46 G-47 G-48 G-49 G-50 G-51 G-52 G-53 G-54 G-55 G-56 G-57 G-58 G-59 G-60 G-61 G-62 G-63 G-64 G-65 G-66 G-67 G-68 G-69 G-70 G-71 G-72 G-73 G-74 G-75 G-76 G-77 G-78 G-79 G-80 G-81 G-82 G-83 G-84 G-85 G-86 G-87 G-88 G-89 G-90 G-91 G-92 G-93 G-94 G-95 G-96 G-97 G-98 G-99 G-100	Section H Sample Temp at Collection TEMP	Section I # of Containers CONTAINER TYPE CONTAINER SIZE CONTAINER MATERIAL CONTAINER DESCRIPTION CONTAINER ID CONTAINER QUANTITY CONTAINER DESCRIPTION	Section J Analysis Test TEST TEST CODE TEST DESCRIPTION TEST QUANTITY TEST DESCRIPTION	Section K Residual Chlorine (ppm)	Section L Phase Project Soil Test Lab
1	SWA-7		9/21/14	9:55	5	Unpreserved			Test per = 6.02
2	SWB-4 R		9/21/14	10:45	5	Unpreserved			Test per = 5.75
3	SWB-5 R		9/21/14	12:35	5	Unpreserved			Test per = 4.45
4	SWB-6 R		9/21/14	11:15	5	Unpreserved			Test per = 5.40
5	SWB-7 R		9/21/14	10:45	5	Unpreserved			Test per = 5.95
6	SWB-8 R		9/21/14	10:45	5	Unpreserved			Test per = 5.97
7	SWA-8-1		9/21/14	9:45	5	Unpreserved			Test per = 4.44
8	SWC-11		9/21/14	12:45	5	Unpreserved			Test per = 4.92
9	SWC-12		9/21/14	10:57	5	Unpreserved			Test per = 4.85
10	SWC-13		9/21/14	8:20	5	Unpreserved			Test per = 4.93
11	SWC-22		9/21/14	10:45	5	Unpreserved			Test per = 4.72
12	SWC-1		9/21/14	9:45	5	Unpreserved			Test per = 4.84

<b>Section M</b> Additional Comments <u>                    </u>	<b>Section N</b> Requested by / Application <u>                    </u>	<b>Section O</b> Date <u>9/21/14</u>	<b>Section P</b> Time <u>0918</u>	<b>Section Q</b> Accounted by / Application <u>                    </u>	<b>Section R</b> Date <u>9/14</u>	<b>Section S</b> Time <u>0918</u>	<b>Section T</b> Sample Comments <u>                    </u>
--	---	--	---	---	---	---	--

<b>Section U</b> Requester Name and Signature <u>                    </u>	<b>Section V</b> Requester Title <u>                    </u>	<b>Section W</b> Date Request Received <u>9/21/14</u>	<b>Section X</b> Requester Signature <u>                    </u>	<b>Section Y</b> Date Request Received <u>9/21/14</u>	<b>Section Z</b> Requester Signature <u>                    </u>
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**CHAIN-OF-CUSTODY / Analytical Request Document**  
 The Chain-Of-Custody is a UICMA DOCUMENT. All required fields must be completed accurately.

Page 2 of 4 AS

<b>Section A</b> Agency: <u>GA Power</u> State: <u>Atlanta, GA</u>	<b>Section B</b> Requested project information Project No: <u>SCS Contacts</u> Cont To: <u>ACC Contacts</u>	<b>Section C</b> Sample information Project Name: <u>SCS Contacts</u> Sample Location: <u>Overseas Road Landfill</u> Sample Number: <u>1000</u>	<b>Section D</b> Regulatory Agency <input type="checkbox"/> ARCS <input type="checkbox"/> DEQ <input type="checkbox"/> DNR <input type="checkbox"/> EPA <input type="checkbox"/> HHS <input type="checkbox"/> MDE <input type="checkbox"/> OSHA <input type="checkbox"/> Other: <u>GA</u>
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Section B Requester Other Information <b>SAMPLE ID</b> <small>or 2, 3, 4, 5, 6, 7, 8 Sample No. MUST BE SPECIFIED</small>	Section C Matrix Code <small>see table below for list</small>	Section D Sample Type (S-DRAIN O-COMP)	Section E COLLECTED				Section F SAMPLE TEMP AT COLLECTION	Section G # OF CONTAINERS	Section H PRESERVATION						Section I ANALYSIS TEST	Section J Requester Analysis Request (Y/N)	Section K Residual Chlorine (Y/N)	Section L Notes Requested Test Unit(s)
			DATE	TIME	DATE	TIME			REFRIGERATED	COOL	WET	DRY	NATURAL	OTHER				
6AUC-2			9/23/21	14:38	-	-	5	✓							✓	Test pH = 4.71		
6AUC-9			9/23/21	13:03	-	-	5	✓							✓	Test pH = 4.20		
6AUC-14			9/23/21	16:10	-	-	5	✓							✓	Test pH = 5.76		
6AUC-16			9/23/21	17:09	-	-	5	✓							✓	Test pH = 5.57		
6AUC-17			9/23/21	12:40	-	-	5	✓							✓	Test pH = 4.63		
6AUC-20			9/23/21	19:05	-	-	5	✓							✓	Test pH = 6.09		
6AUC-21			9/23/21	14:10	-	-	5	✓							✓	Test pH = 6.39		
6AUC-23D			9/23/21	14:00	-	-	5	✓							✓	Test pH = 6.39		
6AUC-24D			9/23/21	12:05	-	-	5	✓							✓	Test pH = 6.75		
6AUC-25D			9/23/21	14:05	-	-	5	✓							✓	Test pH = 4.98		
6AUC-1			9/23/21	9:10	-	-	5	✓							✓	Test pH = 6.80		
6AUC-15			9/23/21	8:45	-	-	5	✓							✓	Test pH = 6.18		

**ADDITIONAL COMMENTS**

NO. PROVIDED BY JURISDICTION: 9/23/21 DATE: 9/21 TIME: 5:18 ACCEPTED BY JURISDICTION: me / [Signature] DATE: 9/24 TIME: 09:18

NO. PROVIDED BY JURISDICTION: 9/23/21 DATE: 9/23 TIME: 13:03 ACCEPTED BY JURISDICTION: me / [Signature] DATE: 9/24 TIME: 09:18

**SAMPLER NAME AND SIGNATURE**

Project Name at SAMPLER: SCS Contacts DATE Requested: 9/22/21

Requester at SAMPLER: [Signature] DATE: 9/22/21



**CHAIN-OF-CUSTODY / Analytical Request Document**  
 This Chain-of-Custody is a LEGAL DOCUMENT. All entries shall be completed in ink.

2 of 4

Page 3 of 84

<b>Section A</b> Requester: <u>QA Project</u> Address: <u>Atlanta, GA</u>	<b>Section B</b> Requested Project Name: <u>QA Project</u> Request No.: <u>ACC-000001</u>	<b>Section C</b> Sample Information Collector: <u>Eastern Co.</u> Company Name: <u>Eastern Co.</u>	<b>REGULATORY AGENCY</b> <input type="checkbox"/> NPDES <input type="checkbox"/> Ground Water <input type="checkbox"/> Drinking Water <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> Other: <u>  </u>
Requester Contact Name: <u>  </u>	Requester Title: <u>  </u>	Requester Address: <u>  </u>	Requester Phone: <u>  </u>
Requester Email: <u>  </u>	Requester Fax: <u>  </u>	Requester City: <u>  </u>	Requester State: <u>  </u>
Requester Zip: <u>  </u>	Requester Country: <u>  </u>	Requester Date: <u>  </u>	Requester Time: <u>  </u>
Requester Signature: <u>  </u>	Requester Title: <u>  </u>	Requester Date: <u>  </u>	Requester Time: <u>  </u>

Sample #	Sample Description	Matrix Code	Sample Type	Collected		Sample Temp at Collection	# of Containers	Preservatives	Analysis Test	Requested Analytes (From)		Residual Chlorine (Y/N)	Free Project No./ Lab ID
				Container	Volume					1	2		
1	COL-1B-1 E-B-1	M-6	Water	12.5	-	-	5	Unpreserved	NO	NO	NO		
2	DUP-1	M-6	Water	-	-	-	5	Unpreserved	NO	NO	NO		
3	E-B-2	M-6	Water	8.5	-	-	5	Unpreserved	NO	NO	NO		
4	F-B-2	M-6	Water	12.0	-	-	5	Unpreserved	NO	NO	NO		
5	DUP-2	M-6	Water	-	-	-	5	Unpreserved	NO	NO	NO		
6	E-B-3	M-6	Water	9.0	-	-	5	Unpreserved	NO	NO	NO		
7	F-B-3	M-6	Water	13.5	-	-	5	Unpreserved	NO	NO	NO		
8	DUP-3	M-6	Water	-	-	-	5	Unpreserved	NO	NO	NO		
9													
10													
11													
12													

**ADDITIONAL COMMENTS:**   

**REMOVALS BY / APPLICATION:**   

**DATE:** 9/21/21 **TIME:** 8:18 **ACCOUNTS BY / APPLICATION:**   

**DATE:** 9/21 **TIME:** 8:18

**ANALYST SIGNATURE AND IDENTIFICATION:**

Project Name:    Analyst:   

Requester:    Date: 9/21/21 Time: 8:18



### CHAIN-OF-CUSTODY / Analytical Request Document

The Original Chain of Custody Document is a LEGAL DOCUMENT. All relevant data must be completed accurately.

*4814*  
*AS*

**Section A** Requester Name: AGC Contacts Requester Address: Atlanta, GA  
 Requester Phone: 404 443 1111 Requester Email: info@agccontacts.com

**Section B** Requested Project Information: Project No: AGC Contacts  
 Requester Name: AGC Contacts  
 Requester Address: Atlanta, GA  
 Requester Phone: 404 443 1111  
 Requester Email: info@agccontacts.com

**Section C** Sample Information: Sample ID: AGC-011  
 Sample Description: Chlorine Residual  
 Date/Time of Collection: 1/21/05  
 Location: Atlanta, GA

**REGULATORY AGENCY**  
 Agency Name: AGC  
 Agency Address: Atlanta, GA  
 Agency Phone: 404 443 1111  
 Agency Email: info@agccontacts.com

ITEM #	Requester Item Number	SAMPLER CODE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservation						Analysis Test #	Requester Analytical Method (TMR)	Residual Chlorine (TRR)	Pico Project Analytical Method
			DATE	TIME			REF	TEMP	REF	TEMP	REF	TEMP				
1		<u>AGC-011</u>				1										<u>Residual Chlorine (TRR)</u>
2																<u>Free Chlorine (TRR)</u>
3																<u>Total Chlorine (TRR)</u>
4																<u>Chlorine Demand (TRR)</u>
5																<u>Chlorine Residual (TRR)</u>
6																<u>Chlorine Residual (TRR)</u>
7																<u>Chlorine Residual (TRR)</u>
8																<u>Chlorine Residual (TRR)</u>
9																<u>Chlorine Residual (TRR)</u>
10																<u>Chlorine Residual (TRR)</u>
11																<u>Chlorine Residual (TRR)</u>
12																<u>Chlorine Residual (TRR)</u>

**ADDITIONAL COMMENTS**

**RELEASED BY / AFFILIATION** AGC **DATE** 1/21/05 **TIME** 11:00 **ACCEPTED BY / AFFILIATION** AGC **DATE** 1/21/05 **TIME** 11:00

**SAMPLER CODES**

**ANALYTICAL METHOD**

**LABORATORY NAME AND ADDRESS**

**PROJECT NAME OR NUMBER**

**INITIALS OF ANALYST**

**DATE / TIME OF ANALYSIS**

**DATE / TIME OF REPORT**

**DATE / TIME OF RECEIPT**

**DATE / TIME OF DELIVERY**



November 11, 2021

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: GRUMMAN ROAD LANDFILL RADS  
Pace Project No.: 92563306

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Owens Fuquea, ACC  
Monte Jones, Atlantic Coast Consulting, Inc.  
Kristen Jurinko  
Matt Malone, Atlantic Coast Consulting  
Betsy McDaniel, Atlantic Coast Consulting  
Ms. Lauren Petty, Southern Company



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: GRUMMAN ROAD LANDFILL RADS  
Pace Project No.: 92563306

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### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Florida: Cert E871149 SEKS WET  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 9526  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: GRUMMAN ROAD LANDFILL RADS  
Pace Project No.: 92563306

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92563306001	GWA-7	Water	09/21/21 09:55	09/24/21 09:18
92563306002	GWB-4R	Water	09/21/21 14:45	09/24/21 09:18
92563306003	GWB-5R	Water	09/21/21 12:35	09/24/21 09:18
92563306004	GWB-6R	Water	09/21/21 11:15	09/24/21 09:18
92563306005	MW-26D	Water	09/21/21 13:45	09/24/21 09:18
92563306006	MW-27D	Water	09/21/21 16:15	09/24/21 09:18
92563306007	GWA-8	Water	09/21/21 09:45	09/24/21 09:18
92563306008	GWC-11	Water	09/21/21 12:40	09/24/21 09:18
92563306009	GWC-12	Water	09/21/21 10:57	09/24/21 09:18
92563306010	GWC-13	Water	09/21/21 16:20	09/24/21 09:18
92563306011	GWC-22	Water	09/21/21 14:00	09/24/21 09:18
92563306012	FB-1	Water	09/21/21 09:45	09/24/21 09:18
92563306013	GWC-2	Water	09/22/21 14:38	09/24/21 09:18
92563306014	GWC-9	Water	09/22/21 13:03	09/24/21 09:18
92563306015	GWC-14	Water	09/22/21 16:10	09/24/21 09:18
92563306016	GWC-16	Water	09/22/21 11:00	09/24/21 09:18
92563306017	GWC-17	Water	09/22/21 12:00	09/24/21 09:18
92563306018	GWC-20	Water	09/22/21 14:05	09/24/21 09:18
92563306019	GWC-21	Water	09/22/21 09:40	09/24/21 09:18
92563306020	MW-23D	Water	09/22/21 16:00	09/24/21 09:18
92563306021	MW-24D	Water	09/22/21 12:25	09/24/21 09:18
92563306022	MW-25D	Water	09/23/21 10:05	09/24/21 09:18
92563306023	GWC-1	Water	09/23/21 09:10	09/24/21 09:18
92563306024	GWC-15	Water	09/23/21 08:55	09/24/21 09:18
92563306025	EB-1	Water	09/21/21 11:25	09/24/21 09:18
92563306026	DUP-1	Water	09/21/21 00:00	09/24/21 09:18
92563306027	EB-2	Water	09/22/21 08:45	09/24/21 09:18
92563306028	FB-2	Water	09/22/21 12:40	09/24/21 09:18
92563306029	DUP-2	Water	09/22/21 00:00	09/24/21 09:18
92563306030	EB-3	Water	09/23/21 09:00	09/24/21 09:18
92563306031	FB-3	Water	09/22/21 13:15	09/24/21 09:18
92563306032	DUP-3	Water	09/22/21 00:00	09/24/21 09:18

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: GRUMMAN ROAD LANDFILL RADS  
 Pace Project No.: 92563306

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92563306001	GWA-7	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563306002	GWB-4R	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563306003	GWB-5R	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563306004	GWB-6R	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563306005	MW-26D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563306006	MW-27D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563306007	GWA-8	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563306008	GWC-11	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563306009	GWC-12	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563306010	GWC-13	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563306011	GWC-22	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563306012	FB-1	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92563306013	GWC-2	EPA 9315	JJY	1	PASI-PA

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92563306014	GWC-9	EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
92563306015	GWC-14	EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
92563306016	GWC-16	EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
92563306017	GWC-17	EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
92563306018	GWC-20	EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
92563306019	GWC-21	EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
92563306020	MW-23D	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
92563306021	MW-24D	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
92563306022	MW-25D	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
92563306023	GWC-1	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
92563306024	GWC-15	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
92563306025	EB-1	EPA 9320	VAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA

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**SAMPLE ANALYTE COUNT**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92563306026	DUP-1	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92563306027	EB-2	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92563306028	FB-2	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92563306029	DUP-2	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92563306030	EB-3	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92563306031	FB-3	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92563306032	DUP-3	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563306001 GWA-7</b>						
EPA 9315	Radium-226	1.29 ± 0.687 (1.14)	pCi/L		10/29/21 06:53	
EPA 9320	Radium-228	C:96% T:NA 8.96 ± 1.89 (1.23)	pCi/L		10/07/21 14:30	
Total Radium Calculation	Total Radium	C:62% T:91% 10.3 ± 2.58 (2.37)	pCi/L		10/29/21 15:19	
<b>92563306002 GWB-4R</b>						
EPA 9315	Radium-226	1.14 ± 0.298 (0.257)	pCi/L		10/29/21 06:54	
EPA 9320	Radium-228	C:94% T:NA 1.31 ± 0.657 (1.19)	pCi/L		10/07/21 14:30	
Total Radium Calculation	Total Radium	C:60% T:92% 2.45 ± 0.955 (1.45)	pCi/L		10/29/21 15:19	
<b>92563306003 GWB-5R</b>						
EPA 9315	Radium-226	1.92 ± 0.408 (0.196)	pCi/L		10/29/21 06:54	
EPA 9320	Radium-228	C:98% T:NA 1.18 ± 0.825 (1.59)	pCi/L		10/07/21 19:45	
Total Radium Calculation	Total Radium	C:64% T:89% 3.10 ± 1.23 (1.79)	pCi/L		10/29/21 15:19	
<b>92563306004 GWB-6R</b>						
EPA 9315	Radium-226	1.81 ± 0.747 (0.944)	pCi/L		10/29/21 06:54	
EPA 9320	Radium-228	C:87% T:NA 3.26 ± 1.15 (1.65)	pCi/L		10/07/21 19:45	
Total Radium Calculation	Total Radium	C:66% T:89% 5.07 ± 1.90 (2.59)	pCi/L		10/29/21 15:19	
<b>92563306005 MW-26D</b>						
EPA 9315	Radium-226	0.452 ± 0.190 (0.190)	pCi/L		10/19/21 09:31	
		C:96% T:NA				

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RADS  
 Pace Project No.: 92563306

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563306005</b>	<b>MW-26D</b>					
EPA 9320	Radium-228	0.363 ± 0.724 (1.59) C:62% T:87%	pCi/L		10/07/21 19:45	
Total Radium Calculation	Total Radium	0.815 ± 0.914 (1.78)	pCi/L		10/20/21 17:24	
<b>92563306006</b>	<b>MW-27D</b>					
EPA 9315	Radium-226	0.423 ± 0.177 (0.246) C:97% T:NA	pCi/L		10/29/21 06:54	
EPA 9320	Radium-228	0.170 ± 0.808 (1.83) C:63% T:89%	pCi/L		10/07/21 19:45	
Total Radium Calculation	Total Radium	0.593 ± 0.985 (2.08)	pCi/L		10/29/21 15:10	
<b>92563306007</b>	<b>GWA-8</b>					
EPA 9315	Radium-226	0.730 ± 0.250 (0.323) C:84% T:NA	pCi/L		10/29/21 06:55	
EPA 9320	Radium-228	-0.133 ± 0.655 (1.57) C:64% T:81%	pCi/L		10/07/21 19:45	
Total Radium Calculation	Total Radium	0.730 ± 0.905 (1.89)	pCi/L		10/29/21 15:10	
<b>92563306008</b>	<b>GWC-11</b>					
EPA 9315	Radium-226	2.79 ± 0.551 (0.339) C:97% T:NA	pCi/L		10/29/21 06:30	
EPA 9320	Radium-228	1.56 ± 0.874 (1.56) C:60% T:85%	pCi/L		10/07/21 19:45	
Total Radium Calculation	Total Radium	4.35 ± 1.43 (1.90)	pCi/L		10/29/21 15:10	
<b>92563306009</b>	<b>GWC-12</b>					
EPA 9315	Radium-226	0.806 ± 0.234 (0.208) C:98% T:NA	pCi/L		10/29/21 06:30	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RADS  
 Pace Project No.: 92563306

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563306009</b>	<b>GWC-12</b>					
EPA 9320	Radium-228	0.429 ± 0.739 (1.61) C:60% T:92%	pCi/L		10/07/21 19:45	
Total Radium Calculation	Total Radium	1.24 ± 0.973 (1.82)	pCi/L		10/29/21 15:10	
<b>92563306010</b>	<b>GWC-13</b>					
EPA 9315	Radium-226	0.740 ± 0.227 (0.186) C:94% T:NA	pCi/L		10/29/21 06:31	
EPA 9320	Radium-228	1.35 ± 0.926 (1.78) C:61% T:83%	pCi/L		10/07/21 19:45	
Total Radium Calculation	Total Radium	2.09 ± 1.15 (1.97)	pCi/L		10/29/21 15:10	
<b>92563306011</b>	<b>GWC-22</b>					
EPA 9315	Radium-226	0.753 ± 0.233 (0.205) C:92% T:NA	pCi/L		10/29/21 06:31	
EPA 9320	Radium-228	0.501 ± 0.782 (1.69) C:63% T:82%	pCi/L		10/07/21 19:46	
Total Radium Calculation	Total Radium	1.25 ± 1.02 (1.90)	pCi/L		10/29/21 15:10	
<b>92563306012</b>	<b>FB-1</b>					
EPA 9315	Radium-226	-0.0135 ± 0.0670 (0.196) C:97% T:NA	pCi/L		10/29/21 06:31	
EPA 9320	Radium-228	0.230 ± 0.808 (1.82) C:60% T:89%	pCi/L		10/07/21 19:46	
Total Radium Calculation	Total Radium	0.230 ± 0.875 (2.02)	pCi/L		10/29/21 15:10	
<b>92563306013</b>	<b>GWC-2</b>					
EPA 9315	Radium-226	0.146 ± 0.110 (0.194) C:96% T:NA	pCi/L		10/29/21 06:35	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RADS  
 Pace Project No.: 92563306

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563306013</b>	<b>GWC-2</b>					
EPA 9320	Radium-228	0.623 ± 0.708 (1.48) C:60% T:91%	pCi/L		10/07/21 19:46	
Total Radium Calculation	Total Radium	0.769 ± 0.818 (1.67)	pCi/L		10/29/21 15:10	
<b>92563306014</b>	<b>GWC-9</b>					
EPA 9315	Radium-226	0.874 ± 0.240 (0.152) C:95% T:NA	pCi/L		10/29/21 06:35	
EPA 9320	Radium-228	1.21 ± 0.948 (1.89) C:58% T:88%	pCi/L		10/07/21 19:45	
Total Radium Calculation	Total Radium	2.08 ± 1.19 (2.04)	pCi/L		10/29/21 15:10	
<b>92563306015</b>	<b>GWC-14</b>					
EPA 9315	Radium-226	0.342 ± 0.167 (0.261) C:100% T:NA	pCi/L		10/29/21 06:36	
EPA 9320	Radium-228	1.60 ± 0.944 (1.76) C:62% T:85%	pCi/L		10/07/21 19:45	
Total Radium Calculation	Total Radium	1.94 ± 1.11 (2.02)	pCi/L		10/29/21 15:10	
<b>92563306016</b>	<b>GWC-16</b>					
EPA 9315	Radium-226	1.34 ± 0.319 (0.189) C:101% T:NA	pCi/L		10/29/21 06:36	
EPA 9320	Radium-228	1.72 ± 0.865 (1.51) C:65% T:89%	pCi/L		10/07/21 19:45	
Total Radium Calculation	Total Radium	3.06 ± 1.18 (1.70)	pCi/L		10/29/21 15:10	
<b>92563306017</b>	<b>GWC-17</b>					
EPA 9315	Radium-226	0.987 ± 0.283 (0.309) C:97% T:NA	pCi/L		10/29/21 06:36	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RADS  
 Pace Project No.: 92563306

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563306017</b>	<b>GWC-17</b>					
EPA 9320	Radium-228	1.37 ± 0.835 (1.56) C:64% T:91%	pCi/L		10/07/21 19:45	
Total Radium Calculation	Total Radium	2.36 ± 1.12 (1.87)	pCi/L		10/29/21 15:10	
<b>92563306018</b>	<b>GWC-20</b>					
EPA 9315	Radium-226	2.30 ± 0.457 (0.172) C:103% T:NA	pCi/L		11/08/21 15:32	
EPA 9320	Radium-228	4.54 ± 1.31 (1.58) C:64% T:92%	pCi/L		10/07/21 19:45	
Total Radium Calculation	Total Radium	6.84 ± 1.77 (1.75)	pCi/L		11/10/21 10:17	
<b>92563306019</b>	<b>GWC-21</b>					
EPA 9315	Radium-226	0.378 ± 0.161 (0.204) C:96% T:NA	pCi/L		10/29/21 06:36	
EPA 9320	Radium-228	0.581 ± 0.409 (0.789) C:67% T:87%	pCi/L		10/13/21 14:05	
Total Radium Calculation	Total Radium	0.959 ± 0.570 (0.993)	pCi/L		10/29/21 15:10	
<b>92563306020</b>	<b>MW-23D</b>					
EPA 9315	Radium-226	0.539 ± 0.190 (0.198) C:92% T:NA	pCi/L		10/29/21 06:36	
EPA 9320	Radium-228	0.858 ± 0.470 (0.842) C:67% T:82%	pCi/L		10/13/21 14:05	
Total Radium Calculation	Total Radium	1.40 ± 0.660 (1.04)	pCi/L		10/29/21 15:10	
<b>92563306021</b>	<b>MW-24D</b>					
EPA 9315	Radium-226	0.305 ± 0.167 (0.283) C:96% T:NA	pCi/L		10/29/21 06:36	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563306021</b>	<b>MW-24D</b>					
EPA 9320	Radium-228	0.677 ± 0.470 (0.908) C:64% T:83%	pCi/L		10/13/21 14:05	
Total Radium Calculation	Total Radium	0.982 ± 0.637 (1.19)	pCi/L		10/29/21 15:10	
<b>92563306022</b>	<b>MW-25D</b>					
EPA 9315	Radium-226	0.257 ± 0.145 (0.225) C:94% T:NA	pCi/L		10/29/21 06:36	
EPA 9320	Radium-228	0.896 ± 0.415 (0.682) C:69% T:87%	pCi/L		10/13/21 14:05	
Total Radium Calculation	Total Radium	1.15 ± 0.560 (0.907)	pCi/L		10/29/21 15:10	
<b>92563306023</b>	<b>GWC-1</b>					
EPA 9315	Radium-226	0.503 ± 0.185 (0.207) C:95% T:NA	pCi/L		10/29/21 06:36	
EPA 9320	Radium-228	0.976 ± 0.458 (0.766) C:69% T:85%	pCi/L		10/13/21 14:05	
Total Radium Calculation	Total Radium	1.48 ± 0.643 (0.973)	pCi/L		10/29/21 15:10	
<b>92563306024</b>	<b>GWC-15</b>					
EPA 9315	Radium-226	0.535 ± 0.198 (0.241) C:94% T:NA	pCi/L		10/29/21 06:36	
EPA 9320	Radium-228	1.10 ± 0.489 (0.815) C:67% T:91%	pCi/L		10/13/21 14:05	
Total Radium Calculation	Total Radium	1.64 ± 0.687 (1.06)	pCi/L		10/29/21 15:10	
<b>92563306025</b>	<b>EB-1</b>					
EPA 9315	Radium-226	0.0443 ± 0.0907 (0.211) C:99% T:NA	pCi/L		10/29/21 06:36	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563306025</b>	<b>EB-1</b>					
EPA 9320	Radium-228	0.518 ± 0.400 (0.785) C:65% T:91%	pCi/L		10/13/21 14:10	
Total Radium Calculation	Total Radium	0.562 ± 0.491 (0.996)	pCi/L		10/29/21 15:10	
<b>92563306026</b>	<b>DUP-1</b>					
EPA 9315	Radium-226	1.36 ± 0.334 (0.203) C:98% T:NA	pCi/L		10/26/21 08:06	
EPA 9320	Radium-228	1.66 ± 0.525 (0.637) C:71% T:88%	pCi/L		10/13/21 14:04	
Total Radium Calculation	Total Radium	3.02 ± 0.859 (0.840)	pCi/L		10/26/21 16:00	
<b>92563306027</b>	<b>EB-2</b>					
EPA 9315	Radium-226	-0.0218 ± 0.0879 (0.246) C:99% T:NA	pCi/L		10/26/21 08:07	
EPA 9320	Radium-228	0.512 ± 0.440 (0.894) C:67% T:93%	pCi/L		10/13/21 14:11	
Total Radium Calculation	Total Radium	0.512 ± 0.528 (1.14)	pCi/L		10/26/21 16:00	
<b>92563306028</b>	<b>FB-2</b>					
EPA 9315	Radium-226	0.0848 ± 0.107 (0.226) C:94% T:NA	pCi/L		10/26/21 08:07	
EPA 9320	Radium-228	0.276 ± 0.402 (0.865) C:69% T:85%	pCi/L		10/13/21 14:11	
Total Radium Calculation	Total Radium	0.361 ± 0.509 (1.09)	pCi/L		10/26/21 16:00	
<b>92563306029</b>	<b>DUP-2</b>					
EPA 9315	Radium-226	0.269 ± 0.145 (0.223) C:97% T:NA	pCi/L		10/26/21 08:08	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RADS  
 Pace Project No.: 92563306

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563306029</b>	<b>DUP-2</b>					
EPA 9320	Radium-228	0.764 ± 0.476 (0.896) C:66% T:84%	pCi/L		10/13/21 14:11	
Total Radium Calculation	Total Radium	1.03 ± 0.621 (1.12)	pCi/L		10/26/21 16:00	
<b>92563306030</b>	<b>EB-3</b>					
EPA 9315	Radium-226	0.0454 ± 0.114 (0.270) C:94% T:NA	pCi/L		10/26/21 08:08	
EPA 9320	Radium-228	1.13 ± 0.553 (0.970) C:68% T:80%	pCi/L		10/13/21 14:11	
Total Radium Calculation	Total Radium	1.18 ± 0.667 (1.24)	pCi/L		10/26/21 16:00	
<b>92563306031</b>	<b>FB-3</b>					
EPA 9315	Radium-226	0.0756 ± 0.104 (0.223) C:94% T:NA	pCi/L		10/26/21 08:08	
EPA 9320	Radium-228	0.189 ± 0.412 (0.911) C:67% T:85%	pCi/L		10/13/21 14:11	
Total Radium Calculation	Total Radium	0.265 ± 0.516 (1.13)	pCi/L		10/26/21 16:00	
<b>92563306032</b>	<b>DUP-3</b>					
EPA 9315	Radium-226	0.284 ± 0.145 (0.210) C:94% T:NA	pCi/L		10/26/21 08:10	
EPA 9320	Radium-228	1.14 ± 0.513 (0.860) C:67% T:87%	pCi/L		10/13/21 14:11	
Total Radium Calculation	Total Radium	1.42 ± 0.658 (1.07)	pCi/L		10/26/21 16:00	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWA-7**      **Lab ID: 92563306001**      Collected: 09/21/21 09:55      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>1.29 ± 0.687 (1.14)</b> <b>C:96% T:NA</b>	pCi/L	10/29/21 06:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>8.96 ± 1.89 (1.23)</b> <b>C:62% T:91%</b>	pCi/L	10/07/21 14:30	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>10.3 ± 2.58 (2.37)</b>	pCi/L	10/29/21 15:19	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: GWB-4R</b> <b>Lab ID: 92563306002</b> Collected: 09/21/21 14:45      Received: 09/24/21 09:18      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>1.14 ± 0.298 (0.257)</b> <b>C:94% T:NA</b>	pCi/L	10/29/21 06:54	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>1.31 ± 0.657 (1.19)</b> <b>C:60% T:92%</b>	pCi/L	10/07/21 14:30	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>2.45 ± 0.955 (1.45)</b>	pCi/L	10/29/21 15:19	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: GWB-5R</b> <b>Lab ID: 92563306003</b> Collected: 09/21/21 12:35      Received: 09/24/21 09:18      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>1.92 ± 0.408 (0.196)</b> <b>C:98% T:NA</b>	pCi/L	10/29/21 06:54	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>1.18 ± 0.825 (1.59)</b> <b>C:64% T:89%</b>	pCi/L	10/07/21 19:45	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>3.10 ± 1.23 (1.79)</b>	pCi/L	10/29/21 15:19	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWB-6R**      **Lab ID: 92563306004**      Collected: 09/21/21 11:15      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>1.81 ± 0.747 (0.944)</b> <b>C:87% T:NA</b>	pCi/L	10/29/21 06:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>3.26 ± 1.15 (1.65)</b> <b>C:66% T:89%</b>	pCi/L	10/07/21 19:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>5.07 ± 1.90 (2.59)</b>	pCi/L	10/29/21 15:19	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.452 ± 0.190 (0.190)</b> <b>C:96% T:NA</b>	pCi/L	10/19/21 09:31	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.363 ± 0.724 (1.59)</b> <b>C:62% T:87%</b>	pCi/L	10/07/21 19:45	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.815 ± 0.914 (1.78)</b>	pCi/L	10/20/21 17:24	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: MW-27D**      **Lab ID: 92563306006**      Collected: 09/21/21 16:15      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.423 ± 0.177 (0.246)</b> <b>C:97% T:NA</b>	pCi/L	10/29/21 06:54	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.170 ± 0.808 (1.83)</b> <b>C:63% T:89%</b>	pCi/L	10/07/21 19:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.593 ± 0.985 (2.08)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWA-8**      **Lab ID: 92563306007**      Collected: 09/21/21 09:45      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.730 ± 0.250 (0.323)</b> <b>C:84% T:NA</b>	pCi/L	10/29/21 06:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>-0.133 ± 0.655 (1.57)</b> <b>C:64% T:81%</b>	pCi/L	10/07/21 19:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.730 ± 0.905 (1.89)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWC-11**      **Lab ID: 92563306008**      Collected: 09/21/21 12:40      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>2.79 ± 0.551 (0.339)</b> <b>C:97% T:NA</b>	pCi/L	10/29/21 06:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.56 ± 0.874 (1.56)</b> <b>C:60% T:85%</b>	pCi/L	10/07/21 19:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>4.35 ± 1.43 (1.90)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWC-12**      **Lab ID: 92563306009**      Collected: 09/21/21 10:57      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.806 ± 0.234 (0.208)</b> <b>C:98% T:NA</b>	pCi/L	10/29/21 06:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.429 ± 0.739 (1.61)</b> <b>C:60% T:92%</b>	pCi/L	10/07/21 19:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.24 ± 0.973 (1.82)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWC-13**      **Lab ID: 92563306010**      Collected: 09/21/21 16:20      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.740 ± 0.227 (0.186)</b> <b>C:94% T:NA</b>	pCi/L	10/29/21 06:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.35 ± 0.926 (1.78)</b> <b>C:61% T:83%</b>	pCi/L	10/07/21 19:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.09 ± 1.15 (1.97)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWC-22**      **Lab ID: 92563306011**      Collected: 09/21/21 14:00      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.753 ± 0.233 (0.205)</b> <b>C:92% T:NA</b>	pCi/L	10/29/21 06:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.501 ± 0.782 (1.69)</b> <b>C:63% T:82%</b>	pCi/L	10/07/21 19:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.25 ± 1.02 (1.90)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: FB-1**      **Lab ID: 92563306012**      Collected: 09/21/21 09:45      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>-0.0135 ± 0.0670 (0.196)</b> <b>C:97% T:NA</b>	pCi/L	10/29/21 06:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.230 ± 0.808 (1.82)</b> <b>C:60% T:89%</b>	pCi/L	10/07/21 19:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.230 ± 0.875 (2.02)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWC-2**      **Lab ID: 92563306013**      Collected: 09/22/21 14:38      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.146 ± 0.110 (0.194)</b> <b>C:96% T:NA</b>	pCi/L	10/29/21 06:35	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.623 ± 0.708 (1.48)</b> <b>C:60% T:91%</b>	pCi/L	10/07/21 19:46	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.769 ± 0.818 (1.67)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWC-9**      **Lab ID: 92563306014**      Collected: 09/22/21 13:03      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.874 ± 0.240 (0.152)</b> <b>C:95% T:NA</b>	pCi/L	10/29/21 06:35	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.21 ± 0.948 (1.89)</b> <b>C:58% T:88%</b>	pCi/L	10/07/21 19:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.08 ± 1.19 (2.04)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWC-14**      **Lab ID: 92563306015**      Collected: 09/22/21 16:10      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.342 ± 0.167 (0.261)</b> <b>C:100% T:NA</b>	pCi/L	10/29/21 06:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.60 ± 0.944 (1.76)</b> <b>C:62% T:85%</b>	pCi/L	10/07/21 19:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.94 ± 1.11 (2.02)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWC-16**      **Lab ID: 92563306016**      Collected: 09/22/21 11:00      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>1.34 ± 0.319 (0.189)</b> <b>C:101% T:NA</b>	pCi/L	10/29/21 06:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.72 ± 0.865 (1.51)</b> <b>C:65% T:89%</b>	pCi/L	10/07/21 19:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>3.06 ± 1.18 (1.70)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWC-17**      **Lab ID: 92563306017**      Collected: 09/22/21 12:00      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.987 ± 0.283 (0.309)</b> <b>C:97% T:NA</b>	pCi/L	10/29/21 06:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.37 ± 0.835 (1.56)</b> <b>C:64% T:91%</b>	pCi/L	10/07/21 19:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.36 ± 1.12 (1.87)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWC-20**      **Lab ID: 92563306018**      Collected: 09/22/21 14:05      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>2.30 ± 0.457 (0.172)</b> <b>C:103% T:NA</b>	pCi/L	11/08/21 15:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>4.54 ± 1.31 (1.58)</b> <b>C:64% T:92%</b>	pCi/L	10/07/21 19:45	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>6.84 ± 1.77 (1.75)</b>	pCi/L	11/10/21 10:17	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: GWC-21</b> <b>Lab ID: 92563306019</b> Collected: 09/22/21 09:40      Received: 09/24/21 09:18      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.378 ± 0.161 (0.204)</b> <b>C:96% T:NA</b>	pCi/L	10/29/21 06:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.581 ± 0.409 (0.789)</b> <b>C:67% T:87%</b>	pCi/L	10/13/21 14:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.959 ± 0.570 (0.993)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: MW-23D**      **Lab ID: 92563306020**      Collected: 09/22/21 16:00      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.539 ± 0.190 (0.198)</b> <b>C:92% T:NA</b>	pCi/L	10/29/21 06:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.858 ± 0.470 (0.842)</b> <b>C:67% T:82%</b>	pCi/L	10/13/21 14:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.40 ± 0.660 (1.04)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-24D</b> <b>Lab ID: 92563306021</b> Collected: 09/22/21 12:25      Received: 09/24/21 09:18      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.305 ± 0.167 (0.283)</b> <b>C:96% T:NA</b>	pCi/L	10/29/21 06:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.677 ± 0.470 (0.908)</b> <b>C:64% T:83%</b>	pCi/L	10/13/21 14:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.982 ± 0.637 (1.19)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-25D</b> <b>Lab ID: 92563306022</b> Collected: 09/23/21 10:05      Received: 09/24/21 09:18      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.257 ± 0.145 (0.225)</b> <b>C:94% T:NA</b>	pCi/L	10/29/21 06:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.896 ± 0.415 (0.682)</b> <b>C:69% T:87%</b>	pCi/L	10/13/21 14:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.15 ± 0.560 (0.907)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWC-1**      **Lab ID: 92563306023**      Collected: 09/23/21 09:10      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.503 ± 0.185 (0.207)</b> <b>C:95% T:NA</b>	pCi/L	10/29/21 06:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.976 ± 0.458 (0.766)</b> <b>C:69% T:85%</b>	pCi/L	10/13/21 14:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.48 ± 0.643 (0.973)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: GWC-15**      **Lab ID: 92563306024**      Collected: 09/23/21 08:55      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.535 ± 0.198 (0.241)</b> <b>C:94% T:NA</b>	pCi/L	10/29/21 06:36	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.10 ± 0.489 (0.815)</b> <b>C:67% T:91%</b>	pCi/L	10/13/21 14:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.64 ± 0.687 (1.06)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: EB-1**      **Lab ID: 92563306025**      Collected: 09/21/21 11:25      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0443 ± 0.0907 (0.211)</b> <b>C:99% T:NA</b>	pCi/L	10/29/21 06:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.518 ± 0.400 (0.785)</b> <b>C:65% T:91%</b>	pCi/L	10/13/21 14:10	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.562 ± 0.491 (0.996)</b>	pCi/L	10/29/21 15:10	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: DUP-1**      **Lab ID: 92563306026**      Collected: 09/21/21 00:00      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>1.36 ± 0.334 (0.203)</b> <b>C:98% T:NA</b>	pCi/L	10/26/21 08:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.66 ± 0.525 (0.637)</b> <b>C:71% T:88%</b>	pCi/L	10/13/21 14:04	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>3.02 ± 0.859 (0.840)</b>	pCi/L	10/26/21 16:00	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: EB-2**      **Lab ID: 92563306027**      Collected: 09/22/21 08:45      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>-0.0218 ± 0.0879 (0.246)</b> <b>C:99% T:NA</b>	pCi/L	10/26/21 08:07	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.512 ± 0.440 (0.894)</b> <b>C:67% T:93%</b>	pCi/L	10/13/21 14:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.512 ± 0.528 (1.14)</b>	pCi/L	10/26/21 16:00	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: FB-2**      **Lab ID: 92563306028**      Collected: 09/22/21 12:40      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0848 ± 0.107 (0.226)</b> <b>C:94% T:NA</b>	pCi/L	10/26/21 08:07	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.276 ± 0.402 (0.865)</b> <b>C:69% T:85%</b>	pCi/L	10/13/21 14:11	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.361 ± 0.509 (1.09)</b>	pCi/L	10/26/21 16:00	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: DUP-2**      **Lab ID: 92563306029**      Collected: 09/22/21 00:00      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.269 ± 0.145 (0.223)</b> <b>C:97% T:NA</b>	pCi/L	10/26/21 08:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.764 ± 0.476 (0.896)</b> <b>C:66% T:84%</b>	pCi/L	10/13/21 14:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.03 ± 0.621 (1.12)</b>	pCi/L	10/26/21 16:00	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: EB-3**      **Lab ID: 92563306030**      Collected: 09/23/21 09:00      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0454 ± 0.114 (0.270)</b> <b>C:94% T:NA</b>	pCi/L	10/26/21 08:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.13 ± 0.553 (0.970)</b> <b>C:68% T:80%</b>	pCi/L	10/13/21 14:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.18 ± 0.667 (1.24)</b>	pCi/L	10/26/21 16:00	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: FB-3**      **Lab ID: 92563306031**      Collected: 09/22/21 13:15      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0756 ± 0.104 (0.223)</b> <b>C:94% T:NA</b>	pCi/L	10/26/21 08:08	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.189 ± 0.412 (0.911)</b> <b>C:67% T:85%</b>	pCi/L	10/13/21 14:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.265 ± 0.516 (1.13)</b>	pCi/L	10/26/21 16:00	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

**Sample: DUP-3**      **Lab ID: 92563306032**      Collected: 09/22/21 00:00      Received: 09/24/21 09:18      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.284 ± 0.145 (0.210)</b> <b>C:94% T:NA</b>	pCi/L	10/26/21 08:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.14 ± 0.513 (0.860)</b> <b>C:67% T:87%</b>	pCi/L	10/13/21 14:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.42 ± 0.658 (1.07)</b>	pCi/L	10/26/21 16:00	7440-14-4	

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

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QC Batch:	466957	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92563306001, 92563306002, 92563306003, 92563306004, 92563306005

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METHOD BLANK: 2255015 Matrix: Water

Associated Lab Samples: 92563306001, 92563306002, 92563306003, 92563306004, 92563306005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0260 ± 0.142 (0.353) C:102% T:NA	pCi/L	10/19/21 08:55	

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS  
 Pace Project No.: 92563306

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QC Batch:	466416	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92563306019, 92563306020, 92563306021, 92563306022, 92563306023, 92563306024, 92563306025, 92563306026, 92563306027, 92563306028, 92563306029, 92563306030, 92563306031, 92563306032

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METHOD BLANK: 2252287 Matrix: Water

Associated Lab Samples: 92563306019, 92563306020, 92563306021, 92563306022, 92563306023, 92563306024, 92563306025, 92563306026, 92563306027, 92563306028, 92563306029, 92563306030, 92563306031, 92563306032

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.590 ± 0.393 (0.739) C:68% T:79%	pCi/L	10/13/21 14:18	

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

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QC Batch:	466960	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92563306026, 92563306027, 92563306028, 92563306029, 92563306030, 92563306031, 92563306032

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METHOD BLANK: 2255021 Matrix: Water

Associated Lab Samples: 92563306026, 92563306027, 92563306028, 92563306029, 92563306030, 92563306031, 92563306032

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.00590 ± 0.0681 (0.193) C:98% T:NA	pCi/L	10/26/21 08:06	

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

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QC Batch:	466958	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92563306006, 92563306007, 92563306008, 92563306009, 92563306010, 92563306011, 92563306012, 92563306013, 92563306014, 92563306015, 92563306016, 92563306017, 92563306018, 92563306019, 92563306020, 92563306021, 92563306022, 92563306023, 92563306024, 92563306025

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METHOD BLANK:	2255017	Matrix:	Water
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Associated Lab Samples: 92563306006, 92563306007, 92563306008, 92563306009, 92563306010, 92563306011, 92563306012, 92563306013, 92563306014, 92563306015, 92563306016, 92563306017, 92563306018, 92563306019, 92563306020, 92563306021, 92563306022, 92563306023, 92563306024, 92563306025

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.00458 ± 0.0824 (0.220) C:98% T:NA	pCi/L	10/29/21 06:54	

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

QC Batch: 466414

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92563306001, 92563306002, 92563306003, 92563306004, 92563306005, 92563306006, 92563306007, 92563306008, 92563306009, 92563306010, 92563306011, 92563306012, 92563306013, 92563306014, 92563306015, 92563306016, 92563306017, 92563306018

METHOD BLANK: 2252282

Matrix: Water

Associated Lab Samples: 92563306001, 92563306002, 92563306003, 92563306004, 92563306005, 92563306006, 92563306007, 92563306008, 92563306009, 92563306010, 92563306011, 92563306012, 92563306013, 92563306014, 92563306015, 92563306016, 92563306017, 92563306018

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.518 ± 0.384 (0.750) C:67% T:88%	pCi/L	10/07/21 11:23	

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## QUALIFIERS

Project: GRUMMAN ROAD LANDFILL RADS

Pace Project No.: 92563306

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: GRUMMAN ROAD LANDFILL RADS  
 Pace Project No.: 92563306

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563306001	GWA-7	EPA 9315	466957		
92563306002	GWB-4R	EPA 9315	466957		
92563306003	GWB-5R	EPA 9315	466957		
92563306004	GWB-6R	EPA 9315	466957		
92563306005	MW-26D	EPA 9315	466957		
92563306006	MW-27D	EPA 9315	466958		
92563306007	GWA-8	EPA 9315	466958		
92563306008	GWC-11	EPA 9315	466958		
92563306009	GWC-12	EPA 9315	466958		
92563306010	GWC-13	EPA 9315	466958		
92563306011	GWC-22	EPA 9315	466958		
92563306012	FB-1	EPA 9315	466958		
92563306013	GWC-2	EPA 9315	466958		
92563306014	GWC-9	EPA 9315	466958		
92563306015	GWC-14	EPA 9315	466958		
92563306016	GWC-16	EPA 9315	466958		
92563306017	GWC-17	EPA 9315	466958		
92563306018	GWC-20	EPA 9315	466958		
92563306019	GWC-21	EPA 9315	466958		
92563306020	MW-23D	EPA 9315	466958		
92563306021	MW-24D	EPA 9315	466958		
92563306022	MW-25D	EPA 9315	466958		
92563306023	GWC-1	EPA 9315	466958		
92563306024	GWC-15	EPA 9315	466958		
92563306025	EB-1	EPA 9315	466958		
92563306026	DUP-1	EPA 9315	466960		
92563306027	EB-2	EPA 9315	466960		
92563306028	FB-2	EPA 9315	466960		
92563306029	DUP-2	EPA 9315	466960		
92563306030	EB-3	EPA 9315	466960		
92563306031	FB-3	EPA 9315	466960		
92563306032	DUP-3	EPA 9315	466960		
92563306001	GWA-7	EPA 9320	466414		
92563306002	GWB-4R	EPA 9320	466414		
92563306003	GWB-5R	EPA 9320	466414		
92563306004	GWB-6R	EPA 9320	466414		
92563306005	MW-26D	EPA 9320	466414		
92563306006	MW-27D	EPA 9320	466414		
92563306007	GWA-8	EPA 9320	466414		
92563306008	GWC-11	EPA 9320	466414		
92563306009	GWC-12	EPA 9320	466414		
92563306010	GWC-13	EPA 9320	466414		
92563306011	GWC-22	EPA 9320	466414		
92563306012	FB-1	EPA 9320	466414		
92563306013	GWC-2	EPA 9320	466414		
92563306014	GWC-9	EPA 9320	466414		
92563306015	GWC-14	EPA 9320	466414		

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GRUMMAN ROAD LANDFILL RADS  
 Pace Project No.: 92563306

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563306016	GWC-16	EPA 9320	466414		
92563306017	GWC-17	EPA 9320	466414		
92563306018	GWC-20	EPA 9320	466414		
92563306019	GWC-21	EPA 9320	466416		
92563306020	MW-23D	EPA 9320	466416		
92563306021	MW-24D	EPA 9320	466416		
92563306022	MW-25D	EPA 9320	466416		
92563306023	GWC-1	EPA 9320	466416		
92563306024	GWC-15	EPA 9320	466416		
92563306025	EB-1	EPA 9320	466416		
92563306026	DUP-1	EPA 9320	466416		
92563306027	EB-2	EPA 9320	466416		
92563306028	FB-2	EPA 9320	466416		
92563306029	DUP-2	EPA 9320	466416		
92563306030	EB-3	EPA 9320	466416		
92563306031	FB-3	EPA 9320	466416		
92563306032	DUP-3	EPA 9320	466416		
92563306001	GWA-7	Total Radium Calculation	470463		
92563306002	GWB-4R	Total Radium Calculation	470463		
92563306003	GWB-5R	Total Radium Calculation	470463		
92563306004	GWB-6R	Total Radium Calculation	470463		
92563306005	MW-26D	Total Radium Calculation	469112		
92563306006	MW-27D	Total Radium Calculation	470456		
92563306007	GWA-8	Total Radium Calculation	470456		
92563306008	GWC-11	Total Radium Calculation	470456		
92563306009	GWC-12	Total Radium Calculation	470456		
92563306010	GWC-13	Total Radium Calculation	470456		
92563306011	GWC-22	Total Radium Calculation	470456		
92563306012	FB-1	Total Radium Calculation	470456		
92563306013	GWC-2	Total Radium Calculation	470456		
92563306014	GWC-9	Total Radium Calculation	470456		
92563306015	GWC-14	Total Radium Calculation	470456		
92563306016	GWC-16	Total Radium Calculation	470456		
92563306017	GWC-17	Total Radium Calculation	470456		
92563306018	GWC-20	Total Radium Calculation	471976		
92563306019	GWC-21	Total Radium Calculation	470456		
92563306020	MW-23D	Total Radium Calculation	470456		
92563306021	MW-24D	Total Radium Calculation	470456		
92563306022	MW-25D	Total Radium Calculation	470456		
92563306023	GWC-1	Total Radium Calculation	470456		
92563306024	GWC-15	Total Radium Calculation	470456		
92563306025	EB-1	Total Radium Calculation	470456		
92563306026	DUP-1	Total Radium Calculation	469889		
92563306027	EB-2	Total Radium Calculation	469889		
92563306028	FB-2	Total Radium Calculation	469889		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GRUMMAN ROAD LANDFILL RADS  
Pace Project No.: 92563306

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563306029	DUP-2	Total Radium Calculation	469889		
92563306030	EB-3	Total Radium Calculation	469889		
92563306031	FB-3	Total Radium Calculation	469889		
92563306032	DUP-3	Total Radium Calculation	469889		

### REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:  
 Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt  
 Client Name: GA power Project #: **WO# : 92563306**  
 Courier:  Fed Ex  UPS  USPS  Other  
 Commercial  Pace  Other: \_\_\_\_\_



Custody Seal Present?  Yes  No Seals Intact?  Yes  No  
 Date/Initials Person Examining Contents: MS 9/24/

Packing Material:  Bubble Wrap  Bubble Bags  None  Other  
 Thermometer:  In Gun ID: 230 Type of Ice:  Dry  Blue  None  
 Biological Tissue Frozen?  Yes  No  N/A

Cooler Temp: 3.3 Correction Factor: ±0.1  
 Add/Subtract (°C) \_\_\_\_\_  
 Cooler Temp Corrected (°C): 3.4  
 Temp should be above freezing to 6°C  
 Samples out of temp control. Samples on ice, cooling process has begun.

USDA Regulated Soil (  N/A, water sample)  
 Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check map)?  
 Yes  No  
 Did samples orig. date from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No

Chain of Custody Present?	Yes	No	N/A	1.	Comments/Discrepancy:
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.	
Sufficient Volume?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.	
Correct Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Containers Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	
Dissolved analysis: Samples Field Filtered?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	
Sample Labels Match COCT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	
-Includes Date/Time/ID/Analysis Matrix: <u>GW</u>					
Headspace in VOA Vials (>5-Serve)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10.	
Trip Blank Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

COMMENTS/SAMPLE DISCREPANCY \_\_\_\_\_ Field Data Required?  Yes  No

Lot ID of split containers: \_\_\_\_\_

CLIENT NOTIFICATION/RESOLUTION \_\_\_\_\_

Person contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager SCUR Review: \_\_\_\_\_ Date: \_\_\_\_\_

Project Manager SRP Review: \_\_\_\_\_ Date: \_\_\_\_\_



Document Name:  
Sample Condition Upon Receipt (SCUR)

Document No.:  
P-CAR-CS-033-Rev.07

Document Revised: October 28, 2020  
Page 2 of 2

Issuing Authority:  
Pace Analytical, PLLC

Project # **WO# : 92563306**

PH: NHG

Due Date: 10/15/21

CLIENT: GA-GA Power

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TDC, Oil and Grease, DRG/MS5 (water) DOC, UAF

\*\*Bottom half of box is to list number of bottles

Item #	Description	1	2	3	4	5	6	7	8	9	10	11	12
BP40-125 ml, Plastic Unpreserved (N/A) (2)		/	/	/	/	/	/	/	/	/	/	/	/
BP40-250 ml, Plastic Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP50-500 ml, Plastic Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP110-1 liter Plastic Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP40-125 ml, Plastic MS204 (pH < 2) (2)		/	/	/	/	/	/	/	/	/	/	/	/
BP40-250 ml, plastic MS204 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
BP40-125 ml, Plastic 2N Acetate & NaOH (2)		/	/	/	/	/	/	/	/	/	/	/	/
BP40-125 ml, Plastic NaOH (pH > 12) (2)		/	/	/	/	/	/	/	/	/	/	/	/
W02U-Wide-mouthed Glass jar Unpreserved		/	/	/	/	/	/	/	/	/	/	/	/
AS10-1 liter Amber Unpreserved (N/A) (2)		/	/	/	/	/	/	/	/	/	/	/	/
AS10-1 liter Amber 100 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AS10-250 ml Amber Unpreserved (N/A) (2)		/	/	/	/	/	/	/	/	/	/	/	/
AS10-1 liter Amber 10004 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AS10-250 ml Amber 10004 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AS10(DS)250-250 ml Amber MS204 (N/A)(2)		/	/	/	/	/	/	/	/	/	/	/	/
DOOR-40 ml, VOA (2) (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V00F-40 ml, VOA NaOH (2) (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V00U-40 ml, VOA UAF (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
DOOR-40 ml, VOA MS204 (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V00B (1 vial per bag)-MS204 (2) (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V00C (1 vial per bag)-MS204 (2) (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BPST-125 ml, Sterile Plastic (N/A - 10)		/	/	/	/	/	/	/	/	/	/	/	/
BPST-250 ml, Sterile Plastic (N/A - 10)		/	/	/	/	/	/	/	/	/	/	/	/
BP14-250 ml, Plastic (MS204) (1-1-1)		/	/	/	/	/	/	/	/	/	/	/	/
AS00U-100 ml, Amber Unpreserved vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V00U-20 ml, Sterilization vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
ES00U-40 ml, Amber Unpreserved vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/

**pH Adjustment Log for Preserved Samples**

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to The North Carolina DEQ/WR Commission Office (LH, Out of hold, incorrect preservative, out of temp, incorrect containers.



Document Name:  
 Sample Condition Upon Receipt (SCUR)  
 Document No.:  
 F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020  
 Page 2 of 2  
 Issuing Authority:  
 Pace Carolina Quality Office

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: YDA, Coliform, TOC, Oil and Grease, BFO/MS5 (water) DOC, L/Hg

\*\*Bottom half of box is to list number of bottles

Project #

WO#: 92563306

PH: NRG

Due Date: 10/15/21

CLIENT: GR-GR Power

Item#	Item Description	1	2	3	4	5	6	7	8	9	10	11	12
BP4U-125 ml, Plastic Unpreserved (N/A) (2)													
BP2U-250 ml, Plastic Unpreserved (N/A)													
BP3U-500 ml, Plastic Unpreserved (N/A)													
BP1U-1 liter Plastic Unpreserved (N/A)													
BP4S-125 ml, Plastic MS204 (pH < 2) (2)													
BP3M-250 ml, plastic MS204 (pH < 2)													
BP4S-125 ml, Plastic 2N Acetate & NaOH (2)													
BP4C-125 ml, Plastic NaOH (pH < 12) (2)													
W20U-Wide-mouthed Glass Jar Unpreserved													
AG10U-1 liter Amber Unpreserved (N/A) (2)													
AG10M-1 liter Amber HD (pH < 2)													
AG10U-250 ml, Amber Unpreserved (N/A) (2)													
AG10U-1 liter Amber MS204 (pH < 2)													
AG10U-250 ml, Amber MS204 (pH < 2)													
AG10M(2M)-250 ml, Amber MS204 (N/A)(2)													
D02M-60 ml, VOA HI (N/A)													
V02U-60 ml, VOA MS204 (N/A)													
V01U-60 ml, VOA Low (N/A)													
D02M-60 ml, VOA MS204 (N/A)													
V04M (6-walk per bag) MS204 (N/A)													
V04M (3-walk per bag) MS204 (N/A)													
SP1U-125 ml, Sterile Plastic (N/A - 16)													
SP2U-250 ml, Sterile Plastic (N/A - 16)													
BP1M-250 ml, Plastic (MS204) (2-1-17)													
AG10M-250 ml, Amber Unpreserved vials (N/A)													
V05U-20 ml, Sterilization vials (N/A)													
D02M-60 ml, Amber unpreserved vials (N/A)													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of field, incorrect preservative, out of temp, incorrect containers).

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRD/BD15 (water) DOC, L/ing

\*\*Bottom half of box is to list number of bottles

Project #

**WO# : 92563306**

PR: NHG

Due Date: 10/15/21

CLIENT: GR-GR Power

Item #	Description	1	2	3	4	5	6	7	8	9	10	11	12
BP40-125 ml, Plastic Unpreserved (N/A) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
BP70-250 ml, Plastic Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP20-500 ml, Plastic Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP50-1 liter Plastic Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP45-125 ml, Plastic HDPE (pH < 2) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
BP75-250 ml, plastic HDPE (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
BP90-125 ml, Plastic 2N Acetate & NaOH (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
BP40-125 ml, Plastic NaOH (pH > 12) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
W070A 1000 ml, moulded Glass jar Unpreserved		/	/	/	/	/	/	/	/	/	/	/	/
AG10-1 liter Amber Unpreserved (N/A) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
AG15A-1 liter Amber HD (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AG20-250 ml, Amber Unpreserved (N/A) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
AG15-1 liter Amber HDPE (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AG20-250 ml, Amber HDPE (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AG20AG20A-250 ml, Amber HDPE (N/A) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
D020-40 ml, VOA HD (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V020-40 ml, VOA HDPE (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V020-40 ml, VOA HD (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
D020-40 ml, VOA HDPE (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V020A (8 vials per bag) 500 ml (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V020B (8 vials per bag) 500 ml (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
SP10-125 ml, Amber Plastic (N/A - 1st)		/	/	/	/	/	/	/	/	/	/	/	/
SP20-250 ml, Amber Plastic (N/A - 1st)		/	/	/	/	/	/	/	/	/	/	/	/
		/	/	/	/	/	/	/	/	/	/	/	/
BP75A-250 ml, Plastic (N/A) (D-1, D-2)		/	/	/	/	/	/	/	/	/	/	/	/
AG100-100 ml, Amber Unpreserved vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V040-20 ml, Scintillation vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
D020-40 ml, Amber Unpreserved vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/

**pH Adjustment Log for Preserved Samples**

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-Custody is a legal document. It remains valid only for completed samples.

Page 1 of 4  
 1 of 4  
 150

<b>Section A</b> Requester Name: <u>SCS Contacts</u> Requester Address: <u>Atlanta, GA</u> Requester Phone: _____		<b>Section B</b> Requester Project Information: Request for: <u>SCS Contacts</u> Client for: <u>ADCC Contacts</u>		<b>Section C</b> Sample Information: Sample ID: _____ Sample Name: <u>Groundwater (Sample)</u> Sample Source: <u>Private Well</u> Sample Date: <u>9/18/18</u>	
REGULATORY AGENCY: <input type="checkbox"/> AROU <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> USE <input type="checkbox"/> NONA <input type="checkbox"/> OTHER		ANALYSIS TESTS: <input checked="" type="checkbox"/> TOC <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> TSS <input checked="" type="checkbox"/> NH <sub>4</sub> -N <input checked="" type="checkbox"/> NO <sub>3</sub> -N <input checked="" type="checkbox"/> NH <sub>3</sub> -N <input checked="" type="checkbox"/> pH <input checked="" type="checkbox"/> ALKALINITY <input checked="" type="checkbox"/> CHLORIDE <input checked="" type="checkbox"/> CHLORINE <input checked="" type="checkbox"/> TURBIDITY <input checked="" type="checkbox"/> TEMPERATURE <input checked="" type="checkbox"/> O <sub>2</sub> <input checked="" type="checkbox"/> CO <sub>2</sub> <input checked="" type="checkbox"/> H <sub>2</sub> S <input checked="" type="checkbox"/> IRON <input checked="" type="checkbox"/> MANGANESE <input checked="" type="checkbox"/> ZINC <input checked="" type="checkbox"/> COPPER <input checked="" type="checkbox"/> SILICA <input checked="" type="checkbox"/> FLUORIDE <input checked="" type="checkbox"/> CADMIUM <input checked="" type="checkbox"/> CHROMIUM <input checked="" type="checkbox"/> LEAD <input checked="" type="checkbox"/> MERCURY <input checked="" type="checkbox"/> NICKEL <input checked="" type="checkbox"/> SELENIUM <input checked="" type="checkbox"/> VANADYL <input checked="" type="checkbox"/> MANGANESE <input checked="" type="checkbox"/> ZINC <input checked="" type="checkbox"/> COPPER <input checked="" type="checkbox"/> SILICA <input checked="" type="checkbox"/> FLUORIDE <input checked="" type="checkbox"/> CADMIUM <input checked="" type="checkbox"/> CHROMIUM <input checked="" type="checkbox"/> LEAD <input checked="" type="checkbox"/> MERCURY <input checked="" type="checkbox"/> NICKEL <input checked="" type="checkbox"/> SELENIUM <input checked="" type="checkbox"/> VANADYL		RESIDUAL CHLORINE (Y/N): <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO ANALYSIS TESTS: <input type="checkbox"/> TOC <input type="checkbox"/> DOC <input type="checkbox"/> TSS <input type="checkbox"/> NH <sub>4</sub> -N <input type="checkbox"/> NO <sub>3</sub> -N <input type="checkbox"/> NH <sub>3</sub> -N <input type="checkbox"/> pH <input type="checkbox"/> ALKALINITY <input type="checkbox"/> CHLORIDE <input type="checkbox"/> CHLORINE <input type="checkbox"/> TURBIDITY <input type="checkbox"/> TEMPERATURE <input type="checkbox"/> O <sub>2</sub> <input type="checkbox"/> CO <sub>2</sub> <input type="checkbox"/> H <sub>2</sub> S <input type="checkbox"/> IRON <input type="checkbox"/> MANGANESE <input type="checkbox"/> ZINC <input type="checkbox"/> COPPER <input type="checkbox"/> SILICA <input type="checkbox"/> FLUORIDE <input type="checkbox"/> CADMIUM <input type="checkbox"/> CHROMIUM <input type="checkbox"/> LEAD <input type="checkbox"/> MERCURY <input type="checkbox"/> NICKEL <input type="checkbox"/> SELENIUM <input type="checkbox"/> VANADYL	

SECTION	ANALYSIS TESTS	RESIDUAL CHLORINE (Y/N)	ANALYSIS TESTS	RESIDUAL CHLORINE (Y/N)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATION	ANALYSIS TESTS	RESIDUAL CHLORINE (Y/N)	ANALYSIS TESTS	RESIDUAL CHLORINE (Y/N)
					DATE	TIME							
1	GWA-7	Y	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5	REF	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5
2	GWA-4B	Y	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5	REF	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5
3	GWA-5A	Y	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5	REF	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5
4	GWA-4R	Y	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5	REF	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5
5	GWA-2AD	Y	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5	REF	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5
6	GWA-27D	Y	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5	REF	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5
7	GWA-8	Y	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5	REF	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5
8	GWA-11	Y	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5	REF	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5
9	GWA-12	Y	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5	REF	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5
10	GWA-13	Y	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5	REF	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5
11	GWA-22	Y	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5	REF	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5
12	GWA-1	Y	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5	REF	TOC, DOC, TSS, NH <sub>4</sub> -N, NO <sub>3</sub> -N, NH <sub>3</sub> -N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL	Y	9/18/18	9:45	5

**ADDITIONAL COMMENTS:** \_\_\_\_\_

**MULTI-PURPOSE BY APPLICATION:** \_\_\_\_\_

**DATE:** 9/18/18 **TIME:** 9:45

**ACCEPTED BY APPLICATION:** \_\_\_\_\_

**DATE:** 9/18/18 **TIME:** 9:45

**SAMPLE CONDITIONS:** \_\_\_\_\_

**LABORATORY NAME AND ADDRESS:** \_\_\_\_\_

**POINT NAME OF SAMPLE:** \_\_\_\_\_

**DATE OF SAMPLE:** 9/18/18

**ANALYSIS TESTS:** TOC, DOC, TSS, NH<sub>4</sub>-N, NO<sub>3</sub>-N, NH<sub>3</sub>-N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O<sub>2</sub>, CO<sub>2</sub>, H<sub>2</sub>S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL

**RESIDUAL CHLORINE (Y/N):** YES

**ANALYSIS TESTS:** TOC, DOC, TSS, NH<sub>4</sub>-N, NO<sub>3</sub>-N, NH<sub>3</sub>-N, pH, ALKALINITY, CHLORIDE, CHLORINE, TURBIDITY, TEMPERATURE, O<sub>2</sub>, CO<sub>2</sub>, H<sub>2</sub>S, IRON, MANGANESE, ZINC, COPPER, SILICA, FLUORIDE, CADMIUM, CHROMIUM, LEAD, MERCURY, NICKEL, SELENIUM, VANADYL

Important: When shipping this form you are shipping 7 days after the date of sampling. Do not ship this form until you receive the results for any samples and you wish to ship.

P-ALL-0-000001-01, 10/14/2007



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All entries here must be completed accurately.

Page 2 of 4  
205-85

<b>Section A</b> Client Name: <u>Alameda, CA</u> Client Address: <u>Alameda, CA</u>		<b>Section B</b> Requested Project Name: <u>Alameda, CA</u> Requested Project Address: <u>Alameda, CA</u>		<b>Section C</b> Sample Information: Client Name: <u>Alameda, CA</u> Project Name: <u>Alameda, CA</u> Project Address: <u>Alameda, CA</u>	
Date: <u>9/21/18</u> Requested Date: <u>9/21/18</u>		Project No: <u>1809</u> Requested Project No: <u>1809</u>		Regulatory Agency: <u>Alameda</u> Project No: <u>1809</u> Requested Project No: <u>1809</u>	
Requested Date (month): <u>9</u> Requested Date (day): <u>21</u>		Requested Date (year): <u>2018</u>		State: <u>CA</u>	

ITEM #	Sample ID Date Collected / Sample Description	Total Sample Count ANALYZED RESERVED REMOVED REMOVED REMOVED REMOVED REMOVED	CODING DATE TIME	COLLECTED		DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATION				ANALYSIS TEST #				Residual Chlorine (Y/N)	Final Project Results (u)
				DATE	TIME					DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME		
1	GWC-2	1	9/21/18	14:38					1	✓	✓	✓	✓	✓	✓	✓	✓	✓	Final Project Results (u) Said pH = 4.71
2	GWC-4	1	9/22/18	13:03					1	✓	✓	✓	✓	✓	✓	✓	✓	✓	Said pH = 4.20
3	GWC-14	1	9/22/18	16:10					1	✓	✓	✓	✓	✓	✓	✓	✓	✓	Said pH = 5.76
4	GWC-16	1	9/22/18	17:59					1	✓	✓	✓	✓	✓	✓	✓	✓	✓	Said pH = 5.57
5	GWC-17	1	9/22/18	12:50					1	✓	✓	✓	✓	✓	✓	✓	✓	✓	Said pH = 4.13
6	GWC-20	1	9/22/18	19:55					1	✓	✓	✓	✓	✓	✓	✓	✓	✓	Said pH = 6.00
7	GWC-21	1	9/22/18	9:10					1	✓	✓	✓	✓	✓	✓	✓	✓	✓	Said pH = 6.39
8	MW-23D	1	9/22/18	11:00					1	✓	✓	✓	✓	✓	✓	✓	✓	✓	Said pH = 6.37
9	MW-24D	1	9/22/18	12:05					1	✓	✓	✓	✓	✓	✓	✓	✓	✓	Said pH = 6.76
10	MW-25D	1	9/22/18	16:55					1	✓	✓	✓	✓	✓	✓	✓	✓	✓	Said pH = 4.92
11	GWC-1	1	9/22/18	11:10					1	✓	✓	✓	✓	✓	✓	✓	✓	✓	Said pH = 6.66
12	GWC-15	1	9/22/18	8:58					1	✓	✓	✓	✓	✓	✓	✓	✓	✓	Said pH = 6.48

APPROVAL, COMMENTS  
 Signature: \_\_\_\_\_  
 Date: 9/21/18

REMOVED BY / APPLICATION  
 Signature: \_\_\_\_\_  
 Date: 9/21/18

ACCOUNTED BY / APPLICATION  
 Signature: \_\_\_\_\_  
 Date: 9/21/18

DATE: 9/21/18 TIME: \_\_\_\_\_

SAMPLE CONDITIONS

SAMPLE NAME AND LOCATION	DATE SIGNED	SIGNATURE OF SAMPLES	DATE SIGNED	DATE SIGNED	DATE SIGNED
First Name of SAMPLES: _____	_____	Signature: _____	_____	_____	_____
Signature of SAMPLES: _____	_____	Signature: _____	_____	_____	_____



2 of 4

Price Analytical AS

**Section A**  
Requester Name: [blank]  
Requester Address: [blank]  
Requester City: [blank]  
Requester State: [blank]  
Requester Zip: [blank]

**Section B**  
Requester Contact Name: [blank]  
Requester Contact Phone: [blank]  
Requester Contact Email: [blank]

**Section C**  
Requester Address: [blank]  
Requester City: [blank]  
Requester State: [blank]  
Requester Zip: [blank]

**Section D**  
Requester Name: [blank]  
Requester Address: [blank]  
Requester City: [blank]  
Requester State: [blank]  
Requester Zip: [blank]

**Section E**  
Requester Name: [blank]  
Requester Address: [blank]  
Requester City: [blank]  
Requester State: [blank]  
Requester Zip: [blank]

**Section F**  
Requester Name: [blank]  
Requester Address: [blank]  
Requester City: [blank]  
Requester State: [blank]  
Requester Zip: [blank]

**Section G**  
Requester Name: [blank]  
Requester Address: [blank]  
Requester City: [blank]  
Requester State: [blank]  
Requester Zip: [blank]

#	Requester Name	Requester Address	Requester City	Requester State	Requester Zip	Requester Name	Requester Address	Requester City	Requester State	Requester Zip	Requester Name	Requester Address	Requester City	Requester State	Requester Zip	Requester Name	Requester Address	Requester City	Requester State	Requester Zip	COLLECTED				ANALYSIS TESTS	REQUESTED ANALYSIS	RESULT	UNIT	REMARKS										
																					DATE	TIME	DATE	TIME						1	2	3	4						
1	Equalizer	EB-1																																					
2	Dup-1	EB-1																																					
3	EB-2																																						
4	EB-2																																						
5	Dup-3	EB-3																																					
6	EB-3																																						
7	EB-3																																						
8	Dup-3	EB-3																																					
9																																							
10																																							
11																																							
12																																							

**ADDITIONAL COMMENTS**

**ANALYSIS TESTS**

TEST NAME	TEST CODE	TEST UNIT	TEST RESULT
Lead			
Copper			
Chromium			
Vanadium			
Manganese			
Nickel			
Selenium			
Zinc			
Iron			
Aluminum			
Silica			
Total Solids			
Total Hardness			
Total Chlorine			
Total Phosphate			
Total Nitrogen			
Total Sulfate			
Total Phosphorus			
Total Calcium			
Total Magnesium			
Total Potassium			
Total Sodium			

**LABORATORY NAME AND SIGNATURE**

Requester Name: [blank]  
Requester Address: [blank]  
Requester City: [blank]  
Requester State: [blank]  
Requester Zip: [blank]

Requester Name: [blank]  
Requester Address: [blank]  
Requester City: [blank]  
Requester State: [blank]  
Requester Zip: [blank]

Requester Name: [blank]  
Requester Address: [blank]  
Requester City: [blank]  
Requester State: [blank]  
Requester Zip: [blank]

Requester Name: [blank]  
Requester Address: [blank]  
Requester City: [blank]  
Requester State: [blank]  
Requester Zip: [blank]

Requester Name: [blank]  
Requester Address: [blank]  
Requester City: [blank]  
Requester State: [blank]  
Requester Zip: [blank]



CHAIN-OF-CUSTODY / Analytical Request Document  
 The Original Copy is a Legal Document. All related files must be completed accurately.

4814  
 Steve AS

**Section A**  
 Requested Client Information  
 Project: QA Project  
 Location: Atlanta, GA

**Section B**  
 Requested Project Information  
 Project No: ACS Controls  
 Site No: ACS Controls

**Section C**  
 Project Information  
 Company Name: [Blank]  
 Project Name: Ground Water  
 Test Date: [Blank]  
 Test Type: Ground Water  
 Test Method: [Blank]  
 Test Results: [Blank]

**REGULATORY AGENCY**  
 MDELS  GROUND WATER  DRINKING WATER  
 VOT  MDA  OTHER: [Blank]

**Site Location**  
 State: GA

Section D Requested Client Number	Section E Requested Project Number	Section F Matrix Code	Section G Sample Type	Section H COLLECTED			Section I Sample Temp at Collection	Section J # of Containers	Section K Preservatives							Section L Analysis Test	Section M Requested Analysis Method (TMS)	Section N Residual Chlorine (TMS)	Section O Pace Project Number		
				Container Type	Container Material	Container Volume			Unpreserved	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	Methanol	Other	1					2	3
1	0806A-7	6	6/2/18	405	-	-	-	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Field	Sample	Field	
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

**Section P**  
 Additional Comments

**Section Q**  
 Requested Client Name

**Section R**  
 Requested Project Name

**Section S**  
 Requested Project Location

**Section T**  
 Requested Project Date

**Section U**  
 Requested Project Volume

**Section V**  
 Requested Project Method

**Section W**  
 Requested Project Results

**Section X**  
 Requested Project Signature

**SAMPLE USE AND STORAGE**

Request Name of Sample: [Blank]  
 Quantity of Sample: [Blank]

Container Material: [Blank]  
 Container Volume: [Blank]

Container Type: [Blank]  
 Container Material: [Blank]

## Quality Control Sample Performance Assessment



Year: 2015  
 Sample Size: 100  
 Date of Report: 12/31/15

Assessment Methodology: Random Sampling

Sample Description	Sample Size	Number of Defects	Defect Rate (%)	Assessment
<p><b>General Population</b></p> <p>100 samples taken from the general population of the system.</p> <p>Number of Defects: 15</p> <p>Defect Rate: 15%</p>	100	15	15%	<p>Acceptable</p> <p>The defect rate is within the acceptable range of 10% to 20%.</p>
<p><b>High-Risk Population</b></p> <p>100 samples taken from the high-risk population of the system.</p> <p>Number of Defects: 25</p> <p>Defect Rate: 25%</p>	100	25	25%	<p>Unacceptable</p> <p>The defect rate is significantly higher than the acceptable range, indicating a need for immediate corrective action.</p>
<p><b>Low-Risk Population</b></p> <p>100 samples taken from the low-risk population of the system.</p> <p>Number of Defects: 5</p> <p>Defect Rate: 5%</p>	100	5	5%	<p>Acceptable</p> <p>The defect rate is well within the acceptable range, indicating a high level of process control.</p>
<p><b>Overall System Performance</b></p> <p>100 samples taken from the overall system.</p> <p>Number of Defects: 45</p> <p>Defect Rate: 45%</p>	100	45	45%	<p>Unacceptable</p> <p>The overall system performance is poor, with a high defect rate. Immediate corrective action is required across all areas.</p>

All data is based on a random sampling of the population. The sample size is 100, which is representative of the total population.

Page 64 of 70

### Quality Control Sample Performance Assessment



2015-2016  
 Quality Control  
 Sample Performance  
 Assessment

Approved: [Signature] / Date: [Date]

Sample Type	Number of Samples	Number of Defects	Defect Rate (%)	Comments
<p><b>General Work Performance</b></p> <p>1. [Sample 1]</p> <p>2. [Sample 2]</p> <p>3. [Sample 3]</p> <p>4. [Sample 4]</p> <p>5. [Sample 5]</p>	10	2	20%	<p>Overall performance was satisfactory. Defects were identified in samples 2 and 4. The quality control process was followed correctly.</p>
<p><b>Customer Service Performance</b></p> <p>1. [Sample 1]</p> <p>2. [Sample 2]</p> <p>3. [Sample 3]</p> <p>4. [Sample 4]</p> <p>5. [Sample 5]</p>	10	1	10%	<p>Customer service was excellent. One defect was identified in sample 3, which was a minor issue. The staff was courteous and helpful.</p>
<p><b>Product Quality Performance</b></p> <p>1. [Sample 1]</p> <p>2. [Sample 2]</p> <p>3. [Sample 3]</p> <p>4. [Sample 4]</p> <p>5. [Sample 5]</p>	10	3	30%	<p>Product quality was generally good. Three defects were identified in samples 1, 2, and 5. The defects were related to [specific issue].</p>
<p><b>Logistics and Distribution Performance</b></p> <p>1. [Sample 1]</p> <p>2. [Sample 2]</p> <p>3. [Sample 3]</p> <p>4. [Sample 4]</p> <p>5. [Sample 5]</p>	10	0	0%	<p>Logistics and distribution were handled perfectly. No defects were identified. The delivery process was efficient and accurate.</p>

[Handwritten signature]

**CHIEF OFFICER**

### Quality Control Sample Performance Assessment

Sample Location: [Blank]

Sample ID: [Blank]

Parameter	Unit	Value	Acceptance Criteria	Remarks
<b>Physical Parameters</b>				
Temperature	°C	20.5	15 - 25	
pH		7.2	6.5 - 8.5	
Dissolved Oxygen	mg/L	8.5	6.0 - 10.0	
Turbidity	NTU	0.5	0.5 - 1.0	
Total Solids	mg/L	150	100 - 200	
<b>Chemical Parameters</b>				
Ammonia Nitrogen	mg/L	0.2	0.1 - 0.5	
Nitrite Nitrogen	mg/L	0.05	0.0 - 0.1	
Nitrate Nitrogen	mg/L	1.5	0.5 - 2.5	
Total Nitrogen	mg/L	1.8	0.5 - 2.5	
Total Phosphorus	mg/L	0.1	0.05 - 0.2	
Orthophosphate	mg/L	0.05	0.02 - 0.1	
Total Organic Carbon	mg/L	10	5 - 15	
Biochemical Oxygen Demand (5-day)	mg/L	15	10 - 20	
Chemical Oxygen Demand	mg/L	120	80 - 160	
Free Chlorine	mg/L	0.5	0.2 - 1.0	
Total Chlorine	mg/L	0.8	0.5 - 1.5	
Chlorophyll a	µg/L	5	0 - 10	
Chlorophyll b	µg/L	2	0 - 5	
Chlorophyll a+b	µg/L	7	0 - 15	
<b>Microbiological Parameters</b>				
Total Coliforms	CFU/100ml	100	10 - 1000	
Fecal Coliforms	CFU/100ml	50	10 - 500	
Enterococci	CFU/100ml	30	10 - 300	
Coliforms (4°C)	CFU/100ml	20	10 - 100	
Coliforms (10°C)	CFU/100ml	15	10 - 100	
Coliforms (20°C)	CFU/100ml	10	10 - 100	
Coliforms (37°C)	CFU/100ml	5	10 - 100	
Coliforms (45°C)	CFU/100ml	2	10 - 100	
Coliforms (55°C)	CFU/100ml	1	10 - 100	
Coliforms (60°C)	CFU/100ml	0	10 - 100	
Coliforms (70°C)	CFU/100ml	0	10 - 100	
Coliforms (80°C)	CFU/100ml	0	10 - 100	
Coliforms (90°C)	CFU/100ml	0	10 - 100	
Coliforms (100°C)	CFU/100ml	0	10 - 100	
Coliforms (110°C)	CFU/100ml	0	10 - 100	
Coliforms (120°C)	CFU/100ml	0	10 - 100	
Coliforms (130°C)	CFU/100ml	0	10 - 100	
Coliforms (140°C)	CFU/100ml	0	10 - 100	
Coliforms (150°C)	CFU/100ml	0	10 - 100	
Coliforms (160°C)	CFU/100ml	0	10 - 100	
Coliforms (170°C)	CFU/100ml	0	10 - 100	
Coliforms (180°C)	CFU/100ml	0	10 - 100	
Coliforms (190°C)	CFU/100ml	0	10 - 100	
Coliforms (200°C)	CFU/100ml	0	10 - 100	



### Quality Control Sample Performance Assessment

10/25/2014

10/25/2014  
 10/25/2014  
 10/25/2014

Analysis Method (Manually Entered Field) Highlighted in Yellow

Sample Name	Sample Type	Sample ID	Sample Date	Sample Time
Sample 1	Water	W1	10/25/2014	10:00
Sample 2	Water	W2	10/25/2014	10:05
Sample 3	Water	W3	10/25/2014	10:10
Sample 4	Water	W4	10/25/2014	10:15
Sample 5	Water	W5	10/25/2014	10:20
Sample 6	Water	W6	10/25/2014	10:25
Sample 7	Water	W7	10/25/2014	10:30
Sample 8	Water	W8	10/25/2014	10:35
Sample 9	Water	W9	10/25/2014	10:40
Sample 10	Water	W10	10/25/2014	10:45

Sample Name	Sample Type	Sample ID	Sample Date	Sample Time
Sample 1	Water	W1	10/25/2014	10:00
Sample 2	Water	W2	10/25/2014	10:05
Sample 3	Water	W3	10/25/2014	10:10
Sample 4	Water	W4	10/25/2014	10:15
Sample 5	Water	W5	10/25/2014	10:20
Sample 6	Water	W6	10/25/2014	10:25
Sample 7	Water	W7	10/25/2014	10:30
Sample 8	Water	W8	10/25/2014	10:35
Sample 9	Water	W9	10/25/2014	10:40
Sample 10	Water	W10	10/25/2014	10:45

Sample Name	Sample Type	Sample ID	Sample Date	Sample Time
Sample 1	Water	W1	10/25/2014	10:00
Sample 2	Water	W2	10/25/2014	10:05
Sample 3	Water	W3	10/25/2014	10:10
Sample 4	Water	W4	10/25/2014	10:15
Sample 5	Water	W5	10/25/2014	10:20
Sample 6	Water	W6	10/25/2014	10:25
Sample 7	Water	W7	10/25/2014	10:30
Sample 8	Water	W8	10/25/2014	10:35
Sample 9	Water	W9	10/25/2014	10:40
Sample 10	Water	W10	10/25/2014	10:45

Sample Name	Sample Type	Sample ID	Sample Date	Sample Time
Sample 1	Water	W1	10/25/2014	10:00
Sample 2	Water	W2	10/25/2014	10:05
Sample 3	Water	W3	10/25/2014	10:10
Sample 4	Water	W4	10/25/2014	10:15
Sample 5	Water	W5	10/25/2014	10:20
Sample 6	Water	W6	10/25/2014	10:25
Sample 7	Water	W7	10/25/2014	10:30
Sample 8	Water	W8	10/25/2014	10:35
Sample 9	Water	W9	10/25/2014	10:40
Sample 10	Water	W10	10/25/2014	10:45

10/25/2014

10/25/2014

### Quality Control Sample Performance Assessment

10/15/2014

10/15/2014

10/15/2014  
10/15/2014  
10/15/2014  
10/15/2014

Sample ID	Sample Description	Sample Date	Sample Time	Sample Location
101	10/15/2014	10/15/2014	10/15/2014	10/15/2014
102	10/15/2014	10/15/2014	10/15/2014	10/15/2014
103	10/15/2014	10/15/2014	10/15/2014	10/15/2014
104	10/15/2014	10/15/2014	10/15/2014	10/15/2014
105	10/15/2014	10/15/2014	10/15/2014	10/15/2014
106	10/15/2014	10/15/2014	10/15/2014	10/15/2014
107	10/15/2014	10/15/2014	10/15/2014	10/15/2014
108	10/15/2014	10/15/2014	10/15/2014	10/15/2014
109	10/15/2014	10/15/2014	10/15/2014	10/15/2014
110	10/15/2014	10/15/2014	10/15/2014	10/15/2014

Sample ID	Sample Description	Sample Date	Sample Time	Sample Location
111	10/15/2014	10/15/2014	10/15/2014	10/15/2014
112	10/15/2014	10/15/2014	10/15/2014	10/15/2014
113	10/15/2014	10/15/2014	10/15/2014	10/15/2014
114	10/15/2014	10/15/2014	10/15/2014	10/15/2014
115	10/15/2014	10/15/2014	10/15/2014	10/15/2014
116	10/15/2014	10/15/2014	10/15/2014	10/15/2014
117	10/15/2014	10/15/2014	10/15/2014	10/15/2014
118	10/15/2014	10/15/2014	10/15/2014	10/15/2014
119	10/15/2014	10/15/2014	10/15/2014	10/15/2014
120	10/15/2014	10/15/2014	10/15/2014	10/15/2014

Sample ID	Sample Description	Sample Date	Sample Time	Sample Location
121	10/15/2014	10/15/2014	10/15/2014	10/15/2014
122	10/15/2014	10/15/2014	10/15/2014	10/15/2014
123	10/15/2014	10/15/2014	10/15/2014	10/15/2014
124	10/15/2014	10/15/2014	10/15/2014	10/15/2014
125	10/15/2014	10/15/2014	10/15/2014	10/15/2014
126	10/15/2014	10/15/2014	10/15/2014	10/15/2014
127	10/15/2014	10/15/2014	10/15/2014	10/15/2014
128	10/15/2014	10/15/2014	10/15/2014	10/15/2014
129	10/15/2014	10/15/2014	10/15/2014	10/15/2014
130	10/15/2014	10/15/2014	10/15/2014	10/15/2014

Sample ID	Sample Description	Sample Date	Sample Time	Sample Location
131	10/15/2014	10/15/2014	10/15/2014	10/15/2014
132	10/15/2014	10/15/2014	10/15/2014	10/15/2014
133	10/15/2014	10/15/2014	10/15/2014	10/15/2014
134	10/15/2014	10/15/2014	10/15/2014	10/15/2014
135	10/15/2014	10/15/2014	10/15/2014	10/15/2014
136	10/15/2014	10/15/2014	10/15/2014	10/15/2014
137	10/15/2014	10/15/2014	10/15/2014	10/15/2014
138	10/15/2014	10/15/2014	10/15/2014	10/15/2014
139	10/15/2014	10/15/2014	10/15/2014	10/15/2014
140	10/15/2014	10/15/2014	10/15/2014	10/15/2014

Sample ID	Sample Description	Sample Date	Sample Time	Sample Location
141	10/15/2014	10/15/2014	10/15/2014	10/15/2014
142	10/15/2014	10/15/2014	10/15/2014	10/15/2014
143	10/15/2014	10/15/2014	10/15/2014	10/15/2014
144	10/15/2014	10/15/2014	10/15/2014	10/15/2014
145	10/15/2014	10/15/2014	10/15/2014	10/15/2014
146	10/15/2014	10/15/2014	10/15/2014	10/15/2014
147	10/15/2014	10/15/2014	10/15/2014	10/15/2014
148	10/15/2014	10/15/2014	10/15/2014	10/15/2014
149	10/15/2014	10/15/2014	10/15/2014	10/15/2014
150	10/15/2014	10/15/2014	10/15/2014	10/15/2014

10/15/2014

10/15/2014

# Quality Control Sample Performance Assessment

Control What Monthly Loads Available (Restricted to Water)

Year: 2010  
 Month: 10  
 Control Point: 1000  
 Day: 05

Control Point	Sample	Value	Unit
Control Point 1000	1000-01	1000	mg/L
	1000-02	1000	mg/L
	1000-03	1000	mg/L
	1000-04	1000	mg/L
	1000-05	1000	mg/L
	1000-06	1000	mg/L
	1000-07	1000	mg/L
	1000-08	1000	mg/L
	1000-09	1000	mg/L
	1000-10	1000	mg/L

Control Point	Sample	Value	Unit
Control Point 1000	1000-01	1000	mg/L
	1000-02	1000	mg/L
	1000-03	1000	mg/L
	1000-04	1000	mg/L
	1000-05	1000	mg/L
	1000-06	1000	mg/L
	1000-07	1000	mg/L
	1000-08	1000	mg/L
	1000-09	1000	mg/L
	1000-10	1000	mg/L

1000-01

1000-02

1000-03

1000-04

1000-05

1000-06

1000-07

1000-08

1000-09

1000-10

1000-01

1000-02

1000-03

1000-04

1000-05

1000-06

1000-07

1000-08

1000-09

1000-10

1000-01

1000-02

1000-03

1000-04

1000-05





October 17, 2021

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: GRUMMAN CLIFTON SEEP-Revised Report  
Pace Project No.: 92563324

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Gulf Coast
- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

This revision was issued on 10/17/21 to include appropriate qualification on the Nitrate result.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Owens Fuquea, ACC  
Monte Jones, Atlantic Coast Consulting, Inc.  
Kristen Jurinko  
Matt Malone, Atlantic Coast Consulting  
Betsy McDaniel, Atlantic Coast Consulting  
Ms. Lauren Petty, Southern Company



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: GRUMMAN CLIFTON SEEP-Revised Report

Pace Project No.: 92563324

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### Pace Analytical Gulf Coast

7979 Innovation Park Drive, Baton Rouge, LA 70820

Arkansas Certification #: 88-0655

DoD ELAP Certification #: L18-597

Florida Certification #: E87854

Illinois Certification #: 004585

Kansas Certification #: E-10354

Louisiana/LELAP Certification #: 01955

North Carolina Certification #: 618

North Dakota Certification #: R-195

Oklahoma Certification #: 2019-101

South Carolina Certification #: 73006001

Texas Certification #: T104704178-19-11

USDA Soil Permit # P330-19-00209

Virginia Certification #: 460215

Washington Certification #: C929

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### Pace Analytical Services Charlotte

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

Louisiana/NELAP Certification # LA170028

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Virginia/VELAP Certification #: 460221

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### Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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### Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: GRUMMAN CLIFTON SEEP-Revised Report  
Pace Project No.: 92563324

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92563324001	CLIFTON SEEP	Water	09/23/21 09:50	09/24/21 09:18

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: GRUMMAN CLIFTON SEEP-Revised Report

Pace Project No.: 92563324

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92563324001	CLIFTON SEEP	RSK-175	AWE	1	GCLA
		EPA 6010D	DRB, KH	6	PASI-GA
		EPA 6020B	CW1	15	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2011	ALW	1	PASI-GA
		EPA 353.2	LH	2	PASI-GA
		SM 2320B-2011	SMK	3	PASI-A
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 350.1 Rev 2.0 1993	KDF1	1	PASI-A
		EPA 351.2 Rev 2.0 1993	MFO	1	PASI-A
		SM 5310B-2011	MDW	1	PASI-A

GCLA = Pace Analytical Gulf Coast

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN CLIFTON SEEP-Revised Report

Pace Project No.: 92563324

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92563324001</b>	<b>CLIFTON SEEP</b>					
	Performed by	CUSTOME			09/29/21 05:02	
		R				
	pH	8.56	Std. Units		09/29/21 05:02	
EPA 6010D	Iron	1.9	mg/L	0.040	10/05/21 17:20	
EPA 6010D	Manganese	0.013J	mg/L	0.040	10/05/21 17:20	
EPA 6010D	Potassium	63.6	mg/L	0.20	10/05/21 17:20	
EPA 6010D	Calcium	34.8	mg/L	1.0	10/05/21 17:20	
EPA 6010D	Magnesium	28.7	mg/L	0.050	10/05/21 17:20	
EPA 6010D	Sodium	386	mg/L	10.0	10/06/21 13:29	
EPA 6020B	Barium	0.31	mg/L	0.025	10/05/21 16:33	
EPA 6020B	Boron	15.8	mg/L	0.40	10/07/21 15:07	
EPA 6020B	Chromium	0.0055J	mg/L	0.025	10/05/21 16:33	D3
EPA 6020B	Lead	0.012	mg/L	0.0050	10/05/21 16:33	
EPA 6020B	Lithium	0.14J	mg/L	0.15	10/05/21 16:33	
EPA 6020B	Zinc	0.063	mg/L	0.050	10/05/21 16:33	
EPA 7470A	Mercury	0.00012J	mg/L	0.00020	10/06/21 15:47	B
SM 2540C-2011	Total Dissolved Solids	1200	mg/L	100	09/30/21 18:58	
EPA 353.2	Nitrogen, NO2 plus NO3	2.9	mg/L	0.20	09/24/21 16:39	M1
EPA 353.2	Nitrogen, Nitrate	2.6	mg/L	0.20	09/24/21 16:39	M1
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	975	mg/L	5.0	10/07/21 13:49	
SM 2320B-2011	Alkalinity,Carbonate (CaCO3)	178	mg/L	5.0	10/07/21 13:49	
SM 2320B-2011	Alkalinity, Total as CaCO3	1150	mg/L	5.0	10/07/21 13:49	
EPA 300.0 Rev 2.1 1993	Chloride	66.0	mg/L	1.0	09/27/21 06:35	
EPA 300.0 Rev 2.1 1993	Fluoride	0.43	mg/L	0.10	09/27/21 06:35	
EPA 300.0 Rev 2.1 1993	Sulfate	4.2	mg/L	1.0	09/27/21 06:35	
EPA 350.1 Rev 2.0 1993	Nitrogen, Ammonia	0.21	mg/L	0.10	10/07/21 09:33	
EPA 351.2 Rev 2.0 1993	Nitrogen, Kjeldahl, Total	3.7	mg/L	0.50	10/06/21 05:05	
SM 5310B-2011	Total Organic Carbon	66.3	mg/L	30.0	09/29/21 18:59	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN CLIFTON SEEP-Revised Report

Pace Project No.: 92563324

**Sample: CLIFTON SEEP**      **Lab ID: 92563324001**      Collected: 09/23/21 09:50      Received: 09/24/21 09:18      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
Pace Analytical Services - Charlotte

Performed by	<b>CUSTOMER</b>				1		09/29/21 05:02		
pH	<b>8.56</b>	Std. Units			1		09/29/21 05:02		

**Biodegradation Indicator Gases**

Analytical Method: RSK-175  
Pace Analytical Gulf Coast

Methane	ND	ug/L	5.0	2.0	1		10/07/21 16:02	74-82-8	
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**6010D ATL ICP**

Analytical Method: EPA 6010D      Preparation Method: EPA 3010A  
Pace Analytical Services - Peachtree Corners, GA

Iron	<b>1.9</b>	mg/L	0.040	0.025	1	10/05/21 11:40	10/05/21 17:20	7439-89-6	
Manganese	<b>0.013J</b>	mg/L	0.040	0.0043	1	10/05/21 11:40	10/05/21 17:20	7439-96-5	
Potassium	<b>63.6</b>	mg/L	0.20	0.15	1	10/05/21 11:40	10/05/21 17:20	7440-09-7	
Calcium	<b>34.8</b>	mg/L	1.0	0.12	1	10/05/21 11:40	10/05/21 17:20	7440-70-2	
Magnesium	<b>28.7</b>	mg/L	0.050	0.012	1	10/05/21 11:40	10/05/21 17:20	7439-95-4	
Sodium	<b>386</b>	mg/L	10.0	5.8	10	10/05/21 11:40	10/06/21 13:29	7440-23-5	

**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
Pace Analytical Services - Peachtree Corners, GA

Antimony	ND	mg/L	0.015	0.0039	5	10/05/21 10:20	10/05/21 16:33	7440-36-0	D3
Arsenic	ND	mg/L	0.025	0.0057	5	10/05/21 10:20	10/05/21 16:33	7440-38-2	D3
Barium	<b>0.31</b>	mg/L	0.025	0.0034	5	10/05/21 10:20	10/05/21 16:33	7440-39-3	
Beryllium	ND	mg/L	0.0025	0.00027	5	10/05/21 10:20	10/05/21 16:33	7440-41-7	D3
Boron	<b>15.8</b>	mg/L	0.40	0.086	10	10/05/21 10:20	10/07/21 15:07	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00057	5	10/05/21 10:20	10/05/21 16:33	7440-43-9	D3
Chromium	<b>0.0055J</b>	mg/L	0.025	0.0055	5	10/05/21 10:20	10/05/21 16:33	7440-47-3	D3
Cobalt	ND	mg/L	0.025	0.0020	5	10/05/21 10:20	10/05/21 16:33	7440-48-4	D3
Lead	<b>0.012</b>	mg/L	0.0050	0.0044	5	10/05/21 10:20	10/05/21 16:33	7439-92-1	
Lithium	<b>0.14J</b>	mg/L	0.15	0.0036	5	10/05/21 10:20	10/05/21 16:33	7439-93-2	
Molybdenum	ND	mg/L	0.050	0.0037	5	10/05/21 10:20	10/05/21 16:33	7439-98-7	D3
Selenium	ND	mg/L	0.025	0.0068	5	10/05/21 10:20	10/05/21 16:33	7782-49-2	D3
Thallium	ND	mg/L	0.0050	0.00090	5	10/05/21 10:20	10/05/21 16:33	7440-28-0	D3
Vanadium	ND	mg/L	0.050	0.0093	5	10/05/21 10:20	10/05/21 16:33	7440-62-2	D3
Zinc	<b>0.063</b>	mg/L	0.050	0.035	5	10/05/21 10:20	10/05/21 16:33	7440-66-6	

**7470 Mercury**

Analytical Method: EPA 7470A      Preparation Method: EPA 7470A  
Pace Analytical Services - Peachtree Corners, GA

Mercury	<b>0.00012J</b>	mg/L	0.00020	0.000078	1	10/06/21 12:00	10/06/21 15:47	7439-97-6	B
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**2540C Total Dissolved Solids**

Analytical Method: SM 2540C-2011  
Pace Analytical Services - Peachtree Corners, GA

Total Dissolved Solids	<b>1200</b>	mg/L	100	100	1		09/30/21 18:58		
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### ANALYTICAL RESULTS

Project: GRUMMAN CLIFTON SEEP-Revised Report

Pace Project No.: 92563324

Sample: CLIFTON SEEP      Lab ID: 92563324001      Collected: 09/23/21 09:50      Received: 09/24/21 09:18      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>353.2 Nitrogen, NO2/NO3 unpres</b>									
Analytical Method: EPA 353.2									
Pace Analytical Services - Peachtree Corners, GA									
Nitrogen, NO2 plus NO3	2.9	mg/L	0.20	0.16	5		09/24/21 16:39		M1
Nitrogen, Nitrate	2.6	mg/L	0.20	0.11	5		09/24/21 16:39	14797-55-8	M1
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B-2011									
Pace Analytical Services - Asheville									
Alkalinity, Bicarbonate (CaCO3)	975	mg/L	5.0	5.0	1		10/07/21 13:49		
Alkalinity, Carbonate (CaCO3)	178	mg/L	5.0	5.0	1		10/07/21 13:49		
Alkalinity, Total as CaCO3	1150	mg/L	5.0	5.0	1		10/07/21 13:49		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	66.0	mg/L	1.0	0.60	1		09/27/21 06:35	16887-00-6	
Fluoride	0.43	mg/L	0.10	0.050	1		09/27/21 06:35	16984-48-8	
Sulfate	4.2	mg/L	1.0	0.50	1		09/27/21 06:35	14808-79-8	
<b>350.1 Ammonia</b>									
Analytical Method: EPA 350.1 Rev 2.0 1993									
Pace Analytical Services - Asheville									
Nitrogen, Ammonia	0.21	mg/L	0.10	0.031	1		10/07/21 09:33	7664-41-7	
<b>351.2 Total Kjeldahl Nitrogen</b>									
Analytical Method: EPA 351.2 Rev 2.0 1993      Preparation Method: EPA 351.2 Rev 2.0 1993									
Pace Analytical Services - Asheville									
Nitrogen, Kjeldahl, Total	3.7	mg/L	0.50	0.25	1	10/05/21 20:48	10/06/21 05:05	7727-37-9	
<b>5310B TOC</b>									
Analytical Method: SM 5310B-2011									
Pace Analytical Services - Asheville									
Total Organic Carbon	66.3	mg/L	30.0	15.0	30		09/29/21 18:59	7440-44-0	

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP-Revised Report

Pace Project No.: 92563324

QC Batch: 722697	Analysis Method: RSK-175
QC Batch Method: RSK-175	Analysis Description: Biodegradation Indicator Gases
	Laboratory: Pace Analytical Gulf Coast

Associated Lab Samples: 92563324001

METHOD BLANK: 2248674 Matrix: Water

Associated Lab Samples: 92563324001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methane	ug/L	ND	5.0	2.0	10/07/21 11:15	

LABORATORY CONTROL SAMPLE & LCSD: 2248675 2248676

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Methane	ug/L	380	370	400	95	105	70-130	10	30	

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP-Revised Report

Pace Project No.: 92563324

QC Batch:	650835	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D ATL
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92563324001

METHOD BLANK: 3412995 Matrix: Water

Associated Lab Samples: 92563324001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	10/05/21 15:22	
Iron	mg/L	ND	0.040	0.025	10/05/21 15:22	
Magnesium	mg/L	ND	0.050	0.012	10/05/21 15:22	
Manganese	mg/L	ND	0.040	0.0043	10/05/21 15:22	
Potassium	mg/L	ND	0.20	0.15	10/05/21 15:22	
Sodium	mg/L	ND	1.0	0.58	10/05/21 15:22	

LABORATORY CONTROL SAMPLE: 3412996

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	107	80-120	
Iron	mg/L	1	1.0	102	80-120	
Magnesium	mg/L	1	1.1	106	80-120	
Manganese	mg/L	1	1.0	103	80-120	
Potassium	mg/L	1	1.0	103	80-120	
Sodium	mg/L	1	1.1	111	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3412997 3412998

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92563313021 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	4.7	1	1	5.7	5.6	104	98	75-125	1	20
Iron	mg/L	6.4	1	1	7.5	7.5	104	101	75-125	0	20
Magnesium	mg/L	0.98	1	1	2.1	2.0	108	105	75-125	2	20
Manganese	mg/L	0.11	1	1	1.2	1.1	104	103	75-125	1	20
Potassium	mg/L	1.5	1	1	2.6	2.6	105	105	75-125	0	20
Sodium	mg/L	7.0	1	1	8.1	8.0	108	100	75-125	1	20

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP-Revised Report

Pace Project No.: 92563324

QC Batch: 650836

Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92563324001

METHOD BLANK: 3412999

Matrix: Water

Associated Lab Samples: 92563324001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	10/05/21 15:42	
Arsenic	mg/L	ND	0.0050	0.0011	10/05/21 15:42	
Barium	mg/L	ND	0.0050	0.00067	10/05/21 15:42	
Beryllium	mg/L	ND	0.00050	0.000054	10/05/21 15:42	
Boron	mg/L	ND	0.040	0.0086	10/05/21 15:42	
Cadmium	mg/L	ND	0.00050	0.00011	10/05/21 15:42	
Chromium	mg/L	ND	0.0050	0.0011	10/05/21 15:42	
Cobalt	mg/L	ND	0.0050	0.00039	10/05/21 15:42	
Lead	mg/L	ND	0.0010	0.00089	10/05/21 15:42	
Lithium	mg/L	ND	0.030	0.00073	10/05/21 15:42	
Molybdenum	mg/L	ND	0.010	0.00074	10/05/21 15:42	
Selenium	mg/L	ND	0.0050	0.0014	10/05/21 15:42	
Thallium	mg/L	ND	0.0010	0.00018	10/05/21 15:42	
Vanadium	mg/L	ND	0.010	0.0019	10/05/21 15:42	
Zinc	mg/L	ND	0.010	0.0070	10/05/21 15:42	

LABORATORY CONTROL SAMPLE: 3413000

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.099	99	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.093	93	80-120	
Beryllium	mg/L	0.1	0.091	91	80-120	
Boron	mg/L	1	0.90	90	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.096	96	80-120	
Cobalt	mg/L	0.1	0.095	95	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.090	90	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	
Vanadium	mg/L	0.1	0.098	98	80-120	
Zinc	mg/L	0.1	0.10	102	80-120	

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP-Revised Report

Pace Project No.: 92563324

Parameter	Units	3413001		3413002		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Antimony	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20	
Barium	mg/L	0.024	0.1	0.1	0.12	0.12	95	93	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.088	0.087	88	87	75-125	2	20	
Boron	mg/L	0.012J	1	1	0.89	0.89	87	88	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.099	103	99	75-125	4	20	
Chromium	mg/L	ND	0.1	0.1	0.097	0.096	97	96	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20	
Lead	mg/L	ND	0.1	0.1	0.098	0.095	98	95	75-125	4	20	
Lithium	mg/L	ND	0.1	0.1	0.090	0.089	90	88	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	103	99	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.095	0.094	95	94	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.097	0.093	97	93	75-125	4	20	
Vanadium	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	1	20	
Zinc	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20	

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### QUALITY CONTROL DATA

Project: GRUMMAN CLIFTON SEEP-Revised Report  
 Pace Project No.: 92563324

QC Batch: 650962 Analysis Method: EPA 7470A  
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563324001

METHOD BLANK: 3413822 Matrix: Water  
 Associated Lab Samples: 92563324001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.00010J	0.00020	0.000078	10/06/21 14:57	

LABORATORY CONTROL SAMPLE: 3413823

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3413824 3413825

Parameter	Units	92563313021		3413825		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	0.00010J	0.0025	0.0025	0.0024	94	94	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP-Revised Report

Pace Project No.: 92563324

QC Batch:	650109	Analysis Method:	SM 2540C-2011
QC Batch Method:	SM 2540C-2011	Analysis Description:	2540C Total Dissolved Solids
Associated Lab Samples:	92563324001	Laboratory:	Pace Analytical Services - Peachtree Corners, GA

METHOD BLANK: 3409662 Matrix: Water  
 Associated Lab Samples: 92563324001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/30/21 18:57	

LABORATORY CONTROL SAMPLE: 3409663

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	396	99	90-111	

SAMPLE DUPLICATE: 3409664

Parameter	Units	92563226001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	277	284	2	10	

SAMPLE DUPLICATE: 3409665

Parameter	Units	92563599002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	78.0	85.0	9	10	

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP-Revised Report  
 Pace Project No.: 92563324

QC Batch: 649328 Analysis Method: EPA 353.2  
 QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres. G  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92563324001

METHOD BLANK: 3405932 Matrix: Water  
 Associated Lab Samples: 92563324001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.040	0.021	09/24/21 16:37	
Nitrogen, NO2 plus NO3	mg/L	ND	0.040	0.033	09/24/21 16:37	

LABORATORY CONTROL SAMPLE: 3405933

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1.5	1.6	109	90-110	
Nitrogen, NO2 plus NO3	mg/L	2.5	2.6	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405934 3405935

Parameter	Units	3405934		3405935		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Nitrogen, Nitrate	mg/L	2.6	1.5	1.5	11.0	11.1	556	566	90-110	1	10 M1
Nitrogen, NO2 plus NO3	mg/L	2.9	2.5	2.5	16.2	16.6	529	545	90-110	2	10 M1

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### QUALITY CONTROL DATA

Project: GRUMMAN CLIFTON SEEP-Revised Report  
 Pace Project No.: 92563324

QC Batch: 651110 Analysis Method: SM 2320B-2011  
 QC Batch Method: SM 2320B-2011 Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Asheville  
 Associated Lab Samples: 92563324001

METHOD BLANK: 3414565 Matrix: Water  
 Associated Lab Samples: 92563324001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	10/06/21 16:53	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	10/06/21 16:53	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	10/06/21 16:53	

LABORATORY CONTROL SAMPLE: 3414566

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.5	103	80-120	

LABORATORY CONTROL SAMPLE: 3414567

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3414570 3414571

Parameter	Units	3414570		3414571		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Alkalinity, Total as CaCO3	mg/L	92563901006 Result: 13.7	MS Spike Conc.: 50	MS Result: 66.5	MSD Spike Conc.: 50	106	108	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3415184 3415185

Parameter	Units	3415184		3415185		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Alkalinity, Total as CaCO3	mg/L	92563901005 Result: 14.9	MS Spike Conc.: 50	MS Result: 69.9	MSD Spike Conc.: 50	110	82	80-120	22	25	

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP-Revised Report

Pace Project No.: 92563324

QC Batch: 649417 Analysis Method: EPA 300.0 Rev 2.1 1993  
 QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions  
 Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92563324001

METHOD BLANK: 3406135 Matrix: Water

Associated Lab Samples: 92563324001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/26/21 23:56	
Fluoride	mg/L	ND	0.10	0.050	09/26/21 23:56	
Sulfate	mg/L	ND	1.0	0.50	09/26/21 23:56	

LABORATORY CONTROL SAMPLE: 3406136

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	45.2	90	90-110	
Fluoride	mg/L	2.5	2.3	93	90-110	
Sulfate	mg/L	50	48.2	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406137 3406138

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92563313018 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	38.9	50	50	50	91.2	92.8	105	108	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.7	2.8	110	114	90-110	4	10	M1
Sulfate	mg/L	905	50	50	50	955	950	99	90	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406139 3406140

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92563313028 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	ND	50	50	50	52.1	53.7	104	107	90-110	3	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.8	2.9	112	114	90-110	2	10	M1
Sulfate	mg/L	ND	50	50	50	57.6	59.4	115	119	90-110	3	10	M1

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP-Revised Report  
 Pace Project No.: 92563324

QC Batch: 651318 Analysis Method: EPA 350.1 Rev 2.0 1993  
 QC Batch Method: EPA 350.1 Rev 2.0 1993 Analysis Description: 350.1 Ammonia  
 Laboratory: Pace Analytical Services - Asheville  
 Associated Lab Samples: 92563324001

METHOD BLANK: 3415754 Matrix: Water  
 Associated Lab Samples: 92563324001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.031	10/07/21 09:07	

LABORATORY CONTROL SAMPLE: 3415755

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	4.9	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3415756 3415757

Parameter	Units	92563055001		3415756		3415757		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Nitrogen, Ammonia	mg/L	ND	ND	5	5	5.0	5.0	101	100	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3415758 3415759

Parameter	Units	92563322001		3415758		3415759		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Nitrogen, Ammonia	mg/L	2.5	2.5	5	5	7.4	7.4	99	99	90-110	0	10	

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP-Revised Report  
 Pace Project No.: 92563324

QC Batch: 650928 Analysis Method: EPA 351.2 Rev 2.0 1993  
 QC Batch Method: EPA 351.2 Rev 2.0 1993 Analysis Description: 351.2 TKN  
 Laboratory: Pace Analytical Services - Asheville  
 Associated Lab Samples: 92563324001

METHOD BLANK: 3413590 Matrix: Water  
 Associated Lab Samples: 92563324001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	0.50	0.25	10/06/21 04:45	

LABORATORY CONTROL SAMPLE: 3413591

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3413592 3413593

Parameter	Units	92563028002		3413593		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Nitrogen, Kjeldahl, Total	mg/L	275	10	295	10	201	212	90-110	0	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3413594 3413595

Parameter	Units	92563055001		3413595		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Nitrogen, Kjeldahl, Total	mg/L	0.92	10	11.2	10	103	105	90-110	2	10	

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP-Revised Report

Pace Project No.: 92563324

QC Batch: 649713

Analysis Method: SM 5310B-2011

QC Batch Method: SM 5310B-2011

Analysis Description: 5310B TOC

Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92563324001

METHOD BLANK: 3407403

Matrix: Water

Associated Lab Samples: 92563324001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.50	09/28/21 17:43	

LABORATORY CONTROL SAMPLE: 3407404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	25	24.3	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407405 3407406

Parameter	Units	92559923001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Total Organic Carbon	mg/L	ND	25	25	25.0	25.4	100	101	90-110	2	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3407407 3407408

Parameter	Units	92562010001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Total Organic Carbon	mg/L	7.0	25	25	32.6	32.7	102	103	90-110	0	10		

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## QUALIFIERS

Project: GRUMMAN CLIFTON SEEP-Revised Report

Pace Project No.: 92563324

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: GRUMMAN CLIFTON SEEP-Revised Report  
 Pace Project No.: 92563324

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563324001	CLIFTON SEEP				
92563324001	CLIFTON SEEP	RSK-175	722697		
92563324001	CLIFTON SEEP	EPA 3010A	650835	EPA 6010D	650941
92563324001	CLIFTON SEEP	EPA 3005A	650836	EPA 6020B	650948
92563324001	CLIFTON SEEP	EPA 7470A	650962	EPA 7470A	651162
92563324001	CLIFTON SEEP	SM 2540C-2011	650109		
92563324001	CLIFTON SEEP	EPA 353.2	649328		
92563324001	CLIFTON SEEP	SM 2320B-2011	651110		
92563324001	CLIFTON SEEP	EPA 300.0 Rev 2.1 1993	649417		
92563324001	CLIFTON SEEP	EPA 350.1 Rev 2.0 1993	651318		
92563324001	CLIFTON SEEP	EPA 351.2 Rev 2.0 1993	650928	EPA 351.2 Rev 2.0 1993	651039
92563324001	CLIFTON SEEP	SM 5310B-2011	649713		

**REPORT OF LABORATORY ANALYSIS**

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Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Simple Condition Upon Receipt

Client Name: GA Project Project #:

WO#: 92563324



Carrier:  Fed Ex  UPS  USPS  Other  
 Commercial  Pace  Other

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initial Person Examining Contents: 11/7/24

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Sample Frozen?  Yes  No  N/A

Thermometer:  IR Gun ID: 230 Type of Ice:  Dry  Blue  None

Cooler Temp: 5.3 Correction Factor: ±0.1  
Add/Subtract

Temp should be above freezing to 8°C  
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.4

USDA Regulated Soil (  N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (international, including Hawaii and Puerto Rico)?  Yes  No

	Yes	No	N/A	Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Short Hold Time Analysis (<72 hr.)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Rush Turn Around Time Requested?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.
Sufficient Volume?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
Correct Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
-Face Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Containers Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.
Dissolved analysis: Samples Field Filtered?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Includes Date/Time/ID/Analysis Matrix: <u>w/t</u>				
Headspace in VOA Vials (>6-6mm)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10.
Trip Blank Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

CLIENT NOTIFICATION/RESOLUTION: Nitrate by 353.2  
 Lot ID of split containers:

Person contacted: Matt Malone Date/Time: 6/24/24 12:59

Project Manager SCUR Review: \_\_\_\_\_ Date: \_\_\_\_\_

Project Manager SRP Review: \_\_\_\_\_ Date: \_\_\_\_\_



Document Name:  
 Sample Condition Upon Receipt (SCUR)  
 Document No.:  
 F-CAR-CS-033-Rev.07

Document Revised: October 28, 2020  
 Page 2 of 2  
 Issuing Authority:  
 Pace Carolinas Quality Office

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/RODS (water) DOC, UUG

\*\*Bottom half of box is to list number of bottles

Project #

WO#: 92563324

PH: NRG

Due Date: 10/08/21

CLIENT: 0A-0A Power

Item#	Item Description	1	2	3	4	5	6	7	8	9	10	11	12
BP2A-125 ml, Plastic Unpreserved (N/A) (C-)		/											
BP3A-250 ml, Plastic Unpreserved (N/A)													
BP3A-500 ml, Plastic Unpreserved (N/A)													
BP2A-1 liter Plastic Unpreserved (N/A)													
BP4B-125 ml, Plastic HClO4 (pH < 2) (C-)		/											
BP3A-250 ml, plastic HClO4 (pH < 2)		/											
BP4C-125 ml, Plastic 2N Acetate & NaOH (pH)		/											
BP4C-125 ml, Plastic NaOH (pH > 12) (C-)		/											
WSPH-wide mouthed Glass jar Unpreserved													
AG11A-1 liter Amber Unpreserved (N/A) (C-)													
AG11A-1 liter Amber HCl (pH < 2)													
AG11A-250 ml, Amber Unpreserved (N/A) (C-)													
AG11A-1 liter Amber H2SO4 (pH < 2)													
AG11A-250 ml, Amber H2SO4 (pH < 2)													
AG11A(250ml) 250 ml, Amber HNO3 (N/A)(C-)													
SG08-40 ml, VOA HCl (N/A)													
W08F-40 ml, VOA H2SO4 (N/A)													
W08H-40 ml, VOA Up (N/A)													
SG08-40 ml, VOA H2PO4 (N/A)		/											
W08M (5 vials per kit) 50000 kit (N/A)													
W08G (2 vials per kit) 100000 kit (N/A)													
SP07-125 ml, Sterile Plastic (N/A - lab)													
SP07-250 ml, Sterile Plastic (N/A - lab)													
SP07-500 ml, Sterile Plastic (N/A - lab)													
BP3A-250 ml, Plastic H2SO4 (pH < 2) (C-)		/											
AG08A-100 ml, Amber Unpreserved vials (N/A)													
W08A-20 ml, Scintillation vials (N/A)													
DS08-40 ml, Amber Unpreserved vials (N/A)		/											

**pH Adjustment Log for Preserved Samples**

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #
C1, 100000 kit	Sulfuric acid	8	9/29/21	11:40	2.5 ml	771921 78224

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).



**CHAIN-OF-CUSTODY / Analytical Request Document**  
 The Original-Chain of Custody is a LEGAL DOCUMENT. An original form must be completed for every sample.

Signature: *[Signature]*

<b>Section A</b> Requester Name: <u>DA Power</u> Address: <u>Atlanta, GA</u>	<b>Section B</b> Requester Project Information: Report to: <u>SCS Contracts</u> Copy to: <u>ACC Contracts</u>	<b>Section C</b> Sample Information: Sample Number: <u>9/23/21 0518</u> Container: <u>15</u> Preservation: <u>Unpreserved</u>
<b>Section D</b> Requester Contact Information: Name: <u>SCS Contracts</u> Phone: <u>770</u> Email: <u>scs@scs.com</u>	<b>Section E</b> Requester Location: City: <u>Atlanta, GA</u> State: <u>GA</u> Country: <u>USA</u>	<b>Section F</b> Requester Agency: Agency Name: <u>SCS</u> Address: <u>SCS</u> City: <u>GA</u> State: <u>GA</u> Country: <u>USA</u>
<b>Section G</b> Requester Description: Sample Description: <u>Groundwater in the ...</u>	<b>Section H</b> Requester Requested Analysis: Analysis Type: <u>Groundwater in the ...</u>	<b>Section I</b> Requester Requested Method: Method: <u>...</u>

Sample ID	Requester Name	Requester Address	Requester City	Requester State	Requester Country	Requester Phone	Requester Email	Requester Agency	Requester Agency Address	Requester Agency City	Requester Agency State	Requester Agency Country	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATION	ANALYSIS TEST	ANALYSIS METHOD	ANALYSIS UNIT	ANALYSIS RANGE	ANALYSIS DETECTION LIMIT	ANALYSIS QUANTIFICATION LIMIT			
													DATE	TIME												
1	SCS	Atlanta, GA	Atlanta	GA	USA	770	scs@scs.com	SCS	SCS	Atlanta	GA	USA	9/23/21	0518	15	Unpreserved	Analysis Test 4	...	...	...	...	...	...	...	...	...
2	SCS	Atlanta, GA	Atlanta	GA	USA	770	scs@scs.com	SCS	SCS	Atlanta	GA	USA	9/23/21	0518	15	Unpreserved	Analysis Test 4	...	...	...	...	...	...	...	...	...

**ADDITIONAL COMMENTS:**  
Lead of Report

**REGULATORY AGENCY:**  
 Agency Name: SCS  
 Address: SCS  
 City: Atlanta  
 State: GA  
 Country: USA

**LABORATORY NAME AND ADDRESS:**  
 Project Name of Sample: ...  
 Address of Sample: ...  
 City: Atlanta  
 State: GA  
 Country: USA



November 03, 2021

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: GRUMMAN CLIFTON SEEP RADS  
Pace Project No.: 92563301

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Owens Fuquea, ACC  
Monte Jones, Atlantic Coast Consulting, Inc.  
Kristen Jurinko  
Matt Malone, Atlantic Coast Consulting  
Betsy McDaniel, Atlantic Coast Consulting  
Ms. Lauren Petty, Southern Company



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: GRUMMAN CLIFTON SEEP RADS  
Pace Project No.: 92563301

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### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Florida: Cert E871149 SEKS WET  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 9526  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: GRUMMAN CLIFTON SEEP RADS  
Pace Project No.: 92563301

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92563301001	CLIFTON SEEP	Water	09/23/21 09:50	09/24/21 09:18

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### SAMPLE ANALYTE COUNT

Project: GRUMMAN CLIFTON SEEP RADS  
Pace Project No.: 92563301

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92563301001	CLIFTON SEEP	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JC2	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

---

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN CLIFTON SEEP RADS

Pace Project No.: 92563301

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92563301001</b>	<b>CLIFTON SEEP</b>					
EPA 9315	Radium-226	0.539 ± 0.452 (0.852)	pCi/L		10/19/21 10:33	
EPA 9320	Radium-228	C:96% T:NA 1.24 ± 1.04 (2.06)	pCi/L		10/07/21 14:40	
Total Radium Calculation	Total Radium	C:66% T:34% 1.78 ± 1.49 (2.91)	pCi/L		10/20/21 17:24	

### REPORT OF LABORATORY ANALYSIS

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: GRUMMAN CLIFTON SEEP RADS

Pace Project No.: 92563301

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: CLIFTON SEEP</b> <b>Lab ID: 92563301001</b> Collected: 09/23/21 09:50      Received: 09/24/21 09:18      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.539 ± 0.452 (0.852)</b> <b>C:96% T:NA</b>	pCi/L	10/19/21 10:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.24 ± 1.04 (2.06)</b> <b>C:66% T:34%</b>	pCi/L	10/07/21 14:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.78 ± 1.49 (2.91)</b>	pCi/L	10/20/21 17:24	7440-14-4	

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: GRUMMAN CLIFTON SEEP RADS

Pace Project No.: 92563301

QC Batch: 466957

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92563301001

METHOD BLANK: 2255015

Matrix: Water

Associated Lab Samples: 92563301001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0260 ± 0.142 (0.353) C:102% T:NA	pCi/L	10/19/21 08:55	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: GRUMMAN CLIFTON SEEP RADS

Pace Project No.: 92563301

QC Batch: 466414

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92563301001

METHOD BLANK: 2252282

Matrix: Water

Associated Lab Samples: 92563301001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.518 ± 0.384 (0.750) C:67% T:88%	pCi/L	10/07/21 11:23	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: GRUMMAN CLIFTON SEEP RADS

Pace Project No.: 92563301

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GRUMMAN CLIFTON SEEP RADS  
Pace Project No.: 92563301

---

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92563301001	CLIFTON SEEP	EPA 9315	466957		
92563301001	CLIFTON SEEP	EPA 9320	466414		
92563301001	CLIFTON SEEP	Total Radium Calculation	469112		

### REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville  Eder  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

GA Power

Project #

WO#: 92563301

Carrier:  Fed Ex  UPS  USPS  Client  
 Commercial  Pace  Other \_\_\_\_\_



Date/Initial Person Examining Contents: 10/17/20

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Specimen Frozen?  Yes  No  N/A

Thermometer:  In Gun ID 230 Type of Ice:  Dry  Blue  None

Cooler Temp: 5.3 Correction Factor: Add/Subtract (°C) +0.1

Temp should be above freezing to 6°C  
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 5.4

USDA Regulated Soil (  N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Yes  No

Did samples originate from a foreign source (internationally including Hawaii and Puerto Rico)?  Yes  No

Comments/Discrepancy:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Short Hold Time Analysis (<22 hr.)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Brush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
-Face Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis, Samples Field Filtered?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-includes Date/Time/ID/Analysis Matrix: <u>WJ</u>		
Headspace in VOA Vials (<5-6mm)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager SCUR Review: \_\_\_\_\_ Date: \_\_\_\_\_

Project Manager SW Review: \_\_\_\_\_ Date: \_\_\_\_\_



Document Name:  
Sample Condition Upon Receipt (SCUR)

Document Revised: October 28, 2020  
Page 2 of 2

Document No.:  
F-CAR-C5-013-Rev.07

Issuing Authority:  
Pace Carolina Quality Office

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project # **WO# : 92563301**

PH: NMG

Due Date: 10/15/21

Exceptions: VOA, Coliform, TOC, Oil and Grease, BRO/BOD5 (water) DOC, UHg

CLIENT: GR-GR Power

\*\*Bottom half of box is to list number of bottles

Item #	Description	1	2	3	4	5	6	7	8	9	10	11	12
BP4U-125 ml, Plastic Unpreserved (N/A) (D-)		/											
BP7U-250 ml, Plastic Unpreserved (N/A)		—											
BP3U-500 ml, Plastic Unpreserved (N/A)		—											
BP1U-1 liter Plastic Unpreserved (N/A)													
BP4G-125 ml, Plastic BOD/BOD5 (pH < 7) (D-)		/											
BP3G-250 ml, plastic BOD5 (pH < 7)		/											
BP4G-125 ml, Plastic 2N Acetate & NaOH (pH)													
BP4G-125 ml, Plastic NaOH (pH > 12) (D-)													
WSPU-Wide mouthed Glass Jar Unpreserved													
AS31U-1 liter Amber Unpreserved (N/A) (D-)													
AS33U-1 liter Amber HD (pH < 7)													
AS33U-250 ml Amber Unpreserved (N/A) (D-)													
AS33U-1 liter Amber HD504 (pH < 7)													
AS33U-250 ml Amber HD504 (pH < 7)													
AS33U(505NA)-250 ml Amber HD40 (pH/DO-1)													
DOBH-40 ml VOA HD (N/A)													
VOBT-40 ml VOA Na2S2O3 (N/A)													
VOBU-40 ml VOA UHg (N/A)													
BOBP-40 ml VOA HD504 (N/A)		/											
VOBM (3 vials per BQ-5055 kit) (N/A)													
VOBA (3 vials per BQ-5055/5056 kit) (N/A)													
SPBT-125 ml, Sterile Plastic (N/A - lot)													
SPBT-250 ml, Sterile Plastic (N/A - lot)													
if PIN													
BP3M-150 ml Plastic (N/A) (D-)		/											
AS33U-100 ml Amber Unpreserved vials (N/A)													
VOBU-25 ml, Sterilization vials (N/A)													
BOBU-40 ml, Amber Unpreserved vials (N/A)		/											

**pH Adjustment Log for Preserved Samples**

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #
CL101-200 ml	Acetic acid	8	9/24/24	11:20	2.5 ml	PT141117-18726

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect container).



**CHAIN-OF-CUSTODY / Analytical Request Document**  
 The Chain-of-Custody is a LEGAL DOCUMENT. An Invalid Chain could be considered inadmissible.

1 of 1

Section A Requester Name: <u>QA Project</u> Address: <u>Atlanta, GA</u>	Section B Requester Project Information: Project No: <u>ACC-COMPOST</u>	Section C Sample Information: Sample No: <u>ACC-COMPOST</u>	REGULATORY AGENCY: STATE: <u>GA</u> COUNTY: <u>DEKALB</u>
Section D Requester Contact Information: Name: <u>QA Project</u> Phone: <u>404-525-1234</u> Email: <u>qa@priceanalytical.com</u>	Section E Project Name: <u>Compost Field Sampling</u> Project Number: <u>Compost Analysis Sample</u>	Section F Site Location: Address: <u>1234 Main St</u> City: <u>Atlanta</u> State: <u>GA</u>	REGULATORY AGENCY: STATE: <u>GA</u> COUNTY: <u>DEKALB</u>

ITEM #	Description	Matrix Code	Sample Type	Collected			Sample Temp at Collection	# of Containers	Preservatives	Analysis Test	Requester Analysis Returned (Y/N)		Residual Chlorine (ppm)	Other Project No./Lab ID
				DATE	TIME	DATE					TIME	DATE		
1	SAMPLE ID A.C. 001 / J Sample On MATR 01 (ARGUS)	WT 0	0	9/24	09:00	-	-	15	Unpreserved	As is	Y	Y	Price Project No./Lab ID: Matr pt = 0.55%	
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														

ADDITIONAL COMMENTS: <u>Field Report</u>	REMOVED BY / APPLICATION: <u>[Signature]</u>	DATE: <u>9/24/04</u>	TIME: <u>09:00</u>	ACCEPTED BY / APPLICATION: <u>Matr / Acc</u>	DATE: <u>9/24</u>	TIME: <u>09:00</u>	SAMPLE COMMENTS:
---	---	-------------------------	-----------------------	---	----------------------	-----------------------	------------------

SAMPLE USE AND SIGNATURE		DATE REPORT RECEIVED:	DATE:
Project Name of Sample Use: <u>Compost Field Sampling</u>	Signature of Sample Use: <u>[Signature]</u>	9/23/21	09:18

# Quality Control Sample Performance Assessment

Sample Name: **Sample Name** (Sample ID: **Sample ID**)

Parameter	Unit	Value	Method	Notes
<b>Physical Parameters</b>				
Temperature	°C	20.5	YSI 90	
Dissolved Oxygen	% Sat	100	YSI 90	
pH		7.5	YSI 90	
Conductivity	µS/cm	150	YSI 90	
Secchi Disk Depth	m	0.5	Visual	
<b>Chemical Parameters</b>				
Total Phosphorus	µg/L	0.1	Ascorbic Acid	
Total Nitrogen	µg/L	1.0	Cadmium Reduction	
Ammonia Nitrogen	µg/L	0.5	Nesslerization	
Orthophosphate	µg/L	0.05	Ascorbic Acid	
Nitrate Nitrogen	µg/L	0.5	Cadmium Reduction	
Chlorophyll a	µg/L	10	Fluorometry	
Chlorophyll b	µg/L	5	Fluorometry	
Chlorophyll c	µg/L	2	Fluorometry	
Chlorophyll Total	µg/L	17	Fluorometry	
Phytoplankton	cells/mL	1000	Flow Cytometry	
<b>Biological Parameters</b>				
Biomass	mg/L	10	Gravimetric	
Respiration	µmol/L/h	10	Respirometry	
Photosynthesis	µmol/L/h	10	Respirometry	
Net Primary Production	µmol/L/h	0	Respirometry	
Community Respiration	µmol/L/h	10	Respirometry	
Community Production	µmol/L/h	10	Respirometry	
Community Growth	%/day	10	Biomass	
Community Mortality	%/day	10	Biomass	
Community Turnover	1/day	10	Biomass	
Community Yield	g/g	10	Biomass	
Community Efficiency	%	10	Biomass	
Community Growth Rate	1/day	10	Biomass	
Community Mortality Rate	1/day	10	Biomass	
Community Turnover Rate	1/day	10	Biomass	
Community Yield Rate	g/g	10	Biomass	
Community Efficiency Rate	%	10	Biomass	
Community Growth Rate	1/day	10	Biomass	
Community Mortality Rate	1/day	10	Biomass	
Community Turnover Rate	1/day	10	Biomass	
Community Yield Rate	g/g	10	Biomass	
Community Efficiency Rate	%	10	Biomass	
Community Growth Rate	1/day	10	Biomass	
Community Mortality Rate	1/day	10	Biomass	
Community Turnover Rate	1/day	10	Biomass	
Community Yield Rate	g/g	10	Biomass	
Community Efficiency Rate	%	10	Biomass	
Community Growth Rate	1/day	10	Biomass	
Community Mortality Rate	1/day	10	Biomass	
Community Turnover Rate	1/day	10	Biomass	
Community Yield Rate	g/g	10	Biomass	
Community Efficiency Rate	%	10	Biomass	



### Quality Control Sample Performance Assessment



2015	2016
100%	100%
100%	100%
100%	100%

### Approved Methods of Use Approved Applications in 2016

Approved Method of Use	Approved Applications in 2016
<p><b>General Use Applications</b></p> <p>1. [Application Name]</p> <p>2. [Application Name]</p> <p>3. [Application Name]</p> <p>4. [Application Name]</p> <p>5. [Application Name]</p>	<p>1. [Application Name]</p> <p>2. [Application Name]</p> <p>3. [Application Name]</p> <p>4. [Application Name]</p> <p>5. [Application Name]</p>
<p><b>Professional (Control) Sample Applications</b></p> <p>1. [Application Name]</p> <p>2. [Application Name]</p> <p>3. [Application Name]</p> <p>4. [Application Name]</p> <p>5. [Application Name]</p>	<p>1. [Application Name]</p> <p>2. [Application Name]</p> <p>3. [Application Name]</p> <p>4. [Application Name]</p> <p>5. [Application Name]</p>
<p><b>Consumer Product Applications</b></p> <p>1. [Application Name]</p> <p>2. [Application Name]</p> <p>3. [Application Name]</p> <p>4. [Application Name]</p> <p>5. [Application Name]</p>	<p>1. [Application Name]</p> <p>2. [Application Name]</p> <p>3. [Application Name]</p> <p>4. [Application Name]</p> <p>5. [Application Name]</p>
<p><b>Large Scale Applications</b></p> <p>1. [Application Name]</p> <p>2. [Application Name]</p> <p>3. [Application Name]</p> <p>4. [Application Name]</p> <p>5. [Application Name]</p>	<p>1. [Application Name]</p> <p>2. [Application Name]</p> <p>3. [Application Name]</p> <p>4. [Application Name]</p> <p>5. [Application Name]</p>

Handwritten signature or initials.

Handwritten text: "C-100-10112-1"



# Quality Control Sample Performance Assessment

Sample Name: **Sample Name**

Parameter	Unit	Value	Method	Notes
<b>Physical Parameters</b>				
Temperature	°C	20.0	YSI 33	
Dissolved Oxygen	% Sat	100	YSI 33	
pH		7.5	YSI 33	
Specific Conductance	µmhos/cm	150	YSI 33	
Total Solids	mg/L	100	Gravimetric	
Total Suspended Solids	mg/L	50	Gravimetric	
Total Dissolved Solids	mg/L	50	Gravimetric	
Calcium	mg/L	100	Digital Titration	
Magnesium	mg/L	50	Digital Titration	
Ammonia Nitrogen	mg/L	0.5	Nesslerization	
Nitrite Nitrogen	mg/L	0.1	Diazotization	
Nitrate Nitrogen	mg/L	1.0	Cadmium Reduction	
Total Nitrogen	mg/L	1.5	Catalytic Reduction	
Total Phosphorus	mg/L	0.2	Ascorbic Acid Reduction	
Orthophosphate Phosphorus	mg/L	0.1	Ascorbic Acid Reduction	
Ammonium Phosphorus	mg/L	0.1	Ammonium Molybdate	
Reactive Phosphorus	mg/L	0.1	Ascorbic Acid Reduction	
Calcium	mg/L	100	Digital Titration	
Magnesium	mg/L	50	Digital Titration	
Ammonia Nitrogen	mg/L	0.5	Nesslerization	
Nitrite Nitrogen	mg/L	0.1	Diazotization	
Nitrate Nitrogen	mg/L	1.0	Cadmium Reduction	
Total Nitrogen	mg/L	1.5	Catalytic Reduction	
Total Phosphorus	mg/L	0.2	Ascorbic Acid Reduction	
Orthophosphate Phosphorus	mg/L	0.1	Ascorbic Acid Reduction	
Ammonium Phosphorus	mg/L	0.1	Ammonium Molybdate	
Reactive Phosphorus	mg/L	0.1	Ascorbic Acid Reduction	
Calcium	mg/L	100	Digital Titration	
Magnesium	mg/L	50	Digital Titration	
Ammonia Nitrogen	mg/L	0.5	Nesslerization	
Nitrite Nitrogen	mg/L	0.1	Diazotization	
Nitrate Nitrogen	mg/L	1.0	Cadmium Reduction	
Total Nitrogen	mg/L	1.5	Catalytic Reduction	
Total Phosphorus	mg/L	0.2	Ascorbic Acid Reduction	
Orthophosphate Phosphorus	mg/L	0.1	Ascorbic Acid Reduction	
Ammonium Phosphorus	mg/L	0.1	Ammonium Molybdate	
Reactive Phosphorus	mg/L	0.1	Ascorbic Acid Reduction	





## APPENDIX B

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*Laboratory Data Validations  
September 2021 Monitoring Event*

**LEVEL 2A LABORATORY DATA VALIDATIONS**

**Grumman Road  
Semiannual Event  
September 2021**

## **Georgia Power Company – Grumman Road**

### **Quality Control Review of Analytical Data – September 2021**

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Pace Analytical Services, Asheville, Atlanta, Charlotte, and Pittsburgh for groundwater samples collected at Grumman Road between September 21, 2021 and September 23, 2021. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detected monitoring constituents listed in 40 CFR, Part 257, Appendix III and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma (USEPA 6010D), Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Determination of Inorganic Anions (USEPA Method 300.0), Solids in Water (Standard Methods 2540C), Radium-226 (USEPA 9315), and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)<sup>1</sup> and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)<sup>2</sup>. The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, holding times, and chains of custody (COCs) were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

## DATA QUALITY OBJECTIVES

- Laboratory Precision:** Laboratory goals for precision were met, with the exception of radium-226 on DUP-3 (92563306032) as described in the qualification section below.
- Field Precision:** Field goals for precision were met, with the exceptions of boron on GWC-21 (92563313019), radium-226 and radium-228 on GWB-4R (92563306002), and radium-228 on (92563306013) as described in the qualifications section below.
- Accuracy:** Laboratory goals for accuracy were met, with the exceptions of calcium from GWB-5R (92563313003), boron from GWB-4R (92563313002), fluoride from GWC-11 (92563313008), and fluoride from GWC-20 (92563313018) as described in the qualifications section below.
- Detection Limits:** Project goals for detection limits were met. Certain samples were diluted due to the concentration of target or non-target analyte interferences. Dilutions do not require qualifications based on USEPA guidelines. Reporting limits (RLs) of non-detect compounds are elevated proportional to the dilution when undiluted sample results were not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of site-wide characterization.
- Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.
- Holding Times:** Holding time requirements were met.

## QUALIFICATIONS

In general, chemical results for the samples collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

- J:** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample
- ND:** The analyte was not detected above the method detection limit

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.

- Samples GWC-21 (92563313019) and DUP-2 (92563313029) were qualified as estimated (J) for boron as the field relative percent difference (RPD) exceeded QC criteria (24.85% above limit of 20).
- Samples GWB-4R (92563306002) and DUP-1 (92563306026) were qualified as estimated (J) for radium-226 and radium-228 as the field RPDs exceeded QC criteria (23.48% and 60.54%, respectively, above limit of 20).
- Samples GWC-2 (92563306013) and DUP-3 (92563306032) were qualified as estimated (J) for radium-228 as the field RPD exceeded QC criteria (52.99% above limit of 20).
- Sample DUP-3 (92563306032) was qualified as estimated (J) for radium-226 as the lab RPD exceeded QC criteria (140.74% above limit of 25).
- Sample GWB-5R (92563313003) was qualified as estimated (J) for calcium as the associated matrix spike (MS) and matrix spike duplicate (MSD) recoveries were outside QC criteria (856% and 604% above the range of 75-125).
- Sample GWB-4R (92563313002) was qualified as estimated (J) for boron as the MS and MSD recoveries were outside QC criteria (51% and 55% below the range of 75-125).
- Sample GWC-11 (92563313008) was qualified as estimated (J) for fluoride as the MS and MSD recoveries were outside QC criteria (156% and 146% above the range of 90-110).
- Sample GWC-20 (92563313018) was qualified as estimated (J) for fluoride as the MSD recovery was outside QC criteria (114% above the range of 90-110).
- Certain Mercury results were qualified as non-detect (ND) due to the analyte(s) being detected at a similar concentration in an associated blank sample. As shown in Table 2, when the original sample result was below the RL, the method detection limit (MDL) was raised to the sample result as part of the qualification process.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from Grumman Road sampled between September 21, 2021 and September 23, 2021 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

## **REFERENCES**

<sup>1</sup>USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

<sup>2</sup>USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0



TABLE 1

Georgia Power Company – Grumman Road

Sample Summary Table – September 2021

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6010D, 6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
563313	GWA-7	9/21/2021	92563313001	GW		X	X	X	
563306	GWA-7	9/21/2021	92563306001	GW					X
563313	GWB-4R	9/21/2021	92563313002	GW		X	X	X	
563306	GWB-4R	9/21/2021	92563306002	GW					X
563313	GWB-5R	9/21/2021	92563313003	GW		X	X	X	
563306	GWB-5R	9/21/2021	92563306003	GW					X
563313	GWB-6R	9/21/2021	92563313004	GW		X	X	X	
563306	GWB-6R	9/21/2021	92563306004	GW					X
563313	MW-26D	9/21/2021	92563313005	GW		X	X	X	
563306	MW-26D	9/21/2021	92563306005	GW					X
563313	MW-27D	9/21/2021	92563313006	GW		X	X	X	
563306	MW-27D	9/21/2021	92563306006	GW					X
563313	GWA-8	9/21/2021	92563313007	GW		X	X	X	
563306	GWA-8	9/21/2021	92563306007	GW					X
563313	GWC-11	9/21/2021	92563313008	GW		X	X	X	
563306	GWC-11	9/21/2021	92563306008	GW					X
563313	GWC-12	9/21/2021	92563313009	GW		X	X	X	
563306	GWC-12	9/21/2021	92563306009	GW					X
563313	GWC-13	9/21/2021	92563313010	GW		X	X	X	
563306	GWC-13	9/21/2021	92563306010	GW					X
563313	GWC-22	9/21/2021	92563313011	GW		X	X	X	
563306	GWC-22	9/21/2021	92563306011	GW					X
563313	FB-1	9/21/2021	92563313012	WQ	FB	X	X	X	
563306	FB-1	9/21/2021	92563306012	WQ	FB				X

Abbreviations:

EB – Equipment Blank

FB – Field Blank

FD – Field Duplicate

GW – Groundwater

QC – Quality Control

TDS – Total Dissolved Solids

WQ – Water Quality Control

TABLE 1 (continued)

Georgia Power Company – Grumman Road

Sample Summary Table – September 2021

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6010D, 6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
563313	GWC-2	9/22/2021	92563313013	GW		X	X	X	
563306	GWC-2	9/22/2021	92563306013	GW					X
563313	GWC-9	9/22/2021	92563313014	GW		X	X	X	
563306	GWC-9	9/22/2021	92563306014	GW					X
563313	GWC-14	9/22/2021	92563313015	GW		X	X	X	
563306	GWC-14	9/22/2021	92563306015	GW					X
563313	GWC-16	9/22/2021	92563313016	GW		X	X	X	
563306	GWC-16	9/22/2021	92563306016	GW					X
563313	GWC-17	9/22/2021	92563313017	GW		X	X	X	
563306	GWC-17	9/22/2021	92563306017	GW					X
563313	GWC-20	9/22/2021	92563313018	GW		X	X	X	
563306	GWC-20	9/22/2021	92563306018	GW					X
563313	GWC-21	9/22/2021	92563313019	GW		X	X	X	
563306	GWC-21	9/22/2021	92563306019	GW					X
563313	MW-23D	9/22/2021	92563313020	GW		X	X	X	
563306	MW-23D	9/22/2021	92563306020	GW					X
563313	MW-24D	9/22/2021	92563313021	GW		X	X	X	
563306	MW-24D	9/22/2021	92563306021	GW					X
563313	MW-25D	9/23/2021	92563313022	GW		X	X	X	
563306	MW-25D	9/23/2021	92563306022	GW					X
563313	GWC-1	9/23/2021	92563313023	GW		X	X	X	
563306	GWC-1	9/23/2021	92563306023	GW					X
563313	GWC-15	9/23/2021	92563313024	GW		X	X	X	
563306	GWC-15	9/23/2021	92563306024	GW					X
563313	EB-1	9/21/2021	92563313025	WQ	EB	X	X	X	
563306	EB-1	9/21/2021	92563306025	WQ	EB				X

Abbreviations:

EB – Equipment Blank

FB – Field Blank

FD – Field Duplicate

GW – Groundwater

QC – Quality Control

TDS – Total Dissolved Solids

WQ – Water Quality Control

TABLE 1 (continued)

Georgia Power Company – Grumman Road

Sample Summary Table – September 2021

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6010D, 6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
563313	DUP-1	9/21/2021	92563313026	GW	FD (GWB-4R)	X	X	X	
563306	DUP-1	9/21/2021	92563306026	GW	FD (GWB-4R)				X
563313	EB-2	9/22/2021	92563313027	WQ	EB	X	X	X	
563306	EB-2	9/22/2021	92563306027	WQ	EB				X
563313	FB-2	9/22/2021	92563313028	WQ	FB	X	X	X	
563306	FB-2	9/22/2021	92563306028	WQ	FB				X
563313	DUP-2	9/22/2021	92563313029	GW	FD (GWC-21)	X	X	X	
563306	DUP-2	9/22/2021	92563306029	GW	FD (GWC-21)				X
563313	EB-3	9/23/2021	92563313030	WQ	EB	X	X	X	
563306	EB-3	9/23/2021	92563306030	WQ	EB				X
563313	FB-3	9/22/2021	92563313031	WQ	FB	X	X	X	
563306	FB-3	9/22/2021	92563306031	WQ	FB				X
563313	DUP-3	9/22/2021	92563313032	GW	FD (GWC-2)	X	X	X	
563306	DUP-3	9/22/2021	92563306032	GW	FD (GWC-2)				X
563313	GWA-7	9/21/2021	92563313033	GW		X			

Abbreviations:

EB – Equipment Blank

FB – Field Blank

FD – Field Duplicate

GW – Groundwater

QC – Quality Control

TDS – Total Dissolved Solids

WQ – Water Quality Control

TABLE 2

Georgia Power Company – Grumman Road

Qualifier Summary Table – September 2021

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
563313	GWB-4R	Boron			J	MS/MSD outside QC criteria
563313	GWB-5R	Calcium			J	MS/MSD outside QC criteria
563313	GWC-11	Fluoride			J	MS/MSD outside QC criteria
563313	GWC-20	Fluoride			J	MSD outside QC criteria
563313	GWA-7	Mercury		0.00010	ND	Blank detection
563313	GWB-4R	Mercury		0.00010	ND	Blank detection
563313	GWB-5R	Mercury		0.00010	ND	Blank detection
563313	GWB-6R	Mercury		0.00010	ND	Blank detection
563313	MW-26D	Mercury		0.00010	ND	Blank detection
563313	MW-27D	Mercury		0.00011	ND	Blank detection
563313	GWA-8	Mercury		0.00011	ND	Blank detection
563313	GWC-11	Mercury		0.00010	ND	Blank detection
563313	GWC-12	Mercury		0.00010	ND	Blank detection
563313	GWC-13	Mercury		0.00010	ND	Blank detection
563313	GWC-22	Mercury		0.00010	ND	Blank detection
563313	GWC-2	Mercury		0.00010	ND	Blank detection
563313	GWC-9	Mercury		0.00011	ND	Blank detection
563313	GWC-14	Mercury		0.00011	ND	Blank detection
563313	GWC-16	Mercury		0.00010	ND	Blank detection
563313	GWC-17	Mercury		0.00011	ND	Blank detection
563313	GWC-20	Mercury		0.00011	ND	Blank detection
563313	GWC-21	Mercury		0.00011	ND	Blank detection
563313	MW-23D	Mercury		0.00011	ND	Blank detection
563313	MW-24D	Mercury		0.00010	ND	Blank detection
563313	MW-25D	Mercury		0.00010	ND	Blank detection
563313	GWC-1	Mercury		0.00010	ND	Blank detection
563313	GWC-15	Mercury		0.00010	ND	Blank detection
563313	GWC-21	Boron			J	RPD exceeds field goal
563313	DUP-2	Boron			J	RPD exceeds field goal
563306	GWB-4R	Radium-226			J	RPD exceeds field goal
563306	DUP-1	Radium-226			J	RPD exceeds field goal
563306	GWB-4R	Radium-228			J	RPD exceeds field goal
563306	DUP-1	Radium-228			J	RPD exceeds field goal

Abbreviations:

MDC – Minimum Detectable Concentration  
 MS/MSD – Matrix Spike / Matrix Spike Duplicate  
 MDL – Method Detection Limit  
 RL – Reporting Limit  
 RPD – Relative Percent Difference  
 SDG – Sample Delivery Group  
 TDS – Total Dissolved Solids

Qualifiers:

J – Estimated Result  
 ND – Non-Detect Result

TABLE 2 (continued)

Georgia Power Company – Grumman Road

Qualifier Summary Table – September 2021

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
563306	GWC-2	Radium-228			J	RPD exceeds field goal
563306	DUP-3	Radium-228			J	RPD exceeds field goal
563306	DUP-3	Radium-226			J	RPD exceeds lab goal

Abbreviations:

MDC – Minimum Detectable Concentration  
 MS/MSD – Matrix Spike / Matrix Spike Duplicate  
 MDL – Method Detection Limit  
 RL – Reporting Limit  
 RPD – Relative Percent Difference  
 SDG – Sample Delivery Group  
 TDS – Total Dissolved Solids

Qualifiers:

J – Estimated Result  
 ND – Non-Detect Result

**LEVEL 2A LABORATORY DATA VALIDATIONS**

**Grumman Road – Clifton Seep**

**Semiannual Event**

**September 2021**

## **Georgia Power Company – Clifton Seep**

### **Quality Control Review of Analytical Data – September 2021**

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Pace Analytical Services, Asheville, Atlanta, Charlotte, Gulf Coast, and Pittsburgh for the water sample collected at Grumman Road Clifton Seep on September 23, 2021. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample location, analytical parameters, QC samples, sampling date, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix. SDG 92563324 was revised to add a missing qualification for nitrate analysis.

In accordance with water monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the sample was analyzed for detected monitoring constituents listed in 40 CFR, Part 257, Appendix III and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma (USEPA 6010D), Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Determination of Inorganic Anions (USEPA Method 300.0), Solids in Water (Standard Methods 2540C), Radium-226 (USEPA 9315), and Radium-228 (USEPA Method 9320) as well as select geochemical indicator parameters.

Data were reviewed in accordance with the USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)<sup>1</sup> and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)<sup>2</sup>. The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (laboratory blanks). Sample receipt conditions, holding times, and chains of custody (COCs) were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

## DATA QUALITY OBJECTIVES

**Laboratory Precision:** Laboratory goals for precision were met.

**Field Precision:** Field goals for precision were not applicable to this sampling event.

**Accuracy:** Laboratory goals for accuracy were met, with the exceptions of nitrate and combined NO<sub>3</sub>-NO<sub>2</sub> as described in the qualifications section below.

**Detection Limits:** Project goals for detection limits were met. Certain analyses were diluted due to the concentration of target or non-target analyte interferences. Dilutions do not require qualifications based on USEPA guidelines. Reporting limits (RLs) of non-detect compounds are elevated proportional to the dilution when undiluted sample results were not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of site-wide characterization.

**Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.

**Holding Times:** Holding time requirements were met.

## QUALIFICATIONS

In general, chemical results for the sample collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

**J:** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

**ND:** The analyte was not detected above the method detection limit

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.



- Sample CLIFTON SEEP (92563324001) was qualified as estimated (J) for nitrate and NO<sub>3</sub> plus NO<sub>2</sub> as the associated matrix spike (MS) and matrix spike duplicate (MSD) recoveries were outside QC criteria (nitrate 556% and 566% and NO<sub>3</sub>-NO<sub>2</sub> 529% and 545% above the range of 90-110).
- The mercury result was qualified as non-detect (ND) due to the analyte(s) being detected at a similar concentration in an associated blank sample. As shown in Table 2, when the original sample result was below the RL, the method detection limit (MDL) was raised to the sample result as part of the qualification process.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from Grumman Road Clifton Seep sampled on September 23, 2021 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

## REFERENCES

<sup>1</sup>USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

<sup>2</sup>USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

TABLE 1

Georgia Power Company – Clifton Seep

Sample Summary Table – September 2021

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6010D, 6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
563324	CLIFTON SEEP	9/23/2021	92563324001	W		X	X	X	
563301	CLIFTON SEEP	9/23/2021	92563301001	W					X

Abbreviations:  
 EB – Equipment Blank  
 FB – Field Blank  
 FD – Field Duplicate  
 GW – Groundwater  
 QC – Quality Control  
 TDS – Total Dissolved Solids  
 W – Water  
 WQ – Water Quality Control

TABLE 2

Georgia Power Company – Clifton Seep  
 Qualifier Summary Table – September 2021

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
563324	CLIFTON SEEP	Mercury		0.00012	ND	Blank detection
563324	CLIFTON SEEP	Nitrate			J	MS/MSD outside QC criteria
563324	CLIFTON SEEP	NO3-NO2			J	MS/MSD outside QC criteria

Abbreviations:

MDC – Minimum Detectable Concentration  
 MS/MSD – Matrix Spike / Matrix Spike Duplicate  
 MDL – Method Detection Limit  
 RL – Reporting Limit  
 RPD – Relative Percent Difference  
 SDG – Sample Delivery Group  
 TDS – Total Dissolved Solids

Qualifiers:

J – Estimated Result  
 ND – Non-Detect Result

## APPENDIX B

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*Field Sampling Reports  
September 2021 Monitoring Event*

# Low-Flow Test Report:

Test Date / Time: 9/21/2021 9:25:08 AM

Project: Grumman Rd

Operator Name: A. Schnittker

<b>Location Name: GWA-7</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 16.2 ft</b> <b>Total Depth: 21.2 ft</b> <b>Initial Depth to Water: 4.98 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 18.5 ft</b> <b>Estimated Total Volume Pumped: 6.8 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 225 ml/min</b> <b>Final Draw Down: 5 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

Sample Time 955. Dissolved metals. Overcast 70.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/21/2021 9:25 AM	00:00	6.06 pH	25.91 °C	1,419.8 µS/cm	0.17 mg/L	14.80 NTU	-76.6 mV	4.98 ft	225.00 ml/min
9/21/2021 9:30 AM	05:00	6.04 pH	25.46 °C	1,416.3 µS/cm	0.10 mg/L	11.90 NTU	-83.4 mV	5.40 ft	225.00 ml/min
9/21/2021 9:35 AM	10:00	6.04 pH	25.04 °C	1,416.4 µS/cm	0.08 mg/L	16.80 NTU	-82.1 mV	5.40 ft	225.00 ml/min
9/21/2021 9:40 AM	15:00	6.03 pH	24.61 °C	1,427.8 µS/cm	0.07 mg/L	19.70 NTU	-113.2 mV	5.40 ft	225.00 ml/min
9/21/2021 9:45 AM	20:00	6.03 pH	24.42 °C	1,435.8 µS/cm	0.06 mg/L	67.00 NTU	-72.5 mV	5.40 ft	225.00 ml/min
9/21/2021 9:50 AM	25:00	6.03 pH	24.32 °C	1,462.4 µS/cm	0.06 mg/L	98.00 NTU	-68.9 mV	5.40 ft	225.00 ml/min
9/21/2021 9:55 AM	30:00	6.03 pH	24.26 °C	1,490.1 µS/cm	0.05 mg/L	103.00 NTU	-66.1 mV	5.40 ft	225.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 9:10:03 AM

Project: Grumman Rd

Operator Name: Z Davis

<b>Location Name: GWA-8</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 15.9 ft</b> <b>Total Depth: 20.9 ft</b> <b>Initial Depth to Water: 5.34 ft</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 18.4 ft</b> <b>Estimated Total Volume Pumped: 6.9 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 230 ml/min</b> <b>Final Draw Down: 16 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sampled at 0945. Cloudy, 70s. FB-01 taken here at 0950 with lab provided DI water.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 100	+/- 100	+/- 1	
9/21/2021 9:10 AM	00:00	4.84 pH	25.04 °C	317.18 µS/cm	5.99 mg/L	1.04 NTU	130.0 mV	6.20 ft	230.00 ml/min
9/21/2021 9:15 AM	05:09	4.78 pH	24.86 °C	209.00 µS/cm	0.29 mg/L	2.36 NTU	101.8 mV	6.30 ft	230.00 ml/min
9/21/2021 9:20 AM	10:09	4.74 pH	24.74 °C	212.81 µS/cm	0.22 mg/L	6.88 NTU	94.2 mV	6.50 ft	230.00 ml/min
9/21/2021 9:25 AM	15:09	4.60 pH	24.80 °C	234.16 µS/cm	0.19 mg/L	8.65 NTU	89.0 mV	6.50 ft	230.00 ml/min
9/21/2021 9:30 AM	20:09	4.50 pH	24.72 °C	257.83 µS/cm	0.17 mg/L	9.46 NTU	84.7 mV	6.50 ft	230.00 ml/min
9/21/2021 9:35 AM	25:09	4.47 pH	24.69 °C	267.61 µS/cm	0.16 mg/L	5.55 NTU	81.9 mV	6.60 ft	230.00 ml/min
9/21/2021 9:40 AM	30:09	4.44 pH	24.64 °C	275.58 µS/cm	0.15 mg/L	3.72 NTU	79.8 mV	6.60 ft	230.00 ml/min
9/21/2021 9:43 AM	33:35	4.44 pH	24.61 °C	279.29 µS/cm	0.15 mg/L	3.00 NTU	78.7 mV	6.60 ft	230.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 2:15:25 PM

Project: Grumman Rd

Operator Name: A. Schnittker

<b>Location Name: GWB-4R</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 22 ft</b> <b>Total Depth: 27 ft</b> <b>Initial Depth to Water: 13.2 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 25 ft</b> <b>Estimated Total Volume Pumped: 5.1 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 170 ml/min</b> <b>Final Draw Down: 6 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

Sample time 1445. Overcast 80

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/21/2021 2:15 PM	00:00	5.82 pH	26.83 °C	644.76 µS/cm	1.50 mg/L	3.28 NTU	52.3 mV	13.20 ft	170.00 ml/min
9/21/2021 2:20 PM	05:00	5.82 pH	24.54 °C	681.06 µS/cm	0.17 mg/L	2.69 NTU	35.0 mV	13.60 ft	170.00 ml/min
9/21/2021 2:25 PM	10:00	5.82 pH	24.37 °C	687.13 µS/cm	0.12 mg/L	2.27 NTU	31.7 mV	13.60 ft	170.00 ml/min
9/21/2021 2:30 PM	15:00	5.79 pH	24.24 °C	700.38 µS/cm	0.11 mg/L	1.57 NTU	25.0 mV	13.60 ft	170.00 ml/min
9/21/2021 2:35 PM	20:00	5.78 pH	24.23 °C	704.84 µS/cm	0.10 mg/L	1.87 NTU	21.8 mV	13.70 ft	170.00 ml/min
9/21/2021 2:40 PM	25:00	5.77 pH	24.25 °C	708.22 µS/cm	0.09 mg/L	1.66 NTU	22.1 mV	13.70 ft	170.00 ml/min
9/21/2021 2:45 PM	30:00	5.78 pH	24.33 °C	709.38 µS/cm	0.08 mg/L	1.45 NTU	23.1 mV	13.70 ft	170.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 12:05:05 PM

Project: Grumman Rd

Operator Name: A. Schnittker

<b>Location Name: GWB-5R</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 16.5 ft</b> <b>Total Depth: 26.5 ft</b> <b>Initial Depth to Water: 8.54 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 24 ft</b> <b>Estimated Total Volume Pumped: 6 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 6 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

Sample time 1235. Overcast 70.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/21/2021 12:05 PM	00:00	4.67 pH	25.77 °C	1,411.4 µS/cm	0.20 mg/L	3.41 NTU	41.8 mV	8.54 ft	200.00 ml/min
9/21/2021 12:10 PM	05:00	4.68 pH	25.09 °C	1,533.2 µS/cm	0.12 mg/L	2.80 NTU	35.6 mV	9.00 ft	200.00 ml/min
9/21/2021 12:15 PM	10:00	4.68 pH	25.12 °C	1,578.0 µS/cm	0.10 mg/L	2.45 NTU	37.3 mV	9.00 ft	200.00 ml/min
9/21/2021 12:20 PM	15:00	4.68 pH	25.18 °C	1,575.1 µS/cm	0.09 mg/L	1.10 NTU	35.6 mV	9.00 ft	200.00 ml/min
9/21/2021 12:25 PM	20:00	4.68 pH	25.15 °C	1,580.1 µS/cm	0.08 mg/L	1.78 NTU	34.3 mV	9.00 ft	200.00 ml/min
9/21/2021 12:30 PM	25:00	4.68 pH	24.90 °C	1,591.6 µS/cm	0.08 mg/L	2.11 NTU	30.8 mV	9.00 ft	200.00 ml/min
9/21/2021 12:35 PM	30:00	4.68 pH	24.87 °C	1,574.7 µS/cm	0.08 mg/L	2.37 NTU	29.6 mV	9.00 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 10:40:11 AM

Project: Grumman Rd

Operator Name: A. Schnittker

<b>Location Name: GWB-6R</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 17.7 ft</b> <b>Total Depth: 22.7 ft</b> <b>Initial Depth to Water: 5.58 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 20 ft</b> <b>Estimated Total Volume Pumped: 7 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 3 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

Sample time 1115. Overcast 70. EB-1 here 1125.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/21/2021 10:40 AM	00:00	6.96 pH	29.15 °C	1.03 µS/cm	7.19 mg/L	6.12 NTU	8.8 mV	5.58 ft	200.00 ml/min
9/21/2021 10:45 AM	05:00	5.41 pH	26.09 °C	1,700.1 µS/cm	0.14 mg/L	5.48 NTU	6.2 mV	5.80 ft	200.00 ml/min
9/21/2021 10:50 AM	10:00	5.41 pH	25.78 °C	1,680.3 µS/cm	0.11 mg/L	5.34 NTU	-12.1 mV	5.80 ft	200.00 ml/min
9/21/2021 10:55 AM	15:00	5.41 pH	25.78 °C	1,701.2 µS/cm	0.09 mg/L	2.20 NTU	7.5 mV	5.80 ft	200.00 ml/min
9/21/2021 11:00 AM	20:00	5.41 pH	25.80 °C	1,710.5 µS/cm	0.08 mg/L	1.78 NTU	7.4 mV	5.80 ft	200.00 ml/min
9/21/2021 11:05 AM	25:00	5.40 pH	25.69 °C	1,658.1 µS/cm	0.07 mg/L	1.25 NTU	6.5 mV	5.80 ft	200.00 ml/min
9/21/2021 11:10 AM	30:00	5.39 pH	25.64 °C	1,611.6 µS/cm	0.07 mg/L	0.83 NTU	4.6 mV	5.80 ft	200.00 ml/min
9/21/2021 11:15 AM	35:00	5.40 pH	25.61 °C	1,629.7 µS/cm	0.07 mg/L	1.81 NTU	4.8 mV	5.80 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/23/2021 8:40:04 AM

Project: Grumman Rd

Operator Name: A. Schnittker

<b>Location Name: GWC-1</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 23.2 ft</b> <b>Total Depth: 28.2 ft</b> <b>Initial Depth to Water: 19.5 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 25 ft</b> <b>Estimated Total Volume Pumped: 6 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

Sample time 910. Sunny 60

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/23/2021 8:40 AM	00:00	6.03 pH	19.43 °C	478.81 µS/cm	0.56 mg/L	3.87 NTU	119.1 mV	19.50 ft	200.00 ml/min
9/23/2021 8:45 AM	05:00	6.04 pH	21.04 °C	435.63 µS/cm	0.31 mg/L	2.88 NTU	71.9 mV	19.80 ft	200.00 ml/min
9/23/2021 8:50 AM	10:00	6.06 pH	21.37 °C	437.73 µS/cm	0.23 mg/L	2.49 NTU	88.6 mV	19.80 ft	200.00 ml/min
9/23/2021 8:55 AM	15:00	6.06 pH	21.38 °C	435.63 µS/cm	0.18 mg/L	2.11 NTU	83.0 mV	19.80 ft	200.00 ml/min
9/23/2021 9:00 AM	20:00	6.06 pH	21.40 °C	432.71 µS/cm	0.17 mg/L	1.78 NTU	79.4 mV	19.80 ft	200.00 ml/min
9/23/2021 9:05 AM	25:00	6.06 pH	21.46 °C	431.87 µS/cm	0.16 mg/L	1.65 NTU	77.6 mV	19.80 ft	200.00 ml/min
9/23/2021 9:10 AM	30:00	6.06 pH	21.42 °C	430.18 µS/cm	0.15 mg/L	1.47 NTU	75.5 mV	19.80 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/22/2021 1:55:38 PM

Project: Grumman Rd

Operator Name: Z Davis

<b>Location Name: GWC-2</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 26.4 ft</b> <b>Total Depth: 31.4 ft</b> <b>Initial Depth to Water: 17.46 ft</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 28.9 ft</b> <b>Estimated Total Volume Pumped: 8.3 liters</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 2 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sampled at 1438. Sunny, 80s. Dup-3 collected here.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 0.2	+/- 100	+/- 100	+/- 1	
9/22/2021 1:55 PM	00:00	4.56 pH	33.16 °C	63.66 µS/cm	3.20 mg/L	19.20 NTU	100.9 mV	17.50 ft	200.00 ml/min
9/22/2021 2:00 PM	05:00	4.60 pH	24.70 °C	61.52 µS/cm	0.35 mg/L	33.00 NTU	100.0 mV	17.50 ft	200.00 ml/min
9/22/2021 2:05 PM	10:00	4.60 pH	23.89 °C	61.81 µS/cm	0.23 mg/L	30.80 NTU	99.8 mV	17.50 ft	200.00 ml/min
9/22/2021 2:10 PM	15:00	4.65 pH	23.71 °C	62.62 µS/cm	0.18 mg/L	20.00 NTU	99.3 mV	17.60 ft	200.00 ml/min
9/22/2021 2:15 PM	20:00	4.68 pH	23.72 °C	62.87 µS/cm	0.16 mg/L	17.30 NTU	97.4 mV	17.60 ft	200.00 ml/min
9/22/2021 2:20 PM	25:00	4.69 pH	23.86 °C	63.31 µS/cm	0.15 mg/L	13.60 NTU	96.7 mV	17.60 ft	200.00 ml/min
9/22/2021 2:25 PM	30:00	4.70 pH	24.49 °C	62.69 µS/cm	0.14 mg/L	7.83 NTU	95.7 mV	17.60 ft	200.00 ml/min
9/22/2021 2:30 PM	34:49	4.71 pH	24.29 °C	62.18 µS/cm	0.13 mg/L	7.15 NTU	94.8 mV	17.60 ft	200.00 ml/min
9/22/2021 2:32 PM	36:32	4.71 pH	24.33 °C	61.75 µS/cm	0.13 mg/L	9.30 NTU	94.4 mV	17.60 ft	200.00 ml/min
9/22/2021 2:37 PM	41:32	4.71 pH	24.37 °C	62.89 µS/cm	0.13 mg/L	4.62 NTU	92.7 mV	17.60 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 2:38:55 PM

Project: Grumman Rd

Operator Name: Z Davis

<b>Location Name: GWC-9</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 20.7 ft</b> <b>Total Depth: 25.7 ft</b> <b>Initial Depth to Water: 6.67 ft</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 23.2 ft</b> <b>Estimated Total Volume Pumped: 6.7 liters</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 135 ml/min Final Draw Down: 195 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Purged dry. Allowed to recharge overnight. Cloudy, 80s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 0.2	+/- 100	+/- 100	+/- 1	
9/21/2021 2:38 PM	00:00	4.56 pH	27.50 °C	167.58 µS/cm	1.09 mg/L	5.95 NTU	70.8 mV	7.50 ft	135.00 ml/min
9/21/2021 2:43 PM	05:00	4.68 pH	24.81 °C	176.25 µS/cm	0.22 mg/L	1.53 NTU	61.6 mV	8.60 ft	135.00 ml/min
9/21/2021 2:48 PM	10:00	4.73 pH	24.70 °C	176.75 µS/cm	0.19 mg/L	2.59 NTU	56.0 mV	10.40 ft	135.00 ml/min
9/21/2021 2:53 PM	15:00	4.78 pH	24.79 °C	178.07 µS/cm	0.17 mg/L	3.84 NTU	52.2 mV	11.30 ft	135.00 ml/min
9/21/2021 2:58 PM	20:00	4.82 pH	24.69 °C	178.28 µS/cm	0.16 mg/L	2.55 NTU	49.3 mV	12.90 ft	135.00 ml/min
9/21/2021 3:03 PM	25:00	4.84 pH	24.70 °C	178.76 µS/cm	0.16 mg/L	2.55 NTU	46.7 mV	14.00 ft	135.00 ml/min
9/21/2021 3:08 PM	30:00	4.86 pH	24.65 °C	177.91 µS/cm	0.17 mg/L	4.08 NTU	45.0 mV	15.10 ft	135.00 ml/min
9/21/2021 3:13 PM	35:00	4.87 pH	24.52 °C	177.54 µS/cm	0.18 mg/L	5.21 NTU	43.9 mV	16.60 ft	135.00 ml/min
9/21/2021 3:18 PM	40:00	4.88 pH	24.48 °C	177.25 µS/cm	0.21 mg/L	5.72 NTU	43.3 mV	18.50 ft	135.00 ml/min
9/21/2021 3:23 PM	45:00	4.89 pH	24.69 °C	177.26 µS/cm	0.28 mg/L	5.64 NTU	42.5 mV	20.50 ft	135.00 ml/min
9/21/2021 3:28 PM	50:00	5.17 pH	25.51 °C	177.31 µS/cm	5.65 mg/L	5.69 NTU	43.1 mV	22.90 ft	135.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/22/2021 12:48:31 PM

Project: Grumman Rd

Operator Name: Z Davis

<b>Location Name: GWC-9</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 20.7 ft</b> <b>Total Depth: 25.7 ft</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 23.2 ft</b> <b>Estimated Total Volume Pumped: 2328.75 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 135 ml/min Final Draw Down: 39 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sampled at 1303. Sunny, 80s. FB-3 taken here at 1315.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 0.2	+/- 100	+/- 100	+/- 1	
9/22/2021 12:48 PM	00:00	4.80 pH	31.15 °C	214.07 µS/cm	3.62 mg/L	17.80 NTU	52.6 mV	7.20 ft	135.00 ml/min
9/22/2021 12:53 PM	05:00	4.74 pH	25.79 °C	160.92 µS/cm	0.32 mg/L	6.41 NTU	57.5 mV	7.90 ft	135.00 ml/min
9/22/2021 12:58 PM	10:00	4.71 pH	25.85 °C	162.31 µS/cm	0.24 mg/L	3.61 NTU	57.2 mV	8.80 ft	135.00 ml/min
9/22/2021 1:03 PM	15:00	4.70 pH	25.69 °C	162.15 µS/cm	0.21 mg/L	3.58 NTU	55.6 mV	9.90 ft	135.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 11:40:38 AM

Project: Grumman Rd

Operator Name: Z Davis

<b>Location Name: GWC-11</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 17.15 ft</b> <b>Total Depth: 22.15 ft</b> <b>Initial Depth to Water: 10.15 ft</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 19.65 ft</b> <b>Estimated Total Volume Pumped: 7.8 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 130 ml/min Final</b> <b>Draw Down: 42 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sampled at 1240. Cloudy, 70s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 0.2	+/- 100	+/- 100	+/- 1	
9/21/2021 11:40 AM	00:00	5.00 pH	26.75 °C	573.01 µS/cm	1.10 mg/L	2.87 NTU	82.0 mV	10.80 ft	130.00 ml/min
9/21/2021 11:45 AM	05:00	5.03 pH	25.06 °C	538.75 µS/cm	0.28 mg/L	2.42 NTU	82.0 mV	11.50 ft	130.00 ml/min
9/21/2021 11:50 AM	10:00	5.00 pH	24.79 °C	617.82 µS/cm	0.23 mg/L	2.26 NTU	85.9 mV	11.90 ft	130.00 ml/min
9/21/2021 11:55 AM	15:00	4.98 pH	24.70 °C	745.49 µS/cm	0.22 mg/L	4.60 NTU	90.4 mV	12.30 ft	130.00 ml/min
9/21/2021 12:00 PM	20:00	4.96 pH	24.61 °C	858.77 µS/cm	0.22 mg/L	6.18 NTU	94.7 mV	12.50 ft	130.00 ml/min
9/21/2021 12:05 PM	25:00	4.95 pH	24.58 °C	948.77 µS/cm	0.21 mg/L	6.13 NTU	98.0 mV	12.70 ft	130.00 ml/min
9/21/2021 12:10 PM	30:00	4.94 pH	24.57 °C	1,002.5 µS/cm	0.22 mg/L	6.42 NTU	100.7 mV	12.90 ft	130.00 ml/min
9/21/2021 12:15 PM	35:00	4.93 pH	24.58 °C	1,051.8 µS/cm	0.21 mg/L	5.85 NTU	103.3 mV	13.10 ft	130.00 ml/min
9/21/2021 12:20 PM	40:00	4.93 pH	24.79 °C	1,093.8 µS/cm	0.21 mg/L	6.03 NTU	105.8 mV	13.30 ft	130.00 ml/min
9/21/2021 12:25 PM	45:00	4.93 pH	24.78 °C	1,141.2 µS/cm	0.21 mg/L	5.12 NTU	108.5 mV	13.30 ft	130.00 ml/min
9/21/2021 12:30 PM	50:00	4.93 pH	24.61 °C	1,177.7 µS/cm	0.21 mg/L	4.38 NTU	111.7 mV	13.30 ft	130.00 ml/min
9/21/2021 12:35 PM	55:00	4.92 pH	24.56 °C	1,223.1 µS/cm	0.20 mg/L	4.44 NTU	113.9 mV	13.30 ft	130.00 ml/min
9/21/2021 12:40 PM	01:00:00	4.92 pH	24.38 °C	1,228.7 µS/cm	0.18 mg/L	3.93 NTU	116.4 mV	13.30 ft	130.00 ml/min

## Samples

# Low-Flow Test Report:

Test Date / Time: 9/21/2021 10:31:45 AM

Project: Grumman Rd

Operator Name: Z Davis

<b>Location Name: GWC-12</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 21.7 ft</b> <b>Total Depth: 26.7 ft</b> <b>Initial Depth to Water: 10.29 ft</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 24.2 ft</b> <b>Estimated Total Volume Pumped: 5.0 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sampled at 1057. Cloudy, 70s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 0.2	+/- 100	+/- 100	+/- 1	
9/21/2021 10:31 AM	00:00	4.28 pH	27.38 °C	794.26 µS/cm	4.46 mg/L	8.81 NTU	117.9 mV	10.50 ft	200.00 ml/min
9/21/2021 10:36 AM	05:00	4.27 pH	24.81 °C	856.54 µS/cm	0.56 mg/L	11.20 NTU	113.3 mV	10.60 ft	200.00 ml/min
9/21/2021 10:41 AM	10:00	4.15 pH	24.70 °C	909.68 µS/cm	0.29 mg/L	5.35 NTU	109.8 mV	10.60 ft	200.00 ml/min
9/21/2021 10:46 AM	15:00	4.07 pH	24.49 °C	932.47 µS/cm	0.22 mg/L	3.59 NTU	103.1 mV	10.60 ft	200.00 ml/min
9/21/2021 10:51 AM	20:00	4.06 pH	24.38 °C	933.68 µS/cm	0.18 mg/L	3.35 NTU	99.3 mV	10.60 ft	200.00 ml/min
9/21/2021 10:56 AM	25:00	4.05 pH	24.51 °C	934.85 µS/cm	0.15 mg/L	3.31 NTU	96.9 mV	10.60 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 3:45:07 PM

Project: Grumman Rd

Operator Name: Z Davis

<b>Location Name: GWC-13</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 19.1 ft</b> <b>Total Depth: 24.1 ft</b> <b>Initial Depth to Water: 12.01 ft</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 21.7 ft</b> <b>Estimated Total Volume Pumped: 7.0 liters</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 6 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sampled 1620. Cloudy, 80s. Extra RADs collected.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 0.2	+/- 100	+/- 100	+/- 1	
9/21/2021 3:45 PM	00:00	5.12 pH	26.61 °C	79.01 µS/cm	4.39 mg/L	7.72 NTU	54.1 mV	12.40 ft	200.00 ml/min
9/21/2021 3:50 PM	05:00	5.02 pH	25.28 °C	104.53 µS/cm	1.67 mg/L	4.32 NTU	55.5 mV	12.40 ft	200.00 ml/min
9/21/2021 3:55 PM	10:00	5.03 pH	24.97 °C	107.31 µS/cm	1.45 mg/L	2.90 NTU	56.5 mV	12.40 ft	200.00 ml/min
9/21/2021 4:00 PM	15:00	5.00 pH	24.65 °C	110.06 µS/cm	1.25 mg/L	4.23 NTU	57.9 mV	12.40 ft	200.00 ml/min
9/21/2021 4:05 PM	20:00	4.90 pH	24.47 °C	124.36 µS/cm	0.67 mg/L	5.07 NTU	57.8 mV	12.50 ft	200.00 ml/min
9/21/2021 4:10 PM	25:00	4.86 pH	24.34 °C	131.83 µS/cm	0.42 mg/L	2.86 NTU	58.2 mV	12.50 ft	200.00 ml/min
9/21/2021 4:15 PM	30:00	4.84 pH	24.38 °C	134.77 µS/cm	0.34 mg/L	2.58 NTU	58.6 mV	12.50 ft	200.00 ml/min
9/21/2021 4:20 PM	35:00	4.83 pH	24.39 °C	136.41 µS/cm	0.31 mg/L	2.32 NTU	59.6 mV	12.50 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/22/2021 3:40:11 PM

Project: Grumman Rd

Operator Name: Z Davis

<b>Location Name: GWC-14</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 22 ft</b> <b>Total Depth: 27 ft</b> <b>Initial Depth to Water: 17.31 ft</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 24.5 ft</b> <b>Estimated Total Volume Pumped: 6.0 liters</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 5 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sampled at 1610. Cloudy, 80s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 0.2	+/- 100	+/- 100	+/- 1	
9/22/2021 3:40 PM	00:00	5.70 pH	29.24 °C	1,012.1 µS/cm	2.55 mg/L	7.17 NTU	83.6 mV	17.60 ft	200.00 ml/min
9/22/2021 3:45 PM	05:00	5.70 pH	24.65 °C	1,103.2 µS/cm	1.15 mg/L	4.10 NTU	84.6 mV	17.60 ft	200.00 ml/min
9/22/2021 3:50 PM	10:00	5.73 pH	24.14 °C	1,217.2 µS/cm	0.90 mg/L	2.56 NTU	85.6 mV	17.70 ft	200.00 ml/min
9/22/2021 3:55 PM	15:00	5.74 pH	23.97 °C	1,192.0 µS/cm	0.87 mg/L	2.17 NTU	85.4 mV	17.70 ft	200.00 ml/min
9/22/2021 4:00 PM	20:00	5.75 pH	23.84 °C	1,220.4 µS/cm	0.79 mg/L	1.33 NTU	85.6 mV	17.70 ft	200.00 ml/min
9/22/2021 4:05 PM	25:00	5.75 pH	23.70 °C	1,212.1 µS/cm	0.76 mg/L	1.97 NTU	86.4 mV	17.70 ft	200.00 ml/min
9/22/2021 4:10 PM	30:00	5.76 pH	23.79 °C	1,211.5 µS/cm	0.74 mg/L	1.86 NTU	86.1 mV	17.70 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/23/2021 8:31:58 AM

Project: Grumman Rd

Operator Name: Z Davis

<b>Location Name: GWC-15</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 21.8 ft</b> <b>Total Depth: 26.8 ft</b> <b>Initial Depth to Water: 18.31 ft</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 24.5 ft</b> <b>Estimated Total Volume Pumped: 3.80 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 1 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sampled at 0855. Cloudy, 60s. EB-3 takes here at 0900 - gloves.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 0.2	+/- 100	+/- 100	+/- 1	
9/23/2021 8:30 AM	00:00	6.42 pH	19.91 °C	924.70 µS/cm	0.97 mg/L	1.71 NTU	87.3 mV	18.40 ft	150.00 ml/min
9/23/2021 8:35 AM	05:00	6.46 pH	21.47 °C	902.93 µS/cm	0.31 mg/L	1.12 NTU	79.8 mV	18.40 ft	150.00 ml/min
9/23/2021 8:40 AM	10:00	6.45 pH	21.82 °C	889.28 µS/cm	0.25 mg/L	1.12 NTU	74.7 mV	18.40 ft	150.00 ml/min
9/23/2021 8:45 AM	15:00	6.47 pH	21.87 °C	896.76 µS/cm	0.21 mg/L	1.03 NTU	72.5 mV	18.40 ft	150.00 ml/min
9/23/2021 8:50 AM	20:00	6.48 pH	21.94 °C	897.95 µS/cm	0.19 mg/L	1.06 NTU	70.7 mV	18.40 ft	150.00 ml/min
9/23/2021 8:55 AM	25:00	6.48 pH	22.05 °C	900.29 µS/cm	0.18 mg/L	1.02 NTU	69.3 mV	18.40 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/22/2021 10:25:11 AM

Project: Grumman Rd

Operator Name: A. Schnittker

<b>Location Name: GWC-16</b> <b>Well Diameter: 2 in</b> <b>Casing Type: pvc</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 23.2 ft</b> <b>Total Depth: 28.2 ft</b> <b>Initial Depth to Water: 20.55 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 25.5 ft</b> <b>Estimated Total Volume Pumped: 5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 135 ml/min</b> <b>Final Draw Down: 3 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

Sample time 1100. Sunny 70

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/22/2021 10:25 AM	00:00	4.98 pH	29.99 °C	617.26 µS/cm	2.50 mg/L	11.70 NTU	134.5 mV	20.55 ft	135.00 ml/min
9/22/2021 10:30 AM	05:00	5.11 pH	25.45 °C	1,254.2 µS/cm	1.32 mg/L	10.80 NTU	118.4 mV	20.80 ft	135.00 ml/min
9/22/2021 10:35 AM	10:00	5.37 pH	25.10 °C	1,773.7 µS/cm	0.54 mg/L	7.46 NTU	76.5 mV	20.80 ft	135.00 ml/min
9/22/2021 10:40 AM	15:00	5.05 pH	25.28 °C	328.76 µS/cm	2.22 mg/L	6.99 NTU	65.7 mV	20.80 ft	135.00 ml/min
9/22/2021 10:45 AM	20:00	5.49 pH	25.15 °C	1,965.1 µS/cm	0.65 mg/L	5.87 NTU	55.4 mV	20.80 ft	135.00 ml/min
9/22/2021 10:50 AM	25:00	5.53 pH	25.05 °C	2,004.8 µS/cm	0.51 mg/L	5.46 NTU	55.9 mV	20.80 ft	135.00 ml/min
9/22/2021 10:55 AM	30:00	5.55 pH	24.91 °C	2,033.0 µS/cm	0.49 mg/L	4.99 NTU	52.2 mV	20.80 ft	135.00 ml/min
9/22/2021 11:00 AM	35:00	5.57 pH	24.53 °C	2,060.1 µS/cm	0.50 mg/L	3.91 NTU	47.4 mV	20.80 ft	135.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/22/2021 9:00:07 AM

Project: Grumman Rd

Operator Name: Z Davis

<b>Location Name: GWC-17</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 17.08 ft</b> <b>Total Depth: 22.08 ft</b> <b>Initial Depth to Water: 4.40 ft</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 19.58 ft</b> <b>Estimated Total Volume Pumped: 3.3 liters</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 185 ml/min</b> <b>Final Draw Down: 18 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sampled at 1200. Sunny, 80s. EB-2 taken here at 0845 - Water Level.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 0.2	+/- 100	+/- 100	+/- 1	
9/22/2021 9:00 AM	00:00	5.52 pH	25.62 °C	1,371.5 µS/cm	0.33 mg/L	591.00 NTU	105.4 mV	5.20 ft	185.00 ml/min
9/22/2021 9:05 AM	05:00	5.17 pH	25.15 °C	1,863.0 µS/cm	0.25 mg/L	346.00 NTU	104.3 mV	5.40 ft	185.00 ml/min
9/22/2021 9:10 AM	10:00	5.05 pH	25.15 °C	2,030.9 µS/cm	0.19 mg/L	112.00 NTU	100.2 mV	5.60 ft	185.00 ml/min
9/22/2021 9:15 AM	15:00	4.91 pH	24.93 °C	2,260.8 µS/cm	0.18 mg/L	65.40 NTU	98.3 mV	5.60 ft	185.00 ml/min
9/22/2021 9:20 AM	20:00	4.86 pH	24.83 °C	2,359.1 µS/cm	0.16 mg/L	62.40 NTU	96.0 mV	5.60 ft	185.00 ml/min
9/22/2021 9:25 AM	25:00	4.76 pH	24.80 °C	2,483.3 µS/cm	0.15 mg/L	60.80 NTU	94.6 mV	5.60 ft	185.00 ml/min
9/22/2021 9:30 AM	30:00	4.74 pH	24.83 °C	2,508.7 µS/cm	0.15 mg/L	39.80 NTU	92.6 mV	5.70 ft	185.00 ml/min
9/22/2021 9:35 AM	35:00	4.73 pH	24.79 °C	2,532.1 µS/cm	0.14 mg/L	25.60 NTU	90.8 mV	5.70 ft	185.00 ml/min
9/22/2021 9:40 AM	40:00	4.71 pH	25.15 °C	2,564.8 µS/cm	0.14 mg/L	25.10 NTU	89.3 mV	5.70 ft	185.00 ml/min
9/22/2021 9:45 AM	45:00	4.71 pH	25.42 °C	2,554.0 µS/cm	0.13 mg/L	21.00 NTU	87.6 mV	5.70 ft	185.00 ml/min
9/22/2021 9:53 AM	52:57	4.68 pH	27.07 °C	2,572.4 µS/cm	4.83 mg/L	57.10 NTU	91.2 mV	5.70 ft	185.00 ml/min
9/22/2021 9:58 AM	57:57	4.68 pH	25.73 °C	2,615.3 µS/cm	0.19 mg/L	33.40 NTU	89.8 mV	5.70 ft	185.00 ml/min
9/22/2021 10:03 AM	01:02:57	4.68 pH	25.39 °C	2,625.7 µS/cm	0.14 mg/L	19.70 NTU	88.8 mV	5.70 ft	185.00 ml/min
9/22/2021 10:08 AM	01:07:57	4.69 pH	25.35 °C	2,618.5 µS/cm	0.13 mg/L	16.10 NTU	87.5 mV	5.70 ft	185.00 ml/min
9/22/2021 10:11 AM	01:11:11	4.68 pH	25.15 °C	2,625.5 µS/cm	0.13 mg/L	17.50 NTU	87.0 mV	5.70 ft	185.00 ml/min

9/22/2021 10:11 AM	01:11:38	4.67 pH	25.17 °C	2,632.0 µS/cm	0.13 mg/L	13.50 NTU	87.0 mV	5.70 ft	185.00 ml/min
9/22/2021 10:15 AM	01:15:38	4.69 pH	25.52 °C	2,616.7 µS/cm	0.12 mg/L	19.90 NTU	85.7 mV	5.70 ft	185.00 ml/min
9/22/2021 10:15 AM	01:15:48	4.70 pH	25.52 °C	2,600.3 µS/cm	0.12 mg/L	19.00 NTU	85.7 mV	5.70 ft	185.00 ml/min
9/22/2021 10:20 AM	01:20:48	4.69 pH	25.68 °C	2,601.2 µS/cm	0.12 mg/L	13.20 NTU	84.5 mV	5.70 ft	185.00 ml/min
9/22/2021 10:25 AM	01:25:48	4.70 pH	25.55 °C	2,594.7 µS/cm	0.12 mg/L	14.60 NTU	83.6 mV	5.70 ft	185.00 ml/min
9/22/2021 10:30 AM	01:30:48	4.69 pH	25.63 °C	2,601.0 µS/cm	0.11 mg/L	18.20 NTU	82.7 mV	5.70 ft	185.00 ml/min
9/22/2021 10:35 AM	01:35:48	4.66 pH	25.82 °C	2,621.2 µS/cm	0.11 mg/L	13.30 NTU	81.9 mV	5.70 ft	185.00 ml/min
9/22/2021 10:40 AM	01:40:48	4.69 pH	25.77 °C	2,593.0 µS/cm	0.11 mg/L	12.30 NTU	80.9 mV	5.70 ft	185.00 ml/min
9/22/2021 10:45 AM	01:45:48	4.68 pH	25.38 °C	2,599.4 µS/cm	0.11 mg/L	13.20 NTU	80.1 mV	5.70 ft	185.00 ml/min
9/22/2021 10:50 AM	01:50:48	4.69 pH	25.62 °C	2,592.2 µS/cm	0.11 mg/L	16.60 NTU	79.0 mV	5.80 ft	185.00 ml/min
9/22/2021 10:55 AM	01:55:48	4.69 pH	25.63 °C	2,580.1 µS/cm	0.11 mg/L	19.10 NTU	78.1 mV	5.80 ft	185.00 ml/min
9/22/2021 11:00 AM	02:00:48	4.66 pH	25.83 °C	2,616.5 µS/cm	0.11 mg/L	16.50 NTU	77.5 mV	5.80 ft	185.00 ml/min
9/22/2021 11:05 AM	02:05:48	4.65 pH	25.92 °C	2,626.4 µS/cm	0.11 mg/L	23.30 NTU	76.7 mV	5.80 ft	185.00 ml/min
9/22/2021 11:10 AM	02:10:48	4.65 pH	26.10 °C	2,622.6 µS/cm	0.11 mg/L	20.40 NTU	75.9 mV	5.80 ft	185.00 ml/min
9/22/2021 11:15 AM	02:15:48	4.66 pH	25.56 °C	2,621.4 µS/cm	0.11 mg/L	19.70 NTU	75.3 mV	5.80 ft	185.00 ml/min
9/22/2021 11:20 AM	02:20:48	4.65 pH	25.79 °C	2,621.9 µS/cm	0.11 mg/L	25.40 NTU	74.5 mV	5.80 ft	185.00 ml/min
9/22/2021 11:25 AM	02:25:48	4.64 pH	25.88 °C	2,624.8 µS/cm	0.11 mg/L	16.40 NTU	73.7 mV	5.80 ft	185.00 ml/min
9/22/2021 11:30 AM	02:30:48	4.64 pH	25.95 °C	2,622.1 µS/cm	0.11 mg/L	10.20 NTU	72.9 mV	5.80 ft	185.00 ml/min
9/22/2021 11:35 AM	02:35:48	4.64 pH	25.61 °C	2,625.6 µS/cm	0.11 mg/L	9.05 NTU	72.4 mV	5.80 ft	185.00 ml/min
9/22/2021 11:40 AM	02:40:48	4.65 pH	25.33 °C	2,617.5 µS/cm	0.12 mg/L	14.20 NTU	71.6 mV	5.80 ft	185.00 ml/min
9/22/2021 11:45 AM	02:45:48	4.64 pH	25.33 °C	2,627.5 µS/cm	0.12 mg/L	11.20 NTU	70.9 mV	5.80 ft	185.00 ml/min
9/22/2021 11:50 AM	02:50:48	4.65 pH	25.40 °C	2,610.5 µS/cm	0.12 mg/L	10.60 NTU	70.0 mV	5.90 ft	185.00 ml/min
9/22/2021 11:55 AM	02:55:48	4.63 pH	25.69 °C	2,629.4 µS/cm	0.11 mg/L	8.95 NTU	69.2 mV	5.90 ft	185.00 ml/min
9/22/2021 12:00 PM	03:00:48	4.63 pH	26.01 °C	2,624.8 µS/cm	0.11 mg/L	7.83 NTU	68.6 mV	5.90 ft	185.00 ml/min

## Samples

<b>Sample ID:</b>	<b>Description:</b>
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# Low-Flow Test Report:

Test Date / Time: 9/22/2021 1:15:18 PM

Project: Grumman Rd

Operator Name: A. Schnittker

<b>Location Name: GWC-20</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 19.6 ft</b> <b>Total Depth: 25.59 ft</b> <b>Initial Depth to Water: 19.95 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 22 ft</b> <b>Estimated Total Volume Pumped: 10.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min Final Draw Down: 6 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

Sample time 1405. Sunny 80

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/22/2021 1:15 PM	00:00	6.11 pH	26.67 °C	1,644.5 µS/cm	2.41 mg/L	3.26 NTU	75.7 mV	19.95 ft	200.00 ml/min
9/22/2021 1:20 PM	05:00	6.02 pH	26.02 °C	1,962.3 µS/cm	1.49 mg/L	3.11 NTU	61.8 mV	20.40 ft	200.00 ml/min
9/22/2021 1:25 PM	10:00	6.01 pH	26.23 °C	2,008.7 µS/cm	0.89 mg/L	2.78 NTU	77.1 mV	20.40 ft	200.00 ml/min
9/22/2021 1:30 PM	15:00	6.01 pH	26.28 °C	2,004.9 µS/cm	0.69 mg/L	1.55 NTU	68.6 mV	20.50 ft	200.00 ml/min
9/22/2021 1:35 PM	20:00	5.99 pH	26.32 °C	2,033.0 µS/cm	0.58 mg/L	1.76 NTU	64.1 mV	20.50 ft	200.00 ml/min
9/22/2021 1:40 PM	25:00	6.00 pH	26.04 °C	2,013.1 µS/cm	0.49 mg/L	1.44 NTU	72.5 mV	20.50 ft	200.00 ml/min
9/22/2021 1:45 PM	30:00	6.00 pH	25.55 °C	2,021.8 µS/cm	0.41 mg/L	1.23 NTU	57.1 mV	20.50 ft	200.00 ml/min
9/22/2021 1:50 PM	35:00	6.00 pH	25.37 °C	2,014.3 µS/cm	0.40 mg/L	1.87 NTU	50.8 mV	20.50 ft	200.00 ml/min
9/22/2021 1:55 PM	40:00	6.00 pH	25.44 °C	2,012.1 µS/cm	0.36 mg/L	1.65 NTU	55.0 mV	20.50 ft	200.00 ml/min
9/22/2021 2:00 PM	45:00	6.00 pH	25.21 °C	2,001.4 µS/cm	0.36 mg/L	1.35 NTU	47.5 mV	20.50 ft	200.00 ml/min
9/22/2021 2:05 PM	50:00	6.00 pH	25.22 °C	2,004.5 µS/cm	0.35 mg/L	1.38 NTU	45.9 mV	20.50 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/22/2021 9:00:07 AM

Project: Grumman Rd

Operator Name: A. Schnittker

<b>Location Name: GWC-21</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 20.54 ft</b> <b>Total Depth: 25.54 ft</b> <b>Initial Depth to Water: 19.41 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 23 ft</b> <b>Estimated Total Volume Pumped: 7.2 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 180 ml/min</b> <b>Final Draw Down: 4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

Sample time 940. Dup-2 here. Sunny 70.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/22/2021 9:00 AM	00:00	5.36 pH	25.29 °C	79.11 µS/cm	6.00 mg/L	4.99 NTU	131.7 mV	19.41 ft	180.00 ml/min
9/22/2021 9:05 AM	05:00	5.37 pH	24.83 °C	82.56 µS/cm	5.82 mg/L	4.85 NTU	121.4 mV	19.60 ft	180.00 ml/min
9/22/2021 9:10 AM	10:00	5.36 pH	24.87 °C	89.02 µS/cm	5.62 mg/L	3.50 NTU	119.5 mV	19.60 ft	180.00 ml/min
9/22/2021 9:15 AM	15:00	5.37 pH	24.96 °C	96.64 µS/cm	5.45 mg/L	2.78 NTU	112.0 mV	19.60 ft	180.00 ml/min
9/22/2021 9:20 AM	20:00	5.40 pH	25.07 °C	101.51 µS/cm	5.45 mg/L	2.55 NTU	106.7 mV	19.70 ft	180.00 ml/min
9/22/2021 9:25 AM	25:00	5.38 pH	25.05 °C	99.20 µS/cm	5.54 mg/L	1.74 NTU	103.2 mV	19.70 ft	180.00 ml/min
9/22/2021 9:30 AM	30:00	5.42 pH	24.77 °C	95.14 µS/cm	5.41 mg/L	1.66 NTU	98.3 mV	19.70 ft	180.00 ml/min
9/22/2021 9:35 AM	35:00	5.40 pH	24.65 °C	93.87 µS/cm	5.48 mg/L	1.21 NTU	146.5 mV	19.70 ft	180.00 ml/min
9/22/2021 9:40 AM	40:00	5.39 pH	24.64 °C	92.27 µS/cm	5.50 mg/L	1.28 NTU	97.8 mV	19.70 ft	180.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 1:30:25 PM

Project: Grumman Rd

Operator Name: Z Davis

<b>Location Name: GWC-22</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 13.6 ft</b> <b>Total Depth: 18.6 ft</b> <b>Initial Depth to Water: 6.17 ft</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 16.1 ft</b> <b>Estimated Total Volume Pumped: 5.0 liters</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 165 ml/min Final Draw Down: 4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sampled at 1400. Cloudy, 70s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 0.2	+/- 100	+/- 100	+/- 1	
9/21/2021 1:30 PM	00:00	4.79 pH	27.83 °C	115.89 µS/cm	0.96 mg/L	3.28 NTU	81.3 mV	6.30 ft	165.00 ml/min
9/21/2021 1:35 PM	05:00	4.74 pH	26.31 °C	132.02 µS/cm	0.23 mg/L	3.35 NTU	85.6 mV	6.30 ft	165.00 ml/min
9/21/2021 1:40 PM	10:00	4.73 pH	26.07 °C	142.58 µS/cm	0.18 mg/L	2.43 NTU	87.1 mV	6.30 ft	165.00 ml/min
9/21/2021 1:45 PM	15:00	4.73 pH	25.92 °C	153.12 µS/cm	0.16 mg/L	2.00 NTU	87.8 mV	6.40 ft	165.00 ml/min
9/21/2021 1:50 PM	20:00	4.72 pH	26.14 °C	160.84 µS/cm	0.15 mg/L	2.02 NTU	87.7 mV	6.40 ft	165.00 ml/min
9/21/2021 1:55 PM	25:00	4.72 pH	26.43 °C	165.81 µS/cm	0.14 mg/L	1.81 NTU	88.2 mV	6.40 ft	165.00 ml/min
9/21/2021 2:00 PM	30:00	4.72 pH	26.09 °C	168.49 µS/cm	0.14 mg/L	1.85 NTU	88.6 mV	6.50 ft	165.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/22/2021 2:40:15 PM

Project: Grumman Rd

Operator Name: A. Schnittker

<b>Location Name: MW-23D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 53.3 ft</b> <b>Total Depth: 63.3 ft</b> <b>Initial Depth to Water: 21.96 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 57 ft</b> <b>Estimated Total Volume Pumped: 18.1 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 25 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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Test Notes: Sample time 1600. Sunny 70.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/22/2021 2:40 PM	00:00	6.45 pH	28.63 °C	94.55 µS/cm	0.72 mg/L	6.82 NTU	-14.8 mV	21.96 ft	250.00 ml/min
9/22/2021 2:45 PM	05:00	6.43 pH	25.47 °C	93.71 µS/cm	1.26 mg/L	6.45 NTU	-18.3 mV	23.90 ft	250.00 ml/min
9/22/2021 2:50 PM	10:00	6.42 pH	25.46 °C	97.95 µS/cm	0.96 mg/L	6.67 NTU	-24.8 mV	24.00 ft	250.00 ml/min
9/22/2021 2:55 PM	15:00	6.41 pH	25.70 °C	101.76 µS/cm	0.52 mg/L	6.12 NTU	-74.7 mV	24.00 ft	250.00 ml/min
9/22/2021 3:00 PM	20:00	6.42 pH	25.86 °C	116.17 µS/cm	0.38 mg/L	5.99 NTU	-40.4 mV	24.10 ft	250.00 ml/min
9/22/2021 3:05 PM	25:00	6.47 pH	26.43 °C	249.41 µS/cm	0.20 mg/L	6.14 NTU	-113.8 mV	24.10 ft	250.00 ml/min
9/22/2021 3:10 PM	30:00	6.37 pH	25.37 °C	416.30 µS/cm	0.16 mg/L	5.87 NTU	-22.6 mV	24.10 ft	250.00 ml/min
9/22/2021 3:15 PM	35:00	6.37 pH	25.05 °C	407.66 µS/cm	0.15 mg/L	5.29 NTU	-48.4 mV	24.10 ft	250.00 ml/min
9/22/2021 3:20 PM	40:00	6.37 pH	25.50 °C	384.58 µS/cm	0.12 mg/L	5.14 NTU	-9.4 mV	24.10 ft	250.00 ml/min
9/22/2021 3:25 PM	45:00	6.37 pH	25.68 °C	362.55 µS/cm	0.13 mg/L	5.87 NTU	-36.3 mV	24.10 ft	250.00 ml/min
9/22/2021 3:30 PM	50:00	6.37 pH	25.88 °C	348.15 µS/cm	0.12 mg/L	3.38 NTU	-31.4 mV	24.10 ft	250.00 ml/min
9/22/2021 3:35 PM	55:00	6.37 pH	26.09 °C	332.27 µS/cm	0.11 mg/L	3.67 NTU	-28.9 mV	24.10 ft	250.00 ml/min
9/22/2021 3:40 PM	01:00:00	6.38 pH	25.60 °C	321.05 µS/cm	0.13 mg/L	2.87 NTU	-2.4 mV	24.10 ft	250.00 ml/min
9/22/2021 3:45 PM	01:05:00	6.38 pH	26.29 °C	312.58 µS/cm	0.10 mg/L	2.99 NTU	-1.9 mV	24.10 ft	250.00 ml/min
9/22/2021 3:47 PM	01:07:14	6.38 pH	26.55 °C	312.53 µS/cm	0.10 mg/L	3.87 NTU	-2.1 mV	24.10 ft	250.00 ml/min

9/22/2021 3:52 PM	01:12:14	6.39 pH	25.62 °C	299.39 $\mu$ S/cm	0.11 mg/L	4.25 NTU	-24.6 mV	24.10 ft	250.00 ml/min
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**Samples**

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/22/2021 11:35:10 AM

Project: Grumman Rd

Operator Name: A. Schnittker

<b>Location Name: MW-24D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 56.3 ft</b> <b>Total Depth: 66.3 ft</b> <b>Initial Depth to Water: 21.97 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 61 ft</b> <b>Estimated Total Volume Pumped: 12.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 45 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

Sample time 1225. Sunny 80

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/22/2021 11:35 AM	00:00	6.66 pH	28.58 °C	85.18 µS/cm	0.81 mg/L	10.90 NTU	-28.4 mV	21.97 ft	250.00 ml/min
9/22/2021 11:40 AM	05:00	6.74 pH	25.19 °C	89.78 µS/cm	0.30 mg/L	8.98 NTU	-46.5 mV	25.50 ft	250.00 ml/min
9/22/2021 11:45 AM	10:00	6.75 pH	25.19 °C	89.71 µS/cm	0.21 mg/L	7.46 NTU	-49.2 mV	25.60 ft	250.00 ml/min
9/22/2021 11:50 AM	15:00	6.74 pH	25.39 °C	86.37 µS/cm	0.17 mg/L	6.57 NTU	-46.5 mV	25.60 ft	250.00 ml/min
9/22/2021 11:55 AM	20:00	6.71 pH	24.57 °C	83.46 µS/cm	0.15 mg/L	8.96 NTU	-36.7 mV	25.60 ft	250.00 ml/min
9/22/2021 12:00 PM	25:00	6.72 pH	24.42 °C	85.19 µS/cm	0.14 mg/L	12.10 NTU	-30.1 mV	25.70 ft	250.00 ml/min
9/22/2021 12:05 PM	30:00	6.75 pH	24.60 °C	88.08 µS/cm	0.14 mg/L	10.70 NTU	-27.0 mV	25.70 ft	250.00 ml/min
9/22/2021 12:10 PM	35:00	6.75 pH	25.09 °C	88.68 µS/cm	0.14 mg/L	8.95 NTU	-44.7 mV	25.70 ft	250.00 ml/min
9/22/2021 12:15 PM	40:00	6.79 pH	24.62 °C	85.05 µS/cm	0.13 mg/L	6.45 NTU	-27.6 mV	25.70 ft	250.00 ml/min
9/22/2021 12:20 PM	45:00	6.79 pH	24.51 °C	83.98 µS/cm	0.12 mg/L	5.97 NTU	-22.0 mV	25.70 ft	250.00 ml/min
9/22/2021 12:25 PM	50:00	6.76 pH	24.53 °C	83.02 µS/cm	0.12 mg/L	4.54 NTU	-18.5 mV	25.70 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/23/2021 9:40:09 AM

Project: Grumman Rd

Operator Name: Z Davis

<b>Location Name: MW-25D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 60.2 ft</b> <b>Total Depth: 70.2 ft</b> <b>Initial Depth to Water: 19.91 ft</b>	<b>Pump Type: Peristaltic</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 65.2 ft</b> <b>Estimated Total Volume Pumped: 3.8 liters</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 41 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sampled at 1005. Sunny, 70s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 0.2	+/- 100	+/- 100	+/- 1	
9/23/2021 9:40 AM	00:00	6.59 pH	20.49 °C	83.00 µS/cm	0.74 mg/L	1.16 NTU	30.6 mV	20.40 ft	150.00 ml/min
9/23/2021 9:45 AM	05:00	6.31 pH	21.03 °C	73.06 µS/cm	0.37 mg/L	2.53 NTU	32.7 mV	21.60 ft	150.00 ml/min
9/23/2021 9:50 AM	10:00	6.24 pH	21.20 °C	71.54 µS/cm	0.30 mg/L	1.56 NTU	33.0 mV	22.30 ft	150.00 ml/min
9/23/2021 9:55 AM	15:00	6.22 pH	21.28 °C	71.58 µS/cm	0.27 mg/L	1.08 NTU	32.2 mV	22.70 ft	150.00 ml/min
9/23/2021 10:00 AM	20:00	6.21 pH	21.25 °C	71.53 µS/cm	0.25 mg/L	1.41 NTU	31.7 mV	23.10 ft	150.00 ml/min
9/23/2021 10:05 AM	25:00	6.21 pH	21.29 °C	72.27 µS/cm	0.24 mg/L	1.49 NTU	30.8 mV	23.30 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 1:15:04 PM

Project: Grumman Rd

Operator Name: A. Schnittker

<b>Location Name: MW-26D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 59.9 ft</b> <b>Total Depth: 69.9 ft</b> <b>Initial Depth to Water: 18.64 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 64 ft</b> <b>Estimated Total Volume Pumped: 9 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 300 ml/min</b> <b>Final Draw Down: 25 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

Sample time 1345. Overcast 70.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/21/2021 1:15 PM	00:00	6.12 pH	23.43 °C	59.99 µS/cm	0.27 mg/L	2.54 NTU	52.4 mV	18.64 ft	300.00 ml/min
9/21/2021 1:20 PM	05:00	6.14 pH	23.13 °C	59.47 µS/cm	0.22 mg/L	2.69 NTU	47.8 mV	20.60 ft	300.00 ml/min
9/21/2021 1:25 PM	10:00	5.97 pH	22.99 °C	55.80 µS/cm	0.19 mg/L	2.60 NTU	45.6 mV	20.70 ft	300.00 ml/min
9/21/2021 1:30 PM	15:00	5.91 pH	22.95 °C	54.82 µS/cm	0.16 mg/L	3.24 NTU	44.7 mV	20.70 ft	300.00 ml/min
9/21/2021 1:35 PM	20:00	5.90 pH	22.86 °C	54.47 µS/cm	0.15 mg/L	3.32 NTU	43.3 mV	20.70 ft	300.00 ml/min
9/21/2021 1:40 PM	25:00	5.89 pH	22.87 °C	54.11 µS/cm	0.14 mg/L	3.23 NTU	42.0 mV	20.70 ft	300.00 ml/min
9/21/2021 1:45 PM	30:00	5.88 pH	22.78 °C	54.12 µS/cm	0.14 mg/L	3.04 NTU	40.7 mV	20.70 ft	300.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 9/21/2021 3:41:04 PM

Project: Grumman Rd

Operator Name: A. Schnittker

<b>Location Name: MW-27D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 62.4 ft</b> <b>Total Depth: 72.43 ft</b> <b>Initial Depth to Water: 20.6 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 67 ft</b> <b>Estimated Total Volume Pumped: 9 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 68 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714302</b>
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## Test Notes:

Sample time 1615. Overcast 80

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
9/21/2021 3:41 PM	00:00	5.95 pH	24.64 °C	45.23 µS/cm	0.31 mg/L	6.60 NTU	60.2 mV	20.60 ft	300.00 ml/min
9/21/2021 3:46 PM	05:00	5.97 pH	24.09 °C	45.63 µS/cm	0.25 mg/L	5.00 NTU	55.1 mV	20.60 ft	300.00 ml/min
9/21/2021 3:51 PM	10:00	6.01 pH	23.64 °C	46.07 µS/cm	0.33 mg/L	4.46 NTU	53.3 mV	24.20 ft	300.00 ml/min
9/21/2021 3:56 PM	15:00	5.97 pH	23.46 °C	45.91 µS/cm	0.35 mg/L	3.44 NTU	53.4 mV	25.80 ft	300.00 ml/min
9/21/2021 4:01 PM	20:00	5.98 pH	23.54 °C	45.96 µS/cm	0.32 mg/L	3.78 NTU	49.7 mV	26.20 ft	300.00 ml/min
9/21/2021 4:06 PM	25:00	5.98 pH	23.42 °C	45.67 µS/cm	0.27 mg/L	2.82 NTU	48.2 mV	26.30 ft	300.00 ml/min
9/21/2021 4:11 PM	30:00	5.97 pH	23.35 °C	46.11 µS/cm	0.24 mg/L	2.67 NTU	48.3 mV	26.30 ft	300.00 ml/min

## Samples

Sample ID:	Description:
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## APPENDIX B

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*Daily Instrument Calibration Logs  
September 2021 Monitoring Event*



### Daily Instrument Calibration Log

SITE: Greenway Rd  
 TECHNICIAN: JD

WATER LEVEL: Shall  
 WATER LEVEL SN: 357343

INSTRUMENT SN: 7141293

INSTRUMENT TYPE: AquaT108

CAL. SOLUTIONS	ID	LOT #	EXP. DATE
	114	CP-441	5/18
	117	16507	6/15
	110	165433	6/17
	101	165949	4/18
	096	167949	3/22

Midday pH check  
 Must be less than 10  
 (5.90-7.50 range)  
 Recalibrate if not within range

Calibration Date: 9/21/21

RDO: 100% sat. - 91.4% sat.	PH: 4.00 = 4.10	7.00 = 7.05	10.00 = 10.01
	PH Recal (if needed): 4.00 =	7.00 =	10.00 =
CONDUCTIVITY: 1415 = 1270			
ORP (mV): 246 = 241			

Midday pH check  
 7.0 = 7.05  
 7.0 = and recal check

Calibration Date: 9/22/21

RDO: 100% sat. - 101.9% sat.	PH: 4.00 = 4.02	7.00 = 7.01	10.00 = 10.00
	PH Recal (if needed): 4.00 =	7.00 =	10.00 =
CONDUCTIVITY: 1413 = 1240			
ORP (mV): 240 = 236			

Midday pH check  
 7.0 = 7.01  
 7.0 = and recal check

Calibration Date: 9/23/21

RDO: 100% sat. - 100.5% sat.	PH: 4.00 = 4.00	7.00 = 7.01	10.00 = 10.00
	PH Recal (if needed): 4.00 =	7.00 =	10.00 =
CONDUCTIVITY: 1413 = 1256			
ORP (mV): 240 = 250			

Midday pH check  
 7.0 =  
 7.0 = and recal check  
 Finished before 12pm  
 - no calibrations needed

Calibration Date:

RDO: 100% sat. =	PH: 4.00 =	7.00 =	10.00 =
	PH Recal (if needed): 4.00 =	7.00 =	10.00 =
CONDUCTIVITY: =			
ORP (mV): =			

Midday pH check  
 7.0 =  
 7.0 = and recal check

Calibration Date:

RDO: 200% sat. =	PH: 4.00 =	7.00 =	10.00 =
	PH Recal (if needed): 4.00 =	7.00 =	10.00 =
CONDUCTIVITY: =			
ORP (mV): =			

Midday pH check  
 7.0 =  
 7.0 = and recal check





### Daily Instrument Calibration Log

SITE: Greenwood  
TECHNICIAN: 20000

INSTRUMENT SN: 160408049767  
INSTRUMENT TYPE: H-9 710000  
CAL. SOLUTION: 0 NTU - LOT # A1013 EXP. DATE: 4/12  
10 NTU - LOT # A1013 EXP. DATE: 4/12  
20 NTU - LOT # A1013 EXP. DATE: 4/12

Calibration Date: 9/10/11

Calibration Solution	Instrument Reading	
0.0	<u>0.14</u>	NTU
10.0	<u>9.79</u>	NTU
20.0	<u>10.2</u>	NTU

Calibration Date: 9/12/11

Calibration Solution	Instrument Reading	
0.0	<u>0.19</u>	NTU
10.0	<u>10.8</u>	NTU
20.0	<u>11.3</u>	NTU

Calibration Date: 9/23/11

Calibration Solution	Instrument Reading	
0.0	<u>0.16</u>	NTU
10.0	<u>11.0</u>	NTU
20.0	<u>11.0</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



### Daily Instrument Calibration Log

SITE: A Schmittker Greenway Rd  
 ELECTRODE: \_\_\_\_\_  
 WATER LEVEL: Solinst  
 WATER LEVEL SN: 577000

INSTRUMENT SN: 714302  
 INSTRUMENT TYPE: AquaTroll  
 CAL SOLUTIONS:

ID:	<u>pH 4</u>	LOT #:	<u>0661407</u>	EXP. DATE:	<u>9/22</u>
ID:	<u>pH 7</u>	LOT #:	<u>9661415</u>	EXP. DATE:	<u>12/21</u>
ID:	<u>pH 10</u>	LOT #:	<u>0661415</u>	EXP. DATE:	<u>9/22</u>
ID:	<u>Con</u>	LOT #:	<u>4470</u>	EXP. DATE:	<u>9/21</u> <u>0611033</u>
ID:	<u>ORP</u>	LOT #:	<u>167945</u>	EXP. DATE:	<u>3/22</u>
ID:	_____	LOT #:	_____	EXP. DATE:	_____
ID:	_____	LOT #:	_____	EXP. DATE:	_____

Calibration Date: 9/21/21  
 RDO: 100% sat. = 99.87 Midday a/c check  
 PH: 4.00 = 4.26      7.00 = 6.98      10.00 = 10.07      7.0 = 10.99  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 CONDUCTIVITY: 1413 = 1534.2  
 ORP (mV): 240 = 220.3

Calibration Date: 9/22/21  
 RDO: 100% sat. = 98.77 Midday a/c check  
 PH: 4.00 = 4.02      7.00 = 6.98      10.00 = 9.95      7.0 = 6.98  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = 10.03      7.0 = \_\_\_\_\_  
 CONDUCTIVITY: 1413 = 1417.9  
 ORP (mV): 240 = 227

Calibration Date: 9/23/21  
 RDO: 100% sat. = 109.05 Midday a/c check Revised before 11am  
 PH: 4.00 = 4.01      7.00 = 6.99      10.00 = 10.03      7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 CONDUCTIVITY: 1413 = 1416.3 no recalc needed  
 ORP (mV): 240 = 238.1

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ Midday a/c check  
 PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV): \_\_\_\_\_ = \_\_\_\_\_

Calibration Date: \_\_\_\_\_  
 RDO: 100% sat. = \_\_\_\_\_ Midday a/c check  
 PH: 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 PH Recal (if needed): 4.00 = \_\_\_\_\_      7.00 = \_\_\_\_\_      10.00 = \_\_\_\_\_      7.0 = \_\_\_\_\_  
 CONDUCTIVITY: \_\_\_\_\_ = \_\_\_\_\_  
 ORP (mV): \_\_\_\_\_ = \_\_\_\_\_



### Daily Instrument Calibration Log

SITE: Greeman Rd  
TECHNICIAN: A Schmittner

INSTRUMENT SN: Hach  
INSTRUMENT TYPE: 10040CO49743  
CAL. SOLUTION: 0 NTU - LOT # fresh DI EXP. DATE: NA  
10 NTU - LOT # A1013 EXP. DATE: 4/22  
20 NTU - LOT # A1013 EXP. DATE: 4/22

9/21/21

Calibration Date:

Calibration Solution	Instrument Reading	
0.0	0.34	NTU
10.0	9.94	NTU
20.0	19.6	NTU

9/22/21

Calibration Date:

Calibration Solution	Instrument Reading	
0.0	0.41	NTU
10.0	10.3	NTU
20.0	20.8	NTU

9/23/21

Calibration Date:

Calibration Solution	Instrument Reading	
0.0	0.31	NTU
10.0	10.1	NTU
20.0	19.8	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

## APPENDIX B

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*Well Inspection Forms  
September 2021 Monitoring Event*

**Grumman Road Landfill  
September 2021 Well Inspection Form**



Permit No.: 025-061D(LI)

1 - Location/Identification

		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
September 2021 Well Inspection Form**



Permit No.: 025-061D(LI)

2 - Protective Outer Casing		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
September 2021 Well Inspection Form**



Permit No.: 025-061D(LI)

3 - Surface Pad		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
September 2021 Well Inspection Form**



Permit No.: 025-061D(LI)

4 - Internal Well Casing		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only):

		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	No	No	No	No	No	N/A	No	No	No

NOTE: N/A - Not Applicable  
Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".



**Grumman Road Landfill  
September 2021 Well Inspection Form**



Permit No.: 025-061D(LI)

6 - Based on your professional judgment, is the well construction / location appropriate to:

	<b>GWA-7</b>	<b>GWA-8</b>	<b>GWB-4R</b>	<b>GWB-5R</b>	<b>GWC-6R</b>	<b>GWC-1</b>	<b>GWC-2</b>	<b>GWC-9</b>	<b>GWC-10</b>	<b>GWC-11</b>	<b>GWC-12</b>	<b>GWC-13</b>
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and Notes:

GWA-8 - Redrilled vent hole. Corner of well pad repaired.

GWC-1 - Redrilled weep hole.

GWC-9 - Corner of well pad repaired.

GWC-12 - Well pad cleaned off.

Staff: A. Schnittker

Date: 9/20/2021

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
September 2021 Well Inspection Form**



Permit No.: 025-061D(LI)

1 - Location/Identification		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
September 2021 Well Inspection Form**



Permit No.: 025-061D(LI)

2 - Protective Outer Casing		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
September 2021 Well Inspection Form**



Permit No.: 025-061D(LI)

3 - Surface Pad		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
September 2021 Well Inspection Form**



Permit No.: 025-061D(LI)

4 - Internal Well Casing		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only):

		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	No	No	No	No	No	No	No	No	No

NOTE: N/A - Not Applicable  
Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
September 2021 Well Inspection Form**



Permit No.: 025-061D(LI)

6 - Based on your professional judgment, is the well construction / location appropriate to:

	<b>GWC-14</b>	<b>GWC-15</b>	<b>GWC-16</b>	<b>GWC-17</b>	<b>GWC-20</b>	<b>GWC-21</b>	<b>GWC-22</b>	<b>MW-23D</b>	<b>MW-24D</b>	<b>MW-25D</b>	<b>MW-26D</b>	<b>MW-27D</b>
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

7 - Corrective actions completed and Notes:

MW-23D through MW-27D - Added well labels.

Staff: A. Schnittker

Date: 9/20/2021

NOTE: Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

## APPENDIX B

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*Laboratory Analytical Reports  
November 2021 Monitoring Event*



November 19, 2021

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: GRUMMAN ROAD LANDFILL  
Pace Project No.: 92571998

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on November 11, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Owens Fuquea, ACC  
Monte Jones, Atlantic Coast Consulting, Inc.  
Kristen Jurinko  
Matt Malone, Atlantic Coast Consulting  
Betsy McDaniel, Atlantic Coast Consulting  
Ms. Lauren Petty, Southern Company



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92571998

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### **Pace Analytical Services Charlotte**

South Carolina Laboratory ID: 99006

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001

South Carolina Drinking Water Cert. #: 99006003

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Louisiana DoH Drinking Water #: LA029

Virginia/VELAP Certification #: 460221

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### **Pace Analytical Services Peachtree Corners**

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

---

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: GRUMMAN ROAD LANDFILL  
Pace Project No.: 92571998

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92571998001	GWB-5R	Water	11/10/21 15:30	11/11/21 12:18

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92571998

---

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92571998001	GWB-5R	EPA 6020B	KH	1

---

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92571998

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92571998001</b>	<b>GWB-5R</b>					
	Performed by	CUSTOME R			11/11/21 13:30	
	pH	4.49	Std. Units		11/11/21 13:30	
EPA 6020B	Cobalt	0.041	mg/L	0.0050	11/17/21 15:22	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92571998

Sample: <b>GWB-5R</b>		Lab ID: <b>92571998001</b>		Collected: 11/10/21 15:30	Received: 11/11/21 12:18	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		11/11/21 13:30		
pH	<b>4.49</b>	Std. Units			1		11/11/21 13:30		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Cobalt	<b>0.041</b>	mg/L	0.0050	0.00039	1	11/16/21 08:50	11/17/21 15:22	7440-48-4	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92571998

QC Batch: 659957	Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A	Analysis Description: 6020 MET
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92571998001

METHOD BLANK: 3458229 Matrix: Water

Associated Lab Samples: 92571998001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cobalt	mg/L	ND	0.0050	0.00039	11/17/21 14:40	

LABORATORY CONTROL SAMPLE: 3458230

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cobalt	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3458231 3458232

Parameter	Units	92571870023		3458232		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	0	20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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## QUALIFIERS

Project: GRUMMAN ROAD LANDFILL

Pace Project No.: 92571998

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GRUMMAN ROAD LANDFILL  
Pace Project No.: 92571998

---

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92571998001	GWB-5R				
92571998001	GWB-5R	EPA 3005A	659957	EPA 6020B	660122

### REPORT OF LABORATORY ANALYSIS

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Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: October 28, 2020 Page 1 of 3
Document No.: I-CAR-CS-003-Rev.07	Issuing Authority: Pace Carolina Quality Office

Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name: GA Power Project: WO# : 92571998

WO# : 92571998



Carrier:  Fed Ex  UPS  USPS  Other: None  
 Commercial  Pace

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: 11/11/21

Packing Material:  Bubble Wrap  Bubble Bags  None  Other  
 Thermometer:  Analog ID: 214 Type of Ice:  Dry  Blue  None

Biological Tissue Frozen?  Yes  No  N/A

Cooler Temp: 1.3 Correction Factor: Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C  
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.3

USDA Regulated Soil (  N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?  Yes  No

Did samples originate from a foreign source (Internationally, including Hawaii and Puerto Rico)?  Yes  No

		Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? -Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>WW</u>		
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager SCUR Review: \_\_\_\_\_

Date: \_\_\_\_\_

Project Manager SRF Review: \_\_\_\_\_

Date: \_\_\_\_\_



Document Name:  
**Sample Condition Upon Receipt (SCUR)**  
 Document No.:  
**F-CAR-CI-033-Rev.07**

Document Revised: October 28, 2020  
 Page 2 of 2  
 Issuing Authority:  
 Face Carolina's Quality Office

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRD/BSGS (water) DOC, LHM

\*\*Bottom half of box is to list number of bottles

Project #

**WO# : 92571998**

PH: NMC

Due Date: 11/20/21

CLIENT: GR-GR Power

Item #	Item Description	1	2	3	4	5	6	7	8	9	10	11	12
BP10-125 ml, Plastic, Unpreserved (N/A) (D-)		/	/	/	/	/	/	/	/	/	/	/	/
BP10-250 ml, Plastic, Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP10-500 ml, Plastic, Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP10-1 liter Plastic, Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP10-125 ml, Plastic HDPE (pH < 2) (D-)		/	/	/	/	/	/	/	/	/	/	/	/
BP10-250 ml, plastic HDPE (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
BP10-125 ml, Plastic 20 Acetate & NaOH (V)		/	/	/	/	/	/	/	/	/	/	/	/
BP10-125 ml, Plastic NaOH (pH > 12) (D-)		/	/	/	/	/	/	/	/	/	/	/	/
W101-Wide mouthed Glass jar Unpreserved		/	/	/	/	/	/	/	/	/	/	/	/
AS10-1 liter Amber Unpreserved (N/A) (D-)		/	/	/	/	/	/	/	/	/	/	/	/
AS10-1 liter Amber HD (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AS10-250 ml Amber Unpreserved (N/A) (D-)		/	/	/	/	/	/	/	/	/	/	/	/
AS10-1 liter Amber HDPE (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AS10-250 ml, Amber HDPE (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AS10(2000A)-250 ml, Amber HDPE (N/A)(D-)		/	/	/	/	/	/	/	/	/	/	/	/
DO10-40 ml, VOA HD (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
VO10-40 ml, VOA NUTRICE (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
VO10-40 ml, VOA Unp (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
DO10-40 ml, VOA NUTRICE (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
VO10 (6 vials per 100-1015) (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
VO10 (3 vials per 100-1015) (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
SP10-125 ml, Sterile Plastic (N/A - lab)		/	/	/	/	/	/	/	/	/	/	/	/
SP10-250 ml, Sterile Plastic (N/A - lab)		/	/	/	/	/	/	/	/	/	/	/	/
BP10-250 ml, Plastic (pH > 12) (D-)		/	/	/	/	/	/	/	/	/	/	/	/
AS10-100 ml, Amber Unpreserved vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
W100-20 ml, Scintillation vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
DO10-40 ml, Amber Unpreserved vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/

**pH Adjustment Log for Preserved Samples**

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DWH Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).



CHAIN-OF-CUSTODY / Analytical Request Document

Section A

Section B

Section C

Requested Client Information  
Company: QA Power  
Address: Atlanta, GA

Requested Project Information  
Project Name: ACC Contours  
Request Number: 10000

Project Location  
Address: Southern CA

Requested Test Information  
Test Name: ACC Contours  
Request Number: 10000

Requested Analytical Parameters (Y/N)  
Residual Chlorine (Y/N)

REGULATORY AGENCY  
SPRINKLING SYSTEMS

REGULATORY AGENCY  
SPRINKLING SYSTEMS

Section D  
Requested Test Information  
Sample ID: 10000

Requested Analytical Parameters (Y/N)  
Residual Chlorine (Y/N)

Sample ID: 10000  
10000

Requested Analytical Parameters (Y/N)  
Residual Chlorine (Y/N)

NO.	DATE	INITIALS	TIME	ACTED BY / AFFILIATION	DATE	TIME	REMARKS
1	10/11/11	W/1	12:18	W/1	10/11/11	12:18	

ADDITIONAL COMMENTS

Signature: [Handwritten Signature]

Signature: [Handwritten Signature]

Signature: [Handwritten Signature]

Signature: [Handwritten Signature]

Signature: [Handwritten Signature]

LABORER NAME AND SIGNATURE

LABORER NAME AND SIGNATURE

LABORER NAME AND SIGNATURE

LABORER NAME AND SIGNATURE

LABORER NAME AND SIGNATURE

Project Name or Location: [Handwritten]

Project Name or Location: [Handwritten]

Project Name or Location: [Handwritten]

Project Name or Location: [Handwritten]

Project Name or Location: [Handwritten]

## APPENDIX B

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*Laboratory Data Validations  
November 2021 Monitoring Event*

**LEVEL 2A LABORATORY DATA VALIDATIONS**

**Grumman Road**

**Resample Event**

**November 2021**

## **Georgia Power Company – Grumman Road**

### **Quality Control Review of Analytical Data – November 2021**

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Pace Analytical Services, Atlanta for the groundwater sample collected at Grumman Road November 10, 2021. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameter, QC samples, sampling date, and laboratory sample delivery group (SDG) designation is summarized in Table 1 of this Appendix.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the resample was analyzed for an assessment monitoring constituent listed in 40 CFR, Part 257, Appendix IV. The test method included Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B).

Data were reviewed in accordance with the USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)<sup>1</sup> and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)<sup>2</sup>. The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, holding times, and chains of custody (COCs) were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

## DATA QUALITY OBJECTIVES

**Laboratory Precision:** Laboratory goals for precision were met.

**Field Precision:** Field goals for precision were not applicable to this sampling event.

**Accuracy:** Laboratory goals for accuracy were met.

**Detection Limits:** Project goals for detection limits were met.

**Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.

**Holding Times:** Holding time requirements were met.

## QUALIFICATIONS

In general, chemical results for the samples collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

**J:** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

**ND:** The analyte was not detected above the method detection limit

The data generated as part of this resampling event met the QC criteria established in the analytical method and data validation guidelines. No sample qualifications were required.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from Grumman Road resampled November 10, 2021 in accordance with the analytical method, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

## REFERENCES

<sup>1</sup>USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

<sup>2</sup>USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

TABLE 1

Georgia Power Company – Grumman Road

Sample Summary Table – October 2021

						Analyses
SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Metals (6020B)
571998	GWB-5R	11/10/2021	92571998001	GW		X

Abbreviations:  
 GW – Groundwater  
 QC – Quality Control



## APPENDIX B

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*Field Sampling Reports  
November 2021 Monitoring Event*

# Low-Flow Test Report:

Test Date / Time: 11/10/2021 3:00:49 PM

Project: Grumman Road

Operator Name: Jordan Berisford

<b>Location Name: GWB-5R</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 21.5 ft</b> <b>Total Depth: 26.5 ft</b> <b>Initial Depth to Water: 8.76 ft</b>	<b>Pump Type: Peri Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 24 ft</b> <b>Estimated Total Volume Pumped: 6 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 5.2 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714344</b>
--	--	--

## Test Notes:

Sunny, 70s, sample time -1530

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 5	+/- 300	+/- 0.3	
11/10/2021 3:00 PM	00:00	4.44 pH	24.98 °C	1,394.5 µS/cm	0.24 mg/L	2.11 NTU	88.8 mV	8.76 ft	200.00 ml/min
11/10/2021 3:05 PM	05:00	4.45 pH	24.46 °C	1,388.0 µS/cm	0.14 mg/L	0.67 NTU	85.8 mV	9.20 ft	200.00 ml/min
11/10/2021 3:10 PM	10:00	4.47 pH	24.37 °C	1,439.2 µS/cm	0.11 mg/L	0.71 NTU	81.6 mV	9.20 ft	200.00 ml/min
11/10/2021 3:15 PM	15:00	4.48 pH	24.19 °C	1,436.8 µS/cm	0.10 mg/L	0.73 NTU	76.4 mV	9.20 ft	200.00 ml/min
11/10/2021 3:20 PM	20:00	4.48 pH	24.19 °C	1,458.2 µS/cm	0.09 mg/L	0.66 NTU	73.9 mV	9.20 ft	200.00 ml/min
11/10/2021 3:25 PM	25:00	4.49 pH	24.19 °C	1,493.9 µS/cm	0.09 mg/L	0.59 NTU	71.4 mV	9.20 ft	200.00 ml/min
11/10/2021 3:30 PM	30:00	4.49 pH	24.33 °C	1,479.9 µS/cm	0.08 mg/L	0.52 NTU	69.4 mV	9.20 ft	200.00 ml/min

## Samples

Sample ID:	Description:
------------	--------------

## APPENDIX B

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*Daily Instrument Calibration Logs  
November 2021 Monitoring Event*



### Daily Instrument Calibration Log

SITE: Greenway Rd  
TECHNICIAN: J. B. [unclear]

WATER LEVEL: Subst  
WATER LEVEL SN: 269507

INSTRUMENT SN: 7141 244  
INSTRUMENT TYPE: Amprobe  
CAL SOLUTION: LOT# \_\_\_\_\_ EXP. DATE: \_\_\_\_\_

PH 4	160180	6/23
PH 7	160187	6/23
PH 10	160192	6/23
10.1	160194	4/27
0.2	160195	3/22

Calibration Date: 11/10/21  
 PH: 4.0 = 3.86 STANDARD UNITS: 9 = 7.12 10: 10.43  
 CONDUCTIVITY: 4.49 = 1413.3 1123 µS/CM  
 TURBIDITY: 0.0 = NTU  
 TEMPERATURE: 61.7 = 22.2 1 DEGREES CELSIUS  
 $100 = 100 + 2.2$

Calibration Date: 6/23  
 PH: 4.0 = STANDARD UNITS  
 CONDUCTIVITY: 4.49 = µS/CM  
 TURBIDITY: 0.0 = NTU  
 TEMPERATURE: \_\_\_\_\_ DEGREES CELSIUS

Calibration Date: \_\_\_\_\_  
 PH: 4.0 = STANDARD UNITS  
 CONDUCTIVITY: 4.49 = µS/CM  
 TURBIDITY: 0.0 = NTU  
 TEMPERATURE: \_\_\_\_\_ DEGREES CELSIUS

Calibration Date: \_\_\_\_\_  
 PH: 4.0 = STANDARD UNITS  
 CONDUCTIVITY: 4.49 = µS/CM  
 TURBIDITY: 0.0 = NTU  
 TEMPERATURE: \_\_\_\_\_ DEGREES CELSIUS

Calibration Date: \_\_\_\_\_  
 PH: 4.0 = STANDARD UNITS  
 CONDUCTIVITY: 4.49 = µS/CM  
 TURBIDITY: 0.0 = NTU  
 TEMPERATURE: \_\_\_\_\_ DEGREES CELSIUS

Calibration Date: \_\_\_\_\_  
 PH: 4.0 = STANDARD UNITS  
 CONDUCTIVITY: 4.49 = µS/CM  
 TURBIDITY: 0.0 = NTU  
 TEMPERATURE: \_\_\_\_\_ DEGREES CELSIUS



## Daily Instrument Calibration Log

SITE: Greenwood  
TECHNICIAN: S. B. Smith

INSTRUMENT SN: 171205013767  
INSTRUMENT TYPE: 10111 2002

CAL. SOLUTION: 0 NTU - LOT # 11 EXP. DATE: 11/20  
10 NTU - LOT # A-126112 EXP. DATE: 11/22  
20 NTU - LOT # A-1207 EXP. DATE: 11/22

Calibration Date: 11/14/11

Calibration Solution	Instrument Reading	
0.0	<u>0.30</u>	NTU
10.0	<u>10.2</u>	NTU
20.0	<u>20.1</u>	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

## APPENDIX B

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*Laboratory Analytical Reports  
February 2022 Monitoring Event*



March 17, 2022

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: GRUMMAN ROAD LANDFILL-Revised Report  
Pace Project No.: 92585920

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between February 03, 2022 and February 04, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

Revision 1: This revision was issued on 3/17/22 to include an updated COC.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Anna Bottum, ERM  
Andrea Brazell, ERM  
Owens Fuquea, ACC  
Monte Jones, Atlantic Coast Consulting, Inc.  
Kristen Jurinko  
Matt Malone, Atlantic Coast Consulting  
Betsy McDaniel, Atlantic Coast Consulting

Ms. Lauren Petty, Southern Company  
Lacy Smith, ERM  
Caitlin Tillema, ERM  
Christine Weaver, ERM



### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

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### Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006

9800 Kinsey Ave. Ste 100, Huntersville, NC 28078

North Carolina Drinking Water Certification #: 37706

North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001

South Carolina Drinking Water Cert. #: 99006003

Florida/NELAP Certification #: E87627

Kentucky UST Certification #: 84

Louisiana DoH Drinking Water #: LA029

Virginia/VELAP Certification #: 460221

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### Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Laboratory ID: 99030

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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### Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: GRUMMAN ROAD LANDFILL-Revised Report  
Pace Project No.: 92585920

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92585920001	GWA-7	Water	01/31/22 17:15	02/03/22 10:10
92585920002	GWA-8	Water	01/31/22 16:50	02/03/22 10:10
92585920003	GWC-16	Water	02/01/22 15:10	02/03/22 10:10
92585920004	GWC-17	Water	02/01/22 14:35	02/03/22 10:10
92585920005	GWC-20	Water	02/01/22 10:50	02/03/22 10:10
92585920006	GWC-21	Water	02/01/22 13:55	02/03/22 10:10
92585920007	MW-24D	Water	02/01/22 16:25	02/03/22 10:10
92585920008	FB-1	Water	01/31/22 16:45	02/03/22 10:10
92585920009	EB-1	Water	02/01/22 16:00	02/03/22 10:10
92585920010	DUP-1	Water	02/01/22 00:00	02/03/22 10:10
92585920011	GWC-9	Water	02/02/22 09:20	02/03/22 10:10
92585920012	GWB-4R	Water	02/02/22 13:20	02/04/22 14:31
92585920013	GWB-6R	Water	02/02/22 10:40	02/04/22 14:31
92585920014	MW-26D	Water	02/02/22 14:20	02/04/22 14:31
92585920015	GWC-2	Water	02/02/22 15:45	02/04/22 14:31
92585920016	GWC-14	Water	02/02/22 17:15	02/04/22 14:31
92585920017	GWC-15	Water	02/03/22 09:50	02/04/22 14:31
92585920018	GWC-1	Water	02/03/22 11:40	02/04/22 14:31
92585920019	GWC-12	Water	02/03/22 13:05	02/04/22 14:31
92585920020	GWC-13	Water	02/03/22 14:30	02/04/22 14:31
92585920021	FB-2	Water	02/02/22 10:30	02/04/22 14:31
92585920022	EB-2	Water	02/02/22 14:00	02/04/22 14:31
92585920023	EB-3	Water	02/03/22 13:20	02/04/22 14:31
92585920024	DUP-2	Water	02/02/22 00:00	02/04/22 14:31
92585920025	MW-27D	Water	02/02/22 15:00	02/04/22 14:31
92585920026	GWB-5R	Water	02/03/22 09:35	02/04/22 14:31
92585920027	MW-23D	Water	02/03/22 11:40	02/04/22 14:31
92585920028	MW-25D	Water	02/03/22 14:35	02/04/22 14:31
92585920029	GWC-11	Water	02/03/22 16:20	02/04/22 14:31
92585920030	GWC-22	Water	02/03/22 17:50	02/04/22 14:31
92585920031	FB-3	Water	02/03/22 17:20	02/04/22 14:31
92585920032	DUP-3	Water	02/03/22 00:00	02/04/22 14:31

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92585920001	GWA-7	EPA 6010D	KH	1
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920002	GWA-8	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920003	GWC-16	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920004	GWC-17	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920005	GWC-20	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920006	GWC-21	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920007	MW-24D	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1

**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE ANALYTE COUNT

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92585920008	FB-1	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920009	EB-1	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920010	DUP-1	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920011	GWC-9	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920012	GWB-4R	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920013	GWB-6R	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920014	MW-26D	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920015	GWC-2	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92585920016	GWC-14	EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
92585920017	GWC-15	SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92585920018	GWC-1	EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
92585920019	GWC-12	EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
92585920020	GWC-13	EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
92585920021	FB-2	EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
92585920022	EB-2	EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1

**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE ANALYTE COUNT

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92585920023	EB-3	SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
92585920024	DUP-2	SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
92585920025	MW-27D	SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
92585920026	GWB-5R	SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	JCM	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
92585920027	MW-23D	SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
92585920028	MW-25D	SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
92585920029	GWC-11	SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
92585920029	GWC-11	SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
		EPA 6010D	KH	1

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: GRUMMAN ROAD LANDFILL-Revised Report  
Pace Project No.: 92585920

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Lab ID	Sample ID	Method	Analysts	Analytes Reported
92585920030	GWC-22	EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92585920031	FB-3	EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92585920032	DUP-3	EPA 6010D	KH	1
		EPA 6020B	CW1	15
		EPA 7470A	VB	1
		SM 2540C-2015	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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PASI-A = Pace Analytical Services - Asheville  
PASI-C = Pace Analytical Services - Charlotte  
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92585920001</b>	<b>GWA-7</b>					
	Performed by	CUSTOME			02/03/22 11:24	
		R				
	pH	5.94	Std. Units		02/03/22 11:24	
EPA 6010D	Calcium	3.4	mg/L	1.0	02/14/22 20:51	
EPA 6010D	Calcium, Dissolved	4.1	mg/L	1.0	02/04/22 19:22	
EPA 6020B	Barium	0.10	mg/L	0.025	02/14/22 20:56	
EPA 6020B	Boron	3.9	mg/L	0.20	02/14/22 20:56	
EPA 6020B	Chromium	0.015J	mg/L	0.025	02/14/22 20:56	D3
EPA 6020B	Vanadium	0.10	mg/L	0.050	02/14/22 20:56	
EPA 6020B	Barium, Dissolved	0.10	mg/L	0.025	02/16/22 16:56	
EPA 6020B	Boron, Dissolved	4.1	mg/L	0.20	02/16/22 16:56	
EPA 6020B	Chromium, Dissolved	0.011J	mg/L	0.025	02/16/22 16:56	D3
EPA 6020B	Selenium, Dissolved	0.0086J	mg/L	0.025	02/16/22 16:56	D3
EPA 6020B	Vanadium, Dissolved	0.11	mg/L	0.050	02/16/22 16:56	
SM 2540C-2015	Total Dissolved Solids	1260	mg/L	50.0	02/07/22 15:05	
EPA 300.0 Rev 2.1 1993	Chloride	83.4	mg/L	1.0	02/07/22 02:45	M1
EPA 300.0 Rev 2.1 1993	Sulfate	15.0	mg/L	1.0	02/07/22 02:45	
<b>92585920002</b>	<b>GWA-8</b>					
	Performed by	CUSTOME			02/03/22 11:24	
		R				
	pH	4.39	Std. Units		02/03/22 11:24	
EPA 6010D	Calcium	17.2	mg/L	1.0	02/14/22 21:05	M1
EPA 6020B	Barium	0.051	mg/L	0.0050	02/14/22 21:02	
EPA 6020B	Beryllium	0.00016J	mg/L	0.00050	02/14/22 21:02	
EPA 6020B	Boron	0.13	mg/L	0.040	02/14/22 21:02	
EPA 6020B	Cobalt	0.00044J	mg/L	0.0050	02/14/22 21:02	
EPA 6020B	Lithium	0.00091J	mg/L	0.030	02/14/22 21:02	
SM 2540C-2015	Total Dissolved Solids	153	mg/L	10.0	02/07/22 15:06	
EPA 300.0 Rev 2.1 1993	Chloride	11.2	mg/L	1.0	02/07/22 03:26	
EPA 300.0 Rev 2.1 1993	Fluoride	0.090J	mg/L	0.10	02/07/22 03:26	
EPA 300.0 Rev 2.1 1993	Sulfate	89.7	mg/L	1.0	02/07/22 03:26	
<b>92585920003</b>	<b>GWC-16</b>					
	Performed by	CUSTOME			02/03/22 11:24	
		R				
	pH	5.57	Std. Units		02/03/22 11:24	
EPA 6010D	Calcium	267	mg/L	1.0	02/14/22 21:25	
EPA 6020B	Arsenic	0.095	mg/L	0.0050	02/14/22 21:08	
EPA 6020B	Barium	0.23	mg/L	0.0050	02/14/22 21:08	
EPA 6020B	Boron	16.0	mg/L	2.0	02/15/22 14:12	
EPA 6020B	Molybdenum	0.18	mg/L	0.010	02/14/22 21:08	
EPA 6020B	Selenium	0.0024J	mg/L	0.0050	02/14/22 21:08	
EPA 6020B	Vanadium	0.0021J	mg/L	0.010	02/14/22 21:08	
SM 2540C-2015	Total Dissolved Solids	1990	mg/L	100	02/07/22 15:52	
EPA 300.0 Rev 2.1 1993	Chloride	61.5	mg/L	1.0	02/07/22 03:40	
EPA 300.0 Rev 2.1 1993	Sulfate	1010	mg/L	24.0	02/07/22 15:17	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92585920004</b>	<b>GWC-17</b>					
	Performed by	CUSTOME			02/03/22 11:25	
		R				
	pH	4.53	Std. Units		02/03/22 11:25	
EPA 6010D	Calcium	90.8	mg/L	1.0	02/14/22 21:29	
EPA 6020B	Barium	0.055	mg/L	0.0050	02/14/22 21:26	
EPA 6020B	Beryllium	0.0020	mg/L	0.00050	02/14/22 21:26	
EPA 6020B	Boron	1.8	mg/L	0.040	02/14/22 21:26	
EPA 6020B	Chromium	0.0014J	mg/L	0.0050	02/14/22 21:26	
EPA 6020B	Cobalt	0.0036J	mg/L	0.0050	02/14/22 21:26	
EPA 6020B	Lithium	0.0061J	mg/L	0.030	02/14/22 21:26	
EPA 6020B	Molybdenum	0.0030J	mg/L	0.010	02/14/22 21:26	
EPA 6020B	Vanadium	0.0022J	mg/L	0.010	02/15/22 14:42	
EPA 6020B	Zinc	0.011	mg/L	0.010	02/14/22 21:26	
SM 2540C-2015	Total Dissolved Solids	1580	mg/L	100	02/07/22 15:52	
EPA 300.0 Rev 2.1 1993	Chloride	549	mg/L	13.0	02/07/22 15:58	
EPA 300.0 Rev 2.1 1993	Fluoride	0.68	mg/L	0.10	02/07/22 03:54	
EPA 300.0 Rev 2.1 1993	Sulfate	416	mg/L	13.0	02/07/22 15:58	
<b>92585920005</b>	<b>GWC-20</b>					
	Performed by	CUSTOME			02/03/22 11:25	
		R				
	pH	5.90	Std. Units		02/03/22 11:25	
EPA 6010D	Calcium	259	mg/L	1.0	02/14/22 21:34	
EPA 6020B	Arsenic	0.22	mg/L	0.0050	02/14/22 21:32	
EPA 6020B	Barium	0.36	mg/L	0.0050	02/14/22 21:32	
EPA 6020B	Boron	15.7	mg/L	2.0	02/15/22 14:18	
EPA 6020B	Cadmium	0.00020J	mg/L	0.00050	02/14/22 21:32	
EPA 6020B	Chromium	0.0036J	mg/L	0.0050	02/14/22 21:32	
EPA 6020B	Molybdenum	0.77	mg/L	0.010	02/14/22 21:32	
EPA 6020B	Vanadium	0.0039J	mg/L	0.010	02/15/22 16:34	
SM 2540C-2015	Total Dissolved Solids	1580	mg/L	100	02/07/22 15:53	
EPA 300.0 Rev 2.1 1993	Chloride	33.4	mg/L	1.0	02/07/22 04:50	
EPA 300.0 Rev 2.1 1993	Sulfate	862	mg/L	20.0	02/07/22 16:12	
<b>92585920006</b>	<b>GWC-21</b>					
	Performed by	CUSTOME			02/03/22 11:25	
		R				
	pH	5.76	Std. Units		02/03/22 11:25	
EPA 6010D	Calcium	125	mg/L	1.0	02/14/22 21:39	
EPA 6020B	Arsenic	0.020	mg/L	0.0050	02/14/22 21:38	
EPA 6020B	Barium	0.24	mg/L	0.0050	02/14/22 21:38	
EPA 6020B	Boron	4.4	mg/L	0.040	02/14/22 21:38	
EPA 6020B	Molybdenum	0.042	mg/L	0.010	02/14/22 21:38	
EPA 6020B	Selenium	0.0054	mg/L	0.0050	02/14/22 21:38	
EPA 6020B	Vanadium	0.0036J	mg/L	0.010	02/15/22 14:48	
SM 2540C-2015	Total Dissolved Solids	783	mg/L	10.0	02/07/22 15:53	
EPA 300.0 Rev 2.1 1993	Chloride	29.3	mg/L	1.0	02/07/22 05:04	
EPA 300.0 Rev 2.1 1993	Sulfate	374	mg/L	9.0	02/07/22 16:26	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92585920007</b>	<b>MW-24D</b>					
	Performed by	CUSTOMER			02/03/22 11:25	
	pH	6.63	Std. Units		02/03/22 11:25	
EPA 6010D	Calcium	3.7	mg/L	1.0	02/14/22 21:44	
EPA 6020B	Barium	0.036	mg/L	0.0050	02/15/22 22:21	
EPA 6020B	Boron	0.014J	mg/L	0.040	02/15/22 22:21	
EPA 6020B	Molybdenum	0.0024J	mg/L	0.010	02/15/22 22:21	
SM 2540C-2015	Total Dissolved Solids	75.0	mg/L	10.0	02/07/22 15:54	
EPA 300.0 Rev 2.1 1993	Chloride	5.4	mg/L	1.0	02/07/22 05:18	
<b>92585920008</b>	<b>FB-1</b>					
EPA 6020B	Antimony	0.0012J	mg/L	0.0030	02/15/22 22:45	
<b>92585920010</b>	<b>DUP-1</b>					
EPA 6010D	Calcium	3.7	mg/L	1.0	02/14/22 22:08	
EPA 6020B	Barium	0.034	mg/L	0.0050	02/15/22 22:57	
EPA 6020B	Boron	0.011J	mg/L	0.040	02/15/22 22:57	
EPA 6020B	Molybdenum	0.0022J	mg/L	0.010	02/15/22 22:57	
SM 2540C-2015	Total Dissolved Solids	65.0	mg/L	10.0	02/07/22 15:55	
EPA 300.0 Rev 2.1 1993	Chloride	5.4	mg/L	1.0	02/07/22 06:00	
<b>92585920011</b>	<b>GWC-9</b>					
	Performed by	CUSTOMER			02/03/22 11:25	
	pH	4.66	Std. Units		02/03/22 11:25	
EPA 6010D	Calcium	4.6	mg/L	1.0	02/14/22 22:13	
EPA 6020B	Barium	0.15	mg/L	0.0050	02/15/22 23:03	
EPA 6020B	Beryllium	0.00018J	mg/L	0.00050	02/15/22 23:03	
EPA 6020B	Boron	0.011J	mg/L	0.040	02/15/22 23:03	
EPA 6020B	Chromium	0.0012J	mg/L	0.0050	02/15/22 23:03	
EPA 6020B	Cobalt	0.00096J	mg/L	0.0050	02/15/22 23:03	
EPA 6020B	Lithium	0.0017J	mg/L	0.030	02/15/22 23:03	
SM 2540C-2015	Total Dissolved Solids	96.0	mg/L	10.0	02/07/22 17:22	
EPA 300.0 Rev 2.1 1993	Chloride	17.5	mg/L	1.0	02/07/22 06:41	
EPA 300.0 Rev 2.1 1993	Sulfate	31.5	mg/L	1.0	02/07/22 06:41	
<b>92585920012</b>	<b>GWB-4R</b>					
	Performed by	CUSTOMER			02/04/22 17:17	
	pH	5.71	Std. Units		02/04/22 17:17	
EPA 6010D	Calcium	98.2	mg/L	1.0	02/15/22 15:57	M1
EPA 6020B	Arsenic	0.0036J	mg/L	0.0050	02/16/22 18:33	
EPA 6020B	Barium	0.17	mg/L	0.0050	02/15/22 23:21	
EPA 6020B	Boron	6.2	mg/L	0.040	02/15/22 23:21	
EPA 6020B	Chromium	0.0030J	mg/L	0.0050	02/15/22 23:21	
EPA 6020B	Cobalt	0.0027J	mg/L	0.0050	02/15/22 23:21	
EPA 6020B	Lithium	0.015J	mg/L	0.030	02/15/22 23:21	
EPA 6020B	Molybdenum	0.11	mg/L	0.010	02/15/22 23:21	
EPA 6020B	Vanadium	0.0031J	mg/L	0.010	02/15/22 23:21	
SM 2540C-2015	Total Dissolved Solids	654	mg/L	20.0	02/08/22 10:52	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92585920012</b>	<b>GWB-4R</b>					
EPA 300.0 Rev 2.1 1993	Chloride	14.5	mg/L	1.0	02/09/22 10:57	
EPA 300.0 Rev 2.1 1993	Sulfate	338	mg/L	7.0	02/09/22 20:34	
<b>92585920013</b>	<b>GWB-6R</b>					
	Performed by	CUSTOMER			02/04/22 17:17	
	pH	5.75	Std. Units		02/04/22 17:17	
EPA 6010D	Calcium	293	mg/L	1.0	02/15/22 16:16	
EPA 6020B	Arsenic	0.010	mg/L	0.0050	02/16/22 18:39	
EPA 6020B	Barium	0.026	mg/L	0.0050	02/15/22 23:27	
EPA 6020B	Boron	6.2	mg/L	0.040	02/15/22 23:27	
EPA 6020B	Chromium	0.0033J	mg/L	0.0050	02/15/22 23:27	
EPA 6020B	Cobalt	0.070	mg/L	0.0050	02/15/22 23:27	
EPA 6020B	Molybdenum	0.00085J	mg/L	0.010	02/15/22 23:27	
EPA 6020B	Selenium	0.0017J	mg/L	0.0050	02/15/22 23:27	
EPA 6020B	Vanadium	0.0099J	mg/L	0.010	02/15/22 23:27	
SM 2540C-2015	Total Dissolved Solids	2440	mg/L	100	02/08/22 10:52	
EPA 300.0 Rev 2.1 1993	Chloride	42.3	mg/L	1.0	02/09/22 11:12	
EPA 300.0 Rev 2.1 1993	Sulfate	1460	mg/L	29.0	02/09/22 20:49	
<b>92585920014</b>	<b>MW-26D</b>					
	Performed by	CUSTOMER			02/04/22 17:17	
	pH	5.82	Std. Units		02/04/22 17:17	
EPA 6010D	Calcium	2.3	mg/L	1.0	02/15/22 16:21	
EPA 6020B	Arsenic	0.0015J	mg/L	0.0050	02/16/22 18:45	
EPA 6020B	Barium	0.026	mg/L	0.0050	02/15/22 23:33	
EPA 6020B	Beryllium	0.000088J	mg/L	0.00050	02/15/22 23:33	
EPA 6020B	Boron	0.033J	mg/L	0.040	02/15/22 23:33	
SM 2540C-2015	Total Dissolved Solids	54.0	mg/L	10.0	02/08/22 10:52	
EPA 300.0 Rev 2.1 1993	Chloride	6.6	mg/L	1.0	02/09/22 11:27	
<b>92585920015</b>	<b>GWC-2</b>					
	Performed by	CUSTOMER			02/04/22 17:18	
	pH	4.79	Std. Units		02/04/22 17:18	
EPA 6010D	Calcium	0.16J	mg/L	1.0	02/15/22 16:39	
EPA 6020B	Barium	0.052	mg/L	0.0050	02/15/22 23:39	
EPA 6020B	Boron	0.023J	mg/L	0.040	02/15/22 23:39	
SM 2540C-2015	Total Dissolved Solids	43.0	mg/L	10.0	02/08/22 10:52	
EPA 300.0 Rev 2.1 1993	Chloride	6.9	mg/L	1.0	02/09/22 11:42	
EPA 300.0 Rev 2.1 1993	Sulfate	9.0	mg/L	1.0	02/09/22 11:42	
<b>92585920016</b>	<b>GWC-14</b>					
	Performed by	CUSTOMER			02/04/22 17:18	
	pH	5.98	Std. Units		02/04/22 17:18	
EPA 6010D	Calcium	245	mg/L	1.0	02/15/22 16:44	
EPA 6020B	Arsenic	0.0036J	mg/L	0.0050	02/16/22 18:57	
EPA 6020B	Barium	0.10	mg/L	0.0050	02/15/22 23:45	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92585920016</b>	<b>GWC-14</b>					
EPA 6020B	Boron	0.044	mg/L	0.040	02/15/22 23:45	
EPA 6020B	Molybdenum	0.015	mg/L	0.010	02/15/22 23:45	
EPA 6020B	Selenium	0.0038J	mg/L	0.0050	02/15/22 23:45	
EPA 6020B	Vanadium	0.0040J	mg/L	0.010	02/15/22 23:45	
SM 2540C-2015	Total Dissolved Solids	1130	mg/L	20.0	02/08/22 10:52	
EPA 300.0 Rev 2.1 1993	Chloride	29.6	mg/L	1.0	02/09/22 11:57	
EPA 300.0 Rev 2.1 1993	Sulfate	589	mg/L	12.0	02/09/22 21:03	M1
<b>92585920017</b>	<b>GWC-15</b>					
	Performed by	CUSTOME			02/04/22 17:18	
		R				
	pH	6.61	Std. Units		02/04/22 17:18	
EPA 6010D	Calcium	144	mg/L	1.0	02/15/22 16:48	
EPA 6020B	Arsenic	0.23	mg/L	0.0050	02/16/22 19:03	
EPA 6020B	Barium	0.061	mg/L	0.0050	02/15/22 23:51	
EPA 6020B	Boron	0.71	mg/L	0.040	02/15/22 23:51	
EPA 6020B	Chromium	0.0016J	mg/L	0.0050	02/15/22 23:51	
EPA 6020B	Molybdenum	0.086	mg/L	0.010	02/15/22 23:51	
EPA 6020B	Selenium	0.0031J	mg/L	0.0050	02/15/22 23:51	
EPA 6020B	Vanadium	0.0023J	mg/L	0.010	02/15/22 23:51	
SM 2540C-2015	Total Dissolved Solids	516	mg/L	20.0	02/08/22 13:48	
EPA 300.0 Rev 2.1 1993	Chloride	5.1	mg/L	1.0	02/09/22 16:12	
EPA 300.0 Rev 2.1 1993	Sulfate	102	mg/L	2.0	02/09/22 21:49	
<b>92585920018</b>	<b>GWC-1</b>					
	Performed by	CUSTOME			02/04/22 17:18	
		R				
	pH	5.89	Std. Units		02/04/22 17:18	
EPA 6010D	Calcium	58.2	mg/L	1.0	02/15/22 16:53	
EPA 6020B	Arsenic	0.0057	mg/L	0.0050	02/16/22 19:09	
EPA 6020B	Barium	0.051	mg/L	0.0050	02/15/22 23:57	
EPA 6020B	Boron	0.59	mg/L	0.040	02/15/22 23:57	
EPA 6020B	Chromium	0.0019J	mg/L	0.0050	02/15/22 23:57	
EPA 6020B	Molybdenum	0.038	mg/L	0.010	02/15/22 23:57	
EPA 6020B	Selenium	0.0022J	mg/L	0.0050	02/15/22 23:57	
EPA 6020B	Vanadium	0.0028J	mg/L	0.010	02/15/22 23:57	
SM 2540C-2015	Total Dissolved Solids	315	mg/L	10.0	02/08/22 13:48	
EPA 300.0 Rev 2.1 1993	Chloride	8.0	mg/L	1.0	02/09/22 16:27	
EPA 300.0 Rev 2.1 1993	Sulfate	49.2	mg/L	1.0	02/09/22 16:27	
<b>92585920019</b>	<b>GWC-12</b>					
	Performed by	CUSTOME			02/04/22 17:18	
		R				
	pH	4.04	Std. Units		02/04/22 17:18	
EPA 6010D	Calcium	63.7	mg/L	1.0	02/15/22 16:58	
EPA 6020B	Arsenic	0.0016J	mg/L	0.0050	02/16/22 19:15	
EPA 6020B	Barium	0.025	mg/L	0.0050	02/16/22 00:03	
EPA 6020B	Beryllium	0.00056	mg/L	0.00050	02/16/22 00:03	
EPA 6020B	Boron	7.5	mg/L	0.040	02/16/22 00:03	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92585920019</b>	<b>GWC-12</b>					
EPA 6020B	Chromium	0.0018J	mg/L	0.0050	02/16/22 00:03	
EPA 6020B	Cobalt	0.00072J	mg/L	0.0050	02/16/22 00:03	
EPA 6020B	Lithium	0.0010J	mg/L	0.030	02/16/22 00:03	
EPA 6020B	Vanadium	0.0052J	mg/L	0.010	02/16/22 00:03	
SM 2540C-2015	Total Dissolved Solids	566	mg/L	20.0	02/08/22 13:49	
EPA 300.0 Rev 2.1 1993	Chloride	57.0	mg/L	1.0	02/09/22 16:42	
EPA 300.0 Rev 2.1 1993	Fluoride	0.36	mg/L	0.10	02/09/22 16:42	
EPA 300.0 Rev 2.1 1993	Sulfate	333	mg/L	8.0	02/09/22 23:08	
<b>92585920020</b>	<b>GWC-13</b>					
	Performed by	CUSTOMER			02/04/22 17:19	
	pH	4.97	Std. Units		02/04/22 17:19	
EPA 6010D	Calcium	2.7	mg/L	1.0	02/15/22 17:03	
EPA 6020B	Arsenic	0.0025J	mg/L	0.0050	02/16/22 19:21	
EPA 6020B	Barium	0.038	mg/L	0.0050	02/16/22 00:08	
EPA 6020B	Boron	0.37	mg/L	0.040	02/16/22 00:08	
EPA 6020B	Lithium	0.00077J	mg/L	0.030	02/16/22 00:08	
EPA 6020B	Zinc	0.037	mg/L	0.010	02/16/22 00:08	
SM 2540C-2015	Total Dissolved Solids	72.0	mg/L	10.0	02/08/22 13:49	
EPA 300.0 Rev 2.1 1993	Chloride	8.8	mg/L	1.0	02/09/22 16:57	
EPA 300.0 Rev 2.1 1993	Sulfate	32.1	mg/L	1.0	02/09/22 16:57	
<b>92585920021</b>	<b>FB-2</b>					
EPA 6020B	Arsenic	0.0021J	mg/L	0.0050	02/16/22 19:27	
SM 2540C-2015	Total Dissolved Solids	17.0	mg/L	10.0	02/08/22 10:53	
<b>92585920022</b>	<b>EB-2</b>					
EPA 6020B	Arsenic	0.0012J	mg/L	0.0050	02/16/22 19:45	
<b>92585920023</b>	<b>EB-3</b>					
EPA 6020B	Arsenic	0.0012J	mg/L	0.0050	02/16/22 19:51	
<b>92585920024</b>	<b>DUP-2</b>					
EPA 6010D	Calcium	2.5	mg/L	1.0	02/15/22 17:22	
EPA 6020B	Arsenic	0.0022J	mg/L	0.0050	02/16/22 19:57	
EPA 6020B	Barium	0.024	mg/L	0.0050	02/16/22 00:44	
EPA 6020B	Beryllium	0.000091J	mg/L	0.00050	02/16/22 00:44	
EPA 6020B	Boron	0.0096J	mg/L	0.040	02/16/22 00:44	
EPA 6020B	Cadmium	0.00029J	mg/L	0.00050	02/16/22 00:44	
EPA 6020B	Zinc	0.018	mg/L	0.010	02/16/22 00:44	
SM 2540C-2015	Total Dissolved Solids	49.0	mg/L	10.0	02/08/22 10:53	
EPA 300.0 Rev 2.1 1993	Chloride	6.0	mg/L	1.0	02/09/22 17:57	
<b>92585920025</b>	<b>MW-27D</b>					
	Performed by	CUSTOMER			02/04/22 17:19	
	pH	5.72	Std. Units		02/04/22 17:19	
EPA 6010D	Calcium	2.1	mg/L	1.0	02/15/22 17:41	
EPA 6020B	Arsenic	0.0021J	mg/L	0.0050	02/16/22 20:03	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92585920025</b>	<b>MW-27D</b>					
EPA 6020B	Barium	0.024	mg/L	0.0050	02/16/22 00:50	
EPA 6020B	Beryllium	0.00076J	mg/L	0.00050	02/16/22 00:50	
EPA 6020B	Boron	0.0091J	mg/L	0.040	02/16/22 00:50	
EPA 6020B	Cadmium	0.00027J	mg/L	0.00050	02/16/22 00:50	
EPA 6020B	Zinc	0.017	mg/L	0.010	02/16/22 00:50	
SM 2540C-2015	Total Dissolved Solids	65.0	mg/L	10.0	02/08/22 11:12	D6
EPA 300.0 Rev 2.1 1993	Chloride	6.0	mg/L	1.0	02/09/22 18:12	
<b>92585920026</b>	<b>GWB-5R</b>					
	Performed by	CUSTOME			02/04/22 17:19	
		R				
	pH	4.48	Std. Units		02/04/22 17:19	
EPA 6010D	Calcium	130	mg/L	1.0	02/15/22 17:46	
EPA 6020B	Arsenic	0.0029J	mg/L	0.0050	02/16/22 20:09	
EPA 6020B	Barium	0.062	mg/L	0.0050	02/16/22 00:56	
EPA 6020B	Beryllium	0.00014J	mg/L	0.00050	02/16/22 00:56	
EPA 6020B	Boron	4.9	mg/L	0.040	02/16/22 00:56	
EPA 6020B	Chromium	0.0014J	mg/L	0.0050	02/16/22 00:56	
EPA 6020B	Cobalt	0.019	mg/L	0.0050	02/16/22 00:56	
EPA 6020B	Vanadium	0.0046J	mg/L	0.010	02/16/22 00:56	
SM 2540C-2015	Total Dissolved Solids	1240	mg/L	50.0	02/08/22 13:49	
EPA 300.0 Rev 2.1 1993	Chloride	38.5	mg/L	1.0	02/10/22 20:05	
EPA 300.0 Rev 2.1 1993	Fluoride	0.081J	mg/L	0.10	02/10/22 20:05	
EPA 300.0 Rev 2.1 1993	Sulfate	797	mg/L	17.0	02/11/22 04:17	
<b>92585920027</b>	<b>MW-23D</b>					
	Performed by	CUSTOME			02/04/22 17:19	
		R				
	pH	6.14	Std. Units		02/04/22 17:19	
EPA 6010D	Calcium	11.6	mg/L	1.0	02/15/22 17:50	
EPA 6020B	Barium	0.079	mg/L	0.0050	02/15/22 20:22	
EPA 6020B	Boron	0.030J	mg/L	0.040	02/15/22 20:22	
SM 2540C-2015	Total Dissolved Solids	156	mg/L	10.0	02/08/22 13:49	
EPA 300.0 Rev 2.1 1993	Chloride	7.5	mg/L	1.0	02/10/22 20:20	
EPA 300.0 Rev 2.1 1993	Sulfate	64.8	mg/L	1.0	02/10/22 20:20	
<b>92585920028</b>	<b>MW-25D</b>					
	Performed by	CUSTOME			02/04/22 17:20	
		R				
	pH	6.15	Std. Units		02/04/22 17:20	
EPA 6010D	Calcium	3.0	mg/L	1.0	02/15/22 17:55	
EPA 6020B	Barium	0.024	mg/L	0.0050	02/15/22 20:28	
EPA 6020B	Boron	0.013J	mg/L	0.040	02/15/22 20:28	
EPA 6020B	Zinc	0.051	mg/L	0.010	02/15/22 20:28	
SM 2540C-2015	Total Dissolved Solids	58.0	mg/L	10.0	02/08/22 13:49	
EPA 300.0 Rev 2.1 1993	Chloride	6.3	mg/L	1.0	02/10/22 20:35	
EPA 300.0 Rev 2.1 1993	Fluoride	0.077J	mg/L	0.10	02/10/22 20:35	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92585920029</b>	<b>GWC-11</b>					
	Performed by	CUSTOME			02/04/22 17:20	
		R				
	pH	4.98	Std. Units		02/04/22 17:20	
EPA 6010D	Calcium	65.4	mg/L	1.0	02/15/22 18:00	
EPA 6020B	Barium	0.17	mg/L	0.0050	02/15/22 20:34	
EPA 6020B	Boron	0.10	mg/L	0.040	02/15/22 20:34	
EPA 6020B	Cadmium	0.00019J	mg/L	0.00050	02/15/22 20:34	
EPA 6020B	Chromium	0.0011J	mg/L	0.0050	02/15/22 20:34	
EPA 6020B	Selenium	0.019	mg/L	0.0050	02/15/22 20:34	
EPA 6020B	Vanadium	0.0031J	mg/L	0.010	02/15/22 20:34	
SM 2540C-2015	Total Dissolved Solids	538	mg/L	20.0	02/09/22 10:12	
EPA 300.0 Rev 2.1 1993	Chloride	83.4	mg/L	1.0	02/10/22 20:50	
EPA 300.0 Rev 2.1 1993	Sulfate	347	mg/L	7.0	02/11/22 04:31	
<b>92585920030</b>	<b>GWC-22</b>					
	Performed by	CUSTOME			02/04/22 17:20	
		R				
	pH	4.63	Std. Units		02/04/22 17:20	
EPA 6010D	Calcium	14.6	mg/L	1.0	02/15/22 18:05	
EPA 6020B	Barium	0.038	mg/L	0.0050	02/15/22 20:40	
EPA 6020B	Boron	0.18	mg/L	0.040	02/15/22 20:40	
SM 2540C-2015	Total Dissolved Solids	89.0	mg/L	10.0	02/09/22 10:12	
EPA 300.0 Rev 2.1 1993	Chloride	10.8	mg/L	1.0	02/10/22 21:35	
EPA 300.0 Rev 2.1 1993	Sulfate	46.2	mg/L	1.0	02/10/22 21:35	
<b>92585920032</b>	<b>DUP-3</b>					
EPA 6010D	Calcium	11.8	mg/L	1.0	02/15/22 19:38	
EPA 6020B	Barium	0.081	mg/L	0.0050	02/15/22 20:52	
EPA 6020B	Boron	0.024J	mg/L	0.040	02/15/22 20:52	
SM 2540C-2015	Total Dissolved Solids	140	mg/L	10.0	02/09/22 10:12	
EPA 300.0 Rev 2.1 1993	Chloride	7.5	mg/L	1.0	02/10/22 22:05	M1
EPA 300.0 Rev 2.1 1993	Sulfate	65.0	mg/L	1.0	02/10/22 22:05	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

**Sample: GWA-7**      **Lab ID: 92585920001**      Collected: 01/31/22 17:15      Received: 02/03/22 10:10      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
 Pace Analytical Services - Charlotte

Performed by	<b>CUSTOMER</b>				1		02/03/22 11:24		
pH	<b>5.94</b>	Std. Units			1		02/03/22 11:24		

**6010D ATL ICP**

Analytical Method: EPA 6010D      Preparation Method: EPA 3010A  
 Pace Analytical Services - Peachtree Corners, GA

Calcium	<b>3.4</b>	mg/L	1.0	0.12	1	02/14/22 13:18	02/14/22 20:51	7440-70-2	
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**6010 MET ICP, Dissolved**

Analytical Method: EPA 6010D      Preparation Method: EPA 3010A  
 Pace Analytical Services - Peachtree Corners, GA

Calcium, Dissolved	<b>4.1</b>	mg/L	1.0	0.12	1	02/04/22 15:00	02/04/22 19:22	7440-70-2	
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**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
 Pace Analytical Services - Peachtree Corners, GA

Antimony	ND	mg/L	0.015	0.0039	5	02/14/22 08:52	02/14/22 20:56	7440-36-0	D3
Arsenic	ND	mg/L	0.025	0.0057	5	02/14/22 08:52	02/14/22 20:56	7440-38-2	D3
Barium	<b>0.10</b>	mg/L	0.025	0.0034	5	02/14/22 08:52	02/14/22 20:56	7440-39-3	
Beryllium	ND	mg/L	0.0025	0.00027	5	02/14/22 08:52	02/14/22 20:56	7440-41-7	D3
Boron	<b>3.9</b>	mg/L	0.20	0.043	5	02/14/22 08:52	02/14/22 20:56	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00057	5	02/14/22 08:52	02/14/22 20:56	7440-43-9	D3
Chromium	<b>0.015J</b>	mg/L	0.025	0.0055	5	02/14/22 08:52	02/14/22 20:56	7440-47-3	D3
Cobalt	ND	mg/L	0.025	0.0020	5	02/14/22 08:52	02/14/22 20:56	7440-48-4	D3
Lead	ND	mg/L	0.0050	0.0044	5	02/14/22 08:52	02/14/22 20:56	7439-92-1	D3
Lithium	ND	mg/L	0.15	0.0036	5	02/14/22 08:52	02/14/22 20:56	7439-93-2	D3
Molybdenum	ND	mg/L	0.050	0.0037	5	02/14/22 08:52	02/14/22 20:56	7439-98-7	D3
Selenium	ND	mg/L	0.025	0.0068	5	02/14/22 08:52	02/14/22 20:56	7782-49-2	D3
Thallium	ND	mg/L	0.0050	0.00090	5	02/14/22 08:52	02/14/22 20:56	7440-28-0	D3
Vanadium	<b>0.10</b>	mg/L	0.050	0.0093	5	02/14/22 08:52	02/14/22 20:56	7440-62-2	
Zinc	ND	mg/L	0.050	0.035	5	02/14/22 08:52	02/14/22 20:56	7440-66-6	D3

**6020 MET ICPMS, Dissolved**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
 Pace Analytical Services - Peachtree Corners, GA

Antimony, Dissolved	ND	mg/L	0.015	0.0039	5	02/14/22 07:46	02/16/22 16:56	7440-36-0	D3
Arsenic, Dissolved	ND	mg/L	0.025	0.0057	5	02/14/22 07:46	02/16/22 16:56	7440-38-2	D3
Barium, Dissolved	<b>0.10</b>	mg/L	0.025	0.0034	5	02/14/22 07:46	02/16/22 16:56	7440-39-3	
Beryllium, Dissolved	ND	mg/L	0.0025	0.00027	5	02/14/22 07:46	02/16/22 16:56	7440-41-7	D3
Boron, Dissolved	<b>4.1</b>	mg/L	0.20	0.043	5	02/14/22 07:46	02/16/22 16:56	7440-42-8	
Cadmium, Dissolved	ND	mg/L	0.0025	0.00057	5	02/14/22 07:46	02/16/22 16:56	7440-43-9	D3
Chromium, Dissolved	<b>0.011J</b>	mg/L	0.025	0.0055	5	02/14/22 07:46	02/16/22 16:56	7440-47-3	D3
Cobalt, Dissolved	ND	mg/L	0.025	0.0020	5	02/14/22 07:46	02/16/22 16:56	7440-48-4	D3
Lead, Dissolved	ND	mg/L	0.0050	0.0044	5	02/14/22 07:46	02/16/22 16:56	7439-92-1	D3
Lithium, Dissolved	ND	mg/L	0.15	0.0036	5	02/14/22 07:46	02/16/22 16:56	7439-93-2	D3
Molybdenum, Dissolved	ND	mg/L	0.050	0.0037	5	02/14/22 07:46	02/16/22 16:56	7439-98-7	D3
Selenium, Dissolved	<b>0.0086J</b>	mg/L	0.025	0.0068	5	02/14/22 07:46	02/16/22 16:56	7782-49-2	D3
Thallium, Dissolved	ND	mg/L	0.0050	0.00090	5	02/14/22 07:46	02/16/22 16:56	7440-28-0	D3

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: GWA-7		Lab ID: 92585920001		Collected: 01/31/22 17:15	Received: 02/03/22 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020 MET ICPMS, Dissolved</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Vanadium, Dissolved	0.11	mg/L	0.050	0.0093	5	02/14/22 07:46	02/16/22 16:56	7440-62-2		
Zinc, Dissolved	ND	mg/L	0.050	0.035	5	02/14/22 07:46	02/16/22 16:56	7440-66-6	D3	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 18:18	7439-97-6		
<b>7470 Mercury, Dissolved</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury, Dissolved	ND	mg/L	0.00020	0.00013	1	02/04/22 07:30	02/04/22 11:54	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	1260	mg/L	50.0	50.0	1		02/07/22 15:05			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	83.4	mg/L	1.0	0.60	1		02/07/22 02:45	16887-00-6	M1	
Fluoride	ND	mg/L	0.10	0.050	1		02/07/22 02:45	16984-48-8	M1	
Sulfate	15.0	mg/L	1.0	0.50	1		02/07/22 02:45	14808-79-8		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: GWA-8		Lab ID: 92585920002		Collected: 01/31/22 16:50		Received: 02/03/22 10:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/03/22 11:24		
pH	<b>4.39</b>	Std. Units			1		02/03/22 11:24		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>17.2</b>	mg/L	1.0	0.12	1	02/14/22 13:18	02/14/22 21:05	7440-70-2	M1
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/14/22 08:52	02/14/22 21:02	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/14/22 08:52	02/14/22 21:02	7440-38-2	
Barium	<b>0.051</b>	mg/L	0.0050	0.00067	1	02/14/22 08:52	02/14/22 21:02	7440-39-3	
Beryllium	<b>0.00016J</b>	mg/L	0.00050	0.000054	1	02/14/22 08:52	02/14/22 21:02	7440-41-7	
Boron	<b>0.13</b>	mg/L	0.040	0.0086	1	02/14/22 08:52	02/14/22 21:02	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/14/22 08:52	02/14/22 21:02	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/14/22 08:52	02/14/22 21:02	7440-47-3	
Cobalt	<b>0.00044J</b>	mg/L	0.0050	0.00039	1	02/14/22 08:52	02/14/22 21:02	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/14/22 08:52	02/14/22 21:02	7439-92-1	
Lithium	<b>0.00091J</b>	mg/L	0.030	0.00073	1	02/14/22 08:52	02/14/22 21:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/14/22 08:52	02/14/22 21:02	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/14/22 08:52	02/14/22 21:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/14/22 08:52	02/14/22 21:02	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/14/22 08:52	02/14/22 21:02	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/14/22 08:52	02/14/22 21:02	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 18:20	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>153</b>	mg/L	10.0	10.0	1		02/07/22 15:06		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>11.2</b>	mg/L	1.0	0.60	1		02/07/22 03:26	16887-00-6	
Fluoride	<b>0.090J</b>	mg/L	0.10	0.050	1		02/07/22 03:26	16984-48-8	
Sulfate	<b>89.7</b>	mg/L	1.0	0.50	1		02/07/22 03:26	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: <b>GWC-16</b>		Lab ID: <b>92585920003</b>		Collected: 02/01/22 15:10	Received: 02/03/22 10:10	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/03/22 11:24		
pH	<b>5.57</b>	Std. Units			1		02/03/22 11:24		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>267</b>	mg/L	1.0	0.12	1	02/14/22 13:18	02/14/22 21:25	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/14/22 08:52	02/14/22 21:08	7440-36-0	
Arsenic	<b>0.095</b>	mg/L	0.0050	0.0011	1	02/14/22 08:52	02/14/22 21:08	7440-38-2	
Barium	<b>0.23</b>	mg/L	0.0050	0.00067	1	02/14/22 08:52	02/14/22 21:08	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/14/22 08:52	02/14/22 21:08	7440-41-7	
Boron	<b>16.0</b>	mg/L	2.0	0.43	50	02/14/22 08:52	02/15/22 14:12	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/14/22 08:52	02/14/22 21:08	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/14/22 08:52	02/14/22 21:08	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/14/22 08:52	02/14/22 21:08	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/14/22 08:52	02/14/22 21:08	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/14/22 08:52	02/14/22 21:08	7439-93-2	
Molybdenum	<b>0.18</b>	mg/L	0.010	0.00074	1	02/14/22 08:52	02/14/22 21:08	7439-98-7	
Selenium	<b>0.0024J</b>	mg/L	0.0050	0.0014	1	02/14/22 08:52	02/14/22 21:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/14/22 08:52	02/14/22 21:08	7440-28-0	
Vanadium	<b>0.0021J</b>	mg/L	0.010	0.0019	1	02/14/22 08:52	02/14/22 21:08	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/14/22 08:52	02/14/22 21:08	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 18:31	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1990</b>	mg/L	100	100	1		02/07/22 15:52		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>61.5</b>	mg/L	1.0	0.60	1		02/07/22 03:40	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/07/22 03:40	16984-48-8	
Sulfate	<b>1010</b>	mg/L	24.0	12.0	24		02/07/22 15:17	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: GWC-17		Lab ID: 92585920004		Collected: 02/01/22 14:35		Received: 02/03/22 10:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/03/22 11:25		
pH	<b>4.53</b>	Std. Units			1		02/03/22 11:25		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>90.8</b>	mg/L	1.0	0.12	1	02/14/22 13:18	02/14/22 21:29	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/14/22 08:52	02/14/22 21:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/14/22 08:52	02/14/22 21:26	7440-38-2	
Barium	<b>0.055</b>	mg/L	0.0050	0.00067	1	02/14/22 08:52	02/14/22 21:26	7440-39-3	
Beryllium	<b>0.0020</b>	mg/L	0.00050	0.000054	1	02/14/22 08:52	02/14/22 21:26	7440-41-7	
Boron	<b>1.8</b>	mg/L	0.040	0.0086	1	02/14/22 08:52	02/14/22 21:26	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/14/22 08:52	02/14/22 21:26	7440-43-9	
Chromium	<b>0.0014J</b>	mg/L	0.0050	0.0011	1	02/14/22 08:52	02/14/22 21:26	7440-47-3	
Cobalt	<b>0.0036J</b>	mg/L	0.0050	0.00039	1	02/14/22 08:52	02/14/22 21:26	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/14/22 08:52	02/14/22 21:26	7439-92-1	
Lithium	<b>0.0061J</b>	mg/L	0.030	0.00073	1	02/14/22 08:52	02/14/22 21:26	7439-93-2	
Molybdenum	<b>0.0030J</b>	mg/L	0.010	0.00074	1	02/14/22 08:52	02/14/22 21:26	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/14/22 08:52	02/14/22 21:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/14/22 08:52	02/14/22 21:26	7440-28-0	
Vanadium	<b>0.0022J</b>	mg/L	0.010	0.0019	1	02/14/22 08:52	02/15/22 14:42	7440-62-2	
Zinc	<b>0.011</b>	mg/L	0.010	0.0070	1	02/14/22 08:52	02/14/22 21:26	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 18:34	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1580</b>	mg/L	100	100	1		02/07/22 15:52		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>549</b>	mg/L	13.0	7.8	13		02/07/22 15:58	16887-00-6	
Fluoride	<b>0.68</b>	mg/L	0.10	0.050	1		02/07/22 03:54	16984-48-8	
Sulfate	<b>416</b>	mg/L	13.0	6.5	13		02/07/22 15:58	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

**Sample: GWC-20**      **Lab ID: 92585920005**      Collected: 02/01/22 10:50      Received: 02/03/22 10:10      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/03/22 11:25		
pH	<b>5.90</b>	Std. Units			1		02/03/22 11:25		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>259</b>	mg/L	1.0	0.12	1	02/14/22 13:18	02/14/22 21:34	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/14/22 08:52	02/14/22 21:32	7440-36-0	
Arsenic	<b>0.22</b>	mg/L	0.0050	0.0011	1	02/14/22 08:52	02/14/22 21:32	7440-38-2	
Barium	<b>0.36</b>	mg/L	0.0050	0.00067	1	02/14/22 08:52	02/14/22 21:32	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/14/22 08:52	02/14/22 21:32	7440-41-7	
Boron	<b>15.7</b>	mg/L	2.0	0.43	50	02/14/22 08:52	02/15/22 14:18	7440-42-8	
Cadmium	<b>0.00020J</b>	mg/L	0.00050	0.00011	1	02/14/22 08:52	02/14/22 21:32	7440-43-9	
Chromium	<b>0.0036J</b>	mg/L	0.0050	0.0011	1	02/14/22 08:52	02/14/22 21:32	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/14/22 08:52	02/14/22 21:32	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/14/22 08:52	02/14/22 21:32	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/14/22 08:52	02/14/22 21:32	7439-93-2	
Molybdenum	<b>0.77</b>	mg/L	0.010	0.00074	1	02/14/22 08:52	02/14/22 21:32	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/14/22 08:52	02/14/22 21:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/14/22 08:52	02/14/22 21:32	7440-28-0	
Vanadium	<b>0.0039J</b>	mg/L	0.010	0.0019	1	02/14/22 08:52	02/15/22 16:34	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/14/22 08:52	02/14/22 21:32	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 18:36	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1580</b>	mg/L	100	100	1		02/07/22 15:53		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>33.4</b>	mg/L	1.0	0.60	1		02/07/22 04:50	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/07/22 04:50	16984-48-8	
Sulfate	<b>862</b>	mg/L	20.0	10.0	20		02/07/22 16:12	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

**Sample: GWC-21**      **Lab ID: 92585920006**      Collected: 02/01/22 13:55      Received: 02/03/22 10:10      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/03/22 11:25		
pH	<b>5.76</b>	Std. Units			1		02/03/22 11:25		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>125</b>	mg/L	1.0	0.12	1	02/14/22 13:18	02/14/22 21:39	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/14/22 08:52	02/14/22 21:38	7440-36-0	
Arsenic	<b>0.020</b>	mg/L	0.0050	0.0011	1	02/14/22 08:52	02/14/22 21:38	7440-38-2	
Barium	<b>0.24</b>	mg/L	0.0050	0.00067	1	02/14/22 08:52	02/14/22 21:38	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/14/22 08:52	02/14/22 21:38	7440-41-7	
Boron	<b>4.4</b>	mg/L	0.040	0.0086	1	02/14/22 08:52	02/14/22 21:38	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/14/22 08:52	02/14/22 21:38	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/14/22 08:52	02/14/22 21:38	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/14/22 08:52	02/14/22 21:38	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/14/22 08:52	02/14/22 21:38	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/14/22 08:52	02/14/22 21:38	7439-93-2	
Molybdenum	<b>0.042</b>	mg/L	0.010	0.00074	1	02/14/22 08:52	02/14/22 21:38	7439-98-7	
Selenium	<b>0.0054</b>	mg/L	0.0050	0.0014	1	02/14/22 08:52	02/14/22 21:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/14/22 08:52	02/14/22 21:38	7440-28-0	
Vanadium	<b>0.0036J</b>	mg/L	0.010	0.0019	1	02/14/22 08:52	02/15/22 14:48	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/14/22 08:52	02/14/22 21:38	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 18:44	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>783</b>	mg/L	10.0	10.0	1		02/07/22 15:53		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>29.3</b>	mg/L	1.0	0.60	1		02/07/22 05:04	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/07/22 05:04	16984-48-8	
Sulfate	<b>374</b>	mg/L	9.0	4.5	9		02/07/22 16:26	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

**Sample: MW-24D**      **Lab ID: 92585920007**      Collected: 02/01/22 16:25      Received: 02/03/22 10:10      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/03/22 11:25		
pH	<b>6.63</b>	Std. Units			1		02/03/22 11:25		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>3.7</b>	mg/L	1.0	0.12	1	02/14/22 13:18	02/14/22 21:44	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/15/22 22:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 17:22	7440-38-2	
Barium	<b>0.036</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/15/22 22:21	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/15/22 22:21	7440-41-7	
Boron	<b>0.014J</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/15/22 22:21	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/15/22 22:21	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/15/22 22:21	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/15/22 22:21	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/15/22 22:21	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/15/22 22:21	7439-93-2	
Molybdenum	<b>0.0024J</b>	mg/L	0.010	0.00074	1	02/15/22 08:58	02/15/22 22:21	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/15/22 22:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/15/22 22:21	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 08:58	02/15/22 22:21	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/15/22 22:21	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 18:47	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>75.0</b>	mg/L	10.0	10.0	1		02/07/22 15:54		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>5.4</b>	mg/L	1.0	0.60	1		02/07/22 05:18	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/07/22 05:18	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/07/22 05:18	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: FB-1		Lab ID: 92585920008		Collected: 01/31/22 16:45	Received: 02/03/22 10:10	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	02/14/22 13:18	02/14/22 21:58	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	<b>0.0012J</b>	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/15/22 22:45	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 17:40	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/15/22 22:45	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/15/22 22:45	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	02/15/22 08:58	02/15/22 22:45	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/15/22 22:45	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/15/22 22:45	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/15/22 22:45	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/15/22 22:45	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/15/22 22:45	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 08:58	02/15/22 22:45	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/15/22 22:45	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/15/22 22:45	7440-28-0		
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 08:58	02/15/22 22:45	7440-62-2		
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/15/22 22:45	7440-66-6		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 18:49	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		02/07/22 15:06			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		02/07/22 05:32	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		02/07/22 05:32	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		02/07/22 05:32	14808-79-8		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Sample: EB-1		Lab ID: 92585920009		Collected: 02/01/22 16:00	Received: 02/03/22 10:10	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	02/14/22 13:18	02/14/22 22:03	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/15/22 22:51	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 17:45	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/15/22 22:51	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/15/22 22:51	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	02/15/22 08:58	02/15/22 22:51	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/15/22 22:51	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/15/22 22:51	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/15/22 22:51	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/15/22 22:51	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/15/22 22:51	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 08:58	02/15/22 22:51	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/15/22 22:51	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/15/22 22:51	7440-28-0		
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 08:58	02/15/22 22:51	7440-62-2		
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/15/22 22:51	7440-66-6		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 18:52	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		02/07/22 15:54			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		02/07/22 05:46	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		02/07/22 05:46	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		02/07/22 05:46	14808-79-8		

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>Sample: DUP-1      Lab ID: 92585920010      Collected: 02/01/22 00:00      Received: 02/03/22 10:10      Matrix: Water</b>									
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>3.7</b>	mg/L	1.0	0.12	1	02/14/22 13:18	02/14/22 22:08	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/15/22 22:57	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 17:51	7440-38-2	
Barium	<b>0.034</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/15/22 22:57	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/15/22 22:57	7440-41-7	
Boron	<b>0.011J</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/15/22 22:57	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/15/22 22:57	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/15/22 22:57	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/15/22 22:57	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/15/22 22:57	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/15/22 22:57	7439-93-2	
Molybdenum	<b>0.0022J</b>	mg/L	0.010	0.00074	1	02/15/22 08:58	02/15/22 22:57	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/15/22 22:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/15/22 22:57	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 08:58	02/15/22 22:57	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/15/22 22:57	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 18:55	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>65.0</b>	mg/L	10.0	10.0	1		02/07/22 15:55		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>5.4</b>	mg/L	1.0	0.60	1		02/07/22 06:00	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/07/22 06:00	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/07/22 06:00	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: GWC-9		Lab ID: 92585920011		Collected: 02/02/22 09:20		Received: 02/03/22 10:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/03/22 11:25		
pH	<b>4.66</b>	Std. Units			1		02/03/22 11:25		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>4.6</b>	mg/L	1.0	0.12	1	02/14/22 13:18	02/14/22 22:13	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/15/22 23:03	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 17:57	7440-38-2	
Barium	<b>0.15</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/15/22 23:03	7440-39-3	
Beryllium	<b>0.00018J</b>	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/15/22 23:03	7440-41-7	
Boron	<b>0.011J</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/15/22 23:03	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/15/22 23:03	7440-43-9	
Chromium	<b>0.0012J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/15/22 23:03	7440-47-3	
Cobalt	<b>0.00096J</b>	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/15/22 23:03	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/15/22 23:03	7439-92-1	
Lithium	<b>0.0017J</b>	mg/L	0.030	0.00073	1	02/15/22 08:58	02/15/22 23:03	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 08:58	02/15/22 23:03	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/15/22 23:03	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/15/22 23:03	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 08:58	02/15/22 23:03	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/15/22 23:03	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 18:57	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>96.0</b>	mg/L	10.0	10.0	1		02/07/22 17:22		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>17.5</b>	mg/L	1.0	0.60	1		02/07/22 06:41	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/07/22 06:41	16984-48-8	M1
Sulfate	<b>31.5</b>	mg/L	1.0	0.50	1		02/07/22 06:41	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: <b>GWB-4R</b>		Lab ID: <b>92585920012</b>		Collected: 02/02/22 13:20	Received: 02/04/22 14:31	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:17		
pH	<b>5.71</b>	Std. Units			1		02/04/22 17:17		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>98.2</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 15:57	7440-70-2	M1
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/15/22 23:21	7440-36-0	
Arsenic	<b>0.0036J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 18:33	7440-38-2	
Barium	<b>0.17</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/15/22 23:21	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/15/22 23:21	7440-41-7	
Boron	<b>6.2</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/15/22 23:21	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/15/22 23:21	7440-43-9	
Chromium	<b>0.0030J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/15/22 23:21	7440-47-3	
Cobalt	<b>0.0027J</b>	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/15/22 23:21	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/15/22 23:21	7439-92-1	
Lithium	<b>0.015J</b>	mg/L	0.030	0.00073	1	02/15/22 08:58	02/15/22 23:21	7439-93-2	
Molybdenum	<b>0.11</b>	mg/L	0.010	0.00074	1	02/15/22 08:58	02/15/22 23:21	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/15/22 23:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/15/22 23:21	7440-28-0	
Vanadium	<b>0.0031J</b>	mg/L	0.010	0.0019	1	02/15/22 08:58	02/15/22 23:21	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/15/22 23:21	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 19:00	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>654</b>	mg/L	20.0	20.0	1		02/08/22 10:52		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>14.5</b>	mg/L	1.0	0.60	1		02/09/22 10:57	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/09/22 10:57	16984-48-8	
Sulfate	<b>338</b>	mg/L	7.0	3.5	7		02/09/22 20:34	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Sample: <b>GWB-6R</b>		Lab ID: <b>92585920013</b>		Collected: 02/02/22 10:40		Received: 02/04/22 14:31		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:17		
pH	<b>5.75</b>	Std. Units			1		02/04/22 17:17		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>293</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 16:16	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/15/22 23:27	7440-36-0	
Arsenic	<b>0.010</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 18:39	7440-38-2	
Barium	<b>0.026</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/15/22 23:27	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/15/22 23:27	7440-41-7	
Boron	<b>6.2</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/15/22 23:27	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/15/22 23:27	7440-43-9	
Chromium	<b>0.0033J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/15/22 23:27	7440-47-3	
Cobalt	<b>0.070</b>	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/15/22 23:27	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/15/22 23:27	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/15/22 23:27	7439-93-2	
Molybdenum	<b>0.00085J</b>	mg/L	0.010	0.00074	1	02/15/22 08:58	02/15/22 23:27	7439-98-7	
Selenium	<b>0.0017J</b>	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/15/22 23:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/15/22 23:27	7440-28-0	
Vanadium	<b>0.0099J</b>	mg/L	0.010	0.0019	1	02/15/22 08:58	02/15/22 23:27	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/15/22 23:27	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 19:02	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>2440</b>	mg/L	100	100	1		02/08/22 10:52		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>42.3</b>	mg/L	1.0	0.60	1		02/09/22 11:12	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/09/22 11:12	16984-48-8	
Sulfate	<b>1460</b>	mg/L	29.0	14.5	29		02/09/22 20:49	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: MW-26D		Lab ID: 92585920014		Collected: 02/02/22 14:20	Received: 02/04/22 14:31	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:17		
pH	<b>5.82</b>	Std. Units			1		02/04/22 17:17		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>2.3</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 16:21	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/15/22 23:33	7440-36-0	
Arsenic	<b>0.0015J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 18:45	7440-38-2	
Barium	<b>0.026</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/15/22 23:33	7440-39-3	
Beryllium	<b>0.000088J</b>	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/15/22 23:33	7440-41-7	
Boron	<b>0.033J</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/15/22 23:33	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/15/22 23:33	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/15/22 23:33	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/15/22 23:33	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/15/22 23:33	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/15/22 23:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 08:58	02/15/22 23:33	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/15/22 23:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/15/22 23:33	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 08:58	02/15/22 23:33	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/15/22 23:33	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 19:05	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>54.0</b>	mg/L	10.0	10.0	1		02/08/22 10:52		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>6.6</b>	mg/L	1.0	0.60	1		02/09/22 11:27	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/09/22 11:27	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/09/22 11:27	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

**Sample: GWC-2**      **Lab ID: 92585920015**      Collected: 02/02/22 15:45      Received: 02/04/22 14:31      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:18		
pH	<b>4.79</b>	Std. Units			1		02/04/22 17:18		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>0.16J</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 16:39	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/15/22 23:39	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 18:51	7440-38-2	
Barium	<b>0.052</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/15/22 23:39	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/15/22 23:39	7440-41-7	
Boron	<b>0.023J</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/15/22 23:39	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/15/22 23:39	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/15/22 23:39	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/15/22 23:39	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/15/22 23:39	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/15/22 23:39	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 08:58	02/15/22 23:39	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/15/22 23:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/15/22 23:39	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 08:58	02/15/22 23:39	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/15/22 23:39	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 19:13	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>43.0</b>	mg/L	10.0	10.0	1		02/08/22 10:52		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>6.9</b>	mg/L	1.0	0.60	1		02/09/22 11:42	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/09/22 11:42	16984-48-8	
Sulfate	<b>9.0</b>	mg/L	1.0	0.50	1		02/09/22 11:42	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Sample: GWC-14		Lab ID: 92585920016		Collected: 02/02/22 17:15	Received: 02/04/22 14:31	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:18		
pH	<b>5.98</b>	Std. Units			1		02/04/22 17:18		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>245</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 16:44	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/15/22 23:45	7440-36-0	
Arsenic	<b>0.0036J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 18:57	7440-38-2	
Barium	<b>0.10</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/15/22 23:45	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/15/22 23:45	7440-41-7	
Boron	<b>0.044</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/15/22 23:45	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/15/22 23:45	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/15/22 23:45	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/15/22 23:45	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/15/22 23:45	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/15/22 23:45	7439-93-2	
Molybdenum	<b>0.015</b>	mg/L	0.010	0.00074	1	02/15/22 08:58	02/15/22 23:45	7439-98-7	
Selenium	<b>0.0038J</b>	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/15/22 23:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/15/22 23:45	7440-28-0	
Vanadium	<b>0.0040J</b>	mg/L	0.010	0.0019	1	02/15/22 08:58	02/15/22 23:45	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/15/22 23:45	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 19:16	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1130</b>	mg/L	20.0	20.0	1		02/08/22 10:52		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>29.6</b>	mg/L	1.0	0.60	1		02/09/22 11:57	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/09/22 11:57	16984-48-8	
Sulfate	<b>589</b>	mg/L	12.0	6.0	12		02/09/22 21:03	14808-79-8	M1

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: GWC-15		Lab ID: 92585920017		Collected: 02/03/22 09:50		Received: 02/04/22 14:31		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:18		
pH	<b>6.61</b>	Std. Units			1		02/04/22 17:18		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>144</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 16:48	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/15/22 23:51	7440-36-0	
Arsenic	<b>0.23</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 19:03	7440-38-2	
Barium	<b>0.061</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/15/22 23:51	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/15/22 23:51	7440-41-7	
Boron	<b>0.71</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/15/22 23:51	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/15/22 23:51	7440-43-9	
Chromium	<b>0.0016J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/15/22 23:51	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/15/22 23:51	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/15/22 23:51	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/15/22 23:51	7439-93-2	
Molybdenum	<b>0.086</b>	mg/L	0.010	0.00074	1	02/15/22 08:58	02/15/22 23:51	7439-98-7	
Selenium	<b>0.0031J</b>	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/15/22 23:51	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/15/22 23:51	7440-28-0	
Vanadium	<b>0.0023J</b>	mg/L	0.010	0.0019	1	02/15/22 08:58	02/15/22 23:51	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/15/22 23:51	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 13:30	02/09/22 19:18	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>516</b>	mg/L	20.0	20.0	1		02/08/22 13:48		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>5.1</b>	mg/L	1.0	0.60	1		02/09/22 16:12	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/09/22 16:12	16984-48-8	
Sulfate	<b>102</b>	mg/L	2.0	1.0	2		02/09/22 21:49	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

**Sample: GWC-1**      **Lab ID: 92585920018**      Collected: 02/03/22 11:40      Received: 02/04/22 14:31      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:18		
pH	<b>5.89</b>	Std. Units			1		02/04/22 17:18		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>58.2</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 16:53	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/15/22 23:57	7440-36-0	
Arsenic	<b>0.0057</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 19:09	7440-38-2	
Barium	<b>0.051</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/15/22 23:57	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/15/22 23:57	7440-41-7	
Boron	<b>0.59</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/15/22 23:57	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/15/22 23:57	7440-43-9	
Chromium	<b>0.0019J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/15/22 23:57	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/15/22 23:57	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/15/22 23:57	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/15/22 23:57	7439-93-2	
Molybdenum	<b>0.038</b>	mg/L	0.010	0.00074	1	02/15/22 08:58	02/15/22 23:57	7439-98-7	
Selenium	<b>0.0022J</b>	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/15/22 23:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/15/22 23:57	7440-28-0	
Vanadium	<b>0.0028J</b>	mg/L	0.010	0.0019	1	02/15/22 08:58	02/15/22 23:57	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/15/22 23:57	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 11:29	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>315</b>	mg/L	10.0	10.0	1		02/08/22 13:48		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>8.0</b>	mg/L	1.0	0.60	1		02/09/22 16:27	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/09/22 16:27	16984-48-8	
Sulfate	<b>49.2</b>	mg/L	1.0	0.50	1		02/09/22 16:27	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: <b>GWC-12</b>		Lab ID: <b>92585920019</b>		Collected: 02/03/22 13:05	Received: 02/04/22 14:31	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:18		
pH	<b>4.04</b>	Std. Units			1		02/04/22 17:18		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>63.7</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 16:58	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/16/22 00:03	7440-36-0	
Arsenic	<b>0.0016J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 19:15	7440-38-2	
Barium	<b>0.025</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/16/22 00:03	7440-39-3	
Beryllium	<b>0.00056</b>	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/16/22 00:03	7440-41-7	
Boron	<b>7.5</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/16/22 00:03	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/16/22 00:03	7440-43-9	
Chromium	<b>0.0018J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 00:03	7440-47-3	
Cobalt	<b>0.00072J</b>	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/16/22 00:03	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/16/22 19:15	7439-92-1	
Lithium	<b>0.0010J</b>	mg/L	0.030	0.00073	1	02/15/22 08:58	02/16/22 00:03	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 08:58	02/16/22 00:03	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/16/22 00:03	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/16/22 19:15	7440-28-0	
Vanadium	<b>0.0052J</b>	mg/L	0.010	0.0019	1	02/15/22 08:58	02/16/22 00:03	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/16/22 00:03	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 11:32	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>566</b>	mg/L	20.0	20.0	1		02/08/22 13:49		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>57.0</b>	mg/L	1.0	0.60	1		02/09/22 16:42	16887-00-6	
Fluoride	<b>0.36</b>	mg/L	0.10	0.050	1		02/09/22 16:42	16984-48-8	
Sulfate	<b>333</b>	mg/L	8.0	4.0	8		02/09/22 23:08	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: <b>GWC-13</b>	Lab ID: <b>92585920020</b>	Collected: 02/03/22 14:30	Received: 02/04/22 14:31	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:19		
pH	<b>4.97</b>	Std. Units			1		02/04/22 17:19		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>2.7</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 17:03	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/16/22 00:08	7440-36-0	
Arsenic	<b>0.0025J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 19:21	7440-38-2	
Barium	<b>0.038</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/16/22 00:08	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/16/22 00:08	7440-41-7	
Boron	<b>0.37</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/16/22 00:08	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/16/22 00:08	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 00:08	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/16/22 00:08	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/16/22 00:08	7439-92-1	
Lithium	<b>0.00077J</b>	mg/L	0.030	0.00073	1	02/15/22 08:58	02/16/22 00:08	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 08:58	02/16/22 00:08	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/16/22 00:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/16/22 00:08	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 08:58	02/16/22 00:08	7440-62-2	
Zinc	<b>0.037</b>	mg/L	0.010	0.0070	1	02/15/22 08:58	02/16/22 00:08	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 11:34	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>72.0</b>	mg/L	10.0	10.0	1		02/08/22 13:49		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>8.8</b>	mg/L	1.0	0.60	1		02/09/22 16:57	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/09/22 16:57	16984-48-8	
Sulfate	<b>32.1</b>	mg/L	1.0	0.50	1		02/09/22 16:57	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Sample: <b>FB-2</b>		Lab ID: <b>92585920021</b>		Collected: 02/02/22 10:30	Received: 02/04/22 14:31	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 17:08	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/16/22 00:14	7440-36-0		
Arsenic	<b>0.0021J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 19:27	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/16/22 00:14	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/16/22 00:14	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	02/15/22 08:58	02/16/22 00:14	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/16/22 00:14	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 00:14	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/16/22 00:14	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/16/22 00:14	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/16/22 00:14	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 08:58	02/16/22 00:14	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/16/22 00:14	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/16/22 00:14	7440-28-0		
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 08:58	02/16/22 00:14	7440-62-2		
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/16/22 00:14	7440-66-6		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 11:37	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>17.0</b>	mg/L	10.0	10.0	1		02/08/22 10:53			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		02/09/22 17:12	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		02/09/22 17:12	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		02/09/22 17:12	14808-79-8		

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: EB-2		Lab ID: 92585920022		Collected: 02/02/22 14:00	Received: 02/04/22 14:31	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 17:12	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/16/22 00:32	7440-36-0		
Arsenic	<b>0.0012J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 19:45	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/16/22 00:32	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/16/22 00:32	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	02/15/22 08:58	02/16/22 00:32	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/16/22 00:32	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 00:32	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/16/22 00:32	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/16/22 00:32	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/16/22 00:32	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 08:58	02/16/22 00:32	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/16/22 00:32	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/16/22 00:32	7440-28-0		
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 08:58	02/16/22 00:32	7440-62-2		
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/16/22 00:32	7440-66-6		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 11:40	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		02/08/22 10:53			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		02/09/22 17:27	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		02/09/22 17:27	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		02/09/22 17:27	14808-79-8		

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

**Sample: EB-3**      **Lab ID: 92585920023**      Collected: 02/03/22 13:20      Received: 02/04/22 14:31      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	ND	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 17:17	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/16/22 00:38	7440-36-0	
Arsenic	<b>0.0012J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 19:51	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/16/22 00:38	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/16/22 00:38	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	02/15/22 08:58	02/16/22 00:38	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/16/22 00:38	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 00:38	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/16/22 00:38	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/16/22 00:38	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/16/22 00:38	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 08:58	02/16/22 00:38	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/16/22 00:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/16/22 00:38	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 08:58	02/16/22 00:38	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/16/22 00:38	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 11:42	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		02/08/22 13:49		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	ND	mg/L	1.0	0.60	1		02/09/22 17:42	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/09/22 17:42	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/09/22 17:42	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Sample: DUP-2		Lab ID: 92585920024		Collected: 02/02/22 00:00	Received: 02/04/22 14:31	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	2.5	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 17:22	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/16/22 00:44	7440-36-0	
Arsenic	0.0022J	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 19:57	7440-38-2	
Barium	0.024	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/16/22 00:44	7440-39-3	
Beryllium	0.000091J	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/16/22 00:44	7440-41-7	
Boron	0.0096J	mg/L	0.040	0.0086	1	02/15/22 08:58	02/16/22 00:44	7440-42-8	
Cadmium	0.00029J	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/16/22 00:44	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 00:44	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/16/22 00:44	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/16/22 00:44	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/16/22 00:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 08:58	02/16/22 00:44	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/16/22 00:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/16/22 00:44	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 08:58	02/16/22 00:44	7440-62-2	
Zinc	0.018	mg/L	0.010	0.0070	1	02/15/22 08:58	02/16/22 00:44	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 11:45	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	49.0	mg/L	10.0	10.0	1		02/08/22 10:53		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	6.0	mg/L	1.0	0.60	1		02/09/22 17:57	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/09/22 17:57	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/09/22 17:57	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

**Sample: MW-27D**      **Lab ID: 92585920025**      Collected: 02/02/22 15:00      Received: 02/04/22 14:31      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:19		
pH	<b>5.72</b>	Std. Units			1		02/04/22 17:19		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>2.1</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 17:41	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/16/22 00:50	7440-36-0	
Arsenic	<b>0.0021J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 20:03	7440-38-2	
Barium	<b>0.024</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/16/22 00:50	7440-39-3	
Beryllium	<b>0.000076J</b>	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/16/22 00:50	7440-41-7	
Boron	<b>0.0091J</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/16/22 00:50	7440-42-8	
Cadmium	<b>0.00027J</b>	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/16/22 00:50	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 00:50	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/16/22 00:50	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/16/22 00:50	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/16/22 00:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 08:58	02/16/22 00:50	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/16/22 00:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/16/22 00:50	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 08:58	02/16/22 00:50	7440-62-2	
Zinc	<b>0.017</b>	mg/L	0.010	0.0070	1	02/15/22 08:58	02/16/22 00:50	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 11:47	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>65.0</b>	mg/L	10.0	10.0	1		02/08/22 11:12		D6
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>6.0</b>	mg/L	1.0	0.60	1		02/09/22 18:12	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/09/22 18:12	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/09/22 18:12	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: <b>GWB-5R</b>		Lab ID: <b>92585920026</b>		Collected: 02/03/22 09:35	Received: 02/04/22 14:31	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:19		
pH	<b>4.48</b>	Std. Units			1		02/04/22 17:19		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>130</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 17:46	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 08:58	02/16/22 00:56	7440-36-0	
Arsenic	<b>0.0029J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 20:09	7440-38-2	
Barium	<b>0.062</b>	mg/L	0.0050	0.00067	1	02/15/22 08:58	02/16/22 00:56	7440-39-3	
Beryllium	<b>0.00014J</b>	mg/L	0.00050	0.000054	1	02/15/22 08:58	02/16/22 00:56	7440-41-7	
Boron	<b>4.9</b>	mg/L	0.040	0.0086	1	02/15/22 08:58	02/16/22 00:56	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 08:58	02/16/22 00:56	7440-43-9	
Chromium	<b>0.0014J</b>	mg/L	0.0050	0.0011	1	02/15/22 08:58	02/16/22 00:56	7440-47-3	
Cobalt	<b>0.019</b>	mg/L	0.0050	0.00039	1	02/15/22 08:58	02/16/22 00:56	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 08:58	02/16/22 00:56	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 08:58	02/16/22 00:56	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 08:58	02/16/22 00:56	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 08:58	02/16/22 00:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 08:58	02/16/22 00:56	7440-28-0	
Vanadium	<b>0.0046J</b>	mg/L	0.010	0.0019	1	02/15/22 08:58	02/16/22 00:56	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 08:58	02/16/22 00:56	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 11:50	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>1240</b>	mg/L	50.0	50.0	1		02/08/22 13:49		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>38.5</b>	mg/L	1.0	0.60	1		02/10/22 20:05	16887-00-6	
Fluoride	<b>0.081J</b>	mg/L	0.10	0.050	1		02/10/22 20:05	16984-48-8	
Sulfate	<b>797</b>	mg/L	17.0	8.5	17		02/11/22 04:17	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: MW-23D		Lab ID: 92585920027		Collected: 02/03/22 11:40		Received: 02/04/22 14:31		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:19		
pH	<b>6.14</b>	Std. Units			1		02/04/22 17:19		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>11.6</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 17:50	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 10:27	02/15/22 20:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/15/22 10:27	02/15/22 20:22	7440-38-2	
Barium	<b>0.079</b>	mg/L	0.0050	0.00067	1	02/15/22 10:27	02/15/22 20:22	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 10:27	02/15/22 20:22	7440-41-7	
Boron	<b>0.030J</b>	mg/L	0.040	0.0086	1	02/15/22 10:27	02/15/22 20:22	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 10:27	02/15/22 20:22	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 10:27	02/15/22 20:22	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 10:27	02/15/22 20:22	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 10:27	02/15/22 20:22	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 10:27	02/15/22 20:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 10:27	02/15/22 20:22	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 10:27	02/15/22 20:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 10:27	02/15/22 20:22	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 10:27	02/15/22 20:22	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 10:27	02/15/22 20:22	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 11:58	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>156</b>	mg/L	10.0	10.0	1		02/08/22 13:49		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>7.5</b>	mg/L	1.0	0.60	1		02/10/22 20:20	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/10/22 20:20	16984-48-8	
Sulfate	<b>64.8</b>	mg/L	1.0	0.50	1		02/10/22 20:20	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

**Sample: MW-25D**      **Lab ID: 92585920028**      Collected: 02/03/22 14:35      Received: 02/04/22 14:31      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:20		
pH	<b>6.15</b>	Std. Units			1		02/04/22 17:20		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>3.0</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 17:55	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 10:27	02/15/22 20:28	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/15/22 10:27	02/15/22 20:28	7440-38-2	
Barium	<b>0.024</b>	mg/L	0.0050	0.00067	1	02/15/22 10:27	02/15/22 20:28	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 10:27	02/15/22 20:28	7440-41-7	
Boron	<b>0.013J</b>	mg/L	0.040	0.0086	1	02/15/22 10:27	02/15/22 20:28	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 10:27	02/15/22 20:28	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 10:27	02/15/22 20:28	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 10:27	02/15/22 20:28	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 10:27	02/15/22 20:28	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 10:27	02/15/22 20:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 10:27	02/15/22 20:28	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 10:27	02/15/22 20:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 10:27	02/15/22 20:28	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 10:27	02/15/22 20:28	7440-62-2	
Zinc	<b>0.051</b>	mg/L	0.010	0.0070	1	02/15/22 10:27	02/15/22 20:28	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 12:01	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>58.0</b>	mg/L	10.0	10.0	1		02/08/22 13:49		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>6.3</b>	mg/L	1.0	0.60	1		02/10/22 20:35	16887-00-6	
Fluoride	<b>0.077J</b>	mg/L	0.10	0.050	1		02/10/22 20:35	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		02/10/22 20:35	14808-79-8	

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: GWC-11		Lab ID: 92585920029		Collected: 02/03/22 16:20		Received: 02/04/22 14:31		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:20		
pH	<b>4.98</b>	Std. Units			1		02/04/22 17:20		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>65.4</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 18:00	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 10:27	02/15/22 20:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/15/22 10:27	02/15/22 20:34	7440-38-2	
Barium	<b>0.17</b>	mg/L	0.0050	0.00067	1	02/15/22 10:27	02/15/22 20:34	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 10:27	02/15/22 20:34	7440-41-7	
Boron	<b>0.10</b>	mg/L	0.040	0.0086	1	02/15/22 10:27	02/15/22 20:34	7440-42-8	
Cadmium	<b>0.00019J</b>	mg/L	0.00050	0.00011	1	02/15/22 10:27	02/15/22 20:34	7440-43-9	
Chromium	<b>0.0011J</b>	mg/L	0.0050	0.0011	1	02/15/22 10:27	02/15/22 20:34	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 10:27	02/15/22 20:34	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 10:27	02/15/22 20:34	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 10:27	02/15/22 20:34	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 10:27	02/15/22 20:34	7439-98-7	
Selenium	<b>0.019</b>	mg/L	0.0050	0.0014	1	02/15/22 10:27	02/15/22 20:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 10:27	02/15/22 20:34	7440-28-0	
Vanadium	<b>0.0031J</b>	mg/L	0.010	0.0019	1	02/15/22 10:27	02/15/22 20:34	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 10:27	02/15/22 20:34	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 12:03	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>538</b>	mg/L	20.0	20.0	1		02/09/22 10:12		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>83.4</b>	mg/L	1.0	0.60	1		02/10/22 20:50	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/10/22 20:50	16984-48-8	
Sulfate	<b>347</b>	mg/L	7.0	3.5	7		02/11/22 04:31	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: <b>GWC-22</b>		Lab ID: <b>92585920030</b>		Collected: 02/03/22 17:50	Received: 02/04/22 14:31	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/04/22 17:20		
pH	<b>4.63</b>	Std. Units			1		02/04/22 17:20		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>14.6</b>	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 18:05	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 10:27	02/15/22 20:40	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/15/22 10:27	02/15/22 20:40	7440-38-2	
Barium	<b>0.038</b>	mg/L	0.0050	0.00067	1	02/15/22 10:27	02/15/22 20:40	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 10:27	02/15/22 20:40	7440-41-7	
Boron	<b>0.18</b>	mg/L	0.040	0.0086	1	02/15/22 10:27	02/15/22 20:40	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 10:27	02/15/22 20:40	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 10:27	02/15/22 20:40	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 10:27	02/15/22 20:40	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 10:27	02/15/22 20:40	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 10:27	02/15/22 20:40	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 10:27	02/15/22 20:40	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 10:27	02/15/22 20:40	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 10:27	02/15/22 20:40	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 10:27	02/15/22 20:40	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 10:27	02/15/22 20:40	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 12:06	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>89.0</b>	mg/L	10.0	10.0	1		02/09/22 10:12		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	<b>10.8</b>	mg/L	1.0	0.60	1		02/10/22 21:35	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		02/10/22 21:35	16984-48-8	
Sulfate	<b>46.2</b>	mg/L	1.0	0.50	1		02/10/22 21:35	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Sample: FB-3		Lab ID: 92585920031		Collected: 02/03/22 17:20	Received: 02/04/22 14:31	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	02/15/22 08:59	02/15/22 18:14	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 10:27	02/15/22 20:46	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.0011	1	02/15/22 10:27	02/15/22 20:46	7440-38-2		
Barium	ND	mg/L	0.0050	0.00067	1	02/15/22 10:27	02/15/22 20:46	7440-39-3		
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 10:27	02/15/22 20:46	7440-41-7		
Boron	ND	mg/L	0.040	0.0086	1	02/15/22 10:27	02/15/22 20:46	7440-42-8		
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 10:27	02/15/22 20:46	7440-43-9		
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 10:27	02/15/22 20:46	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 10:27	02/15/22 20:46	7440-48-4		
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 10:27	02/15/22 20:46	7439-92-1		
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 10:27	02/15/22 20:46	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 10:27	02/15/22 20:46	7439-98-7		
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 10:27	02/15/22 20:46	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 10:27	02/15/22 20:46	7440-28-0		
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 10:27	02/15/22 20:46	7440-62-2		
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 10:27	02/15/22 20:46	7440-66-6		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 12:08	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		02/09/22 10:12			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		02/10/22 21:50	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		02/10/22 21:50	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		02/10/22 21:50	14808-79-8		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

**Sample: DUP-3**      **Lab ID: 92585920032**      Collected: 02/03/22 00:00      Received: 02/04/22 14:31      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D    Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	11.8	mg/L	1.0	0.12	1	02/15/22 11:54	02/15/22 19:38	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B    Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00078	1	02/15/22 10:27	02/15/22 20:52	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0011	1	02/15/22 10:27	02/15/22 20:52	7440-38-2	
Barium	0.081	mg/L	0.0050	0.00067	1	02/15/22 10:27	02/15/22 20:52	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/15/22 10:27	02/15/22 20:52	7440-41-7	
Boron	0.024J	mg/L	0.040	0.0086	1	02/15/22 10:27	02/15/22 20:52	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/15/22 10:27	02/15/22 20:52	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/15/22 10:27	02/15/22 20:52	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/15/22 10:27	02/15/22 20:52	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/15/22 10:27	02/15/22 20:52	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/15/22 10:27	02/15/22 20:52	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/15/22 10:27	02/15/22 20:52	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/15/22 10:27	02/15/22 20:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/15/22 10:27	02/15/22 20:52	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/15/22 10:27	02/15/22 20:52	7440-62-2	
Zinc	ND	mg/L	0.010	0.0070	1	02/15/22 10:27	02/15/22 20:52	7440-66-6	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A    Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/10/22 08:00	02/10/22 12:11	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	140	mg/L	10.0	10.0	1		02/09/22 10:12		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	7.5	mg/L	1.0	0.60	1		02/10/22 22:05	16887-00-6	M1
Fluoride	ND	mg/L	0.10	0.050	1		02/10/22 22:05	16984-48-8	M1
Sulfate	65.0	mg/L	1.0	0.50	1		02/10/22 22:05	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

QC Batch: 678103 Analysis Method: EPA 6010D  
 QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920001, 92585920002, 92585920003, 92585920004, 92585920005, 92585920006, 92585920007, 92585920008, 92585920009, 92585920010, 92585920011

METHOD BLANK: 3548893 Matrix: Water  
 Associated Lab Samples: 92585920001, 92585920002, 92585920003, 92585920004, 92585920005, 92585920006, 92585920007, 92585920008, 92585920009, 92585920010, 92585920011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/14/22 20:41	

LABORATORY CONTROL SAMPLE: 3548894

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.92J	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3548895 3548896

Parameter	Units	92585920002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	17.2	1	1	17.4	18.9	28	177	75-125	8	20	M1

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

QC Batch: 678298 Analysis Method: EPA 6010D  
 QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920012, 92585920013, 92585920014, 92585920015, 92585920016, 92585920017, 92585920018,  
 92585920019, 92585920020, 92585920021, 92585920022, 92585920023, 92585920024, 92585920025,  
 92585920026, 92585920027, 92585920028, 92585920029, 92585920030, 92585920031

METHOD BLANK: 3549737 Matrix: Water  
 Associated Lab Samples: 92585920012, 92585920013, 92585920014, 92585920015, 92585920016, 92585920017, 92585920018,  
 92585920019, 92585920020, 92585920021, 92585920022, 92585920023, 92585920024, 92585920025,  
 92585920026, 92585920027, 92585920028, 92585920029, 92585920030, 92585920031

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/15/22 15:47	

LABORATORY CONTROL SAMPLE: 3549738

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3549739 3549740

Parameter	Units	92585920012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	98.2	1	1	98.1	101	-3	266	75-125	3	20	M1

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### QUALITY CONTROL DATA

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

QC Batch: 678354 Analysis Method: EPA 6010D  
 QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920032

METHOD BLANK: 3549970 Matrix: Water  
 Associated Lab Samples: 92585920032

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/15/22 18:32	

LABORATORY CONTROL SAMPLE: 3549971

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3549972 3549973

Parameter	Units	92585977002		3549973		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	232	1	1	237	230	468	-240	75-125	3	20 M1

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

QC Batch: 676142 Analysis Method: EPA 6010D  
 QC Batch Method: EPA 3010A Analysis Description: 6010 MET Filtered Diss.  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920001

METHOD BLANK: 3539057 Matrix: Water  
 Associated Lab Samples: 92585920001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium, Dissolved	mg/L	ND	1.0	0.12	02/04/22 19:03	

LABORATORY CONTROL SAMPLE: 3539058

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium, Dissolved	mg/L	1	1.0	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3539059 3539060

Parameter	Units	92585920001		3539060		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium, Dissolved	mg/L	4.1	1	1	4.9	5.0	82	92	75-125	2	20

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch: 678016 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920001, 92585920002, 92585920003, 92585920004, 92585920005, 92585920006

METHOD BLANK: 3548415 Matrix: Water  
 Associated Lab Samples: 92585920001, 92585920002, 92585920003, 92585920004, 92585920005, 92585920006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/14/22 20:15	
Arsenic	mg/L	0.0018J	0.0050	0.0011	02/14/22 20:15	
Barium	mg/L	ND	0.0050	0.00067	02/14/22 20:15	
Beryllium	mg/L	ND	0.00050	0.000054	02/14/22 20:15	
Boron	mg/L	ND	0.040	0.0086	02/14/22 20:15	
Cadmium	mg/L	ND	0.00050	0.00011	02/14/22 20:15	
Chromium	mg/L	ND	0.0050	0.0011	02/14/22 20:15	
Cobalt	mg/L	ND	0.0050	0.00039	02/14/22 20:15	
Lead	mg/L	ND	0.0010	0.00089	02/14/22 20:15	
Lithium	mg/L	ND	0.030	0.00073	02/14/22 20:15	
Molybdenum	mg/L	ND	0.010	0.00074	02/14/22 20:15	
Selenium	mg/L	ND	0.0050	0.0014	02/14/22 20:15	
Thallium	mg/L	ND	0.0010	0.00018	02/14/22 20:15	
Vanadium	mg/L	ND	0.010	0.0019	02/14/22 20:15	
Zinc	mg/L	ND	0.010	0.0070	02/14/22 20:15	

LABORATORY CONTROL SAMPLE: 3548416

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	110	80-120	
Arsenic	mg/L	0.1	0.10	102	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.10	102	80-120	
Boron	mg/L	1	1.0	100	80-120	
Cadmium	mg/L	0.1	0.11	105	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.095	95	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.11	106	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	
Vanadium	mg/L	0.1	0.10	100	80-120	
Zinc	mg/L	0.1	0.10	100	80-120	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Parameter	Units	9258555011		3548417		3548418		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MS Spike Conc.	MS Result	MSD Result	MS % Rec							
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	111	75-125	3	20			
Arsenic	mg/L	0.0012J	0.1	0.1	0.10	0.10	99	99	75-125	0	20			
Barium	mg/L	0.029	0.1	0.1	0.14	0.15	112	117	75-125	4	20			
Beryllium	mg/L	ND	0.1	0.1	0.096	0.10	96	100	75-125	4	20			
Boron	mg/L	0.020J	1	1	0.97	1.0	95	98	75-125	4	20			
Cadmium	mg/L	ND	0.1	0.1	0.10	0.11	102	105	75-125	3	20			
Chromium	mg/L	ND	0.1	0.1	0.099	0.10	98	99	75-125	1	20			
Cobalt	mg/L	ND	0.1	0.1	0.096	0.098	95	97	75-125	2	20			
Lead	mg/L	ND	0.1	0.1	0.097	0.10	97	100	75-125	3	20			
Lithium	mg/L	ND	0.1	0.1	0.097	0.099	96	99	75-125	2	20			
Molybdenum	mg/L	0.0021J	0.1	0.1	0.11	0.11	105	108	75-125	3	20			
Selenium	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	0	20			
Thallium	mg/L	ND	0.1	0.1	0.097	0.10	97	100	75-125	3	20			
Vanadium	mg/L	ND	0.1	0.1	0.10	0.10	99	100	75-125	1	20			
Zinc	mg/L	ND	0.1	0.1	0.099	0.10	98	100	75-125	1	20			

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch: 678288 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920007, 92585920008, 92585920009, 92585920010, 92585920011, 92585920012, 92585920013, 92585920014, 92585920015, 92585920016, 92585920017, 92585920018, 92585920019, 92585920020, 92585920021, 92585920022, 92585920023, 92585920024, 92585920025, 92585920026

METHOD BLANK: 3549709 Matrix: Water  
 Associated Lab Samples: 92585920007, 92585920008, 92585920009, 92585920010, 92585920011, 92585920012, 92585920013, 92585920014, 92585920015, 92585920016, 92585920017, 92585920018, 92585920019, 92585920020, 92585920021, 92585920022, 92585920023, 92585920024, 92585920025, 92585920026

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/15/22 22:09	
Arsenic	mg/L	ND	0.0050	0.0011	02/16/22 17:10	
Barium	mg/L	ND	0.0050	0.00067	02/15/22 22:09	
Beryllium	mg/L	ND	0.00050	0.000054	02/15/22 22:09	
Boron	mg/L	ND	0.040	0.0086	02/15/22 22:09	
Cadmium	mg/L	ND	0.00050	0.00011	02/15/22 22:09	
Chromium	mg/L	ND	0.0050	0.0011	02/15/22 22:09	
Cobalt	mg/L	ND	0.0050	0.00039	02/15/22 22:09	
Lead	mg/L	ND	0.0010	0.00089	02/15/22 22:09	
Lithium	mg/L	ND	0.030	0.00073	02/15/22 22:09	
Molybdenum	mg/L	ND	0.010	0.00074	02/15/22 22:09	
Selenium	mg/L	ND	0.0050	0.0014	02/15/22 22:09	
Thallium	mg/L	ND	0.0010	0.00018	02/15/22 22:09	
Vanadium	mg/L	ND	0.010	0.0019	02/15/22 22:09	
Zinc	mg/L	ND	0.010	0.0070	02/15/22 22:09	

LABORATORY CONTROL SAMPLE: 3549710

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	107	80-120	
Arsenic	mg/L	0.1	0.11	108	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	102	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.094	94	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.096	96	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	
Vanadium	mg/L	0.1	0.093	93	80-120	
Zinc	mg/L	0.1	0.097	97	80-120	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3549711 3549712											
Parameter	Units	92585920007 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	105	109	75-125	4	20
Arsenic	mg/L	ND	0.1	0.1	0.11	0.11	108	107	75-125	1	20
Barium	mg/L	0.036	0.1	0.1	0.14	0.15	106	113	75-125	5	20
Beryllium	mg/L	ND	0.1	0.1	0.095	0.097	95	97	75-125	2	20
Boron	mg/L	0.014J	1	1	0.95	0.93	93	92	75-125	1	20
Cadmium	mg/L	ND	0.1	0.1	0.099	0.10	99	104	75-125	4	20
Chromium	mg/L	ND	0.1	0.1	0.096	0.099	95	98	75-125	3	20
Cobalt	mg/L	ND	0.1	0.1	0.094	0.095	93	95	75-125	2	20
Lead	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20
Lithium	mg/L	ND	0.1	0.1	0.087	0.093	87	93	75-125	7	20
Molybdenum	mg/L	0.0024J	0.1	0.1	0.096	0.10	94	100	75-125	6	20
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	102	103	75-125	2	20
Thallium	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	2	20
Vanadium	mg/L	ND	0.1	0.1	0.095	0.097	95	97	75-125	2	20
Zinc	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch: 678313 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920027, 92585920028, 92585920029, 92585920030, 92585920031, 92585920032

METHOD BLANK: 3549798 Matrix: Water  
 Associated Lab Samples: 92585920027, 92585920028, 92585920029, 92585920030, 92585920031, 92585920032

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/15/22 18:59	
Arsenic	mg/L	ND	0.0050	0.0011	02/15/22 18:59	
Barium	mg/L	ND	0.0050	0.00067	02/15/22 18:59	
Beryllium	mg/L	ND	0.00050	0.000054	02/15/22 18:59	
Boron	mg/L	ND	0.040	0.0086	02/15/22 18:59	
Cadmium	mg/L	ND	0.00050	0.00011	02/15/22 18:59	
Chromium	mg/L	ND	0.0050	0.0011	02/15/22 18:59	
Cobalt	mg/L	ND	0.0050	0.00039	02/15/22 18:59	
Lead	mg/L	ND	0.0010	0.00089	02/15/22 18:59	
Lithium	mg/L	ND	0.030	0.00073	02/15/22 18:59	
Molybdenum	mg/L	ND	0.010	0.00074	02/15/22 18:59	
Selenium	mg/L	ND	0.0050	0.0014	02/15/22 18:59	
Thallium	mg/L	ND	0.0010	0.00018	02/15/22 18:59	
Vanadium	mg/L	ND	0.010	0.0019	02/15/22 18:59	
Zinc	mg/L	ND	0.010	0.0070	02/15/22 18:59	

LABORATORY CONTROL SAMPLE: 3549799

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	108	80-120	
Arsenic	mg/L	0.1	0.10	104	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.10	103	80-120	
Chromium	mg/L	0.1	0.10	104	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.11	109	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.11	106	80-120	
Selenium	mg/L	0.1	0.10	104	80-120	
Thallium	mg/L	0.1	0.11	109	80-120	
Vanadium	mg/L	0.1	0.10	103	80-120	
Zinc	mg/L	0.1	0.10	100	80-120	

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### QUALITY CONTROL DATA

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Parameter	Units	3549800		3549801		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92585977001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	113	107	75-125	6	20		
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	105	99	75-125	6	20		
Barium	mg/L	0.023	0.1	0.1	0.14	0.13	121	103	75-125	14	20		
Beryllium	mg/L	ND	0.1	0.1	0.097	0.092	97	92	75-125	5	20		
Boron	mg/L	1.1	1	1	2.2	2.1	106	98	75-125	4	20		
Cadmium	mg/L	ND	0.1	0.1	0.11	0.098	105	98	75-125	7	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20		
Cobalt	mg/L	0.0027J	0.1	0.1	0.10	0.096	102	93	75-125	8	20		
Lead	mg/L	ND	0.1	0.1	0.10	0.096	101	96	75-125	5	20		
Lithium	mg/L	ND	0.1	0.1	0.098	0.093	98	93	75-125	5	20		
Molybdenum	mg/L	0.0011J	0.1	0.1	0.11	0.11	109	104	75-125	4	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.097	104	96	75-125	7	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.096	101	96	75-125	5	20		
Vanadium	mg/L	ND	0.1	0.1	0.11	0.10	106	100	75-125	5	20		
Zinc	mg/L	ND	0.1	0.1	0.10	0.098	103	97	75-125	6	20		

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch: 677954

Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Analysis Description: 6020 MET Dissolved

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92585920001

METHOD BLANK: 3548230

Matrix: Water

Associated Lab Samples: 92585920001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony, Dissolved	mg/L	ND	0.0030	0.00078	02/16/22 16:44	
Arsenic, Dissolved	mg/L	ND	0.0050	0.0011	02/16/22 16:44	
Barium, Dissolved	mg/L	ND	0.0050	0.00067	02/16/22 16:44	
Beryllium, Dissolved	mg/L	ND	0.00050	0.000054	02/16/22 16:44	
Boron, Dissolved	mg/L	ND	0.040	0.0086	02/16/22 16:44	
Cadmium, Dissolved	mg/L	ND	0.00050	0.00011	02/16/22 16:44	
Chromium, Dissolved	mg/L	ND	0.0050	0.0011	02/16/22 16:44	
Cobalt, Dissolved	mg/L	ND	0.0050	0.00039	02/16/22 16:44	
Lead, Dissolved	mg/L	ND	0.0010	0.00089	02/16/22 16:44	
Lithium, Dissolved	mg/L	ND	0.030	0.00073	02/16/22 16:44	
Molybdenum, Dissolved	mg/L	ND	0.010	0.00074	02/16/22 16:44	
Selenium, Dissolved	mg/L	ND	0.0050	0.0014	02/16/22 16:44	
Thallium, Dissolved	mg/L	ND	0.0010	0.00018	02/16/22 16:44	
Vanadium, Dissolved	mg/L	ND	0.010	0.0019	02/16/22 16:44	
Zinc, Dissolved	mg/L	ND	0.010	0.0070	02/16/22 16:44	

LABORATORY CONTROL SAMPLE: 3548231

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony, Dissolved	mg/L	0.1	0.12	119	80-120	
Arsenic, Dissolved	mg/L	0.1	0.11	107	80-120	
Barium, Dissolved	mg/L	0.1	0.11	108	80-120	
Beryllium, Dissolved	mg/L	0.1	0.10	103	80-120	
Boron, Dissolved	mg/L	1	1.0	102	80-120	
Cadmium, Dissolved	mg/L	0.1	0.10	105	80-120	
Chromium, Dissolved	mg/L	0.1	0.11	107	80-120	
Cobalt, Dissolved	mg/L	0.1	0.11	106	80-120	
Lead, Dissolved	mg/L	0.1	0.10	100	80-120	
Lithium, Dissolved	mg/L	0.1	0.10	104	80-120	
Molybdenum, Dissolved	mg/L	0.1	0.11	111	80-120	
Selenium, Dissolved	mg/L	0.1	0.11	106	80-120	
Thallium, Dissolved	mg/L	0.1	0.10	100	80-120	
Vanadium, Dissolved	mg/L	0.1	0.11	107	80-120	
Zinc, Dissolved	mg/L	0.1	0.11	105	80-120	

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### QUALITY CONTROL DATA

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Parameter	Units	3548397		3548398		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Antimony, Dissolved	mg/L	ND	0.1	0.1	0.11	0.12	110	117	75-125	6	20		
Arsenic, Dissolved	mg/L	ND	0.1	0.1	0.11	0.10	105	102	75-125	2	20		
Barium, Dissolved	mg/L	ND	0.1	0.1	0.10	0.11	100	105	75-125	4	20		
Beryllium, Dissolved	mg/L	ND	0.1	0.1	0.11	0.10	107	104	75-125	3	20		
Boron, Dissolved	mg/L	ND	1	1	1.1	1.1	112	104	75-125	7	20		
Cadmium, Dissolved	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20		
Chromium, Dissolved	mg/L	ND	0.1	0.1	0.11	0.11	106	105	75-125	1	20		
Cobalt, Dissolved	mg/L	ND	0.1	0.1	0.10	0.10	104	103	75-125	0	20		
Lead, Dissolved	mg/L	ND	0.1	0.1	0.098	0.10	98	102	75-125	3	20		
Lithium, Dissolved	mg/L	ND	0.1	0.1	0.11	0.10	109	104	75-125	5	20		
Molybdenum, Dissolved	mg/L	ND	0.1	0.1	0.10	0.11	104	107	75-125	2	20		
Selenium, Dissolved	mg/L	ND	0.1	0.1	0.10	0.10	103	101	75-125	1	20		
Thallium, Dissolved	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20		
Vanadium, Dissolved	mg/L	ND	0.1	0.1	0.11	0.11	108	108	75-125	0	20		
Zinc, Dissolved	mg/L	ND	0.1	0.1	0.10	0.11	104	106	75-125	2	20		

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch: 677028 Analysis Method: EPA 7470A  
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920001, 92585920002, 92585920003, 92585920004, 92585920005, 92585920006, 92585920007, 92585920008, 92585920009, 92585920010, 92585920011, 92585920012, 92585920013, 92585920014, 92585920015, 92585920016, 92585920017

METHOD BLANK: 3543231 Matrix: Water  
 Associated Lab Samples: 92585920001, 92585920002, 92585920003, 92585920004, 92585920005, 92585920006, 92585920007, 92585920008, 92585920009, 92585920010, 92585920011, 92585920012, 92585920013, 92585920014, 92585920015, 92585920016, 92585920017

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/09/22 18:07	

LABORATORY CONTROL SAMPLE: 3543232

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0022	87	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3543233 3543234

Parameter	Units	92585920002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0020	0.0021	79	83	75-125	6	20	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch: 677192 Analysis Method: EPA 7470A  
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920018, 92585920019, 92585920020, 92585920021, 92585920022, 92585920023, 92585920024, 92585920025, 92585920026, 92585920027, 92585920028, 92585920029, 92585920030, 92585920031, 92585920032

METHOD BLANK: 3544417 Matrix: Water

Associated Lab Samples: 92585920018, 92585920019, 92585920020, 92585920021, 92585920022, 92585920023, 92585920024, 92585920025, 92585920026, 92585920027, 92585920028, 92585920029, 92585920030, 92585920031, 92585920032

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/10/22 10:43	

LABORATORY CONTROL SAMPLE: 3544418

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0022	88	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3544419 3544420

Parameter	Units	MS		MSD		% Rec		% Rec Limits	RPD	Max RPD	Qual	
		92585977001	Spike Conc.	Spike Conc.	Result	Result	% Rec					% Rec
Mercury	mg/L	ND	0.0025	0.0025	0.0020	0.0020	78	80	75-125	2	20	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

QC Batch: 675863 Analysis Method: EPA 7470A  
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury Dissolved  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920001

METHOD BLANK: 3537400 Matrix: Water  
 Associated Lab Samples: 92585920001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury, Dissolved	mg/L	ND	0.00020	0.00013	02/04/22 11:35	

LABORATORY CONTROL SAMPLE: 3537401

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury, Dissolved	mg/L	0.0025	0.0023	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3537402 3537403

Parameter	Units	92585318018		3537402		3537403		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Result					% Rec
Mercury, Dissolved	mg/L	ND	0.0025	0.0025	0.0022	0.0025	86	96	75-125	11	20	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch: 676426 Analysis Method: SM 2540C-2015  
 QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920001, 92585920002, 92585920008

METHOD BLANK: 3540491 Matrix: Water  
 Associated Lab Samples: 92585920001, 92585920002, 92585920008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/07/22 15:05	

LABORATORY CONTROL SAMPLE: 3540492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	372	93	80-120	

SAMPLE DUPLICATE: 3540493

Parameter	Units	92585920001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1260	1240	1	25	

SAMPLE DUPLICATE: 3540494

Parameter	Units	92585490001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3160	2680	16	25	

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

QC Batch: 676429 Analysis Method: SM 2540C-2015  
 QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920003, 92585920004, 92585920005, 92585920006, 92585920007, 92585920009, 92585920010

METHOD BLANK: 3540497 Matrix: Water  
 Associated Lab Samples: 92585920003, 92585920004, 92585920005, 92585920006, 92585920007, 92585920009, 92585920010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/07/22 15:44	

LABORATORY CONTROL SAMPLE: 3540498

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	380	95	80-120	

SAMPLE DUPLICATE: 3540499

Parameter	Units	92585723002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	114	114	0	25	

SAMPLE DUPLICATE: 3540500

Parameter	Units	92585727009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	440	459	4	25	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

QC Batch: 676439 Analysis Method: SM 2540C-2015  
 QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920011

METHOD BLANK: 3540519 Matrix: Water  
 Associated Lab Samples: 92585920011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/07/22 17:19	

LABORATORY CONTROL SAMPLE: 3540520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	374	94	80-120	

SAMPLE DUPLICATE: 3540521

Parameter	Units	92585555019 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	180	181	1	25	

SAMPLE DUPLICATE: 3540522

Parameter	Units	92585920011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	96.0	94.0	2	25	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch: 676565 Analysis Method: SM 2540C-2015  
 QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920012, 92585920013, 92585920014, 92585920015, 92585920016, 92585920021, 92585920022, 92585920024

METHOD BLANK: 3541415 Matrix: Water  
 Associated Lab Samples: 92585920012, 92585920013, 92585920014, 92585920015, 92585920016, 92585920021, 92585920022, 92585920024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/08/22 10:47	

LABORATORY CONTROL SAMPLE: 3541416

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	389	97	80-120	

SAMPLE DUPLICATE: 3541417

Parameter	Units	92585979001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	98.0	91.0	7	25	

SAMPLE DUPLICATE: 3541418

Parameter	Units	92586342006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	608	616	1	25	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch: 676566	Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92585920025

METHOD BLANK: 3541419 Matrix: Water

Associated Lab Samples: 92585920025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/08/22 11:11	

LABORATORY CONTROL SAMPLE: 3541420

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	390	98	80-120	

SAMPLE DUPLICATE: 3541421

Parameter	Units	92585920025 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	65.0	46.0	34	25	D6

SAMPLE DUPLICATE: 3541422

Parameter	Units	92586436013 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	102	103	1	25	

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**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch: 676746

Analysis Method: SM 2540C-2015

QC Batch Method: SM 2540C-2015

Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92585920017, 92585920018, 92585920019, 92585920020, 92585920023, 92585920026, 92585920027, 92585920028

METHOD BLANK: 3541991

Matrix: Water

Associated Lab Samples: 92585920017, 92585920018, 92585920019, 92585920020, 92585920023, 92585920026, 92585920027, 92585920028

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/08/22 13:45	

LABORATORY CONTROL SAMPLE: 3541992

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	378	94	80-120	

SAMPLE DUPLICATE: 3541993

Parameter	Units	92586144003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	67.0	70.0	4	25	

SAMPLE DUPLICATE: 3541994

Parameter	Units	92586144013 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	63.0	66.0	5	25	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

QC Batch: 676886 Analysis Method: SM 2540C-2015  
 QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA  
 Associated Lab Samples: 92585920029, 92585920030, 92585920031, 92585920032

METHOD BLANK: 3542886 Matrix: Water  
 Associated Lab Samples: 92585920029, 92585920030, 92585920031, 92585920032

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/09/22 10:12	

LABORATORY CONTROL SAMPLE: 3542887

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	374	94	80-120	

SAMPLE DUPLICATE: 3542888

Parameter	Units	92585920029 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	538	574	6	25	

SAMPLE DUPLICATE: 3542889

Parameter	Units	92585979010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1380	1350	2	25	

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch:	676341	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville
Associated Lab Samples:	92585920001, 92585920002, 92585920003, 92585920004, 92585920005, 92585920006, 92585920007, 92585920008, 92585920009, 92585920010		

METHOD BLANK:	3540085	Matrix:	Water
Associated Lab Samples:	92585920001, 92585920002, 92585920003, 92585920004, 92585920005, 92585920006, 92585920007, 92585920008, 92585920009, 92585920010		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/06/22 23:02	
Fluoride	mg/L	ND	0.10	0.050	02/06/22 23:02	
Sulfate	mg/L	ND	1.0	0.50	02/06/22 23:02	

LABORATORY CONTROL SAMPLE: 3540086						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	51.3	103	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	50	50.2	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3540087 3540088													
Parameter	Units	92585727005		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Chloride	mg/L	7.6	50	50	60.1	60.3	105	105	90-110	0	10		
Fluoride	mg/L	ND	2.5	2.5	2.8	2.8	110	111	90-110	1	10	M1	
Sulfate	mg/L	195	50	50	243	239	96	89	90-110	2	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3540089 3540090													
Parameter	Units	92585920001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Chloride	mg/L	83.4	50	50	116	115	65	63	90-110	1	10	M1	
Fluoride	mg/L	ND	2.5	2.5	2.8	2.9	113	114	90-110	1	10	M1	
Sulfate	mg/L	15.0	50	50	67.5	67.4	105	105	90-110	0	10		

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**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch:	676342	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville

Associated Lab Samples: 92585920011

METHOD BLANK: 3540091 Matrix: Water

Associated Lab Samples: 92585920011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/07/22 06:14	
Fluoride	mg/L	ND	0.10	0.050	02/07/22 06:14	
Sulfate	mg/L	ND	1.0	0.50	02/07/22 06:14	

LABORATORY CONTROL SAMPLE: 3540092

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.6	105	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	50	51.8	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3540093 3540094

Parameter	Units	92585920011		MS		MSD		% Rec	% Rec	% Rec	Limits	RPD	Max	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result							
Chloride	mg/L	17.5	50	50	71.5	71.2	108	107	90-110	0	10			
Fluoride	mg/L	ND	2.5	2.5	3.3	3.3	131	128	90-110	2	10	M1		
Sulfate	mg/L	31.5	50	50	84.1	83.2	105	103	90-110	1	10			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3540095 3540096

Parameter	Units	92585929010		MS		MSD		% Rec	% Rec	% Rec	Limits	RPD	Max	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result							
Chloride	mg/L	1.1	50	50	64.6	55.4	127	109	90-110	15	10	M1,R1		
Fluoride	mg/L	ND	2.5	2.5	2.9	2.5	116	99	90-110	15	10	M1,R1		
Sulfate	mg/L	256	50	50	327	288	141	63	90-110	13	10	M1,R1		

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch:	676679	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville
Associated Lab Samples:	92585920012, 92585920013, 92585920014, 92585920015, 92585920016, 92585920017, 92585920018, 92585920019, 92585920020, 92585920021, 92585920022, 92585920023, 92585920024, 92585920025		

METHOD BLANK:	3541675	Matrix:	Water
Associated Lab Samples:	92585920012, 92585920013, 92585920014, 92585920015, 92585920016, 92585920017, 92585920018, 92585920019, 92585920020, 92585920021, 92585920022, 92585920023, 92585920024, 92585920025		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/09/22 07:58	
Fluoride	mg/L	ND	0.10	0.050	02/09/22 07:58	
Sulfate	mg/L	ND	1.0	0.50	02/09/22 07:58	

LABORATORY CONTROL SAMPLE: 3541676						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.4	99	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	48.2	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3541677												3541678	
Parameter	Units	92586230022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Chloride	mg/L	9.6	50	50	61.1	60.7	103	102	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	104	103	90-110	1	10		
Sulfate	mg/L	85.6	50	50	129	128	86	84	90-110	1	10 M1		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3541679												3541680	
Parameter	Units	92585920016 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
Chloride	mg/L	29.6	50	50	80.5	81.0	102	103	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.6	2.7	105	108	90-110	2	10		
Sulfate	mg/L	589	50	50	625	627	72	76	90-110	0	10 M1		

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**QUALITY CONTROL DATA**

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

QC Batch:	677218	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville
Associated Lab Samples:	92585920026, 92585920027, 92585920028, 92585920029, 92585920030, 92585920031, 92585920032		

METHOD BLANK: 3544578 Matrix: Water  
 Associated Lab Samples: 92585920026, 92585920027, 92585920028, 92585920029, 92585920030, 92585920031, 92585920032

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/10/22 15:27	
Fluoride	mg/L	ND	0.10	0.050	02/10/22 15:27	
Sulfate	mg/L	ND	1.0	0.50	02/10/22 15:27	

LABORATORY CONTROL SAMPLE: 3544579

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.6	107	90-110	
Fluoride	mg/L	2.5	2.6	104	90-110	
Sulfate	mg/L	50	52.8	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3544580 3544581

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92586778001	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	61.7	50	50	110	110	96	97	90-110	0	10		
Fluoride	mg/L	ND	2.5	2.5	3.1	3.1	120	121	90-110	1	10	M1	
Sulfate	mg/L	52.4	50	50	103	103	101	101	90-110	0	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3544582 3544583

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92585920032	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	7.5	50	50	66.0	66.0	117	117	90-110	0	10	M1	
Fluoride	mg/L	ND	2.5	2.5	2.8	2.9	113	114	90-110	1	10	M1	
Sulfate	mg/L	65.0	50	50	114	114	98	97	90-110	0	10		

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**REPORT OF LABORATORY ANALYSIS**

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## QUALIFIERS

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: GRUMMAN ROAD LANDFILL-Revised Report  
 Pace Project No.: 92585920

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92585920001	GWA-7				
92585920002	GWA-8				
92585920003	GWC-16				
92585920004	GWC-17				
92585920005	GWC-20				
92585920006	GWC-21				
92585920007	MW-24D				
92585920011	GWC-9				
92585920012	GWB-4R				
92585920013	GWB-6R				
92585920014	MW-26D				
92585920015	GWC-2				
92585920016	GWC-14				
92585920017	GWC-15				
92585920018	GWC-1				
92585920019	GWC-12				
92585920020	GWC-13				
92585920025	MW-27D				
92585920026	GWB-5R				
92585920027	MW-23D				
92585920028	MW-25D				
92585920029	GWC-11				
92585920030	GWC-22				
92585920001	GWA-7	EPA 3010A	678103	EPA 6010D	678189
92585920002	GWA-8	EPA 3010A	678103	EPA 6010D	678189
92585920003	GWC-16	EPA 3010A	678103	EPA 6010D	678189
92585920004	GWC-17	EPA 3010A	678103	EPA 6010D	678189
92585920005	GWC-20	EPA 3010A	678103	EPA 6010D	678189
92585920006	GWC-21	EPA 3010A	678103	EPA 6010D	678189
92585920007	MW-24D	EPA 3010A	678103	EPA 6010D	678189
92585920008	FB-1	EPA 3010A	678103	EPA 6010D	678189
92585920009	EB-1	EPA 3010A	678103	EPA 6010D	678189
92585920010	DUP-1	EPA 3010A	678103	EPA 6010D	678189
92585920011	GWC-9	EPA 3010A	678103	EPA 6010D	678189
92585920012	GWB-4R	EPA 3010A	678298	EPA 6010D	678405
92585920013	GWB-6R	EPA 3010A	678298	EPA 6010D	678405
92585920014	MW-26D	EPA 3010A	678298	EPA 6010D	678405
92585920015	GWC-2	EPA 3010A	678298	EPA 6010D	678405
92585920016	GWC-14	EPA 3010A	678298	EPA 6010D	678405
92585920017	GWC-15	EPA 3010A	678298	EPA 6010D	678405
92585920018	GWC-1	EPA 3010A	678298	EPA 6010D	678405
92585920019	GWC-12	EPA 3010A	678298	EPA 6010D	678405
92585920020	GWC-13	EPA 3010A	678298	EPA 6010D	678405
92585920021	FB-2	EPA 3010A	678298	EPA 6010D	678405
92585920022	EB-2	EPA 3010A	678298	EPA 6010D	678405
92585920023	EB-3	EPA 3010A	678298	EPA 6010D	678405
92585920024	DUP-2	EPA 3010A	678298	EPA 6010D	678405
92585920025	MW-27D	EPA 3010A	678298	EPA 6010D	678405

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92585920026	GWB-5R	EPA 3010A	678298	EPA 6010D	678405
92585920027	MW-23D	EPA 3010A	678298	EPA 6010D	678405
92585920028	MW-25D	EPA 3010A	678298	EPA 6010D	678405
92585920029	GWC-11	EPA 3010A	678298	EPA 6010D	678405
92585920030	GWC-22	EPA 3010A	678298	EPA 6010D	678405
92585920031	FB-3	EPA 3010A	678298	EPA 6010D	678405
92585920032	DUP-3	EPA 3010A	678354	EPA 6010D	678446
92585920001	GWA-7	EPA 3010A	676142	EPA 6010D	676186
92585920001	GWA-7	EPA 3005A	678016	EPA 6020B	678130
92585920002	GWA-8	EPA 3005A	678016	EPA 6020B	678130
92585920003	GWC-16	EPA 3005A	678016	EPA 6020B	678130
92585920004	GWC-17	EPA 3005A	678016	EPA 6020B	678130
92585920005	GWC-20	EPA 3005A	678016	EPA 6020B	678130
92585920006	GWC-21	EPA 3005A	678016	EPA 6020B	678130
92585920007	MW-24D	EPA 3005A	678288	EPA 6020B	678413
92585920008	FB-1	EPA 3005A	678288	EPA 6020B	678413
92585920009	EB-1	EPA 3005A	678288	EPA 6020B	678413
92585920010	DUP-1	EPA 3005A	678288	EPA 6020B	678413
92585920011	GWC-9	EPA 3005A	678288	EPA 6020B	678413
92585920012	GWB-4R	EPA 3005A	678288	EPA 6020B	678413
92585920013	GWB-6R	EPA 3005A	678288	EPA 6020B	678413
92585920014	MW-26D	EPA 3005A	678288	EPA 6020B	678413
92585920015	GWC-2	EPA 3005A	678288	EPA 6020B	678413
92585920016	GWC-14	EPA 3005A	678288	EPA 6020B	678413
92585920017	GWC-15	EPA 3005A	678288	EPA 6020B	678413
92585920018	GWC-1	EPA 3005A	678288	EPA 6020B	678413
92585920019	GWC-12	EPA 3005A	678288	EPA 6020B	678413
92585920020	GWC-13	EPA 3005A	678288	EPA 6020B	678413
92585920021	FB-2	EPA 3005A	678288	EPA 6020B	678413
92585920022	EB-2	EPA 3005A	678288	EPA 6020B	678413
92585920023	EB-3	EPA 3005A	678288	EPA 6020B	678413
92585920024	DUP-2	EPA 3005A	678288	EPA 6020B	678413
92585920025	MW-27D	EPA 3005A	678288	EPA 6020B	678413
92585920026	GWB-5R	EPA 3005A	678288	EPA 6020B	678413
92585920027	MW-23D	EPA 3005A	678313	EPA 6020B	678442
92585920028	MW-25D	EPA 3005A	678313	EPA 6020B	678442
92585920029	GWC-11	EPA 3005A	678313	EPA 6020B	678442
92585920030	GWC-22	EPA 3005A	678313	EPA 6020B	678442
92585920031	FB-3	EPA 3005A	678313	EPA 6020B	678442
92585920032	DUP-3	EPA 3005A	678313	EPA 6020B	678442
92585920001	GWA-7	EPA 3005A	677954	EPA 6020B	678093
92585920001	GWA-7	EPA 7470A	677028	EPA 7470A	677150
92585920002	GWA-8	EPA 7470A	677028	EPA 7470A	677150
92585920003	GWC-16	EPA 7470A	677028	EPA 7470A	677150
92585920004	GWC-17	EPA 7470A	677028	EPA 7470A	677150

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92585920005	GWC-20	EPA 7470A	677028	EPA 7470A	677150
92585920006	GWC-21	EPA 7470A	677028	EPA 7470A	677150
92585920007	MW-24D	EPA 7470A	677028	EPA 7470A	677150
92585920008	FB-1	EPA 7470A	677028	EPA 7470A	677150
92585920009	EB-1	EPA 7470A	677028	EPA 7470A	677150
92585920010	DUP-1	EPA 7470A	677028	EPA 7470A	677150
92585920011	GWC-9	EPA 7470A	677028	EPA 7470A	677150
92585920012	GWB-4R	EPA 7470A	677028	EPA 7470A	677150
92585920013	GWB-6R	EPA 7470A	677028	EPA 7470A	677150
92585920014	MW-26D	EPA 7470A	677028	EPA 7470A	677150
92585920015	GWC-2	EPA 7470A	677028	EPA 7470A	677150
92585920016	GWC-14	EPA 7470A	677028	EPA 7470A	677150
92585920017	GWC-15	EPA 7470A	677028	EPA 7470A	677150
92585920018	GWC-1	EPA 7470A	677192	EPA 7470A	677322
92585920019	GWC-12	EPA 7470A	677192	EPA 7470A	677322
92585920020	GWC-13	EPA 7470A	677192	EPA 7470A	677322
92585920021	FB-2	EPA 7470A	677192	EPA 7470A	677322
92585920022	EB-2	EPA 7470A	677192	EPA 7470A	677322
92585920023	EB-3	EPA 7470A	677192	EPA 7470A	677322
92585920024	DUP-2	EPA 7470A	677192	EPA 7470A	677322
92585920025	MW-27D	EPA 7470A	677192	EPA 7470A	677322
92585920026	GWB-5R	EPA 7470A	677192	EPA 7470A	677322
92585920027	MW-23D	EPA 7470A	677192	EPA 7470A	677322
92585920028	MW-25D	EPA 7470A	677192	EPA 7470A	677322
92585920029	GWC-11	EPA 7470A	677192	EPA 7470A	677322
92585920030	GWC-22	EPA 7470A	677192	EPA 7470A	677322
92585920031	FB-3	EPA 7470A	677192	EPA 7470A	677322
92585920032	DUP-3	EPA 7470A	677192	EPA 7470A	677322
92585920001	GWA-7	EPA 7470A	675863	EPA 7470A	676016
92585920001	GWA-7	SM 2540C-2015	676426		
92585920002	GWA-8	SM 2540C-2015	676426		
92585920003	GWC-16	SM 2540C-2015	676429		
92585920004	GWC-17	SM 2540C-2015	676429		
92585920005	GWC-20	SM 2540C-2015	676429		
92585920006	GWC-21	SM 2540C-2015	676429		
92585920007	MW-24D	SM 2540C-2015	676429		
92585920008	FB-1	SM 2540C-2015	676426		
92585920009	EB-1	SM 2540C-2015	676429		
92585920010	DUP-1	SM 2540C-2015	676429		
92585920011	GWC-9	SM 2540C-2015	676439		
92585920012	GWB-4R	SM 2540C-2015	676565		
92585920013	GWB-6R	SM 2540C-2015	676565		
92585920014	MW-26D	SM 2540C-2015	676565		
92585920015	GWC-2	SM 2540C-2015	676565		
92585920016	GWC-14	SM 2540C-2015	676565		

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 Pace Project No.: 92585920

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92585920017	GWC-15	SM 2540C-2015	676746		
92585920018	GWC-1	SM 2540C-2015	676746		
92585920019	GWC-12	SM 2540C-2015	676746		
92585920020	GWC-13	SM 2540C-2015	676746		
92585920021	FB-2	SM 2540C-2015	676565		
92585920022	EB-2	SM 2540C-2015	676565		
92585920023	EB-3	SM 2540C-2015	676746		
92585920024	DUP-2	SM 2540C-2015	676565		
92585920025	MW-27D	SM 2540C-2015	676566		
92585920026	GWB-5R	SM 2540C-2015	676746		
92585920027	MW-23D	SM 2540C-2015	676746		
92585920028	MW-25D	SM 2540C-2015	676746		
92585920029	GWC-11	SM 2540C-2015	676886		
92585920030	GWC-22	SM 2540C-2015	676886		
92585920031	FB-3	SM 2540C-2015	676886		
92585920032	DUP-3	SM 2540C-2015	676886		
92585920001	GWA-7	EPA 300.0 Rev 2.1 1993	676341		
92585920002	GWA-8	EPA 300.0 Rev 2.1 1993	676341		
92585920003	GWC-16	EPA 300.0 Rev 2.1 1993	676341		
92585920004	GWC-17	EPA 300.0 Rev 2.1 1993	676341		
92585920005	GWC-20	EPA 300.0 Rev 2.1 1993	676341		
92585920006	GWC-21	EPA 300.0 Rev 2.1 1993	676341		
92585920007	MW-24D	EPA 300.0 Rev 2.1 1993	676341		
92585920008	FB-1	EPA 300.0 Rev 2.1 1993	676341		
92585920009	EB-1	EPA 300.0 Rev 2.1 1993	676341		
92585920010	DUP-1	EPA 300.0 Rev 2.1 1993	676341		
92585920011	GWC-9	EPA 300.0 Rev 2.1 1993	676342		
92585920012	GWB-4R	EPA 300.0 Rev 2.1 1993	676679		
92585920013	GWB-6R	EPA 300.0 Rev 2.1 1993	676679		
92585920014	MW-26D	EPA 300.0 Rev 2.1 1993	676679		
92585920015	GWC-2	EPA 300.0 Rev 2.1 1993	676679		
92585920016	GWC-14	EPA 300.0 Rev 2.1 1993	676679		
92585920017	GWC-15	EPA 300.0 Rev 2.1 1993	676679		
92585920018	GWC-1	EPA 300.0 Rev 2.1 1993	676679		
92585920019	GWC-12	EPA 300.0 Rev 2.1 1993	676679		
92585920020	GWC-13	EPA 300.0 Rev 2.1 1993	676679		
92585920021	FB-2	EPA 300.0 Rev 2.1 1993	676679		
92585920022	EB-2	EPA 300.0 Rev 2.1 1993	676679		
92585920023	EB-3	EPA 300.0 Rev 2.1 1993	676679		
92585920024	DUP-2	EPA 300.0 Rev 2.1 1993	676679		
92585920025	MW-27D	EPA 300.0 Rev 2.1 1993	676679		
92585920026	GWB-5R	EPA 300.0 Rev 2.1 1993	677218		
92585920027	MW-23D	EPA 300.0 Rev 2.1 1993	677218		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GRUMMAN ROAD LANDFILL-Revised Report

Pace Project No.: 92585920

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92585920028	MW-25D	EPA 300.0 Rev 2.1 1993	677218		
92585920029	GWC-11	EPA 300.0 Rev 2.1 1993	677218		
92585920030	GWC-22	EPA 300.0 Rev 2.1 1993	677218		
92585920031	FB-3	EPA 300.0 Rev 2.1 1993	677218		
92585920032	DUP-3	EPA 300.0 Rev 2.1 1993	677218		

### REPORT OF LABORATORY ANALYSIS

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Document Name  
 Sample Containment System Receipt (SCLSR)  
 Document No.  
 P-CAR-0003 Rev.04

Document Revised: November 15, 2011  
 Page 1 of 2  
 Issuing Authority  
 State of Michigan, Health Division

Laboratory receiving samples:

Ashville  Eden  Greenwood  Hartsville  Raleigh  Rock Hill  Spartanburg  Union  York

Customer Name  
 [Redacted]

Client Name:

SIA Power  
 Site  
 Plant  
 Lab  
 Other

Project NO#: 92585920



Container  
 Commercial

Outdated Product?  Yes  No Seal Intact?  Yes  No

State/County/Person Laboratory Contact: [Redacted]

Shipping Method  Regular Mail  Bulk or Reg.  Air  Other

Biological Hazard Present?

Third party use:

Academic

11/17

Type of Use

Use: [Redacted]

Other

Yes  No  Bulk

Cooler Temp

1

Correction Factor  
 Adjusted (°C)

1

Temp should be above freezing (°C)

Have to cool down before temperature of cooling process  
 No region

Cooler Temp Unchecked (°C)

USDA Regulations?  US - each sample

Do the past 6 months of a customer's records reflect compliance with the 10/10/10 rule?

Yes  No

Do samples originate from a foreign jurisdiction?  Yes  No

Comments/Remarks:

1. Chain of Custody Worksheet

Yes  No  Bulk

2. Sample Arrived in Damaged Case?

Yes  No  Bulk

3. Leak Hold Time Assessed (10 hr.)?

Yes  No  Bulk

4. Leak Test Around Case Completed?

Yes  No  Bulk

5. Seals and Labels

Yes  No  Bulk

6. Original Container Used?

Yes  No  Bulk

7. Face Completely Used?

Yes  No  Bulk

8. Container Sealed?

Yes  No  Bulk

9. Chain of Custody Worksheet Completed?

Yes  No  Bulk

10. Sample Labels Match (SCLSR)?

Yes  No  Bulk

11. Includes Disinfection/Decontam. Labels

Yes

12. Identification of Material: (SCLSR) This Label Required?

Yes  No  Bulk

13. Top of Lids Completely Sealed? (SCLSR)

Yes  No  Bulk

Comments/Remarks/Other Issues:

Third Party Request?  Yes  No

Client Laboratory Name/Address:

Lot ID of Use: [Redacted]

Person (Name, Title)

Date

Project Manager (Name, Address)

Date

Project Manager (Name, Address)

Date





# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

<b>Section A</b> Required Client Information	<b>Section B</b> Required Project Information	<b>Section C</b> Invoice Information	Page: <u>  </u> of <u>  </u>
Company: <u>GA Power</u>	Report To: <u>SCS Contacts</u>	Attention: <u>Southern Co.</u>	
Address: <u>Atlanta, GA</u>	Copy To: <u>ACC Contacts</u>	Company Name:	<b>REGULATORY AGENCY</b>
Email To: <u>SCS Contacts</u>	Purchase Order No.:	Address:	<input type="checkbox"/> MDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER
Phone: <u>  </u> Fax: <u>  </u>	Project Name: <u>Grumman Road Landfill</u>	File Code Reference:	<input type="checkbox"/> LST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER <u>  </u>
Requested Due Date/TXT: <u>W/Key</u>	Project Number:	File Project Manager: <u>Nicole D'Oleo</u>	Site Location: <u>GA</u>
		File Profile #: <u>10643</u>	STATE: <u>  </u>

ITEM #	SAMPLE ID 04-2, 047-1 Sample IDs MUST BE UNIQUE	Solid Matrix Codes NRCS CODE Sample Matrix Code Matrix Sample Matrix PRODUCT SOLUBLE pH pH pH pH pH pH	Matrix Code NRCS CODE	COLLECTED				PRESERVATIVES	Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.						
				MATRIX CODE (see solid matrix in key)	SAMPLE TYPE (see matrix code)	DATE			TIME		UNPRESERVED	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> CO <sub>3</sub>	Methanol	Other			Analysis Test #	TOC	Chlorofluorocarbons	Asbestos - IV + Periodicals*	RAD (alpha)	pH Filtered (See 33 IV / IV)
						DATE	TIME		DATE	TIME																
1	GWA-7	G	G	1/3/22	7:15	/	/	3	✓	✓						✓	✓	✓	✓	✓	✓	✓			5.77	
2	GWA-8	G	G	1/3/22	14:50	/	/	3	✓	✓						✓	✓	✓	✓	✓	✓	✓			4.39	
3	GWC-16	G	G	2/1/22	15:10	/	/	3	✓	✓						✓	✓	✓	✓	✓	✓	✓			5.57	
4	GWC-17	G	G	2/1/22	14:35	/	/	3	✓	✓						✓	✓	✓	✓	✓	✓	✓			4.53	
5	GWC-20	G	G	2/1/22	15:50	/	/	3	✓	✓						✓	✓	✓	✓	✓	✓	✓			5.90	
6	GWC-21	G	G	2/1/22	13:55	/	/	3	✓	✓						✓	✓	✓	✓	✓	✓	✓			5.72	
7	MW-34D	G	G	2/1/22	13:25	/	/	3	✓	✓						✓	✓	✓	✓	✓	✓	✓			6.63	
8	EB-1	G	G	1/3/22	16:45	/	/	3	✓	✓						✓	✓	✓	✓	✓	✓	✓			NA	
9	EB-1	G	G	2/1/22	16:00	/	/	3	✓	✓						✓	✓	✓	✓	✓	✓	✓			NA	
10	DWP-1	G	G	2/1/22	14:25	/	/	3	✓	✓						✓	✓	✓	✓	✓	✓	✓			NA	
11	GWC-9	G	G	2/2/22	9:20	/	/	3	✓	✓						✓	✓	✓	✓	✓	✓	✓			4.64	
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Water note when the soil sample for the event has been taken.		1-3-22	10:10		2-13	10:10	

SAMPLER NAME AND SIGNATURE			Temp in °C	Received on Site (Y/N)	Custody Transfer (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: <u>Anna Schmitter</u>						
SIGNATURE of SAMPLER:						

\*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.2% per month for any invoices not paid within 30 days.



Laboratory receiving samples:

Ashville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample ID: \_\_\_\_\_  
 Location: \_\_\_\_\_

Client Name:

*E. A. Power*

Project #

**WO#: 92585920**

PM: HNS

Due Date: 02/17/22

CLIENT: GR-GR Power

Container:  Commercial

Fed Ex  
 Other

LUM

LUMS  
 LUMS

Other

Carry out material

Yes

No

100% M100?

Yes

No

Additional Pesticide Labeling Comments

*Handwritten notes*

Packing Material:

Bubble wrap

Shrink wrap

Other

Other

Thermometer:

T100

*Handwritten notes*

Expiration

None

Other

Biological Preservation?

Yes  No

Cooler Temp:

*Handwritten: 5.5*

Correction Period: \_\_\_\_\_  
 Acceptable: \_\_\_\_\_

*Handwritten: 5.4*

Temp should be above freezing in all?

Comparison of temp between temp in cooler and temp on site  
 No

Cooler Temp Corrected (°C)

USDA Registered Soil?  Yes  No

Did samples or materials contain any of the listed metals: Cr, Ni, or Pb (check All)?

Yes  No

Did samples require to be a sample using 20 grams and 100 ml of water?

Yes  No

Comments/Discrepancy: \_\_\_\_\_

Original Sample Present?	Yes	No	Other	Notes
Sample Analyzed and held for 27	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Short Hold Time Analysis (10g to 20)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Link Turn Around Time Requested?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Additional Volume?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Contact Customer about?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Phone Call/Email/Text?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Customer not met?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Outdated analysis/ Sample held in lab?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample Label LUMS LDC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Additional Comments/Analysis: Matrix

Temperature with water (if done):  Yes  No  Other *10/10*

Temperature with water (if done):  Yes  No  Other *10/10*

Comments/Discrepancy

Hold/Out Request:  Yes  No

Client Information/Notes/Other

Lot ID of soil container

Person contacted:

Date/Time

Project Manager SCOR Review:

Date

Project Manager SPF Review:

Date



# CHAIN-OF-CUSTODY Analytical Request Document

The Chain-of-Custody is a critical document used to establish the integrity of the evidence.

**Section A: Request Information**

**Section B: Requester Information**

Page 1 of 2

**Section A: Request Information**

Requester: State of Georgia

Requester Address: 100 North Decatur Street, Atlanta, GA 30303

Requester Contact: John Doe

Requester Phone: (404) 555-1234

Requester Email: john.doe@state.ga.us

**Section B: Requester Information**

Requester Name: John Doe

Requester Title: State Attorney General

Requester Agency: State of Georgia

Requester Address: 100 North Decatur Street, Atlanta, GA 30303

Requester Contact: John Doe

Requester Phone: (404) 555-1234

Requester Email: john.doe@state.ga.us

Sample ID	Description of Sample	Quantity	Unit of Measure	Date/Time Collected	Collector Information		Date/Time Analyzed	Analytical Test	Date/Time Reported	Reporting Agency	Requester Name	Requester Title	Requester Agency	Requester Address	Requester Contact	Requester Phone	Requester Email	Requester Signature	Requester Date
					Name	Title													
GA-2024-01	Sample A	1	g	10/25/2024 10:00	John Doe	State Attorney General	10/26/2024 10:00	GC/MS	10/27/2024 10:00	State of Georgia	John Doe	State Attorney General	State of Georgia	100 North Decatur Street	Atlanta, GA 30303	(404) 555-1234	john.doe@state.ga.us	[Signature]	10/25/2024
GA-2024-02	Sample B	1	g	10/25/2024 11:00	John Doe	State Attorney General	10/26/2024 11:00	GC/MS	10/27/2024 11:00	State of Georgia	John Doe	State Attorney General	State of Georgia	100 North Decatur Street	Atlanta, GA 30303	(404) 555-1234	john.doe@state.ga.us	[Signature]	10/25/2024
GA-2024-03	Sample C	1	g	10/25/2024 12:00	John Doe	State Attorney General	10/26/2024 12:00	GC/MS	10/27/2024 12:00	State of Georgia	John Doe	State Attorney General	State of Georgia	100 North Decatur Street	Atlanta, GA 30303	(404) 555-1234	john.doe@state.ga.us	[Signature]	10/25/2024
GA-2024-04	Sample D	1	g	10/25/2024 13:00	John Doe	State Attorney General	10/26/2024 13:00	GC/MS	10/27/2024 13:00	State of Georgia	John Doe	State Attorney General	State of Georgia	100 North Decatur Street	Atlanta, GA 30303	(404) 555-1234	john.doe@state.ga.us	[Signature]	10/25/2024
GA-2024-05	Sample E	1	g	10/25/2024 14:00	John Doe	State Attorney General	10/26/2024 14:00	GC/MS	10/27/2024 14:00	State of Georgia	John Doe	State Attorney General	State of Georgia	100 North Decatur Street	Atlanta, GA 30303	(404) 555-1234	john.doe@state.ga.us	[Signature]	10/25/2024

**Section C: Additional Comments**

Comments: None

**Section D: Requester Signature**

Requester Name: John Doe

Requester Title: State Attorney General

Requester Agency: State of Georgia

Requester Address: 100 North Decatur Street, Atlanta, GA 30303

Requester Contact: John Doe

Requester Phone: (404) 555-1234

Requester Email: john.doe@state.ga.us

Requester Signature: [Signature]

Requester Date: 10/25/2024



CHAIN-OF-CUSTODY / Analytical Request Document  
The Chain-of-Custody is a critical component of evidence collection and is required for all samples.

Page 2 of 2

**Section I: Agency Information**

Agency Name: LA County  
 Agency Address: 1000 W. Broadway  
 Agency Phone: (916) 438-1234  
 Agency Email: pest@lacounty.ca.gov

**Section II: Requester Information**

Requester Name: John Doe  
 Requester Title: County Administrator  
 Requester Address: 123 Main St, Sacramento, CA 95833  
 Requester Phone: (916) 555-1234  
 Requester Email: john.doe@lacounty.ca.gov

**Section III: Sample Information**

Sample ID: 2024-001  
 Sample Description: Water from Lake Tahoe  
 Sample Location: Lake Tahoe, California  
 Sample Date: 10/26/2024  
 Sample Time: 10:00 AM  
 Sample Quantity: 1000 mL  
 Sample Container: 1000 mL Polyethylene Bottle

**Section IV: Collection Information**

Collector Name: John Doe  
 Collector Title: County Administrator  
 Collector Address: 123 Main St, Sacramento, CA 95833  
 Collector Phone: (916) 555-1234  
 Collector Email: john.doe@lacounty.ca.gov

**Section V: Laboratory Information**

Laboratory Name: LA County Health Department  
 Laboratory Address: 1000 W. Broadway, Sacramento, CA 95833  
 Laboratory Phone: (916) 438-1234  
 Laboratory Email: pest@lacounty.ca.gov

Sample ID	Sample Description	Sample Location	Sample Date	Sample Time	Sample Quantity	Sample Container	Collection Information		Requester Information		Laboratory Information	
							Collector Name	Collector Title	Requester Name	Requester Title	Laboratory Name	Laboratory Address
2024-001	Water from Lake Tahoe	Lake Tahoe, California	10/26/2024	10:00 AM	1000 mL	1000 mL Polyethylene Bottle	John Doe	County Administrator	John Doe	County Administrator	LA County Health Department	1000 W. Broadway, Sacramento, CA 95833
2024-002	Water from Lake Tahoe	Lake Tahoe, California	10/26/2024	10:00 AM	1000 mL	1000 mL Polyethylene Bottle	John Doe	County Administrator	John Doe	County Administrator	LA County Health Department	1000 W. Broadway, Sacramento, CA 95833
2024-003	Water from Lake Tahoe	Lake Tahoe, California	10/26/2024	10:00 AM	1000 mL	1000 mL Polyethylene Bottle	John Doe	County Administrator	John Doe	County Administrator	LA County Health Department	1000 W. Broadway, Sacramento, CA 95833
2024-004	Water from Lake Tahoe	Lake Tahoe, California	10/26/2024	10:00 AM	1000 mL	1000 mL Polyethylene Bottle	John Doe	County Administrator	John Doe	County Administrator	LA County Health Department	1000 W. Broadway, Sacramento, CA 95833
2024-005	Water from Lake Tahoe	Lake Tahoe, California	10/26/2024	10:00 AM	1000 mL	1000 mL Polyethylene Bottle	John Doe	County Administrator	John Doe	County Administrator	LA County Health Department	1000 W. Broadway, Sacramento, CA 95833

**Section VI: Signatures and Dates**

Collector Signature: [Signature] Date: 10/26/2024

Requester Signature: [Signature] Date: 10/26/2024

Laboratory Signature: [Signature] Date: 10/26/2024

**Section VII: Additional Information**

Comments: Water from Lake Tahoe, California

Special Handling Instructions: None

Other Information: None



March 11, 2022

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: GRUMMAN ROAD LANDFILL RAD  
Pace Project No.: 92585912

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between February 03, 2022 and February 04, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Anna Bottum, ERM  
Andrea Brazell, ERM  
Owens Fuquea, ACC  
Monte Jones, Atlantic Coast Consulting, Inc.  
Kristen Jurinko  
Matt Malone, Atlantic Coast Consulting  
Betsy McDaniel, Atlantic Coast Consulting  
Ms. Lauren Petty, Southern Company  
Lacy Smith, ERM  
Caitlin Tillema, ERM  
Christine Weaver, ERM



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: GRUMMAN ROAD LANDFILL RAD  
Pace Project No.: 92585912

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### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Florida: Cert E871149 SEKS WET  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92585912001	GWA-7	Water	01/31/22 17:15	02/03/22 10:10
92585912002	GWA-8	Water	01/31/22 16:50	02/03/22 10:10
92585912003	GWC-16	Water	02/01/22 15:10	02/03/22 10:10
92585912004	GWC-17	Water	02/01/22 14:35	02/03/22 10:10
92585912005	GWC-20	Water	02/01/22 10:50	02/03/22 10:10
92585912006	GWC-21	Water	02/01/22 13:55	02/03/22 10:10
92585912007	MW-24D	Water	02/01/22 16:25	02/03/22 10:10
92585912008	FB-1	Water	01/31/22 16:45	02/03/22 10:10
92585912009	EB-1	Water	02/01/22 16:00	02/03/22 10:10
92585912010	DUP-1	Water	02/01/22 00:00	02/03/22 10:10
92585912011	GWC-9	Water	02/02/22 09:20	02/03/22 10:10
92585912012	GWB-4R	Water	02/02/22 13:20	02/04/22 14:31
92585912013	GWB-6R	Water	02/02/22 10:40	02/04/22 14:31
92585912014	MW-26D	Water	02/02/22 14:20	02/04/22 14:31
92585912015	GWC-2	Water	02/02/22 15:45	02/04/22 14:31
92585912016	GWC-14	Water	02/02/22 17:15	02/04/22 14:31
92585912017	GWC-15	Water	02/03/22 09:50	02/04/22 14:31
92585912018	GWC-1	Water	02/03/22 11:40	02/04/22 14:31
92585912019	GWC-12	Water	02/03/22 13:05	02/04/22 14:31
92585912020	GWC-13	Water	02/03/22 14:30	02/04/22 14:31
92585912021	FB-2	Water	02/02/22 10:30	02/04/22 14:31
92585912022	EB-2	Water	02/02/22 14:00	02/04/22 14:31
92585912023	EB-3	Water	02/03/22 13:20	02/04/22 14:31
92585912024	DUP-2	Water	02/02/22 00:00	02/04/22 14:31
92585912025	MW-27D	Water	02/02/22 15:00	02/04/22 14:31
92585912026	GWB-5R	Water	02/03/22 09:35	02/04/22 14:31
92585912027	MW-23D	Water	02/03/22 11:40	02/04/22 14:31
92585912028	MW-25D	Water	02/03/22 14:35	02/04/22 14:31
92585912029	GWC-11	Water	02/03/22 16:20	02/04/22 14:31
92585912030	GWC-22	Water	02/03/22 17:50	02/04/22 14:31
92585912031	FB-3	Water	02/03/22 17:20	02/04/22 14:31
92585912032	DUP-3	Water	02/03/22 00:00	02/04/22 14:31

## REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92585912001	GWA-7	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92585912002	GWA-8	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92585912003	GWC-16	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92585912004	GWC-17	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92585912005	GWC-20	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92585912006	GWC-21	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92585912007	MW-24D	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92585912008	FB-1	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92585912009	EB-1	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92585912010	DUP-1	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92585912011	GWC-9	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92585912012	GWB-4R	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92585912013	GWB-6R	EPA 9315	JC2	1	PASI-PA

**REPORT OF LABORATORY ANALYSIS**

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### SAMPLE ANALYTE COUNT

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92585912014	MW-26D	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
92585912015	GWC-2	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
92585912016	GWC-14	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
92585912017	GWC-15	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
92585912018	GWC-1	EPA 9320	JSM	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
92585912019	GWC-12	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
92585912020	GWC-13	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
92585912021	FB-2	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
92585912022	EB-2	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
92585912023	EB-3	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
92585912024	DUP-2	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
92585912025	MW-27D	EPA 9320	VAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92585912026	GWB-5R	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92585912027	MW-23D	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92585912028	MW-25D	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92585912029	GWC-11	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92585912030	GWC-22	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92585912031	FB-3	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
92585912032	DUP-3	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92585912001</b>						
EPA 9315	Radium-226	7.35 ± 1.53 (0.592)	pCi/L		02/23/22 11:02	
EPA 9320	Radium-228	1.11 ± 4.17 (9.53) C:88% T:NA	pCi/L		02/21/22 15:42	
Total Radium Calculation	Total Radium	8.46 ± 5.70 (10.1)	pCi/L		02/28/22 18:28	
<b>92585912002</b>						
EPA 9315	Radium-226	0.677 ± 0.239 (0.221)	pCi/L		02/23/22 11:02	
EPA 9320	Radium-228	0.335 ± 0.338 (0.692) C:93% T:NA	pCi/L		02/21/22 15:42	
Total Radium Calculation	Total Radium	1.01 ± 0.577 (0.913)	pCi/L		02/28/22 18:28	
<b>92585912003</b>						
EPA 9315	Radium-226	1.56 ± 0.377 (0.183) C:104% T:NA	pCi/L		02/23/22 11:21	
EPA 9320	Radium-228	1.17 ± 0.552 (0.933) C:59% T:89%	pCi/L		02/21/22 15:43	
Total Radium Calculation	Total Radium	2.73 ± 0.929 (1.12)	pCi/L		02/28/22 18:28	
<b>92585912004</b>						
EPA 9315	Radium-226	1.22 ± 0.342 (0.235)	pCi/L		02/23/22 11:21	
EPA 9320	Radium-228	1.29 ± 0.488 (0.715) C:88% T:NA	pCi/L		02/21/22 15:43	
Total Radium Calculation	Total Radium	2.51 ± 0.830 (0.950)	pCi/L		02/28/22 18:28	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92585912005</b>	<b>GWC-20</b>					
EPA 9315	Radium-226	2.93 ± 0.596 (0.210) C:102% T:NA	pCi/L		02/23/22 11:22	
EPA 9320	Radium-228	2.18 ± 0.613 (0.650) C:78% T:85%	pCi/L		02/21/22 15:43	
Total Radium Calculation	Total Radium	5.11 ± 1.21 (0.860)	pCi/L		02/28/22 18:28	
<b>92585912006</b>	<b>GWC-21</b>					
EPA 9315	Radium-226	2.07 ± 0.470 (0.213) C:89% T:NA	pCi/L		02/23/22 11:22	
EPA 9320	Radium-228	0.442 ± 0.388 (0.780) C:75% T:80%	pCi/L		02/21/22 15:43	
Total Radium Calculation	Total Radium	2.51 ± 0.858 (0.993)	pCi/L		02/28/22 18:28	
<b>92585912007</b>	<b>MW-24D</b>					
EPA 9315	Radium-226	0.360 ± 0.158 (0.171) C:97% T:NA	pCi/L		02/23/22 11:22	
EPA 9320	Radium-228	-0.121 ± 0.293 (0.709) C:81% T:91%	pCi/L		02/21/22 15:43	
Total Radium Calculation	Total Radium	0.360 ± 0.451 (0.880)	pCi/L		02/28/22 18:28	
<b>92585912008</b>	<b>FB-1</b>					
EPA 9315	Radium-226	0.0864 ± 0.103 (0.209) C:100% T:NA	pCi/L		02/23/22 11:22	
EPA 9320	Radium-228	0.365 ± 0.358 (0.732) C:77% T:81%	pCi/L		02/21/22 15:43	
Total Radium Calculation	Total Radium	0.451 ± 0.461 (0.941)	pCi/L		02/28/22 18:28	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92585912009</b>	<b>EB-1</b>					
EPA 9315	Radium-226	0.0216 ± 0.0681 (0.173) C:100% T:NA	pCi/L		02/23/22 12:47	
EPA 9320	Radium-228	0.316 ± 0.446 (0.955) C:74% T:86%	pCi/L		02/21/22 18:17	
Total Radium Calculation	Total Radium	0.338 ± 0.514 (1.13)	pCi/L		02/28/22 18:28	
<b>92585912010</b>	<b>DUP-1</b>					
EPA 9315	Radium-226	0.364 ± 0.180 (0.241) C:91% T:NA	pCi/L		02/23/22 12:47	
EPA 9320	Radium-228	0.395 ± 0.493 (1.04) C:77% T:86%	pCi/L		02/21/22 18:17	
Total Radium Calculation	Total Radium	0.759 ± 0.673 (1.28)	pCi/L		02/28/22 18:28	
<b>92585912011</b>	<b>GWC-9</b>					
EPA 9315	Radium-226	0.744 ± 0.246 (0.207) C:95% T:NA	pCi/L		02/23/22 12:47	
EPA 9320	Radium-228	0.223 ± 0.418 (0.919) C:79% T:85%	pCi/L		02/21/22 18:37	
Total Radium Calculation	Total Radium	0.967 ± 0.664 (1.13)	pCi/L		02/28/22 18:28	
<b>92585912012</b>	<b>GWB-4R</b>					
EPA 9315	Radium-226	1.87 ± 0.433 (0.189) C:99% T:NA	pCi/L		02/23/22 12:47	
EPA 9320	Radium-228	1.30 ± 0.695 (1.26) C:74% T:87%	pCi/L		02/21/22 18:58	
Total Radium Calculation	Total Radium	3.17 ± 1.13 (1.45)	pCi/L		02/28/22 18:28	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92585912013</b>	<b>GWB-6R</b>					
EPA 9315	Radium-226	2.06 ± 0.459 (0.182) C:100%	pCi/L		02/23/22 12:47	
EPA 9320	Radium-228	T:NA 2.73 ± 0.887 (1.18) C:74%	pCi/L		02/21/22 18:56	
Total Radium Calculation	Total Radium	T:83% 4.79 ± 1.35 (1.36)	pCi/L		02/28/22 18:28	
<b>92585912014</b>	<b>MW-26D</b>					
EPA 9315	Radium-226	0.249 ± 0.142 (0.195) C:99% T:NA	pCi/L		02/23/22 12:47	
EPA 9320	Radium-228	-0.212 ± 0.454 (1.11) C:77%	pCi/L		02/21/22 18:55	
Total Radium Calculation	Total Radium	T:86% 0.249 ± 0.596 (1.31)	pCi/L		02/28/22 18:28	
<b>92585912015</b>	<b>GWC-2</b>					
EPA 9315	Radium-226	0.350 ± 0.178 (0.253) C:96% T:NA	pCi/L		02/23/22 12:47	
EPA 9320	Radium-228	0.504 ± 0.650 (1.38) C:63%	pCi/L		02/21/22 18:55	
Total Radium Calculation	Total Radium	T:82% 0.854 ± 0.828 (1.63)	pCi/L		02/28/22 18:28	
<b>92585912016</b>	<b>GWC-14</b>					
EPA 9315	Radium-226	0.343 ± 0.174 (0.227) C:92% T:NA	pCi/L		02/23/22 12:47	
EPA 9320	Radium-228	0.538 ± 0.692 (1.48) C:76%	pCi/L		02/21/22 18:54	
Total Radium Calculation	Total Radium	T:82% 0.881 ± 0.866 (1.71)	pCi/L		02/28/22 18:28	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92585912017</b>	<b>GWC-15</b>					
EPA 9315	Radium-226	0.471 ± 0.196 (0.219) C:97% T:NA	pCi/L		02/23/22 12:47	
EPA 9320	Radium-228	0.109 ± 0.558 (1.27) C:74% T:81%	pCi/L		02/21/22 18:54	
Total Radium Calculation	Total Radium	0.580 ± 0.754 (1.49)	pCi/L		02/28/22 18:28	
<b>92585912018</b>	<b>GWC-1</b>					
EPA 9315	Radium-226	0.558 ± 0.150 (0.122) C:94% T:NA	pCi/L		02/28/22 12:32	
EPA 9320	Radium-228	0.443 ± 0.308 (0.586) C:80% T:92%	pCi/L		02/23/22 11:11	
Total Radium Calculation	Total Radium	1.00 ± 0.458 (0.708)	pCi/L		03/02/22 17:46	
<b>92585912019</b>	<b>GWC-12</b>					
EPA 9315	Radium-226	0.522 ± 0.144 (0.109) C:93% T:NA	pCi/L		02/28/22 12:32	
EPA 9320	Radium-228	0.435 ± 0.331 (0.638) C:77% T:88%	pCi/L		02/23/22 11:11	
Total Radium Calculation	Total Radium	0.957 ± 0.475 (0.747)	pCi/L		03/02/22 17:46	
<b>92585912020</b>	<b>GWC-13</b>					
EPA 9315	Radium-226	0.727 ± 0.175 (0.101) C:95% T:NA	pCi/L		02/28/22 12:32	
EPA 9320	Radium-228	0.454 ± 0.307 (0.582) C:83% T:93%	pCi/L		02/23/22 11:11	
Total Radium Calculation	Total Radium	1.18 ± 0.482 (0.683)	pCi/L		03/02/22 17:46	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92585912021</b>	<b>FB-2</b>					
EPA 9315	Radium-226	0.0208 ± 0.0466 (0.106) C:91% T:NA	pCi/L		02/28/22 12:32	
EPA 9320	Radium-228	0.300 ± 0.332 (0.695) C:77% T:91%	pCi/L		02/23/22 11:11	
Total Radium Calculation	Total Radium	0.321 ± 0.379 (0.801)	pCi/L		03/02/22 17:46	
<b>92585912022</b>	<b>EB-2</b>					
EPA 9315	Radium-226	0.0704 ± 0.0639 (0.120) C:94% T:NA	pCi/L		02/28/22 12:32	
EPA 9320	Radium-228	0.285 ± 0.294 (0.605) C:81% T:88%	pCi/L		02/23/22 11:11	
Total Radium Calculation	Total Radium	0.355 ± 0.358 (0.725)	pCi/L		03/02/22 17:46	
<b>92585912023</b>	<b>EB-3</b>					
EPA 9315	Radium-226	0.0292 ± 0.0449 (0.0956) C:99% T:NA	pCi/L		02/28/22 12:32	
EPA 9320	Radium-228	0.376 ± 0.340 (0.689) C:74% T:92%	pCi/L		02/23/22 11:11	
Total Radium Calculation	Total Radium	0.405 ± 0.385 (0.785)	pCi/L		03/02/22 17:46	
<b>92585912024</b>	<b>DUP-2</b>					
EPA 9315	Radium-226	0.366 ± 0.119 (0.121) C:93% T:NA	pCi/L		02/28/22 12:32	
EPA 9320	Radium-228	0.404 ± 0.324 (0.635) C:79% T:83%	pCi/L		02/23/22 11:12	
Total Radium Calculation	Total Radium	0.770 ± 0.443 (0.756)	pCi/L		03/02/22 17:46	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92585912025</b>	<b>MW-27D</b>					
EPA 9315	Radium-226	0.339 ± 0.147 (0.168) C:95% T:NA	pCi/L		02/28/22 10:58	
EPA 9320	Radium-228	0.623 ± 0.357 (0.640) C:74% T:92%	pCi/L		02/23/22 11:12	
Total Radium Calculation	Total Radium	0.962 ± 0.504 (0.808)	pCi/L		03/02/22 17:46	
<b>92585912026</b>	<b>GWB-5R</b>					
EPA 9315	Radium-226	2.04 ± 0.439 (0.170) C:92% T:NA	pCi/L		02/28/22 10:58	
EPA 9320	Radium-228	0.614 ± 0.375 (0.693) C:76% T:88%	pCi/L		02/23/22 11:12	
Total Radium Calculation	Total Radium	2.65 ± 0.814 (0.863)	pCi/L		03/02/22 17:46	
<b>92585912027</b>	<b>MW-23D</b>					
EPA 9315	Radium-226	0.728 ± 0.227 (0.181) C:90% T:NA	pCi/L		02/28/22 13:21	
EPA 9320	Radium-228	0.484 ± 0.327 (0.615) C:74% T:89%	pCi/L		02/23/22 11:12	
Total Radium Calculation	Total Radium	1.21 ± 0.554 (0.796)	pCi/L		03/02/22 17:46	
<b>92585912028</b>	<b>MW-25D</b>					
EPA 9315	Radium-226	0.191 ± 0.116 (0.166) C:93% T:NA	pCi/L		02/28/22 13:21	
EPA 9320	Radium-228	0.0866 ± 0.263 (0.594) C:79% T:90%	pCi/L		02/23/22 11:12	
Total Radium Calculation	Total Radium	0.278 ± 0.379 (0.760)	pCi/L		03/02/22 17:46	

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### SUMMARY OF DETECTION

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92585912029</b>						
<b>GWC-11</b>						
EPA 9315	Radium-226	2.57 ± 0.520 (0.182)	pCi/L		02/28/22 15:03	
EPA 9320	Radium-228	C:88% T:NA 1.47 ± 0.522 (0.761)	pCi/L		02/23/22 11:12	
Total Radium Calculation	Total Radium	C:74% T:90% 4.04 ± 1.04 (0.943)	pCi/L		03/02/22 17:46	
<b>92585912030</b>						
<b>GWC-22</b>						
EPA 9315	Radium-226	0.563 ± 0.194 (0.167)	pCi/L		02/28/22 15:03	
EPA 9320	Radium-228	C:95% T:NA 0.838 ± 0.426 (0.738)	pCi/L		02/23/22 11:11	
Total Radium Calculation	Total Radium	C:78% T:85% 1.40 ± 0.620 (0.905)	pCi/L		03/02/22 17:46	
<b>92585912031</b>						
<b>FB-3</b>						
EPA 9315	Radium-226	0.119 ± 0.119 (0.238)	pCi/L		03/01/22 08:22	
EPA 9320	Radium-228	C:97% T:NA 0.0466 ± 0.292 (0.674)	pCi/L		02/23/22 11:12	
Total Radium Calculation	Total Radium	C:70% T:90% 0.166 ± 0.411 (0.912)	pCi/L		03/02/22 17:46	
<b>92585912032</b>						
<b>DUP-3</b>						
EPA 9315	Radium-226	0.555 ± 0.215 (0.248)	pCi/L		03/01/22 08:22	
EPA 9320	Radium-228	C:83% T:NA 0.537 ± 0.360 (0.677)	pCi/L		02/23/22 11:12	
Total Radium Calculation	Total Radium	C:71% T:89% 1.09 ± 0.575 (0.925)	pCi/L		03/02/22 17:46	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: GWA-7**      **Lab ID: 92585912001**      Collected: 01/31/22 17:15      Received: 02/03/22 10:10      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>7.35 ± 1.53 (0.592)</b> <b>C:88% T:NA</b>	pCi/L	02/23/22 11:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.11 ± 4.17 (9.53)</b> <b>C:77% T:88%</b>	pCi/L	02/21/22 15:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>8.46 ± 5.70 (10.1)</b>	pCi/L	02/28/22 18:28	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: GWA-8**      **Lab ID: 92585912002**      Collected: 01/31/22 16:50      Received: 02/03/22 10:10      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.677 ± 0.239 (0.221)</b> <b>C:93% T:NA</b>	pCi/L	02/23/22 11:02	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.335 ± 0.338 (0.692)</b> <b>C:74% T:80%</b>	pCi/L	02/21/22 15:42	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.01 ± 0.577 (0.913)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: GWC-16**      **Lab ID: 92585912003**      Collected: 02/01/22 15:10      Received: 02/03/22 10:10      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>1.56 ± 0.377 (0.183)</b> <b>C:104% T:NA</b>	pCi/L	02/23/22 11:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.17 ± 0.552 (0.933)</b> <b>C:59% T:89%</b>	pCi/L	02/21/22 15:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.73 ± 0.929 (1.12)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: GWC-17**      **Lab ID: 92585912004**      Collected: 02/01/22 14:35      Received: 02/03/22 10:10      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>1.22 ± 0.342 (0.235)</b> <b>C:88% T:NA</b>	pCi/L	02/23/22 11:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.29 ± 0.488 (0.715)</b> <b>C:76% T:83%</b>	pCi/L	02/21/22 15:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.51 ± 0.830 (0.950)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: GWC-20</b> <b>Lab ID: 92585912005</b> Collected: 02/01/22 10:50      Received: 02/03/22 10:10      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>2.93 ± 0.596 (0.210)</b> <b>C:102% T:NA</b>	pCi/L	02/23/22 11:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>2.18 ± 0.613 (0.650)</b> <b>C:78% T:85%</b>	pCi/L	02/21/22 15:43	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>5.11 ± 1.21 (0.860)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: GWC-21**      **Lab ID: 92585912006**      Collected: 02/01/22 13:55      Received: 02/03/22 10:10      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>2.07 ± 0.470 (0.213)</b> <b>C:89% T:NA</b>	pCi/L	02/23/22 11:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.442 ± 0.388 (0.780)</b> <b>C:75% T:80%</b>	pCi/L	02/21/22 15:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.51 ± 0.858 (0.993)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: MW-24D**      **Lab ID: 92585912007**      Collected: 02/01/22 16:25      Received: 02/03/22 10:10      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.360 ± 0.158 (0.171)</b> <b>C:97% T:NA</b>	pCi/L	02/23/22 11:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>-0.121 ± 0.293 (0.709)</b> <b>C:81% T:91%</b>	pCi/L	02/21/22 15:43	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.360 ± 0.451 (0.880)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: FB-1**      **Lab ID: 92585912008**      Collected: 01/31/22 16:45      Received: 02/03/22 10:10      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0864 ± 0.103 (0.209)</b> <b>C:100% T:NA</b>	pCi/L	02/23/22 11:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.365 ± 0.358 (0.732)</b> <b>C:77% T:81%</b>	pCi/L	02/21/22 15:43	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.451 ± 0.461 (0.941)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: EB-1**      **Lab ID: 92585912009**      Collected: 02/01/22 16:00      Received: 02/03/22 10:10      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0216 ± 0.0681 (0.173)</b> <b>C:100% T:NA</b>	pCi/L	02/23/22 12:47	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.316 ± 0.446 (0.955)</b> <b>C:74% T:86%</b>	pCi/L	02/21/22 18:17	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.338 ± 0.514 (1.13)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: DUP-1**      **Lab ID: 92585912010**      Collected: 02/01/22 00:00      Received: 02/03/22 10:10      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.364 ± 0.180 (0.241)</b> <b>C:91% T:NA</b>	pCi/L	02/23/22 12:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.395 ± 0.493 (1.04)</b> <b>C:77% T:86%</b>	pCi/L	02/21/22 18:17	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.759 ± 0.673 (1.28)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: GWC-9**      **Lab ID: 92585912011**      Collected: 02/02/22 09:20      Received: 02/03/22 10:10      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.744 ± 0.246 (0.207)</b> <b>C:95% T:NA</b>	pCi/L	02/23/22 12:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.223 ± 0.418 (0.919)</b> <b>C:79% T:85%</b>	pCi/L	02/21/22 18:37	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.967 ± 0.664 (1.13)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: GWB-4R</b> <b>Lab ID: 92585912012</b> Collected: 02/02/22 13:20      Received: 02/04/22 14:31      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>1.87 ± 0.433 (0.189)</b> <b>C:99% T:NA</b>	pCi/L	02/23/22 12:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.30 ± 0.695 (1.26)</b> <b>C:74% T:87%</b>	pCi/L	02/21/22 18:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>3.17 ± 1.13 (1.45)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: GWB-6R</b> <b>Lab ID: 92585912013</b> Collected: 02/02/22 10:40      Received: 02/04/22 14:31      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>2.06 ± 0.459 (0.182)</b> <b>C:100% T:NA</b>	pCi/L	02/23/22 12:47	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>2.73 ± 0.887 (1.18)</b> <b>C:74% T:83%</b>	pCi/L	02/21/22 18:56	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>4.79 ± 1.35 (1.36)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-26D</b> <b>Lab ID: 92585912014</b> Collected: 02/02/22 14:20      Received: 02/04/22 14:31      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.249 ± 0.142 (0.195)</b> <b>C:99% T:NA</b>	pCi/L	02/23/22 12:47	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>-0.212 ± 0.454 (1.11)</b> <b>C:77% T:86%</b>	pCi/L	02/21/22 18:55	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.249 ± 0.596 (1.31)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: GWC-2**      **Lab ID: 92585912015**      Collected: 02/02/22 15:45      Received: 02/04/22 14:31      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.350 ± 0.178 (0.253)</b> <b>C:96% T:NA</b>	pCi/L	02/23/22 12:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.504 ± 0.650 (1.38)</b> <b>C:63% T:82%</b>	pCi/L	02/21/22 18:55	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.854 ± 0.828 (1.63)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: GWC-14**      **Lab ID: 92585912016**      Collected: 02/02/22 17:15      Received: 02/04/22 14:31      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.343 ± 0.174 (0.227)</b> <b>C:92% T:NA</b>	pCi/L	02/23/22 12:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.538 ± 0.692 (1.48)</b> <b>C:76% T:82%</b>	pCi/L	02/21/22 18:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.881 ± 0.866 (1.71)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: GWC-15**      **Lab ID: 92585912017**      Collected: 02/03/22 09:50      Received: 02/04/22 14:31      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.471 ± 0.196 (0.219)</b> <b>C:97% T:NA</b>	pCi/L	02/23/22 12:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.109 ± 0.558 (1.27)</b> <b>C:74% T:81%</b>	pCi/L	02/21/22 18:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.580 ± 0.754 (1.49)</b>	pCi/L	02/28/22 18:28	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: GWC-1</b> <b>Lab ID: 92585912018</b> Collected: 02/03/22 11:40      Received: 02/04/22 14:31      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.558 ± 0.150 (0.122)</b> <b>C:94% T:NA</b>	pCi/L	02/28/22 12:32	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.443 ± 0.308 (0.586)</b> <b>C:80% T:92%</b>	pCi/L	02/23/22 11:11	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.00 ± 0.458 (0.708)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: GWC-12**      **Lab ID: 92585912019**      Collected: 02/03/22 13:05      Received: 02/04/22 14:31      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.522 ± 0.144 (0.109)</b> <b>C:93% T:NA</b>	pCi/L	02/28/22 12:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.435 ± 0.331 (0.638)</b> <b>C:77% T:88%</b>	pCi/L	02/23/22 11:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.957 ± 0.475 (0.747)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: GWC-13**      **Lab ID: 92585912020**      Collected: 02/03/22 14:30      Received: 02/04/22 14:31      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.727 ± 0.175 (0.101)</b> <b>C:95% T:NA</b>	pCi/L	02/28/22 12:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.454 ± 0.307 (0.582)</b> <b>C:83% T:93%</b>	pCi/L	02/23/22 11:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.18 ± 0.482 (0.683)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: FB-2**      **Lab ID: 92585912021**      Collected: 02/02/22 10:30      Received: 02/04/22 14:31      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0208 ± 0.0466 (0.106)</b> <b>C:91% T:NA</b>	pCi/L	02/28/22 12:32	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.300 ± 0.332 (0.695)</b> <b>C:77% T:91%</b>	pCi/L	02/23/22 11:11	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.321 ± 0.379 (0.801)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: EB-2</b> <b>Lab ID: 92585912022</b> Collected: 02/02/22 14:00      Received: 02/04/22 14:31      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.0704 ± 0.0639 (0.120)</b> <b>C:94% T:NA</b>	pCi/L	02/28/22 12:32	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.285 ± 0.294 (0.605)</b> <b>C:81% T:88%</b>	pCi/L	02/23/22 11:11	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.355 ± 0.358 (0.725)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: EB-3**      **Lab ID: 92585912023**      Collected: 02/03/22 13:20      Received: 02/04/22 14:31      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0292 ± 0.0449 (0.0956)</b> <b>C:99% T:NA</b>	pCi/L	02/28/22 12:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.376 ± 0.340 (0.689)</b> <b>C:74% T:92%</b>	pCi/L	02/23/22 11:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.405 ± 0.385 (0.785)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: DUP-2</b> <b>Lab ID: 92585912024</b> Collected: 02/02/22 00:00      Received: 02/04/22 14:31      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.366 ± 0.119 (0.121)</b> <b>C:93% T:NA</b>	pCi/L	02/28/22 12:32	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.404 ± 0.324 (0.635)</b> <b>C:79% T:83%</b>	pCi/L	02/23/22 11:12	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.770 ± 0.443 (0.756)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-27D</b> <b>Lab ID: 92585912025</b> Collected: 02/02/22 15:00      Received: 02/04/22 14:31      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.339 ± 0.147 (0.168)</b> <b>C:95% T:NA</b>	pCi/L	02/28/22 10:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.623 ± 0.357 (0.640)</b> <b>C:74% T:92%</b>	pCi/L	02/23/22 11:12	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.962 ± 0.504 (0.808)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: GWB-5R</b> <b>Lab ID: 92585912026</b> Collected: 02/03/22 09:35      Received: 02/04/22 14:31      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>2.04 ± 0.439 (0.170)</b> <b>C:92% T:NA</b>	pCi/L	02/28/22 10:58	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.614 ± 0.375 (0.693)</b> <b>C:76% T:88%</b>	pCi/L	02/23/22 11:12	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>2.65 ± 0.814 (0.863)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: MW-23D**      **Lab ID: 92585912027**      Collected: 02/03/22 11:40      Received: 02/04/22 14:31      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.728 ± 0.227 (0.181)</b> <b>C:90% T:NA</b>	pCi/L	02/28/22 13:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.484 ± 0.327 (0.615)</b> <b>C:74% T:89%</b>	pCi/L	02/23/22 11:12	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.21 ± 0.554 (0.796)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: MW-25D</b> <b>Lab ID: 92585912028</b> Collected: 02/03/22 14:35      Received: 02/04/22 14:31      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.191 ± 0.116 (0.166)</b> <b>C:93% T:NA</b>	pCi/L	02/28/22 13:21	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.0866 ± 0.263 (0.594)</b> <b>C:79% T:90%</b>	pCi/L	02/23/22 11:12	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.278 ± 0.379 (0.760)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: GWC-11**      **Lab ID: 92585912029**      Collected: 02/03/22 16:20      Received: 02/04/22 14:31      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>2.57 ± 0.520 (0.182)</b> <b>C:88% T:NA</b>	pCi/L	02/28/22 15:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.47 ± 0.522 (0.761)</b> <b>C:74% T:90%</b>	pCi/L	02/23/22 11:12	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>4.04 ± 1.04 (0.943)</b>	pCi/L	03/02/22 17:46	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: GWC-22</b> <b>Lab ID: 92585912030</b> Collected: 02/03/22 17:50      Received: 02/04/22 14:31      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.563 ± 0.194 (0.167)</b> <b>C:95% T:NA</b>	pCi/L	02/28/22 15:03	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.838 ± 0.426 (0.738)</b> <b>C:78% T:85%</b>	pCi/L	02/23/22 11:11	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.40 ± 0.620 (0.905)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: FB-3**      **Lab ID: 92585912031**      Collected: 02/03/22 17:20      Received: 02/04/22 14:31      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.119 ± 0.119 (0.238)</b> <b>C:97% T:NA</b>	pCi/L	03/01/22 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.0466 ± 0.292 (0.674)</b> <b>C:70% T:90%</b>	pCi/L	02/23/22 11:12	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.166 ± 0.411 (0.912)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

**Sample: DUP-3**      **Lab ID: 92585912032**      Collected: 02/03/22 00:00      Received: 02/04/22 14:31      Matrix: Water  
 PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.555 ± 0.215 (0.248)</b> <b>C:83% T:NA</b>	pCi/L	03/01/22 08:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.537 ± 0.360 (0.677)</b> <b>C:71% T:89%</b>	pCi/L	02/23/22 11:12	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.09 ± 0.575 (0.925)</b>	pCi/L	03/02/22 17:46	7440-14-4	

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

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QC Batch:	484279	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92585912018, 92585912019, 92585912020, 92585912021, 92585912022, 92585912023, 92585912024, 92585912025, 92585912026, 92585912027, 92585912028, 92585912029, 92585912030, 92585912031, 92585912032

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METHOD BLANK:	2341878	Matrix:	Water
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Associated Lab Samples: 92585912018, 92585912019, 92585912020, 92585912021, 92585912022, 92585912023, 92585912024, 92585912025, 92585912026, 92585912027, 92585912028, 92585912029, 92585912030, 92585912031, 92585912032

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0489 ± 0.0523 (0.102) C:96% T:NA	pCi/L	02/28/22 12:32	

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

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QC Batch:	484277	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92585912001, 92585912002, 92585912003, 92585912004, 92585912005, 92585912006, 92585912007, 92585912008, 92585912009, 92585912010, 92585912011, 92585912012, 92585912013, 92585912014, 92585912015, 92585912016, 92585912017

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METHOD BLANK: 2341866 Matrix: Water

Associated Lab Samples: 92585912001, 92585912002, 92585912003, 92585912004, 92585912005, 92585912006, 92585912007, 92585912008, 92585912009, 92585912010, 92585912011, 92585912012, 92585912013, 92585912014, 92585912015, 92585912016, 92585912017

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.156 ± 0.117 (0.185) C:98% T:NA	pCi/L	02/23/22 11:02	

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

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QC Batch:	484158	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92585912001, 92585912002, 92585912003, 92585912004, 92585912005, 92585912006, 92585912007, 92585912008, 92585912009, 92585912010, 92585912011, 92585912012, 92585912013, 92585912014, 92585912015, 92585912016, 92585912017

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METHOD BLANK: 2341232 Matrix: Water

Associated Lab Samples: 92585912001, 92585912002, 92585912003, 92585912004, 92585912005, 92585912006, 92585912007, 92585912008, 92585912009, 92585912010, 92585912011, 92585912012, 92585912013, 92585912014, 92585912015, 92585912016, 92585912017

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.144 ± 0.303 (0.671) C:74% T:90%	pCi/L	02/21/22 15:42	

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**QUALITY CONTROL - RADIOCHEMISTRY**

Project: GRUMMAN ROAD LANDFILL RAD  
 Pace Project No.: 92585912

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QC Batch:	484159	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92585912018, 92585912019, 92585912020, 92585912021, 92585912022, 92585912023, 92585912024, 92585912025, 92585912026, 92585912027, 92585912028, 92585912029, 92585912030, 92585912031, 92585912032

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METHOD BLANK: 2341235 Matrix: Water

Associated Lab Samples: 92585912018, 92585912019, 92585912020, 92585912021, 92585912022, 92585912023, 92585912024, 92585912025, 92585912026, 92585912027, 92585912028, 92585912029, 92585912030, 92585912031, 92585912032

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0437 ± 0.257 (0.613) C:81% T:90%	pCi/L	02/23/22 11:11	

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## QUALIFIERS

Project: GRUMMAN ROAD LANDFILL RAD

Pace Project No.: 92585912

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GRUMMAN ROAD LANDFILL RAD  
 Pace Project No.: 92585912

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92585912001	GWA-7	EPA 9315	484277		
92585912002	GWA-8	EPA 9315	484277		
92585912003	GWC-16	EPA 9315	484277		
92585912004	GWC-17	EPA 9315	484277		
92585912005	GWC-20	EPA 9315	484277		
92585912006	GWC-21	EPA 9315	484277		
92585912007	MW-24D	EPA 9315	484277		
92585912008	FB-1	EPA 9315	484277		
92585912009	EB-1	EPA 9315	484277		
92585912010	DUP-1	EPA 9315	484277		
92585912011	GWC-9	EPA 9315	484277		
92585912012	GWB-4R	EPA 9315	484277		
92585912013	GWB-6R	EPA 9315	484277		
92585912014	MW-26D	EPA 9315	484277		
92585912015	GWC-2	EPA 9315	484277		
92585912016	GWC-14	EPA 9315	484277		
92585912017	GWC-15	EPA 9315	484277		
92585912018	GWC-1	EPA 9315	484279		
92585912019	GWC-12	EPA 9315	484279		
92585912020	GWC-13	EPA 9315	484279		
92585912021	FB-2	EPA 9315	484279		
92585912022	EB-2	EPA 9315	484279		
92585912023	EB-3	EPA 9315	484279		
92585912024	DUP-2	EPA 9315	484279		
92585912025	MW-27D	EPA 9315	484279		
92585912026	GWB-5R	EPA 9315	484279		
92585912027	MW-23D	EPA 9315	484279		
92585912028	MW-25D	EPA 9315	484279		
92585912029	GWC-11	EPA 9315	484279		
92585912030	GWC-22	EPA 9315	484279		
92585912031	FB-3	EPA 9315	484279		
92585912032	DUP-3	EPA 9315	484279		
92585912001	GWA-7	EPA 9320	484158		
92585912002	GWA-8	EPA 9320	484158		
92585912003	GWC-16	EPA 9320	484158		
92585912004	GWC-17	EPA 9320	484158		
92585912005	GWC-20	EPA 9320	484158		
92585912006	GWC-21	EPA 9320	484158		
92585912007	MW-24D	EPA 9320	484158		
92585912008	FB-1	EPA 9320	484158		
92585912009	EB-1	EPA 9320	484158		
92585912010	DUP-1	EPA 9320	484158		
92585912011	GWC-9	EPA 9320	484158		
92585912012	GWB-4R	EPA 9320	484158		
92585912013	GWB-6R	EPA 9320	484158		
92585912014	MW-26D	EPA 9320	484158		
92585912015	GWC-2	EPA 9320	484158		
92585912016	GWC-14	EPA 9320	484158		

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: GRUMMAN ROAD LANDFILL RAD  
 Pace Project No.: 92585912

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92585912017	GWC-15	EPA 9320	484158		
92585912018	GWC-1	EPA 9320	484159		
92585912019	GWC-12	EPA 9320	484159		
92585912020	GWC-13	EPA 9320	484159		
92585912021	FB-2	EPA 9320	484159		
92585912022	EB-2	EPA 9320	484159		
92585912023	EB-3	EPA 9320	484159		
92585912024	DUP-2	EPA 9320	484159		
92585912025	MW-27D	EPA 9320	484159		
92585912026	GWB-5R	EPA 9320	484159		
92585912027	MW-23D	EPA 9320	484159		
92585912028	MW-25D	EPA 9320	484159		
92585912029	GWC-11	EPA 9320	484159		
92585912030	GWC-22	EPA 9320	484159		
92585912031	FB-3	EPA 9320	484159		
92585912032	DUP-3	EPA 9320	484159		
92585912001	GWA-7	Total Radium Calculation	487033		
92585912002	GWA-8	Total Radium Calculation	487033		
92585912003	GWC-16	Total Radium Calculation	487033		
92585912004	GWC-17	Total Radium Calculation	487033		
92585912005	GWC-20	Total Radium Calculation	487033		
92585912006	GWC-21	Total Radium Calculation	487033		
92585912007	MW-24D	Total Radium Calculation	487033		
92585912008	FB-1	Total Radium Calculation	487033		
92585912009	EB-1	Total Radium Calculation	487033		
92585912010	DUP-1	Total Radium Calculation	487033		
92585912011	GWC-9	Total Radium Calculation	487033		
92585912012	GWB-4R	Total Radium Calculation	487033		
92585912013	GWB-6R	Total Radium Calculation	487033		
92585912014	MW-26D	Total Radium Calculation	487033		
92585912015	GWC-2	Total Radium Calculation	487033		
92585912016	GWC-14	Total Radium Calculation	487033		
92585912017	GWC-15	Total Radium Calculation	487033		
92585912018	GWC-1	Total Radium Calculation	487499		
92585912019	GWC-12	Total Radium Calculation	487499		
92585912020	GWC-13	Total Radium Calculation	487499		
92585912021	FB-2	Total Radium Calculation	487499		
92585912022	EB-2	Total Radium Calculation	487499		
92585912023	EB-3	Total Radium Calculation	487499		
92585912024	DUP-2	Total Radium Calculation	487499		
92585912025	MW-27D	Total Radium Calculation	487499		
92585912026	GWB-5R	Total Radium Calculation	487499		
92585912027	MW-23D	Total Radium Calculation	487499		
92585912028	MW-25D	Total Radium Calculation	487499		
92585912029	GWC-11	Total Radium Calculation	487499		
92585912030	GWC-22	Total Radium Calculation	487499		
92585912031	FB-3	Total Radium Calculation	487499		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GRUMMAN ROAD LANDFILL RAD  
Pace Project No.: 92585912

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92585912032	DUP-3	Total Radium Calculation	487499		

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### REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

Client Name:

EPA Power

Project #:

WO#: 92585912



Courier:  Fed Ex  UPS  USPS  Client  
 Commercial  Pace  Other \_\_\_\_\_

Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: JPE 2/21/22

Packing Material:  Bubble Wrap  Bubble Bags  None  Other  
 Thermometer:  in Gun ID 214 Type of Ice:  Dry  Blue  None

Biological Tissue Frozen?  Yes  No  N/A

Cooler Temp: 1.8 Correction Factor: Add/Subtract (°C) +1

Temp should be above freezing to 6°C  
 Samples out of temp criteria - Samples in ice, cooling process has begun

Cooler Temp Corrected (°C): 1.9

USDA Regulated Soil  N/A, water sample)  
 Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?  Yes  No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No

Comments/Discrepancy

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2
Short Hold Time Analysis (<72 hr.)?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6
Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7
Dissolved analysis: Samples Field Filtered?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8
Sample Labels Match DOC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9
Includes Date/Time/ID/Analysis Matrix: <u>GW</u>		
Headspace in YDA Vials (<3-5mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11
Trip Blank Custody Seal's Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager SCUR Review: \_\_\_\_\_ Date: \_\_\_\_\_

Project Manager SRF Review: \_\_\_\_\_ Date: \_\_\_\_\_



Document Name:  
Bottle Identification Form (BIF)  
Document No.:  
P-CAR-CS-063-Rev.01

Document Issued: November 15, 2021  
Page 1 of 1  
Issuing Authority:  
Pace Carolina Quality Office

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, CRO/B015 (water) DOC, UHg

\*\*Bottom half of box is to list number of bottles

Project #

**WO# : 92585912**

PR: NRG

Due Date: 02/24/22

CLIENT: GR-GR Power

Matrix	Brand	1	2	3	4	5	6	7	8	9	10	11	12
BP40-125 ml, Plastic Unpreserved (N/A) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
BP70-250 ml, Plastic Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP20-500 ml, Plastic Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP10-1 liter Plastic Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
BP40-125 ml, Plastic HD304 (pH < 2) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
BP20-250 ml, plastic HD304 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
BP40-125 ml, Plastic 2H Acetate & Acetic (D-9)		/	/	/	/	/	/	/	/	/	/	/	/
BP40-125 ml, Plastic No2H (pH > 12) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
W02U Wide-mouthed Glass jar Unpreserved		/	/	/	/	/	/	/	/	/	/	/	/
AG10-1 liter Amber Unpreserved (N/A) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
AG14-1 liter Amber HD (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AG10-120 ml, Amber Unpreserved (N/A) (D-1)		/	/	/	/	/	/	/	/	/	/	/	/
AG15-1 liter Amber HD304 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AG10-120 ml, Amber HD304 (pH < 2)		/	/	/	/	/	/	/	/	/	/	/	/
AG1000BAG-250 ml, Amber HDHD (N/A)(D-1)		/	/	/	/	/	/	/	/	/	/	/	/
D000-40 ml, VOA HD (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V08T-40 ml, VOA HD304 (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V08U-40 ml, VOA Unpreserved (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
D000-40 ml, VOA HD304 (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V04M (3 vials per bag)-5015 (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V05A (3 vials per bag)-V05 (Gas Air) (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
SP10-125 ml, Sterile Plastic (N/A - 10)		/	/	/	/	/	/	/	/	/	/	/	/
SP20-250 ml, Sterile Plastic (N/A - 10)		/	/	/	/	/	/	/	/	/	/	/	/
MIN													
BP1A-250 ml, Plastic (N/A)(304) (3-1-17)		/	/	/	/	/	/	/	/	/	/	/	/
AG000-500 ml, Amber Unpreserved vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
V050U-30 ml, Dechlorination vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/
D000U-40 ml, Amber Unpreserved vials (N/A)		/	/	/	/	/	/	/	/	/	/	/	/

**pH Adjustment Log for Preserved Samples**

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina District Certification Office (i.e. Out of field, incorrect preservative, out of temp, incorrect containers).



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a critical component. All required fields must be completed accurately.

Page    of   

Section A Request Information Request To: <b>ACC Concepts</b>		Section B Request Project Information Report To: <b>ACC Concepts</b>		Section C Service Information Station: <b>Seaford, CA</b>	
Requester: <b>ACC Concepts</b>		Company Name: <b>ACC Concepts</b>		Address: <b>Seaford, CA</b>	
Requester Address: <b>Seaford, CA</b>		Requester Phone: <b>(954) 380-1000</b>		Requester Email: <b>seaford@accconcepts.com</b>	
Requester Contact: <b>John Smith</b>		Requester Title: <b>Project Manager</b>		Requester Signature: <i>[Signature]</i>	
Requester Date: <b>1/31/12</b>		Requester Time: <b>10:10</b>		Requester Initials: <b>JS</b>	
Requester State: <b>CA</b>		Requester City: <b>Seaford</b>		Requester Zip: <b>92453</b>	

Section D Sample ID Requester Sample Number	Section E Total Sample Counts Matrix Code Sample Type Date Time	Section F Collected		Section G Sample Temp at Collection	Section H # of Containers	Section I Preservatives	Section J Analysis Test	Section K Requester Analysis Method (Y/N)	Section L Residual Chlorine (Y/N)	Section M Sample Conditions
		Container Type	Container Volume							
<b>GH-A-7</b>	6	11/21/11	7:15		6	✓	✓	✓	✓	None Project No./Lab ID.
<b>GH-A-8</b>	6	11/21/11	16:00		6	✓	✓	✓	✓	
<b>GH-C-11a</b>	6	11/21/11	16:00		6	✓	✓	✓	✓	
<b>GH-C-17</b>	6	11/21/11	16:00		6	✓	✓	✓	✓	
<b>GH-C-20</b>	6	11/21/11	16:00		6	✓	✓	✓	✓	
<b>GH-C-21</b>	6	11/21/11	16:00		6	✓	✓	✓	✓	
<b>MW-24D</b>	6	11/21/11	16:00		6	✓	✓	✓	✓	
<b>EB-1</b>	6	11/21/11	16:00		6	✓	✓	✓	✓	
<b>EB-1</b>	6	11/21/11	16:00		6	✓	✓	✓	✓	
<b>DNP-1</b>	6	11/21/11	16:00		6	✓	✓	✓	✓	
<b>GH-C-9</b>	6	11/21/11	16:00		6	✓	✓	✓	✓	

Section N Additional Comments		Section O Signature of Applicant		Section P Date		Section Q Time		Section R Accepted by Laboratory		Section S Date		Section T Time		Section U Sample Conditions	
		<i>[Signature]</i>		1/31/12		10:10		<i>[Signature]</i>		2/3		10:10			

Requester Name: **John Smith**  
Requester Title: **Project Manager**  
Requester Address: **Seaford, CA**

Requester Signature: *[Signature]*  
Requester Date: **1/31/12**  
Requester Time: **10:10**

Requester State: **CA**  
Requester City: **Seaford**  
Requester Zip: **92453**

# Quality Control Sample Performance Assessment

11/14/2023

Annual Health Property Compliance Assessment in 2023

Sample ID: 11/14/2023  
 Date: 11/14/2023  
 Location: 65000  
 Project: 11/14/2023

Sample ID	Date	Location	Project	Inspector
11/14/2023	11/14/2023	65000	11/14/2023	

Sample ID	Date	Location	Project	Inspector	Notes
11/14/2023	11/14/2023	65000	11/14/2023		

11/14/2023

11/14/2023



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 2/21/2022  
Worklist: 65087  
Matrix: WT

***Analyst Must Manually Enter All Fields Highlighted in Yellow.***

Method Blank Assessment		
MB Sample ID	2341235	
MB concentration:	-0.044	
M/B 2 Sigma CSU:	0.257	
MB MDC:	0.613	
MB Numerical Performance Indicator:	-0.33	
MB Status vs Numerical Indicator:	Pass	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCSD65087	LCSD65087
Count Date:	2/23/2022	2/23/2022
Spike I.D.:	21-029	21-029
Decay Corrected Spike Concentration (pCi/mL):	36.235	36.235
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.808	0.814
Target Conc. (pCi/L, g, F):	4.485	4.453
Uncertainty (Calculated):	0.220	0.218
Result (pCi/L, g, F):	3.099	3.012
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.769	0.766
Numerical Performance Indicator:	-3.40	-3.55
Percent Recovery:	69.09%	67.63%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc. (pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	LCSD65087	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD65087	
Sample Result (pCi/L, g, F):	3.099	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.769	
Sample Duplicate Result (pCi/L, g, F):	3.012	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.766	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.158	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	2.14%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:		
MS/MSD Duplicate Status vs Numerical Indicator:		
MS/MSD Duplicate Status vs RPD:		
% RPD Limit:		

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

### Quality Control Sample Performance Assessment

PERFORMANCE

Sample ID: 1000  
 Date: 10/15/2011  
 Location: 1000

Parameter	Test Method	Result	Acceptance Criteria
Moisture	ASTM D 1555	1.2%	± 0.5%
Specific Gravity	ASTM D 1555	2.65	± 0.02
Compaction	ASTM D 1555	98%	± 1%
Stabilization	ASTM D 1555	0.5%	± 0.1%

Parameter	Test Method	Result	Acceptance Criteria
Moisture	ASTM D 1555	1.2%	± 0.5%
Specific Gravity	ASTM D 1555	2.65	± 0.02
Compaction	ASTM D 1555	98%	± 1%
Stabilization	ASTM D 1555	0.5%	± 0.1%

Parameter	Test Method	Result	Acceptance Criteria
Moisture	ASTM D 1555	1.2%	± 0.5%
Specific Gravity	ASTM D 1555	2.65	± 0.02
Compaction	ASTM D 1555	98%	± 1%
Stabilization	ASTM D 1555	0.5%	± 0.1%

Comments: All test results are within the specified acceptance criteria.

Additional Remarks: Enter data only as applicable to Project

Remarks	Date	By
Moisture content is within the specified range.	10/15/2011	J. Smith
Specific gravity is within the specified range.	10/15/2011	J. Smith
Compaction is within the specified range.	10/15/2011	J. Smith
Stabilization is within the specified range.	10/15/2011	J. Smith

Remarks	Date	By
Moisture content is within the specified range.	10/15/2011	J. Smith
Specific gravity is within the specified range.	10/15/2011	J. Smith
Compaction is within the specified range.	10/15/2011	J. Smith
Stabilization is within the specified range.	10/15/2011	J. Smith

APPROVED

10/15/2011





## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: JC2  
Date: 2/18/2022  
Worklist: 65097  
Matrix: DW

**Analyst Must Manually Enter All Fields Highlighted in Yellow.**

Method Blank Assessment	
MB Sample ID	2341878
MB concentration:	0.049
M/B Counting Uncertainty:	0.052
MB MDC:	0.102
MB Numerical Performance Indicator:	1.85
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	Y
	LCS65097	LCS65097
Count Date:	3/1/2022	3/1/2022
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.029	24.029
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.507	0.506
Target Conc. (pCi/L, g, F):	4.736	4.752
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	5.079	4.939
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.501	0.477
Numerical Performance Indicator:	1.33	0.76
Percent Recovery:	107.24%	103.93%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc. (pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment	LCS65097	92585912020
Sample I.D.:	LCS65097	92585912020
Duplicate Sample I.D.:	LCS65097	92585912020DUP
Sample Result (pCi/L, g, F):	5.079	0.727
Sample Result Counting Uncertainty (pCi/L, g, F):	0.501	0.139
Sample Duplicate Result (pCi/L, g, F):	4.939	0.798
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.477	0.203
Are sample and/or duplicate results below RL?	NO	See Below ##
Duplicate Numerical Performance Indicator:	0.396	-0.564
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	3.13%	9.31%
Duplicate Status vs Numerical Indicator:	N/A	N/A
Duplicate Status vs RPD:	Pass	Pass
% RPD Limit:	25%	25%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	MS/MSD 1	MS/MSD 2
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:		
MS/MSD Duplicate Status vs Numerical Indicator:		
MS/MSD Duplicate Status vs RPD:		
% RPD Limit:		

## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

February 22, 2022

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: GRUMMAN CLIFTON SEEP  
Pace Project No.: 92585967

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on February 03, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Eden
- Pace Analytical Services - Peachtree Corners, GA
- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Anna Bottum, ERM  
Andrea Brazell, ERM  
Owens Fuquea, ACC  
Monte Jones, Atlantic Coast Consulting, Inc.  
Kristen Jurinko  
Matt Malone, Atlantic Coast Consulting  
Betsy McDaniel, Atlantic Coast Consulting  
Ms. Lauren Petty, Southern Company  
Lacy Smith, ERM

Caitlin Tillema, ERM  
Christine Weaver, ERM



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: GRUMMAN CLIFTON SEEP

Pace Project No.: 92585967

#### Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414  
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab

- A2LA Certification #: 2926.01\*
- Alabama Certification #: 40770
- Alaska Contaminated Sites Certification #: 17-009\*
- Alaska DW Certification #: MN00064
- Arizona Certification #: AZ0014\*
- Arkansas DW Certification #: MN00064
- Arkansas WW Certification #: 88-0680
- California Certification #: 2929
- Colorado Certification #: MN00064
- Connecticut Certification #: PH-0256
- EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
- Florida Certification #: E87605\*
- Georgia Certification #: 959
- Hawaii Certification #: MN00064
- Idaho Certification #: MN00064
- Illinois Certification #: 200011
- Indiana Certification #: C-MN-01
- Iowa Certification #: 368
- Kansas Certification #: E-10167
- Kentucky DW Certification #: 90062
- Kentucky WW Certification #: 90062
- Louisiana DEQ Certification #: AI-03086\*
- Louisiana DW Certification #: MN00064
- Maine Certification #: MN00064\*
- Maryland Certification #: 322
- Michigan Certification #: 9909
- Minnesota Certification #: 027-053-137\*
- Minnesota Dept of Ag Approval: via MN 027-053-137
- Minnesota Petrofund Registration #: 1240\*
- Mississippi Certification #: MN00064

- Missouri Certification #: 10100
  - Montana Certification #: CERT0092
  - Nebraska Certification #: NE-OS-18-06
  - Nevada Certification #: MN00064
  - New Hampshire Certification #: 2081\*
  - New Jersey Certification #: MN002
  - New York Certification #: 11647\*
  - North Carolina DW Certification #: 27700
  - North Carolina WW Certification #: 530
  - North Dakota Certification #: R-036
  - Ohio DW Certification #: 41244
  - Ohio VAP Certification (1700) #: CL101
  - Ohio VAP Certification (1800) #: CL110\*
  - Oklahoma Certification #: 9507\*
  - Oregon Primary Certification #: MN300001
  - Oregon Secondary Certification #: MN200001\*
  - Pennsylvania Certification #: 68-00563\*
  - Puerto Rico Certification #: MN00064
  - South Carolina Certification #:74003001
  - Tennessee Certification #: TN02818
  - Texas Certification #: T104704192\*
  - Utah Certification #: MN00064\*
  - Vermont Certification #: VT-027053137
  - Virginia Certification #: 460163\*
  - Washington Certification #: C486\*
  - West Virginia DEP Certification #: 382
  - West Virginia DW Certification #: 9952 C
  - Wisconsin Certification #: 999407970
  - Wyoming UST Certification #: via A2LA 2926.01
  - USDA Permit #: P330-19-00208
- \*Please Note: Applicable air certifications are denoted with an asterisk (\*).

#### Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006  
9800 Kinney Ave. Ste 100, Huntersville, NC 28078  
North Carolina Drinking Water Certification #: 37706  
North Carolina Field Services Certification #: 5342  
North Carolina Wastewater Certification #: 12  
South Carolina Laboratory ID: 99006

- South Carolina Certification #: 99006001
- South Carolina Drinking Water Cert. #: 99006003
- Florida/NELAP Certification #: E87627
- Kentucky UST Certification #: 84
- Louisiana DoH Drinking Water #: LA029
- Virginia/VELAP Certification #: 460221

#### Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804  
Florida/NELAP Certification #: E87648  
North Carolina Drinking Water Certification #: 37712  
North Carolina Wastewater Certification #: 40

- South Carolina Laboratory ID: 99030
- South Carolina Certification #: 99030001
- Virginia/VELAP Certification #: 460222

#### Pace Analytical Services Eden

205 East Meadow Road Suite A, Eden, NC 27288  
North Carolina Drinking Water Certification #: 37738

- North Carolina Wastewater Certification #: 633
- Virginia/VELAP Certification #: 460025

### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: GRUMMAN CLIFTON SEEP

Pace Project No.: 92585967

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**Pace Analytical Services Peachtree Corners**

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: GRUMMAN CLIFTON SEEP  
Pace Project No.: 92585967

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92585967001	CLIFTON SEEP	Water	02/02/22 11:45	02/03/22 10:10

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: GRUMMAN CLIFTON SEEP

Pace Project No.: 92585967

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92585967001	CLIFTON SEEP	EPA 350.1 Rev 2.0 1993	AMI	1	PASI-E
		RSK 175 Modified	MAD	1	PASI-C
		EPA 6010D	KH	6	PASI-GA
		EPA 6020B	CW1	15	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		SM 2540C-2015	ALW	1	PASI-GA
		SM 2320B	AR3	3	PASI-M
		EPA 300.0 Rev 2.1 1993	JCM	4	PASI-A
		EPA 351.2 Rev 2.0 1993	MFO	1	PASI-A
		SM 5310B-2011	MDW	1	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-C = Pace Analytical Services - Charlotte

PASI-E = Pace Analytical Services - Eden

PASI-GA = Pace Analytical Services - Peachtree Corners, GA

PASI-M = Pace Analytical Services - Minneapolis

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: GRUMMAN CLIFTON SEEP

Pace Project No.: 92585967

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92585967001</b>	<b>CLIFTON SEEP</b>					
EPA 350.1 Rev 2.0 1993	Nitrogen, Ammonia	12.3	mg/L	0.50	02/07/22 12:41	
	Performed by	CUSTOMER			02/03/22 12:34	
	pH	8.78	Std. Units		02/03/22 12:34	
RSK 175 Modified	Methane	20.8	ug/L	10.0	02/04/22 13:31	
EPA 6010D	Sodium	1360	mg/L	10.0	02/14/22 13:30	
EPA 6010D	Iron	0.62	mg/L	0.040	02/13/22 19:34	
EPA 6010D	Manganese	0.055	mg/L	0.040	02/13/22 19:34	
EPA 6010D	Potassium	206	mg/L	0.20	02/13/22 19:34	
EPA 6010D	Calcium	25.7	mg/L	1.0	02/13/22 19:34	
EPA 6010D	Magnesium	72.4	mg/L	0.050	02/13/22 19:34	
EPA 6020B	Arsenic	0.014J	mg/L	0.025	02/14/22 19:51	D3
EPA 6020B	Barium	0.59	mg/L	0.025	02/14/22 19:51	
EPA 6020B	Boron	60.1	mg/L	1.0	02/14/22 19:57	
EPA 6020B	Chromium	0.014J	mg/L	0.025	02/14/22 19:51	D3
EPA 6020B	Cobalt	0.0041J	mg/L	0.025	02/14/22 19:51	D3
EPA 6020B	Lithium	0.51	mg/L	0.15	02/14/22 19:51	
SM 2540C-2015	Total Dissolved Solids	3400	mg/L	200	02/07/22 17:22	
SM 2320B	Alkalinity, Total as CaCO3	3250	mg/L	5.0	02/10/22 16:34	
SM 2320B	Alkalinity,Bicarbonate (CaCO3)	2610	mg/L	5.0	02/10/22 16:34	
SM 2320B	Alkalinity,Carbonate (CaCO3)	638	mg/L	5.0	02/10/22 16:34	
EPA 300.0 Rev 2.1 1993	Chloride	222	mg/L	5.0	02/05/22 11:47	
EPA 300.0 Rev 2.1 1993	Fluoride	0.96	mg/L	0.10	02/05/22 10:47	
EPA 300.0 Rev 2.1 1993	Nitrate as N	1.1	mg/L	0.10	02/05/22 10:47	H1
EPA 300.0 Rev 2.1 1993	Sulfate	1.1	mg/L	1.0	02/05/22 10:47	
EPA 351.2 Rev 2.0 1993	Nitrogen, Kjeldahl, Total	18.8	mg/L	0.50	02/13/22 11:23	
SM 5310B-2011	Total Organic Carbon	122	mg/L	5.0	02/09/22 21:55	M1

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### ANALYTICAL RESULTS

Project: GRUMMAN CLIFTON SEEP

Pace Project No.: 92585967

**Sample: CLIFTON SEEP**      **Lab ID: 92585967001**      Collected: 02/02/22 11:45      Received: 02/03/22 10:10      Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>350.1 Ammonia EDN</b>									
Analytical Method: EPA 350.1 Rev 2.0 1993									
Pace Analytical Services - Eden									
Nitrogen, Ammonia	12.3	mg/L	0.50	0.14	5		02/07/22 12:41	7664-41-7	
<b>Field Data</b>									
Analytical Method:									
Pace Analytical Services - Charlotte									
Performed by	<b>CUSTOMER</b>				1		02/03/22 12:34		
pH	8.78	Std. Units			1		02/03/22 12:34		
<b>RSK 175 Headspace</b>									
Analytical Method: RSK 175 Modified									
Pace Analytical Services - Charlotte									
Methane	20.8	ug/L	10.0	3.4	1		02/04/22 13:31	74-82-8	
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D      Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Sodium	1360	mg/L	10.0	5.8	10	02/12/22 08:57	02/14/22 13:30	7440-23-5	
Iron	0.62	mg/L	0.040	0.025	1	02/12/22 08:57	02/13/22 19:34	7439-89-6	
Manganese	0.055	mg/L	0.040	0.0043	1	02/12/22 08:57	02/13/22 19:34	7439-96-5	
Potassium	206	mg/L	0.20	0.15	1	02/12/22 08:57	02/13/22 19:34	7440-09-7	
Calcium	25.7	mg/L	1.0	0.12	1	02/12/22 08:57	02/13/22 19:34	7440-70-2	
Magnesium	72.4	mg/L	0.050	0.012	1	02/12/22 08:57	02/13/22 19:34	7439-95-4	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B      Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.015	0.0039	5	02/11/22 10:29	02/14/22 19:51	7440-36-0	D3
Arsenic	0.014J	mg/L	0.025	0.0057	5	02/11/22 10:29	02/14/22 19:51	7440-38-2	D3
Barium	0.59	mg/L	0.025	0.0034	5	02/11/22 10:29	02/14/22 19:51	7440-39-3	
Beryllium	ND	mg/L	0.0025	0.00027	5	02/11/22 10:29	02/14/22 19:51	7440-41-7	D3
Boron	60.1	mg/L	1.0	0.22	25	02/11/22 10:29	02/14/22 19:57	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00057	5	02/11/22 10:29	02/14/22 19:51	7440-43-9	D3
Chromium	0.014J	mg/L	0.025	0.0055	5	02/11/22 10:29	02/14/22 19:51	7440-47-3	D3
Cobalt	0.0041J	mg/L	0.025	0.0020	5	02/11/22 10:29	02/14/22 19:51	7440-48-4	D3
Lead	ND	mg/L	0.0050	0.0044	5	02/11/22 10:29	02/14/22 19:51	7439-92-1	D3
Lithium	0.51	mg/L	0.15	0.0036	5	02/11/22 10:29	02/14/22 19:51	7439-93-2	
Molybdenum	ND	mg/L	0.050	0.0037	5	02/11/22 10:29	02/14/22 19:51	7439-98-7	D3
Selenium	ND	mg/L	0.025	0.0068	5	02/11/22 10:29	02/14/22 19:51	7782-49-2	D3
Thallium	ND	mg/L	0.0050	0.00090	5	02/11/22 10:29	02/14/22 19:51	7440-28-0	D3
Vanadium	ND	mg/L	0.050	0.0093	5	02/11/22 10:29	02/14/22 19:51	7440-62-2	D3
Zinc	ND	mg/L	0.050	0.035	5	02/11/22 10:29	02/14/22 19:51	7440-66-6	D3
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A      Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.00013	1	02/09/22 11:00	02/09/22 16:49	7439-97-6	

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### ANALYTICAL RESULTS

Project: GRUMMAN CLIFTON SEEP

Pace Project No.: 92585967

Sample: CLIFTON SEEP      Lab ID: 92585967001      Collected: 02/02/22 11:45      Received: 02/03/22 10:10      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C-2015									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>3400</b>	mg/L	200	200	1		02/07/22 17:22		
<b>2320B Alkalinity</b>									
Analytical Method: SM 2320B									
Pace Analytical Services - Minneapolis									
Alkalinity, Total as CaCO3	<b>3250</b>	mg/L	5.0	1.8	1		02/10/22 16:34		
Alkalinity,Bicarbonate (CaCO3)	<b>2610</b>	mg/L	5.0	1.8	1		02/10/22 16:34		
Alkalinity,Carbonate (CaCO3)	<b>638</b>	mg/L	5.0	1.8	1		02/10/22 16:34		
<b>300.0 IC anions 48hr</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>222</b>	mg/L	5.0	3.0	5		02/05/22 11:47	16887-00-6	
Fluoride	<b>0.96</b>	mg/L	0.10	0.050	1		02/05/22 10:47	16984-48-8	
Nitrate as N	<b>1.1</b>	mg/L	0.10	0.060	1		02/05/22 10:47	14797-55-8	H1
Sulfate	<b>1.1</b>	mg/L	1.0	0.50	1		02/05/22 10:47	14808-79-8	
<b>351.2 Total Kjeldahl Nitrogen</b>									
Analytical Method: EPA 351.2 Rev 2.0 1993      Preparation Method: EPA 351.2 Rev 2.0 1993									
Pace Analytical Services - Asheville									
Nitrogen, Kjeldahl, Total	<b>18.8</b>	mg/L	0.50	0.25	1	02/11/22 18:59	02/13/22 11:23	7727-37-9	
<b>5310B WVA Nonpurgeable Organic</b>									
Analytical Method: SM 5310B-2011									
Pace Analytical Services - Asheville									
Total Organic Carbon	<b>122</b>	mg/L	5.0	2.5	5		02/09/22 21:55	7440-44-0	M1

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP  
 Pace Project No.: 92585967

QC Batch: 676081 Analysis Method: EPA 350.1 Rev 2.0 1993  
 QC Batch Method: EPA 350.1 Rev 2.0 1993 Analysis Description: 350.1 Ammonia, EDN  
 Laboratory: Pace Analytical Services - Eden

Associated Lab Samples: 92585967001

METHOD BLANK: 3538695 Matrix: Water  
 Associated Lab Samples: 92585967001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	0.031J	0.10	0.027	02/07/22 11:09	

LABORATORY CONTROL SAMPLE: 3538696

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.1	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3538697 3538698

Parameter	Units	92585752002		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Nitrogen, Ammonia	mg/L	ND	5	5	5.3	5.2	103	103	90-110	0	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3538699 3538700

Parameter	Units	92585754001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Nitrogen, Ammonia	mg/L	1.7	5	5	6.4	6.6	93	98	90-110	3	10		

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP  
 Pace Project No.: 92585967

QC Batch: 676108	Analysis Method: RSK 175 Modified
QC Batch Method: RSK 175 Modified	Analysis Description: RSK 175 HEADSPACE
	Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92585967001

METHOD BLANK: 3538883 Matrix: Water  
 Associated Lab Samples: 92585967001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methane	ug/L	ND	10.0	3.4	02/04/22 13:01	

LABORATORY CONTROL SAMPLE: 3538884

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Methane	ug/L	396	398	100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3539308 3539309

Parameter	Units	3539308		3539309		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Methane	ug/L	20.8	396	396	387	407	93	97	70-130	5	20	

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP

Pace Project No.: 92585967

QC Batch: 677807

Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A

Analysis Description: 6010D ATL

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92585967001

METHOD BLANK: 3547708

Matrix: Water

Associated Lab Samples: 92585967001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/13/22 17:30	
Iron	mg/L	ND	0.040	0.025	02/13/22 17:30	
Magnesium	mg/L	ND	0.050	0.012	02/13/22 17:30	
Manganese	mg/L	ND	0.040	0.0043	02/13/22 17:30	
Potassium	mg/L	ND	0.20	0.15	02/13/22 17:30	
Sodium	mg/L	ND	1.0	0.58	02/13/22 17:30	

LABORATORY CONTROL SAMPLE: 3547709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	107	80-120	
Iron	mg/L	1	0.99	99	80-120	
Magnesium	mg/L	1	1.0	103	80-120	
Manganese	mg/L	1	1.0	100	80-120	
Potassium	mg/L	1	0.95	95	80-120	
Sodium	mg/L	1	1.1	110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3547710 3547711

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92585717001 Result	Spike Conc.	Spike Conc.	Result						
Calcium	mg/L	4.4	1	1	5.3	5.3	94	88	75-125	1	20
Iron	mg/L	0.13	1	1	1.1	1.1	102	98	75-125	3	20
Magnesium	mg/L	4.0	1	1	5.0	4.8	100	87	75-125	3	20
Manganese	mg/L	0.052	1	1	1.1	1.0	102	99	75-125	3	20
Potassium	mg/L	0.29	1	1	1.4	1.4	109	110	75-125	1	20
Sodium	mg/L	3.1	1	1	4.1	4.1	104	99	75-125	1	20

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP  
 Pace Project No.: 92585967

QC Batch: 677647 Analysis Method: EPA 6020B  
 QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
 Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92585967001

METHOD BLANK: 3546468 Matrix: Water  
 Associated Lab Samples: 92585967001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00078J	0.0030	0.00078	02/14/22 14:43	
Arsenic	mg/L	ND	0.0050	0.0011	02/14/22 14:43	
Barium	mg/L	ND	0.0050	0.00067	02/14/22 14:43	
Beryllium	mg/L	ND	0.00050	0.000054	02/14/22 14:43	
Boron	mg/L	ND	0.040	0.0086	02/14/22 14:43	
Cadmium	mg/L	ND	0.00050	0.00011	02/14/22 14:43	
Chromium	mg/L	ND	0.0050	0.0011	02/14/22 14:43	
Cobalt	mg/L	ND	0.0050	0.00039	02/14/22 14:43	
Lead	mg/L	ND	0.0010	0.00089	02/14/22 14:43	
Lithium	mg/L	ND	0.030	0.00073	02/14/22 14:43	
Molybdenum	mg/L	ND	0.010	0.00074	02/14/22 14:43	
Selenium	mg/L	ND	0.0050	0.0014	02/14/22 14:43	
Thallium	mg/L	ND	0.0010	0.00018	02/14/22 14:43	
Vanadium	mg/L	ND	0.010	0.0019	02/14/22 14:43	
Zinc	mg/L	ND	0.010	0.0070	02/14/22 14:43	

LABORATORY CONTROL SAMPLE: 3546469

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	109	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.11	107	80-120	
Chromium	mg/L	0.1	0.11	107	80-120	
Cobalt	mg/L	0.1	0.11	108	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	
Vanadium	mg/L	0.1	0.11	105	80-120	
Zinc	mg/L	0.1	0.10	105	80-120	

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP

Pace Project No.: 92585967

Parameter	Units	92585058023		3546470		3546471		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Antimony	mg/L	0.027	0.1	0.1	0.13	0.14	107	110	75-125	3	20			
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	102	104	75-125	1	20			
Barium	mg/L	0.049	0.1	0.1	0.16	0.17	115	119	75-125	3	20			
Beryllium	mg/L	ND	0.1	0.1	0.095	0.097	95	97	75-125	2	20			
Boron	mg/L	0.021J	1	1	0.95	0.96	93	94	75-125	1	20			
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	105	105	75-125	0	20			
Chromium	mg/L	0.0011J	0.1	0.1	0.10	0.10	104	100	75-125	3	20			
Cobalt	mg/L	ND	0.1	0.1	0.10	0.095	100	95	75-125	6	20			
Lead	mg/L	ND	0.1	0.1	0.094	0.095	94	95	75-125	0	20			
Lithium	mg/L	0.010J	0.1	0.1	0.10	0.10	94	93	75-125	1	20			
Molybdenum	mg/L	0.0041J	0.1	0.1	0.11	0.11	105	106	75-125	1	20			
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	99	102	75-125	3	20			
Thallium	mg/L	ND	0.1	0.1	0.096	0.098	96	98	75-125	2	20			
Vanadium	mg/L	ND	0.1	0.1	0.11	0.10	106	101	75-125	5	20			
Zinc	mg/L	0.029	0.1	0.1	0.13	0.12	100	93	75-125	5	20			

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP

Pace Project No.: 92585967

QC Batch: 677024	Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A	Analysis Description: 7470 Mercury
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92585967001

METHOD BLANK: 3543214 Matrix: Water

Associated Lab Samples: 92585967001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/09/22 15:30	

LABORATORY CONTROL SAMPLE: 3543215

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3543216 3543217

Parameter	Units	3543216		3543217		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	92585717001 ND	0.0025	0.0025	0.0025	0.0024	98	95	75-125	4	20

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP

Pace Project No.: 92585967

QC Batch: 676439	Analysis Method: SM 2540C-2015
QC Batch Method: SM 2540C-2015	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92585967001

METHOD BLANK: 3540519 Matrix: Water  
 Associated Lab Samples: 92585967001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	02/07/22 17:19	

LABORATORY CONTROL SAMPLE: 3540520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	374	94	80-120	

SAMPLE DUPLICATE: 3540521

Parameter	Units	92585555019 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	180	181	1	25	

SAMPLE DUPLICATE: 3540522

Parameter	Units	92585920011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	96.0	94.0	2	25	

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### QUALITY CONTROL DATA

Project: GRUMMAN CLIFTON SEEP  
 Pace Project No.: 92585967

QC Batch: 798120 Analysis Method: SM 2320B  
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity  
 Laboratory: Pace Analytical Services - Minneapolis  
 Associated Lab Samples: 92585967001

METHOD BLANK: 4240836 Matrix: Water  
 Associated Lab Samples: 92585967001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	1.8	02/10/22 14:25	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	1.8	02/10/22 14:25	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	1.8	02/10/22 14:25	

LABORATORY CONTROL SAMPLE & LCSD: 4240837 4240838

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40	40.3	40.3	101	101	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4240839 4240840

Parameter	Units	92585979009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	3.2J	40	40	45.9	45.7	107	106	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4240841 4240842

Parameter	Units	10596592002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	16.2	40	40	58.1	58.3	105	105	80-120	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP

Pace Project No.: 92585967

QC Batch: 676244	Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993	Analysis Description: 300.0 IC Anions
	Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92585967001

METHOD BLANK: 3539726 Matrix: Water

Associated Lab Samples: 92585967001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	02/05/22 10:17	
Fluoride	mg/L	ND	0.10	0.050	02/05/22 10:17	
Nitrate as N	mg/L	ND	0.10	0.060	02/05/22 10:17	
Sulfate	mg/L	ND	1.0	0.50	02/05/22 10:17	

LABORATORY CONTROL SAMPLE: 3539727

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.0	96	90-110	
Fluoride	mg/L	2.5	2.3	91	90-110	
Nitrate as N	mg/L	2.5	2.3	90	90-110	
Sulfate	mg/L	50	46.8	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3539728 3539729

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92586261001 Result	Spike Conc.	Spike Conc.	Result						
Chloride	mg/L	23.1	50	50	71.9	73.1	98	100	90-110	2	10
Fluoride	mg/L	0.42	2.5	2.5	3.1	3.1	106	109	90-110	2	10
Nitrate as N	mg/L	0.29	2.5	2.5	2.8	2.8	99	101	90-110	2	10
Sulfate	mg/L	10.1	50	50	58.9	60.2	98	100	90-110	2	10

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP  
 Pace Project No.: 92585967

QC Batch: 677687 Analysis Method: EPA 351.2 Rev 2.0 1993  
 QC Batch Method: EPA 351.2 Rev 2.0 1993 Analysis Description: 351.2 TKN  
 Laboratory: Pace Analytical Services - Asheville  
 Associated Lab Samples: 92585967001

METHOD BLANK: 3546782 Matrix: Water  
 Associated Lab Samples: 92585967001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	0.50	0.25	02/13/22 11:00	

LABORATORY CONTROL SAMPLE: 3546783

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	10	10.9	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3546784 3546785

Parameter	Units	92585933001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Conc.	Result	Result	% Rec	% Rec				
Nitrogen, Kjeldahl, Total	mg/L	14.3	10	10	28.8	31.3	145	170	90-110	8	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3546786 3546787

Parameter	Units	92585935001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Spike Conc.	Spike Conc.	Conc.	Result	Result	% Rec	% Rec				
Nitrogen, Kjeldahl, Total	mg/L	2.7	10	10	14.7	13.9	120	112	90-110	6	10	M1	

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**QUALITY CONTROL DATA**

Project: GRUMMAN CLIFTON SEEP

Pace Project No.: 92585967

QC Batch: 677158	Analysis Method: SM 5310B-2011
QC Batch Method: SM 5310B-2011	Analysis Description: 5310B WVA Nonpurgeable Organic Carbon
	Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92585967001

METHOD BLANK: 3544114 Matrix: Water

Associated Lab Samples: 92585967001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	0.50	02/09/22 20:34	

LABORATORY CONTROL SAMPLE: 3544115

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	25	24.2	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3544116 3544117

Parameter	Units	3544116		3544117		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Total Organic Carbon	mg/L	32.4	25	52.2	25	79	88	90-110	4	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3544118 3544119

Parameter	Units	3544118		3544119		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Total Organic Carbon	mg/L	122	25	138	25	63	41	90-110	4	10	M1

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## QUALIFIERS

Project: GRUMMAN CLIFTON SEEP

Pace Project No.: 92585967

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H1 Analysis conducted outside the EPA method holding time.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: GRUMMAN CLIFTON SEEP  
 Pace Project No.: 92585967

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92585967001	CLIFTON SEEP	EPA 350.1 Rev 2.0 1993	676081		
92585967001	CLIFTON SEEP				
92585967001	CLIFTON SEEP	RSK 175 Modified	676108		
92585967001	CLIFTON SEEP	EPA 3010A	677807	EPA 6010D	677941
92585967001	CLIFTON SEEP	EPA 3005A	677647	EPA 6020B	677773
92585967001	CLIFTON SEEP	EPA 7470A	677024	EPA 7470A	677121
92585967001	CLIFTON SEEP	SM 2540C-2015	676439		
92585967001	CLIFTON SEEP	SM 2320B	798120		
92585967001	CLIFTON SEEP	EPA 300.0 Rev 2.1 1993	676244		
92585967001	CLIFTON SEEP	EPA 351.2 Rev 2.0 1993	677687	EPA 351.2 Rev 2.0 1993	677886
92585967001	CLIFTON SEEP	SM 5310B-2011	677158		

**REPORT OF LABORATORY ANALYSIS**

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Document Name:  
Sample Condition Upon Receipt (SCUR)  
Document No.:  
F-CAR-CL-013-Rev.08

Document Revised: November 15, 2011  
Page 1 of 2  
Issuing Authority:  
Face Carolina Quality Office

Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition Upon Receipt

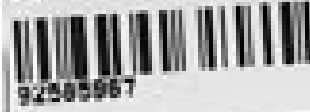
Client Name:

EIA Power

Project #:

**WO# : 92585967**

Courier:  Fed Ex  UPS  USPS  Client  
 Commercial  Pace  Other \_\_\_\_\_



Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initial Person Examining Contents: JRE 2/2/22

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?  Yes  No  N/A

Thermometer:  IR Gun ID: 214 Type of Ice:  Dry  Blue  None

Cooler Temp: 1.8 Correction Factor: Add/Subtract (°C) + .1

Temp should be above freezing to 6°C  
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.9

USDA Regulated Soil?  N/A, water sample

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?  Yes  No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No

			Comments/Discrepancy
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	3.	
Rich Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Face Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix: <u>GW</u>			
Headspace in YOA Vials (>3-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seal's Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

(of ID of split containers)

CLIENT NOTIFICATION/RESOLUTION

Person contacted \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager SCUR Review \_\_\_\_\_ Date: \_\_\_\_\_

Project Manager SRF Review \_\_\_\_\_ Date: \_\_\_\_\_



Document Name:  
Bottle Identification Form (BIF)

Document Issued: November 15, 2021  
Page 1 of 1

Document No.:  
F-CAR-CS-043-Rev.01

Issuing Authority:  
Pace Carolina Quality Office

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Project # **W0# : 92585967**

PR: NYS Due Date: 02/17/22

CLIENT: CA-CA Power

Exceptions: VOA, Coliform, TOC, Oil and Grease, CRD/B015 (water) DOC, UHG

\*\*Bottom half of box is to list number of bottles

Muscle	Sample	Method
	1	BP00-125 ml, Plastic Unpreserved (N/A) (D-1)
	2	BP00-125 ml, Plastic Unpreserved (N/A)
	3	BP00-125 ml, Plastic Unpreserved (N/A)
	4	BP10-1 liter Plastic Unpreserved (N/A)
	5	BP00-125 ml, Plastic H2SO4 (pH < 2) (D-1)
	6	BP00-125 ml, plastic HNO3 (pH < 2)
	7	BP00-125 ml, Plastic 2% Acetate & NaOH (N/A)
	8	BP00-125 ml, Plastic NaOH (pH < 12) (D-1)
	9	VOGA-Wide-mouthed Glass Jar Unpreserved
	10	AG10-1 liter Amber Unpreserved (N/A) (D-1)
	11	AG10-1 liter Amber HCl (pH < 2)
	12	AG10-125 ml, Amber Unpreserved (N/A) (D-1)
	13	AG10-1 liter Amber HNO4 (pH < 2)
	14	AG10-125 ml, Amber H2SO4 (pH < 2)
	15	AG10-125 ml, Amber HNO3 (pH < 2)
	16	AG10-125 ml, Amber HNO4 (pH < 2)
	17	AG10-125 ml, Amber HNO4 (pH < 2)
	18	DO00-40 ml, VOA HCl (N/A)
	19	VO00-40 ml, VOA H2SO4 (N/A)
	20	VO00-40 ml, VOA Unpreserved (N/A)
	21	DO00-40 ml, VOA HNO4 (N/A)
	22	VO00 (3 vials per trip)-S015 kit (N/A)
	23	VO00 (3 vials per trip)-verification kit (N/A)
	24	SP00-125 ml, Sterile Plastic (N/A - kit)
	25	SP00-125 ml, Sterile Plastic (N/A - kit)
	26	BP10-1 liter Plastic (N/A - kit)
	27	BP10-1 liter Plastic (N/A - kit)
	28	BP10-1 liter Plastic (N/A - kit)
	29	BP10-1 liter Plastic (N/A - kit)
	30	BP10-1 liter Plastic (N/A - kit)
	31	BP10-1 liter Plastic (N/A - kit)
	32	BP10-1 liter Plastic (N/A - kit)

**pH Adjustment Log for Preserved Samples**

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #
W0# 92585967	H2SO4	7	2/3/22	10:49	2.5ml	172021-21091
W0# 92585967	HNO3	7	2/3/22	10:49	2.5ml	172021-21092

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHQ Certification Office if it is out of hold, incorrect preservative, out of temp, incorrect containers.





**CHAIN-OF-CUSTODY / Analytical Request Document**  
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page 21 of 21

Section A Requester Information Request to: <b>SCS Controls</b> Company Name: <b>SCS Controls</b> Address: <b>Atlanta, GA</b>		Section B Requested Analytical Information Request to: <b>SCS Controls</b> Company Name: <b>ACC Controls</b>		Section C Sample Information Sample Name: <b>Overman Cotton Swaps</b> Sample Number: <b>1010</b>		Section D Regulatory Agency Agency Name: <b>GA</b> Agency Address: <b>GA</b>	
Section E Requester Signature <i>[Signature]</i> Date: <b>2/2/22</b>		Section F Requested Analytical Method (Y/N)		Section G Sample Temperature (Y/N)		Section H Residual Chlorine (Y/N)	

Section B Requested Analytical Information	Section C Sample Information	Section D Regulatory Agency	Section E Requester Signature	Section F Requested Analytical Method (Y/N)	Section G Sample Temperature (Y/N)	Section H Residual Chlorine (Y/N)
<b>SAMPLE ID</b> P-2-02 / 1 Sample to be analyzed	<b>MATRIX CODE</b> WT <b>SAMPLE TYPE</b> ID=DRAB C=COMP Date: <b>2/2/22</b>	<b># OF CONTAINERS</b> <input checked="" type="checkbox"/> Unpreserved <input type="checkbox"/> Preserved <input type="checkbox"/> Other	<b>ANALYSIS TEST #</b> <input checked="" type="checkbox"/> TOC <input type="checkbox"/> Chloride/Sulfide <input type="checkbox"/> Nitrate <input type="checkbox"/> Ammonia (total), turb, float <input type="checkbox"/> Ammonia / TOC <input type="checkbox"/> TOC <input type="checkbox"/> App. (H2O) + Perm + Date (H2O) + <input type="checkbox"/> Sulf. Comp <input type="checkbox"/> Dissolved Metals	<b>Requested Analytical Method (Y/N)</b> <input checked="" type="checkbox"/> TOC <input type="checkbox"/> Chloride/Sulfide <input type="checkbox"/> Nitrate <input type="checkbox"/> Ammonia (total), turb, float <input type="checkbox"/> Ammonia / TOC <input type="checkbox"/> TOC <input type="checkbox"/> App. (H2O) + Perm + Date (H2O) + <input type="checkbox"/> Sulf. Comp <input type="checkbox"/> Dissolved Metals	<b>Sample Temperature (Y/N)</b> <input checked="" type="checkbox"/> TOC <input type="checkbox"/> Chloride/Sulfide <input type="checkbox"/> Nitrate <input type="checkbox"/> Ammonia (total), turb, float <input type="checkbox"/> Ammonia / TOC <input type="checkbox"/> TOC <input type="checkbox"/> App. (H2O) + Perm + Date (H2O) + <input type="checkbox"/> Sulf. Comp <input type="checkbox"/> Dissolved Metals	<b>Residual Chlorine (Y/N)</b> <input checked="" type="checkbox"/> TOC <input type="checkbox"/> Chloride/Sulfide <input type="checkbox"/> Nitrate <input type="checkbox"/> Ammonia (total), turb, float <input type="checkbox"/> Ammonia / TOC <input type="checkbox"/> TOC <input type="checkbox"/> App. (H2O) + Perm + Date (H2O) + <input type="checkbox"/> Sulf. Comp <input type="checkbox"/> Dissolved Metals

Section A Requester Information	Section B Requested Analytical Information	Section C Sample Information	Section D Regulatory Agency	Section E Requester Signature	Section F Requested Analytical Method (Y/N)	Section G Sample Temperature (Y/N)	Section H Residual Chlorine (Y/N)
<b>SAMPLE ID</b> P-2-02 / 1 Sample to be analyzed	<b>MATRIX CODE</b> WT <b>SAMPLE TYPE</b> ID=DRAB C=COMP Date: <b>2/2/22</b>	<b># OF CONTAINERS</b> <input checked="" type="checkbox"/> Unpreserved <input type="checkbox"/> Preserved <input type="checkbox"/> Other	<b>ANALYSIS TEST #</b> <input checked="" type="checkbox"/> TOC <input type="checkbox"/> Chloride/Sulfide <input type="checkbox"/> Nitrate <input type="checkbox"/> Ammonia (total), turb, float <input type="checkbox"/> Ammonia / TOC <input type="checkbox"/> TOC <input type="checkbox"/> App. (H2O) + Perm + Date (H2O) + <input type="checkbox"/> Sulf. Comp <input type="checkbox"/> Dissolved Metals	<b>Requested Analytical Method (Y/N)</b> <input checked="" type="checkbox"/> TOC <input type="checkbox"/> Chloride/Sulfide <input type="checkbox"/> Nitrate <input type="checkbox"/> Ammonia (total), turb, float <input type="checkbox"/> Ammonia / TOC <input type="checkbox"/> TOC <input type="checkbox"/> App. (H2O) + Perm + Date (H2O) + <input type="checkbox"/> Sulf. Comp <input type="checkbox"/> Dissolved Metals	<b>Sample Temperature (Y/N)</b> <input checked="" type="checkbox"/> TOC <input type="checkbox"/> Chloride/Sulfide <input type="checkbox"/> Nitrate <input type="checkbox"/> Ammonia (total), turb, float <input type="checkbox"/> Ammonia / TOC <input type="checkbox"/> TOC <input type="checkbox"/> App. (H2O) + Perm + Date (H2O) + <input type="checkbox"/> Sulf. Comp <input type="checkbox"/> Dissolved Metals	<b>Residual Chlorine (Y/N)</b> <input checked="" type="checkbox"/> TOC <input type="checkbox"/> Chloride/Sulfide <input type="checkbox"/> Nitrate <input type="checkbox"/> Ammonia (total), turb, float <input type="checkbox"/> Ammonia / TOC <input type="checkbox"/> TOC <input type="checkbox"/> App. (H2O) + Perm + Date (H2O) + <input type="checkbox"/> Sulf. Comp <input type="checkbox"/> Dissolved Metals	



March 08, 2022

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: GRUMMAN CLIFTON SEEP RAD  
Pace Project No.: 92585918

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on February 03, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nicole D'Oleo  
nicole.d'oleo@pacelabs.com  
(704)875-9092  
Project Manager

Enclosures

cc: Anna Bottum, ERM  
Andrea Brazell, ERM  
Owens Fuquea, ACC  
Monte Jones, Atlantic Coast Consulting, Inc.  
Kristen Jurinko  
Matt Malone, Atlantic Coast Consulting  
Betsy McDaniel, Atlantic Coast Consulting  
Ms. Lauren Petty, Southern Company  
Lacy Smith, ERM  
Caitlin Tillema, ERM  
Christine Weaver, ERM



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: GRUMMAN CLIFTON SEEP RAD  
Pace Project No.: 92585918

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### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Florida: Cert E871149 SEKS WET  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: GRUMMAN CLIFTON SEEP RAD  
Pace Project No.: 92585918

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92585918001	CLIFTON SEEP	Water	02/02/22 11:45	02/03/22 10:10

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: GRUMMAN CLIFTON SEEP RAD

Pace Project No.: 92585918

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92585918001	CLIFTON SEEP	EPA 9315	JC2	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

---

PASI-PA = Pace Analytical Services - Greensburg

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### SUMMARY OF DETECTION

Project: GRUMMAN CLIFTON SEEP RAD

Pace Project No.: 92585918

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92585918001</b>	<b>CLIFTON SEEP</b>					
EPA 9315	Radium-226	0.301 ± 0.613 (1.43)	pCi/L		02/23/22 11:02	
EPA 9320	Radium-228	C:94% T:NA 2.30 ± 2.17 (4.46)	pCi/L		02/21/22 15:41	
Total Radium Calculation	Total Radium	C:75% T:85% 2.60 ± 2.78 (5.89)	pCi/L		03/06/22 21:28	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: GRUMMAN CLIFTON SEEP RAD

Pace Project No.: 92585918

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: CLIFTON SEEP</b> <b>Lab ID: 92585918001</b> Collected: 02/02/22 11:45      Received: 02/03/22 10:10      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.301 ± 0.613 (1.43)</b> <b>C:94% T:NA</b>	pCi/L	02/23/22 11:02	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>2.30 ± 2.17 (4.46)</b> <b>C:75% T:85%</b>	pCi/L	02/21/22 15:41	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.60 ± 2.78 (5.89)</b>	pCi/L	03/06/22 21:28	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: GRUMMAN CLIFTON SEEP RAD

Pace Project No.: 92585918

QC Batch: 484157

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92585918001

METHOD BLANK: 2341231

Matrix: Water

Associated Lab Samples: 92585918001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.145 ± 0.280 (0.615) C:77% T:93%	pCi/L	02/21/22 12:17	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: GRUMMAN CLIFTON SEEP RAD

Pace Project No.: 92585918

QC Batch: 484274

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92585918001

METHOD BLANK: 2341862

Matrix: Water

Associated Lab Samples: 92585918001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00607 ± 0.0684 (0.194) C:102% T:NA	pCi/L	02/23/22 09:00	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: GRUMMAN CLIFTON SEEP RAD

Pace Project No.: 92585918

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GRUMMAN CLIFTON SEEP RAD  
Pace Project No.: 92585918

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92585918001	CLIFTON SEEP	EPA 9315	484274		
92585918001	CLIFTON SEEP	EPA 9320	484157		
92585918001	CLIFTON SEEP	Total Radium Calculation	488353		

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Document Name:  
Sample Condition Upon Receipt (SCUR)  
Document No.:  
F-CAR-CS-088-Rev 08

Document Revised: November 15, 2021  
Page 1 of 3  
Issuing Authority:  
Face Carolina's Quality Office

Laboratory receiving samples:

Asheville  Eden  Greenwood  Huntersville  Raleigh  Mechanicsville  Atlanta  Kernersville

Sample Condition  
Upon Receipt

Client Name:

EIA Power

Project #:

**WO#: 92585918**

Courier:  Fed Ex  UPS  USPS  Other  
 Commercial  Pace  Other



Custody Seal Present?  Yes  No Seals Intact?  Yes  No

Date/Initials Person Examining Contents: JRE 2/2/22

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Biological Tissue Frozen?

Yes  No  N/A

Thermometer:

IR Gun ID: 214

Type of Ice:  Dry  Blue  None

Cooler Temp: 1.8

Correction Factor:  
Add/Subtract (°C)

+ .1

Temp should be above freezing to 6°C

Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.9

USDA Regulated Soil (  N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No

Yes  No

	Comments/Discrepancy
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Face Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Fed or Filtered? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Includes Date/Time/ID/Analysis Matrix: <u>GW</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seal's Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required?  Yes  No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Project Manager SCUR Review: \_\_\_\_\_

Date: \_\_\_\_\_

Project Manager SRF Review: \_\_\_\_\_

Date: \_\_\_\_\_



Document Name:  
Bottle Identification Form (BIF)  
Document No.:  
F-CAR-03-043 Rev. 01

Document issued: November 15, 2021  
Page 1 of 1  
Issuing Authority:  
Face Carolina Quality Office

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DPD/BD15 (water) DOC, UMG

\*\*Bottom half of box is to list number of bottles

Project #

WO# : 92585918

PR: NMG

Due Date: 02/24/22

CLIENT: CR-CR Power

Matrix	Sample	1	2	3	4	5	6	7	8	9	10	11	12
BP02-125 ml, Plastic Unpreserved (N/A) (D-1)		/											
BP02-250 ml, Plastic Unpreserved (N/A)		/											
BP02-500 ml, Plastic Unpreserved (N/A)		/											
BP02-1 liter Plastic Unpreserved (N/A)		/											
BP02-125 ml, Plastic H2SO4 (pH < 2) (D-1)		/											
BP02-250 ml, plastic HNO3 (pH < 2)		/											
BP02-125 ml, Plastic 2N Acetic & NaOH (D-1)		/											
BP02-125 ml, Plastic NaOH (pH < 12) (D-1)		/											
W02U 500ml autoclaved Glass jar Unpreserved		/											
AD02-1 liter Amber Unpreserved (N/A) (D-1)		/											
AD02-1 liter Amber HD (pH < 2)		/											
AD02-250 ml, Amber Unpreserved (N/A) (D-1)		/											
AD02-1 liter Amber H2SO4 (pH < 2)		/											
AD02-250 ml, Amber H2SO4 (pH < 2)		/											
AD02(250) 250 ml, Amber HD (N/A)		/											
AD02-40 ml, VOA HD (N/A)		/											
VO02-40 ml, VOA H2SO4 (N/A)		/											
VO02-40 ml, VOA Unpreserved (N/A)		/											
VO02-40 ml, VOA HClO4 (N/A)		/											
VO02 (3 vials per bag)-5005 L3 (N/A)		/											
VO02 (3 vials per bag)-VH1/Fluor L3 (N/A)		/											
SP02-125 ml, Sample Plastic (N/A - L3)		/											
SP02-250 ml, Sample Plastic (N/A - L3)		/											
BY IN													
BP02-250 ml, Plastic (HNO3) (D-1) (D-1)		/											
AD02-100 ml, Amber Unpreserved vials (N/A)		/											
VO02-40 ml, Sample vials (N/A)		/											
AD02-40 ml, Amber Unpreserved vials (N/A)		/											

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #
Difluor	H2SO4	7	2/3/22	10:49	2.5ml	122021-1097
Chlorine	HNO3	7	2/3/22	10:49	2.5ml	122021-1097

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHEM Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All required fields must be completed accurately.

Page #

Section A Client Information		Section B Regional Project Information		Section C Local Information		REGULATORY AGENCY	
Client Name	DA Project	Project Name	Report To	Location	City/State	Agency Name	Agency Address
Account No.	Account No.	Project Name	Report To	City/State	City/State	Agency Name	Agency Address
SCS Contact	SCS Contact	Project Name	Report To	City/State	City/State	Agency Name	Agency Address
Local Contact	Local Contact	Project Name	Report To	City/State	City/State	Agency Name	Agency Address

Section D Sample Information	Void Space Check MATERIALS TO BE TESTED DATE TIME ANALYST	MATRIX CODE	SAMPLE TYPE (G-DRAW C-COMP)	COLLECTED	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Method (Y/N)	Residual Chlorine (Y/N)
		DATE	TIME	DATE	TIME	UNPRESERVED H <sub>2</sub> O <sub>2</sub> HNO <sub>3</sub> HCl NaOH Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub> Methanol Other	TOC Inorganic Phosphate/Borate Nitrate Ammonia Total, Carb, Oxams Ammonia / TAN DOC App. Micro-Petroleum-Hydrocarbons RAD EXHAUST Dissolved Metals	Y/N	Y/N	

ADDITIONAL COMMENTS	ACQUIRED BY / APPLICATION	DATE	TIME	ACQUIRED BY / APPLICATION	DATE	TIME	SAMPLE CONDITIONS
	<i>[Signature]</i>	2-1-22	10:10	<i>[Signature]</i>	2/5	10:10	

SAMPLER NAME AND LOCATION		PROJECT NAME OF SAMPLER	DATE REPORT PREPARED	REPORTED BY
		<i>[Signature]</i>	2/2/22	<i>[Signature]</i>

# Quality Control Sample Performance Assessment

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_

Sample ID	Sample Type	Sample Location	Sample Date	Sample Time	Sample Status
1	...	...	...	...	...
2	...	...	...	...	...
3	...	...	...	...	...
4	...	...	...	...	...
5	...	...	...	...	...
6	...	...	...	...	...
7	...	...	...	...	...
8	...	...	...	...	...
9	...	...	...	...	...
10	...	...	...	...	...

Sample ID	Sample Type	Sample Location	Sample Date	Sample Time	Sample Status
11	...	...	...	...	...
12	...	...	...	...	...
13	...	...	...	...	...
14	...	...	...	...	...
15	...	...	...	...	...
16	...	...	...	...	...
17	...	...	...	...	...
18	...	...	...	...	...
19	...	...	...	...	...
20	...	...	...	...	...

Sample ID	Sample Type	Sample Location	Sample Date	Sample Time	Sample Status
21	...	...	...	...	...
22	...	...	...	...	...
23	...	...	...	...	...
24	...	...	...	...	...
25	...	...	...	...	...
26	...	...	...	...	...
27	...	...	...	...	...
28	...	...	...	...	...
29	...	...	...	...	...
30	...	...	...	...	...

Sample ID	Sample Type	Sample Location	Sample Date	Sample Time	Sample Status
31	...	...	...	...	...
32	...	...	...	...	...
33	...	...	...	...	...
34	...	...	...	...	...
35	...	...	...	...	...
36	...	...	...	...	...
37	...	...	...	...	...
38	...	...	...	...	...
39	...	...	...	...	...
40	...	...	...	...	...

Sample ID	Sample Type	Sample Location	Sample Date	Sample Time	Sample Status
41	...	...	...	...	...
42	...	...	...	...	...
43	...	...	...	...	...
44	...	...	...	...	...
45	...	...	...	...	...
46	...	...	...	...	...
47	...	...	...	...	...
48	...	...	...	...	...
49	...	...	...	...	...
50	...	...	...	...	...

Comments: \_\_\_\_\_

# Quality Control Sample Performance Assessment

## Methodology

Sample Size: 100  
Number of Samples: 10  
Number of Tests: 10  
Number of Replicates: 10

Sample ID	Test 1	Test 2	Test 3	Test 4	Test 5
001	100	100	100	100	100
002	100	100	100	100	100
003	100	100	100	100	100
004	100	100	100	100	100
005	100	100	100	100	100
006	100	100	100	100	100
007	100	100	100	100	100
008	100	100	100	100	100
009	100	100	100	100	100
010	100	100	100	100	100

Sample ID	Test 1	Test 2	Test 3	Test 4	Test 5
011	100	100	100	100	100
012	100	100	100	100	100
013	100	100	100	100	100
014	100	100	100	100	100
015	100	100	100	100	100
016	100	100	100	100	100
017	100	100	100	100	100
018	100	100	100	100	100
019	100	100	100	100	100
020	100	100	100	100	100

Sample ID	Test 1	Test 2	Test 3	Test 4	Test 5
021	100	100	100	100	100
022	100	100	100	100	100
023	100	100	100	100	100
024	100	100	100	100	100
025	100	100	100	100	100
026	100	100	100	100	100
027	100	100	100	100	100
028	100	100	100	100	100
029	100	100	100	100	100
030	100	100	100	100	100

## Statistical Analysis of Sample Performance

The data from the 30 samples were analyzed using statistical methods to determine the overall performance of the quality control process. The results show that the process is highly consistent, with all samples performing at a 100% pass rate. This indicates that the quality control process is effective in detecting and preventing defects.

The following table summarizes the results of the statistical analysis:

Sample ID	Test 1	Test 2	Test 3	Test 4	Test 5
001	100	100	100	100	100
002	100	100	100	100	100
003	100	100	100	100	100
004	100	100	100	100	100
005	100	100	100	100	100
006	100	100	100	100	100
007	100	100	100	100	100
008	100	100	100	100	100
009	100	100	100	100	100
010	100	100	100	100	100
011	100	100	100	100	100
012	100	100	100	100	100
013	100	100	100	100	100
014	100	100	100	100	100
015	100	100	100	100	100
016	100	100	100	100	100
017	100	100	100	100	100
018	100	100	100	100	100
019	100	100	100	100	100
020	100	100	100	100	100
021	100	100	100	100	100
022	100	100	100	100	100
023	100	100	100	100	100
024	100	100	100	100	100
025	100	100	100	100	100
026	100	100	100	100	100
027	100	100	100	100	100
028	100	100	100	100	100
029	100	100	100	100	100
030	100	100	100	100	100

The data from the 30 samples were analyzed using statistical methods to determine the overall performance of the quality control process. The results show that the process is highly consistent, with all samples performing at a 100% pass rate. This indicates that the quality control process is effective in detecting and preventing defects.

The following table summarizes the results of the statistical analysis:

Sample ID	Test 1	Test 2	Test 3	Test 4	Test 5
001	100	100	100	100	100
002	100	100	100	100	100
003	100	100	100	100	100
004	100	100	100	100	100
005	100	100	100	100	100
006	100	100	100	100	100
007	100	100	100	100	100
008	100	100	100	100	100
009	100	100	100	100	100
010	100	100	100	100	100
011	100	100	100	100	100
012	100	100	100	100	100
013	100	100	100	100	100
014	100	100	100	100	100
015	100	100	100	100	100
016	100	100	100	100	100
017	100	100	100	100	100
018	100	100	100	100	100
019	100	100	100	100	100
020	100	100	100	100	100
021	100	100	100	100	100
022	100	100	100	100	100
023	100	100	100	100	100
024	100	100	100	100	100
025	100	100	100	100	100
026	100	100	100	100	100
027	100	100	100	100	100
028	100	100	100	100	100
029	100	100	100	100	100
030	100	100	100	100	100

*[Handwritten signature]*

*[Handwritten signature]*



## APPENDIX B

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*Laboratory Data Validations  
February 2022 Monitoring Event*

**LEVEL 2A LABORATORY DATA VALIDATIONS**

**Grumman Road**

**Annual Event**

**February 2022**

## **Georgia Power Company – Grumman Road**

### **Quality Control Review of Analytical Data – February 2022**

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Pace Analytical Services, Asheville, Atlanta, Charlotte, and Pittsburgh for groundwater samples collected at Grumman Road between January 31, 2022 and February 3, 2022. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 Code of Federal Regulations (CFR), Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detection monitoring constituents listed in 40 CFR, Part 257, Appendix III and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma (USEPA 6010D), Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Determination of Inorganic Anions (USEPA Method 300.0), Solids in Water (Standard Methods 2540C), Radium-226 (USEPA 9315), and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)<sup>1</sup> and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)<sup>2</sup>. The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, holding times, and chains of custody were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

## DATA QUALITY OBJECTIVES

**Laboratory Precision:** Laboratory goals for precision were met, except for total dissolved solids (TDS) on MW-27D (92585920025) as described in the qualification section below.

**Field Precision:** Field goals for precision were met, except for boron on MW-24D (92585920007) and MW-23D (92585920027), TDS on MW-27D (92585920025), radium-226 on MW-23D (92585920027), and radium-228 on MW-24D (92585920007) and MW-27D (92585920025) as described in the qualifications section below.

**Accuracy:** Laboratory goals for accuracy were met, except for calcium from GWA-8 (92585920002) and GWB-4R (92585920012), chloride from GWA-7 (92585920001), fluoride from GWA-7 (92585920001) and GWC-9 (92585920011), and sulfate from GWC-14 (92585920016) as described in the qualifications section below.

**Detection Limits:** Project goals for detection limits were met. Certain samples were diluted due to the concentration of target or non-target analyte interferences. Dilutions do not require qualifications based on USEPA guidelines. Reporting limits (RLs) of non-detect compounds are elevated proportional to the dilution when undiluted sample results were not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of site-wide characterization.

**Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.

**Holding Times:** Holding time requirements were met.

## QUALIFICATIONS

In general, chemical results for the samples collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

**J:** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

**ND:** The analyte was not detected above the method detection limit

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.

- Sample MW-27D (92585920025) was qualified as estimated (J) for TDS as the laboratory relative percent difference (RPD) exceeded QC criteria (34% above limit of 25).
- Samples MW-24D (92585920007) and DUP-1 (92585920010) as well as samples MW-23D (92585920027) and DUP-3 (92585920032) were qualified as estimated (J) for boron as the field RPDs exceeded QC criteria (24.00% and 22.22%, respectively, above limit of 20).
- Samples MW-27D (92585920025) and DUP-2 (92585920024) were qualified as estimated (J) for TDS as the field RPD exceeded QC criteria (28.07% above limit of 20).
- Samples MW-23D (92585920027) and DUP-3 (92585920032) were qualified as estimated (J) for radium-226 as the field RPD exceeded QC criteria (26.97% above limit of 20).
- Samples MW-24D (92585920007) and DUP-1 (92585920010) as well as samples MW-27D (92585920025) and DUP-2 (92585920024) were qualified as estimated (J) for radium-228 as the field RPDs exceeded QC criteria (376.64% and 42.65%, respectively, above limit of 20).

Grumman Road Private Industrial Landfill  
2022 Annual Groundwater Monitoring and Corrective Action Report

- Sample GWA-7 (92585920001) was qualified as estimated (J) for chloride and fluoride as the associated matrix spike (MS) and matrix spike duplicate (MSD) recoveries were outside QC criteria (65% and 63% and 113% and 114%, respectively, outside the range of 90-110).
- Samples GWA-8 (92585920002) and GWB-4R (92585920012) were qualified as estimated (J) for calcium as the MS and MSD recoveries were outside QC criteria (28% and 177% and 0% and 266%, respectively, outside the range of 75-125).
- Sample GWC-9 (92585920011) was qualified as estimated (J) for fluoride as the MS and MSD recoveries were outside QC criteria (131% and 128% above the range of 90-110).
- Sample GWC-16 (92585920016) was qualified as estimated (J) for sulfate as the MS and MSD recoveries were outside QC criteria (72% and 76% below the range of 90-110).
- Certain radium-226, radium-228, and arsenic results were qualified as non-detect (ND) due to the analyte(s) being detected at a similar concentration in an associated blank sample. As shown in Table 2, when the original sample result was below the RL, the minimum detectable concentration (MDC) or method detection limit (MDL) was raised to the blank detection as part of the qualification process.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from Grumman Road sampled between January 31, 2022 and February 3, 2022 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

## REFERENCES

<sup>1</sup>USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

<sup>2</sup>USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

Grumman Road Private Industrial Landfill  
2022 Annual Groundwater Monitoring and Corrective Action Report

TABLE 1  
Georgia Power Company – Grumman Road  
Sample Summary Table – February 2022

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6010D, 6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
585920	GWA-7	1/31/2022	92585920001	GW		X	X	X	
585912	GWA-7	1/31/2022	92585912001	GW					X
585920	GWA-8	1/31/2022	92585920002	GW		X	X	X	
585912	GWA-8	1/31/2022	92585912002	GW					X
585920	GWC-16	2/1/2022	92585920003	GW		X	X	X	
585912	GWC-16	2/1/2022	92585912003	GW					X
585920	GWC-17	2/1/2022	92585920004	GW		X	X	X	
585912	GWC-17	2/1/2022	92585912004	GW					X
585920	GWC-20	2/1/2022	92585920005	GW		X	X	X	
585912	GWC-20	2/1/2022	92585912005	GW					X
585920	GWC-21	2/1/2022	92585920006	GW		X	X	X	
585912	GWC-21	2/1/2022	92585912006	GW					X
585920	MW-24D	2/1/2022	92585920007	GW		X	X	X	
585912	MW-24D	2/1/2022	92585912007	GW					X
585920	FB-1	1/31/2022	92585920008	WQ	FB	X	X	X	
585912	FB-1	1/31/2022	92585912008	WQ	FB				X
585920	EB-1	2/1/2022	92585920009	WQ	EB	X	X	X	
585912	EB-1	2/1/2022	92585912009	WQ	EB				X
585920	DUP-1	2/1/2022	925859200010	GW	FD (MW-24D)	X	X	X	
585912	DUP-1	2/1/2022	925859120010	GW	FD (MW-24D)				X
585920	GWC-9	2/2/2022	925859200011	GW		X	X	X	
585912	GWC-9	2/2/2022	925859120011	GW					X
585920	GWB-4R	2/2/2022	925859200012	GW		X	X	X	
585912	GWB-4R	2/2/2022	925859120012	GW					X

Abbreviations:  
 EB – Equipment Blank  
 FB – Field Blank  
 FD – Field Duplicate  
 GW – Groundwater  
 QC – Quality Control  
 TDS – Total Dissolved Solids  
 WQ – Water Quality Control

Grumman Road Private Industrial Landfill  
2022 Annual Groundwater Monitoring and Corrective Action Report

TABLE 1 (continued)

Georgia Power Company – Grumman Road

Sample Summary Table – February 2022

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6010D, 6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
585920	GWB-6R	2/2/2022	925859200013	GW		X	X	X	
585912	GWB-6R	2/2/2022	925859120013	GW					X
585920	MW-26D	2/2/2022	925859200014	GW		X	X	X	
585912	MW-26D	2/2/2022	925859120014	GW					X
585920	GWC-2	2/2/2022	925859200015	GW		X	X	X	
585912	GWC-2	2/2/2022	925859120015	GW					X
585920	GWC-14	2/2/2022	925859200016	GW		X	X	X	
585912	GWC-14	2/2/2022	925859120016	GW					X
585920	GWC-15	2/3/2022	925859200017	GW		X	X	X	
585912	GWC-15	2/3/2022	925859120017	GW					X
585920	GWC-1	2/3/2022	925859200018	GW		X	X	X	
585912	GWC-1	2/3/2022	925859120018	GW					X
585920	GWC-12	2/3/2022	925859200019	GW		X	X	X	
585912	GWC-12	2/3/2022	925859120019	GW					X
585920	GWC-13	2/3/2022	925859200020	GW		X	X	X	
585912	GWC-13	2/3/2022	925859120020	GW					X
585920	FB-2	2/2/2022	925859200021	WQ	FB	X	X	X	
585912	FB-2	2/2/2022	925859120021	WQ	FB				X
585920	EB-2	2/2/2022	925859200022	WQ	EB	X	X	X	
585912	EB-2	2/2/2022	925859120022	WQ	EB				X
585920	EB-3	2/3/2022	925859200023	WQ	EB	X	X	X	
585912	EB-3	2/3/2022	925859120023	WQ	EB				X
585920	DUP-2	2/2/2022	925859200024	GW	FD (MW-27D)	X	X	X	
585912	DUP-2	2/2/2022	925859120024	GW	FD (MW-27D)				X
585920	MW-27D	2/2/2022	925859200025	GW		X	X	X	
585912	MW-27D	2/2/2022	925859120025	GW					X

Abbreviations:  
 EB – Equipment Blank  
 FB – Field Blank  
 FD – Field Duplicate  
 GW – Groundwater  
 QC – Quality Control  
 TDS – Total Dissolved Solids  
 WQ – Water Quality Control



Grumman Road Private Industrial Landfill  
 2022 Annual Groundwater Monitoring and Corrective Action Report

TABLE 1 (continued)

Georgia Power Company – Grumman Road

Sample Summary Table – February 2022

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6010D, 6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
585920	GWB-5R	2/3/2022	925859200026	GW		X	X	X	
585912	GWB-5R	2/3/2022	925859120026	GW					X
585920	MW-23D	2/3/2022	925859200027	GW		X	X	X	
585912	MW-23D	2/3/2022	925859120027	GW					X
585920	MW-25D	2/3/2022	925859200028	GW		X	X	X	
585912	MW-25D	2/3/2022	925859120028	GW					X
585920	GWC-11	2/3/2022	925859200029	GW		X	X	X	
585912	GWC-11	2/3/2022	925859120029	GW					X
585920	GWC-22	2/3/2022	925859200030	GW		X	X	X	
585912	GWC-22	2/3/2022	925859120030	GW					X
585920	FB-3	2/3/2022	925859200031	WQ	FB	X	X	X	
585912	FB-3	2/3/2022	925859120031	WQ	FB				X
585920	DUP-3	2/3/2022	925859200032	GW	FD (MW-23D)	X	X	X	
585912	DUP-3	2/3/2022	925859120032	GW	FD (MW-23D)				X

Abbreviations:  
 EB – Equipment Blank  
 FB – Field Blank  
 FD – Field Duplicate  
 GW – Groundwater  
 QC – Quality Control  
 TDS – Total Dissolved Solids  
 WQ – Water Quality Control

Grumman Road Private Industrial Landfill  
2022 Annual Groundwater Monitoring and Corrective Action Report

TABLE 2  
Georgia Power Company – Grumman Road  
Qualifier Summary Table – February 2022

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
585920	GWA-7	Chloride			J	MS/MSD outside QC criteria
585920	GWA-7	Fluoride			J	MS/MSD outside QC criteria
585920	GWA-8	Calcium			J	MS/MSD outside QC criteria
585920	GWC-9	Fluoride			J	MS/MSD outside QC criteria
585920	GWB-4R	Calcium			J	MS/MSD outside QC criteria
585920	GWC-14	Sulfate			J	MS/MSD outside QC criteria
585920	GWC-16	Radium-226		0.185	ND	Blank detection
585920	MW-24D	Radium-226		0.185	ND	Blank detection
585920	GWB-6R	Radium-226		0.185	ND	Blank detection
585920	GWC-13	Radium-226		0.102	ND	Blank detection
585920	GWC-20	Radium-228		0.671	ND	Blank detection
585920	GWC-1	Radium-228		0.613	ND	Blank detection
585920	GWC-13	Radium-228		0.613	ND	Blank detection
585920	MW-25D	Radium-228		0.613	ND	Blank detection
585920	GWC-16	Arsenic		0.0018	ND	Blank detection
585920	GWC-20	Arsenic		0.0018	ND	Blank detection
585920	GWC-21	Arsenic		0.0018	ND	Blank detection
585920	MW-27D	TDS			J	RPD exceeds lab goal
585920	MW-24D	Boron			J	RPD exceeds field goal
585920	DUP-1	Boron			J	RPD exceeds field goal
585920	MW-24D	Radium-228			J	RPD exceeds field goal
585920	DUP-1	Radium-228			J	RPD exceeds field goal
585920	MW-27D	TDS			J	RPD exceeds field goal
585920	DUP-2	TDS			J	RPD exceeds field goal
585920	MW-27D	Radium-228			J	RPD exceeds field goal
585920	DUP-2	Radium-228			J	RPD exceeds field goal
585920	MW-23D	Boron			J	RPD exceeds field goal
585920	DUP-3	Boron			J	RPD exceeds field goal
585920	MW-23D	Radium-226			J	RPD exceeds field goal
585920	DUP-3	Radium-226			J	RPD exceeds field goal

Abbreviations:

MDC – Minimum Detectable Concentration  
MS/MSD – Matrix Spike / Matrix Spike Duplicate  
MDL – Method Detection Limit  
RL – Reporting Limit  
RPD – Relative Percent Difference  
SDG – Sample Delivery Group  
TDS – Total Dissolved Solids

Qualifiers:

J – Estimated Result  
ND – Non-Detect Result

**LEVEL 2A LABORATORY DATA VALIDATIONS**

**Grumman Road – Clifton Seep**

**Annual Event**

**February 2022**

## **Georgia Power Company – Clifton Seep**

### **Quality Control Review of Analytical Data – February 2022**

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Pace Analytical Services, Asheville, Atlanta, Charlotte, Eden, Minneapolis, and Pittsburgh for the water sample collected at Grumman Road Clifton Seep on February 2, 2022. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample location, analytical parameters, QC samples, sampling date, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix.

In accordance with water monitoring and corrective action procedures discussed in Title 40 Code of Federal Regulations (CFR), Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the sample was analyzed for detection monitoring constituents listed in 40 CFR, Part 257, Appendix III, assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV, and other relevant parameters. Test methods included Inductively Coupled Plasma (USEPA 6010D), Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Determination of Inorganic Anions (USEPA Method 300.0), Solids in Water (Standard Methods 2540C), Radium-226 (USEPA 9315), and Radium-228 (USEPA Method 9320) as well as select geochemical indicator parameters.

Data were reviewed in accordance with the USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)<sup>1</sup> and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)<sup>2</sup>. The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (laboratory blanks). Sample receipt conditions, holding times, and chains of custody were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

## DATA QUALITY OBJECTIVES

**Laboratory Precision:** Laboratory goals for precision were met.

**Field Precision:** Field goals for precision were not applicable to this sampling event.

**Accuracy:** Laboratory goals for accuracy were met.

**Detection Limits:** Project goals for detection limits were met. Certain analyses were diluted due to the concentration of target or non-target analyte interferences. Dilutions do not require qualifications based on USEPA guidelines. Reporting limits (RLs) of non-detect compounds are elevated proportional to the dilution when undiluted sample results were not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of site-wide characterization.

**Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.

**Holding Times:** Holding time requirements were met, except for nitrate as described in the qualifications section below.

## QUALIFICATIONS

In general, chemical results for the sample collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

**J:** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

**ND:** The analyte was not detected above the method detection limit

**H:** The analysis was performed outside the method holding time

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.

- Sample CLIFTON SEEP (92585967001) was qualified as estimated (H) for nitrate as the analysis was performed outside the method holding time (3<sup>rd</sup> day past holding time of 48 hours).

Atlantic Coast Consulting, Inc. reviewed the laboratory data from Grumman Road Clifton Seep sampled on February 2, 2022 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

## REFERENCES

<sup>1</sup>USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

<sup>2</sup>USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

Grumman Road Private Industrial Landfill  
 2022 Annual Groundwater Monitoring and Corrective Action Report

TABLE 1  
 Georgia Power Company – Clifton Seep  
 Sample Summary Table – February 2022

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6010D, 6020B, 7470A)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
585967	CLIFTON SEEP	2/2/2022	92585967001	W		X	X	X	
585918	CLIFTON SEEP	2/2/2022	92585918001	W					X

- Abbreviations:  
 EB – Equipment Blank  
 FB – Field Blank  
 FD – Field Duplicate  
 GW – Groundwater  
 QC – Quality Control  
 TDS – Total Dissolved Solids  
 W – Water  
 WQ – Water Quality Control

Grumman Road Private Industrial Landfill  
 2022 Annual Groundwater Monitoring and Corrective Action Report

TABLE 2  
 Georgia Power Company – Clifton Seep  
 Qualifier Summary Table – February 2022

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
585967	CLIFTON SEEP	Nitrate			H	Lab missed holding time

Abbreviations:

MDC – Minimum Detectable Concentration  
 MS/MSD – Matrix Spike / Matrix Spike Duplicate  
 MDL – Method Detection Limit  
 RL – Reporting Limit  
 RPD – Relative Percent Difference  
 SDG – Sample Delivery Group  
 TDS – Total Dissolved Solids

Qualifiers:

J – Estimated Result  
 ND – Non-Detect Result



## APPENDIX B

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*Field Sampling Reports  
February 2022 Monitoring Event*

# Low-Flow Test Report:

Test Date / Time: 1/31/2022 4:40:24 PM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: GWA-7</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 16.2 ft</b> <b>Total Depth: 21.15 ft</b> <b>Initial Depth to Water: 5.91 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 18.5 ft</b> <b>Estimated Total Volume Pumped: 6.8 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 225 ml/min</b> <b>Final Draw Down: 2 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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**Test Notes:** Sample time 1715. Sunny 60s. FB-1 here at 1645. Field filtered metals collected.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
1/31/2022 4:40 PM	00:00	5.98 pH	19.42 °C	980.36 µS/cm	1.86 mg/L	158.00 NTU	-36.1 mV	5.91 ft	225.00 ml/min
1/31/2022 4:45 PM	05:00	5.98 pH	19.34 °C	885.23 µS/cm	1.05 mg/L	144.00 NTU	-47.1 mV	6.10 ft	225.00 ml/min
1/31/2022 4:50 PM	10:00	5.96 pH	19.33 °C	788.97 µS/cm	1.33 mg/L	100.00 NTU	-97.3 mV	6.10 ft	225.00 ml/min
1/31/2022 4:55 PM	15:00	5.96 pH	19.38 °C	789.87 µS/cm	1.08 mg/L	101.00 NTU	-102.5 mV	6.10 ft	225.00 ml/min
1/31/2022 5:00 PM	20:00	5.93 pH	19.38 °C	780.70 µS/cm	0.50 mg/L	120.00 NTU	-108.2 mV	6.10 ft	225.00 ml/min
1/31/2022 5:05 PM	25:00	5.95 pH	19.37 °C	764.69 µS/cm	0.36 mg/L	117.00 NTU	-111.6 mV	6.10 ft	225.00 ml/min
1/31/2022 5:10 PM	30:00	5.94 pH	19.39 °C	776.76 µS/cm	0.38 mg/L	115.00 NTU	-116.1 mV	6.10 ft	225.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 1/31/2022 4:00:42 PM

Project: Grumman Road

Operator Name: J. Berisford

<b>Location Name: GWA-8</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 15.74 ft</b> <b>Total Depth: 20.74 ft</b> <b>Initial Depth to Water: 7.22 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 18 ft</b> <b>Estimated Total Volume Pumped: 12.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 237 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sunny, sample time -1650

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
1/31/2022 4:00 PM	00:00	5.34 pH	19.97 °C	27.02 µS/cm	9.06 mg/L	11.00 NTU	256.1 mV	7.22 ft	250.00 ml/min
1/31/2022 4:05 PM	05:00	4.52 pH	19.68 °C	154.83 µS/cm	0.50 mg/L	12.00 NTU	160.5 mV	8.60 ft	250.00 ml/min
1/31/2022 4:10 PM	10:00	4.52 pH	19.86 °C	150.40 µS/cm	0.30 mg/L	13.00 NTU	207.3 mV	9.10 ft	250.00 ml/min
1/31/2022 4:15 PM	15:00	4.52 pH	19.24 °C	148.61 µS/cm	0.40 mg/L	7.22 NTU	245.9 mV	9.20 ft	250.00 ml/min
1/31/2022 4:20 PM	20:00	4.51 pH	19.51 °C	153.88 µS/cm	0.32 mg/L	8.19 NTU	188.2 mV	9.20 ft	250.00 ml/min
1/31/2022 4:25 PM	25:00	4.47 pH	20.04 °C	162.13 µS/cm	0.24 mg/L	7.93 NTU	159.3 mV	9.20 ft	250.00 ml/min
1/31/2022 4:30 PM	30:00	4.43 pH	20.43 °C	174.45 µS/cm	0.18 mg/L	6.38 NTU	133.7 mV	9.20 ft	250.00 ml/min
1/31/2022 4:35 PM	35:00	4.40 pH	20.31 °C	180.01 µS/cm	0.19 mg/L	4.35 NTU	127.5 mV	9.20 ft	250.00 ml/min
1/31/2022 4:40 PM	40:00	4.40 pH	20.23 °C	185.00 µS/cm	0.16 mg/L	3.85 NTU	125.7 mV	9.20 ft	250.00 ml/min
1/31/2022 4:45 PM	45:00	4.39 pH	20.08 °C	189.80 µS/cm	0.15 mg/L	3.66 NTU	117.2 mV	9.20 ft	250.00 ml/min
1/31/2022 4:50 PM	50:00	4.39 pH	19.90 °C	192.41 µS/cm	0.16 mg/L	3.82 NTU	114.1 mV	9.20 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/2/2022 12:20:32 PM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: GWB-4R</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 16.7 ft Total</b> <b>Depth: 26.72 ft</b> <b>Initial Depth to Water: 14.5 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 24 ft</b> <b>Estimated Total Volume Pumped: 11 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 5 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 1320. Sunny 60s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/2/2022 12:20 PM	00:00	5.78 pH	20.99 °C	951.11 µS/cm	0.32 mg/L	12.90 NTU	55.5 mV	14.50 ft	200.00 ml/min
2/2/2022 12:25 PM	05:00	5.74 pH	20.67 °C	991.59 µS/cm	0.20 mg/L	8.46 NTU	53.5 mV	14.90 ft	200.00 ml/min
2/2/2022 12:30 PM	10:00	5.72 pH	20.58 °C	1,012.9 µS/cm	0.17 mg/L	7.88 NTU	36.4 mV	14.90 ft	200.00 ml/min
2/2/2022 12:35 PM	15:00	5.71 pH	20.55 °C	1,026.0 µS/cm	0.17 mg/L	8.45 NTU	32.4 mV	14.90 ft	200.00 ml/min
2/2/2022 12:40 PM	20:00	5.71 pH	20.67 °C	1,031.4 µS/cm	0.16 mg/L	7.42 NTU	29.9 mV	14.90 ft	200.00 ml/min
2/2/2022 12:45 PM	25:00	5.71 pH	20.98 °C	1,022.4 µS/cm	0.14 mg/L	6.95 NTU	32.0 mV	14.90 ft	200.00 ml/min
2/2/2022 12:50 PM	30:00	5.70 pH	21.08 °C	1,019.6 µS/cm	0.13 mg/L	6.63 NTU	27.2 mV	14.90 ft	200.00 ml/min
2/2/2022 12:55 PM	35:00	5.70 pH	21.65 °C	1,008.4 µS/cm	0.12 mg/L	6.09 NTU	27.0 mV	14.90 ft	200.00 ml/min
2/2/2022 1:00 PM	40:00	5.71 pH	21.56 °C	1,002.5 µS/cm	0.12 mg/L	5.99 NTU	23.6 mV	14.90 ft	200.00 ml/min
2/2/2022 1:05 PM	45:00	5.72 pH	21.92 °C	992.06 µS/cm	0.11 mg/L	5.48 NTU	24.0 mV	14.90 ft	200.00 ml/min
2/2/2022 1:10 PM	50:00	5.72 pH	21.64 °C	992.81 µS/cm	0.11 mg/L	5.14 NTU	19.8 mV	14.90 ft	200.00 ml/min
2/2/2022 1:15 PM	55:00	5.71 pH	21.56 °C	991.88 µS/cm	0.11 mg/L	4.89 NTU	19.0 mV	14.90 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/3/2022 9:00:15 AM

Project: Grumman Road

Operator Name: J. Berisford

<b>Location Name: GWB-5R</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 17.18 ft Total</b> <b>Depth: 27.18 ft</b> <b>Initial Depth to Water: 9.38 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 25 ft</b> <b>Estimated Total Volume Pumped: 7 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 7.2 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sunny, 50s, sample time-0935

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/3/2022 9:00 AM	00:00	6.64 pH	17.93 °C	25.50 µS/cm	9.55 mg/L	24.00 NTU	251.7 mV	9.38 ft	200.00 ml/min
2/3/2022 9:05 AM	05:00	4.46 pH	20.18 °C	1,174.6 µS/cm	0.27 mg/L	15.00 NTU	108.8 mV	9.60 ft	200.00 ml/min
2/3/2022 9:10 AM	10:00	4.46 pH	20.60 °C	1,193.6 µS/cm	0.20 mg/L	8.45 NTU	105.1 mV	9.80 ft	200.00 ml/min
2/3/2022 9:15 AM	15:00	4.47 pH	20.66 °C	1,193.5 µS/cm	0.17 mg/L	9.85 NTU	101.0 mV	9.90 ft	200.00 ml/min
2/3/2022 9:20 AM	20:00	4.47 pH	20.76 °C	1,197.4 µS/cm	0.16 mg/L	7.22 NTU	98.7 mV	9.90 ft	200.00 ml/min
2/3/2022 9:25 AM	25:00	4.48 pH	20.76 °C	1,193.8 µS/cm	0.15 mg/L	5.71 NTU	95.7 mV	10.00 ft	200.00 ml/min
2/3/2022 9:30 AM	30:00	4.48 pH	20.85 °C	1,190.2 µS/cm	0.13 mg/L	5.22 NTU	93.5 mV	10.00 ft	200.00 ml/min
2/3/2022 9:35 AM	35:00	4.48 pH	20.89 °C	1,193.6 µS/cm	0.13 mg/L	3.65 NTU	91.9 mV	10.00 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/2/2022 10:05:12 AM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: GWB-6R</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 13.4 ft Total</b> <b>Depth: 23.4 ft</b> <b>Initial Depth to Water: 7.02 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 21 ft</b> <b>Estimated Total Volume Pumped: 6 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 2 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 1040. Sunny 50s. FB-2 here at 1030.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/2/2022 10:05 AM	00:00	5.78 pH	17.60 °C	3,451.4 µS/cm	1.64 mg/L	5.61 NTU	52.0 mV	7.02 ft	200.00 ml/min
2/2/2022 10:10 AM	05:00	5.78 pH	18.00 °C	3,431.7 µS/cm	0.91 mg/L	4.60 NTU	50.5 mV	7.20 ft	200.00 ml/min
2/2/2022 10:15 AM	10:00	5.78 pH	18.64 °C	3,370.6 µS/cm	0.68 mg/L	4.46 NTU	46.9 mV	7.20 ft	200.00 ml/min
2/2/2022 10:20 AM	15:00	5.77 pH	18.76 °C	3,424.0 µS/cm	0.45 mg/L	4.12 NTU	54.9 mV	7.20 ft	200.00 ml/min
2/2/2022 10:25 AM	20:00	5.76 pH	18.71 °C	3,401.2 µS/cm	0.37 mg/L	3.85 NTU	52.6 mV	7.20 ft	200.00 ml/min
2/2/2022 10:30 AM	25:00	5.77 pH	18.93 °C	3,378.6 µS/cm	0.37 mg/L	2.76 NTU	49.0 mV	7.20 ft	200.00 ml/min
2/2/2022 10:35 AM	30:00	5.75 pH	18.98 °C	3,348.5 µS/cm	0.29 mg/L	2.59 NTU	47.5 mV	7.20 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/3/2022 10:25:05 AM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: GWC-1</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 23.2 ft</b> <b>Total Depth: 28.22 ft</b> <b>Initial Depth to Water: 18.8 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 25 ft</b> <b>Estimated Total Volume Pumped: 14 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 0 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 11:40. Sunny 60s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/3/2022 10:25 AM	00:00	5.47 pH	21.43 °C	301.92 µS/cm	1.38 mg/L	1.50 NTU	130.7 mV	18.80 ft	200.00 ml/min
2/3/2022 10:30 AM	05:00	5.43 pH	21.78 °C	270.58 µS/cm	1.14 mg/L	0.87 NTU	106.9 mV	18.80 ft	200.00 ml/min
2/3/2022 10:35 AM	10:00	5.82 pH	21.87 °C	432.54 µS/cm	1.30 mg/L	0.62 NTU	127.7 mV	18.80 ft	200.00 ml/min
2/3/2022 10:40 AM	15:00	5.86 pH	22.17 °C	425.83 µS/cm	1.69 mg/L	0.65 NTU	79.9 mV	18.80 ft	200.00 ml/min
2/3/2022 10:45 AM	20:00	5.88 pH	22.20 °C	444.78 µS/cm	1.74 mg/L	0.70 NTU	79.2 mV	18.80 ft	200.00 ml/min
2/3/2022 10:50 AM	25:00	5.89 pH	22.21 °C	405.99 µS/cm	1.82 mg/L	0.52 NTU	124.0 mV	18.80 ft	200.00 ml/min
2/3/2022 10:55 AM	30:00	5.89 pH	22.14 °C	395.82 µS/cm	2.10 mg/L	1.08 NTU	120.9 mV	18.80 ft	200.00 ml/min
2/3/2022 11:00 AM	35:00	5.90 pH	22.30 °C	409.60 µS/cm	1.93 mg/L	0.44 NTU	125.8 mV	18.80 ft	200.00 ml/min
2/3/2022 11:05 AM	40:00	5.91 pH	22.23 °C	362.43 µS/cm	2.07 mg/L	0.67 NTU	122.1 mV	18.80 ft	200.00 ml/min
2/3/2022 11:10 AM	45:00	5.90 pH	22.21 °C	404.68 µS/cm	1.91 mg/L	0.53 NTU	122.3 mV	18.80 ft	200.00 ml/min
2/3/2022 11:15 AM	50:00	5.90 pH	22.30 °C	457.88 µS/cm	1.89 mg/L	0.47 NTU	123.6 mV	18.80 ft	200.00 ml/min
2/3/2022 11:20 AM	55:00	5.89 pH	22.35 °C	339.32 µS/cm	1.94 mg/L	0.42 NTU	125.2 mV	18.80 ft	200.00 ml/min
2/3/2022 11:25 AM	01:00:00	5.90 pH	21.96 °C	420.54 µS/cm	1.99 mg/L	0.40 NTU	113.1 mV	18.80 ft	200.00 ml/min
2/3/2022 11:30 AM	01:05:00	5.89 pH	22.12 °C	417.01 µS/cm	2.02 mg/L	0.55 NTU	112.4 mV	18.80 ft	200.00 ml/min
2/3/2022 11:35 AM	01:10:00	5.89 pH	22.40 °C	428.26 µS/cm	2.08 mg/L	0.80 NTU	123.9 mV	18.80 ft	200.00 ml/min

# Low-Flow Test Report:

Test Date / Time: 2/2/2022 2:55:06 PM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: GWC-2</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 28.8 ft</b> <b>Total Depth: 33.85 ft</b> <b>Initial Depth to Water: 18.91 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 30 ft</b> <b>Estimated Total Volume Pumped: 8 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 1 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 1545. Cloudy 50s. Extra rad.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/2/2022 2:55 PM	00:00	4.63 pH	21.19 °C	60.78 µS/cm	1.40 mg/L	3.52 NTU	265.1 mV	18.91 ft	200.00 ml/min
2/2/2022 3:00 PM	05:00	4.65 pH	20.78 °C	55.56 µS/cm	1.44 mg/L	3.72 NTU	241.6 mV	19.00 ft	200.00 ml/min
2/2/2022 3:05 PM	10:00	4.69 pH	20.85 °C	69.66 µS/cm	1.27 mg/L	3.84 NTU	194.0 mV	19.00 ft	200.00 ml/min
2/2/2022 3:10 PM	15:00	4.74 pH	20.80 °C	66.79 µS/cm	1.14 mg/L	2.95 NTU	149.2 mV	19.00 ft	200.00 ml/min
2/2/2022 3:15 PM	20:00	4.75 pH	20.84 °C	60.15 µS/cm	1.10 mg/L	2.25 NTU	126.9 mV	19.00 ft	200.00 ml/min
2/2/2022 3:20 PM	25:00	4.77 pH	20.77 °C	66.50 µS/cm	1.02 mg/L	1.80 NTU	113.7 mV	19.00 ft	200.00 ml/min
2/2/2022 3:25 PM	30:00	4.76 pH	20.75 °C	66.64 µS/cm	0.95 mg/L	1.93 NTU	109.1 mV	19.00 ft	200.00 ml/min
2/2/2022 3:30 PM	35:00	4.76 pH	20.71 °C	65.60 µS/cm	0.92 mg/L	2.17 NTU	170.5 mV	19.00 ft	200.00 ml/min
2/2/2022 3:35 PM	40:00	4.79 pH	20.68 °C	66.62 µS/cm	0.93 mg/L	1.26 NTU	154.6 mV	19.00 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/1/2022 3:34:22 PM

Project: Grumman Road

Operator Name: J. Berisford

<b>Location Name: GWC-9</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 22.4 ft</b> <b>Total Depth: 27.4 ft</b> <b>Initial Depth to Water: 8.49 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 25 ft</b> <b>Estimated Total Volume Pumped: 14 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 226 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Purged dry. No sample collected. Allowed for overnight recharge

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/1/2022 3:34 PM	00:00	4.54 pH	22.45 °C	7.40 µS/cm	8.64 mg/L	38.00 NTU	183.5 mV	8.49 ft	200.00 ml/min
2/1/2022 3:39 PM	05:00	4.29 pH	19.66 °C	123.07 µS/cm	0.62 mg/L	19.00 NTU	38.5 mV	10.00 ft	200.00 ml/min
2/1/2022 3:44 PM	10:00	4.26 pH	19.51 °C	124.24 µS/cm	0.20 mg/L	14.00 NTU	45.0 mV	11.20 ft	200.00 ml/min
2/1/2022 3:49 PM	15:00	4.24 pH	19.56 °C	123.08 µS/cm	0.17 mg/L	17.00 NTU	55.3 mV	12.40 ft	200.00 ml/min
2/1/2022 3:54 PM	20:00	4.23 pH	19.50 °C	123.24 µS/cm	0.15 mg/L	14.00 NTU	64.7 mV	13.00 ft	200.00 ml/min
2/1/2022 3:59 PM	25:00	4.22 pH	19.42 °C	123.13 µS/cm	0.14 mg/L	10.00 NTU	75.1 mV	14.20 ft	200.00 ml/min
2/1/2022 4:04 PM	30:00	4.22 pH	19.33 °C	122.91 µS/cm	0.13 mg/L	13.00 NTU	87.3 mV	15.80 ft	200.00 ml/min
2/1/2022 4:09 PM	35:00	4.22 pH	19.24 °C	123.14 µS/cm	0.13 mg/L	12.00 NTU	102.7 mV	18.40 ft	200.00 ml/min
2/1/2022 4:14 PM	40:00	4.21 pH	19.26 °C	122.84 µS/cm	0.15 mg/L	14.00 NTU	126.1 mV	19.60 ft	200.00 ml/min
2/1/2022 4:19 PM	45:00	4.22 pH	19.29 °C	122.71 µS/cm	0.16 mg/L	11.00 NTU	154.0 mV	20.80 ft	200.00 ml/min
2/1/2022 4:24 PM	50:00	4.23 pH	19.33 °C	122.35 µS/cm	0.19 mg/L	11.00 NTU	178.5 mV	22.00 ft	200.00 ml/min
2/1/2022 4:29 PM	55:00	4.29 pH	19.28 °C	122.02 µS/cm	0.17 mg/L	14.00 NTU	192.1 mV	23.40 ft	200.00 ml/min
2/1/2022 4:34 PM	01:00:00	4.31 pH	19.34 °C	121.50 µS/cm	0.32 mg/L	17.00 NTU	185.7 mV	24.70 ft	200.00 ml/min
2/1/2022 4:39 PM	01:05:00	4.59 pH	19.30 °C	117.35 µS/cm	2.83 mg/L	22.00 NTU	158.3 mV	26.50 ft	200.00 ml/min
2/1/2022 4:44 PM	01:10:00	4.83 pH	18.53 °C	100.06 µS/cm	8.18 mg/L	32.00 NTU	121.4 mV	27.40 ft	200.00 ml/min

# Low-Flow Test Report:

Test Date / Time: 2/2/2022 8:54:46 AM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: GWC-9</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 22.4 ft</b> <b>Total Depth: 27.4 ft</b> <b>Initial Depth to Water: 9.04 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 24 ft</b> <b>Estimated Total Volume Pumped: 2.7 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 135 ml/min</b> <b>Final Draw Down: 57 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 920. Partly cloudy 50s. Well purged dry 2/1/2022.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/2/2022 8:54 AM	00:00	4.62 pH	12.10 °C	292.57 µS/cm	2.49 mg/L	3.84 NTU	108.5 mV	9.04 ft	135.00 ml/min
2/2/2022 8:59 AM	05:00	4.64 pH	15.70 °C	177.07 µS/cm	0.30 mg/L	3.55 NTU	115.4 mV	10.40 ft	135.00 ml/min
2/2/2022 9:04 AM	10:00	4.65 pH	16.30 °C	171.58 µS/cm	0.23 mg/L	3.89 NTU	194.7 mV	11.50 ft	135.00 ml/min
2/2/2022 9:09 AM	15:00	4.65 pH	16.45 °C	170.45 µS/cm	0.20 mg/L	3.78 NTU	203.8 mV	12.60 ft	135.00 ml/min
2/2/2022 9:14 AM	20:00	4.66 pH	16.34 °C	171.23 µS/cm	0.18 mg/L	3.90 NTU	203.3 mV	13.80 ft	135.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/3/2022 3:40:25 PM

Project: Grumman Road

Operator Name: J. Berisford

<b>Location Name: GWC-11</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 17.61 ft Total</b> <b>Depth: 22.61 ft</b> <b>Initial Depth to Water: 12.37 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 20 ft</b> <b>Estimated Total Volume Pumped: 5.2 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 130 ml/min</b> <b>Final Draw Down: 24 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sunny, 50s, sample time-1620

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/3/2022 3:40 PM	00:00	6.23 pH	29.83 °C	0.00 µS/cm	7.30 mg/L	6.29 NTU	87.0 mV	12.37 ft	130.00 ml/min
2/3/2022 3:45 PM	05:00	4.94 pH	22.31 °C	556.79 µS/cm	1.70 mg/L	5.11 NTU	67.2 mV	13.50 ft	130.00 ml/min
2/3/2022 3:50 PM	10:00	4.92 pH	21.38 °C	570.57 µS/cm	1.53 mg/L	4.81 NTU	70.0 mV	14.00 ft	130.00 ml/min
2/3/2022 3:55 PM	15:00	4.92 pH	21.85 °C	568.26 µS/cm	1.45 mg/L	4.75 NTU	71.7 mV	14.20 ft	130.00 ml/min
2/3/2022 4:00 PM	20:00	4.95 pH	22.07 °C	569.86 µS/cm	2.65 mg/L	4.58 NTU	73.6 mV	14.30 ft	130.00 ml/min
2/3/2022 4:05 PM	25:00	4.96 pH	22.19 °C	569.49 µS/cm	2.87 mg/L	4.33 NTU	75.7 mV	14.30 ft	130.00 ml/min
2/3/2022 4:10 PM	30:00	4.97 pH	22.24 °C	567.79 µS/cm	3.47 mg/L	4.31 NTU	77.7 mV	14.30 ft	130.00 ml/min
2/3/2022 4:15 PM	35:00	4.98 pH	22.05 °C	594.38 µS/cm	3.70 mg/L	4.11 NTU	80.0 mV	14.40 ft	130.00 ml/min
2/3/2022 4:20 PM	40:00	4.98 pH	21.87 °C	572.49 µS/cm	3.84 mg/L	4.16 NTU	82.3 mV	14.40 ft	130.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/3/2022 12:20:16 PM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: GWC-12</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 21.6 ft</b> <b>Total Depth: 26.63 ft</b> <b>Initial Depth to Water: 12.35 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 23 ft</b> <b>Estimated Total Volume Pumped: 8 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 6 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 1305. Sunny 60s. EB-2 here at 1320.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/3/2022 12:20 PM	00:00	4.04 pH	22.66 °C	941.84 µS/cm	0.32 mg/L	2.63 NTU	119.6 mV	12.35 ft	200.00 ml/min
2/3/2022 12:25 PM	05:00	4.03 pH	22.05 °C	947.75 µS/cm	0.16 mg/L	2.45 NTU	130.3 mV	12.90 ft	200.00 ml/min
2/3/2022 12:30 PM	10:00	4.03 pH	22.10 °C	946.10 µS/cm	0.14 mg/L	2.76 NTU	78.0 mV	12.90 ft	200.00 ml/min
2/3/2022 12:35 PM	15:00	4.03 pH	22.23 °C	943.90 µS/cm	0.13 mg/L	2.87 NTU	71.2 mV	12.90 ft	200.00 ml/min
2/3/2022 12:40 PM	20:00	4.03 pH	22.18 °C	939.11 µS/cm	0.12 mg/L	2.22 NTU	96.3 mV	12.90 ft	200.00 ml/min
2/3/2022 12:45 PM	25:00	4.03 pH	22.20 °C	931.75 µS/cm	0.12 mg/L	2.36 NTU	58.5 mV	12.90 ft	200.00 ml/min
2/3/2022 12:50 PM	30:00	4.03 pH	22.12 °C	934.80 µS/cm	0.11 mg/L	2.54 NTU	77.6 mV	12.90 ft	200.00 ml/min
2/3/2022 12:55 PM	35:00	4.04 pH	22.11 °C	924.41 µS/cm	0.11 mg/L	2.10 NTU	51.7 mV	12.90 ft	200.00 ml/min
2/3/2022 1:00 PM	40:00	4.04 pH	22.08 °C	922.61 µS/cm	0.10 mg/L	1.92 NTU	73.2 mV	12.90 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/3/2022 1:40:29 PM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: GWC-13</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 19.8 ft</b> <b>Total Depth: 24.82 ft</b> <b>Initial Depth to Water: 14.12 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 21 ft</b> <b>Estimated Total Volume Pumped: 11.3 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 6 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 1430. Sunny 60s. Ex RAD.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/3/2022 1:40 PM	00:00	4.91 pH	26.78 °C	160.92 µS/cm	3.98 mg/L	22.70 NTU	126.9 mV	14.12 ft	250.00 ml/min
2/3/2022 1:45 PM	05:00	4.98 pH	22.21 °C	156.20 µS/cm	2.52 mg/L	21.90 NTU	161.7 mV	14.70 ft	250.00 ml/min
2/3/2022 1:50 PM	10:00	4.98 pH	22.01 °C	143.26 µS/cm	2.53 mg/L	16.30 NTU	299.0 mV	14.70 ft	250.00 ml/min
2/3/2022 1:55 PM	15:00	4.99 pH	22.14 °C	120.43 µS/cm	2.64 mg/L	15.50 NTU	157.9 mV	14.70 ft	250.00 ml/min
2/3/2022 2:00 PM	20:00	4.99 pH	22.23 °C	144.50 µS/cm	2.65 mg/L	13.00 NTU	246.8 mV	14.70 ft	250.00 ml/min
2/3/2022 2:05 PM	25:00	4.98 pH	22.22 °C	142.47 µS/cm	2.80 mg/L	12.60 NTU	134.5 mV	14.70 ft	250.00 ml/min
2/3/2022 2:10 PM	30:00	4.98 pH	22.43 °C	129.09 µS/cm	2.48 mg/L	8.57 NTU	215.0 mV	14.70 ft	250.00 ml/min
2/3/2022 2:15 PM	35:00	4.97 pH	22.41 °C	122.82 µS/cm	2.58 mg/L	5.56 NTU	113.8 mV	14.70 ft	250.00 ml/min
2/3/2022 2:20 PM	40:00	4.97 pH	22.18 °C	120.68 µS/cm	2.59 mg/L	5.27 NTU	110.9 mV	14.70 ft	250.00 ml/min
2/3/2022 2:25 PM	45:00	4.97 pH	22.23 °C	117.36 µS/cm	2.49 mg/L	4.83 NTU	195.6 mV	14.70 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/2/2022 4:20:46 PM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: GWC-14</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 22 ft</b> <b>Total Depth: 27.05 ft</b> <b>Initial Depth to Water: 19.16 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 25 ft</b> <b>Estimated Total Volume Pumped: 10 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 5 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 1715. Cloudy 50s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/2/2022 4:20 PM	00:00	5.87 pH	20.40 °C	1,340.3 µS/cm	8.30 mg/L	2.91 NTU	82.4 mV	19.16 ft	200.00 ml/min
2/2/2022 4:25 PM	05:00	5.96 pH	20.13 °C	1,531.1 µS/cm	2.40 mg/L	3.28 NTU	66.3 mV	19.60 ft	200.00 ml/min
2/2/2022 4:30 PM	10:00	5.99 pH	20.02 °C	1,518.1 µS/cm	3.00 mg/L	2.95 NTU	91.0 mV	19.60 ft	200.00 ml/min
2/2/2022 4:35 PM	15:00	5.97 pH	20.00 °C	1,306.6 µS/cm	2.72 mg/L	3.77 NTU	88.6 mV	19.60 ft	200.00 ml/min
2/2/2022 4:40 PM	20:00	5.99 pH	19.98 °C	1,465.1 µS/cm	3.00 mg/L	3.30 NTU	83.3 mV	19.60 ft	200.00 ml/min
2/2/2022 4:45 PM	25:00	5.99 pH	19.98 °C	1,591.7 µS/cm	3.28 mg/L	3.12 NTU	82.9 mV	19.60 ft	200.00 ml/min
2/2/2022 4:50 PM	30:00	5.98 pH	19.87 °C	1,390.6 µS/cm	3.22 mg/L	2.98 NTU	82.6 mV	19.60 ft	200.00 ml/min
2/2/2022 4:55 PM	35:00	6.00 pH	19.86 °C	1,360.1 µS/cm	3.18 mg/L	2.67 NTU	79.9 mV	19.60 ft	200.00 ml/min
2/2/2022 5:00 PM	40:00	5.99 pH	19.86 °C	1,555.2 µS/cm	3.19 mg/L	2.34 NTU	78.0 mV	19.60 ft	200.00 ml/min
2/2/2022 5:05 PM	45:00	5.97 pH	19.87 °C	1,549.4 µS/cm	3.12 mg/L	2.26 NTU	52.1 mV	19.60 ft	200.00 ml/min
2/2/2022 5:10 PM	50:00	5.98 pH	19.78 °C	1,512.0 µS/cm	3.00 mg/L	2.17 NTU	50.4 mV	19.60 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/3/2022 9:00:24 AM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: GWC-15</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 21.8 ft</b> <b>Total Depth: 26.81 ft</b> <b>Initial Depth to Water: 19.08 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 23 ft</b> <b>Estimated Total Volume Pumped: 6.8 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min Final Draw Down: 3 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 950. Sunny 50s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/3/2022 9:00 AM	00:00	6.57 pH	19.78 °C	776.82 µS/cm	1.61 mg/L	2.98 NTU	50.3 mV	19.08 ft	150.00 ml/min
2/3/2022 9:05 AM	05:00	6.56 pH	20.06 °C	818.54 µS/cm	1.53 mg/L	2.84 NTU	37.5 mV	19.30 ft	150.00 ml/min
2/3/2022 9:10 AM	10:00	6.58 pH	20.16 °C	782.67 µS/cm	1.55 mg/L	2.63 NTU	40.8 mV	19.30 ft	150.00 ml/min
2/3/2022 9:15 AM	15:00	6.59 pH	20.24 °C	837.69 µS/cm	1.49 mg/L	2.41 NTU	39.0 mV	19.30 ft	150.00 ml/min
2/3/2022 9:20 AM	20:00	6.60 pH	20.28 °C	790.92 µS/cm	1.62 mg/L	2.13 NTU	37.9 mV	19.30 ft	150.00 ml/min
2/3/2022 9:25 AM	25:00	6.60 pH	20.36 °C	797.33 µS/cm	1.57 mg/L	2.04 NTU	37.4 mV	19.30 ft	150.00 ml/min
2/3/2022 9:30 AM	30:00	6.60 pH	20.40 °C	721.21 µS/cm	1.64 mg/L	2.00 NTU	37.7 mV	19.30 ft	150.00 ml/min
2/3/2022 9:35 AM	35:00	6.61 pH	20.45 °C	802.61 µS/cm	1.57 mg/L	2.07 NTU	38.2 mV	19.30 ft	150.00 ml/min
2/3/2022 9:40 AM	40:00	6.60 pH	20.52 °C	817.80 µS/cm	1.55 mg/L	2.03 NTU	38.3 mV	19.30 ft	150.00 ml/min
2/3/2022 9:45 AM	45:00	6.61 pH	20.58 °C	803.45 µS/cm	1.56 mg/L	2.00 NTU	38.1 mV	19.30 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/1/2022 2:25:38 PM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: GWC-16</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 23 ft</b> <b>Total Depth: 28.06 ft</b> <b>Initial Depth to Water: 20.29 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 25 ft</b> <b>Estimated Total Volume Pumped: 7.9 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 2 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 1510. Sunny 60s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/1/2022 2:25 PM	00:00	5.49 pH	21.43 °C	2,621.9 µS/cm	1.14 mg/L	3.89 NTU	21.3 mV	20.29 ft	180.00 ml/min
2/1/2022 2:30 PM	05:00	5.51 pH	21.16 °C	2,649.7 µS/cm	0.58 mg/L	3.67 NTU	16.5 mV	20.50 ft	200.00 ml/min
2/1/2022 2:35 PM	10:00	5.52 pH	21.20 °C	2,620.8 µS/cm	0.53 mg/L	2.98 NTU	17.8 mV	20.50 ft	200.00 ml/min
2/1/2022 2:40 PM	15:00	5.55 pH	21.26 °C	2,479.5 µS/cm	0.52 mg/L	2.72 NTU	13.1 mV	20.50 ft	200.00 ml/min
2/1/2022 2:45 PM	20:00	5.57 pH	21.38 °C	2,340.1 µS/cm	0.76 mg/L	2.25 NTU	17.0 mV	20.50 ft	200.00 ml/min
2/1/2022 2:50 PM	25:00	5.57 pH	21.25 °C	2,330.5 µS/cm	0.86 mg/L	1.57 NTU	13.1 mV	20.50 ft	200.00 ml/min
2/1/2022 2:55 PM	30:00	5.57 pH	21.16 °C	2,319.5 µS/cm	0.90 mg/L	1.38 NTU	18.4 mV	20.50 ft	200.00 ml/min
2/1/2022 3:00 PM	35:00	5.57 pH	21.32 °C	2,315.7 µS/cm	0.97 mg/L	1.14 NTU	16.1 mV	20.50 ft	200.00 ml/min
2/1/2022 3:05 PM	40:00	5.57 pH	21.28 °C	2,312.1 µS/cm	0.98 mg/L	1.02 NTU	17.8 mV	20.50 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/1/2022 9:15:18 AM

Project: Grumman Road

Operator Name: J. Berisford

<b>Location Name: GWC-17</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 18.5 ft</b> <b>Total Depth: 23.5 ft</b> <b>Initial Depth to Water: 5.96 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 21 ft</b> <b>Estimated Total Volume Pumped: 31.5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 175 ml/min</b> <b>Final Draw Down: 20.8 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

No sample collect. Redeveloping due to high turbidity

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/1/2022 9:15 AM	00:00	6.59 pH	15.35 °C	16.69 µS/cm	10.35 mg/L	12.00 NTU	242.6 mV	5.96 ft	175.00 ml/min
2/1/2022 9:20 AM	05:00	5.76 pH	16.65 °C	488.98 µS/cm	0.56 mg/L	10.00 NTU	103.9 mV	6.80 ft	175.00 ml/min
2/1/2022 9:25 AM	10:00	5.76 pH	17.38 °C	483.20 µS/cm	0.24 mg/L	15.00 NTU	98.4 mV	7.30 ft	175.00 ml/min
2/1/2022 9:30 AM	15:00	5.77 pH	17.42 °C	483.65 µS/cm	0.19 mg/L	15.00 NTU	94.7 mV	7.50 ft	175.00 ml/min
2/1/2022 9:35 AM	20:00	5.87 pH	17.50 °C	585.80 µS/cm	0.16 mg/L	33.00 NTU	94.1 mV	7.60 ft	175.00 ml/min
2/1/2022 9:40 AM	25:00	5.16 pH	18.12 °C	1,384.7 µS/cm	0.14 mg/L	51.00 NTU	95.4 mV	7.70 ft	175.00 ml/min
2/1/2022 9:45 AM	30:00	4.97 pH	18.29 °C	1,644.0 µS/cm	0.13 mg/L	55.00 NTU	92.5 mV	7.70 ft	175.00 ml/min
2/1/2022 9:50 AM	35:00	4.86 pH	18.26 °C	1,817.7 µS/cm	0.13 mg/L	59.00 NTU	90.2 mV	7.70 ft	175.00 ml/min
2/1/2022 9:55 AM	40:00	4.82 pH	18.44 °C	1,895.2 µS/cm	0.12 mg/L	52.00 NTU	87.9 mV	7.70 ft	175.00 ml/min
2/1/2022 10:00 AM	45:00	4.79 pH	18.56 °C	1,959.3 µS/cm	0.11 mg/L	28.00 NTU	85.7 mV	7.70 ft	175.00 ml/min
2/1/2022 10:05 AM	50:00	5.83 pH	17.91 °C	417.98 µS/cm	0.15 mg/L	11.00 NTU	63.7 mV	7.70 ft	175.00 ml/min
2/1/2022 10:10 AM	55:00	5.88 pH	17.93 °C	406.73 µS/cm	0.14 mg/L	9.97 NTU	65.9 mV	7.70 ft	175.00 ml/min
2/1/2022 10:15 AM	01:00:00	4.88 pH	18.16 °C	1,886.8 µS/cm	0.11 mg/L	39.00 NTU	87.4 mV	7.70 ft	175.00 ml/min
2/1/2022 10:20 AM	01:05:00	4.80 pH	18.79 °C	1,974.6 µS/cm	0.09 mg/L	44.00 NTU	83.0 mV	7.70 ft	175.00 ml/min
2/1/2022 10:25 AM	01:10:00	4.79 pH	19.12 °C	1,978.3 µS/cm	0.09 mg/L	67.00 NTU	80.0 mV	7.70 ft	175.00 ml/min

2/1/2022 10:30 AM	01:15:00	4.79 pH	19.28 °C	1,980.9 µS/cm	0.08 mg/L	75.00 NTU	77.9 mV	7.70 ft	175.00 ml/min
2/1/2022 10:35 AM	01:20:00	4.76 pH	19.42 °C	2,031.7 µS/cm	0.08 mg/L	73.00 NTU	76.3 mV	7.70 ft	175.00 ml/min
2/1/2022 10:40 AM	01:25:00	4.77 pH	19.60 °C	1,979.2 µS/cm	0.08 mg/L	71.00 NTU	73.9 mV	7.70 ft	175.00 ml/min
2/1/2022 10:45 AM	01:30:00	4.76 pH	19.68 °C	2,032.8 µS/cm	0.08 mg/L	75.00 NTU	72.8 mV	7.70 ft	175.00 ml/min
2/1/2022 10:50 AM	01:35:00	4.75 pH	19.77 °C	2,032.1 µS/cm	0.07 mg/L	77.00 NTU	71.1 mV	7.70 ft	175.00 ml/min
2/1/2022 10:55 AM	01:40:00	4.74 pH	19.78 °C	2,038.0 µS/cm	0.07 mg/L	85.00 NTU	69.8 mV	7.70 ft	175.00 ml/min
2/1/2022 11:00 AM	01:45:00	4.74 pH	19.82 °C	2,069.7 µS/cm	0.07 mg/L	91.00 NTU	68.6 mV	7.70 ft	175.00 ml/min
2/1/2022 11:05 AM	01:50:00	4.73 pH	19.86 °C	2,070.1 µS/cm	0.07 mg/L	93.00 NTU	67.2 mV	7.70 ft	175.00 ml/min
2/1/2022 11:10 AM	01:55:00	4.72 pH	19.90 °C	2,072.7 µS/cm	0.07 mg/L	96.00 NTU	66.1 mV	7.70 ft	175.00 ml/min
2/1/2022 11:15 AM	02:00:00	4.72 pH	19.89 °C	2,089.9 µS/cm	0.06 mg/L	98.00 NTU	64.8 mV	7.70 ft	175.00 ml/min
2/1/2022 11:20 AM	02:05:00	4.72 pH	19.91 °C	2,088.7 µS/cm	0.06 mg/L	105.00 NTU	63.7 mV	7.70 ft	175.00 ml/min
2/1/2022 11:25 AM	02:10:00	4.76 pH	20.00 °C	2,025.9 µS/cm	0.06 mg/L	129.00 NTU	61.8 mV	7.70 ft	175.00 ml/min
2/1/2022 11:30 AM	02:15:00	4.76 pH	20.04 °C	2,007.8 µS/cm	0.06 mg/L	117.00 NTU	60.5 mV	7.70 ft	175.00 ml/min
2/1/2022 11:35 AM	02:20:00	4.74 pH	20.13 °C	2,051.7 µS/cm	0.06 mg/L	127.00 NTU	60.2 mV	7.70 ft	175.00 ml/min
2/1/2022 11:40 AM	02:25:00	4.76 pH	20.22 °C	2,030.6 µS/cm	0.05 mg/L	133.00 NTU	59.0 mV	7.70 ft	175.00 ml/min
2/1/2022 11:45 AM	02:30:00	4.76 pH	20.40 °C	2,010.0 µS/cm	0.05 mg/L	116.00 NTU	57.6 mV	7.70 ft	175.00 ml/min
2/1/2022 11:50 AM	02:35:00	4.77 pH	20.48 °C	2,006.5 µS/cm	0.05 mg/L	97.00 NTU	56.6 mV	7.70 ft	175.00 ml/min
2/1/2022 11:55 AM	02:40:00	4.75 pH	20.58 °C	2,012.8 µS/cm	0.05 mg/L	90.00 NTU	55.6 mV	7.70 ft	175.00 ml/min
2/1/2022 12:00 PM	02:45:00	4.76 pH	20.66 °C	1,995.2 µS/cm	0.05 mg/L	88.00 NTU	54.2 mV	7.70 ft	175.00 ml/min
2/1/2022 12:05 PM	02:50:00	4.74 pH	20.64 °C	2,034.1 µS/cm	0.05 mg/L	80.00 NTU	54.3 mV	7.70 ft	175.00 ml/min
2/1/2022 12:10 PM	02:55:00	4.74 pH	20.71 °C	2,019.0 µS/cm	0.05 mg/L	88.00 NTU	53.4 mV	7.70 ft	175.00 ml/min
2/1/2022 12:15 PM	03:00:00	4.74 pH	20.60 °C	2,015.8 µS/cm	0.05 mg/L	95.00 NTU	52.7 mV	7.70 ft	175.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/1/2022 2:10:14 PM

Project: Grumman Road

Operator Name: J. Berisford

<b>Location Name: GWC-17</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 18.5 ft</b> <b>Total Depth: 23.5 ft</b> <b>Initial Depth to Water: 9.21 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 21 ft</b> <b>Estimated Total Volume Pumped: 5 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 200 ml/min</b> <b>Final Draw Down: 23.8 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sunny, sample time-1435. Well redeveloped 2/1/2022

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/1/2022 2:10 PM	00:00	4.56 pH	21.47 °C	2,198.1 µS/cm	2.47 mg/L	3.71 NTU	70.0 mV	9.21 ft	200.00 ml/min
2/1/2022 2:15 PM	05:00	4.55 pH	21.40 °C	2,217.7 µS/cm	2.39 mg/L	1.67 NTU	68.7 mV	10.30 ft	200.00 ml/min
2/1/2022 2:20 PM	10:00	4.56 pH	21.38 °C	2,196.7 µS/cm	2.58 mg/L	1.65 NTU	67.1 mV	10.70 ft	200.00 ml/min
2/1/2022 2:25 PM	15:00	4.55 pH	21.13 °C	2,191.7 µS/cm	2.62 mg/L	1.31 NTU	66.0 mV	11.10 ft	200.00 ml/min
2/1/2022 2:30 PM	20:00	4.54 pH	21.14 °C	2,188.7 µS/cm	2.55 mg/L	1.44 NTU	64.8 mV	11.20 ft	200.00 ml/min
2/1/2022 2:35 PM	25:00	4.53 pH	21.11 °C	2,197.3 µS/cm	2.52 mg/L	1.38 NTU	64.1 mV	11.20 ft	200.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/1/2022 9:20:55 AM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: GWC-20</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 20 ft</b> <b>Total Depth: 25.04 ft</b> <b>Initial Depth to Water: 20.87 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 22 ft</b> <b>Estimated Total Volume Pumped: 19.1 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 225 ml/min</b> <b>Final Draw Down: 5 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 1050. Sunny 60s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/1/2022 9:20 AM	00:00	5.90 pH	17.02 °C	2,180.3 µS/cm	0.95 mg/L	4.52 NTU	28.9 mV	20.87 ft	225.00 ml/min
2/1/2022 9:25 AM	05:00	5.91 pH	18.17 °C	2,146.1 µS/cm	1.42 mg/L	3.76 NTU	9.7 mV	21.30 ft	225.00 ml/min
2/1/2022 9:30 AM	10:00	5.92 pH	18.54 °C	2,139.1 µS/cm	2.49 mg/L	1.77 NTU	-3.7 mV	21.30 ft	225.00 ml/min
2/1/2022 9:35 AM	15:00	5.91 pH	18.67 °C	2,130.2 µS/cm	4.64 mg/L	1.24 NTU	-10.1 mV	21.30 ft	225.00 ml/min
2/1/2022 9:40 AM	20:00	5.91 pH	18.89 °C	2,091.2 µS/cm	4.71 mg/L	0.89 NTU	3.8 mV	21.30 ft	225.00 ml/min
2/1/2022 9:45 AM	25:00	5.92 pH	18.93 °C	2,101.5 µS/cm	4.00 mg/L	0.85 NTU	-12.3 mV	21.30 ft	225.00 ml/min
2/1/2022 9:50 AM	30:00	5.91 pH	18.98 °C	2,124.4 µS/cm	3.76 mg/L	0.92 NTU	-10.2 mV	21.30 ft	225.00 ml/min
2/1/2022 9:55 AM	35:00	5.91 pH	19.02 °C	2,105.2 µS/cm	3.11 mg/L	0.87 NTU	-9.4 mV	21.30 ft	225.00 ml/min
2/1/2022 10:00 AM	40:00	5.91 pH	19.05 °C	2,111.4 µS/cm	3.68 mg/L	0.81 NTU	-9.1 mV	21.30 ft	225.00 ml/min
2/1/2022 10:05 AM	45:00	5.91 pH	19.31 °C	2,076.6 µS/cm	4.71 mg/L	0.77 NTU	-7.3 mV	21.30 ft	225.00 ml/min
2/1/2022 10:10 AM	50:00	5.91 pH	19.24 °C	2,106.6 µS/cm	4.03 mg/L	0.74 NTU	-6.4 mV	21.30 ft	225.00 ml/min
2/1/2022 10:15 AM	55:00	5.91 pH	19.24 °C	2,086.2 µS/cm	5.09 mg/L	0.62 NTU	9.3 mV	21.30 ft	225.00 ml/min
2/1/2022 10:20 AM	01:00:00	5.91 pH	19.32 °C	2,128.8 µS/cm	4.34 mg/L	1.08 NTU	-2.9 mV	21.30 ft	225.00 ml/min
2/1/2022 10:25 AM	01:05:00	5.91 pH	19.11 °C	2,146.1 µS/cm	1.87 mg/L	1.00 NTU	7.4 mV	21.30 ft	225.00 ml/min
2/1/2022 10:30 AM	01:10:00	5.90 pH	19.42 °C	2,125.1 µS/cm	2.08 mg/L	0.98 NTU	-2.7 mV	21.30 ft	225.00 ml/min

2/1/2022 10:35 AM	01:15:00	5.91 pH	19.56 °C	2,119.3 μS/cm	2.41 mg/L	0.91 NTU	1.1 mV	21.30 ft	225.00 ml/min
2/1/2022 10:40 AM	01:20:00	5.91 pH	19.58 °C	2,120.8 μS/cm	2.60 mg/L	1.02 NTU	-1.0 mV	21.30 ft	225.00 ml/min
2/1/2022 10:45 AM	01:25:00	5.90 pH	19.60 °C	2,117.7 μS/cm	2.54 mg/L	1.18 NTU	11.2 mV	21.30 ft	225.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/1/2022 11:25:13 AM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: GWC-21</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 18.85 ft</b> <b>Total Depth: 23.85 ft</b> <b>Initial Depth to Water: 20.21 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 22 ft</b> <b>Estimated Total Volume Pumped: 26.1 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 180 ml/min</b> <b>Final Draw Down: 4 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 1355. Sunny 60

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/1/2022 11:25 AM	00:00	5.22 pH	19.71 °C	94.93 µS/cm	5.71 mg/L	288.00 NTU	80.0 mV	20.21 ft	180.00 ml/min
2/1/2022 11:30 AM	05:00	5.21 pH	20.02 °C	93.30 µS/cm	5.51 mg/L	2.56 NTU	69.9 mV	20.50 ft	180.00 ml/min
2/1/2022 11:35 AM	10:00	5.20 pH	20.13 °C	95.95 µS/cm	5.36 mg/L	1.36 NTU	74.6 mV	20.50 ft	180.00 ml/min
2/1/2022 11:40 AM	15:00	5.19 pH	20.13 °C	97.17 µS/cm	5.07 mg/L	0.83 NTU	68.8 mV	20.50 ft	180.00 ml/min
2/1/2022 11:45 AM	20:00	5.21 pH	20.14 °C	107.88 µS/cm	4.84 mg/L	0.71 NTU	67.3 mV	20.50 ft	180.00 ml/min
2/1/2022 11:50 AM	25:00	5.37 pH	20.42 °C	177.71 µS/cm	4.14 mg/L	0.69 NTU	102.2 mV	20.50 ft	180.00 ml/min
2/1/2022 11:55 AM	30:00	5.45 pH	20.42 °C	238.16 µS/cm	3.72 mg/L	0.65 NTU	55.7 mV	20.50 ft	180.00 ml/min
2/1/2022 12:00 PM	35:00	5.54 pH	20.36 °C	320.49 µS/cm	3.35 mg/L	0.61 NTU	75.1 mV	20.50 ft	180.00 ml/min
2/1/2022 12:05 PM	40:00	5.58 pH	20.40 °C	390.37 µS/cm	3.11 mg/L	0.53 NTU	46.6 mV	20.50 ft	180.00 ml/min
2/1/2022 12:10 PM	45:00	5.61 pH	20.45 °C	466.59 µS/cm	2.86 mg/L	0.65 NTU	62.3 mV	20.50 ft	180.00 ml/min
2/1/2022 12:15 PM	50:00	5.64 pH	20.43 °C	565.09 µS/cm	2.56 mg/L	0.76 NTU	40.5 mV	20.50 ft	180.00 ml/min
2/1/2022 12:20 PM	55:00	5.70 pH	20.44 °C	676.68 µS/cm	2.34 mg/L	0.77 NTU	52.0 mV	20.50 ft	180.00 ml/min
2/1/2022 12:25 PM	01:00:00	5.73 pH	20.44 °C	757.52 µS/cm	2.30 mg/L	0.71 NTU	34.9 mV	20.50 ft	180.00 ml/min
2/1/2022 12:30 PM	01:05:00	5.75 pH	20.05 °C	809.23 µS/cm	2.80 mg/L	0.67 NTU	76.8 mV	20.50 ft	180.00 ml/min
2/1/2022 12:35 PM	01:10:00	5.76 pH	20.58 °C	854.98 µS/cm	2.21 mg/L	0.58 NTU	40.3 mV	20.50 ft	180.00 ml/min

2/1/2022 12:40 PM	01:15:00	5.76 pH	20.74 °C	873.02 µS/cm	2.09 mg/L	0.56 NTU	29.9 mV	20.50 ft	180.00 ml/min
2/1/2022 12:45 PM	01:20:00	5.80 pH	20.98 °C	1,128.3 µS/cm	1.88 mg/L	0.59 NTU	23.4 mV	20.50 ft	180.00 ml/min
2/1/2022 12:50 PM	01:25:00	5.79 pH	21.11 °C	1,045.3 µS/cm	1.72 mg/L	0.61 NTU	24.4 mV	20.50 ft	180.00 ml/min
2/1/2022 12:55 PM	01:30:00	5.77 pH	21.22 °C	1,019.9 µS/cm	1.71 mg/L	0.55 NTU	23.7 mV	20.50 ft	180.00 ml/min
2/1/2022 1:00 PM	01:35:00	5.78 pH	21.34 °C	1,076.8 µS/cm	1.67 mg/L	0.59 NTU	22.7 mV	20.50 ft	180.00 ml/min
2/1/2022 1:05 PM	01:40:00	5.78 pH	21.07 °C	1,063.2 µS/cm	1.62 mg/L	0.64 NTU	21.9 mV	20.50 ft	180.00 ml/min
2/1/2022 1:10 PM	01:45:00	5.76 pH	21.11 °C	1,023.3 µS/cm	1.69 mg/L	0.65 NTU	21.3 mV	20.50 ft	180.00 ml/min
2/1/2022 1:15 PM	01:50:00	5.76 pH	21.03 °C	1,010.3 µS/cm	1.95 mg/L	0.67 NTU	22.2 mV	20.50 ft	180.00 ml/min
2/1/2022 1:20 PM	01:55:00	5.76 pH	21.02 °C	1,036.5 µS/cm	1.87 mg/L	0.79 NTU	21.4 mV	20.50 ft	180.00 ml/min
2/1/2022 1:25 PM	02:00:00	5.76 pH	20.96 °C	1,021.1 µS/cm	1.89 mg/L	0.67 NTU	21.9 mV	20.50 ft	180.00 ml/min
2/1/2022 1:30 PM	02:05:00	5.76 pH	20.98 °C	1,044.0 µS/cm	1.75 mg/L	0.55 NTU	22.2 mV	20.50 ft	180.00 ml/min
2/1/2022 1:35 PM	02:10:00	5.77 pH	20.84 °C	1,067.5 µS/cm	1.87 mg/L	0.58 NTU	20.7 mV	20.50 ft	180.00 ml/min
2/1/2022 1:40 PM	02:15:00	5.77 pH	20.98 °C	1,074.3 µS/cm	1.99 mg/L	0.56 NTU	21.7 mV	20.50 ft	180.00 ml/min
2/1/2022 1:45 PM	02:20:00	5.75 pH	21.05 °C	1,036.1 µS/cm	1.87 mg/L	0.59 NTU	22.5 mV	20.50 ft	180.00 ml/min
2/1/2022 1:50 PM	02:25:00	5.76 pH	21.03 °C	1,042.5 µS/cm	1.87 mg/L	0.56 NTU	23.1 mV	20.50 ft	180.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/3/2022 5:05:14 PM

Project: Grumman Road

Operator Name: J. Berisford

<b>Location Name: GWC-22</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 11.8 ft</b> <b>Total Depth: 16.8 ft</b> <b>Initial Depth to Water: 8.06 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 14 ft</b> <b>Estimated Total Volume Pumped: 7.4 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 165 ml/min</b> <b>Final Draw Down: 4.9 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sunny, 40s, sample time-1750, FB-3 here at 1720

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/3/2022 5:05 PM	00:00	5.12 pH	23.21 °C	0.79 µS/cm	8.42 mg/L	5.55 NTU	104.0 mV	8.06 ft	165.00 ml/min
2/3/2022 5:10 PM	05:00	4.68 pH	19.53 °C	117.24 µS/cm	0.39 mg/L	8.31 NTU	71.6 mV	8.30 ft	165.00 ml/min
2/3/2022 5:15 PM	10:00	4.65 pH	19.20 °C	119.26 µS/cm	0.23 mg/L	12.00 NTU	74.4 mV	8.40 ft	165.00 ml/min
2/3/2022 5:20 PM	15:00	4.64 pH	18.87 °C	118.18 µS/cm	0.22 mg/L	9.43 NTU	77.1 mV	8.40 ft	165.00 ml/min
2/3/2022 5:25 PM	20:00	4.64 pH	19.00 °C	118.92 µS/cm	0.20 mg/L	11.00 NTU	79.2 mV	8.40 ft	165.00 ml/min
2/3/2022 5:30 PM	25:00	4.63 pH	19.10 °C	119.24 µS/cm	0.17 mg/L	9.21 NTU	81.3 mV	8.40 ft	165.00 ml/min
2/3/2022 5:35 PM	30:00	4.64 pH	18.52 °C	118.19 µS/cm	0.25 mg/L	6.51 NTU	83.7 mV	8.40 ft	165.00 ml/min
2/3/2022 5:40 PM	35:00	4.65 pH	18.61 °C	118.69 µS/cm	0.22 mg/L	5.82 NTU	85.3 mV	8.40 ft	165.00 ml/min
2/3/2022 5:45 PM	40:00	4.64 pH	18.84 °C	119.93 µS/cm	0.18 mg/L	5.27 NTU	87.3 mV	8.40 ft	165.00 ml/min
2/3/2022 5:50 PM	45:00	4.63 pH	18.96 °C	119.40 µS/cm	0.16 mg/L	4.93 NTU	89.1 mV	8.40 ft	165.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/3/2022 10:10:11 AM

Project: Grumman Road

Operator Name: J. Berisford

<b>Location Name: MW-23D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 53.33 ft</b> <b>Total Depth: 63.33 ft</b> <b>Initial Depth to Water: 22.65 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 58 ft</b> <b>Estimated Total Volume Pumped: 20.2 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 225 ml/min</b> <b>Final Draw Down: 19.8 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sunny, 50s, sample time -1140, DUP-3 here

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/3/2022 10:10 AM	00:00	4.60 pH	22.09 °C	3.28 µS/cm	8.64 mg/L	4.95 NTU	135.4 mV	22.65 ft	225.00 ml/min
2/3/2022 10:15 AM	05:00	5.92 pH	21.32 °C	61.68 µS/cm	0.97 mg/L	5.22 NTU	76.3 mV	23.20 ft	225.00 ml/min
2/3/2022 10:20 AM	10:00	6.07 pH	21.38 °C	73.08 µS/cm	0.58 mg/L	3.07 NTU	77.4 mV	23.70 ft	225.00 ml/min
2/3/2022 10:25 AM	15:00	6.11 pH	21.38 °C	114.84 µS/cm	0.43 mg/L	3.55 NTU	64.6 mV	23.90 ft	225.00 ml/min
2/3/2022 10:30 AM	20:00	6.22 pH	21.44 °C	182.55 µS/cm	0.35 mg/L	3.28 NTU	31.2 mV	24.20 ft	225.00 ml/min
2/3/2022 10:35 AM	25:00	6.28 pH	21.51 °C	199.62 µS/cm	0.30 mg/L	2.81 NTU	6.1 mV	24.40 ft	225.00 ml/min
2/3/2022 10:40 AM	30:00	6.31 pH	21.60 °C	202.72 µS/cm	0.27 mg/L	4.38 NTU	-12.5 mV	24.30 ft	225.00 ml/min
2/3/2022 10:45 AM	35:00	6.32 pH	21.64 °C	204.85 µS/cm	0.25 mg/L	6.21 NTU	-28.8 mV	24.30 ft	225.00 ml/min
2/3/2022 10:50 AM	40:00	6.33 pH	21.70 °C	208.17 µS/cm	0.16 mg/L	5.33 NTU	-48.8 mV	24.30 ft	225.00 ml/min
2/3/2022 10:55 AM	45:00	6.33 pH	21.80 °C	211.92 µS/cm	0.17 mg/L	5.92 NTU	-61.7 mV	24.30 ft	225.00 ml/min
2/3/2022 11:00 AM	50:00	6.31 pH	21.96 °C	230.83 µS/cm	0.16 mg/L	4.72 NTU	-71.3 mV	24.30 ft	225.00 ml/min
2/3/2022 11:05 AM	55:00	6.17 pH	21.91 °C	265.27 µS/cm	0.15 mg/L	3.24 NTU	-63.6 mV	24.30 ft	225.00 ml/min
2/3/2022 11:10 AM	01:00:00	6.15 pH	22.04 °C	249.67 µS/cm	0.14 mg/L	3.26 NTU	-60.6 mV	24.30 ft	225.00 ml/min
2/3/2022 11:15 AM	01:05:00	6.14 pH	22.14 °C	247.58 µS/cm	0.15 mg/L	3.88 NTU	-57.2 mV	24.30 ft	225.00 ml/min
2/3/2022 11:20 AM	01:10:00	6.13 pH	22.24 °C	236.20 µS/cm	0.14 mg/L	3.18 NTU	-54.8 mV	24.30 ft	225.00 ml/min

2/3/2022 11:25 AM	01:15:00	6.12 pH	21.96 °C	231.84 µS/cm	0.14 mg/L	3.93 NTU	-52.9 mV	24.30 ft	225.00 ml/min
2/3/2022 11:30 AM	01:20:00	6.13 pH	22.03 °C	221.29 µS/cm	0.14 mg/L	2.41 NTU	-52.0 mV	24.30 ft	225.00 ml/min
2/3/2022 11:35 AM	01:25:00	6.14 pH	22.32 °C	217.30 µS/cm	0.13 mg/L	2.22 NTU	-51.1 mV	24.30 ft	225.00 ml/min
2/3/2022 11:40 AM	01:30:00	6.14 pH	22.36 °C	215.65 µS/cm	0.13 mg/L	2.38 NTU	-49.8 mV	24.30 ft	225.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/1/2022 3:45:21 PM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: MW-24D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 56.9 ft</b> <b>Total Depth: 66.89 ft</b> <b>Initial Depth to Water: 22.56 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 62 ft</b> <b>Estimated Total Volume Pumped: 8.8 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 44 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 1625. Sunny 60s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/1/2022 3:45 PM	00:00	6.54 pH	21.58 °C	83.75 µS/cm	0.93 mg/L	3.26 NTU	-27.2 mV	22.56 ft	250.00 ml/min
2/1/2022 3:50 PM	05:00	6.52 pH	21.47 °C	83.41 µS/cm	0.69 mg/L	3.14 NTU	-24.4 mV	25.00 ft	250.00 ml/min
2/1/2022 3:55 PM	10:00	6.54 pH	21.45 °C	82.94 µS/cm	0.65 mg/L	2.92 NTU	-55.6 mV	26.10 ft	250.00 ml/min
2/1/2022 4:00 PM	15:00	6.55 pH	21.33 °C	80.70 µS/cm	0.61 mg/L	2.26 NTU	-43.5 mV	26.20 ft	250.00 ml/min
2/1/2022 4:05 PM	20:00	6.57 pH	21.34 °C	81.45 µS/cm	0.54 mg/L	2.14 NTU	-40.0 mV	26.20 ft	250.00 ml/min
2/1/2022 4:10 PM	25:00	6.58 pH	21.26 °C	81.63 µS/cm	0.45 mg/L	1.99 NTU	-12.6 mV	26.20 ft	250.00 ml/min
2/1/2022 4:15 PM	30:00	6.64 pH	21.34 °C	79.50 µS/cm	0.39 mg/L	2.34 NTU	-11.9 mV	26.20 ft	250.00 ml/min
2/1/2022 4:20 PM	35:00	6.63 pH	21.17 °C	82.61 µS/cm	0.34 mg/L	2.15 NTU	-13.1 mV	26.20 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/3/2022 2:00:36 PM

Project: Grumman Road

Operator Name: J. Berisford

<b>Location Name: MW-25D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 58.8 ft</b> <b>Total Depth: 68.8 ft</b> <b>Initial Depth to Water: 20.64 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 63 ft</b> <b>Estimated Total Volume Pumped: 5.25 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 150 ml/min</b> <b>Final Draw Down: 39.1 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Sunny, 50s, sample time-1435

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/3/2022 2:00 PM	00:00	5.21 pH	28.88 °C	0.41 µS/cm	7.77 mg/L	4.23 NTU	154.6 mV	20.64 ft	150.00 ml/min
2/3/2022 2:05 PM	05:00	6.15 pH	22.63 °C	46.76 µS/cm	0.67 mg/L	2.91 NTU	-4.9 mV	21.40 ft	150.00 ml/min
2/3/2022 2:10 PM	10:00	6.14 pH	22.00 °C	47.09 µS/cm	0.34 mg/L	3.62 NTU	-6.7 mV	22.30 ft	150.00 ml/min
2/3/2022 2:15 PM	15:00	6.15 pH	21.96 °C	47.29 µS/cm	0.28 mg/L	2.48 NTU	-6.2 mV	23.00 ft	150.00 ml/min
2/3/2022 2:20 PM	20:00	6.15 pH	22.07 °C	47.20 µS/cm	0.26 mg/L	1.99 NTU	-6.2 mV	23.40 ft	150.00 ml/min
2/3/2022 2:25 PM	25:00	6.15 pH	22.05 °C	47.12 µS/cm	0.28 mg/L	1.22 NTU	-4.8 mV	23.80 ft	150.00 ml/min
2/3/2022 2:30 PM	30:00	6.14 pH	22.11 °C	47.13 µS/cm	0.26 mg/L	1.59 NTU	-3.0 mV	23.90 ft	150.00 ml/min
2/3/2022 2:35 PM	35:00	6.15 pH	22.28 °C	46.98 µS/cm	0.24 mg/L	1.32 NTU	-4.8 mV	23.90 ft	150.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/2/2022 1:45:05 PM

Project: Grumman Road

Operator Name: A. Schnittker

<b>Location Name: MW-26D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 59.9 ft</b> <b>Total Depth: 69.92 ft</b> <b>Initial Depth to Water: 19.59 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 64 ft</b> <b>Estimated Total Volume Pumped: 9 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 300 ml/min Final Draw Down: 1 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 884187</b>
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## Test Notes:

Sample time 1420. Sunny 60s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 10	+/- 5 %	+/- 10 %	+/- 10	+/- 10	+/- 0.3	
2/2/2022 1:45 PM	00:00	5.88 pH	23.71 °C	57.38 µS/cm	0.86 mg/L	1.21 NTU	53.6 mV	19.59 ft	300.00 ml/min
2/2/2022 1:50 PM	05:00	5.84 pH	21.85 °C	58.87 µS/cm	0.23 mg/L	1.26 NTU	48.3 mV	19.59 ft	300.00 ml/min
2/2/2022 1:55 PM	10:00	5.83 pH	21.97 °C	58.31 µS/cm	0.19 mg/L	1.27 NTU	45.1 mV	19.59 ft	300.00 ml/min
2/2/2022 2:00 PM	15:00	5.84 pH	21.58 °C	58.46 µS/cm	0.18 mg/L	0.95 NTU	42.6 mV	19.59 ft	300.00 ml/min
2/2/2022 2:05 PM	20:00	5.84 pH	21.51 °C	58.43 µS/cm	0.16 mg/L	1.37 NTU	41.4 mV	19.59 ft	300.00 ml/min
2/2/2022 2:10 PM	25:00	5.83 pH	21.25 °C	58.45 µS/cm	0.15 mg/L	1.24 NTU	40.0 mV	19.59 ft	300.00 ml/min
2/2/2022 2:15 PM	30:00	5.82 pH	21.10 °C	58.33 µS/cm	0.14 mg/L	1.19 NTU	40.2 mV	19.59 ft	300.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

Test Date / Time: 2/2/2022 4:25:20 PM

Project: Grumman Road

Operator Name: J. Berisford

<b>Location Name: MW-27D</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 62.42 ft</b> <b>Total Depth: 72.42 ft</b> <b>Initial Depth to Water: 21.12 ft</b>	<b>Pump Type: Peri. Pump</b> <b>Tubing Type: Poly</b> <b>Pump Intake From TOC: 67 ft</b> <b>Estimated Total Volume Pumped: 8.75 liter</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 250 ml/min</b> <b>Final Draw Down: 47.1 in</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 714293</b>
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## Test Notes:

Cloudy, 50s, sample time -1500, DUP-2 here

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/2/2022 4:25 PM	00:00	5.60 pH	22.90 °C	22.48 µS/cm	8.69 mg/L	8.30 NTU	257.4 mV	21.12 ft	250.00 ml/min
2/2/2022 4:30 PM	05:00	6.01 pH	21.08 °C	40.95 µS/cm	0.68 mg/L	3.11 NTU	76.5 mV	22.00 ft	250.00 ml/min
2/2/2022 4:35 PM	10:00	5.75 pH	20.96 °C	39.57 µS/cm	0.32 mg/L	2.08 NTU	71.8 mV	23.30 ft	250.00 ml/min
2/2/2022 4:40 PM	15:00	5.73 pH	20.89 °C	38.65 µS/cm	0.27 mg/L	1.18 NTU	68.6 mV	24.50 ft	250.00 ml/min
2/2/2022 4:45 PM	20:00	5.73 pH	20.85 °C	38.38 µS/cm	0.24 mg/L	2.93 NTU	67.2 mV	25.00 ft	250.00 ml/min
2/2/2022 4:50 PM	25:00	5.74 pH	20.80 °C	37.77 µS/cm	0.22 mg/L	1.54 NTU	64.4 mV	25.10 ft	250.00 ml/min
2/2/2022 4:55 PM	30:00	5.74 pH	20.69 °C	37.71 µS/cm	0.22 mg/L	2.07 NTU	63.1 mV	25.10 ft	250.00 ml/min
2/2/2022 5:00 PM	35:00	5.72 pH	20.58 °C	37.59 µS/cm	0.23 mg/L	1.80 NTU	61.3 mV	25.10 ft	250.00 ml/min

## Samples

Sample ID:	Description:
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## APPENDIX B

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*Daily Instrument Calibration Logs  
February 2022 Monitoring Event*



### Daily Instrument Calibration Log

SITE: Greenway PA  
 TECHNICIAN: S. Beckford  
 WATER LEVEL: 6.0301  
 WATER LEVEL SR: 269301

INSTRUMENT SR: 214295  
 INSTRUMENT TYPE: AquaTroll  
 CAL. SOLUTIONS:

01: pH 4	LOT #: 11076193	EXP. DATE: 2/16
02: pH 7	LOT #: 11076194	EXP. DATE: 2/16
03: pH 10	LOT #: 11076195	EXP. DATE: 6/15
04: Ca-1	LOT #: 1600947	EXP. DATE: 6/17
05: ORP	LOT #: 21410141	EXP. DATE: 8/22
06:	LOT #:	EXP. DATE:
07:	LOT #:	EXP. DATE:

**Ministry pH check**  
 Must be less than 10  
 (6.90-7.10 range)  
 Result: 7.00 within range

Calibration Date: 1/10/16

RDO: 100% sat. = 10.6  
 PH: 4.00 = 4.36      7.00 = 7.14      10.00 = 9.42  
 PH Recal if needed: 4.00 =      7.00 =      10.00 =  
 CONDUCTIVITY: 1413 = 1178  
 ORP (mV) 225 = 214

**Ministry pH check**  
 7.0 = 7.08

Calibration Date: 2/1/16

RDO: 100% sat. = 99.7  
 PH: 4.00 = 4.49      7.00 = 7.33      10.00 = 10.12  
 PH Recal if needed: 4.00 =      7.00 =      10.00 =  
 CONDUCTIVITY: 1413 = 1165  
 ORP (mV) 228 = 225

**Ministry pH check**  
 7.0 = 7.41

Calibration Date: 2/10/17

RDO: 100% sat. = 97.9  
 PH: 4.00 = 4.37      7.00 = 6.88      10.00 = 10.10  
 PH Recal if needed: 4.00 =      7.00 =      10.00 =  
 CONDUCTIVITY: 1413 = 1398  
 ORP (mV) 228 = 232

**Ministry pH check**  
 7.0 = 7.67

Calibration Date: 1/11/16

RDO: 100% sat. = 110  
 PH: 4.00 = 7.00      7.00 = 6.96      10.00 = 10.04  
 PH Recal if needed: 4.00 =      7.00 =      10.00 =  
 CONDUCTIVITY: 1413 = 1411  
 ORP (mV) 228 = 228

**Ministry pH check**  
 7.0 = 6.98

Calibration Date:

RDO: 100% sat. =  
 PH: 4.00 =      7.00 =      10.00 =  
 PH Recal if needed: 4.00 =      7.00 =      10.00 =  
 CONDUCTIVITY: =  
 ORP (mV) =

**Ministry pH check**  
 7.0 =  
 7.0 =





### Daily Instrument Calibration Log

SITE: Greenwood Rd  
TECHNICIAN: JD Smith

INSTRUMENT SN: 11090C012353  
INSTRUMENT TYPE: 1100 2100

CAL. SOLUTION: 0 NTU - LOT # A12 EXP. DATE: 5/1/22  
10 NTU - LOT # A12013 EXP. DATE: 6/1/22  
20 NTU - LOT # A1207 EXP. DATE: 6/1/22

Calibration Date: 1/14/22

Calibration Solution	Instrument Reading	
0.0	0.15	NTU
10.0	9.72	NTU
20.0	20.1	NTU

Calibration Date: 2/1/22

Calibration Solution	Instrument Reading	
0.0	<del>0.12</del> 0.12	NTU
10.0	10.3	NTU
20.0	20.9	NTU

Calibration Date: 2/1/22

Calibration Solution	Instrument Reading	
0.0	0.13	NTU
10.0	10.1	NTU
20.0	20.4	NTU

Calibration Date: 2/13/22

Calibration Solution	Instrument Reading	
0.0	0.11	NTU
10.0	10.2	NTU
20.0	19.9	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU



### Daily Instrument Calibration Log

SITE: Grumman Road  
 TECHNICIAN: Ana Schuttler  
 WATER LEVEL: S-Inst  
 WATER LEVEL S# 377060

INSTRUMENT S# 741302  
 INSTRUMENT TYPE: AquaTrol  
 CAL. SOLUTIONS:

PH 7	LOT# 2138102	EXP. DATE: 4/23
PH 10	LOT# 2008006	EXP. DATE: 4/23
Adj. Cal	LOT# 2147002	EXP. DATE: 4/23
PH 4	LOT# 166104	EXP. DATE: 7/23
ORP	LOT# 2100013	EXP. DATE: 4/23
Con	LOT# 106473	EXP. DATE: 7/23
	LOT#:	EXP. DATE:

Calibration Date: 1/31/22

RDO: 100% sol. - 100.11 Midday pH check

PH 4.00 = <u>4.95</u>	7.00 = <u>7.01</u>	10.00 = <u>10.17</u>	7.0 = <u>7.01</u>
PH Recal (if needed): 4.00 =	7.00 =	10.00 =	7.0 = not used check
CONDUCTIVITY: <u>1413</u>	= <u>1714</u>		
ORP (mV) <u>241</u>	= <u>230.3</u>		

Calibration Date: 2/1/22

RDO: 100% sol. - 101.14 Midday pH check

PH 4.00 = <u>4.04</u>	7.00 = <u>6.90</u>	10.00 = <u>11.23</u>	7.0 = <u>7.00</u>
PH Recal (if needed): 4.00 =	7.00 =	10.00 =	7.0 = not used check
CONDUCTIVITY: <u>1413</u>	= <u>1823</u>		
ORP (mV) <u>270</u>	= <u>248.5</u>		

Calibration Date: 2/2/22

RDO: 100% sol. - 99.54 Midday pH check

PH 4.00 = <u>3.98</u>	7.00 = <u>7.07</u>	10.00 = <u>10.13</u>	7.0 = <u>7.04</u>
PH Recal (if needed): 4.00 =	7.00 =	10.00 =	7.0 = not used check
CONDUCTIVITY: <u>1413</u>	= <u>1290.8</u>		
ORP (mV) <u>240</u>	= <u>250.5</u>		

Calibration Date: 2/3/22

RDO: 100% sol. - 99.11 Midday pH check

PH 4.00 = <u>4.07</u>	7.00 = <u>7.04</u>	10.00 = <u>10.09</u>	7.0 = <u>7.02</u>
PH Recal (if needed): 4.00 =	7.00 =	10.00 =	7.0 = not used check
CONDUCTIVITY: <u>1413</u>	= <u>1484</u>		
ORP (mV) <u>240</u>	= <u>239.1</u>		

Calibration Date:

RDO: 100% sol. -            Midday pH check

PH 4.00 =	7.00 =	10.00 =	7.0 =
PH Recal (if needed): 4.00 =	7.00 =	10.00 =	7.0 = not used check
CONDUCTIVITY:	=		
ORP (mV)	=		



### Daily Instrument Calibration Log

SITE: Grumman Rd  
TECHNICIAN: A Schmittler

INSTRUMENT S/N: 17120C0637107  
INSTRUMENT TYPE: Hach 2100S  
CAL. SOLUTION: 0 NTU - LOT # Fresh DI EXP. DATE: 11/22  
10 NTU - LOT # A1201R EXP. DATE: 11/22  
20 NTU - LOT # A1207 EXP. DATE: 11/22

Calibration Date: 1/5/22

Calibration Solution	Instrument Reading	
0.0	0.64	NTU
10.0	10.5	NTU
20.0	21.1	NTU

Calibration Date: 2/1/22

Calibration Solution	Instrument Reading	
0.0	0.58	NTU
10.0	10.1	NTU
20.0	20.9	NTU

Calibration Date: 2/2/22

Calibration Solution	Instrument Reading	
0.0	0.31	NTU
10.0	<del>20.1</del> 10.2	NTU
20.0	20.1	NTU

Calibration Date: 2/3/22

Calibration Solution	Instrument Reading	
0.0	0.25	NTU
10.0	10.5	NTU
20.0	20.0	NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

Calibration Date:

Calibration Solution	Instrument Reading	
0.0		NTU
10.0		NTU
20.0		NTU

## APPENDIX B

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*Well Inspection Forms  
February 2022 Monitoring Event*

**Grumman Road Landfill  
January 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

1 - Location/Identification		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
January 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

2 - Protective Outer Casing		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
January 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

3 - Surface Pad		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
January 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

4 - Internal Well Casing		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only):

		GWA-7	GWA-8	GWB-4R	GWB-5R	GWC-6R	GWC-1	GWC-2	GWC-9	GWC-10	GWC-11	GWC-12	GWC-13
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	No	No	No	No	No	N/A	No	No	No

NOTE: N/A - Not Applicable  
Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".



**Grumman Road Landfill  
January 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

6 - Based on your professional judgment, is the well construction / location appropriate to:

	<b>GWA-7</b>	<b>GWA-8</b>	<b>GWB-4R</b>	<b>GWB-5R</b>	<b>GWC-6R</b>	<b>GWC-1</b>	<b>GWC-2</b>	<b>GWC-9</b>	<b>GWC-10</b>	<b>GWC-11</b>	<b>GWC-12</b>	<b>GWC-13</b>
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

7 - Corrective actions completed and Notes:

Staff: A. Schnittker

Date: 1/31/2022

**Grumman Road Landfill  
January 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

1 - Location/Identification		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Is the well visible and accessible?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the well properly identified with the correct well ID?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well require protection from traffic?	No	No	No	No	No	No	No	No	No	No	No	No
d	Is the drainage around the well acceptable? (No standing water, nor is well located in obvious drainage flow path)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
January 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

2 - Protective Outer Casing		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Is the protective casing free from apparent damage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of degradation or deterioration?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the casing have a functioning weep hole?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the annular space between casings filled with pea gravel or sand?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the well locked, and is the lock in good working condition?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
January 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

3 - Surface Pad

		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Is the well pad in good condition? (Not cracked or broken)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Does the well pad provide adequate surface seal and stability to the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Is the well pad in complete contact with the protective casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the well pad in complete contact with the ground surface? (Not undermined by erosion, animal burrows, and does not move when stepped on)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the pad surface clean? (Not covered by soil or debris)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
January 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

4 - Internal Well Casing		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Does the well cap prevent entry of foreign material into the well?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Is the casing free of kinks or bends, or any obstruction from foreign objects (such as bailers) ?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Does the well have a venting hole near the top of casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	Is the survey point clearly marked on the inner casing?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Is the depth of the well consistent with the original well log?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
f	Does the PVC casing move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction?	No	No	No	No	No	No	No	No	No	No	No	No

5 - Sampling (Groundwater Monitoring Wells Only):

5 - Sampling (Groundwater Monitoring Wells Only):		GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWC-22	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
a	Does the well recharge adequately when purged?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	If dedicated sampling equipment is installed, is it in good condition?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	Does the well require redevelopment due to slow recharge or turbidity > 10 NTUs?	No	No	No	Yes	No	No	No	No	No	No	No	No

NOTE: N/A - Not Applicable  
Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

**Grumman Road Landfill  
January 2022 Well Inspection Form**



Permit No.: 025-061D(LI)

6 - Based on your professional judgment, is the well construction / location appropriate to:

	<b>GWC-14</b>	<b>GWC-15</b>	<b>GWC-16</b>	<b>GWC-17</b>	<b>GWC-20</b>	<b>GWC-21</b>	<b>GWC-22</b>	<b>MW-23D</b>	<b>MW-24D</b>	<b>MW-25D</b>	<b>MW-26D</b>	<b>MW-27D</b>
1) achieve the objectives of the facility Groundwater Monitoring Program, and 2) comply with the applicable regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Form Derived from "Georgia EPD's Groundwater Monitoring Well Integrity Form".

7 - Corrective actions completed and Notes:

Staff: A. Schnittker

Date: 1/31/2022



## **APPENDIX C**

# **Semiannual Remedy Selection and Design Progress Report**

**Grumman Road Private Industrial Landfill  
Chatham County, Georgia  
2022 Annual Groundwater Monitoring and Corrective Action Report**



July 2022  
Grumman Road Private Industrial Landfill



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# Semiannual Remedy Selection and Design Progress Report

Prepared for Georgia Power Company



July 2022

Grumman Road Private Industrial Landfill

# Semiannual Remedy Selection and Design Progress Report

Walter John Dinicola, Senior Reviewer / Professional Engineer (GA Professional Engineer No. PE038601)

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## Engineer's Certification

This *Semiannual Remedy Selection and Design Progress Report* has been prepared for Georgia Power Company's Grumman Road Private Industrial Landfill in accordance with the U.S. Environmental Protection Agency coal combustion residuals rule, specifically 40 Code of Federal Regulations 257.97(a) and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10(6)(a). This report describes the progress made during the second semiannual period of 2021 in selecting and designing a remedy previously documented in the *Assessment of Corrective Measures* (Anchor QEA 2020).

This report was prepared under the supervision and direction of the undersigned, whose seal as a registered professional engineer is affixed below. The undersigned is practicing through Anchor QEA, LLC, which is an authorized engineering business in the State of Georgia (Certificate of Authorization license number PEF006751; a copy of this license is provided in Appendix A). I hereby certify that I am a qualified groundwater scientist in accordance with the Georgia Rules of Solid Waste Management and 40 Code of Federal Regulations Part 258.50(g).



Walt  
Dinicola

Digitally signed  
by Walt Dinicola  
Date:  
2022.07.28  
08:32:49 -05'00'

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Walter John Dinicola, Principal Engineer  
Georgia Professional Engineer No. PE038601

# TABLE OF CONTENTS

Engineer’s Certification.....	i
<b>1 Introduction .....</b>	<b>1</b>
1.1 Site Background.....	2
1.2 Nature and Extent.....	2
1.2.1 Current SSL Status.....	2
1.2.2 Geochemistry and Influence of Adjacent Clifton Landfill .....	4
1.2.3 Current Delineation Status.....	4
1.2.4 Transport Model.....	5
1.3 Well Survey Update.....	5
<b>2 Summary of Work Completed.....</b>	<b>6</b>
<b>3 Summary of Results .....</b>	<b>8</b>
3.1 SEM.....	8
3.1.1 Aquifer Solids.....	8
3.1.2 Batch Test Solids.....	8
3.2 SSE.....	9
3.3 CEC and Extractable Oxides .....	10
<b>4 Updated Conceptual Site Model.....</b>	<b>11</b>
<b>5 Updated Evaluation of Corrective Measures .....</b>	<b>13</b>
5.1 Corrective Measures Retained .....	13
5.2 Corrective Measures Not Retained .....	14
<b>6 Planned Activities and Anticipated Schedule.....</b>	<b>15</b>
<b>7 References .....</b>	<b>16</b>

## TABLES

Table 1	Evaluation of Remedial Technologies
Table 2	Cation Exchange Capacity and Extractable Oxides

## FIGURES

Figure 1	Site Location Map
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Figure 2	Site Parcel Boundaries Map
Figure 3	Monitoring Well Network Map
Figure 4	Multisite Potentiometric Surface Map: February 2022
Figure 5	Isoconcentration Map: Arsenic – February 2022
Figure 6	Isoconcentration Map: Molybdenum – February 2022
Figure 7	Simulated Molybdenum Concentrations at the Site GWPS in 2021
Figure 8	A to A' Geologic Cross Section
Figure 9	B to B' Geologic Cross Section

## APPENDICES

Appendix A	Certificate of Authorization
Appendix B	Trend Test Graphs
Appendix C	Laboratory Analytical Data

## ABBREVIATIONS

ACM	assessment of corrective measures
ACM Report	<i>Assessment of Corrective Measures</i>
CCR	coal combustion residuals
CEC	cation exchange capacity
CFR	Code of Federal Regulations
Clifton Landfill	Clifton Rental Company, Inc., Landfill
CSM	conceptual site model
GA EPD	Georgia Environmental Protection Division
Georgia Power	Georgia Power Company
GWPS	groundwater protection standards
ISS	in situ stabilization/solidification
meq/kg	milliequivalents per kilogram
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MNA	monitored natural attenuation
PRB	permeable reactive barrier
SEM	scanning electron microscopy
Site	Grumman Road Private Industrial Landfill
SRIL	Savannah Regional Industrial Landfill
SSE	selective sequential extraction
SSL	statistically significant level
transport model	groundwater flow and reactive transport model

# 1 Introduction

In accordance with the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4.10(6)(a), this *Semiannual Remedy Selection and Design Progress Report* has been prepared for the Grumman Road Private Industrial Landfill (Site). Assessment of corrective measures (ACM) requirements of GA EPD Rule 391-3-4.10(6)(a) are incorporated by reference from the U.S. Environmental Protection Agency coal combustion residuals (CCR) rule (40 Code of Federal Regulations [CFR] Part 257, Subpart D).

This progress report supports the *Assessment of Corrective Measures* (ACM Report; Anchor QEA 2020), which Georgia Power Company (Georgia Power) submitted on December 4, 2020. Georgia Power has placed the ACM Report in the Site's operating record and posted it to the Site's CCR rule compliance website. The purpose of the ACM Report (and subsequent semiannual progress reports) is to evaluate potential corrective measures to address the occurrence of arsenic and molybdenum in groundwater at statistically significant levels (SSLs). This process is typically iterative and may be composed of multiple steps to analyze the effectiveness of corrective measures to improve groundwater quality.

Pursuant to 40 CFR 257.97, Georgia Power is evaluating the potential corrective measures presented in the ACM Report to identify an appropriate remedy or combination of remedies as soon as is feasible (Anchor QEA 2020). In the ACM Report, the following remedies were considered feasible for corrective measures for groundwater at the Site:

- Geochemical approaches (in situ injection)
- Hydraulic containment (pump-and-treat)
- In situ stabilization/solidification (ISS)
- Monitored natural attenuation (MNA)
- Permeable reactive barrier (PRB) wall
- Phytoremediation
- Subsurface vertical barrier wall

A comparative screening of these corrective measures is presented in Table 1 and summarized in Section 5.

This *Semiannual Remedy Selection and Design Progress Report* is included as an appendix to the *2022 Annual Groundwater Monitoring and Corrective Action Report* (ACC 2022). Georgia Power will include future semiannual remedy selection progress reports as an appendix to the routine semiannual groundwater monitoring and corrective action reports.

Georgia Power has proactively initiated adaptive site management as outlined in the ACM Report (Anchor QEA 2020) to support the groundwater remedy selection process and address potential

changes in Site conditions as appropriate. The adaptive site management approach takes existing Site conditions, including natural attenuation mechanisms, into account.

## 1.1 Site Background

The Site, located in Port Wentworth, Georgia, is a permitted industrial landfill owned and operated by Georgia Power previously used for disposal of coal ash from Georgia Power's Plant Kraft. The Site has not received ash since Plant Kraft was retired in late 2015, exempting it from the requirements of the federal CCR rule. The Site location is shown in Figure 1.

The Site is adjacent to two other permitted solid-waste disposal facilities: one to the east and the other to the south (Figure 1). The closed Clifton Rental Company, Inc., Landfill (Clifton Landfill; Permit No. 025-030D(L)) is east, hydraulically upgradient of and cross gradient to the Site. Based on available information, Clifton Landfill was not constructed with a synthetic liner or leachate collection system (which was consistent with GA EPD requirements at the time of construction), and waste extends below the water table. As described in previous reports (ACC 2019a; Anchor QEA 2019), strong physical and geochemical evidence supports the mobilization of arsenic and molybdenum by landfill leachate coming onto the Site from the adjacent Clifton Landfill. This could contribute a source of arsenic (and, by geochemical inference, molybdenum) from Site soils. The active Savannah Regional Industrial Landfill (SRIL) operated by Republic Services, Inc. (Permit No. 025-072D(L)), is south of the Site and hydraulically downgradient of both Clifton Landfill and the Site. SRIL is constructed with a synthetic liner and leachate collection system meeting the requirements specified in GA EPD Rule 391-3-4-.14.

The Site consists of four parcels—A, B1, B2, and B3—comprising approximately 33 acres (Figure 2). Closure of the Site has been completed in accordance with the landfill permit and performance standards listed in 40 CFR 257.102(d)(3) and adopted by GA EPD Rule 391-3-4-.10(7). Parcels A and B1 were initially closed in 2004, and Parcels B2 and B3 were closed in 2017 (SCG 2007; Brantley Engineering 2017). A new final cover system over Parcel A', the portion of Parcel A outside the original closure area, was installed in 2019 to meet the requirements of GA EPD Rule 391-3-4-.10(7) (Brantley Engineering 2019). The final closure Certification Report was submitted to GA EPD on November 25, 2019 (Brantley Engineering 2019). The Site is permitted under Solid Waste Handling Permit No. 025-061D(LI).

## 1.2 Nature and Extent

### 1.2.1 Current SSL Status

Groundwater monitoring has been performed at the Site since 2000, in accordance with a state permit. Assessment monitoring was initiated in 2005 under the state program. Since that time, additional investigations and landfill closures have been performed, the conceptual site model (CSM)

has been updated based on additional investigations, and ACMs have been prepared and updated (for example, *Assessment of Corrective Measures – 2019 Addendum* [ACC 2019a]). A summary of groundwater monitoring and site investigations can be found in the most recent ACM Report for the Site (Anchor QEA 2020).

Under GA EPD regulations applicable to the Site (GA EPD Rule 391-3-4.10(6)(a)), background sampling occurred between 2016 and 2018. Groundwater detection monitoring began following completion of background sampling, with the first sampling event occurring in March 2019. Statistically significant increases of 40 CFR 257 Appendix III constituents were noted as described in the *Supplemental 2019 First Semiannual Groundwater Monitoring Report* (ACC 2019b). The Appendix III statistically significant increases triggered assessment sampling for 40 CFR 257 Appendix IV constituents. Subsequent monitoring verified Appendix IV constituents arsenic and molybdenum at SSLs that exceeded groundwater protection standards (GWPSs). On February 22, 2022, GA EPD updated the Rules for Solid Waste Management 391-3-4-.10(6) to incorporate updated federal GWPSs, in which a maximum contaminant level has not been established. These levels were specified for cobalt (0.006 mg/L), lead (0.015 milligrams per liter [mg/L]), lithium (0.04 mg/L), and molybdenum (0.1 mg/L), except where site-specific background concentrations of these constituents are higher. Statistical evaluation for the February 2022 event was updated to reflect these changes.

Recurring SSLs that exceeded the GWPS for arsenic (0.0287 mg/L) and molybdenum (0.1 mg/L) during the most recent (February 2022) assessment monitoring event are summarized as follows (ACC 2022):

- Arsenic GWPS exceedances were identified at monitoring wells GWC-15, GWC-16, and GWC-20.
- Molybdenum GWPS exceedances were identified at monitoring wells GWC-16 and GWC-20.

Based on GA EPD guidance, wells with SSLs were further evaluated by Groundwater Stats Consulting using the Sen's Slope/Mann-Kendall trend test (Appendix B). The full report generated from the analyses is provided in Appendix D of the *2022 Annual Groundwater Monitoring and Corrective Action Report* (ACC 2022). Statistically significant increasing trends were identified for the following well/constituent pairs: GWC-15/arsenic and GWC-16/molybdenum.

Pursuant to 40 CFR 257.96, groundwater at the Site continues to be monitored in accordance with the established assessment monitoring program while potential corrective measures are evaluated (ACC 2022). Monitoring well locations are shown in Figure 3.



### 1.2.2 *Geochemistry and Influence of Adjacent Clifton Landfill*

Arsenic and molybdenum have been detected at elevated concentrations in monitoring wells at the boundary between the Site and the adjacent closed Clifton Landfill. Based on previous studies, leachate-impacted groundwater from the adjacent Clifton Landfill migrates onto the Site, impacting monitoring wells at the Site. A multisite potentiometric surface contour map using February 2022 data is shown in Figure 4. Site-specific potentiometric surface contours from the January 31, 2022, gauging event are shown in Figures 5 and 6. The leachate-impacted groundwater contains elevated dissolved organic carbon, which induces reducing groundwater conditions that drive the reductive dissolution of iron oxides present in the subsurface solid matrix and subsequent release of associated species (e.g., arsenic and molybdenum). Iron oxides are naturally present in soils as grain coatings and are also a significant component of ash. Iron oxides are a host phase for many trace elements, including arsenic and molybdenum. Based on soil samples previously collected at the Site, the iron oxide content of ash is higher than that of the background soils.

SSLs of arsenic and molybdenum appear to be due to mobilization by the landfill leachate-impacted groundwater migrating onto the Site. As leachate-impacted groundwater travels beneath the Site, reductive dissolution of iron oxides releases arsenic and molybdenum that are adsorbed on and coprecipitated in the iron oxides naturally present in soils and ash. Arsenic and molybdenum concentrations increase along the groundwater flow path and are highest near the hydraulically downgradient southeast corner of the Site (Figures 5 and 6).

The study summarized in the previously submitted *Arsenic Mobilization Laboratory Evaluation* (Anchor QEA 2019), and the Site conditions suggest that control of leachate impacts to groundwater from the Clifton Landfill would be expected to greatly reduce groundwater arsenic (and, by geochemical inference, molybdenum) concentrations at the Site. Similarly, groundwater corrective actions for arsenic and molybdenum will likely not be effective until leachate from the Clifton Landfill is controlled.

### 1.2.3 *Current Delineation Status*

Isoconcentration maps that show the interpreted extent of arsenic and molybdenum, as well as the posted data from the February 2022 semiannual sampling, are shown in Figures 5 and 6. The applicable laboratory analytical report for this data is provided in the *2022 Annual Groundwater Monitoring and Corrective Action Report* (ACC 2022). Appendix B shows concentration versus time graphs for wells with SSLs of arsenic or molybdenum.

Vertical delineation of arsenic and molybdenum in groundwater beneath the Site has been achieved (ACC 2022). Data from the February 2022 semiannual monitoring event at SRIL indicate arsenic is horizontally delineated below the GWPS by upgradient SRIL wells GWA-6 and GWA-12B, just south of the Site (CEC 2022). Horizontal delineation of molybdenum was completed using a groundwater

flow and reactive transport model (transport model; Anchor QEA 2021a; Figure 7), which was submitted to GA EPD on November 19, 2021. Based on the transport model, molybdenum is horizontally delineated to below the GWPS a short distance south of the northern boundary of SRIL. The transport model has been submitted to GA EPD in its entirety (Anchor QEA 2021a) and is only summarized herein. A neighbor notification was submitted to Republic Services, Inc., on September 25, 2020, notifying it of these arsenic and molybdenum detections.

Details regarding current statistical analysis, nature, and extent are provided in Sections 4 and 5, respectively, of the *2022 Annual Groundwater Monitoring and Corrective Action Report (ACC 2022)*.

#### **1.2.4 Transport Model**

In support of the previously submitted ACM Report (Anchor QEA 2020), a transport model was developed and submitted to GA EPD for the purposes of off-site delineation of molybdenum concentrations in groundwater south of the Site (Anchor QEA 2021a).

The findings from the transport modeling showed molybdenum concentrations in groundwater above the Site GWPS that originate from the Site have likely migrated a short distance beneath but not reached the southern boundary of SRIL (Anchor QEA 2021a). An isoconcentration contour map depicting simulated molybdenum concentrations exceeding the GWPS (0.1 mg/L) after 41 years of migration (i.e., 1980 to 2021) is presented in Figure 7. This figure depicts the overall extent of simulated concentrations exceeding the GWPS based on the four scenarios included in the sensitivity analysis, which provides a conservative estimate of the overall extent of current impacts based on the data available for this transport model. The simulated concentrations shown in Figure 7 overestimate the extent of molybdenum to the southeast as it is delineated by SRIL upgradient well GWA-12B. Figures 6 and 7 differ slightly due to the model sensitivity to iron oxide concentration. As discussed in the modeling report (Anchor QEA 2021a), model results are most sensitive to the concentration of iron oxide within the ash beneath Parcel A and the effective porosity of the near-surface aquifer.

Additional details on the groundwater model are presented in the *Transport Modeling Report* (Anchor QEA 2021a).

### **1.3 Well Survey Update**

As requested by GA EPD, a potable well survey within a 2-mile radius of the Site consisting of reviewing federal, state, and county records, and online sources was conducted, and the results were discussed in the February 2022 progress report (Anchor QEA 2022).

## 2 Summary of Work Completed

This section is intended to summarize the laboratory studies and data evaluations completed at the Site since the issuance of the February 2022 progress report (Anchor QEA 2022). Routine semiannual groundwater monitoring events were conducted by Atlantic Coast Consulting, Inc., in February 2022 and discussed in the *2022 Annual Groundwater Monitoring and Corrective Action Report (ACC 2022)*.

As summarized in previous progress reports, geochemical characterization and bench-scale treatability studies have been completed to advance groundwater remedy selection and to refine the Site CSM (Anchor QEA 2021b, 2022). Treatability testing was performed to evaluate the applicability of geochemical approaches, specifically to evaluate arsenic and molybdenum removal from groundwater by aeration, chemical oxidation, and biogenic sulfate reduction. Sample collection for treatability studies and previously completed laboratory studies are described in the February 2022 progress report (Anchor QEA 2022). Additional analyses to complete these studies were conducted during this reporting period, specifically the following:

- Scanning electron microscopy (SEM) on aquifer solids and post-treatability samples was conducted to directly observe and determine the composition of attenuating phases.
  - High-resolution SEM was performed on aquifer solids samples to evaluate potential attenuating phases present in the aquifer.
  - SEM was also performed on representative attenuating solids generated in the treatability batch tests to evaluate arsenic and molybdenum sequestration to attenuating phases. Samples were selected based on higher initial concentrations of arsenic and molybdenum and from the dose most likely to show arsenic and molybdenum sequestration on the solids. SEM was performed on solids recovered from batch tests with GWC-20, which had greater initial concentrations of arsenic and molybdenum than GWC-15. Batch test solids selected for SEM included the following treatments: 1) aeration with iron addition; 2) peroxide oxidation with iron addition; 3) permanganate oxidation at two doses; 4) persulfate oxidation; and 5) biogenic iron sulfide precipitation.
- Selective sequential extraction (SSE) on post-biogenic treatability solids recovered from batch tests with GWC-15 and GWC-20 groundwater was conducted to determine binding strength of arsenic and molybdenum with Site soil and to understand the attenuating mechanisms following biogenic treatment<sup>1</sup> and association of arsenic and molybdenum with iron. Insufficient material was available to perform SSE on the treatability solids from aeration and chemical oxidation tests.

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<sup>1</sup> Although biogenic treatment was not retained as a corrective measure, performing SSE on post-biogenic treatability solids still provided an understanding of attenuating mechanisms and stability.

- The SSE procedure is designed to quantify the distribution of target elements (i.e., arsenic and molybdenum) in a sample among fractions with different binding strengths to the solid phase by subjecting the sample to a sequence of chemical extractions that target specific chemical forms. SSE consisting of five extraction steps is performed to quantify the amount and proportion of arsenic and molybdenum in each of the following operationally defined fractions: 1) soluble; 2) exchangeable; 3) reducible (bound to amorphous iron and/or manganese oxides); 4) strong acid/oxidizable (bound to sulfides, crystalline iron oxides, and/or organic matter); and 5) residual (strongly bound to the silicate mineral matrix).
- Cation exchange capacity (CEC) analysis of aquifer solids (soil) was conducted to assess cation exchange as a mechanism for attenuation.
  - CEC is determined by displacing exchangeable cations in a solid sample by reaction with an ammonium acetate solution, then analyzing the solution for the concentrations of exchangeable cations.

## 3 Summary of Results

As described in the February 2022 progress report (Anchor QEA 2022), bench-scale treatability results indicate that in situ groundwater treatment via either aeration with iron addition or chemical oxidation using permanganate would provide effective treatment for arsenic and molybdenum. The results of the treatability studies are summarized as follows:

- Aeration in the presence of iron was effective for the removal of both arsenic and molybdenum from Site groundwater to concentrations less than the respective GWPSs.
- Chemical oxidation with permanganate reduced groundwater concentrations of both arsenic and molybdenum to values less than the respective GWPSs.
- Chemical oxidation with persulfate or hydrogen peroxide was effective for arsenic treatment with iron addition (concentrations were reduced to below the GWPS); however, molybdenum removal was limited.
- Biogenic sulfide generation was effective for arsenic removal to concentrations less than the GWPS, but removal of molybdenum was limited.

### 3.1 SEM

#### 3.1.1 *Aquifer Solids*

SEM analysis of the aquifer solids prior to treatability testing confirm the presence of iron oxides on the aquifer media; iron oxides were found in all samples. Iron sulfides were also found in most samples. Both iron oxides and iron sulfides can sequester arsenic, and probably, molybdenum. Low concentrations (near the detection limit) of arsenic and molybdenum were detected. SEM reports are included in Appendix C.

#### 3.1.2 *Batch Test Solids*

SEM analysis of the solid precipitates recovered from the treatability batch tests provided complimentary data that was consistent overall with the batch test solution chemistry analytical results and confirmed removal of arsenic and molybdenum was achieved via precipitation of iron and/or manganese oxides. SEM reports are included in Appendix C. The solids characterization for each of these batch tests is summarized as follows:

- Solid precipitates produced in the aeration batch test with iron addition consisted predominantly of iron oxides, indicating success of the treatment. Arsenic was detected in association with the iron oxides, albeit at low concentrations, near the detection threshold of the SEM, for most of the grains analyzed. Molybdenum was also detected in several of the spots analyzed, also at concentrations near the detection limit. These results confirmed the simultaneous uptake of arsenic and molybdenum by the iron oxide precipitates that formed as a result of iron addition and aeration of groundwater. (Note that the concentration of

arsenic and molybdenum were expected to be low, relative to iron oxides. The aqueous concentrations of arsenic and molybdenum confirmed the success of these treatments. The inclusion of arsenic and molybdenum in the iron oxides confirmed iron oxides are a removal mechanism.)

- Permanganate oxidation resulted in the precipitation of manganese oxides. Arsenic and molybdenum were detected in association with the manganese oxide precipitates, albeit at low concentrations near the SEM detection threshold for these elements. These results confirmed the simultaneous uptake of arsenic and molybdenum by the manganese oxide precipitates that were produced by chemical oxidation with permanganate.
- Chemical oxidation with either peroxide or persulfate (and iron addition) produced iron oxide precipitates. Both arsenic and molybdenum were detected in association with these iron oxides at very low concentrations, near the detection threshold. However, as mentioned earlier, these treatments were not retained as potential corrective measures (Anchor QEA 2022) because they were found to be only effective for removal of arsenic but not molybdenum from Site groundwater.
- As discussed in the February 2022 progress report (Anchor QEA 2022), biogenic sulfide generation was not retained as a corrective measure. The biogenic sulfide batch incubations without iron addition partially removed arsenic and molybdenum from groundwater, although concentrations remained above the respective GWPS. The batch test solids were examined by SEM; however, the analysis identified primarily mineral grains from the Site soils used in the biogenic treatment tests and no newly formed phases. While the solution chemistry analytical results indicate arsenic and molybdenum were partially removed from groundwater, the relative concentrations of any new solid phases formed appear to be very small compared to the minerals already in the soil and, therefore, difficult to identify.

## 3.2 SSE

The mass of solid precipitates formed in the aeration and chemical oxidation batch tests was insufficient for SSE analysis. SSE could, therefore, only be performed for the solids recovered from the biogenic sulfide treatment batch tests. These tests showed limited removal of arsenic and molybdenum from groundwater. Arsenic was only detected in the exchangeable (F2) fraction of the solids; molybdenum was detected in the F2 and strong acid/oxidizable (F4) fractions. Iron was distributed among the soluble (F1), reducible (F3), F4, and residual (F5) fractions. The iron concentrations in the F1, F3, and F4 fractions increased with increasing iron addition, indicating iron oxides and sulfides were likely precipitated during the incubations. The increase in F1 iron concentrations in the higher iron addition test solids is consistent with the batch test results that showed metals were not removed at the high iron dose due to the acidic final pH of the groundwater. The SSE results for the solids from the biogenic treatability test are summarized in Appendix C. Laboratory analytical reports are also included in Appendix C.

### 3.3 CEC and Extractable Oxides

During drilling of monitoring wells MW-23D, MW-24D, MW-25D, and MW-27D, aquifer solids (soil) samples were collected for determination of CEC (USDA 2014) and extractable iron and aluminum oxides (SSSA 1996). Two depth intervals were sampled at each location, approximately corresponding to the screen depth intervals of nearest shallow (Unit 1) and deeper (Unit 3) monitoring wells. CEC reflects the capacity for sorption by clay minerals in the samples, while the extractable oxide data provide an estimate of the type and abundance of metal oxide surface coatings, which are naturally occurring weathering products and important sorbents for metals and metalloids such as arsenic and molybdenum.

CEC was generally low, reflecting the predominantly sandy nature of Unit 1 (3.44 to 11.7 milliequivalents per kilogram [meq/kg], with a mean of 6.4 meq/kg) and Unit 3 (6.43 to 17.6 meq/kg, with a mean of 11.2 meq/kg).

The extractable oxide data indicate that subsurface Site soils possess significant attenuation capacity for arsenic and molybdenum and other metals. Extractable aluminum oxides were higher and more variable in Unit 1 (771 to 8,000 milligrams per kilogram [mg/kg], with a mean of 4,520 mg/kg) than they were in Unit 3 (585 to 876 mg/kg, with a mean of 644 mg/kg). In contrast, extractable iron oxides were lower in Unit 1 (61.3 to 492 mg/kg, with a mean of 179 mg/kg) than in Unit 3 soils (245 to 682 mg/kg, with a mean of 516 mg/kg).

CEC and extractable oxide data are summarized in Table 2. Laboratory analytical reports are included in Appendix C.

## 4 Updated Conceptual Site Model

The updated CSM discussed in the most recent *Semiannual Remedy Selection and Design Progress Report* (Anchor QEA 2022) noted that the identified hydrogeological units at the Site consist of four units comprising the near-surface aquifer system. They have been identified as follows:

- Upper Sands and Topsoil Unit—Variably Saturated Zone: silty, fine sand
- Unit 1—Uppermost Aquifer: silty, fine sand
- Unit 2—Low Permeability Zone: interbedded sand, silt, and clay
- Unit 3—Lower Sand Aquifer: silty and/or clayey fine to medium sand

Unit 2 is absent in some areas of the Site, such as along its southern and southeastern parts. The unit, where present, acts as a semi-confining unit, impeding downward migration to Unit 3 and creating perched water within Unit 1. Where Unit 2 is absent, however, hydraulic communication does exist between Units 1 and 3. Two cross sections presented in the *Transport Modeling Report* and *Semiannual Remedy Selection and Design Progress Report* (Anchor QEA 2021a, 2021b) are included in Figures 8 and 9. Detailed descriptions of these units are provided in the ACM Report (Anchor QEA 2020) and *Transport Modeling Report* (Anchor QEA 2021a).

The additional data collected since the issuance of the previous semiannual progress report in February 2022 (Anchor QEA 2022) allow the refinement of the CSM. The following bullets summarize the current understanding of the CSM within the context of selecting an appropriate groundwater corrective measure for the Site:

- As discussed in Section 1.2.3 and 1.2.4, horizontal and vertical delineation at the Site is complete.
  - Arsenic and molybdenum are vertically delineated by onsite monitoring wells.
  - Arsenic is horizontally delineated by upgradient SRIL wells GWA-6 and GWA-12B, just south of the Site (CEC 2022).
  - Molybdenum is horizontally delineated to below the GWPS north of the southern boundary of SRIL by the transport model.
- The soil characterization data discussed in Section 3.3 indicate iron oxides are most relevant for arsenic and molybdenum fate and transport:
  - Arsenic and molybdenum are adsorbed more strongly by iron oxides than by aluminum oxides.
  - CEC is low, and clay minerals likely do not play a significant role in attenuating arsenic and molybdenum fate and transport at the Site.
  - The lower iron oxide content of Unit 1 soil samples is consistent with leaching by groundwater impacted by Clifton Landfill leachate, which released arsenic and



molybdenum to Site groundwater. The higher iron oxide content and absence of GWPS exceedances in Unit 3 indicate these impacts are limited to Unit 1 groundwater.

- The higher aluminum oxide content in Unit 1 soil samples is also consistent with enhanced weathering of primary aluminosilicate minerals by organic acids that would be present in landfill leachate.

## 5 Updated Evaluation of Corrective Measures

Closure of the Site and installation of a cover system in 2019 provide source control that reduces the potential for migration of CCR constituents to groundwater. The corrective measures proposed in the ACM Report (Anchor QEA 2020) were further evaluated based on site-specific conditions to address SSLs in groundwater at the Site. Each individual corrective measure was evaluated relative to criteria specified in 40 CFR 257.96(c) and 257.97(b).

A comparative evaluation and feasibility assessment of the corrective measures is provided in Table 1, which includes a brief overview of each corrective measure as follows:

- Geochemical approaches
- Hydraulic containment (pump-and-treat)
- ISS
- MNA
- PRB walls
- Phytoremediation
- Subsurface vertical barrier walls

Detailed descriptions of these corrective measures are provided in the July 2021 *Semiannual Remedy Selection and Design Progress Report* (Anchor QEA 2021b).

### 5.1 Corrective Measures Retained

The following corrective measures are considered feasible and retained for further analyses<sup>2</sup>:

- Geochemical approaches
  - Geochemical approaches involve modifying the subsurface geochemistry of the Site by injection of reagents to create a treatment zone and immobilize arsenic and molybdenum in situ.
  - Based on the results of the bench-scale treatability results presented in the February 2022 progress report (Anchor QEA 2022), the following specific geochemical approaches are retained for consideration as a corrective remedy:
    - Aeration with iron addition: effective in the removal of both arsenic and molybdenum
    - Chemical oxidation with permanganate: effective in the removal of both arsenic and molybdenum

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<sup>2</sup> Groundwater corrective actions for arsenic and molybdenum will likely not be effective until leachate from the Clifton Landfill is controlled.

- ISS
  - ISS, also known as deep soil mixing, a method for solidifying soil or waste material, immobilizing arsenic and molybdenum in the solid matrix, and reducing leaching of the constituents to groundwater, continues to be retained as a potential corrective measure.
- MNA
  - Based on the MNA evaluation results presented in the previous progress report (Anchor QEA 2022), MNA continues to be retained as a potential corrective measure.
    - X-ray fluorescence results showed a correlation between arsenic and iron, and molybdenum and iron concentrations.
    - Geochemical stability results show that Site Eh-pH conditions are likely controlled by an amorphous hydrous iron oxide [Fe(OH)<sub>3</sub>(a)]. Iron oxides are, therefore, expected to be present and stable in Site soils unless contacted and dissolved by Clifton Landfill leachate
    - Soil extractions confirmed the ubiquitous presence of amorphous iron and aluminum oxides, which are strong sorbents for many metals and metalloids, including arsenic and molybdenum, in Site soils.
    - Column testing showed that, overall, Site soils attenuate arsenic and, in some cases, molybdenum.
- Phytoremediation
  - Phytoremediation could provide some hydraulic containment through targeted placement of TreeWells, which function like small pumping wells via transpiration.

## 5.2 Corrective Measures Not Retained

The following corrective measures are not recommended for further evaluation or implementation due to site-specific conditions:

- Chemical oxidation with persulfate, chemical oxidation with hydrogen peroxide, and biogenic sulfide generation, because these methods were not effective for removal of both arsenic and molybdenum to below the GWPS
- Hydraulic containment (pump-and-treat)
- PRB walls
- Subsurface vertical barrier walls, either stand-alone or in conjunction with PRB walls in a funnel-and-gate configuration

Detailed explanation of why the latter three of these corrective measures are no longer retained for consideration is provided in the July 2021 *Semiannual Remedy Selection and Design Progress Report* (Anchor QEA 2021b).

## 6 Planned Activities and Anticipated Schedule

Georgia Power proactively initiated adaptive site management as outlined in the ACM Report (Anchor QEA 2020) to support the remedial strategy and address potential changes in Site conditions as appropriate. The adaptive site management approach may be adjusted over the Site's life cycle as new Site information and technologies become available. Georgia Power will continue its data collection efforts as necessary to refine the CSM and further evaluate the feasibility of each corrective measure proposed in the ACM Report. The corrective measures that continue to be evaluated are presented in Section 5 and explained in Table 1. Once sufficient data are available to make technically sound decisions regarding the ability to implement one or more specific corrective measures, appropriate steps will be taken to design and implement a remedy for the Site.

Specific activities to be performed during the next semiannual reporting period include the following:

- Continue routine groundwater sampling to analyze and evaluate trends for effectiveness of source control and plume stability; prepare and compare isoconcentration maps through time.
- Continue to evaluate concentration versus time graphs to determine if natural attenuation is already occurring through time. If data are sufficient, estimate time to achieve GWPSs from the graphs.

Georgia Power will continue to prepare semiannual remedy selection progress reports to document groundwater conditions, results associated with additional data gathering, and the progress in selecting and designing the remedy in accordance with 40 CFR 257.97(a). Georgia Power will include future semiannual remedy selection progress reports in routine groundwater monitoring and corrective action reports. Recordkeeping, notifications, and publicly accessible website requirements for the semiannual remedy selection progress reports will be provided in accordance with 40 CFR 257.105(h)(12), 257.106(h)(9), and 257.107(h)(9), respectively.

## 7 References

- ACC (Atlantic Coast Consulting, Inc.), 2019a. *Assessment of Corrective Measures – 2019 Addendum*. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. October 2019.
- ACC, 2019b. *Supplemental 2019 First Semiannual Groundwater Monitoring Report*. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. August 2019.
- ACC, 2022. *2022 Annual Groundwater Monitoring and Corrective Action Report*. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. July 2022.
- Anchor QEA (Anchor QEA, LLC), 2019. *Arsenic Mobilization Laboratory Evaluation*. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. September 2019.
- Anchor QEA, 2020. *Assessment of Corrective Measures*. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. December 2020.
- Anchor QEA, 2021a. *Transport Modeling Report*. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. November 2021.
- Anchor QEA, 2021b. *Semiannual Remedy Selection and Design Progress Report*. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. July 2021.
- Anchor QEA, 2022. *Semiannual Remedy Selection and Design Progress Report*. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. February 2022.
- Brantley Engineering (Brantley Engineering, LLC), 2017. *Closure Certification Report, Grumman Road Ash Landfill Parcels B2 & B3, Closure Final Cover Construction*. Georgia Power Grumman Road Landfill. Prepared for Southern Company Services Engineering and Construction Services. November 2017.
- Brantley Engineering, 2019. *Closure Construction Certification Report. Grumman Road Ash Landfill Parcel A' (Prime), Closure Final Cover Construction*. Georgia Power Company Grumman Road Landfill. Prepared for Southern Company Services Engineering and Construction Services. November 2019.
- CEC (Civil & Environmental Consultants, Inc.), 2022. Letter to: Nicholas Webber, Republic Services. Regarding: 1st 2022 Semiannual Groundwater Statistical Analysis Report. Savannah Regional Industrial Landfill. May 26, 2022.
- SCG (Southern Company Generation, Earth Science and Environmental Engineering Technical Services), 2007. *Cells A & B1 Certification for Closure*. Plant Kraft Grumman Road Ash Monofill

Industrial Solid Waste Landfill Permit No. 025-061D (L) (I). Prepared for Georgia Power Company. January 2007.

SSSA (Soil Science Society of America, Inc.), 1996. "Iron." *Methods of Soil Analysis, Part 3 – Chemical Methods*. Madison, Wisconsin: Soil Science Society of America; pp. 648–650.

USDA (U.S. Department of Agriculture), 2014. *Kellogg Soil Survey Laboratory Methods Manual, Soil Survey Investigations Report No. 42, Version 5.0*. Editors, R. Burt and Soil Survey Staff. U.S. Department of Agriculture, Natural Resources Conservation Service.

# Tables

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**Table 1**  
**Evaluation of Remedial Technologies**

Corrective Measure	Regulatory Citation for Criteria	40 CFR 257.96(C)(1)			
	Description	Performance	Reliability	Ease or Difficulty of Implementation	Potential Impacts of Remedy
Geochemical approaches (oxidation by physical or chemical means; adsorption to or coprecipitation with iron compounds via injection of treatment chemicals)	Geochemical approaches involve modifying the geochemistry of the Site to immobilize arsenic and molybdenum on solids created by injection. Depending upon the objective and Site geochemical conditions, immobilization may be achieved by oxygenation or injection of the appropriate treatment solutions. Oxygenation may be achieved chemically by injecting oxidants, placing slow-release oxidizing chemical candles in wells, or by physical methods such as air sparging or installation of Waterloo Emitters in wells. Other forms of geochemical approaches (also known as enhanced attenuation) include the injection of treatment solutions to immobilize constituents by precipitation/coprecipitation and/or sorption. The treatment solutions would likely contain iron compounds to create ferrihydrite to sorb arsenic and molybdenum, or to precipitate sulfide minerals, which incorporate arsenic and molybdenum into their mineral structures.	The performance of this remedy is considered medium. Leachate from the Clifton Landfill would need to be controlled for both oxidation and adsorption/coprecipitation to be effective. If not controlled, the reducing characteristics of Clifton Landfill leachate would produce reductive dissolution of iron or other natural or introduced metal oxides, which would release arsenic and molybdenum bound to those oxides.	The reliability of this remedy is considered medium. Multiple injections will likely be required for chemical-based approaches. For physical approaches (such as sparging wells and emitters), mechanical components would need to be maintained.	Implementation of this remedy would be easy to moderate. For chemical approaches, laboratory treatability studies would need to be scaled up to field conditions, injection wells installed, or a system using direct push technology designed. For physical approaches, mechanical components would need to be designed, installed, and maintained.	The unintended release of constituents currently bound to soil is possible if inappropriate treatment chemicals or oxidizing agents are used. Also, treatment chemicals need to be tested for Appendix IV impurities before injection to avoid accidental introduction.
Hydraulic containment (pump-and-treat)	Hydraulic containment uses pumping wells (and sometimes injection wells, trenches, and/or galleries) to contain and prevent the expansion of impacted groundwater by creating a horizontal and vertical capture zone or a hydraulic barrier. If pumped, the water may be reused in beneficial applications or treated, discharged, or reinjected after treatment. Reinjection contributes to hydraulic containment by creating a hydraulic barrier of clean water. Hydraulic containment in various applications (including pump-and-treat) is applicable to arsenic and molybdenum because conventional and proven water treatment technologies are available for arsenic and molybdenum.	Hydraulic containment via pump-and-treat has been used for groundwater corrective action for decades. When the pump-and-treat system is online, the performance is considered high. Arsenic and molybdenum are readily treated, and if the system subsurface hydraulics are designed properly, the area of impact will stabilize or shrink.	Because the pump-and-treat system requires substantial operation and maintenance, reliability is considered medium. Pumps, piping, and the water treatment system must be maintained and will be offline occasionally for various reasons.	Hydraulic containment via pump-and-treat is difficult to implement due to design; installation of wells, pumps, and piping; and space constraints. An on-site water treatment plant would be required to accommodate the quantity and constituents in the pumped groundwater. Because the quantity of water requiring treatment cannot be determined without further study, the design parameters of the treatment system would also need to be verified through additional investigations.	Hydraulic containment via pump-and-treat will alter groundwater-flow hydraulics beneath and adjacent to the Site.
In situ solidification/stabilization	ISS, also known as deep soil mixing, is a method for solidifying soil or waste material, immobilizing constituents of interest in the solid matrix, and reducing leaching of the constituents to groundwater. ISS both reduces permeability and chemically binds constituents of interest such as arsenic and molybdenum. Materials specific to the constituents of interest (e.g., ferrous sulfate or zero-valent iron for arsenic and molybdenum) may be added in small quantities to further reduce leaching of the constituents. In ISS, Portland cement and, sometimes, select chemical additives are mixed with soil or waste material using a bucket, large augers, or rotary methods. At the Site, ISS would be used as a source control measure to solidify/stabilize ash beneath the water table, thereby reducing leaching to groundwater. Due to the ISS application depths required at the Site, mixing by auger is likely the only viable application method.	Performance is considered high, as leaching of constituents can be greatly reduced in both laboratory treatability studies, and subsequent field applications. Site-specific performance would need to be assessed with laboratory treatability and, possibly, a field pilot test.	Reliability is considered high because the stabilized block does not require maintenance and is essentially permanent.	Ease of implementation is considered moderate at the Site because mixing would need to be implemented at depth from the top or slopes of the ash landfill. Depending upon the method of application, a cement batch plant (and associated pumps) may need to be constructed at the Site.	ISS may cause a temporary spike of arsenic and, possibly, molybdenum in groundwater at the time of implementation. This spike is expected to dissipate, and groundwater arsenic and molybdenum concentrations are expected to fall below pre-implementation values with time.



**Table 1**  
**Evaluation of Remedial Technologies**

Corrective Measure	Regulatory Citation for Criteria		40 CFR 257.96(C)(1)		
	Description	Performance	Reliability	Ease or Difficulty of Implementation	Potential Impacts of Remedy
MNA	MNA relies on natural attenuation processes (within the context of a carefully controlled and monitored site cleanup approach) to achieve site-specific remediation objectives within a time frame that is reasonable compared to that offered by other, more active, methods. For arsenic and molybdenum, the primary mechanisms of natural attenuation include sorption to iron compounds such as ferrihydrite or iron sulfide minerals, precipitation and coprecipitation with sparingly soluble sulfide minerals and other compounds, and physical processes such as dispersion (USEPA 2007a, 2007b; EPRI 2015). Under favorable conditions, these processes act without human intervention to reduce the mass, toxicity, mobility, volume, or concentration of contaminants in soil or groundwater.	The performance of MNA requires further investigation, especially related to the identification of attenuating mechanisms, aquifer capacity for attenuation, and time to achieve GWPS. The aquifer material at the Site contains significant silt and/or clay, which favors natural attenuation mechanisms such as sorption. However, leachate from the Clifton Landfill is likely mobilizing arsenic and, possibly, molybdenum from ash and natural soil, resulting in a continued source of those constituents to groundwater if not controlled. Therefore, MNA performance is considered medium to high if landfill leachate from Clifton Landfill is controlled.	Reliability of MNA will be relatively high because MNA requires almost no operation and maintenance.	Implementation of MNA at the Site will be relatively easy. Most of the wells for MNA are already in place, though a few additional wells may need to be installed to monitor progress in critical areas.	Potential impacts of the remedy will be negligible because MNA is non-intrusive and produces no effluents or emissions.
PRB wall (containing sorptive media, oxygenation chemicals, or organic matter)	A PRB wall is the emplacement of chemically reactive materials in the subsurface to intercept impacted groundwater, provide a flow path through the reactive media, and capture or transform the constituents in groundwater to achieve GWPS downgradient of the PRB wall. PRB walls are an in situ technology that allows impacted water to flow through the media and provides a barrier to constituents, rather than to groundwater flow, thereby reducing constituents downgradient of the reactive barrier to compliance levels (Powell et al. 1998, 2002). PRB walls may be constructed as funnel-and-gate systems. In a PRB wall implementation, reactive media may be emplaced in a trench or mixed directly with the soil or aquifer media using augers or other mixing techniques. If emplaced in a trench, coarse sand is usually included to maintain permeability through the wall. Effective reactive media are commercially available for arsenic and molybdenum. Depending on the site conditions and the objective of the PRB wall, three types of media could be used: oxygenating chemicals, adsorptive media, or organic matter and chemicals to create sulfide minerals (i.e., a biowall).	When working effectively in suitable conditions, PRB walls can reduce constituents to GWPS downgradient of the walls. However, because of site-specific uncertainties associated with the reactive media and subsurface hydraulics, performance is considered medium to high.	Because the reactive media are expended, may clog through time, and will need to be replaced, reliability is considered medium.	Because it involves trenching or mixing with augers, and due to space constraints, ease of implementation is considered moderate to difficult.	Alteration of subsurface hydraulics (flow) may be a potential impact of this remedy.
Phytoremediation	Phytoremediation uses trees or other plants to take up or immobilize constituents or achieve some level of hydraulic containment. Hyperaccumulating plants are available for arsenic and molybdenum, but the roots of those plants are too shallow to access impacted groundwater at the Site. Some level of hydraulic containment could be achieved at the Site using trees, including the engineered TreeWell system. Transpiration of groundwater causes the TreeWell to act like a pumping well. Trees can affect hydraulic gradients and groundwater flow by removal of water and thus can be used to create a partial barrier to groundwater flow. This process may be enhanced by planting the tree in a column of more permeable material (e.g., the TreeWell system), such that water preferentially flows toward the TreeWell. In addition, some arsenic and molybdenum may be immobilized within the root zone or incidentally taken up into the tree biomass.	The performance of TreeWells is considered medium because the trees may not transpire (pump) enough water to maintain hydraulic containment based on site-specific conditions.	The reliability of TreeWells is considered medium because the trees may not transpire (pump) as much during winter.	Implementation of hydraulic containment using trees will be relatively easy, primarily consisting of constructing the TreeWells and planting the trees.	None have been identified.

**Table 1**  
**Evaluation of Remedial Technologies**

Corrective Measure	Regulatory Citation for Criteria		40 CFR 257.96(C)(1)		
	Description	Performance	Reliability	Ease or Difficulty of Implementation	Potential Impacts of Remedy
Subsurface vertical barrier walls (if/as needed as a component of PRB walls or, possibly, hydraulic containment)	Subsurface vertical barrier walls can be used to stop the flow of groundwater and any constituents that groundwater contains, including arsenic and molybdenum. Though effective, vertical barrier walls may serve as groundwater dams such that groundwater rises to the surface or flows around the ends of the wall. Subsurface barrier walls are not envisioned as stand-alone corrective measures at the Site. If they offer advantages, subsurface barrier walls could be a component of PRB walls in a funnel-and-gate configuration or as part of a hydraulic containment system to direct groundwater toward pumping wells.	Subsurface vertical barrier walls are a widely used and accepted technology with relatively high performance.	Subsurface vertical barrier walls are a widely used and accepted technology with relatively high reliability due to minimal need for maintenance or replacement.	Implementation at the Site is considered easy to moderate due to trenching or other emplacement methods.	Potential impacts of the remedy include alteration of subsurface hydraulics (flow) beneath and adjacent to the Site.

Corrective Measure	Regulatory Citation for Criteria		40 CFR 257.96(C)(2)	40 CFR 257.96(C)(3)		Feasibility
	Description	Time to Begin/Complete Remedy	Institutional Requirements	Other Environmental or Public Health Requirements	Relative Cost	
Geochemical approaches (oxidation by physical or chemical means, and adsorption to or coprecipitation with iron compounds via injection of treatment chemicals)	Geochemical approaches involve modifying the geochemistry of the Site to immobilize arsenic and molybdenum on solids created by injection. Depending upon the objective and Site geochemical conditions, immobilization may be achieved by oxygenation or injection of the appropriate treatment solutions. Oxygenation may be achieved chemically by injecting oxidants, placing slow-release oxidizing chemical candles in wells, or by physical methods such as air sparging or installation of Waterloo Emitters in wells. Other forms of geochemical approaches (also known as enhanced attenuation) include the injection of treatment solutions to immobilize constituents by precipitation/coprecipitation and/or sorption. The treatment solutions would likely contain iron compounds to create ferrihydrite to sorb arsenic and molybdenum or to precipitate sulfide minerals, which incorporate arsenic and molybdenum into their mineral structures.	This remedy could be designed and implemented in 1 to 2 years. Once installed, the time required to achieve GWPS within the treatment area may be relatively quick but depends on the attenuation processes of each targeted constituent. The time for complete distribution of the injected materials throughout the treatment area is also variable.	An underground injection control permit may be required for injection of oxidizing agents or treatment chemicals.	Treatability studies, groundwater modeling, and monitoring may be required to demonstrate that unintended impacts (e.g., release of constituents) are not occurring and do not extend off site.	Low to medium due to injection infrastructure, oxidizing agents or treatment chemicals, and mechanical equipment for the physical oxidation techniques	<p>The following are based on treatability studies:</p> <ul style="list-style-type: none"> <li>Aeration with iron addition was effective for both arsenic and molybdenum (<b>feasible</b>).</li> <li>Chemical oxidation using permanganate was effective for both arsenic and molybdenum (<b>feasible</b>), but persulfate or hydrogen peroxide were effective for arsenic only (<b>not recommended</b>).</li> <li>Biogenic sulfide generation was effective for arsenic only, not molybdenum (<b>not recommended</b>).</li> </ul>

**Table 1**  
**Evaluation of Remedial Technologies**

Corrective Measure	Regulatory Citation for Criteria		40 CFR 257.96(C)(3)		Relative Cost	Feasibility
	Description	40 CFR 257.96(C)(2) Time to Begin/Complete Remedy	Institutional Requirements	Other Environmental or Public Health Requirements		
Hydraulic containment (pump-and-treat)	Hydraulic containment uses pumping wells (and sometimes injection wells, trenches, and/or galleries) to contain and prevent the expansion of impacted groundwater by creating a horizontal and vertical capture zone or hydraulic barrier. If pumped, the water may be reused in beneficial applications or treated, discharged, or reinjected after treatment. Reinjection contributes to hydraulic containment by creating a hydraulic barrier of clean water. Hydraulic containment in various applications (including pump-and-treat) is applicable to arsenic and molybdenum because conventional and proven water treatment technologies are available for arsenic and molybdenum.	Pump-and-treat could probably be designed and installed within 1 to 2 years. Based on case histories, time to achieve GWPS is dependent on the desorption kinetics of arsenic and molybdenum from the aquifer solids and could take an extended period of time. If leachate coming from the Clifton Landfill is not controlled, time to achieve GWPS cannot be determined.	Regulatory requirements and institutional controls may be greater for pump-and-treat than some of the other technologies. For example, permits may be required for the withdrawal and reinjection (if used) of water. Discharge of treated water would likely require a National Pollutant Discharge Elimination System permit.	Aboveground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	High	<b>Not recommended</b> Hydraulic containment is not recommended for the following reasons: geometry of the Site may not be amenable to effective hydraulic containment due to possible spatial constraints for system installation and the conditions created by adjacent landfills; without control of Clifton Landfill leachate, the Site hydraulic control system may essentially be a treatment system for Clifton Landfill leachate and would operate indefinitely until the landfill leachate is controlled; required installation of a water treatment system and identification of a discharge point for treated water; high operation and maintenance requirements; long time required to achieve GWPS, likely beyond the post-closure period of 30 years; and excessive use of resources (such as electricity and water treatment chemicals), making it one of the least sustainable corrective action options (EPRI 2015).
In situ solidification/stabilization	ISS is achieved by creating reactive zones in the subsurface through chemical injection to intercept constituents and permanently immobilize or degrade them into harmless end products. ISS is the process by which constituent mobility in a solid matrix is decreased through physical and/or chemical means. Grout or other chemical additives are mixed with aquifer materials to reduce permeability. The resulting lower aquifer permeability limits the flow of impacted groundwater.	ISS could be designed and implemented in 1 to 2 years. Laboratory treatability and, possibly, a field pilot test would need to be performed. Time to achieve GWPS is uncertain and may be dependent on natural attenuation processes.	No institutional requirements are expected.	There would be a small disruption of industrial area during construction. Following installation, the remedy is passive.	Medium, due to mobilization and use of large equipment and, possibly, a cement batch plant and associated equipment such as pumps	<b>Feasible</b>

**Table 1**  
**Evaluation of Remedial Technologies**

Corrective Measure	Regulatory Citation for Criteria	40 CFR 257.96(C)(2)	40 CFR 257.96(C)(3)		Relative Cost	Feasibility
	Description	Time to Begin/Complete Remedy	Institutional Requirements	Other Environmental or Public Health Requirements		
MNA	MNA relies on natural attenuation processes (within the context of a carefully controlled and monitored site cleanup approach) to achieve site-specific remediation objectives within a time frame that is reasonable compared to that offered by other, more active methods. For arsenic and molybdenum, the primary mechanisms of natural attenuation include sorption to iron compounds such as ferrihydrite or iron sulfide minerals, precipitation and coprecipitation with sparingly soluble sulfide minerals and other compounds, and physical processes such as dispersion (USEPA 1999, 2007a, 2007b; EPRI 2015). Under favorable conditions, these processes act without human intervention to reduce the mass, toxicity, mobility, volume, or concentration of contaminants in soil or groundwater.	Implementation of MNA would require some geochemical studies and, possibly, the installation of some new wells. Because MNA does not require design and construction of infrastructure other than new monitoring wells, it can be initiated within 6 months to a year and fully implemented in 18 to 24 months. The longer time period is because initial geochemical studies would need to be performed to support USEPA's phases, and at least 1 year of groundwater monitoring data is recommended before implementation of MNA is considered complete. The additional data would be needed for statistical analysis and to determine if additional monitoring wells need to be installed. MNA is expected to be successful within a reasonable time frame if Clifton Landfill leachate is controlled.	None identified	Little to no physical disruption to remediation areas and no adverse construction-related impacts are expected on the surrounding industrial area. Following installation, the remedy is passive and does not require external energy.	Low	Based on MNA Evaluation to date: <b>Feasible</b>
PRB wall (containing sorptive media, oxygenation chemicals, or organic matter)	A PRB wall is the emplacement of chemically reactive materials in the subsurface to intercept impacted groundwater, provide a flow path through the reactive media, and capture or transform the constituents in groundwater to achieve GWPS downgradient of the PRB wall. PRB walls are an in situ technology that allows impacted water to flow through the media and provides a barrier to constituents, rather than to groundwater flow, thereby reducing constituents downgradient of the reactive barrier to compliance levels (Powell et al. 1998, 2002). PRB walls may be constructed as funnel-and-gate systems.  In a PRB wall implementation, reactive media may be emplaced in a trench or mixed directly with the soil or aquifer media using augers or other mixing techniques. If emplaced in a trench, coarse sand is usually included to maintain permeability through the wall. Effective reactive media are commercially available for arsenic and molybdenum.  Depending on the site conditions and the objective of the PRB wall, three types of media could be used: oxygenating chemicals, adsorptive media, or organic matter and chemicals to create sulfide minerals (i.e., a biowall).	Considering the need for laboratory treatability studies on the reactive media, analysis of the subsurface hydraulics, and the relatively small area of emplacement, time to implement the remedy is estimated to be 1 to 2 years. Once installed, the time to achieve GWPS immediately downgradient of the PRB wall is anticipated to be relatively quick. Time to achieve GWPS more distant from the PRB wall would be dependent on natural attenuation processes.	None identified	There would be a small disruption of industrial area during construction. Following installation, the remedy is passive. If reactive media are not selected carefully through laboratory treatability studies, groundwater geochemistry could be altered (possibly resulting in unintended releases of constituents downgradient of the wall).	Medium	<b>Not recommended</b>  This is not recommended due to a lack of a continuous, low-permeability confining layer to tie the PRB wall into at depths above the maximum depth investigated (approximately 70 feet bgs), periodic replacement of the reactive media as the media becomes spent or clogged, and inability to address previously impacted groundwater downgradient of wall installation.

**Table 1**  
**Evaluation of Remedial Technologies**

Corrective Measure	Regulatory Citation for Criteria	40 CFR 257.96(C)(2)	40 CFR 257.96(C)(3)		Relative Cost	Feasibility
	Description	Time to Begin/Complete Remedy	Institutional Requirements	Other Environmental or Public Health Requirements		
Phytoremediation	Phytoremediation uses trees or other plants to take up or immobilize constituents or achieve some level of hydraulic containment. Hyperaccumulating plants are available for arsenic and molybdenum, but the roots of those plants are too shallow to access impacted groundwater at the Site. Some level of hydraulic containment could be achieved at the Site using trees, including the engineered TreeWell system. Trees can affect hydraulic gradients and groundwater flow by removal of water and thus can be used to create a partial barrier to groundwater flow. This process may be enhanced by planting the tree in a column of more permeable material (e.g., the TreeWell system), such that water preferentially flows toward the TreeWell. Transpiration of groundwater causes the TreeWell to act like a pumping well. In addition, some arsenic and molybdenum may be immobilized within the root zone or incidentally taken up into the tree biomass.	Phytoremediation could be designed and implemented in 6 to 12 months. Hydraulic containment is expected to occur in a reasonable time frame but needs to be calculated based on the number and transpiration rate of the TreeWells.	None identified	Little to no physical disruption to remediation areas and no adverse construction-related impacts are expected on the surrounding industrial area. Following installation, the remedy is passive and does not require external energy.	Low	<b>Feasible</b>
Subsurface vertical barrier walls (if/as needed as a component of PRB walls or, possibly, hydraulic containment)	Subsurface vertical barrier walls can be used to stop the flow of groundwater and any constituents that groundwater contains, including arsenic and molybdenum. Though effective, vertical barrier walls may serve as groundwater dams such that groundwater rises to the surface or flows around the ends of the wall. Subsurface barrier walls are not envisioned as stand-alone corrective measures at the Site. If they offer advantages, subsurface barrier walls could be a component of PRB walls in a funnel-and-gate configuration or as part of a hydraulic containment system to direct groundwater toward pumping wells.	Time to implement the remedy (design and construct the wall) could be 1 to 2 years. As a component of PRB walls in a funnel-and-gate configuration or as part of a hydraulic containment system, time to achieve GWPS would be dependent on the other corrective measures.	None identified	There would be some disruption of industrial area during construction. Following installation, the remedy is passive.	Medium	<b>Not Recommended</b> This is not recommended due to being contingent on companion technology; see PRB wall implementation discussion above. Also, as with a PRB wall, there is no continuous, low-permeability confining layer to tie into at depths above the maximum depth investigated (approximately 70 feet bgs).

Notes:

EPRI (Electric Power Research Institute), 2015. Monitored Natural Attenuation for Inorganic Constituents in Coal Combustion Residuals. 3002006285. December 2015.  
 Powell, R.M., R.W. Puls, D. Blowes, J. Vogan, R.W. Gillham, P.D. Powell, D. Schultz, R. Landis, and T. Sivavec, 1998. *Permeable Reactive Barrier Technologies for Contaminant Remediation*. EPA/600/R-98-125.  
 Powell, R.M., P.D. Powell, and R.W. Puls, 2002. *Economic Analysis of the Implementation of Permeable Reactive Barriers for Remediation of Contaminated Ground*. EPA/600/R-02/034. June 2002.  
 USEPA, 1999. *Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites*. EPA/OSWER No. 9200.4-17P. Washington, DC: Office of Solid Waste and Emergency Response.  
 USEPA, 2007a. *Monitored Natural Attenuation of Inorganic Contaminants in Ground Water Volume 1 – Technical Basis for Assessment*. EPA/600/R-07/139. October 2007.  
 USEPA, 2007b. *Monitored Natural Attenuation of Inorganic Contaminants in Ground Water Volume 2 – Assessment for Non-Radionuclides Including Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Nitrate, Perchlorate, and Selenium*. EPA/600/R-07/140. October 2007.  
 bgs: below ground surface  
 CFR: Code of Federal Regulations  
 Clifton Landfill: Clifton Rental Company, Inc., Landfill (closed)  
 GWPS: groundwater protection standard  
 ISS: in situ stabilization/solidification  
 MNA: monitored natural attenuation  
 PRB: permeable reactive barrier  
 Site: Grumman Road Private Industrial Landfill  
 USEPA: U.S. Environmental Protection Agency

**Table 2**  
**Cation Exchange Capacity and Extractable Oxides**

Well ID	Unit	Cation Exchange Capacity (meq/kg)	Extractable Oxides (mg/kg)	
			Aluminum	Iron
MW-23D	Shallow (Unit 1)	3.44	8,000	492
MW-24D	Shallow (Unit 1/Unit 3)	6.20	771	80.6
MW-25D	Shallow (Unit 1)	11.7	3,080	81.5
MW-27D	Shallow (Unit 1)	4.23	6,250	61.3
<b>Unit 1 (Mean):</b>		<b>6.39</b>	<b>4,520</b>	<b>179</b>
MW-23D	Deep (Unit 3)	6.43	485	245
MW-24D	Deep (Unit 3)	9.46	735	537
MW-25D	Deep (Unit 3)	11.4	478	682
MW-27D <sup>1</sup>	Deep (Unit 3)	17.6	876	598
<b>Unit 3 (Mean):</b>		<b>11.2</b>	<b>644</b>	<b>516</b>

Notes:

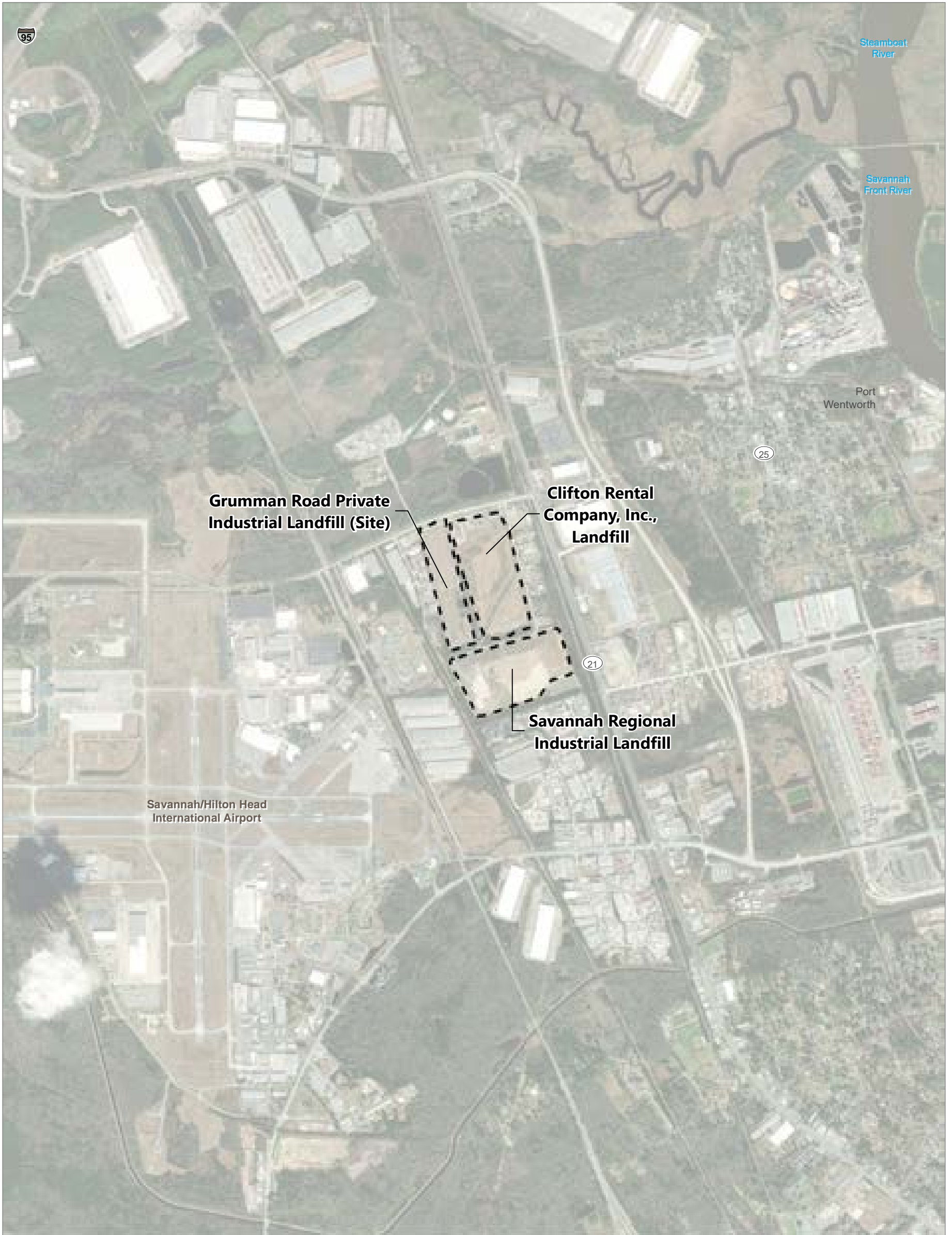
1. Average of duplicate results

meq/kg: milliequivalents per kilogram


mg/kg: milligrams per kilogram

# Figures

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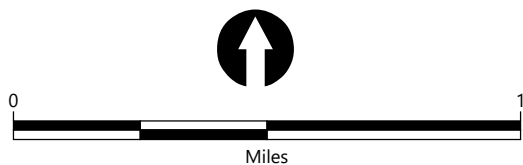


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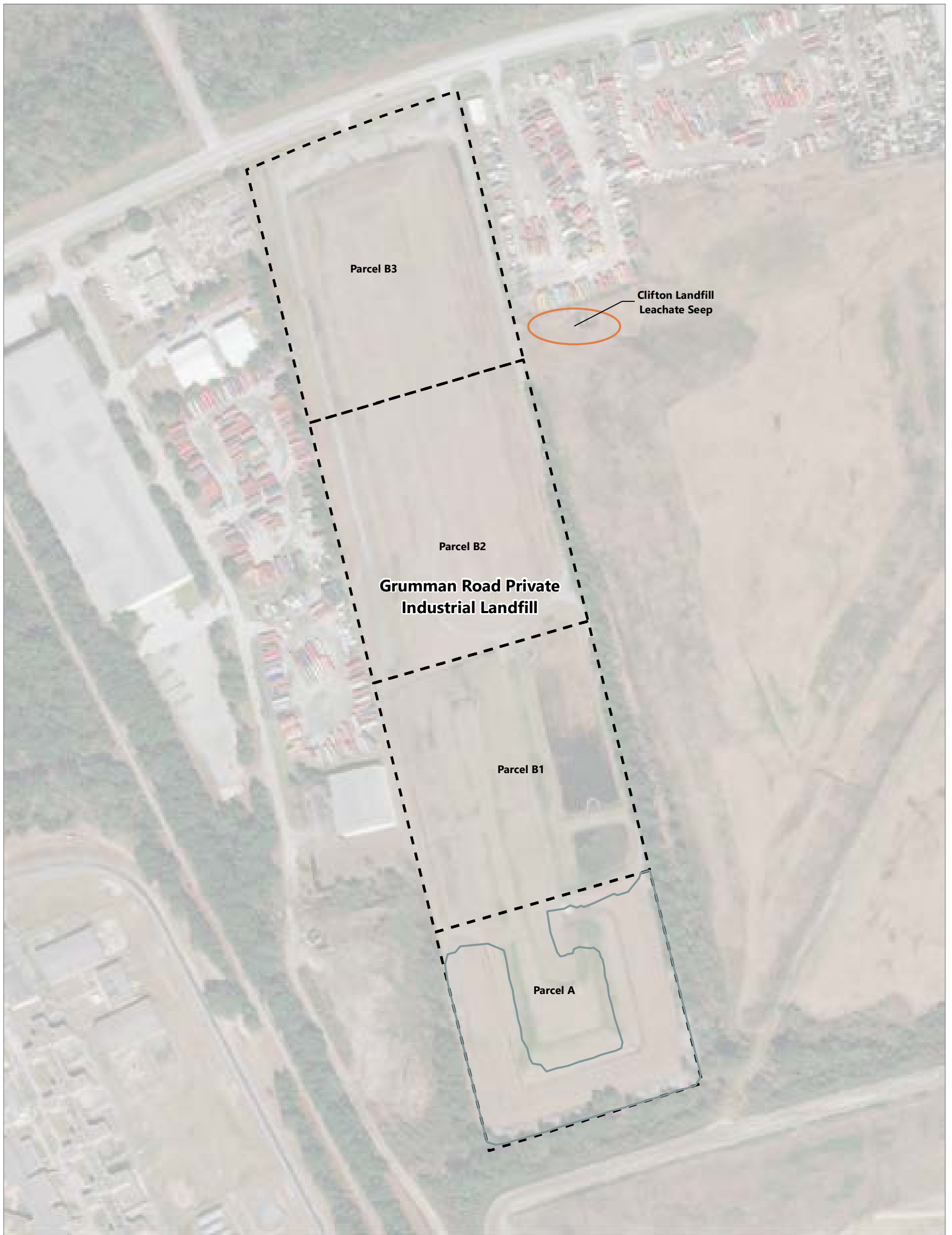
 Landfill Boundary

**NOTE:**



1. Aerial imagery is from Esri basemap service (source date: February 21, 2021).







**LEGEND:**

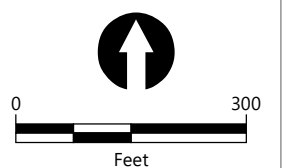
-  Site Parcel Boundary
-  Parcel A' Final Cover Limits

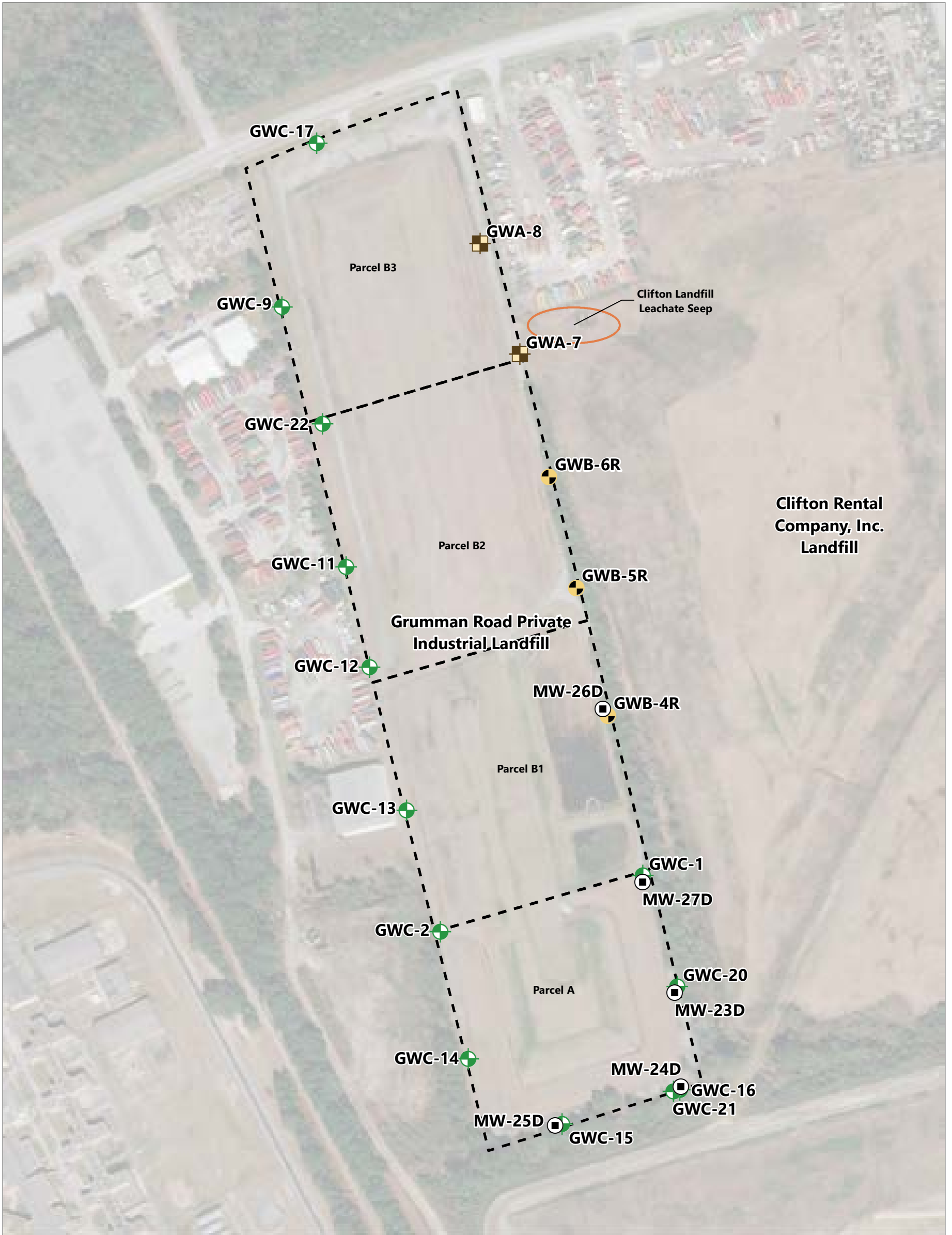
**NOTES:**

1. Aerial imagery is from Esri basemap service (source date: February 21, 2021).
2. Parcel A' boundary is taken from the Plant Kraft Grumman Road Landfill Final Cover Asbuilt (Brantley Engineering 2019).

**REFERENCE:**

Brantley Engineering, 2019. *Closure Construction Certification Report. Grumman Road Ash Landfill Parcel A' (Prime), Closure Final Cover Construction.* Georgia Power Company Grumman Road Landfill. Prepared for Southern Company Services Engineering and Construction Services. November 2019.





**LEGEND:**

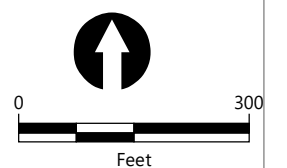
Grumman Road Private Industrial Landfill

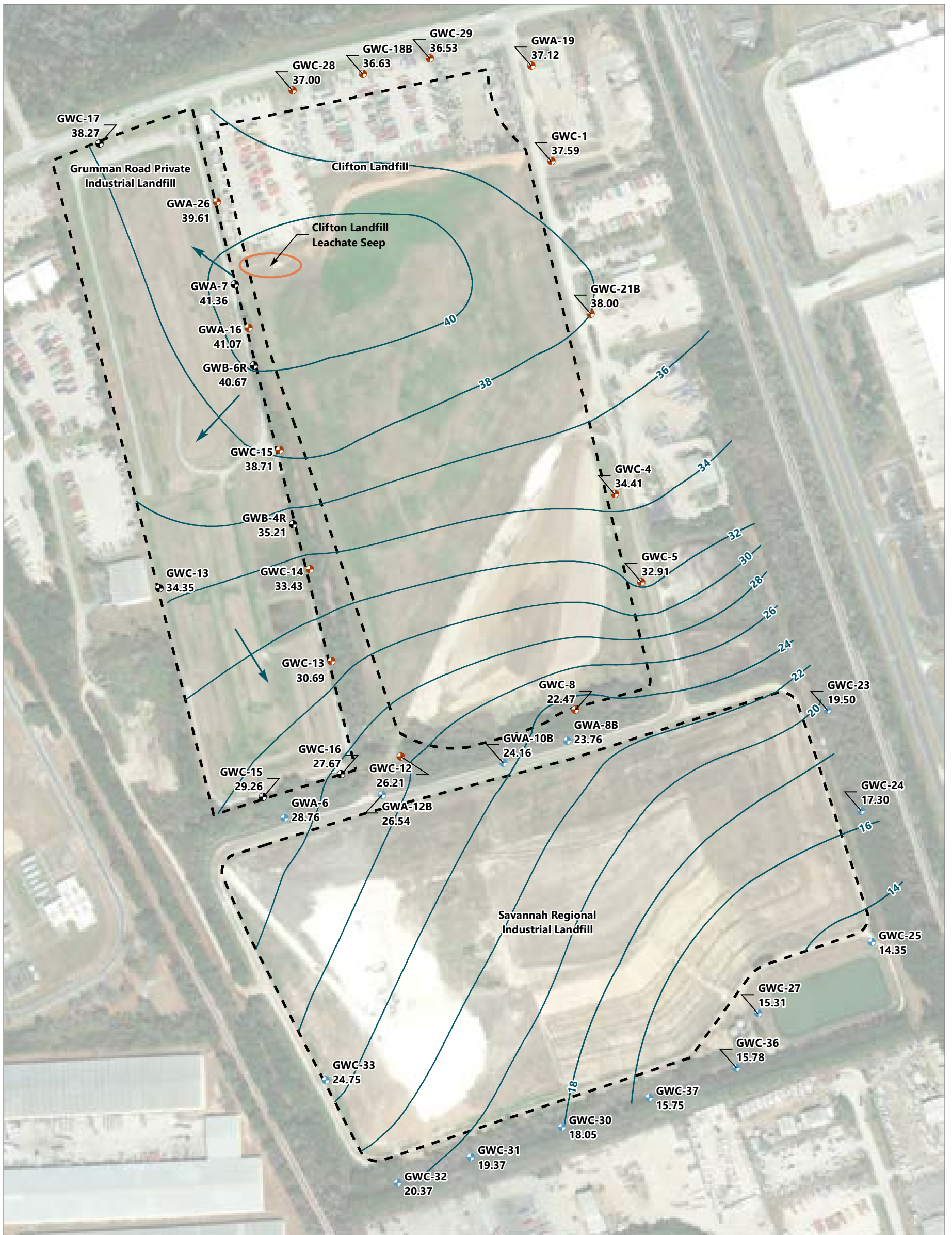
**Monitoring Wells:**

- Downgradient
- Sidegradient
- Upgradient
- Vertical Delineation

**NOTE:**

1. Aerial imagery is from Esri basemap service (source date: June 24, 2020).





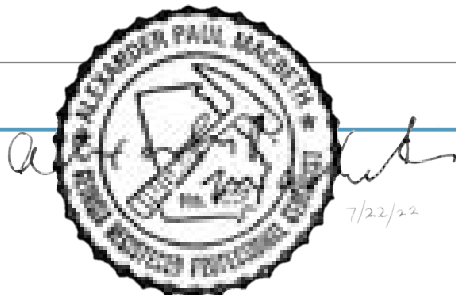
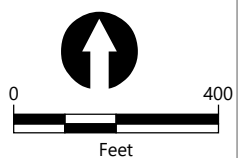
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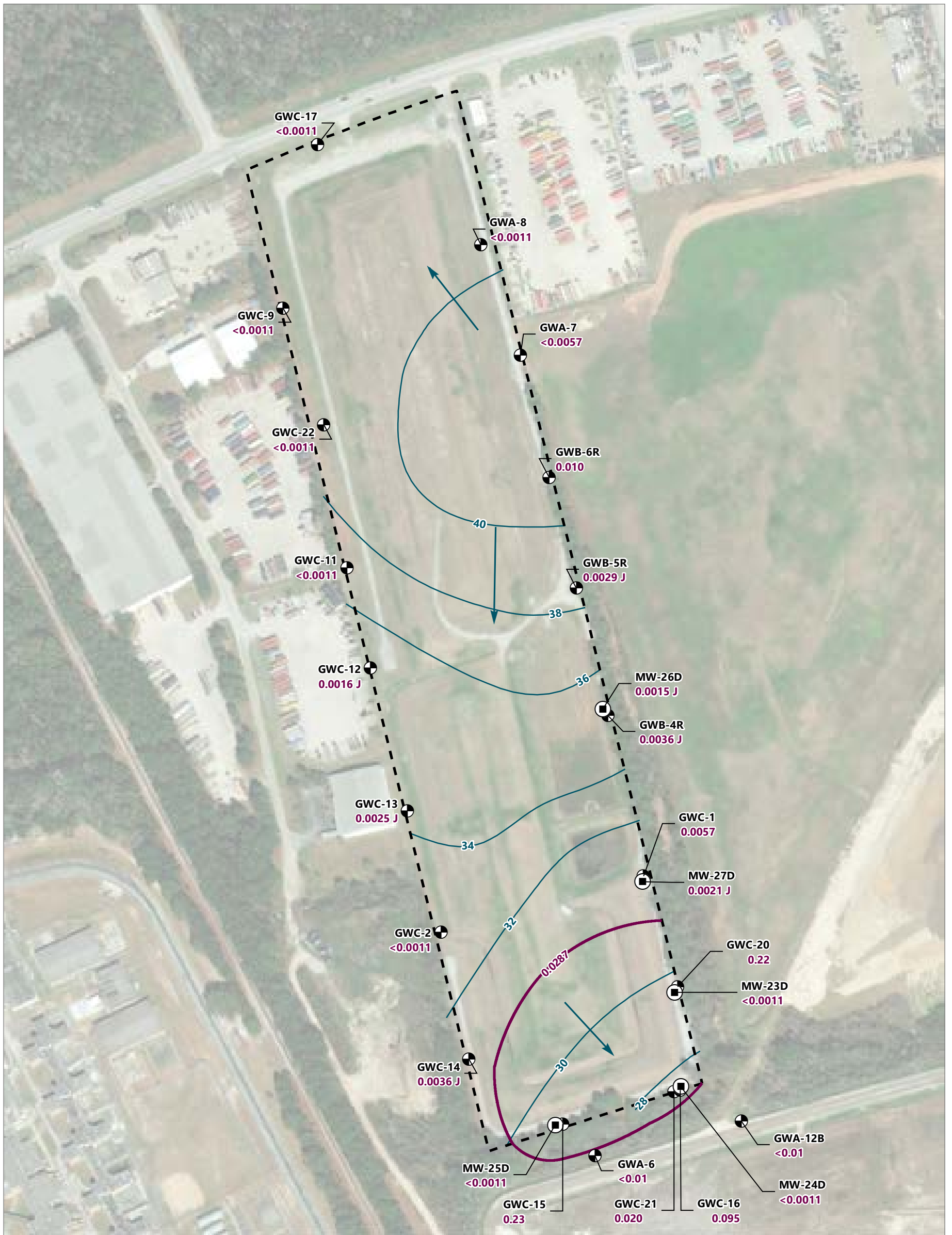
- Site Boundary
- Clifton Landfill
- Grumman Road Private Industrial Landfill
- Savannah Regional Industrial Landfill
- Groundwater Contours (feet MSL)
- GWC-32** - Well ID
- 20.37** - Groundwater Elevation (feet MSL)
- Approximate Groundwater Flow Direction

**NOTES:**

1. Grumman Road Private Industrial Landfill groundwater elevations were converted from Site Datum to NAVD88 by subtracting 0.73 foot, then from NAVD88 to MSL by adding 0.9 foot to the original values.
2. Monitoring well locations for Savannah Regional Industrial Landfill and Clifton Landfill are digitized from existing plan drawings and should be considered approximate.
3. Grumman Road Private Industrial Landfill groundwater elevations are from data collected on January 31, 2022, from transducers deployed in select site wells.
4. Clifton Landfill groundwater elevations are from the February 2 through February 4, 2022, sampling event.
5. Savannah Regional Industrial Landfill groundwater elevations are from the February 23 through February 25, 2022, sampling event.
6. Wells with similar screened interval elevations were used in the contouring.
7. Aerial imagery is from Esri online basemap service.

Clifton Landfill: Clifton Rental Company, Inc., Landfill  
 NAVD88: North American Vertical Datum of 1988  
 MSL: Mean Sea Level





**LEGEND:**

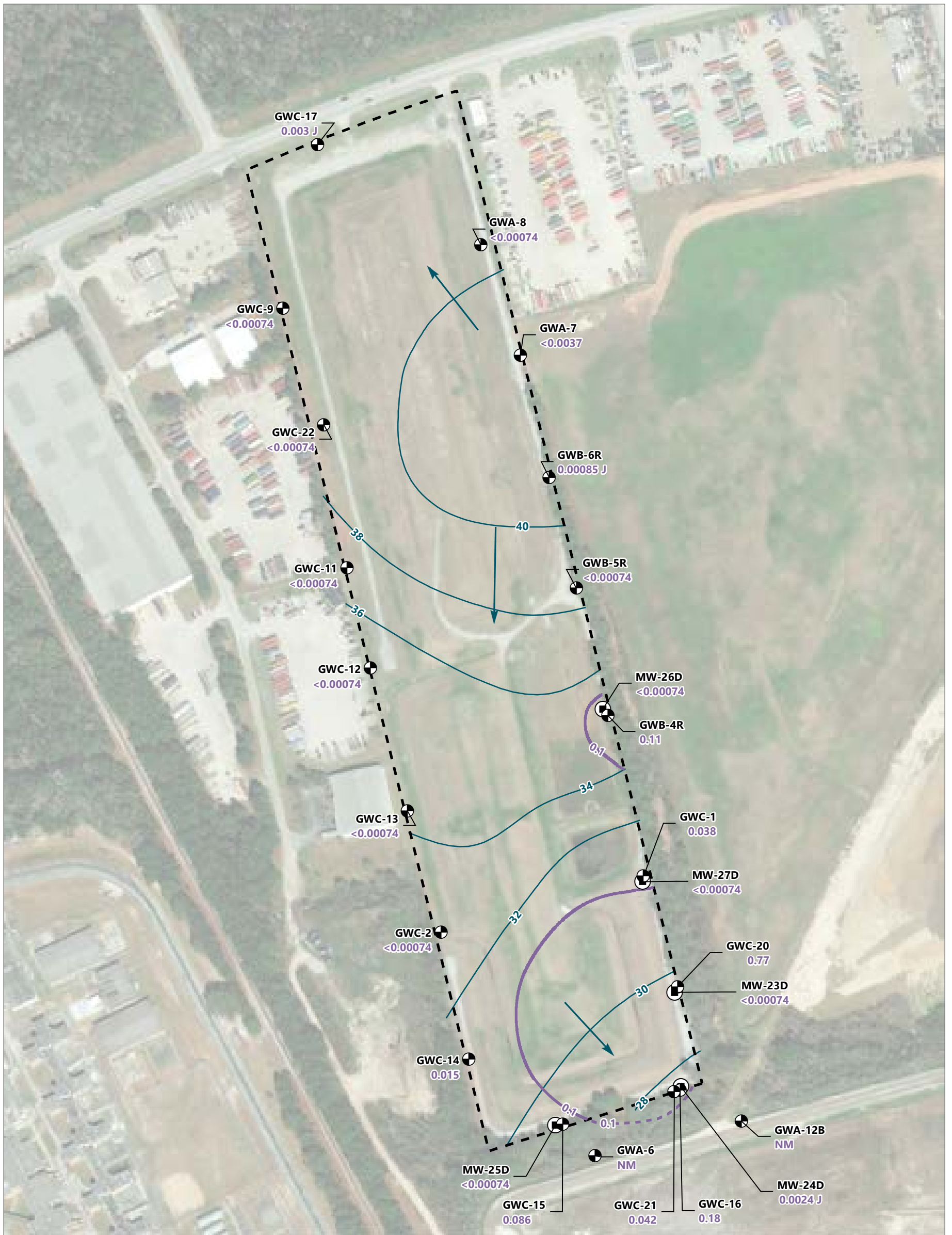
- Site Boundary
- Monitoring Well
- Vertical Delineation Well
- Arsenic Isoconcentration Contour
- Groundwater Flow Direction
- Groundwater Contour (feet MSL)

**NOTES:**

1. Grumman Road Private Industrial Landfill arsenic data are from the February 2022 routine semiannual sampling event. Groundwater contours were provided by Atlantic Coast Consulting, Inc. 2022 Annual Groundwater Monitoring and Corrective Action Report. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. July 2022.
2. Savannah Regional Industrial Landfill arsenic data (wells GWA-6 and GWA-12B) are from the February 2022 semiannual sampling event.
3. Concentrations are reported in mg/L.
4. Site background concentration for arsenic is 0.0287 mg/L and is the site-specific groundwater protection standard.
5. The groundwater protection standard was calculated using data through the February 2022 sampling event.
6. Groundwater elevations are in feet MSL.
7. MW-23D, MW-24D, MW-25D, MW-26D, and MW-27D were not used to create the isocontour.
8. Aerial imagery is from Esri basemap service (source date: February 21, 2020).

<: Indicates the constituent was analyzed for but not detected above the method detection limit.  
 J: Reported value is an estimate because concentration is less than reporting limit and greater than the method detection limit.  
 mg/L: milligrams per liter  
 MSL: mean sea level





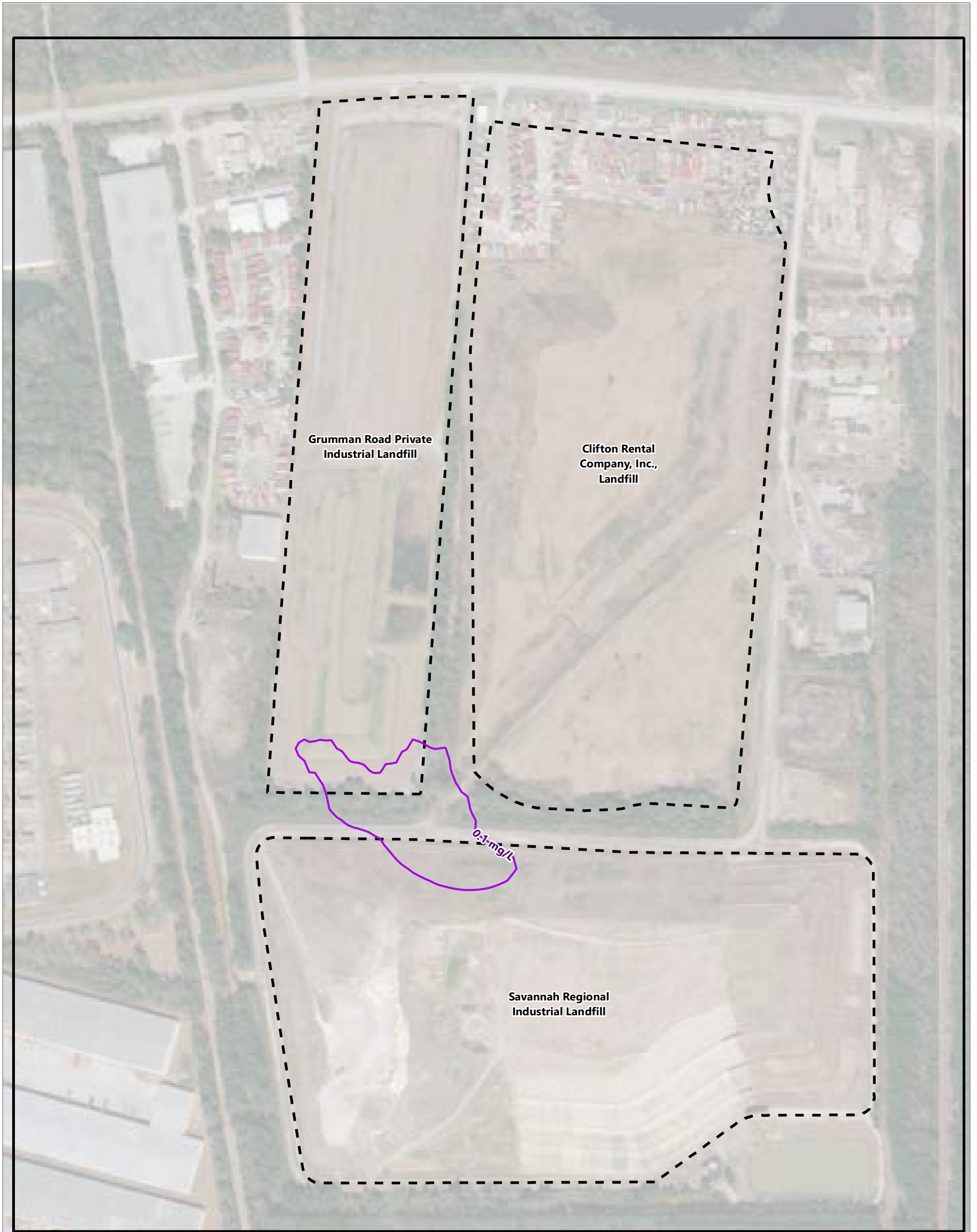
**LEGEND:**

- Site Boundary
- Monitoring Well
- Vertical Delineation Well
- Molybdenum Isoconcentration Contour
- Projected Molybdenum Isoconcentration Contour
- Groundwater Flow Direction
- Groundwater Contour (feet MSL)

**NOTES:**

1. Molybdenum and groundwater elevation data are from the February 2022 sampling event. Groundwater contours were provided by Atlantic Coast Consulting, Inc. 2022 Annual Groundwater Monitoring and Corrective Action Report. Grumman Road Private Industrial Landfill. Prepared for Georgia Power Company. July 2022.
2. Concentrations are reported in mg/L.
3. The groundwater protection standard for molybdenum is 0.1 mg/L.
4. Dashed lines indicate projected molybdenum isoconcentration contours.
5. MW-23D, MW-24D, MW-25D, MW-26D, and MW-27D were not used to create the isocontour.
6. The contour lines are extended to the south based on the most recent available data from two nearby Savannah Regional Industrial Landfill wells, GWA-6 and GWA-12B (August 2020).
7. Aerial imagery is from Esri basemap service (source date: February 21, 2021).

<: Indicates the constituent was analyzed for but not detected above the method detection limit.  
 J: Reported value is an estimate because concentration is less than reporting limit and greater than method detection limit.  
 mg/L: milligrams per liter  
 MSL: mean sea level  
 NM: not measured



**LEGEND:**

- Model Domain
- Landfill Boundary

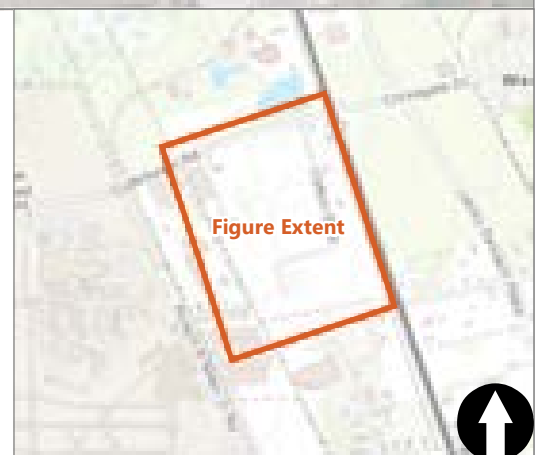
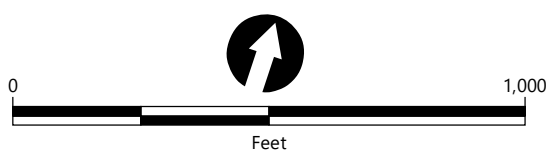
**Simulated Molybdenum Concentration:**

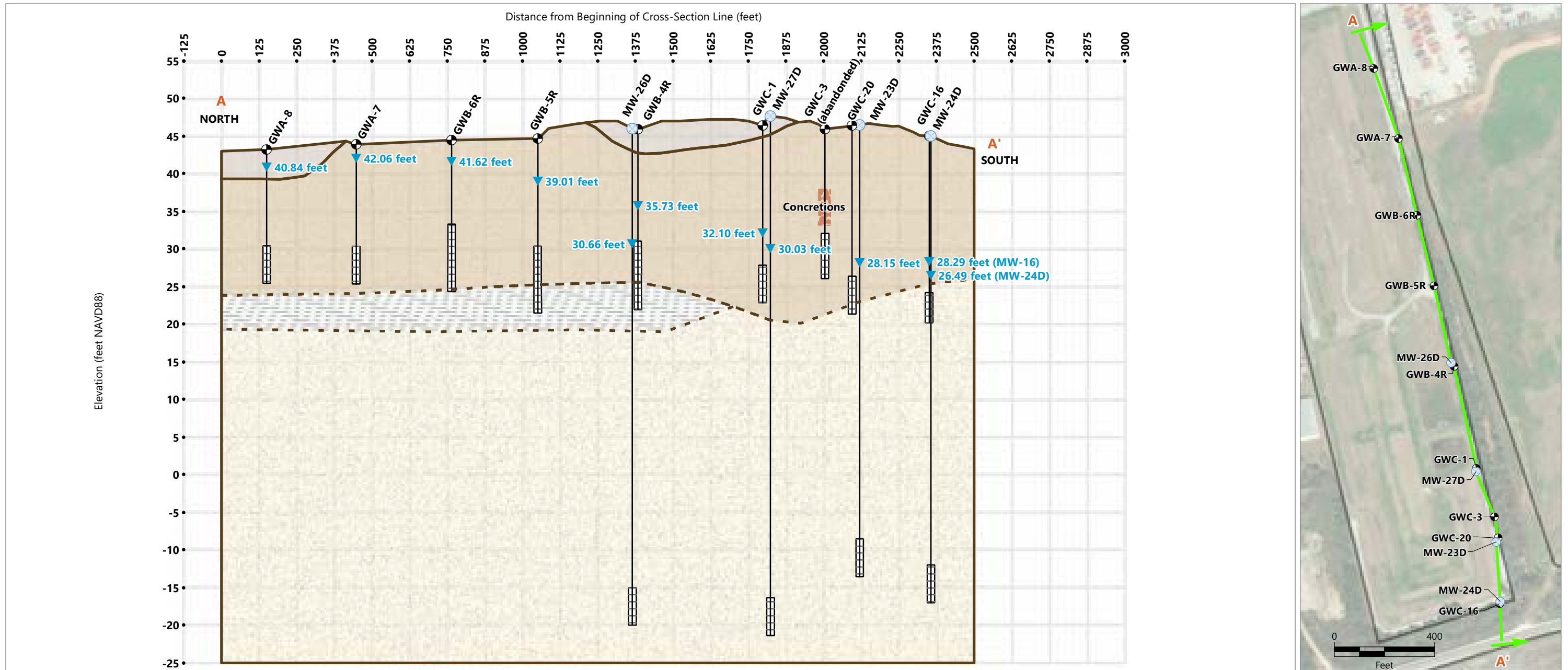
- Site GWPS (0.1 mg/L)

**NOTES:**

1. Aerial imagery is from Esri basemap service (source date: February 21, 2021).
2. Isoconcentrations represent dissolved-phase concentrations at the GWPS for the Site, assuming Clifton Landfill impacts beginning in 1980.
3. Molybdenum Site GWPS: 0.1 mg/L

GWPS: groundwater protection standard  
 mg/L: milligrams per liter





- LEGEND:**
- Monitoring Well
  - Vertical Delineation Well
  - Well Depth Below Ground Surface
  - Measured Groundwater Elevation
  - Plan View Cross Section
  - Monitoring Well Screened Interval

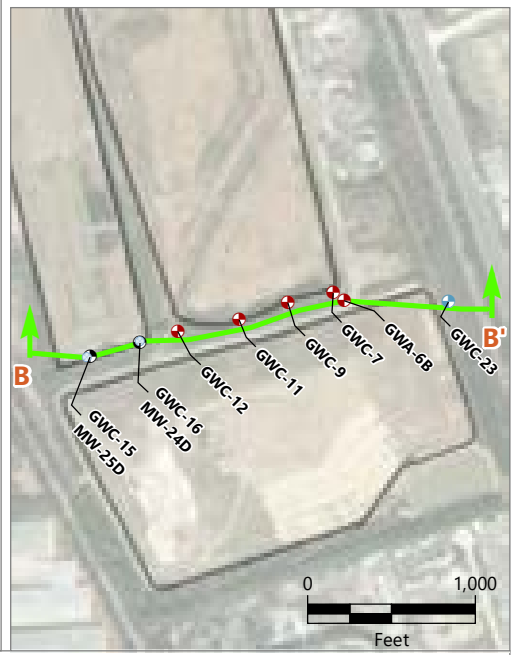
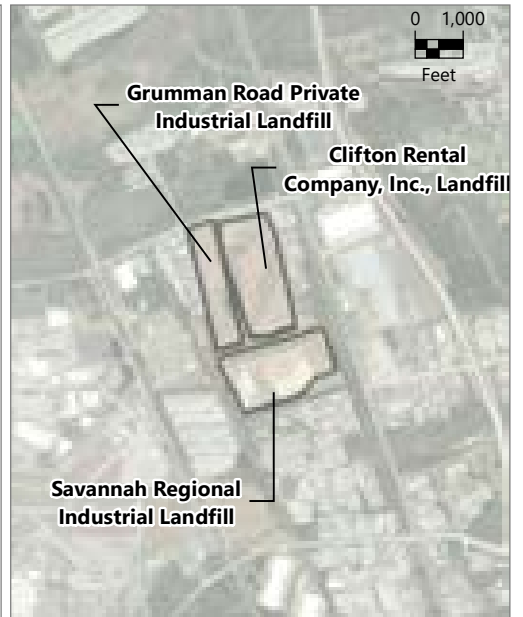
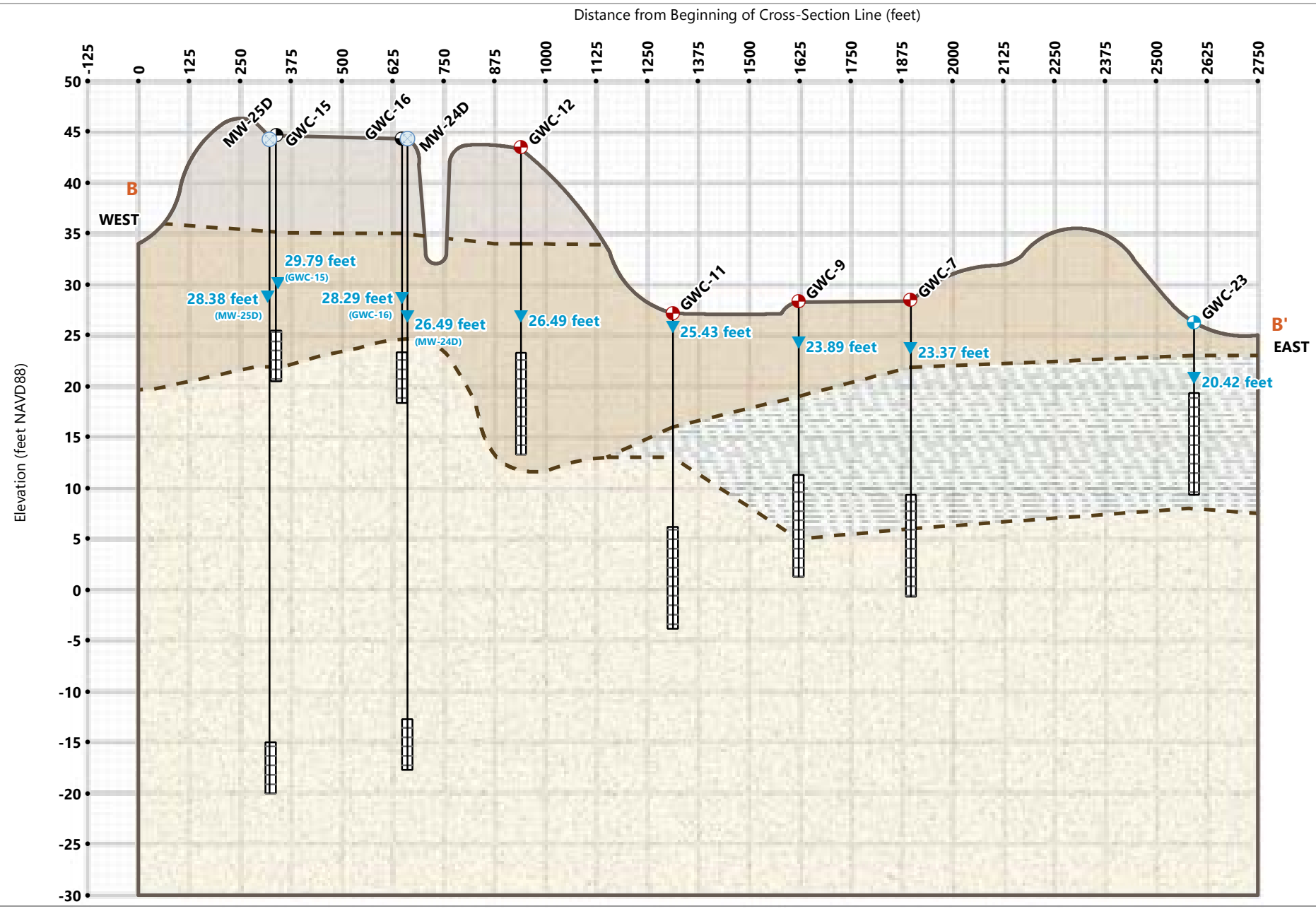
- Upper Sands and Topsoil: tan to brown or black, silty fine sand with occasional organic matter
- Unit 1: Uppermost Water-Bearing Zone: gray, tan, yellow, orange, and/or brown, silty fine sand with occasional opaque minerals and orange-brown concretions
- Unit 2: Low Permeability Zone: olive gray to light gray, very silty fine sands, clayey sands, and sandy silt
- Unit 3: Lower Sand Water Bearing Zone: light yellowish brown to light or olive gray, silty to clayey fine to coarse sands

- NOTES:**
1. Cross section redrawn from figures provided in *Assessment of Corrective Measures* (Anchor QEA 2020).
  2. Stratigraphic layers were correlated using a combination of boring data and gamma logs.
  3. Aerial imagery is from Esri basemap service (source date: February 21, 2021).
  4. Measured groundwater elevation data for Grumman Road landfill are from the March 8, 2021, gauging event.
  5. Vertical exaggeration is 25x.

NAVD88: North American Vertical Datum of 1988



**Figure 8**  
**A to A' Geologic Cross Section**  
 Semiannual Remedy Selection and Design Progress Report  
 Grumman Road Private Industrial Landfill, Port Wentworth, Georgia



**LEGEND:**

- Clifton Rental Company, Inc. Landfill
- Grumman Road Private Industrial Landfill
- Savannah Regional Industrial Landfill
- Vertical Delineation Well
- Approximate Groundwater Elevation
- Well Depth Below Ground Surface
- Plan View Cross Section
- Monitoring Well Screened Interval
- Upper Sands and Topsoil: tan to brown or black, silty fine sand with occasional organic matter
- Unit 1: Uppermost Water-Bearing Zone: gray, tan, yellow, orange, and/or brown, silty fine sand with occasional opaque minerals and orange-brown concretions
- Unit 2: Low Permeability Zone: olive gray to light gray, very silty fine sands, clayey sands, and sandy silt
- Unit 3: Lower Sand Water Bearing Zone: light yellowish brown to light or olive gray, silty to clayey fine to coarse sands.

**NOTES:**

1. Cross section redrawn from figures provided in *Assessment of Corrective Measures* (Anchor QEA 2020).
2. Stratigraphic layers were correlated using a combination of boring data and gamma logs.
3. Aerial imagery is from Esri basemap service (source date: February 21, 2021).
4. Measured groundwater elevation data for Grumman Road landfill are from the March 8, 2021, gauging event.
5. Vertical exaggeration is 25x.

NAVD88: North American Vertical Datum of 1988





# Appendix A

## Certificate of Authorization

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A pocket-sized license card is below. Above is an enlarged copy of your pocket card.

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Columbia MD 21044

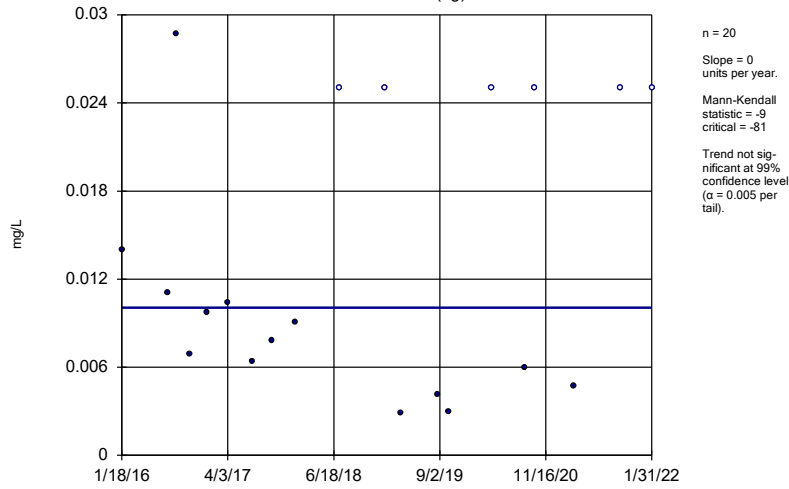


# Appendix B

## Trend Test Graphs

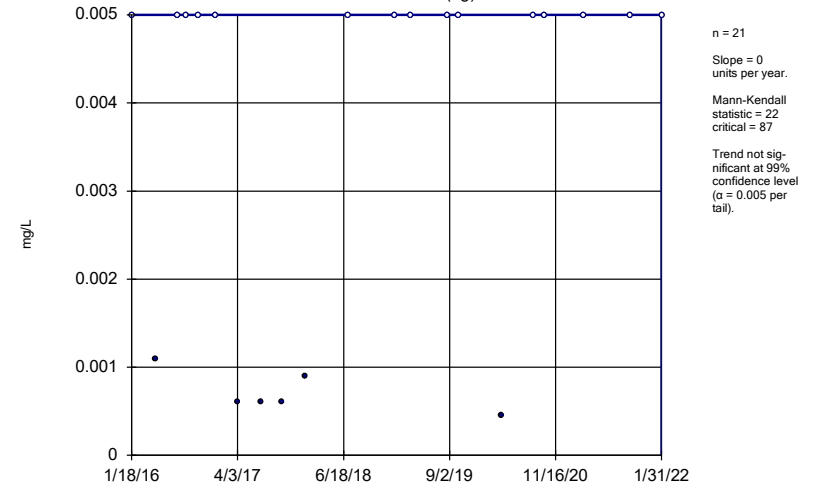
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### Sen's Slope Estimator GWA-7 (bg)



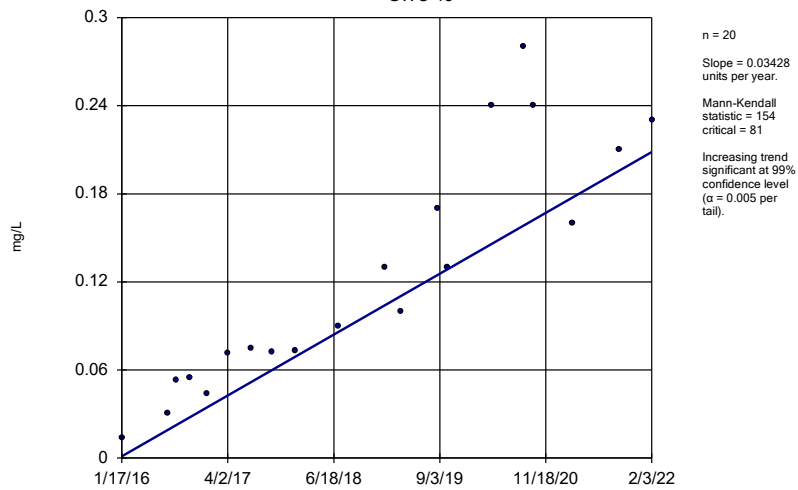
Constituent: Arsenic Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWA-8 (bg)



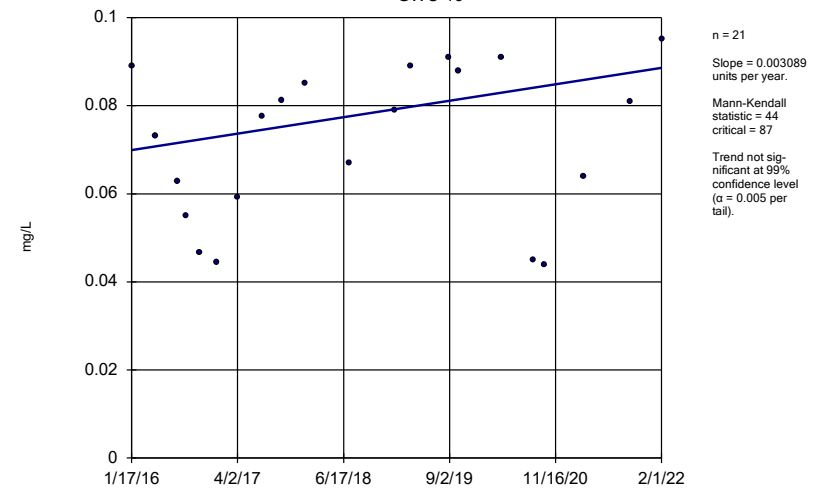
Constituent: Arsenic Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-15



Constituent: Arsenic Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

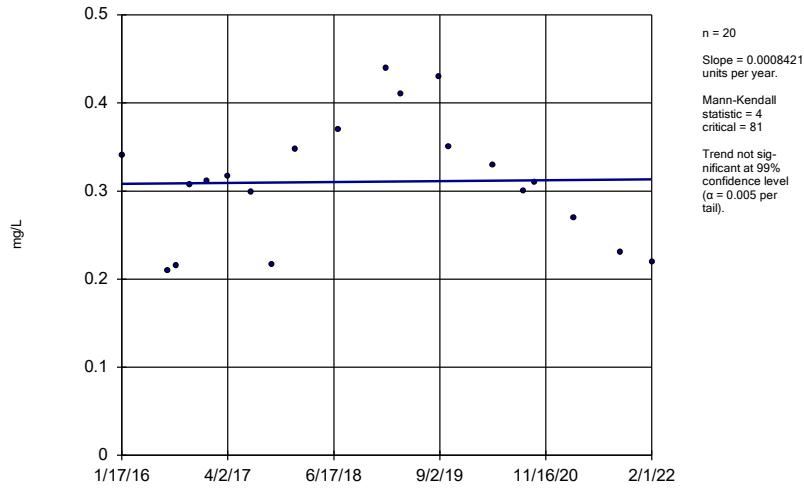
### Sen's Slope Estimator GWC-16



Constituent: Arsenic Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWC-20

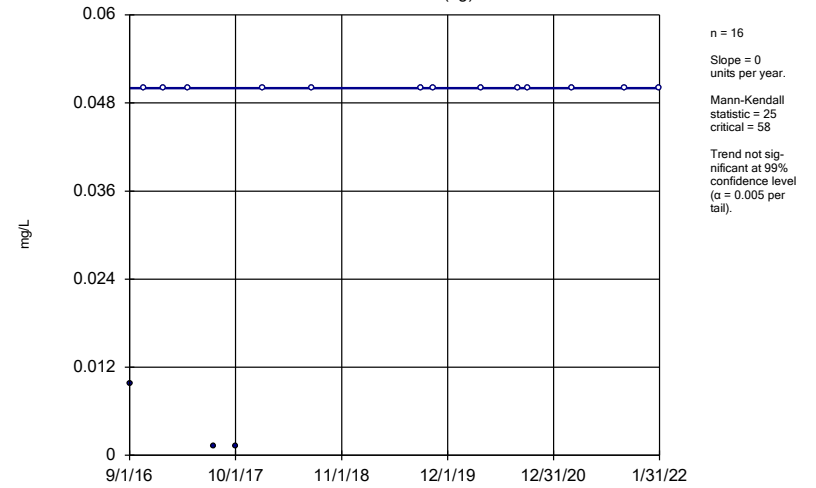


Constituent: Arsenic Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Hollow symbols indicate censored values.

### Sen's Slope Estimator

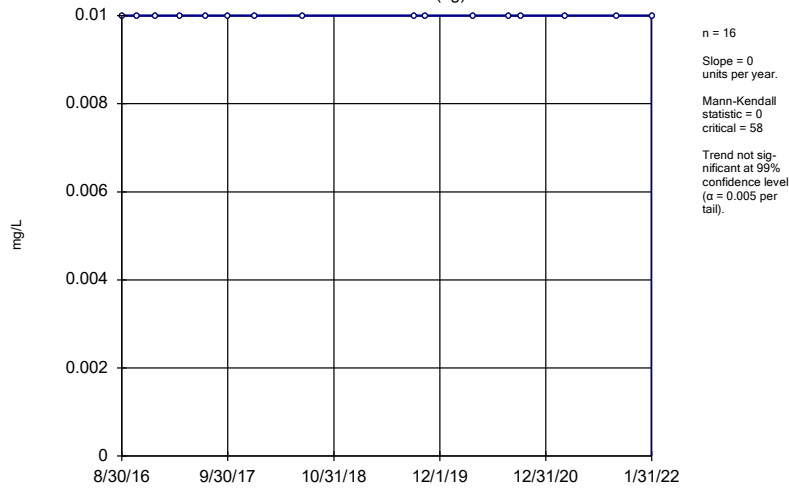
GWA-7 (bg)



Constituent: Molybdenum Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

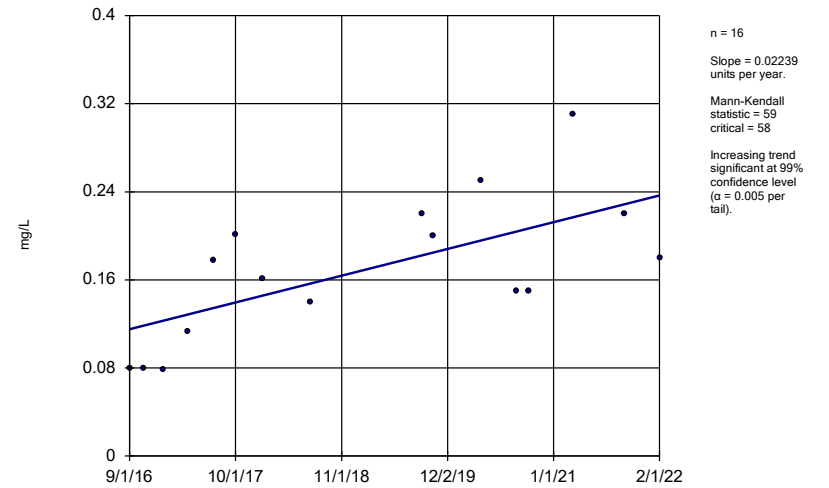
GWA-8 (bg)



Constituent: Molybdenum Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

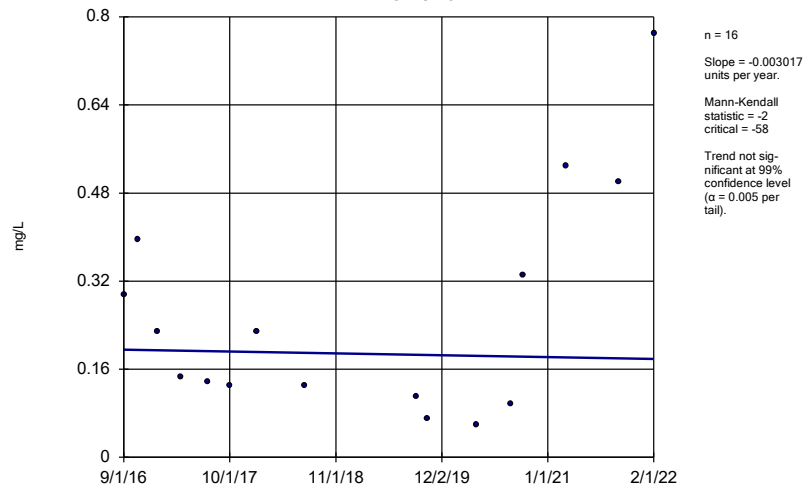
GWC-16



Constituent: Molybdenum Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWC-20



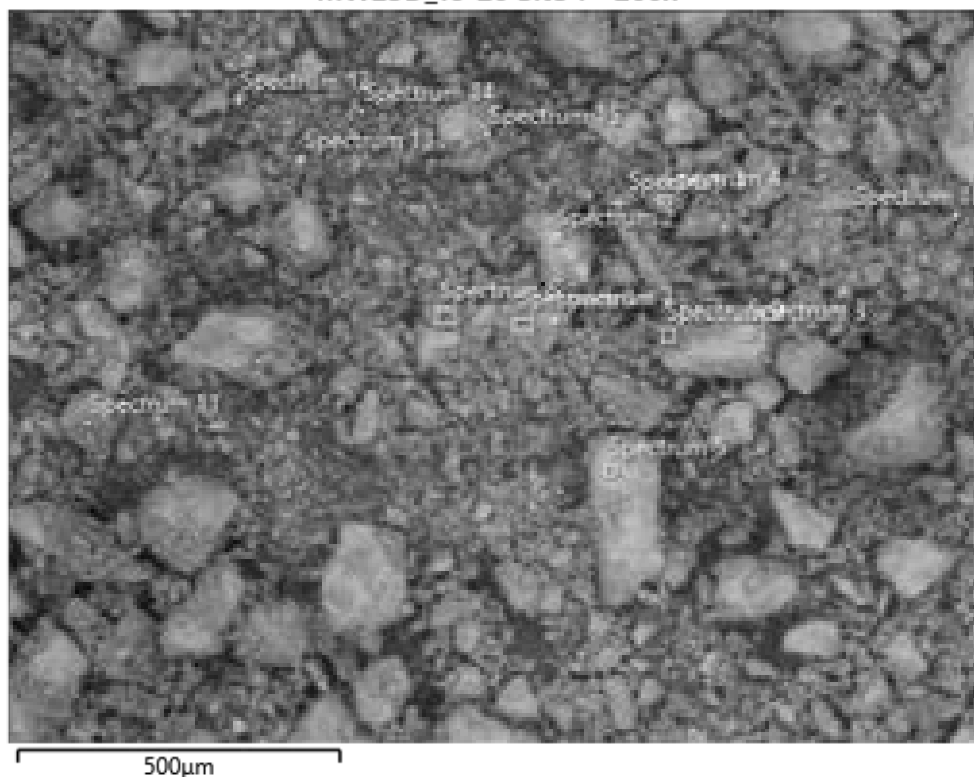
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Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

# Appendix C

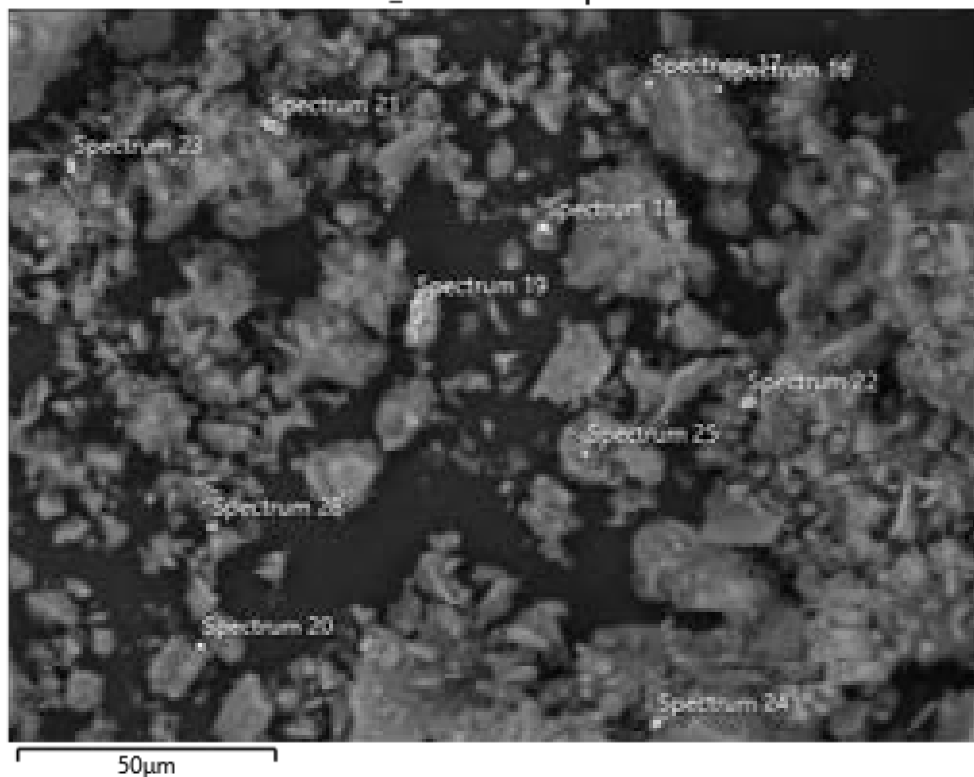
## Laboratory Analytical Data

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MW23D\_18-20 Site 1 - 200x

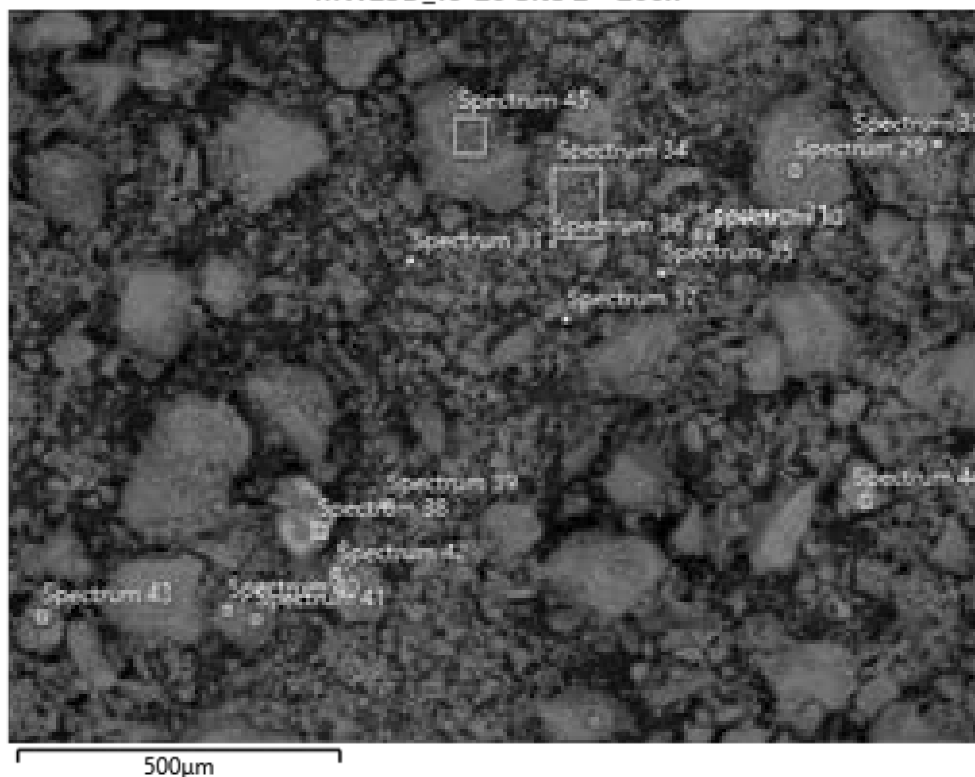


MW23D\_18-20 Site1 - sp14 1600x

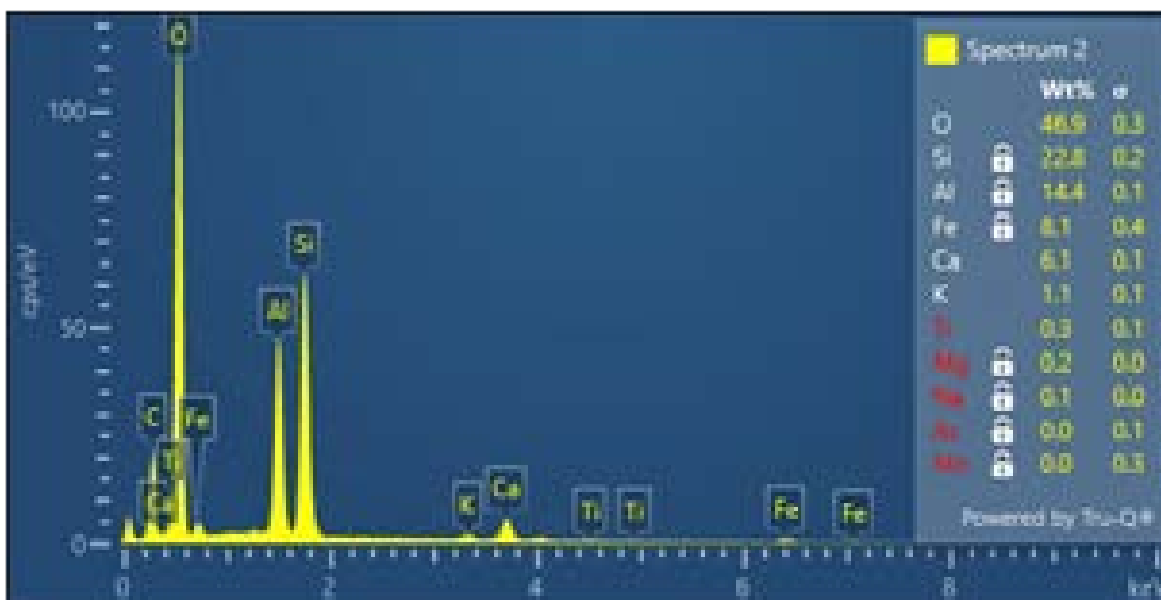
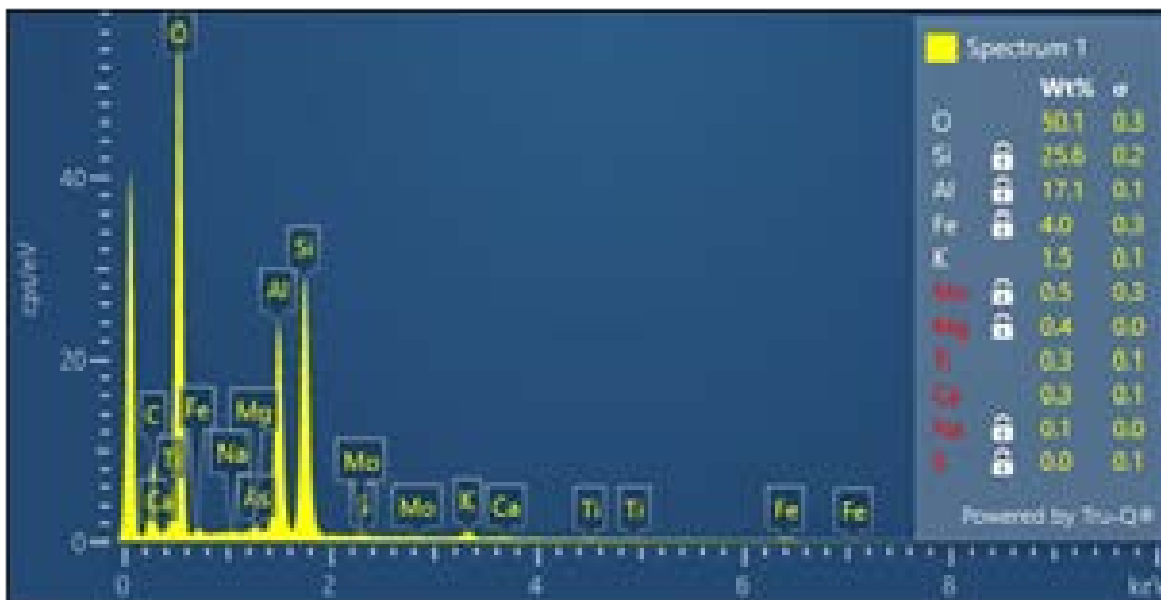


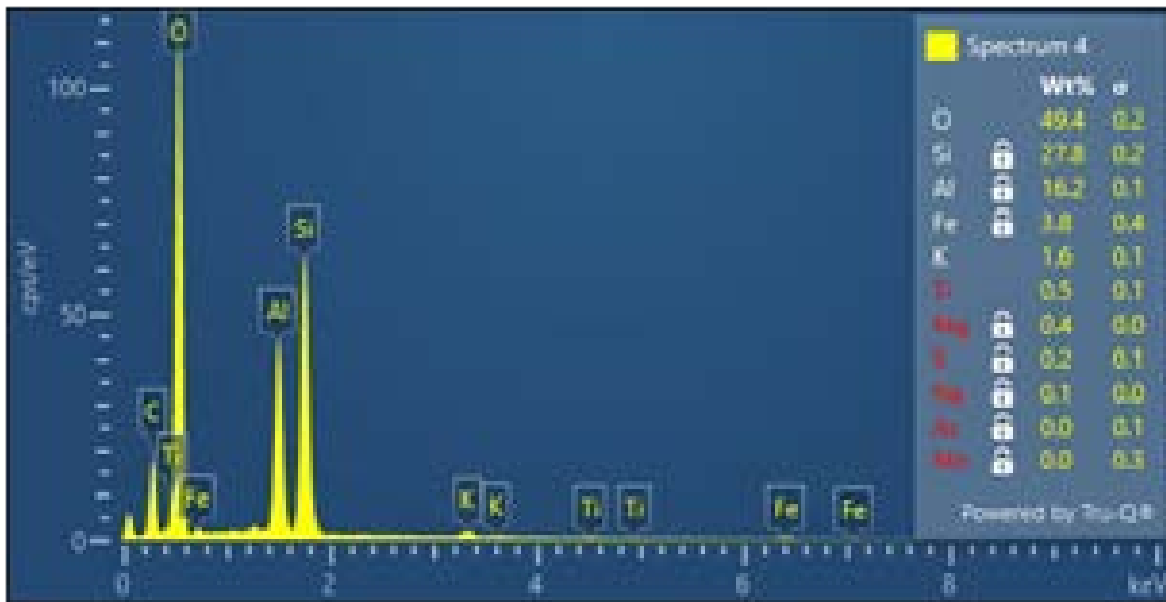
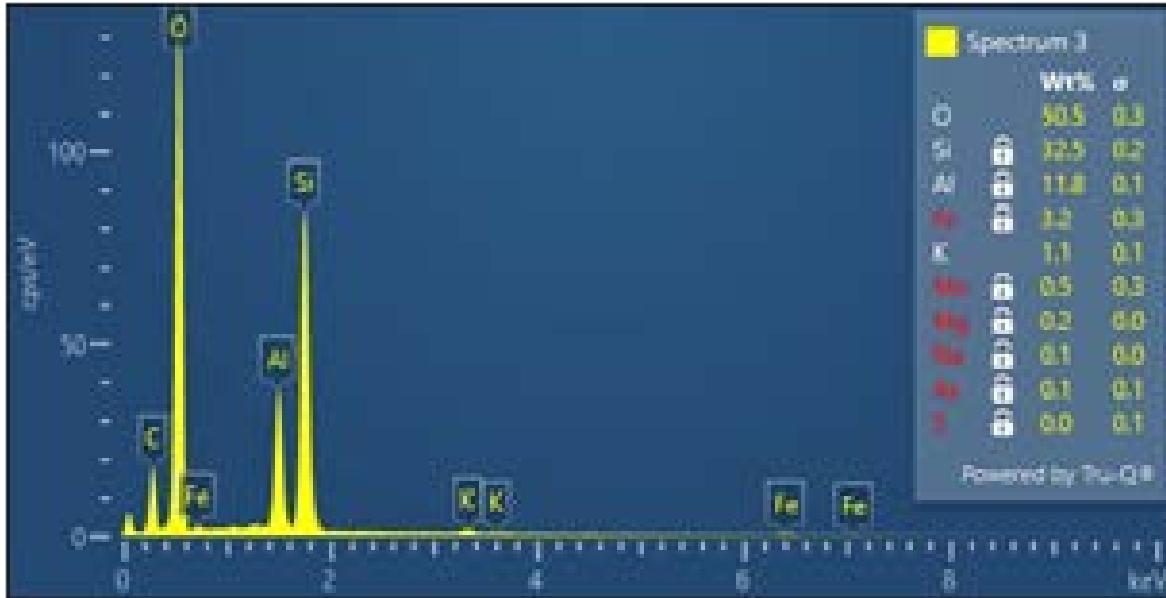


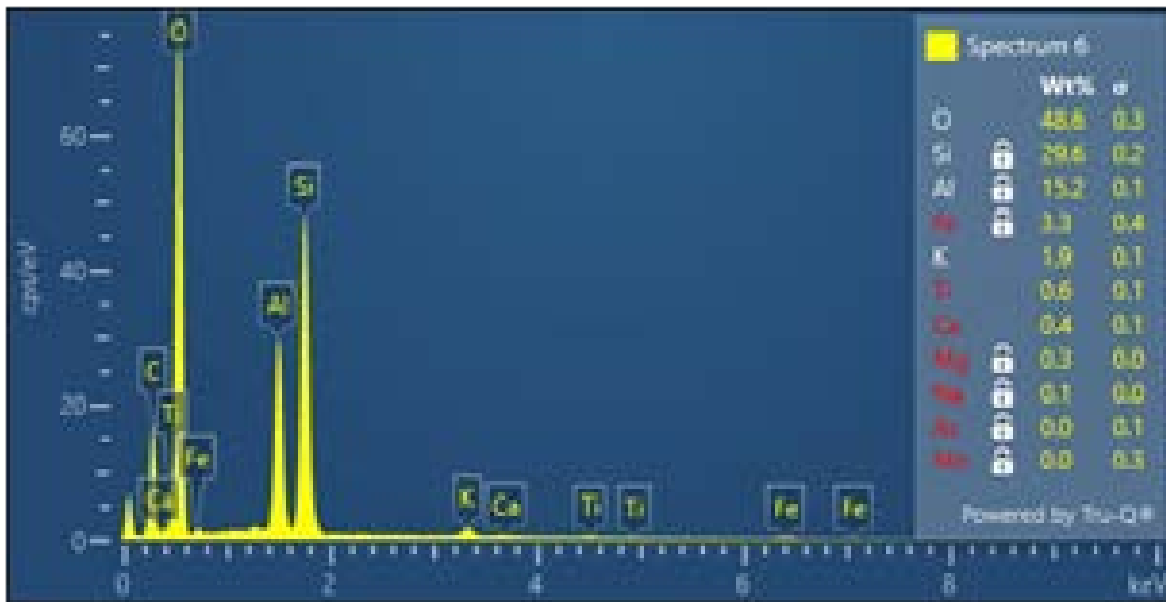
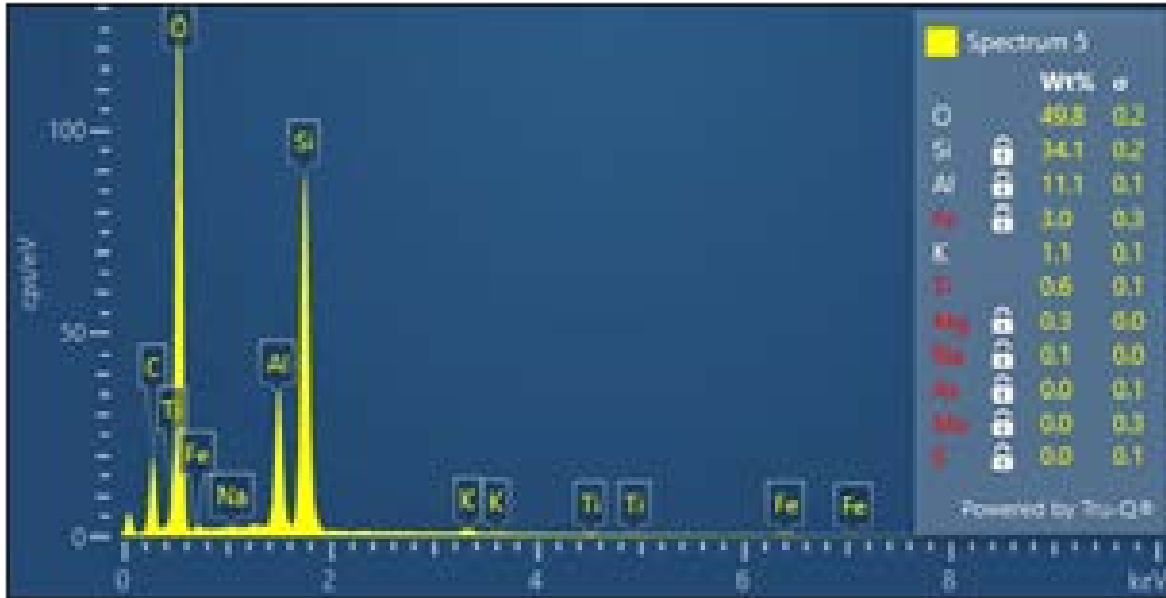
MW23D\_18-20 Site 2 - 200x

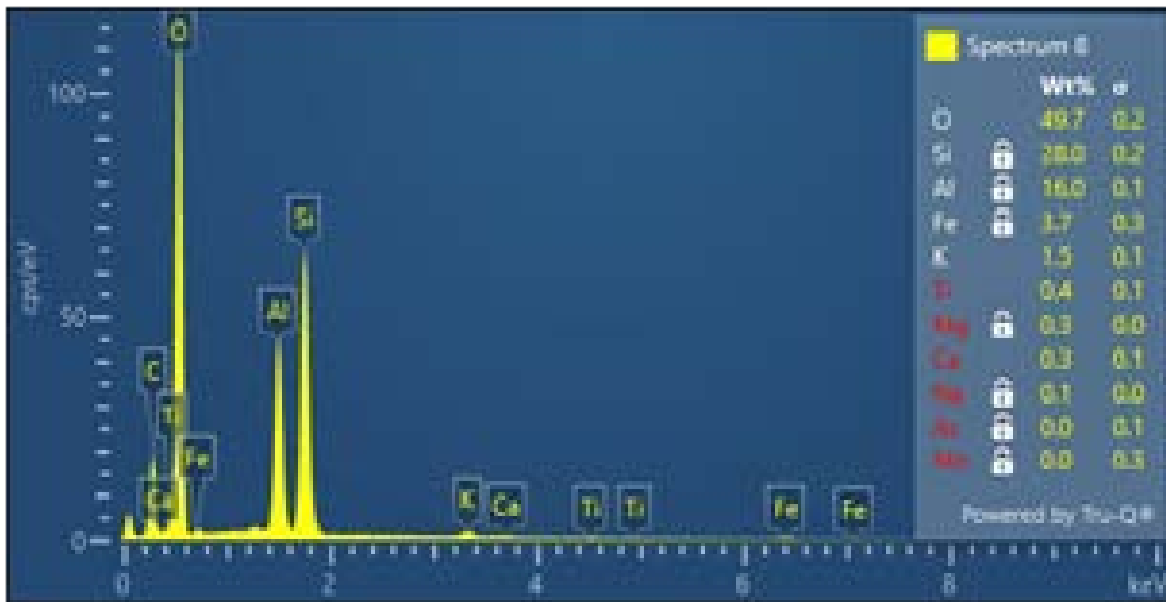
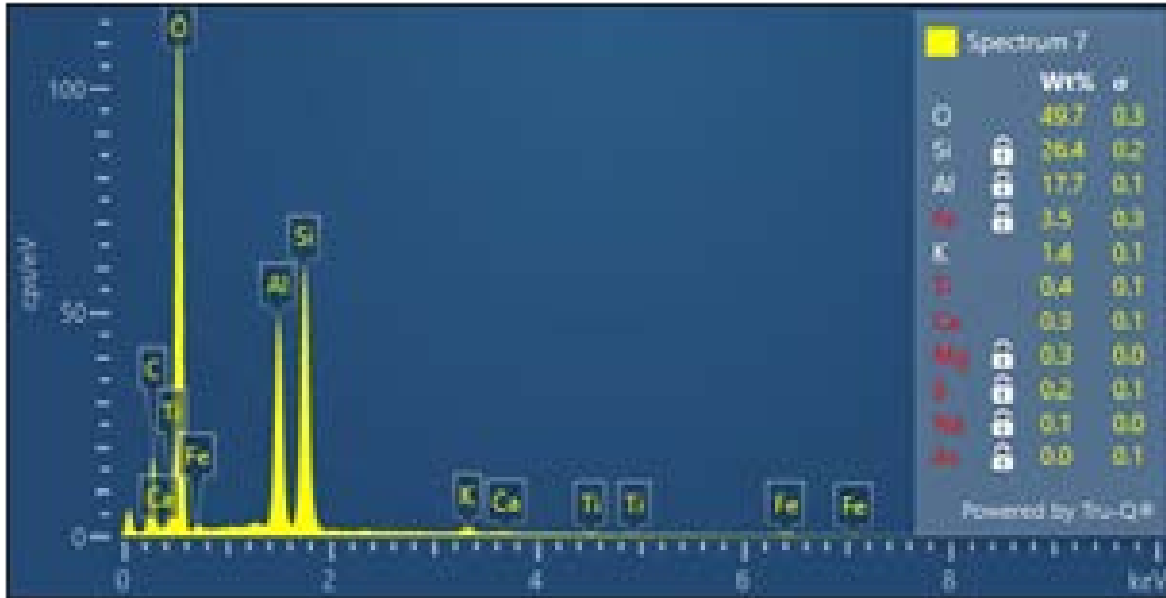


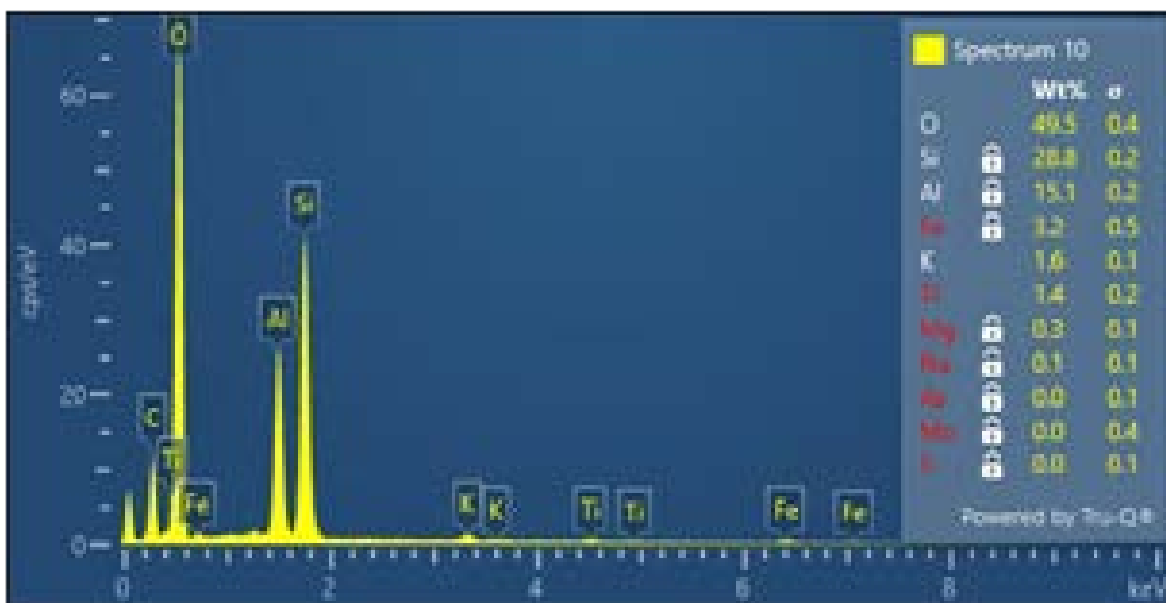
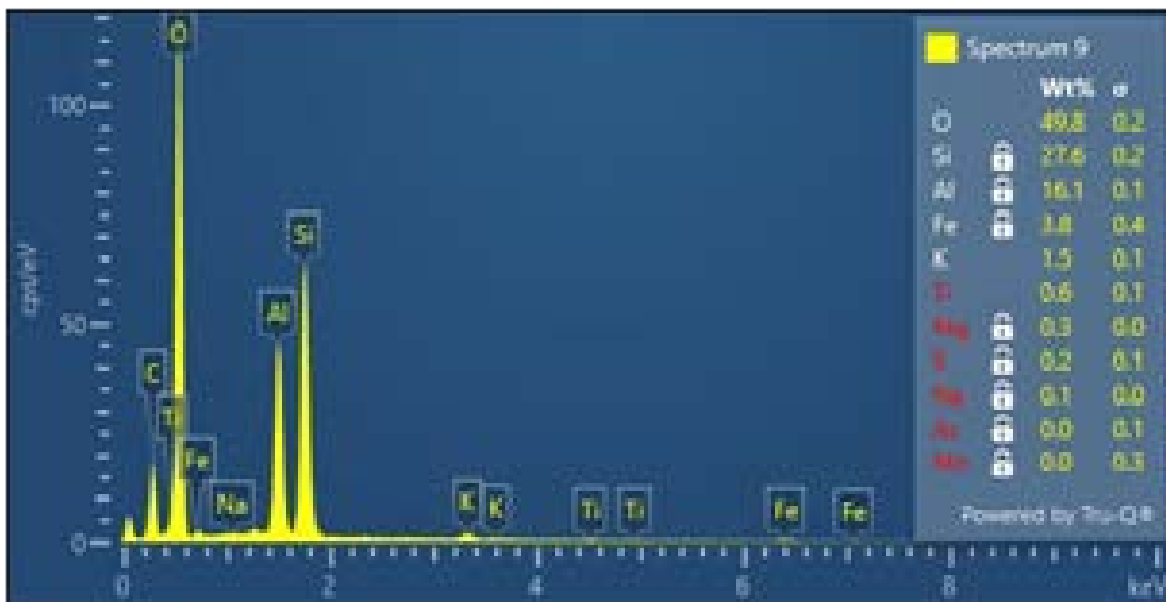
### Spectrum images

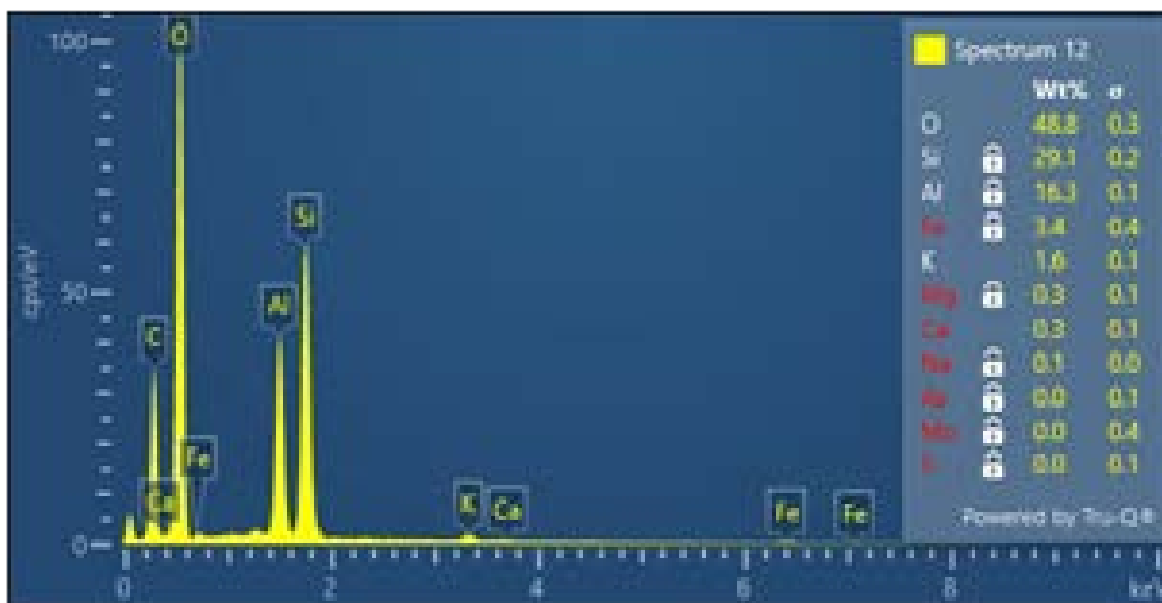
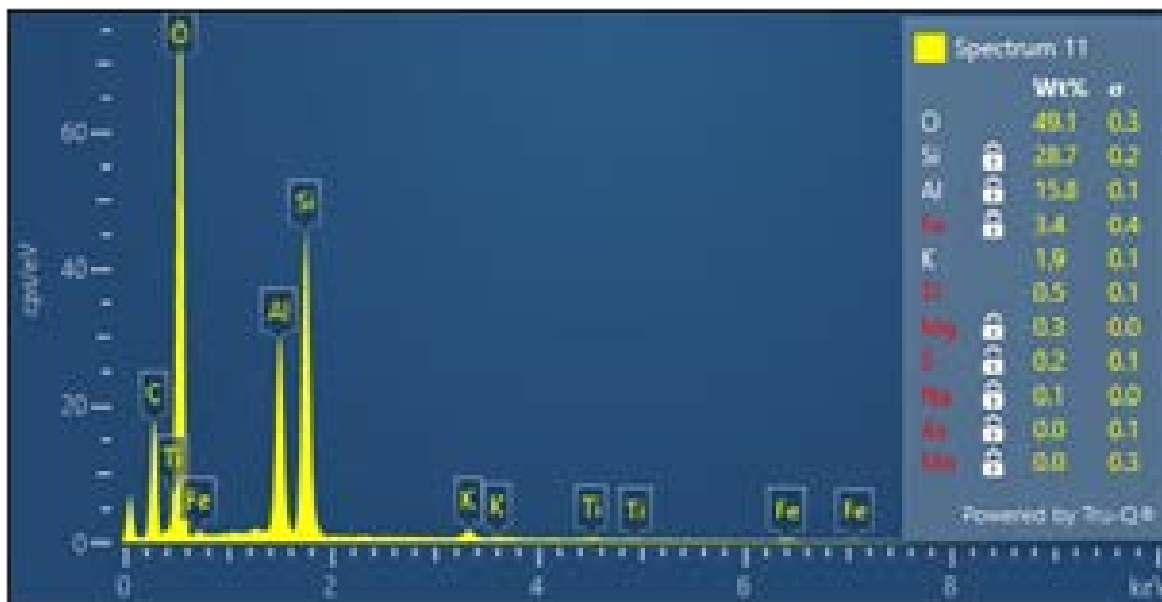


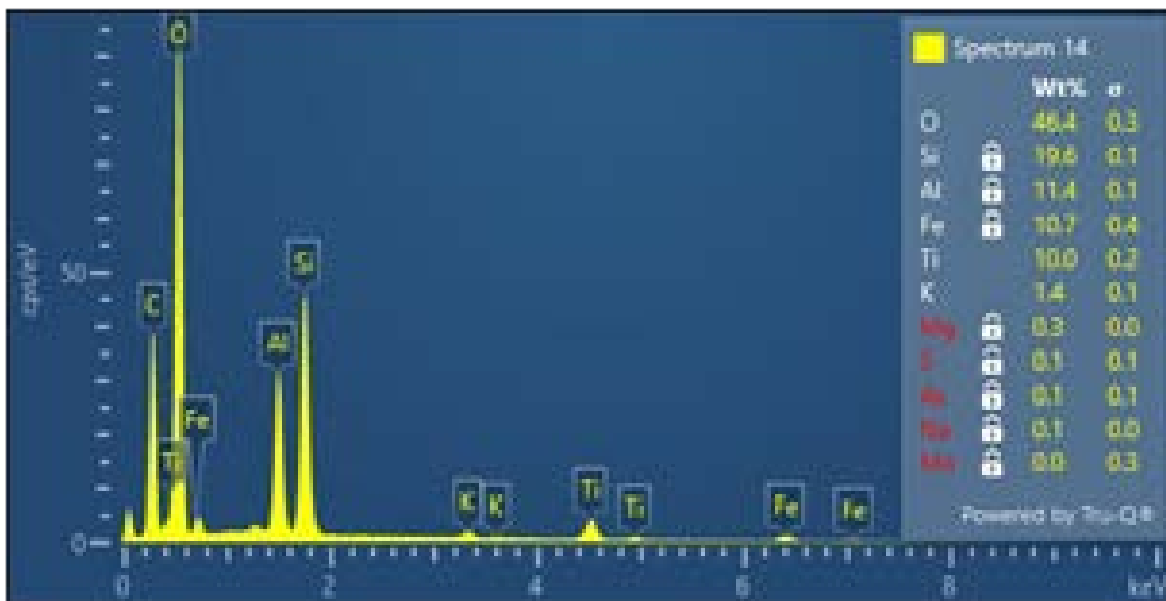
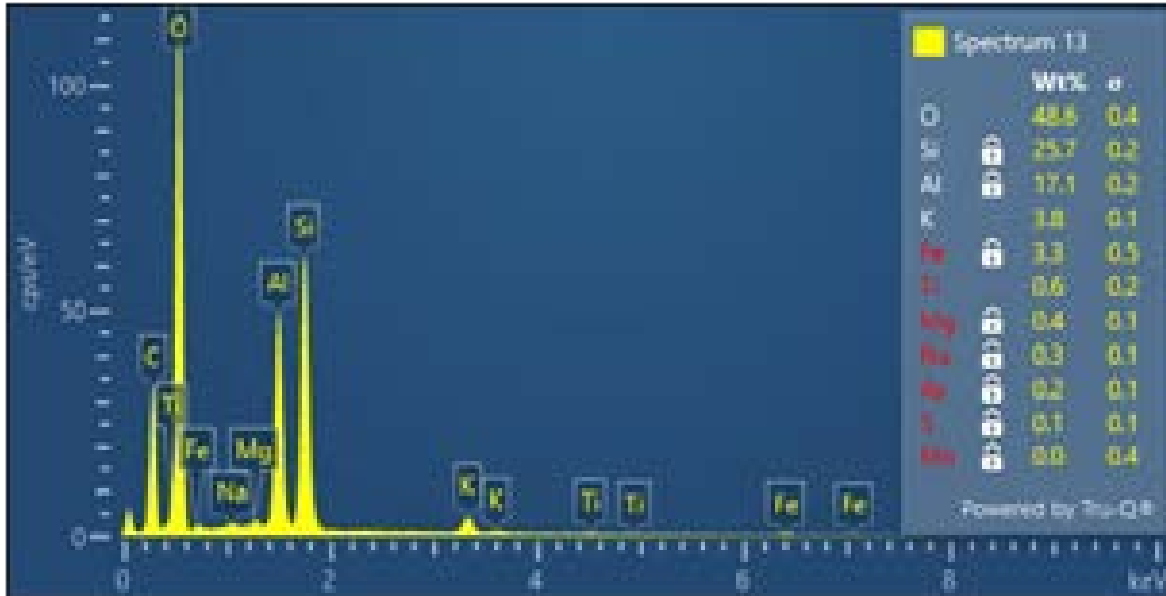




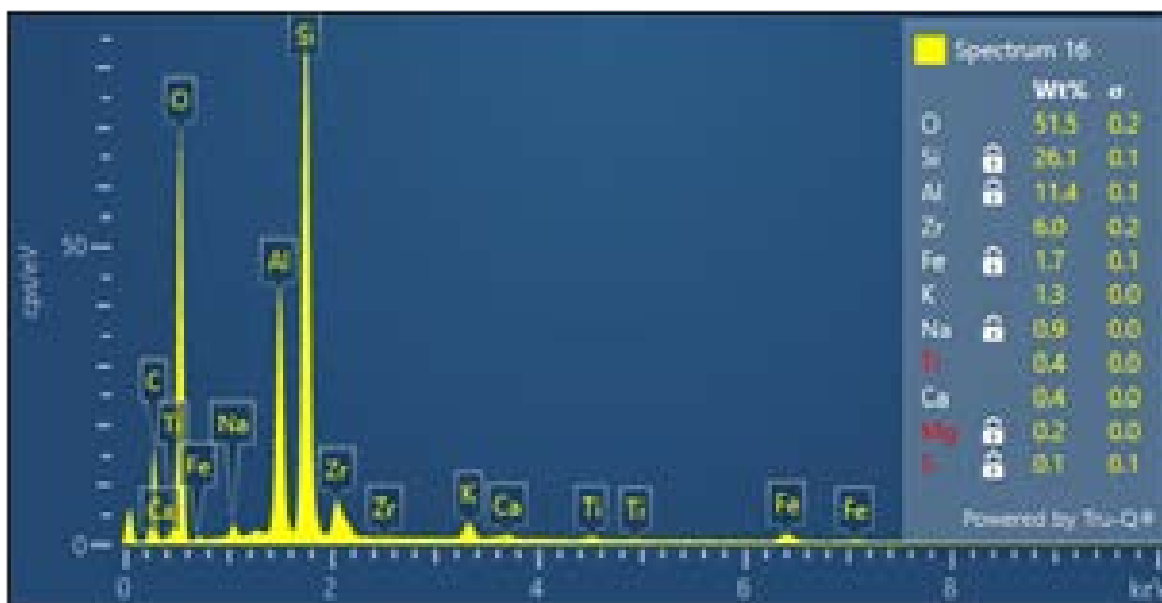
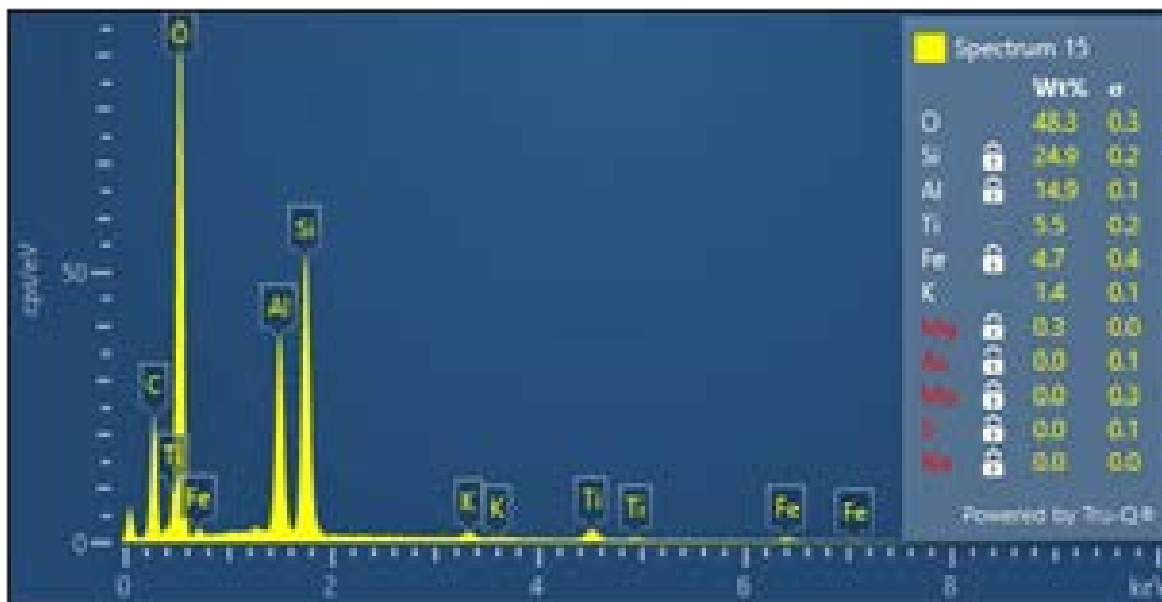


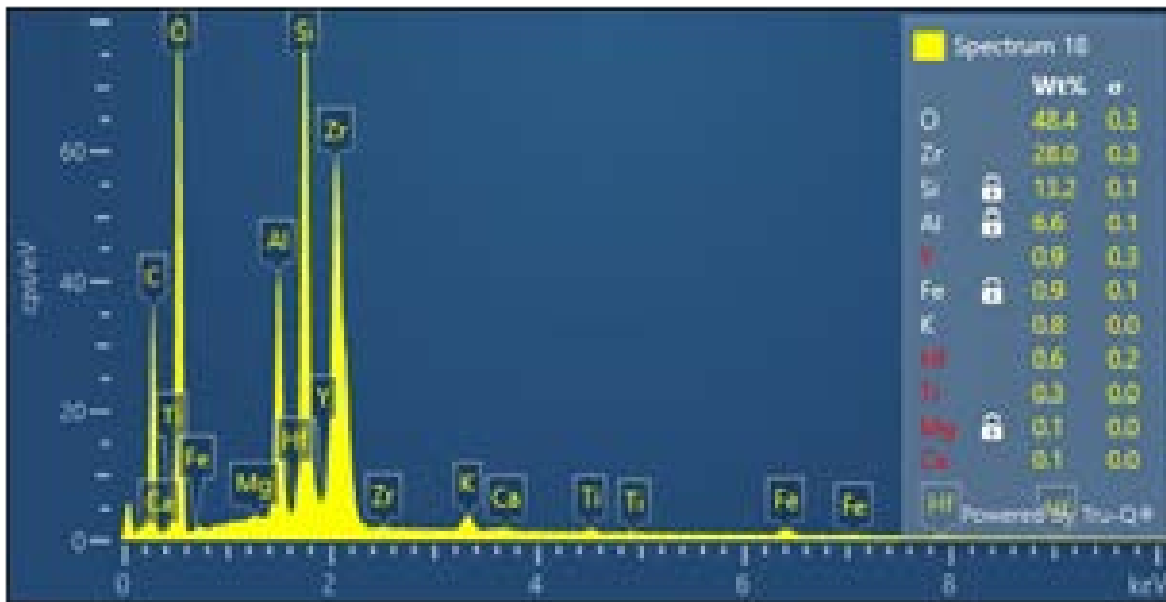
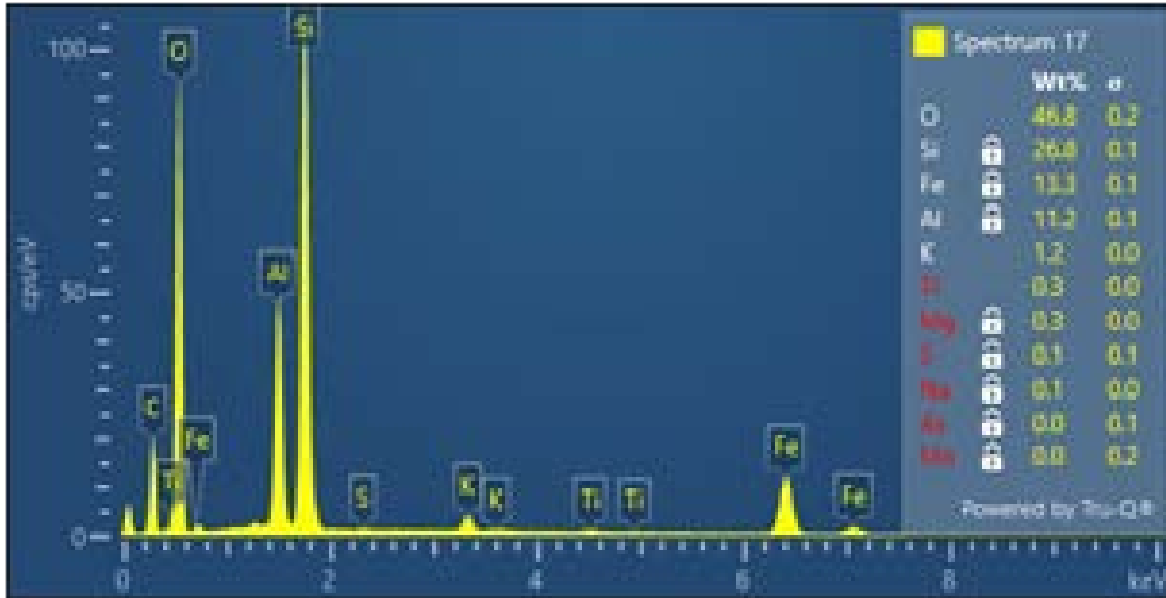


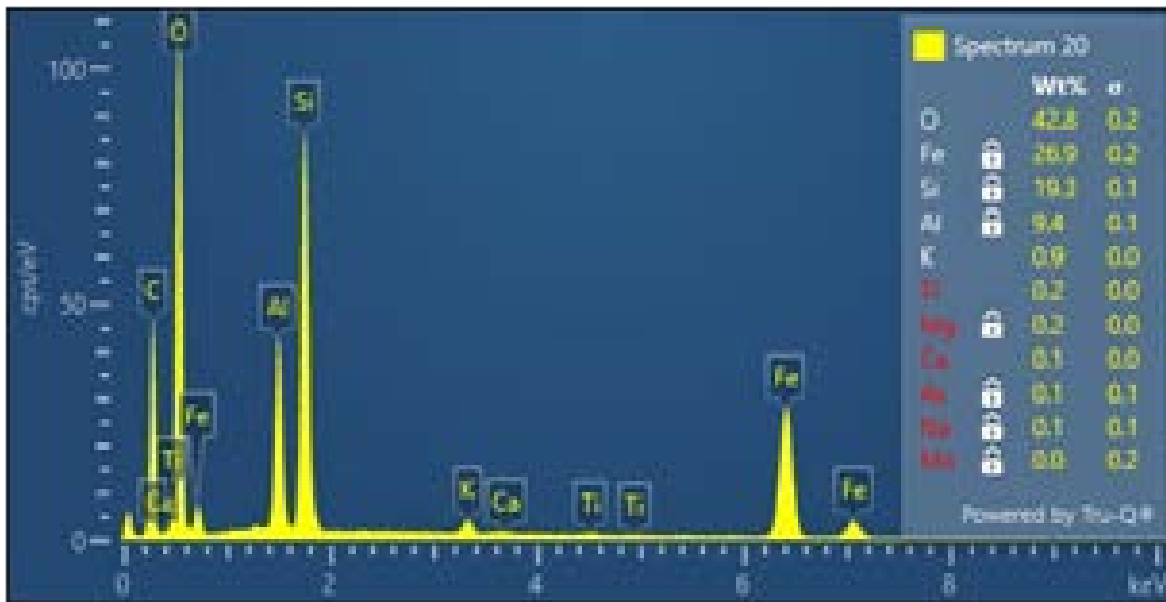
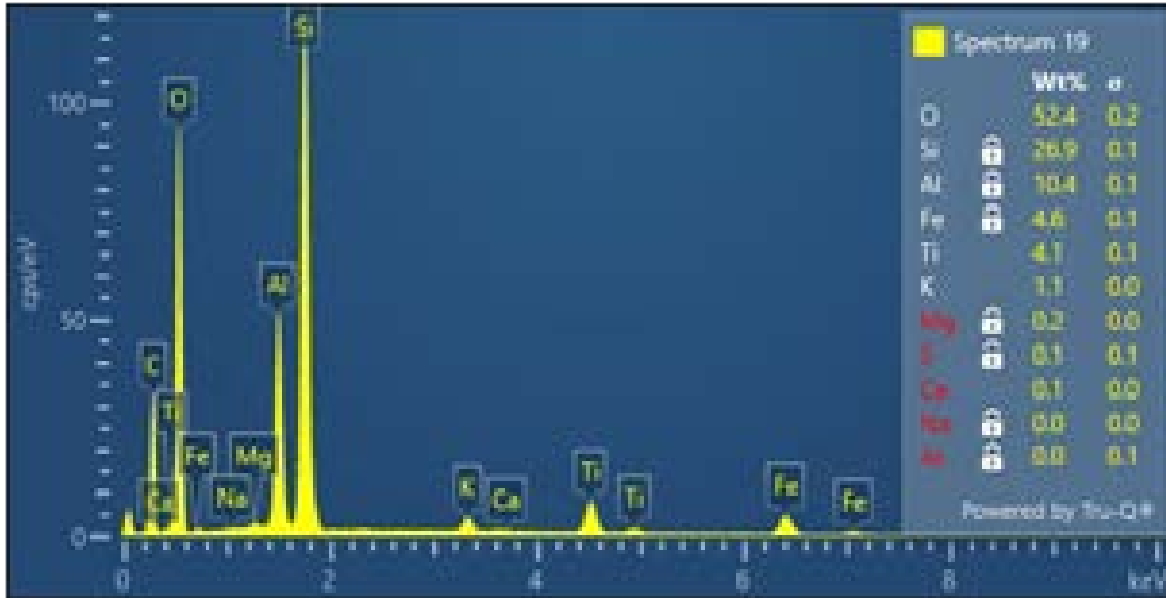


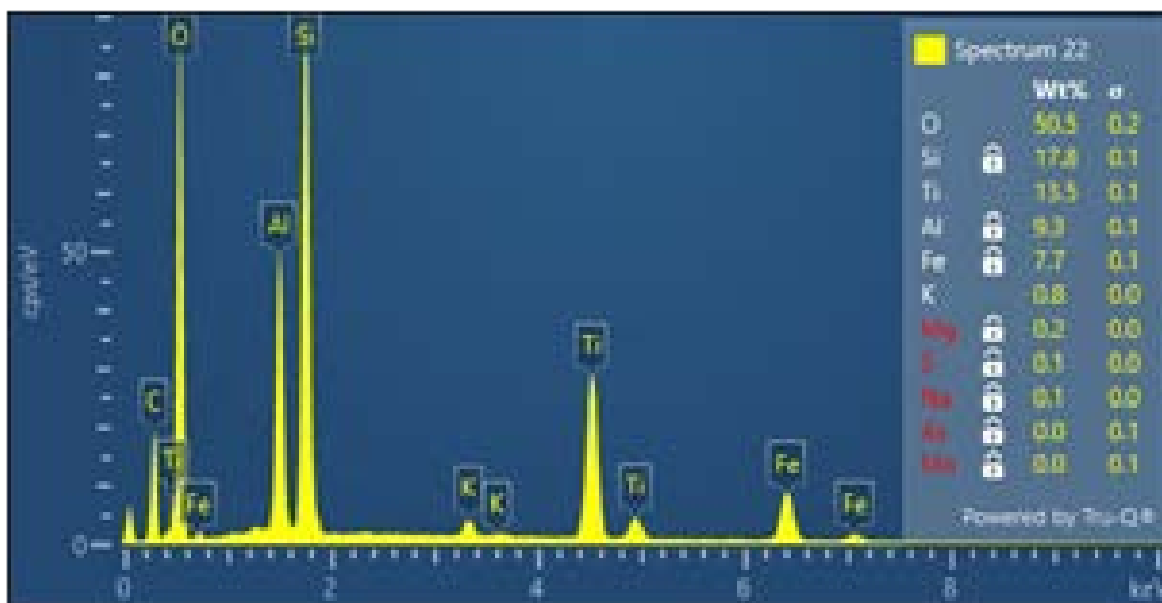
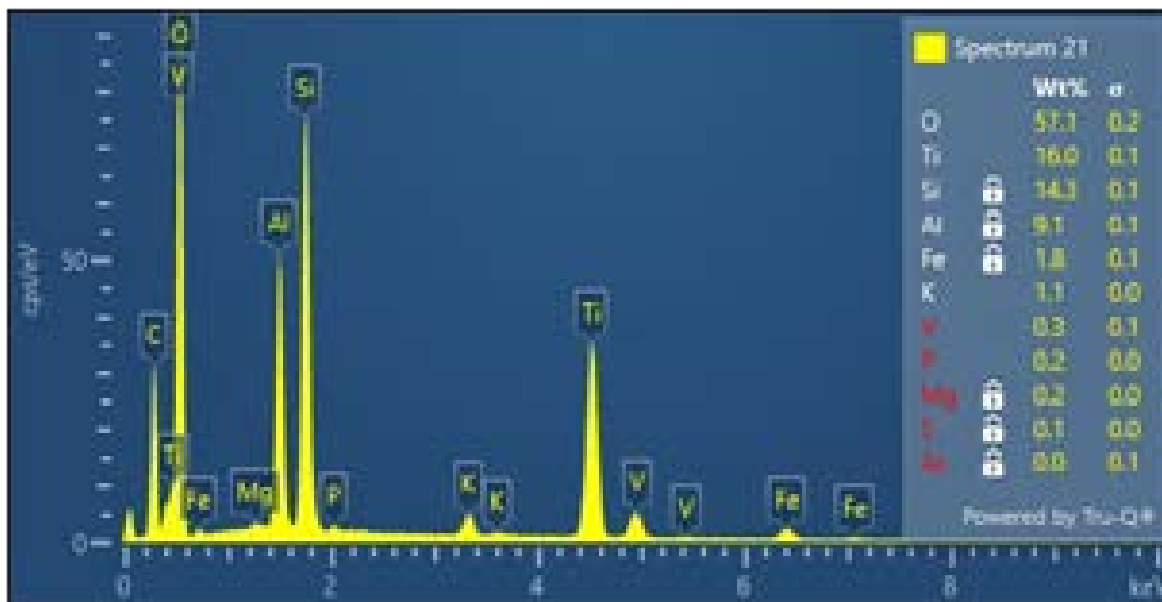


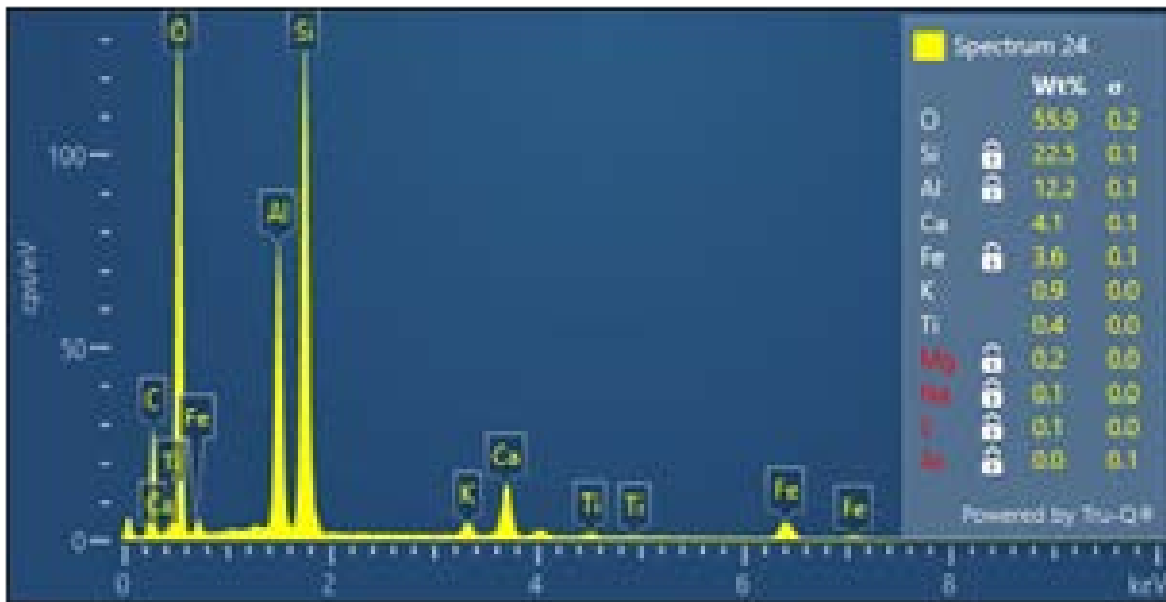
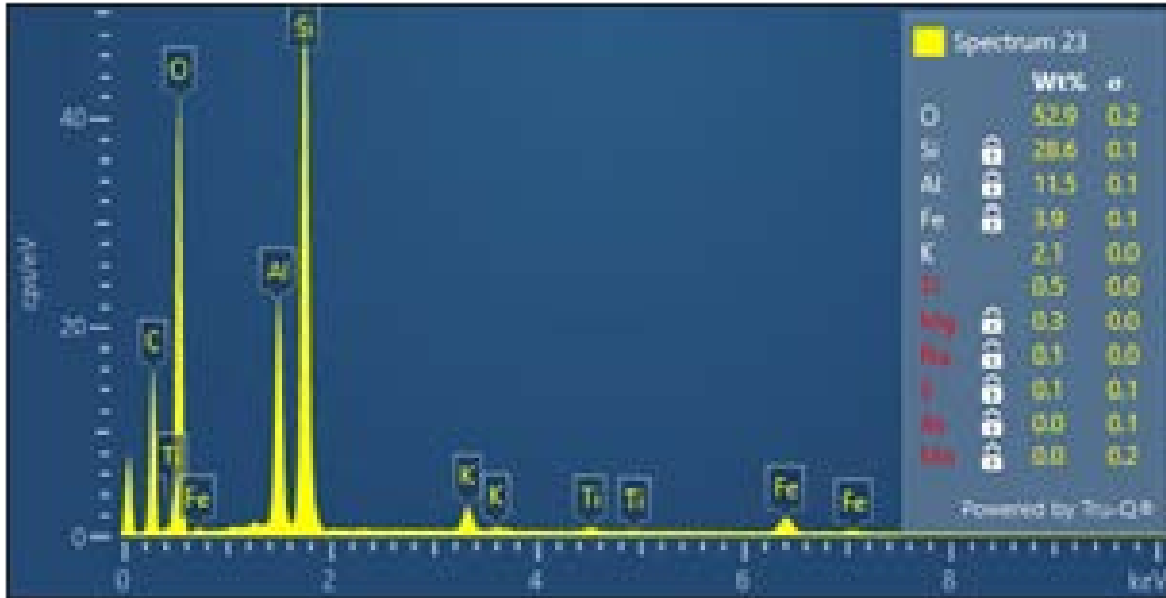


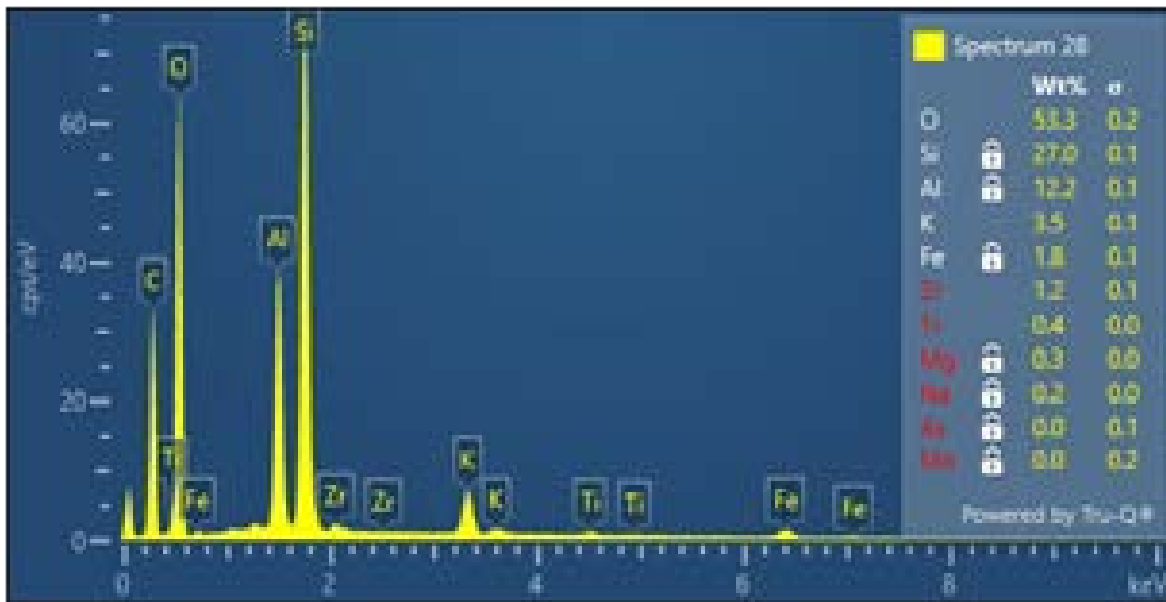
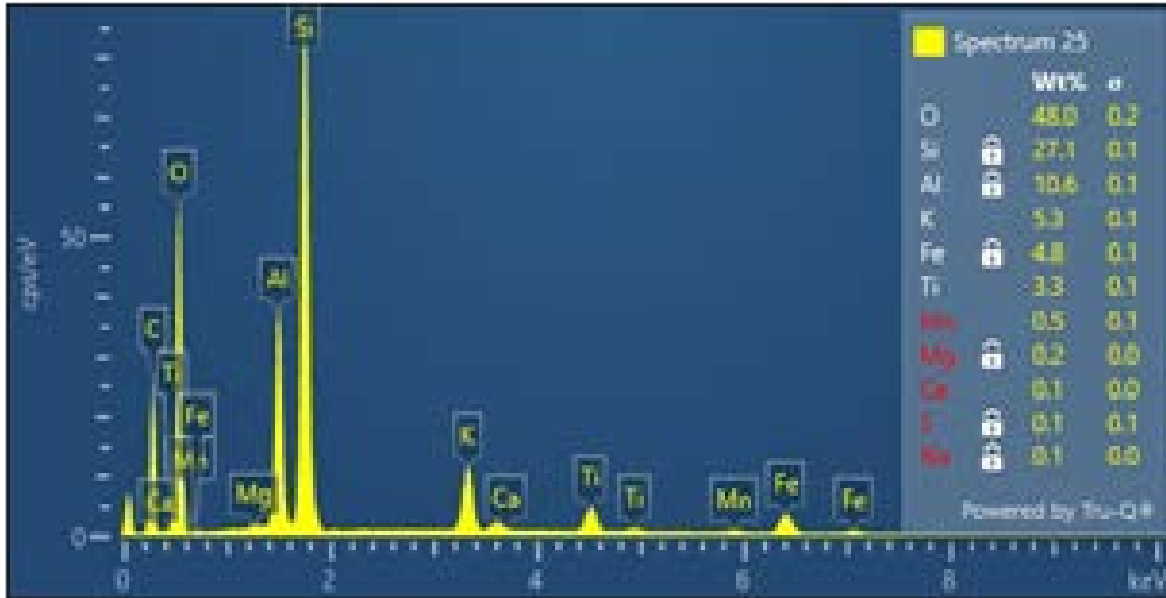


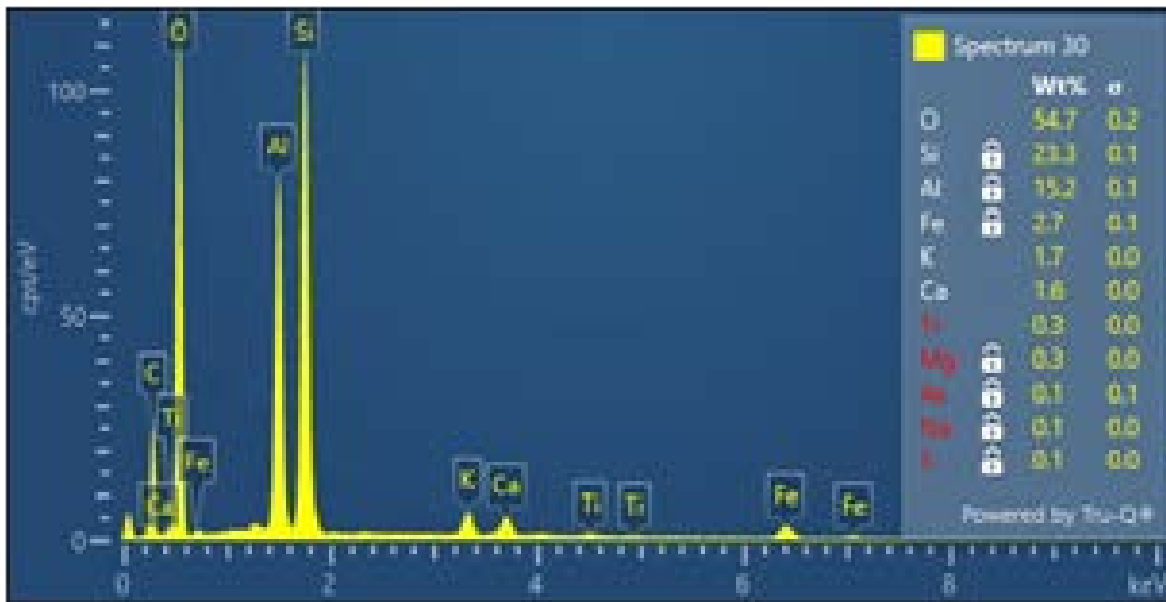
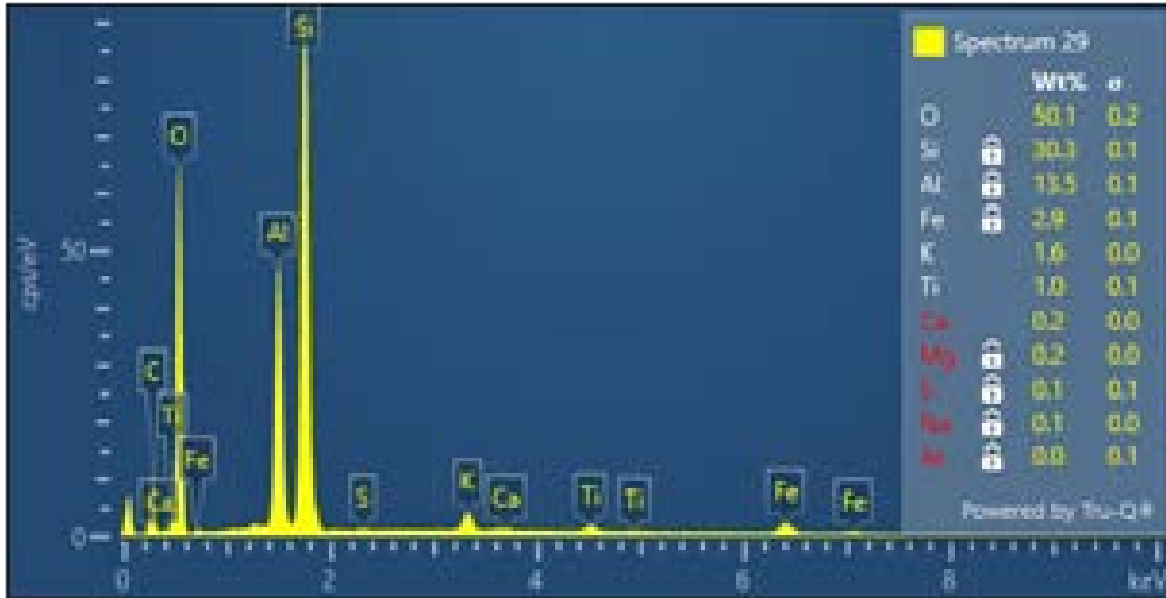


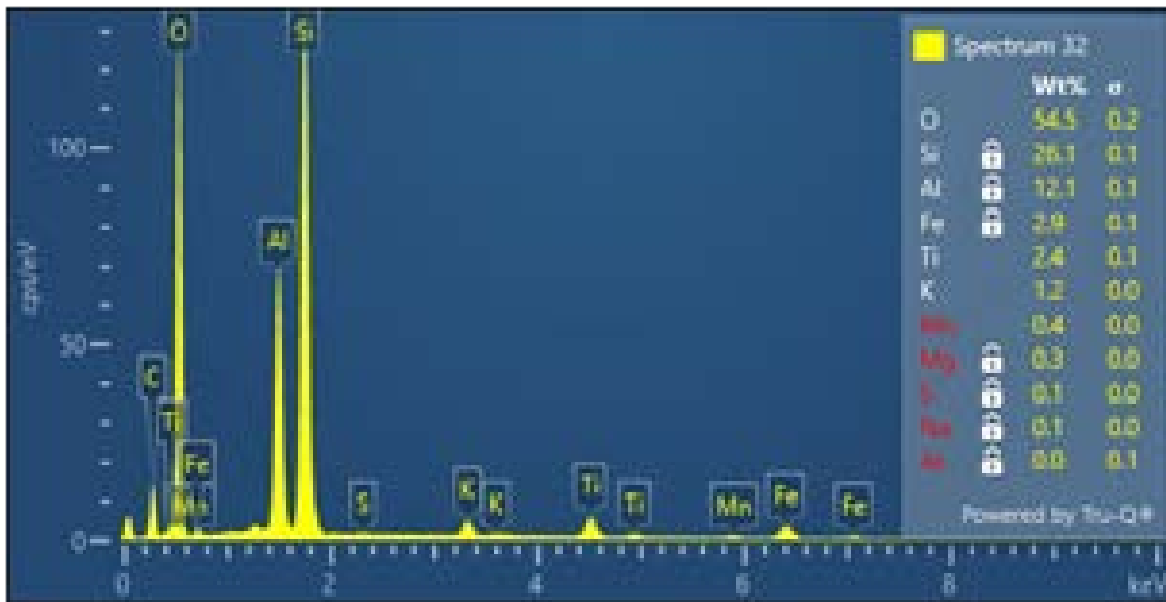
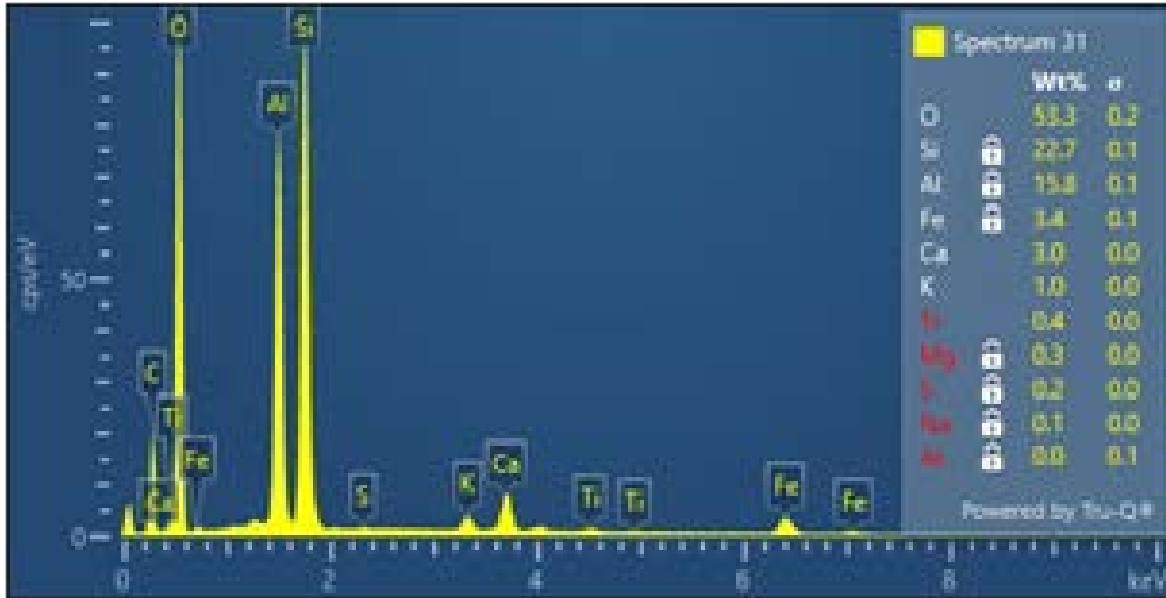




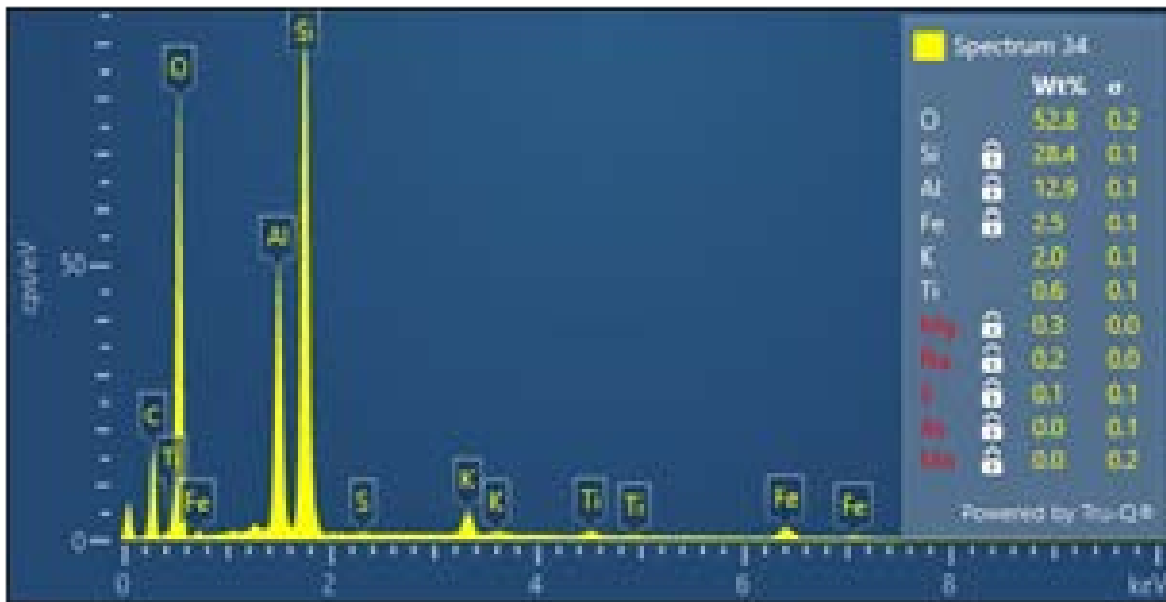
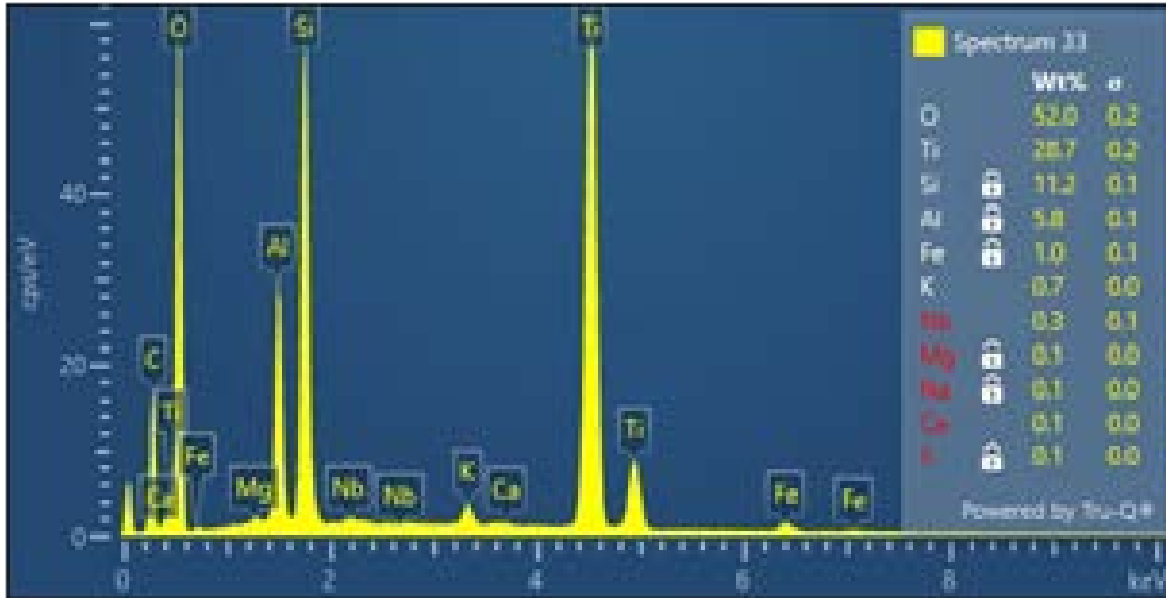


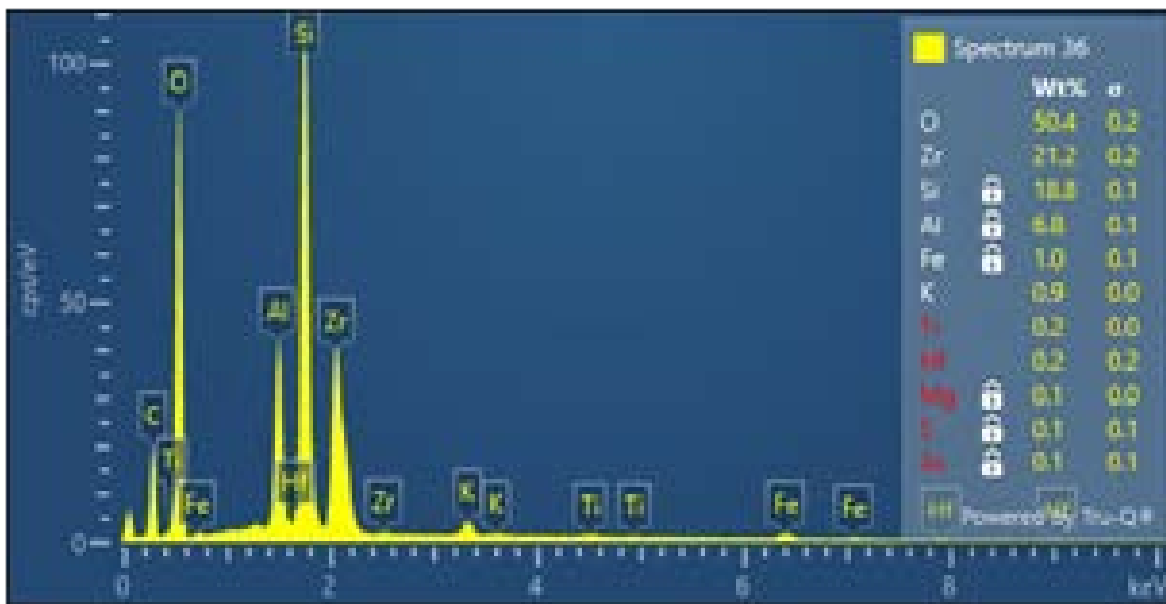
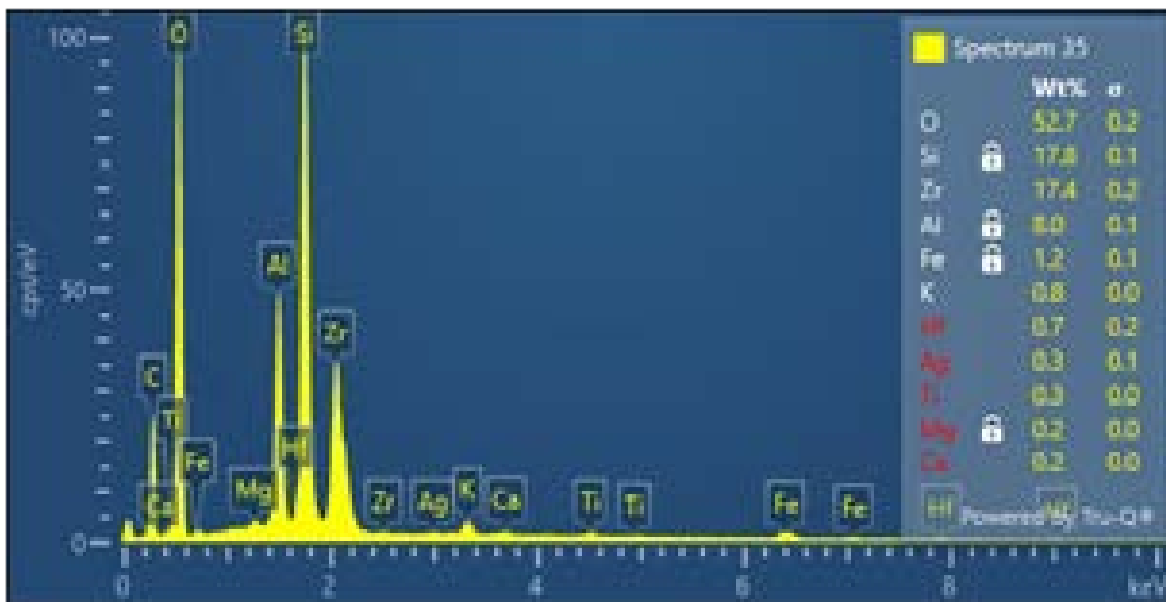


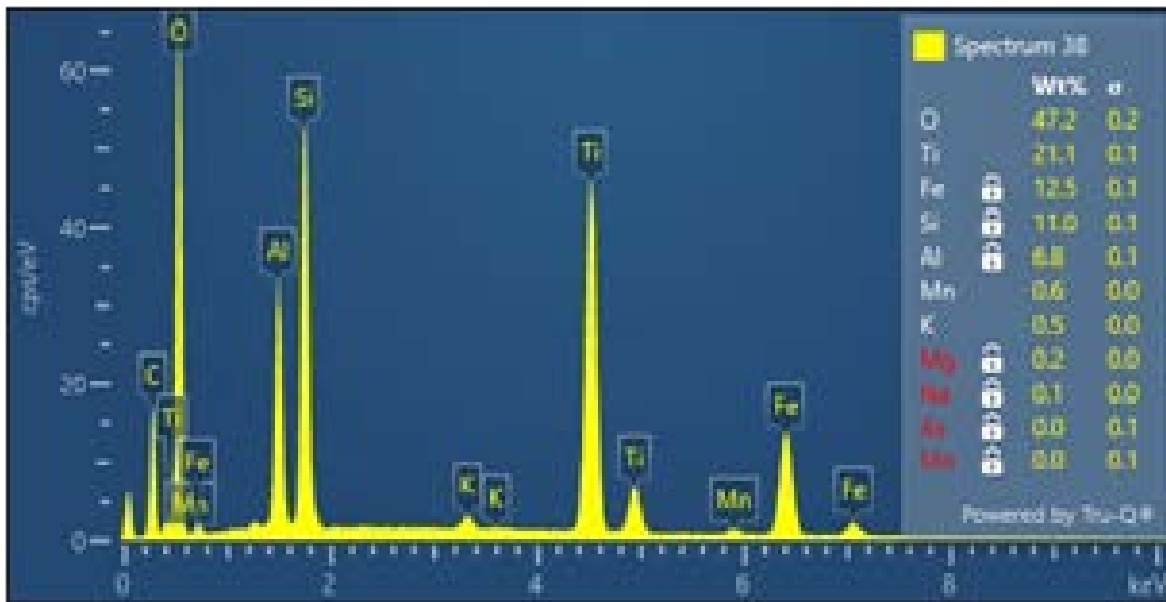
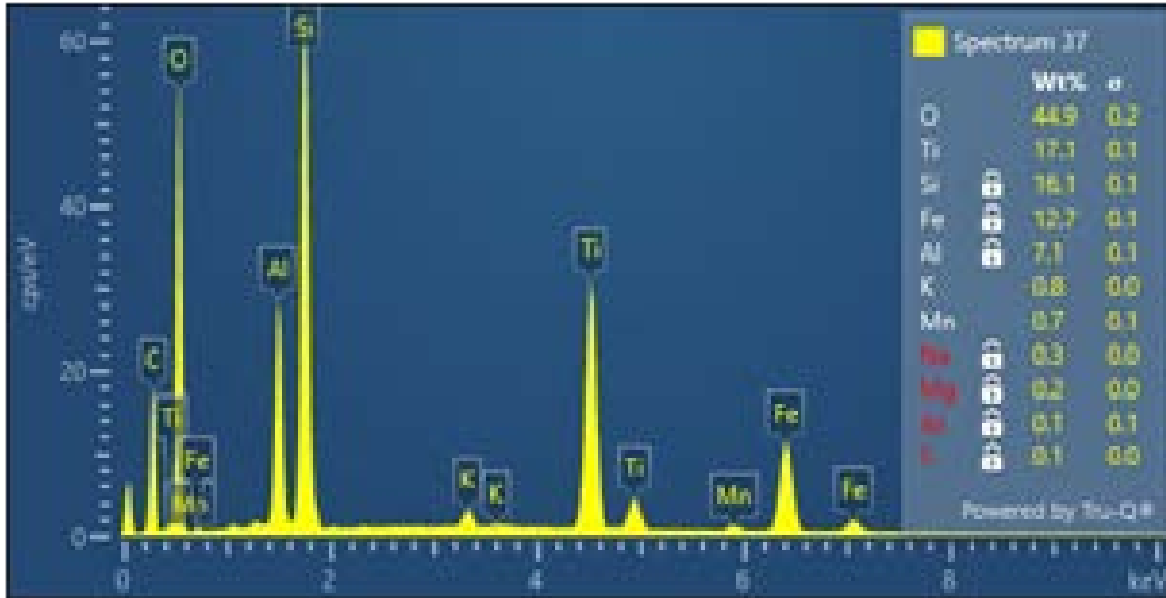


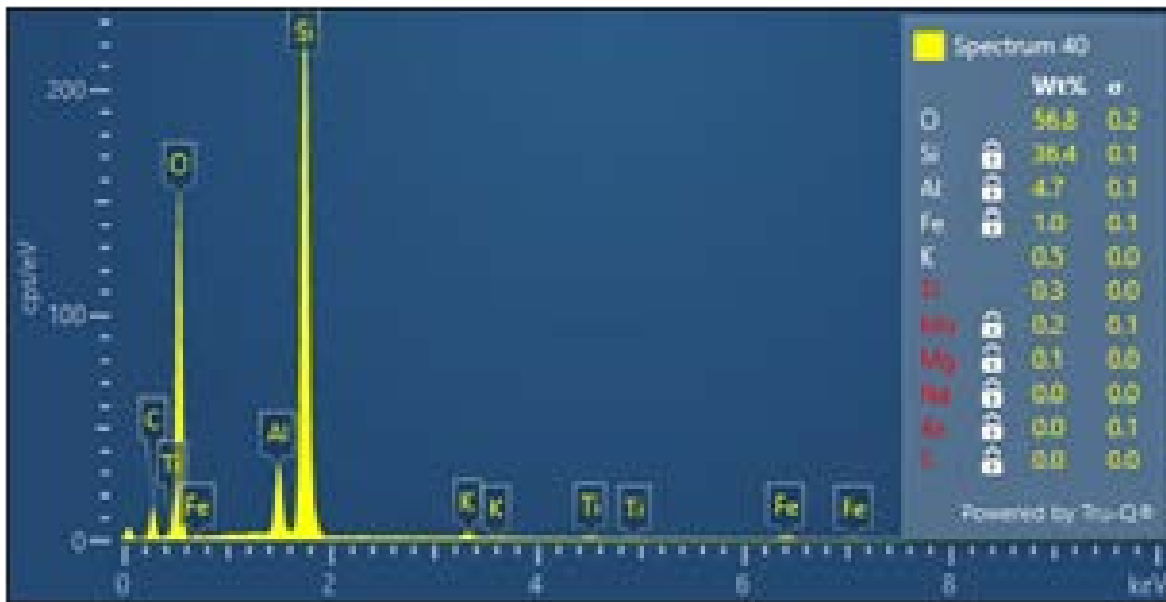
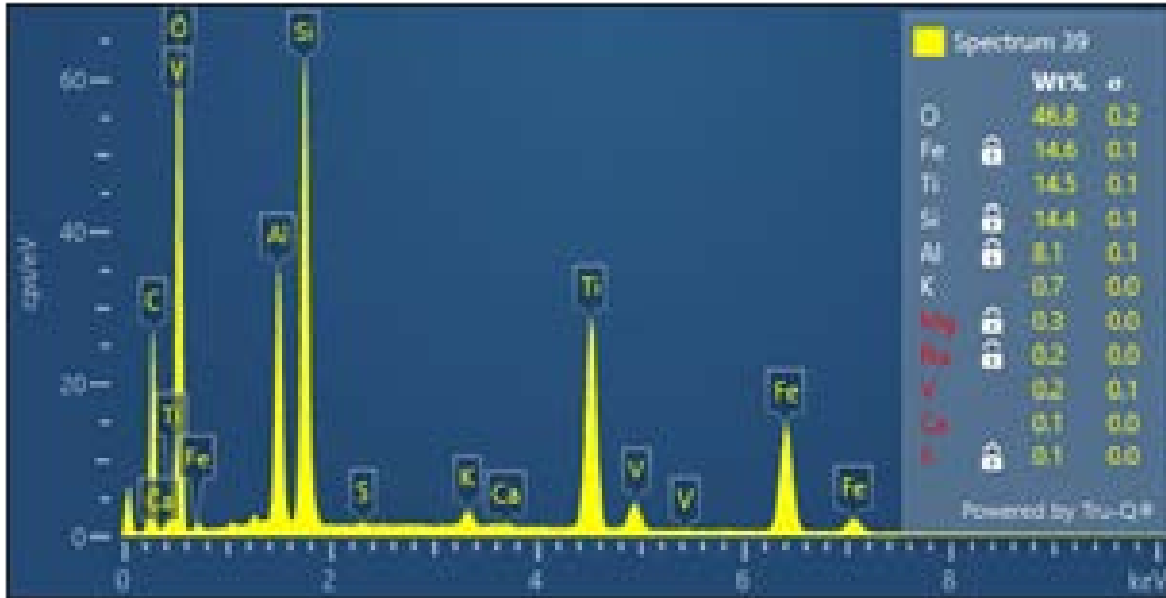


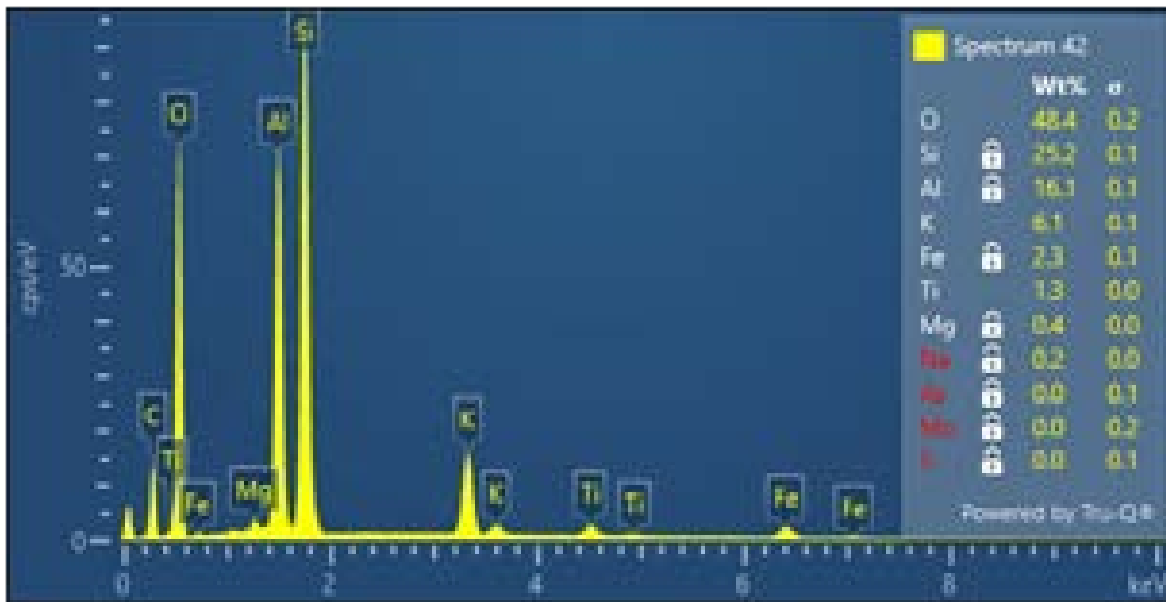
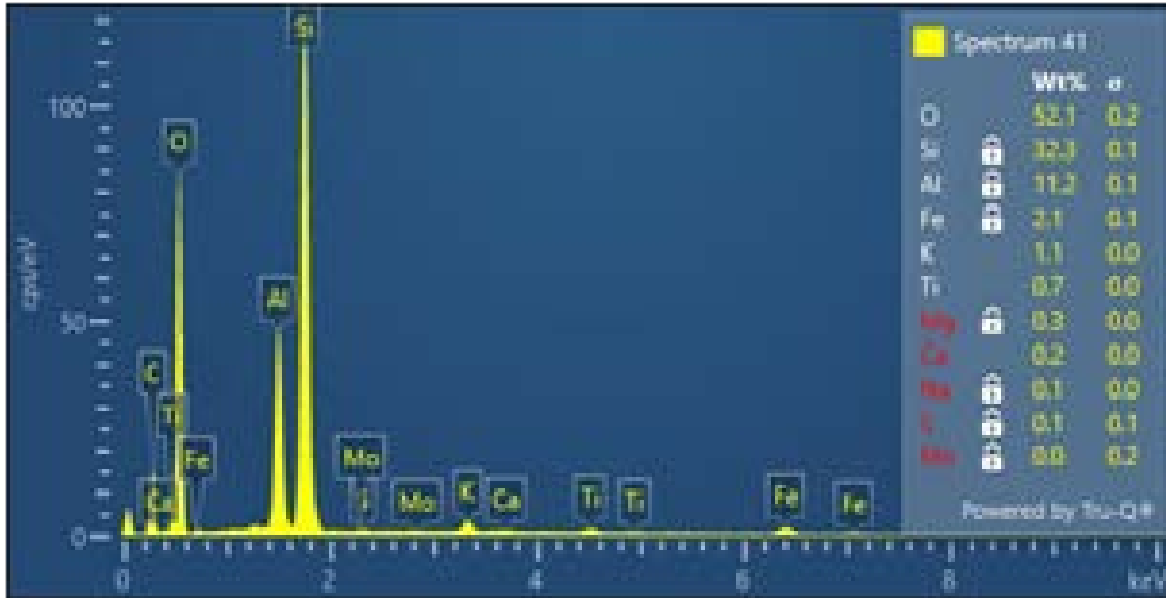


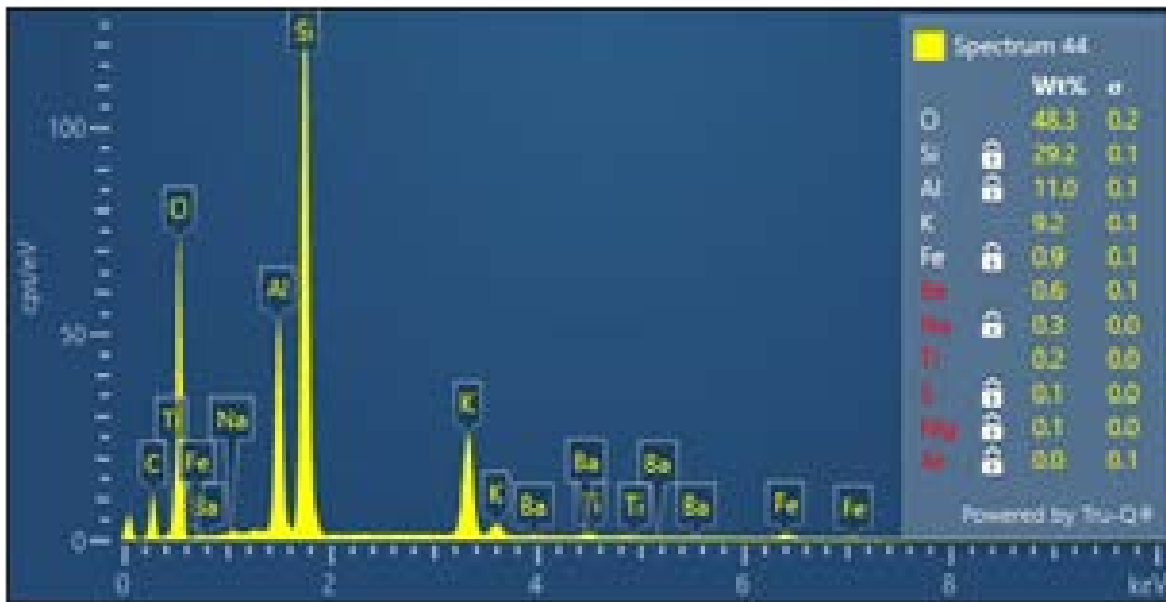
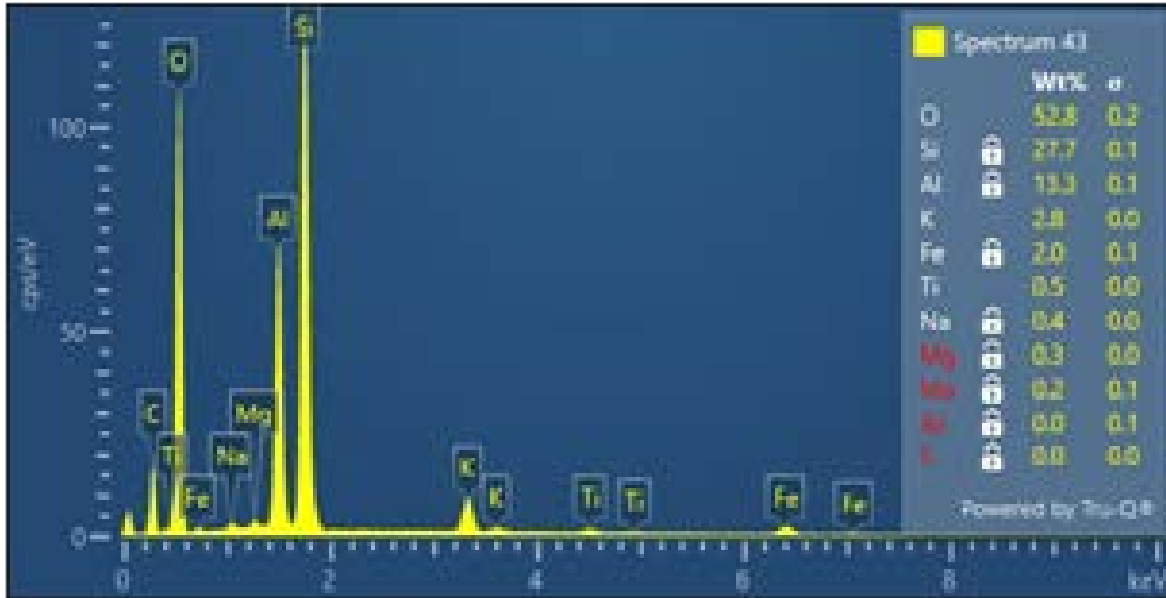


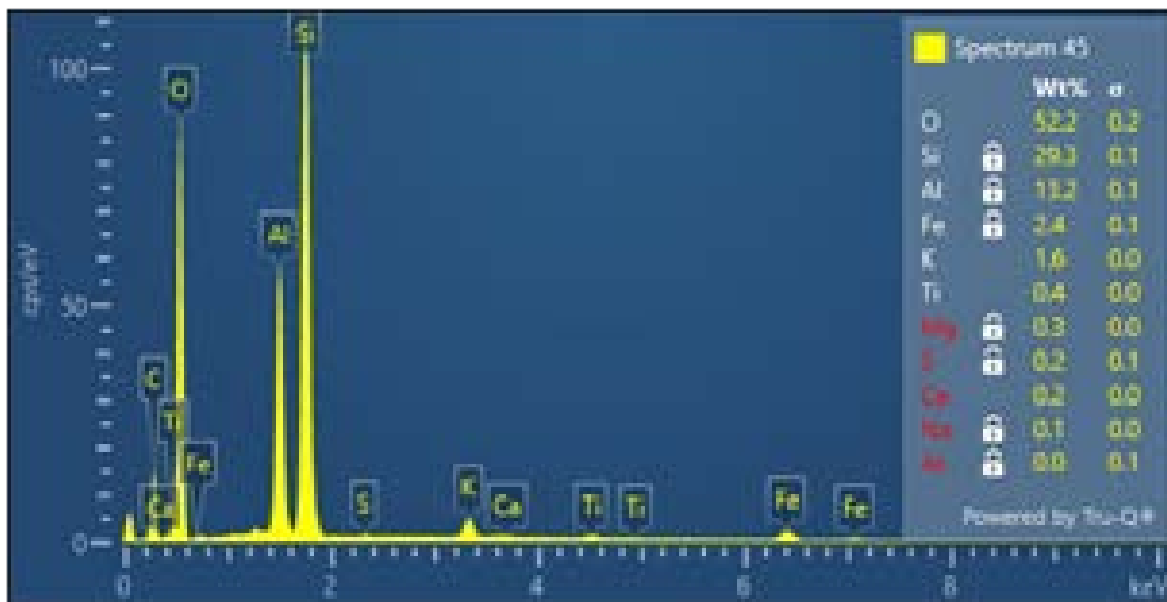




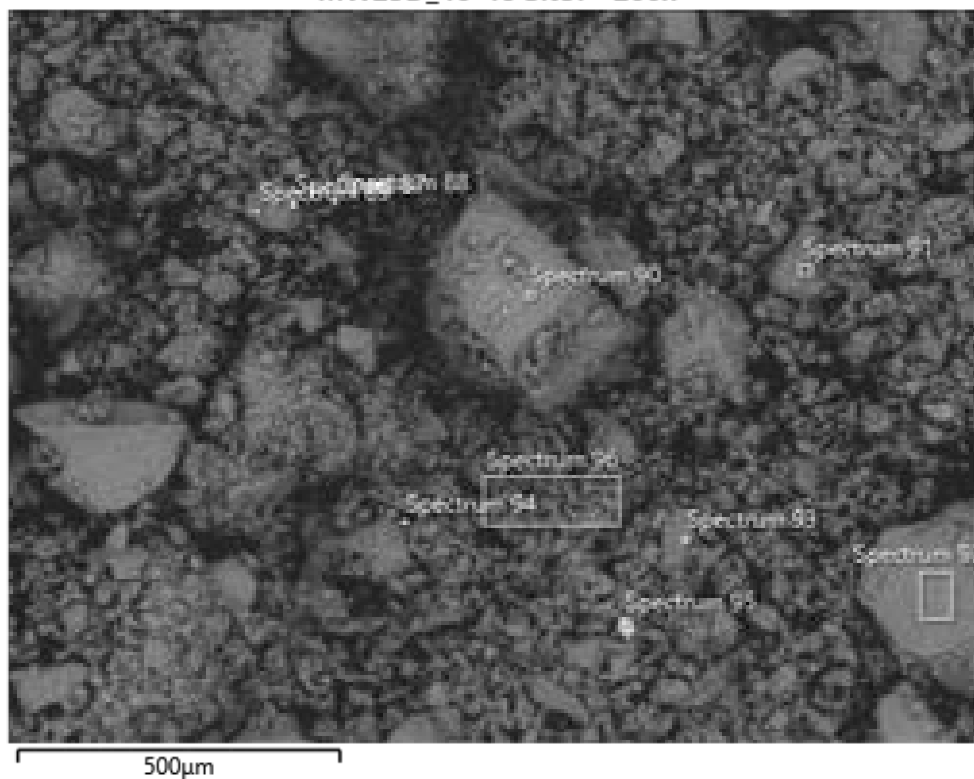




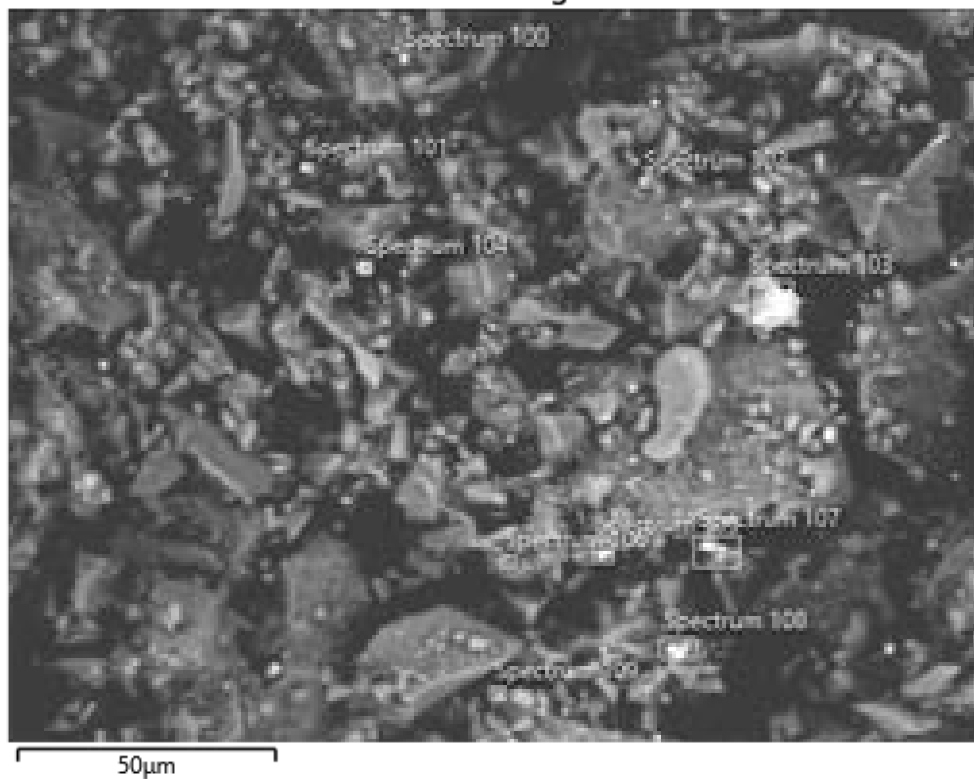




MW23D\_46-48 Site1 - 200x

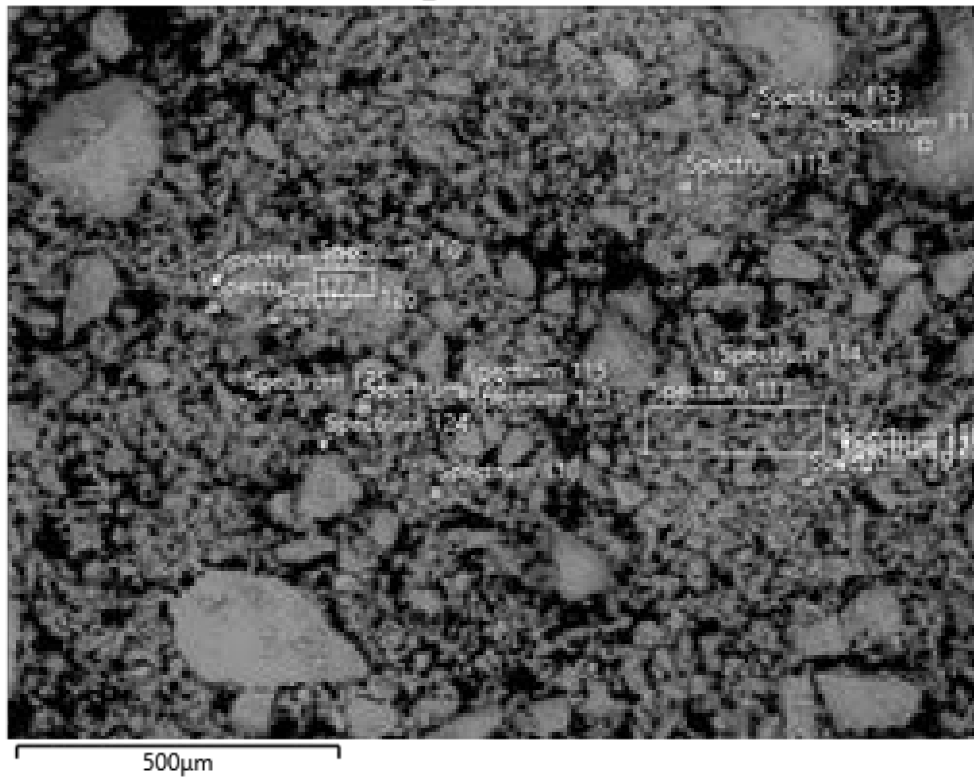


Electron Image 9

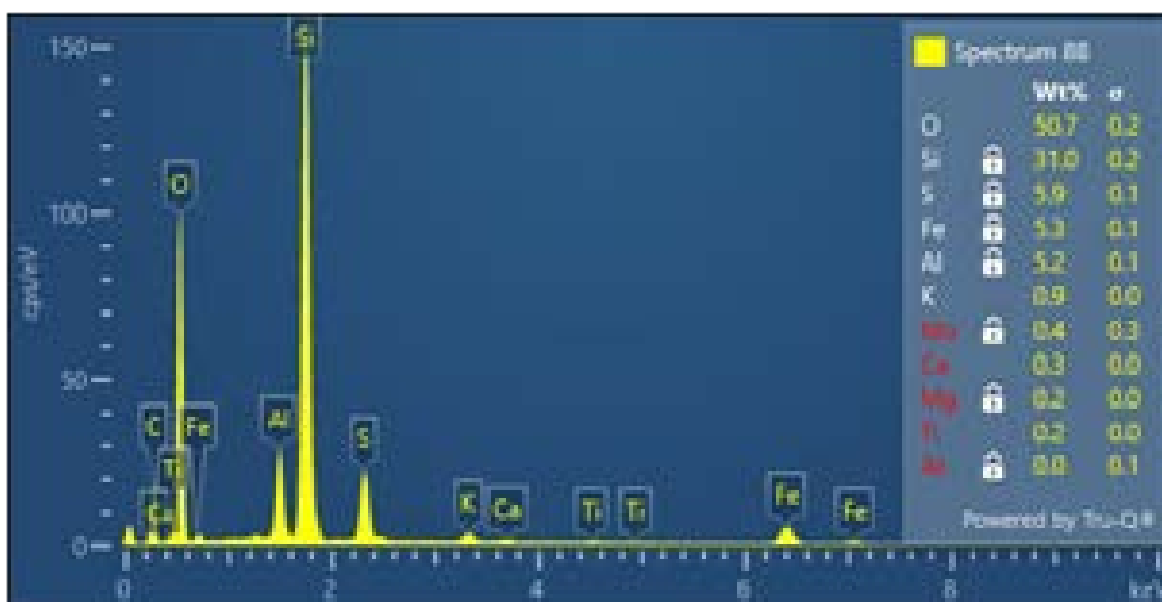
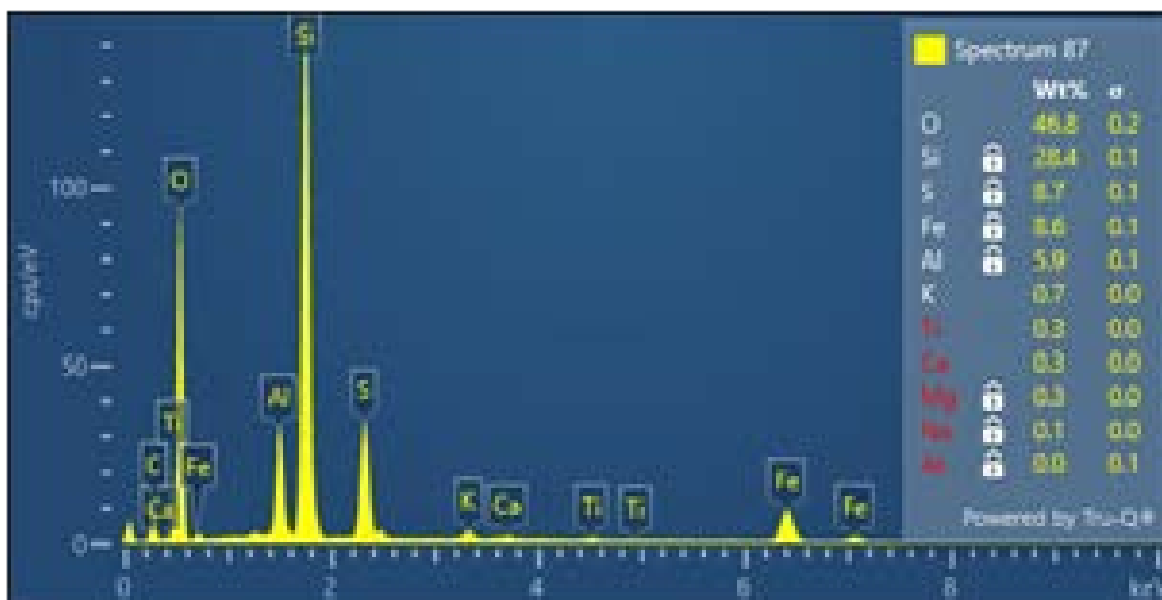


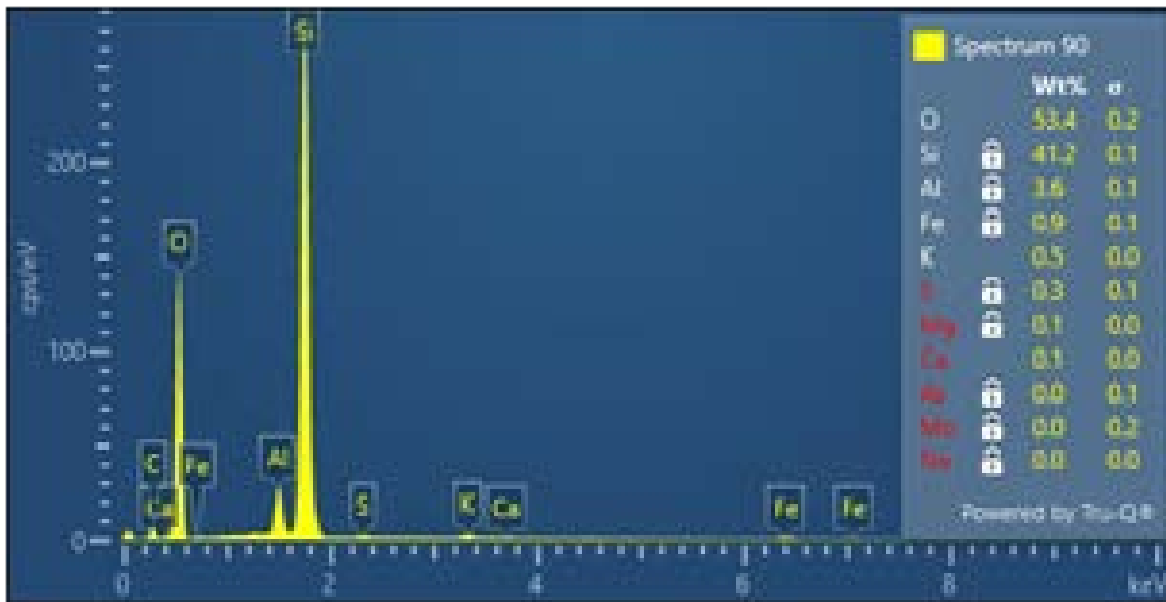
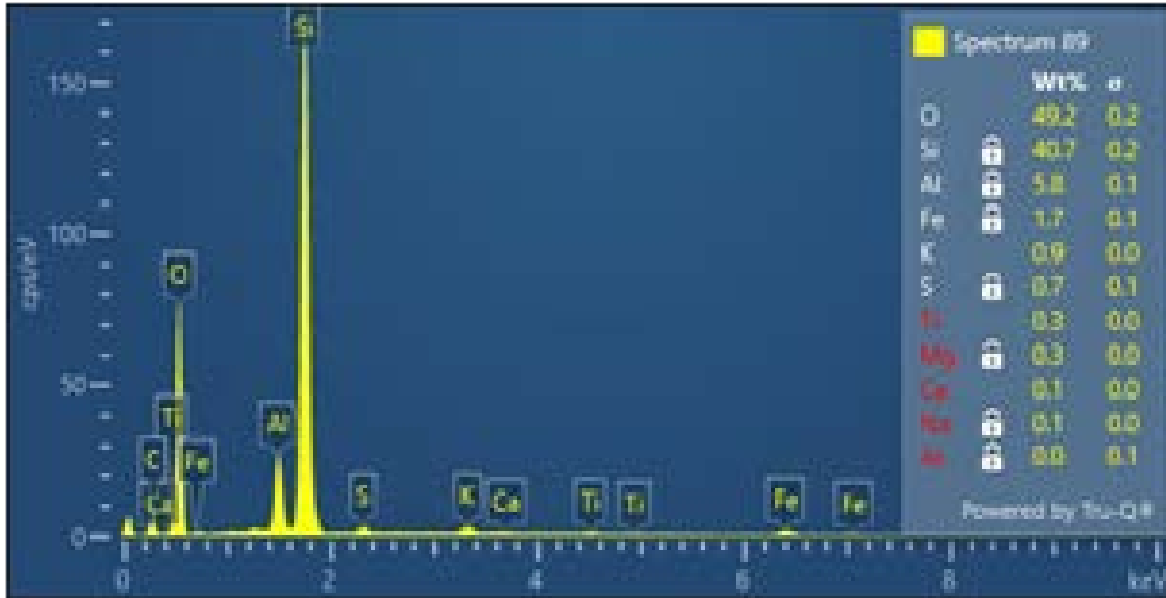


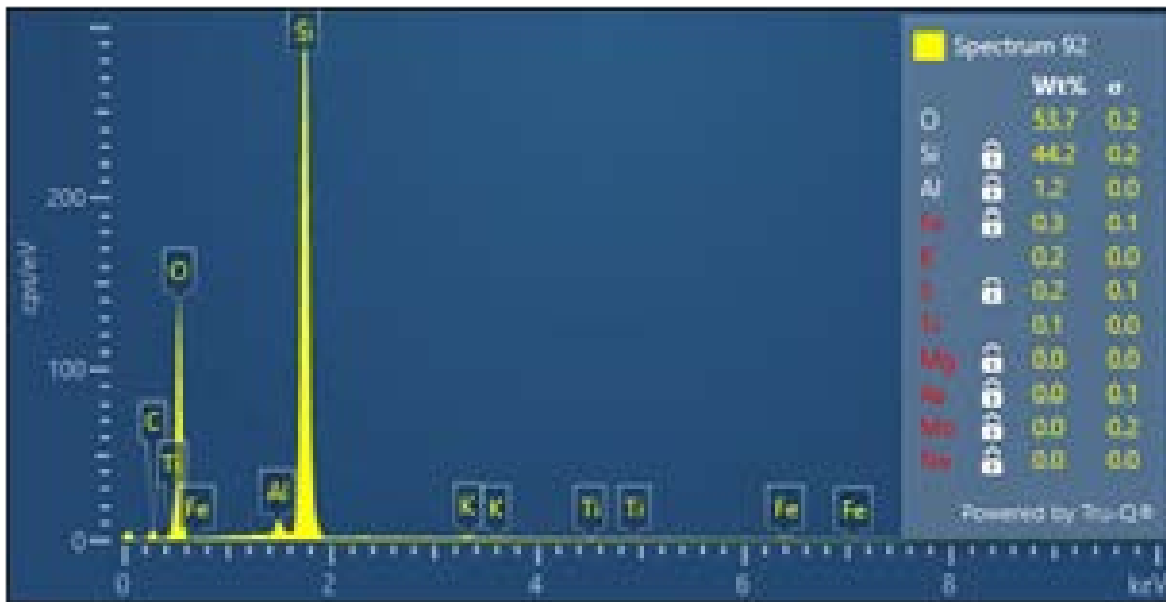
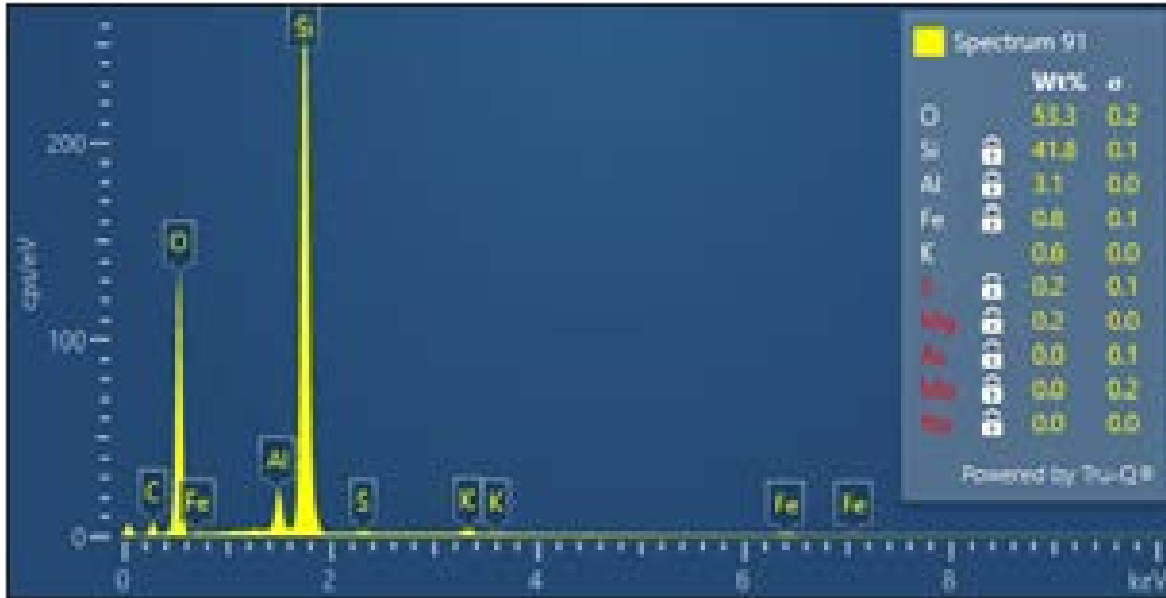
MW23D\_46-48 Site2 - 200x

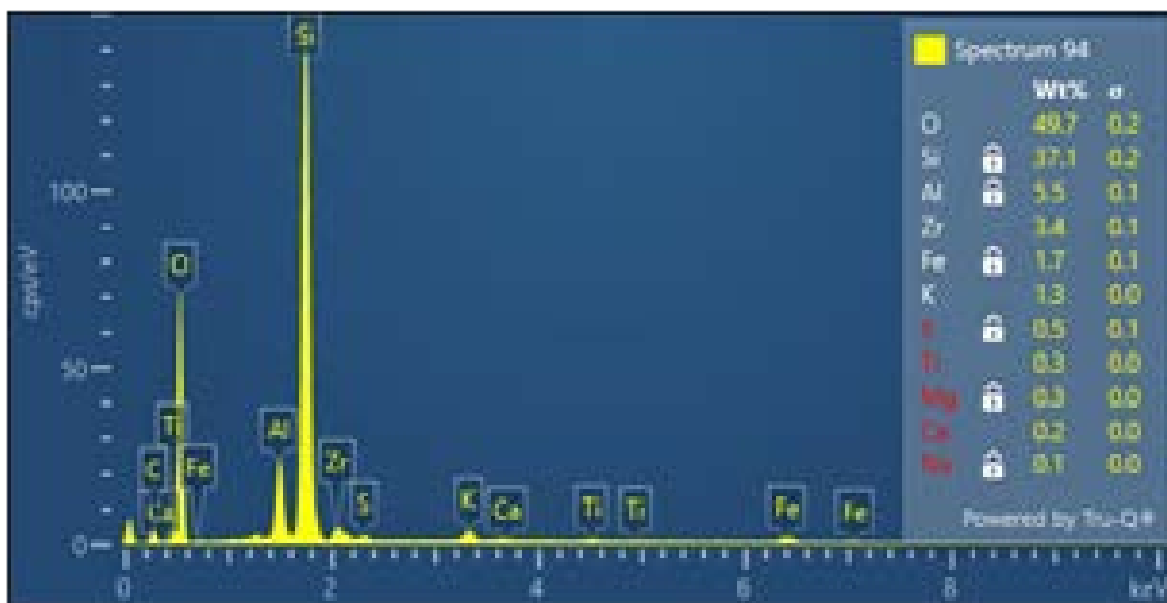
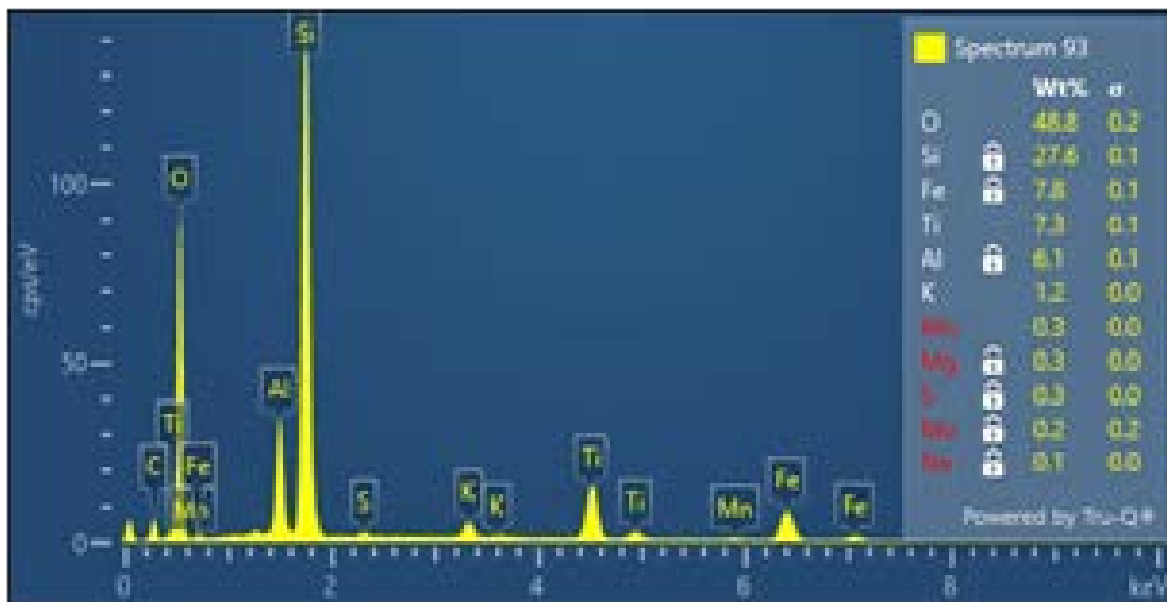


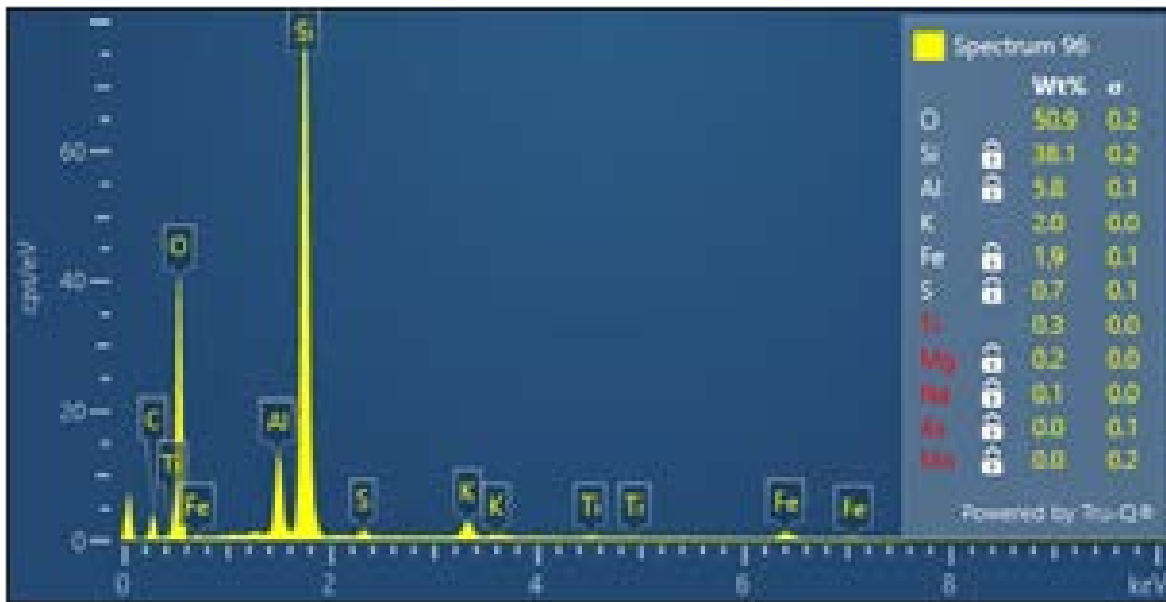
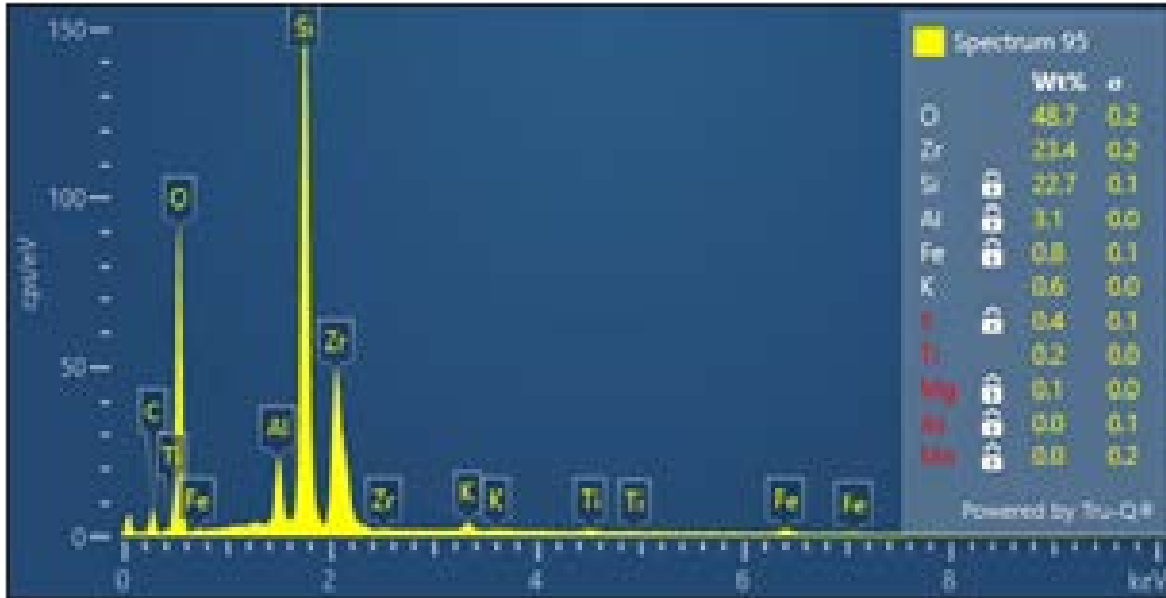
## Spectrum Images

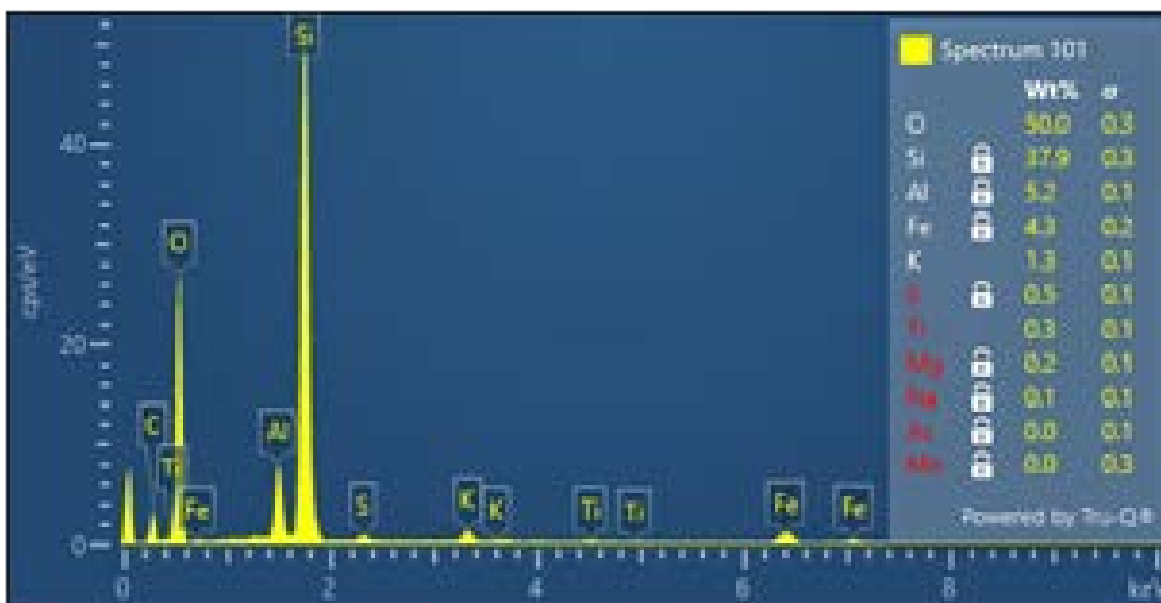
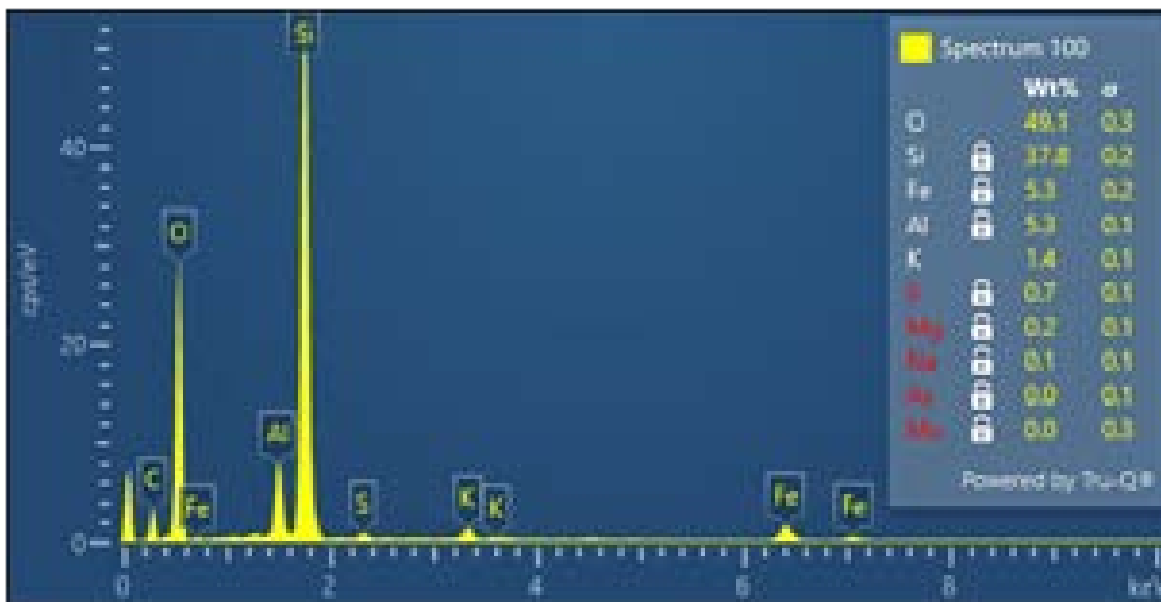


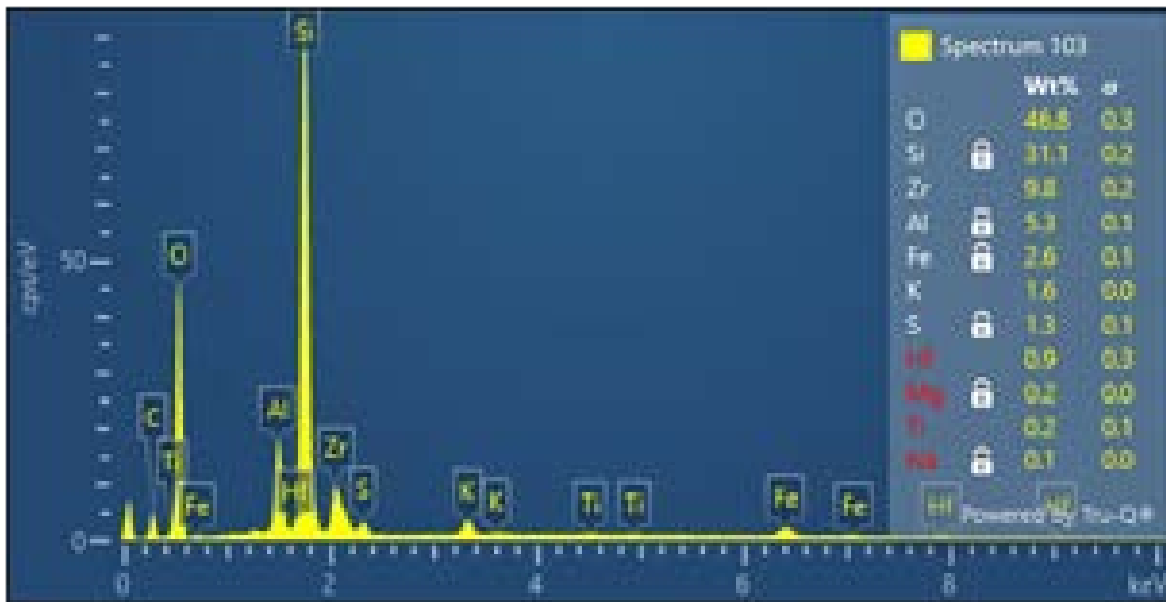
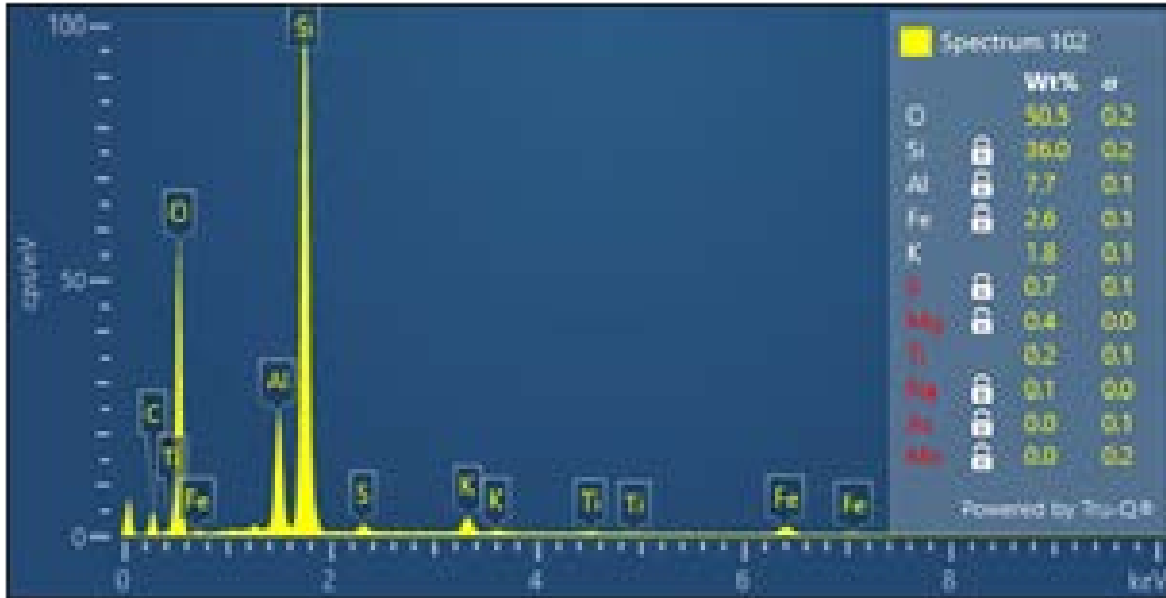




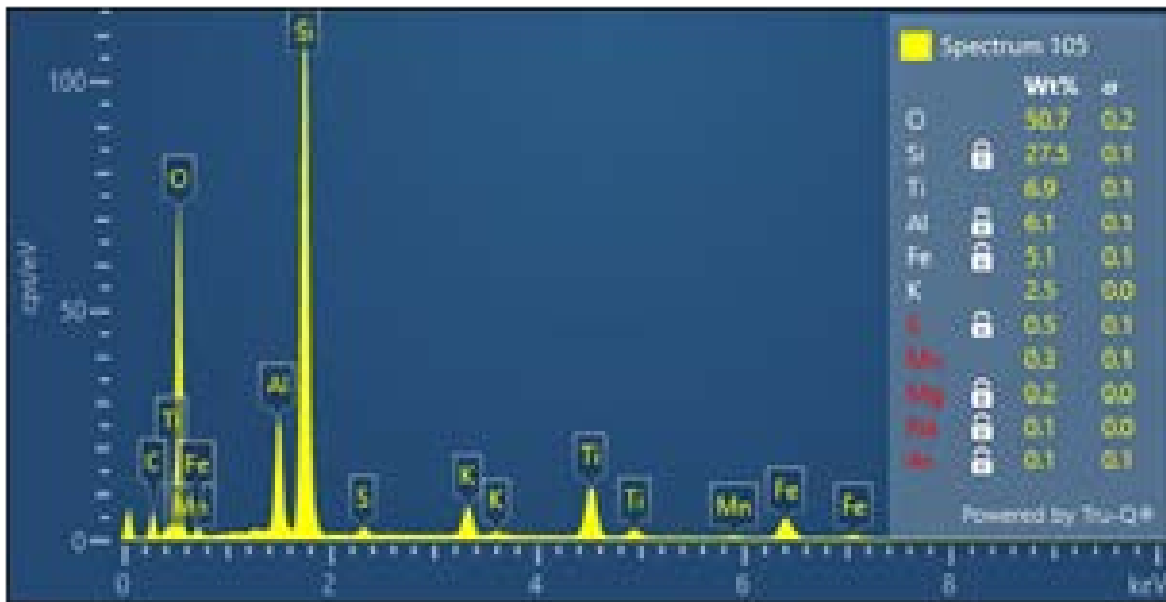
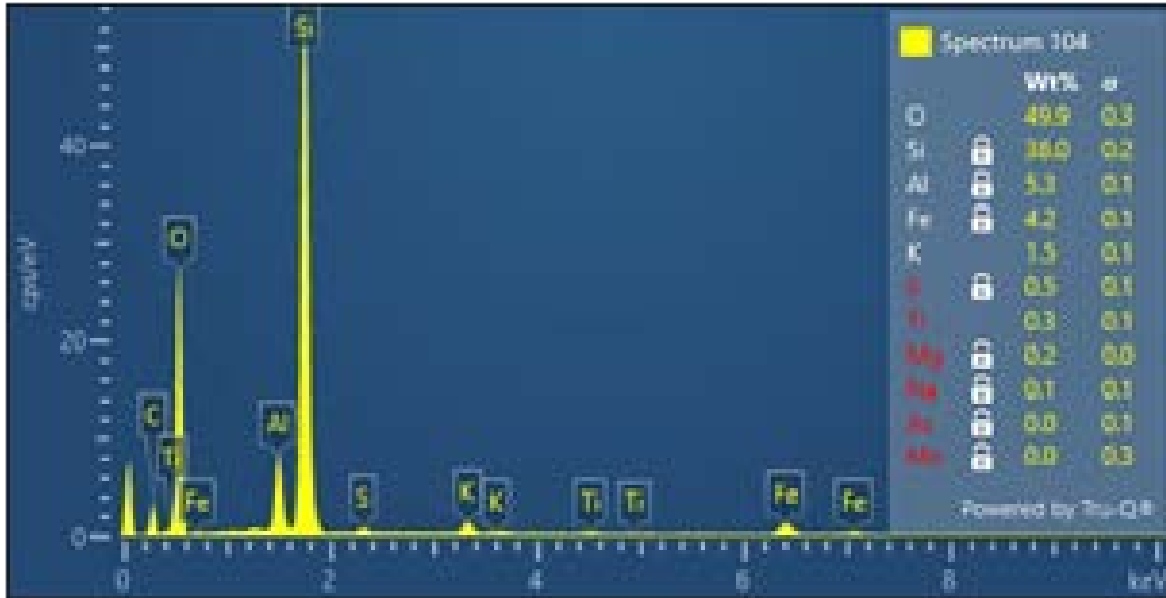


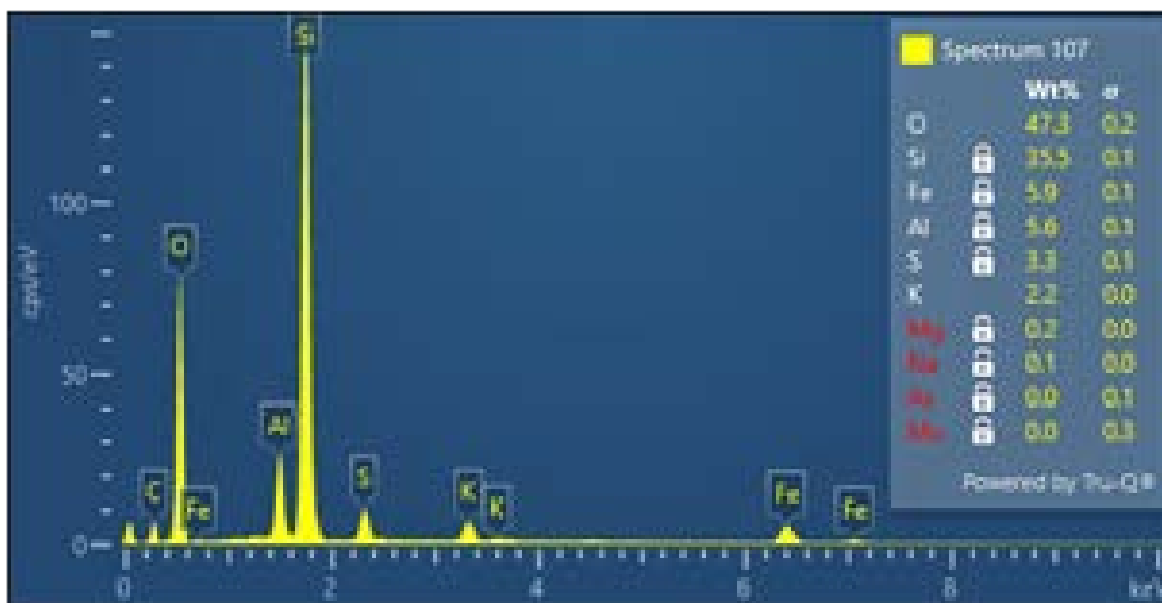
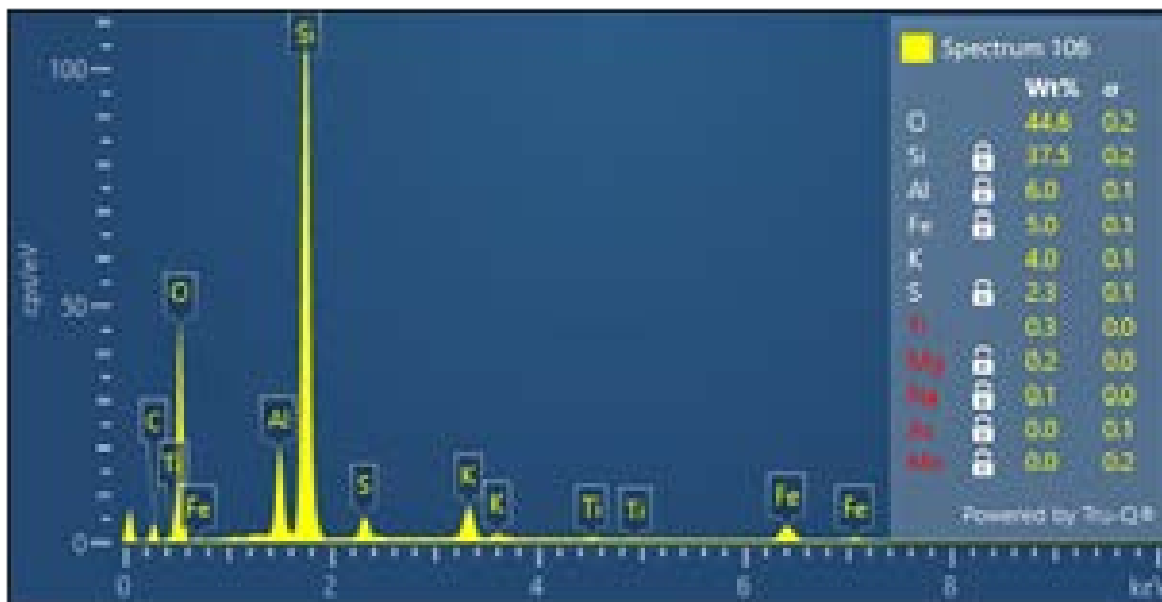


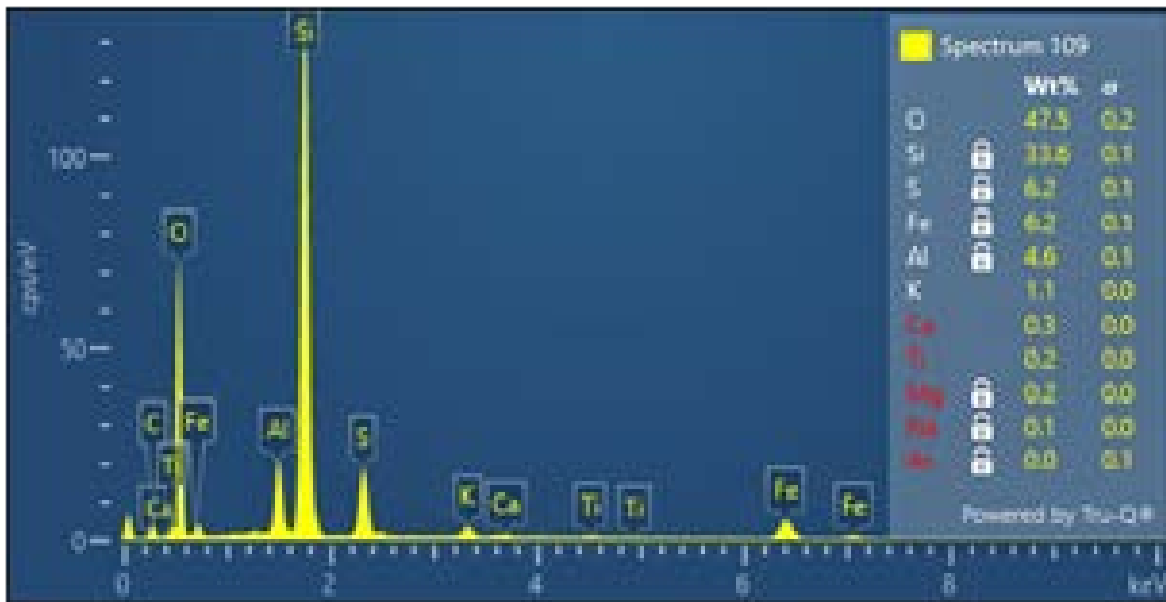
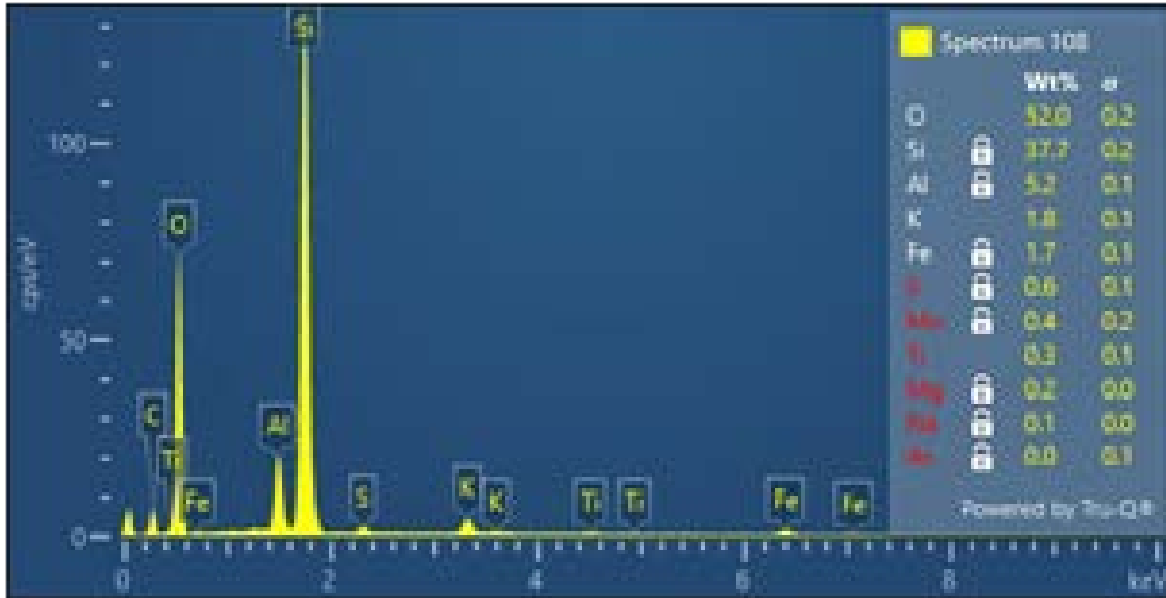


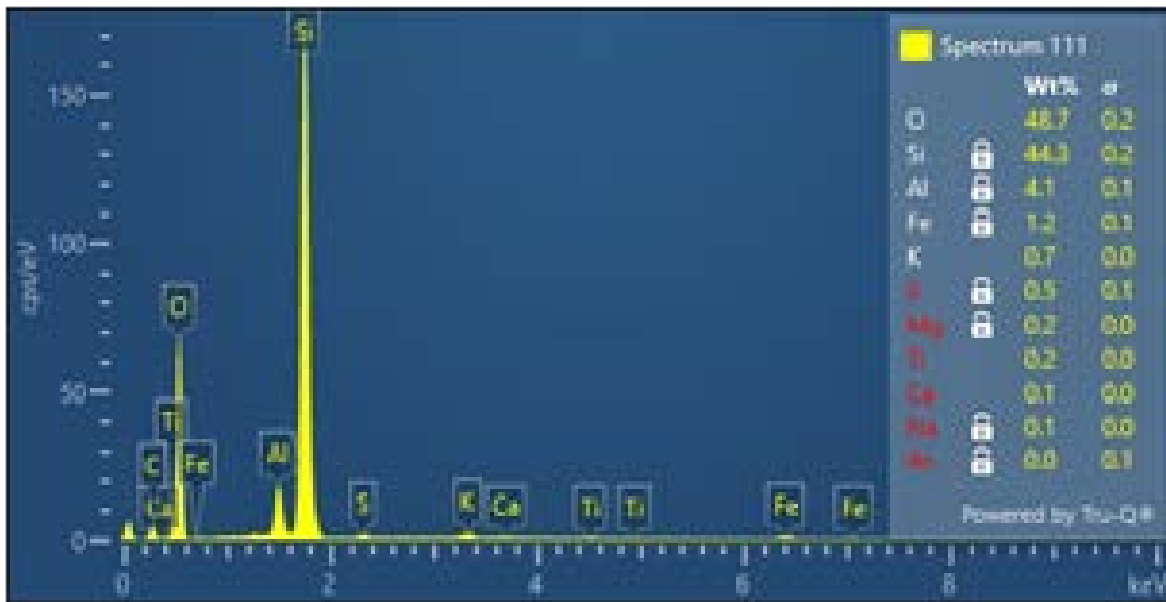
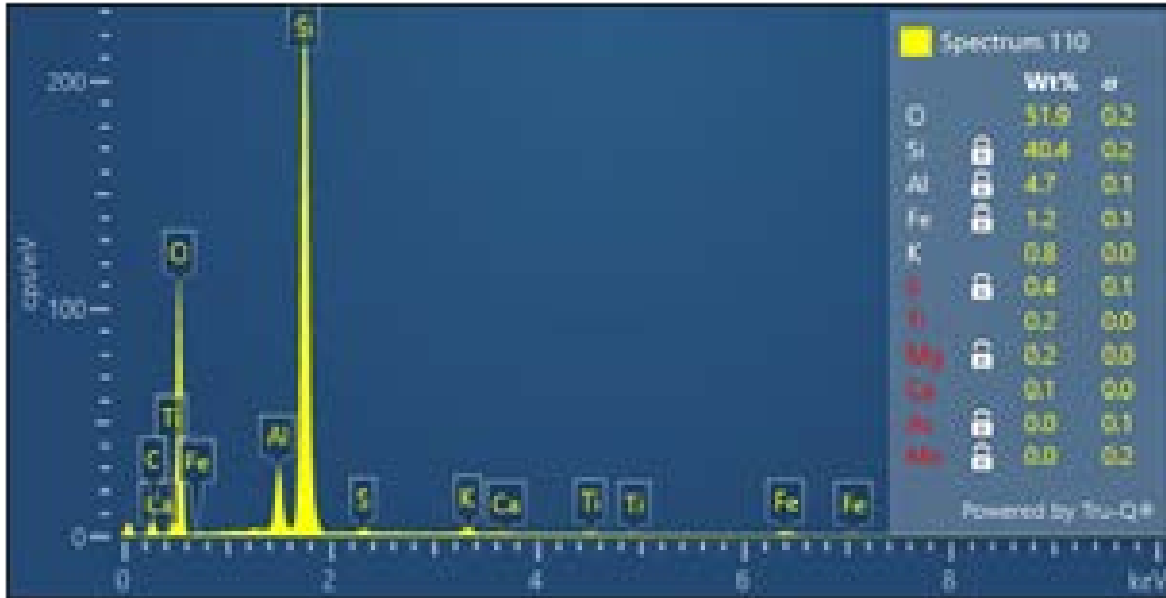


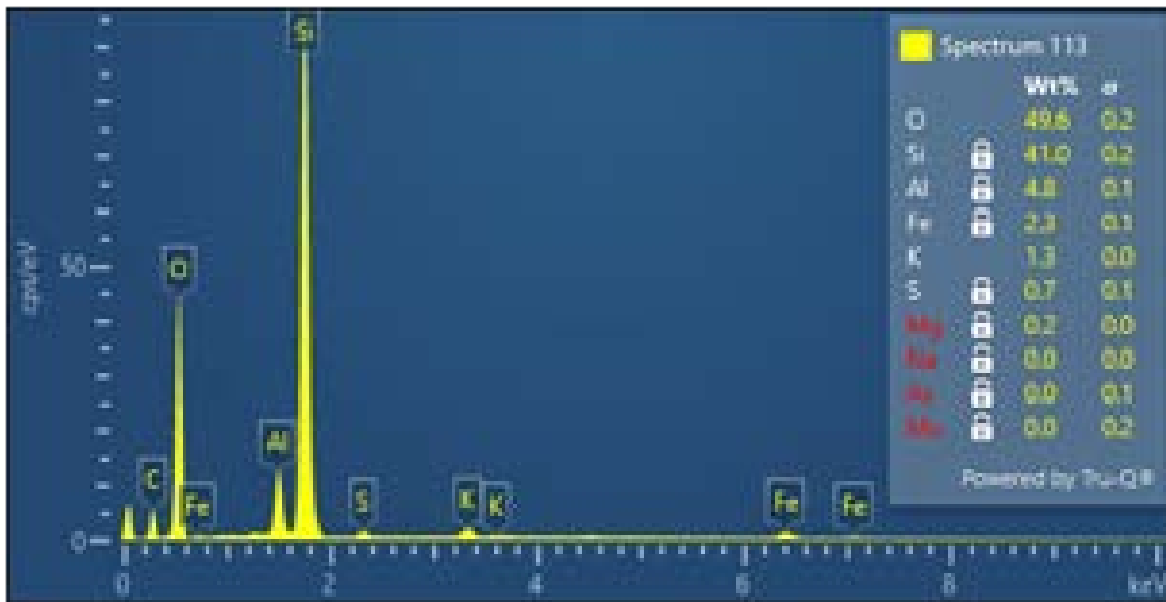
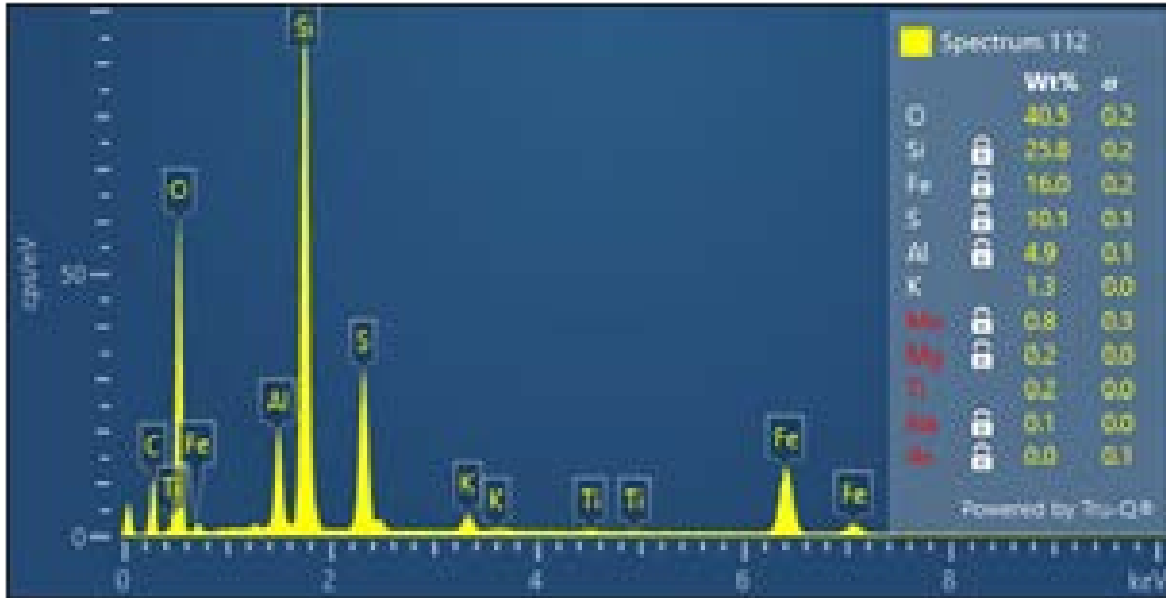


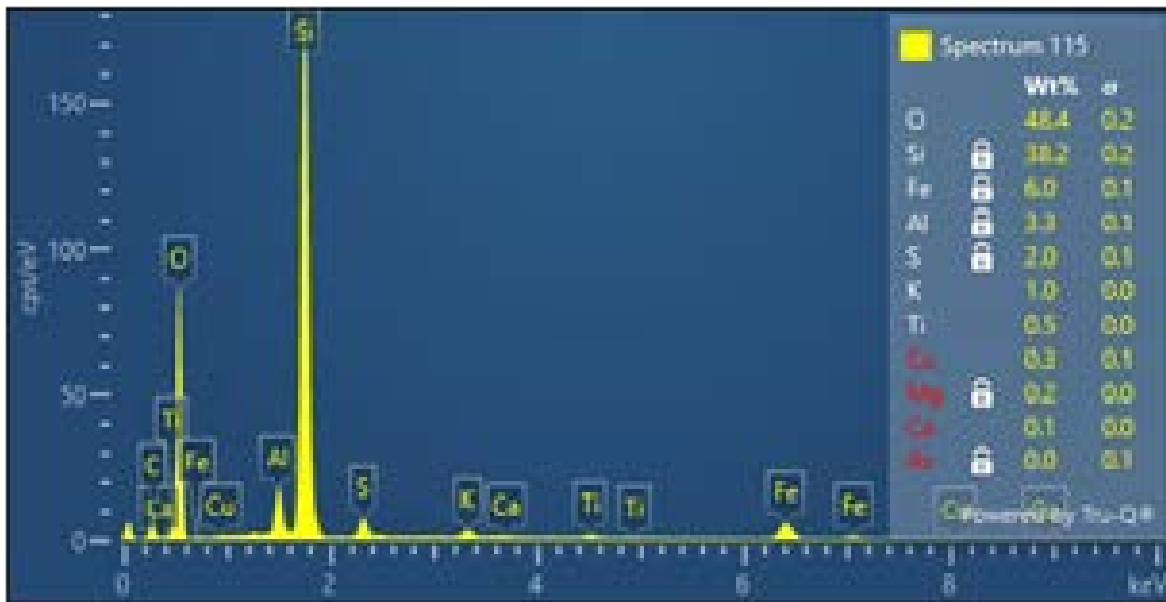
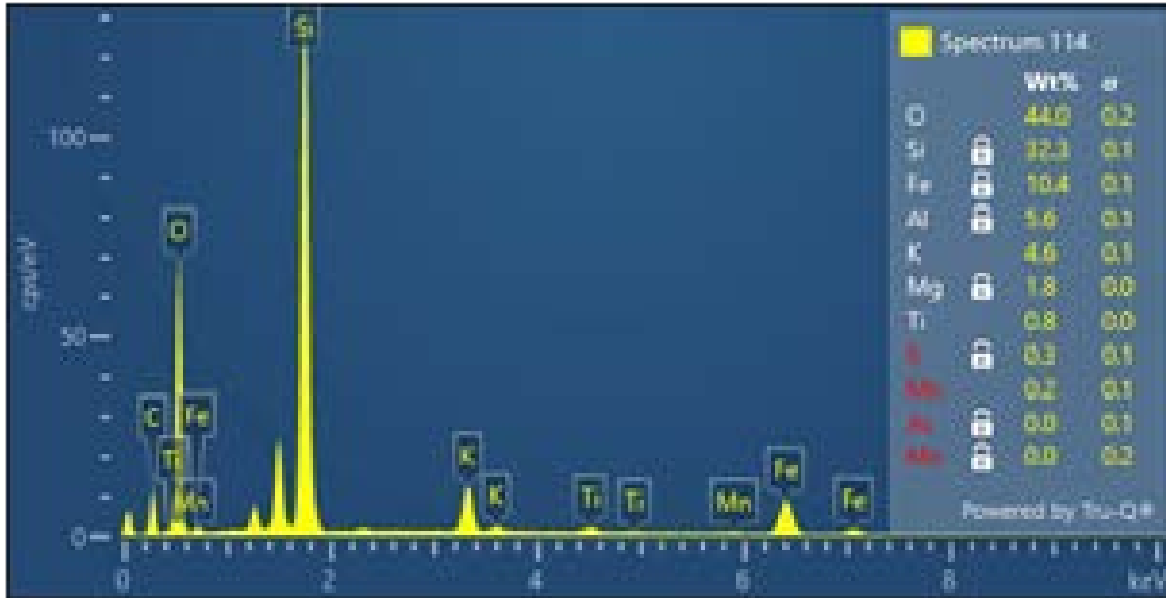


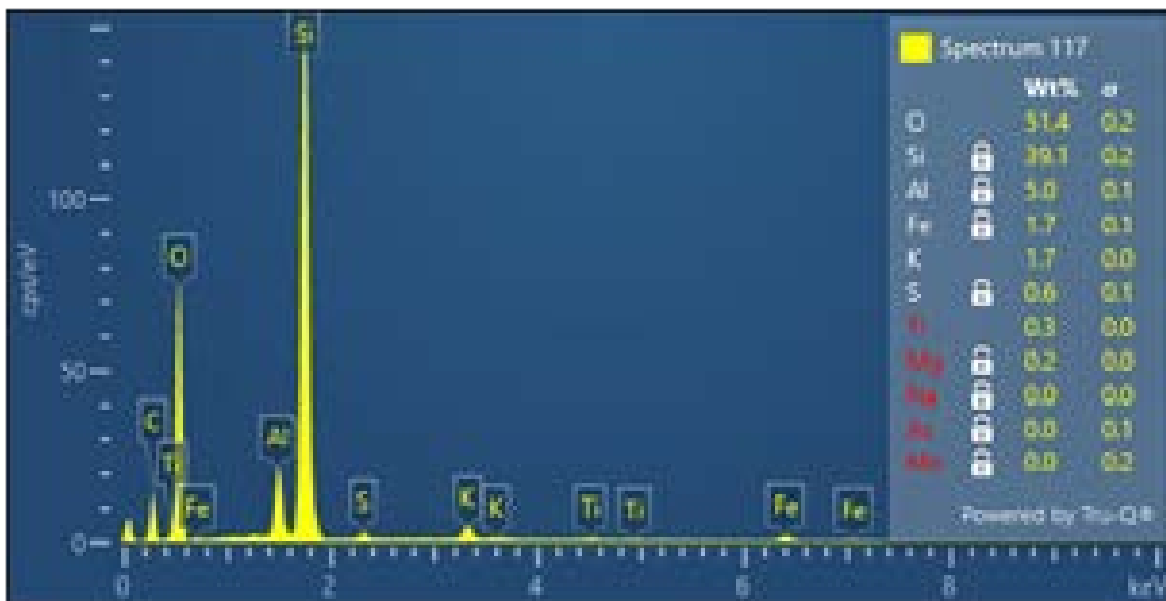
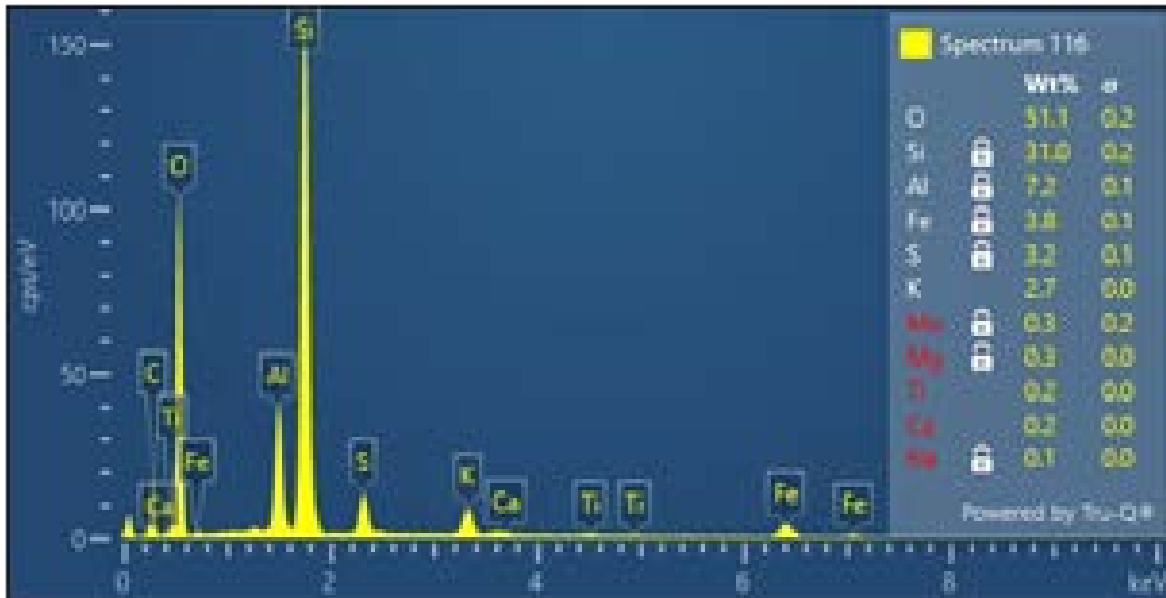


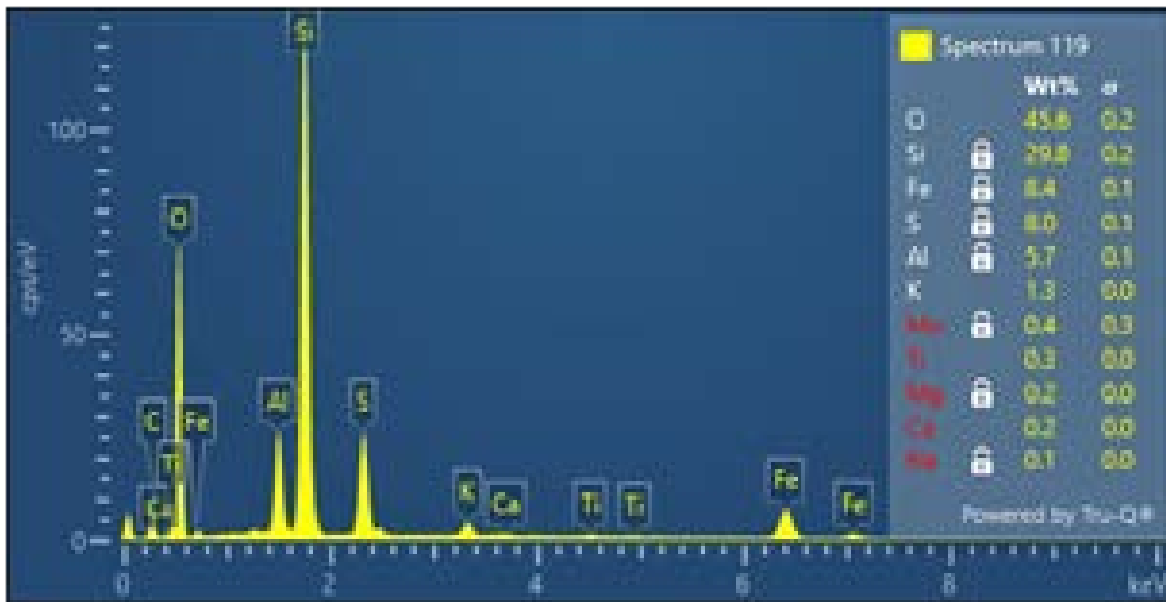
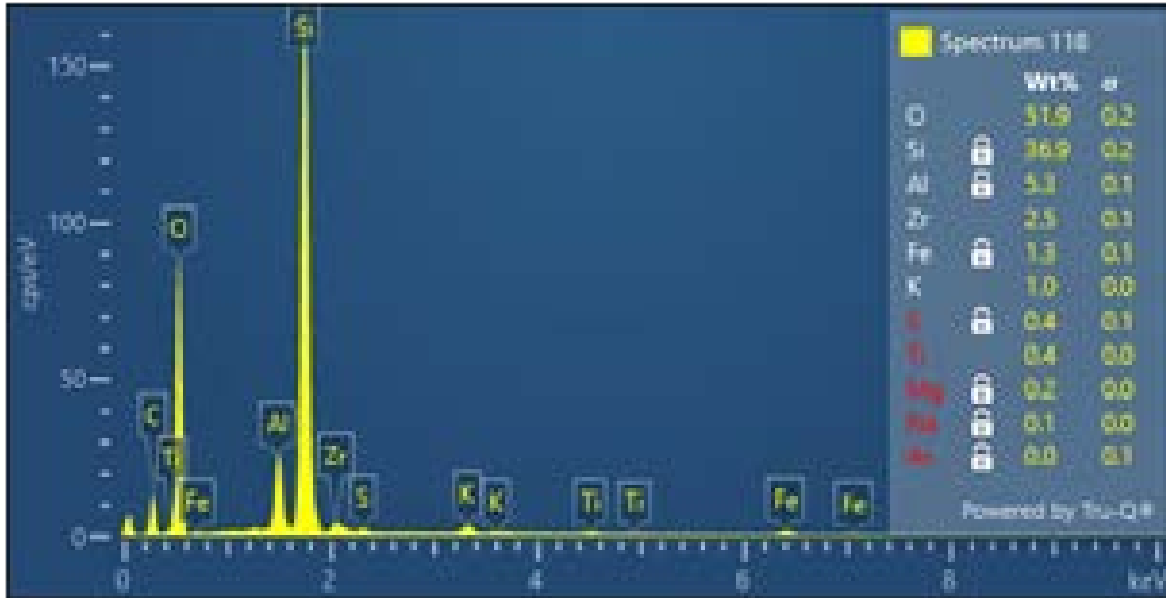




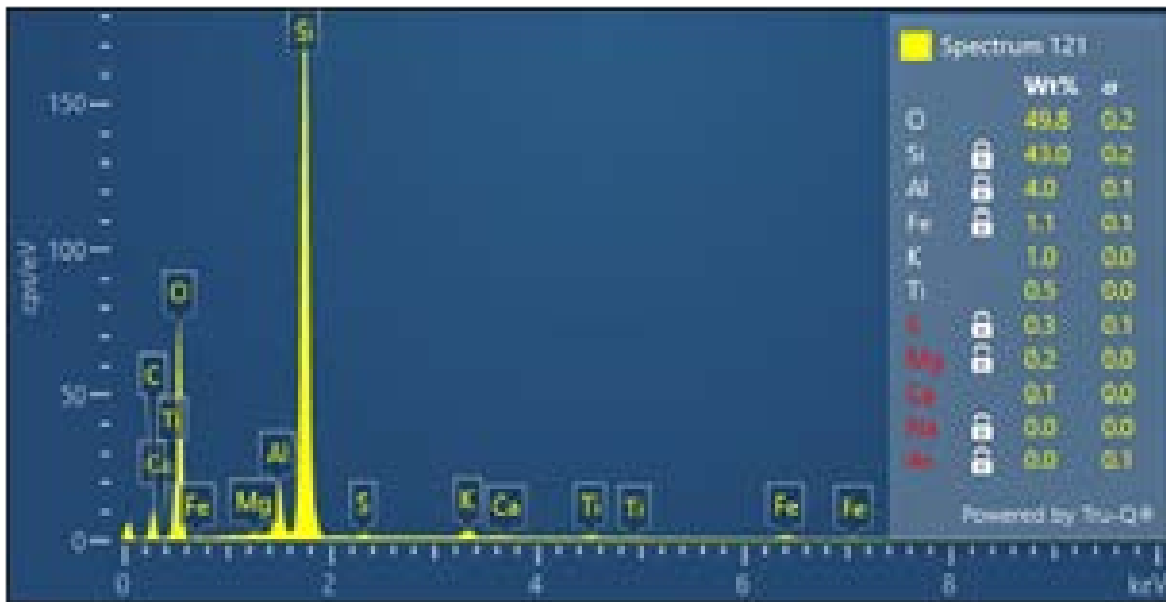
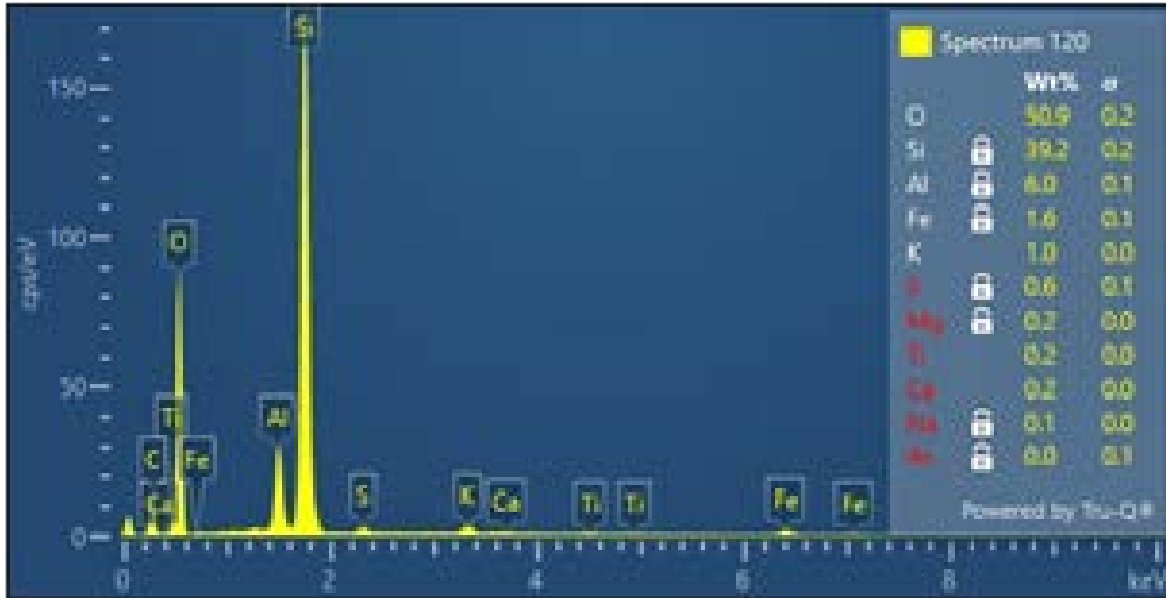


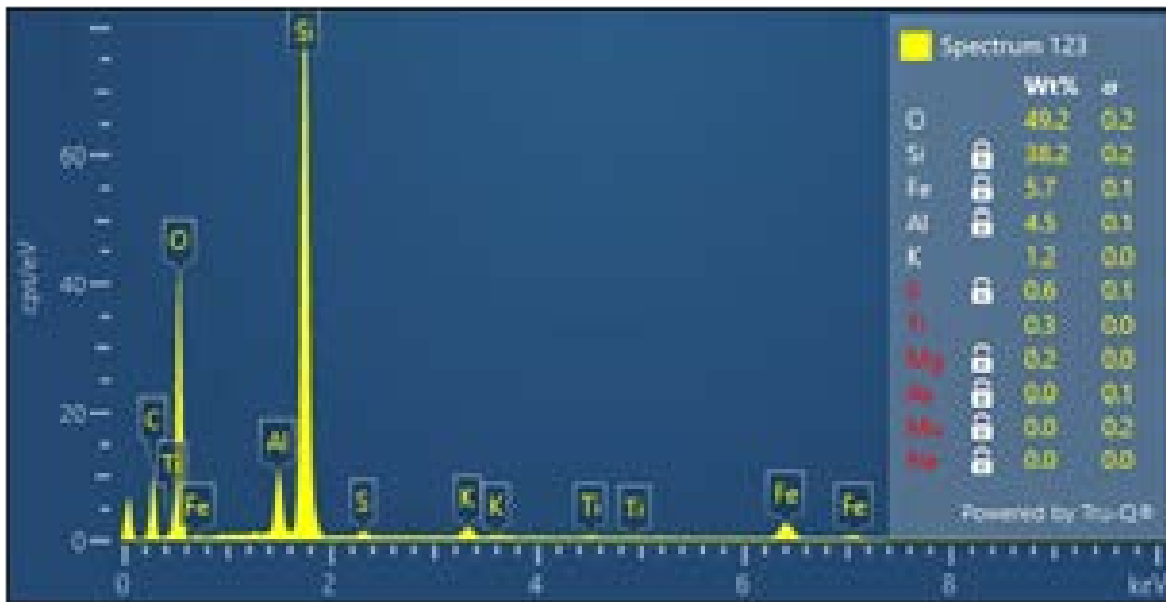
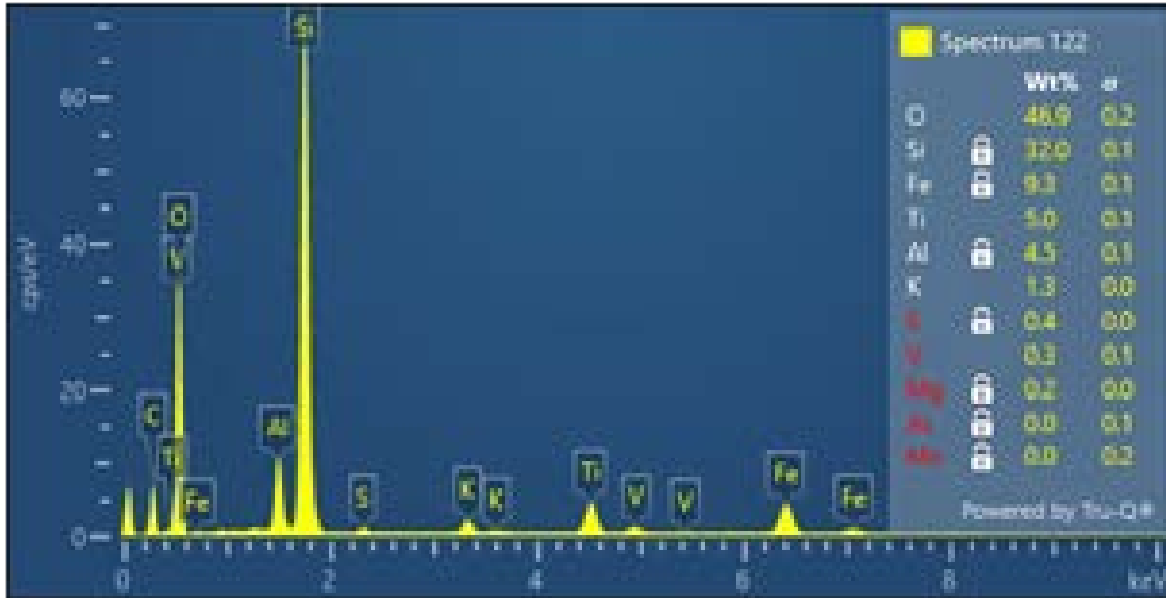


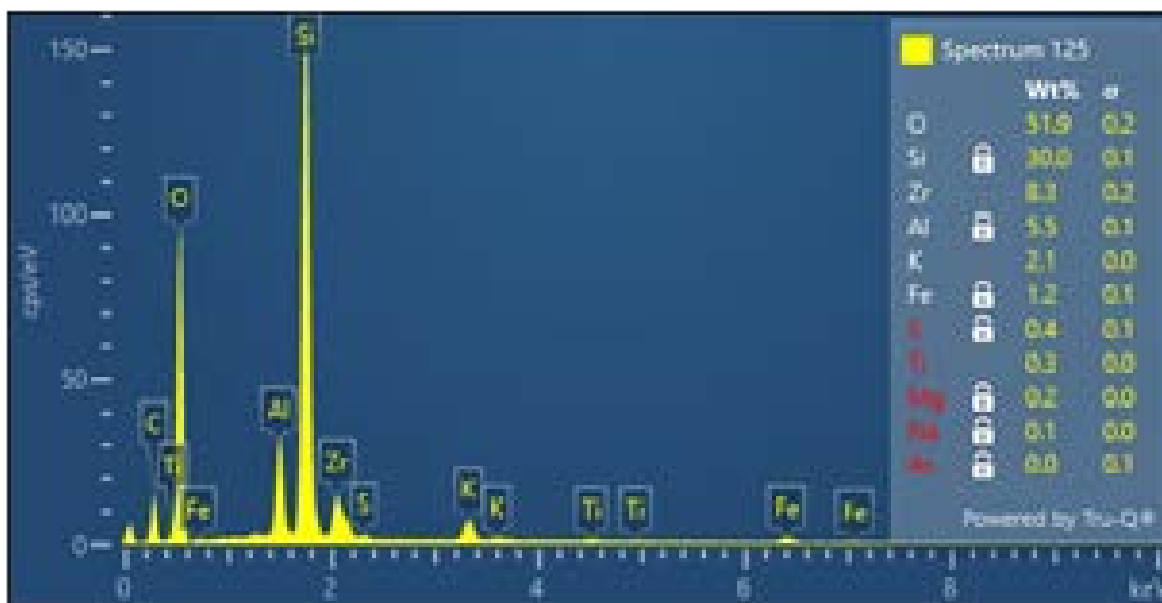
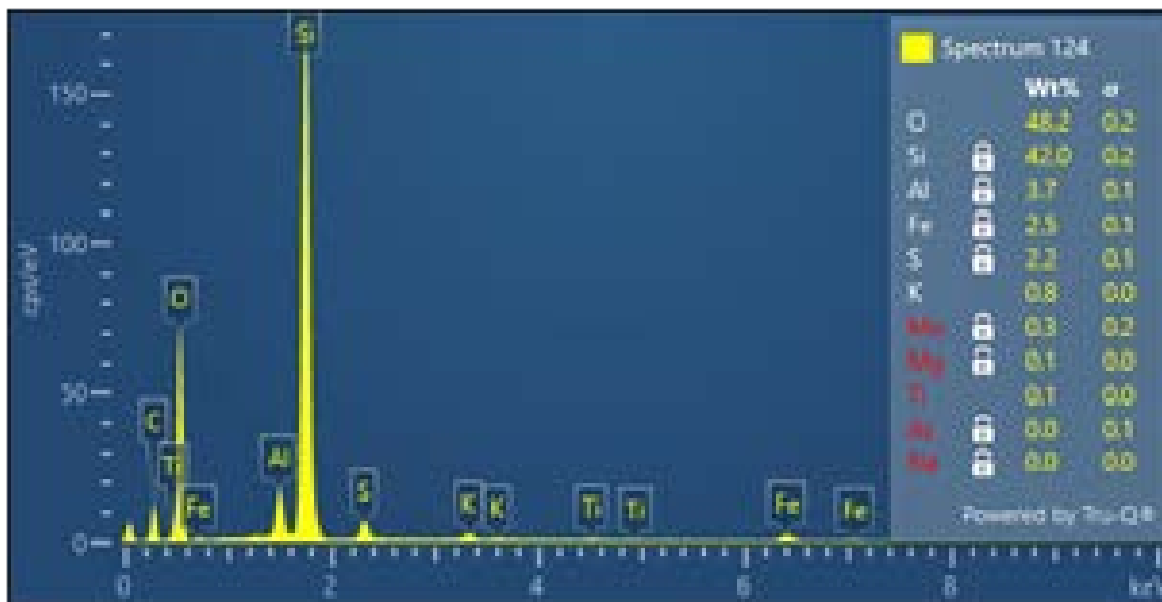


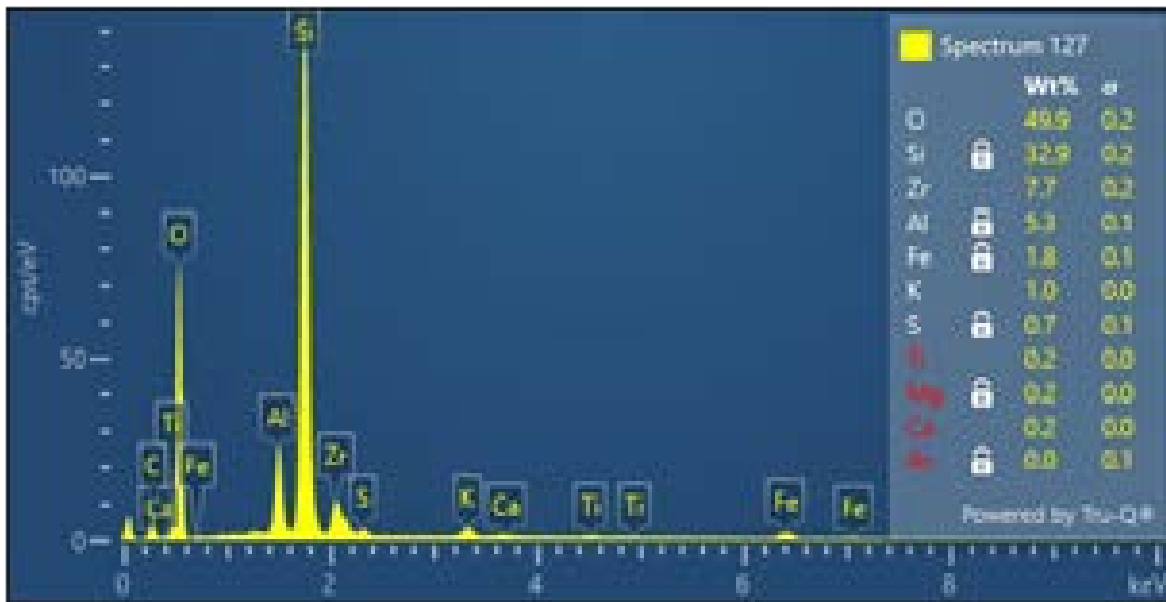
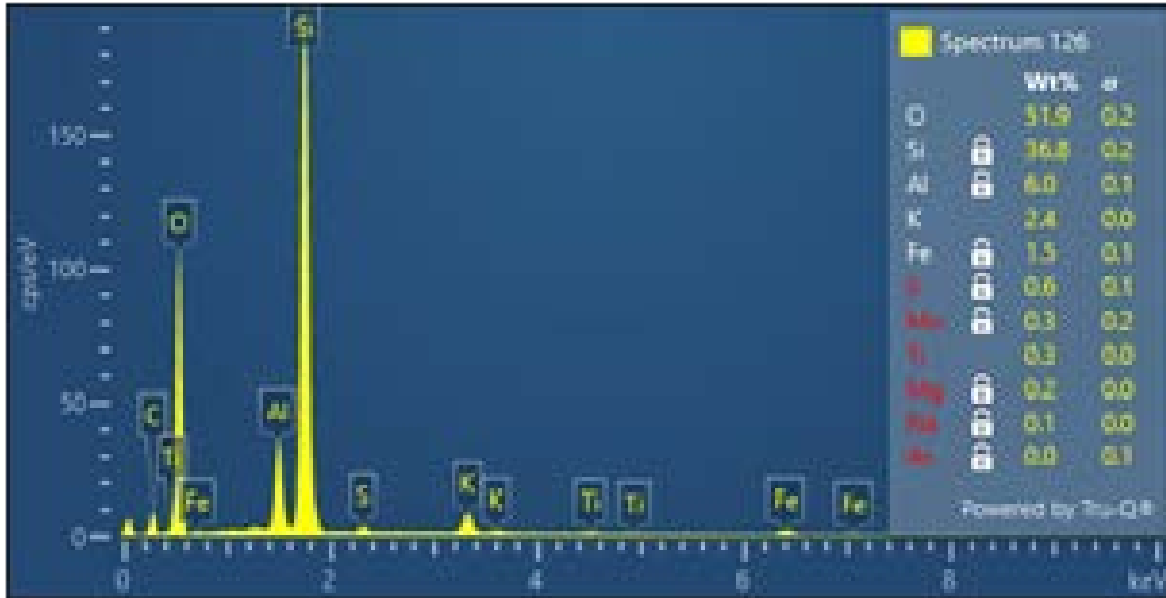


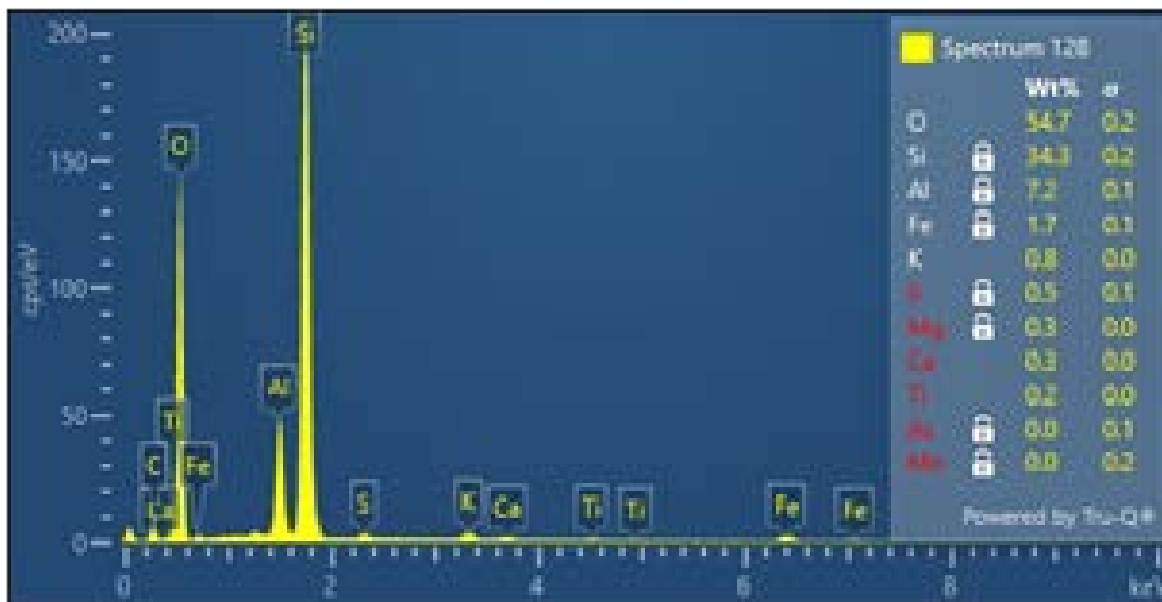




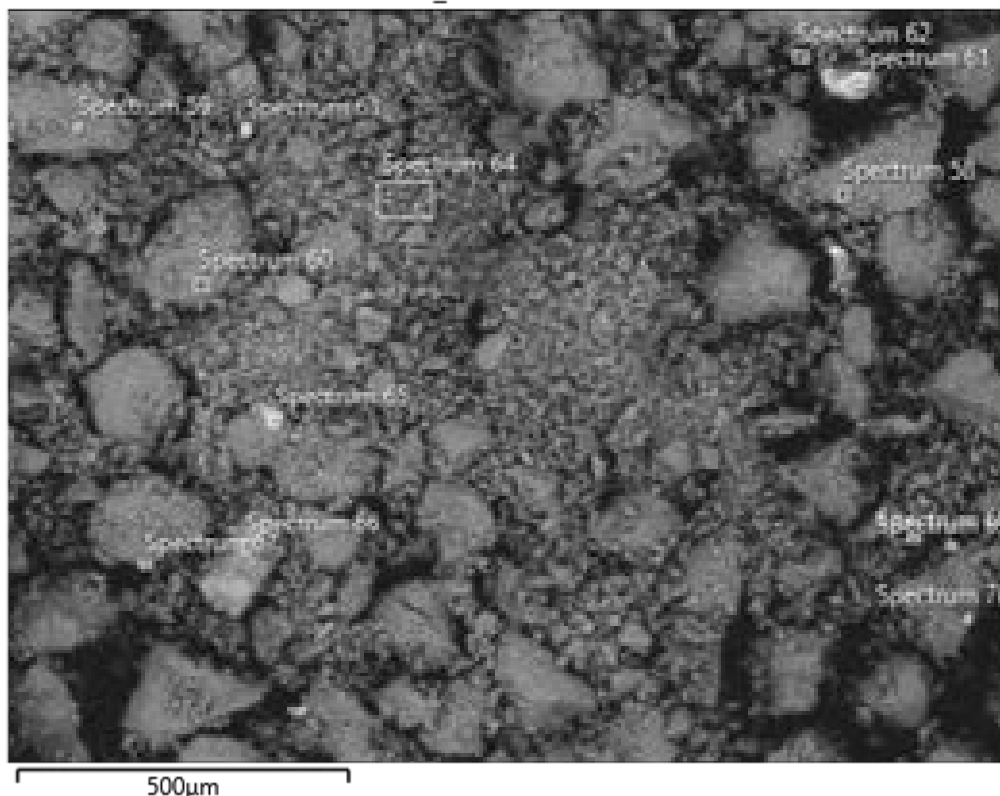




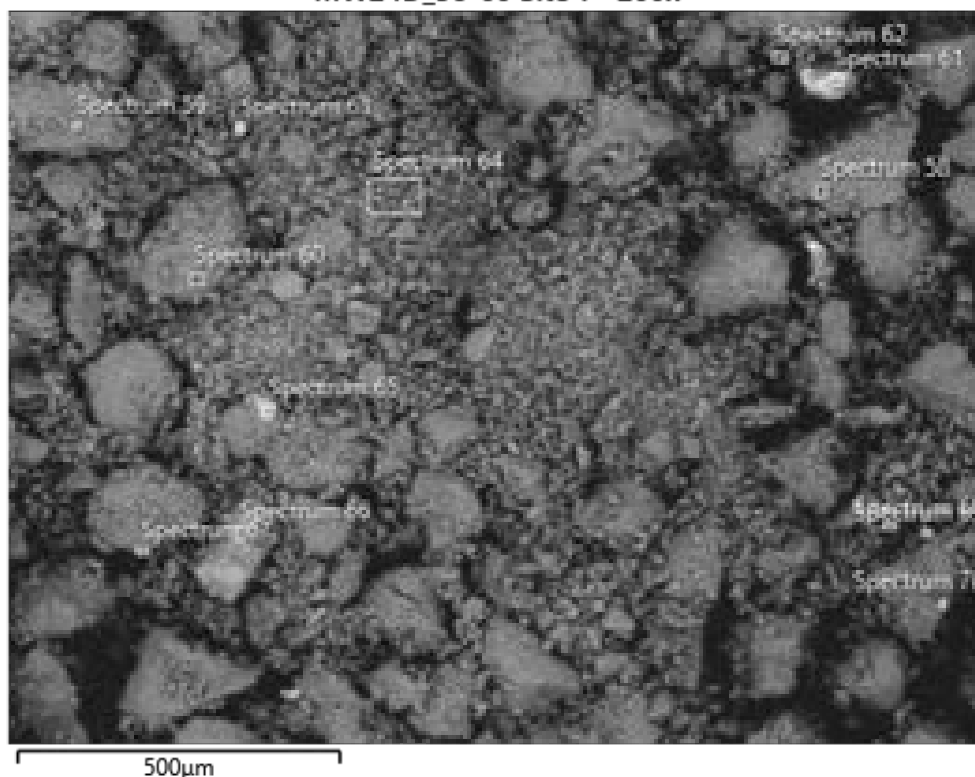




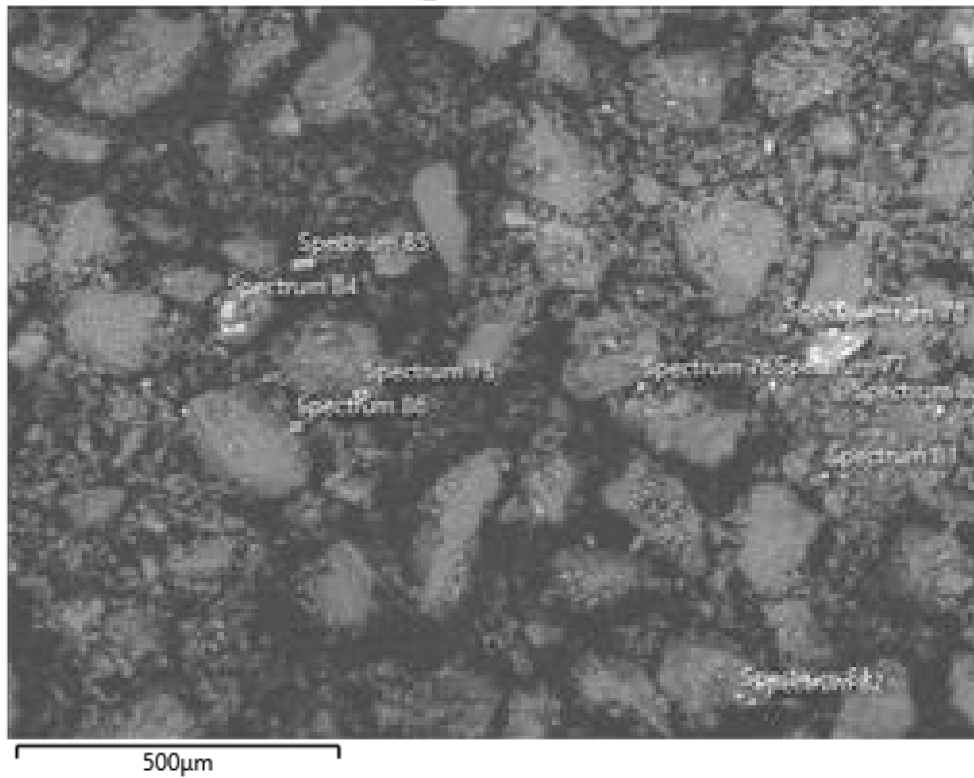
MW24D\_58-60 Site 1 - 200x



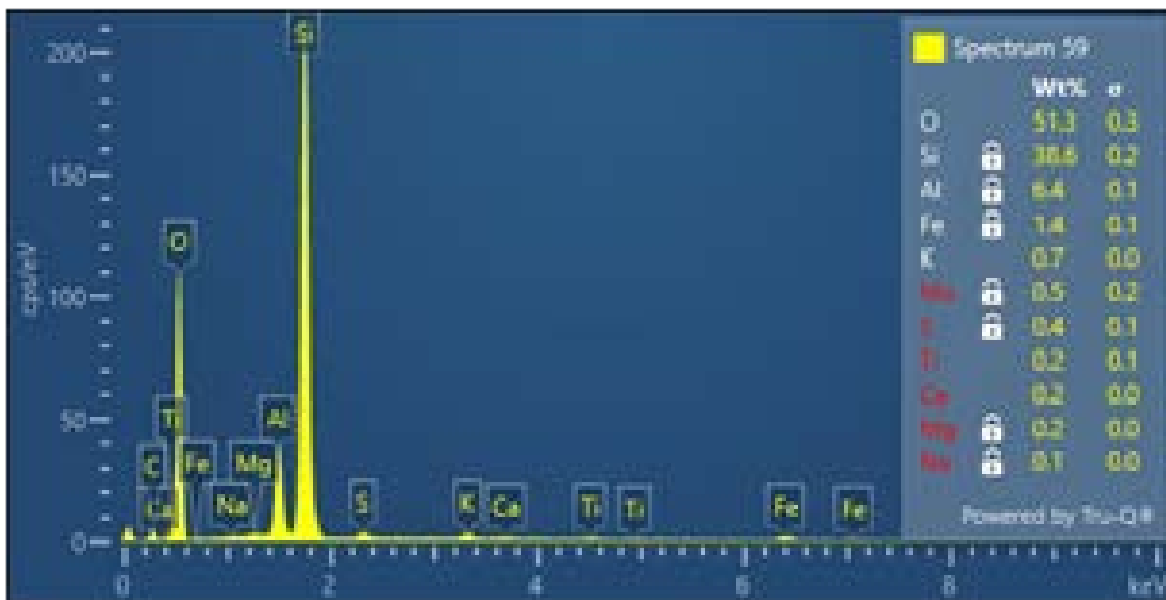
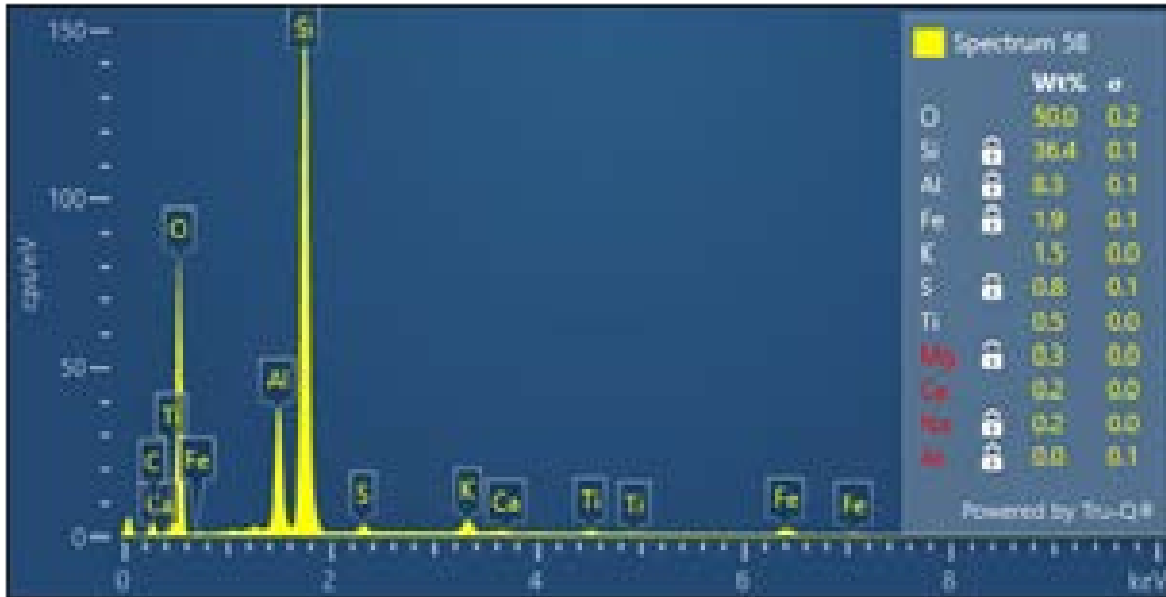
MW24D\_58-60 Site 1 - 200x



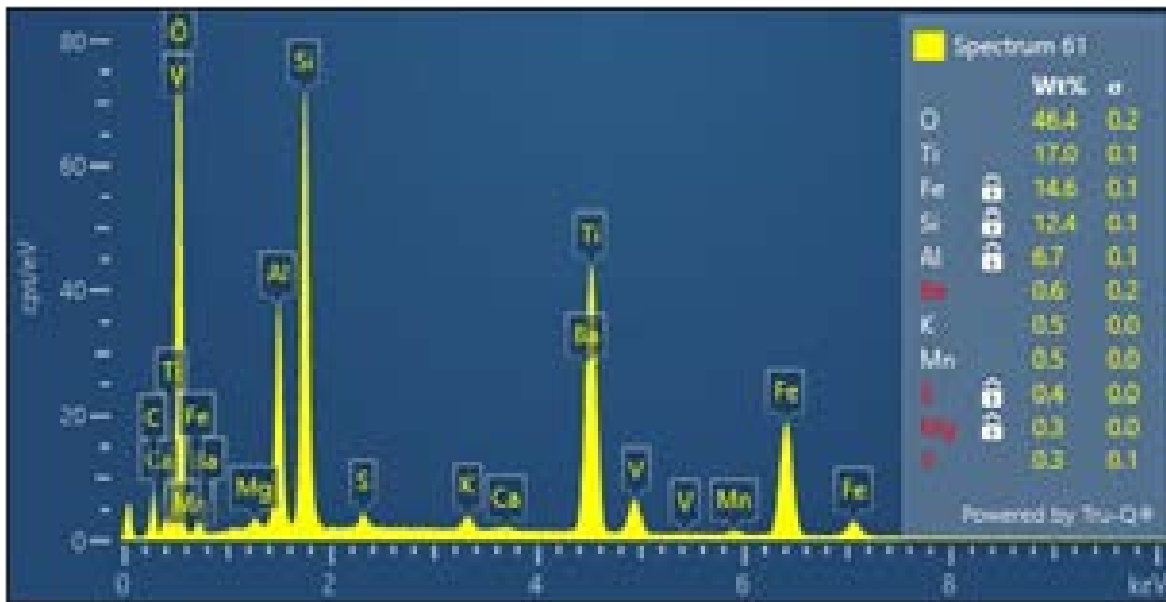
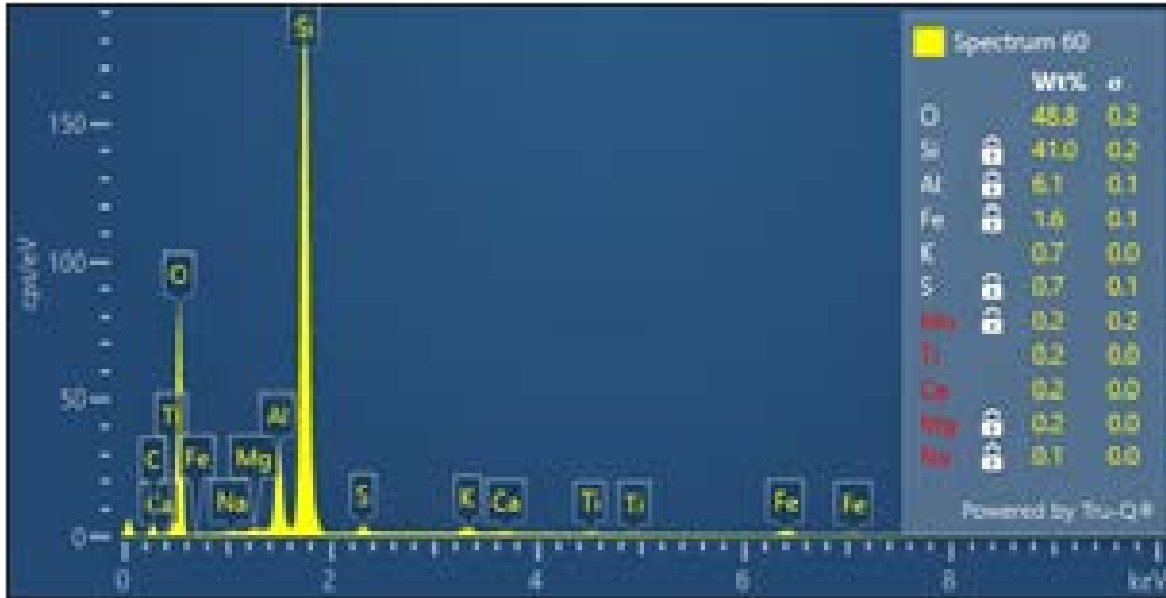
MW24D\_58-60 Site2 - 200x

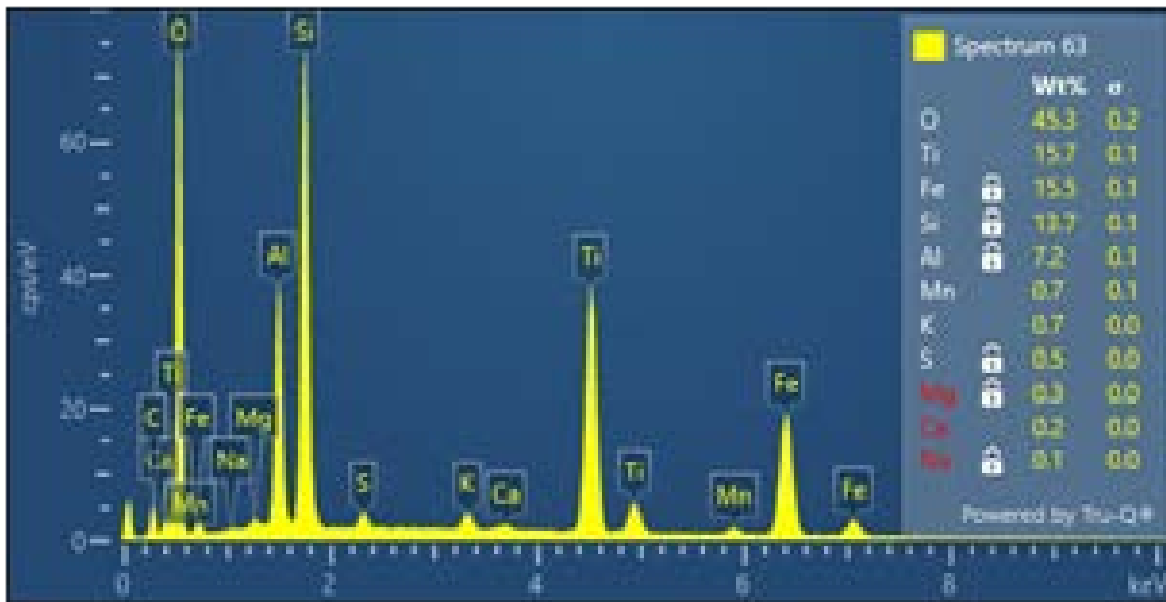
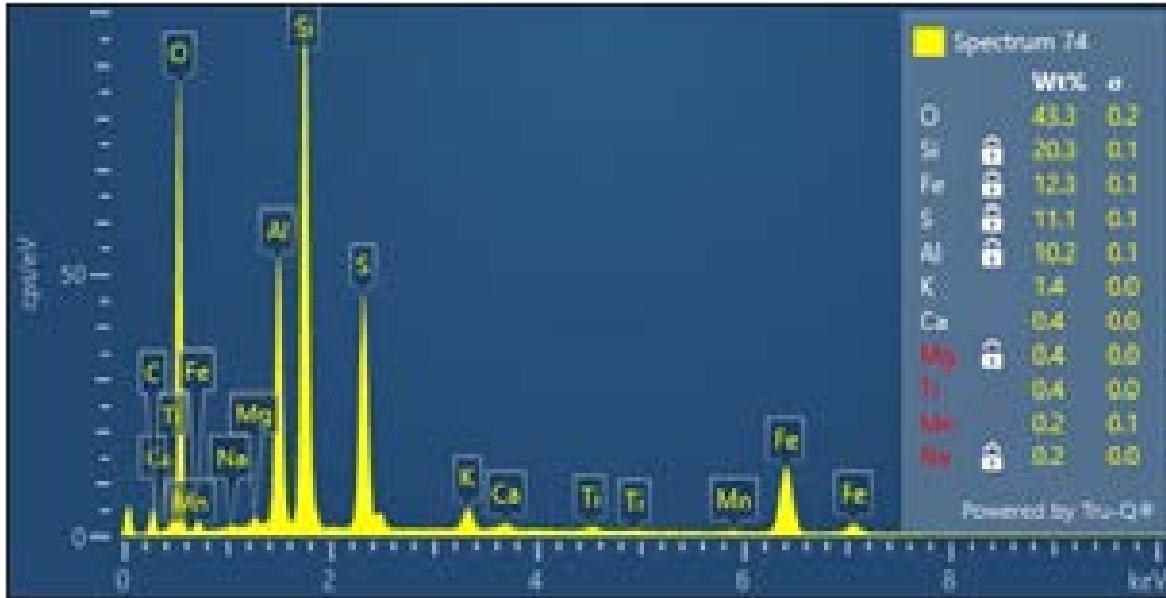


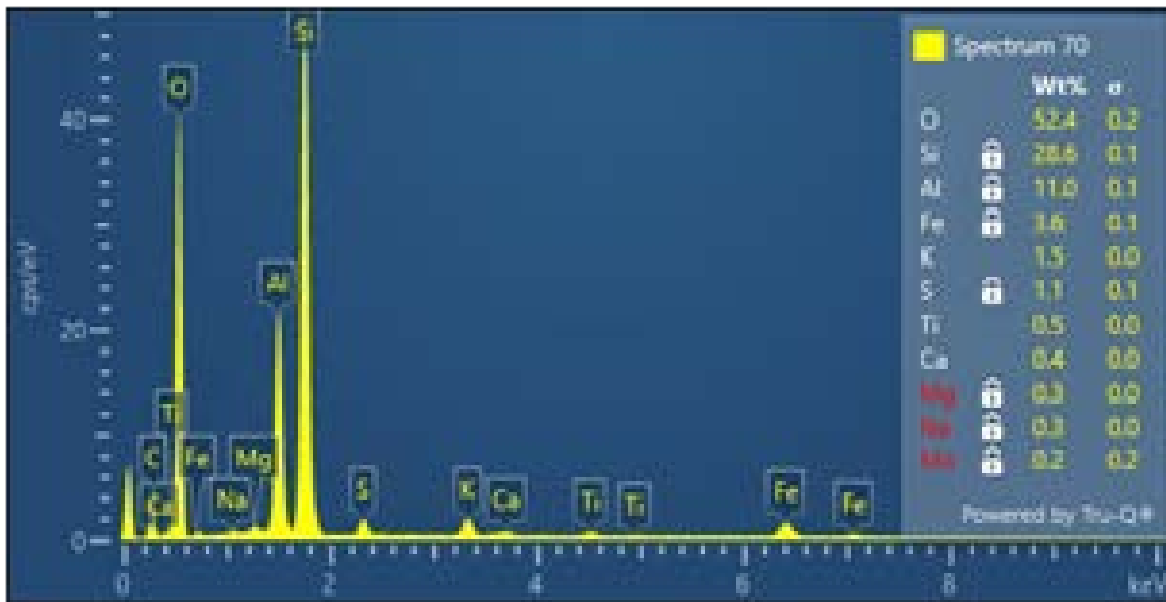
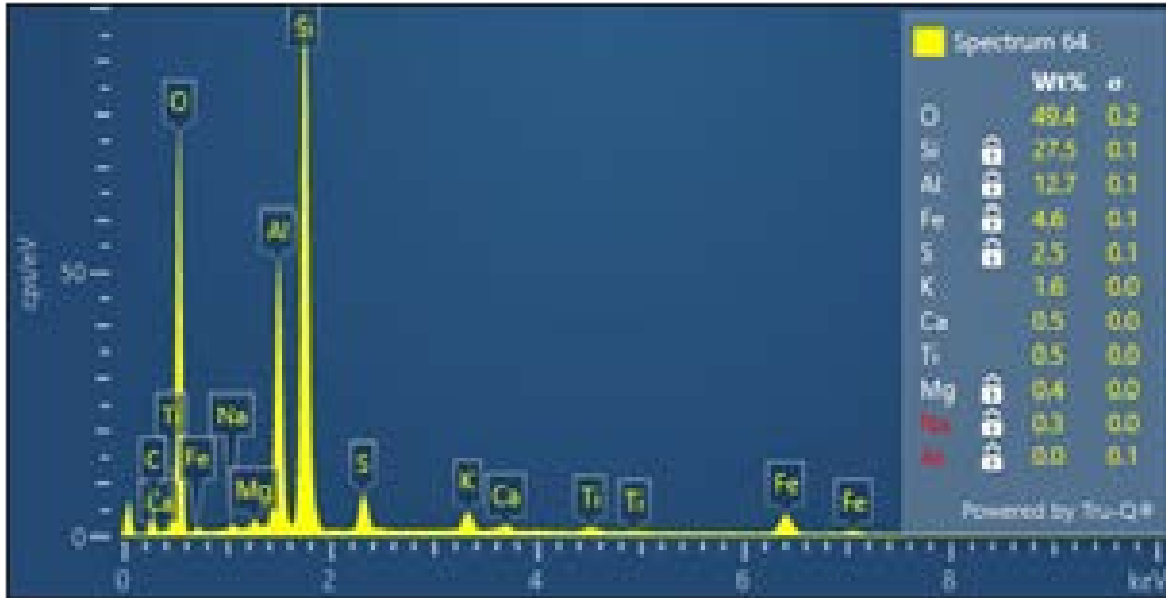
Spectrum Images

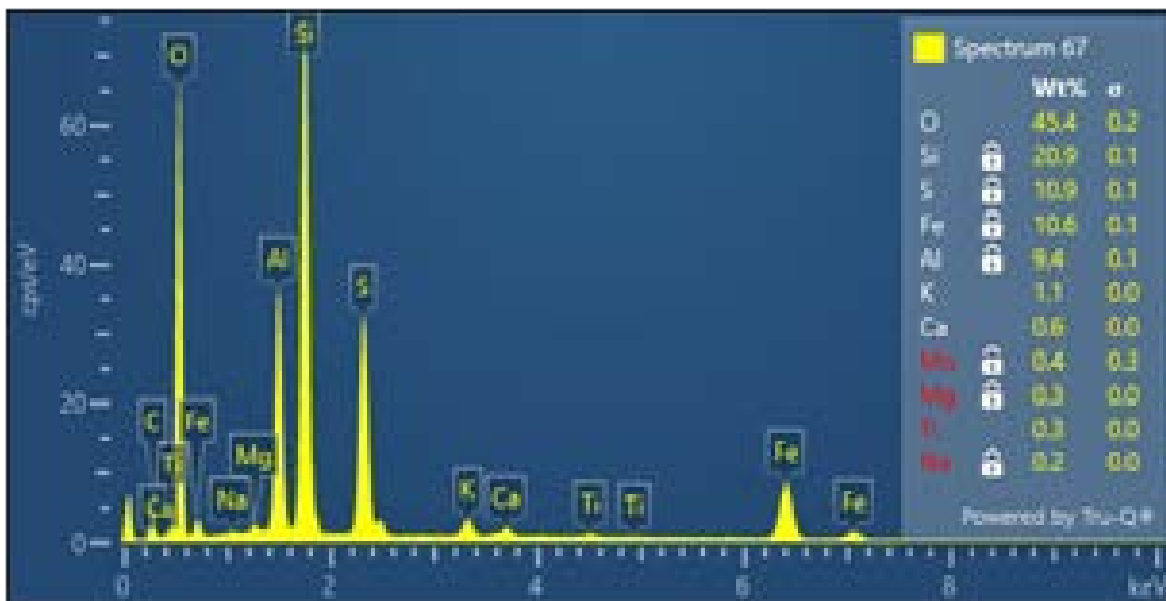
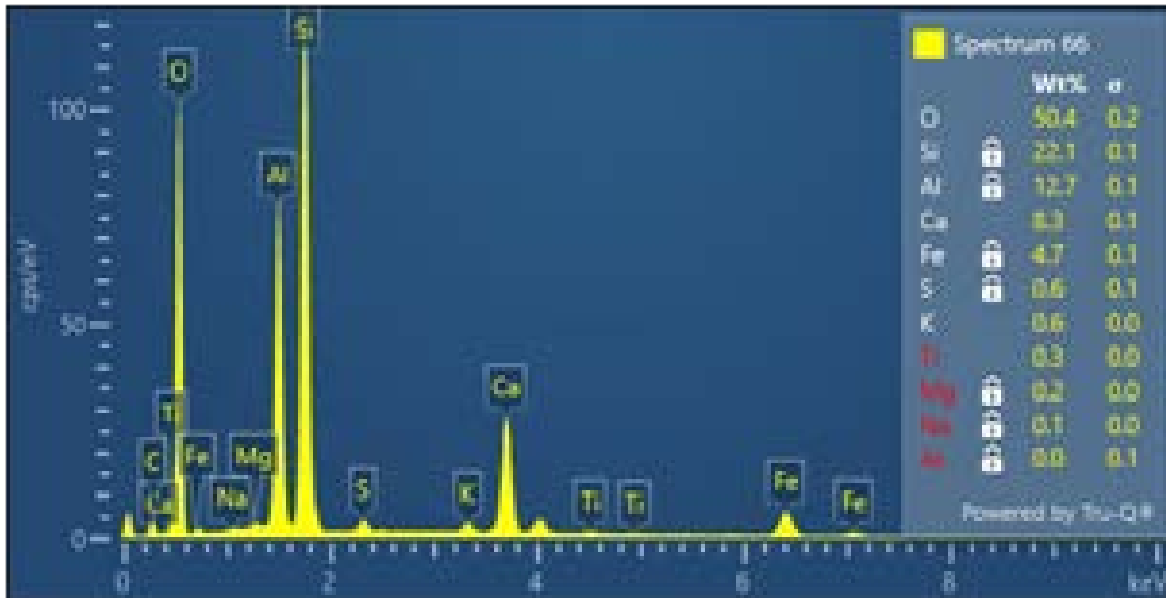


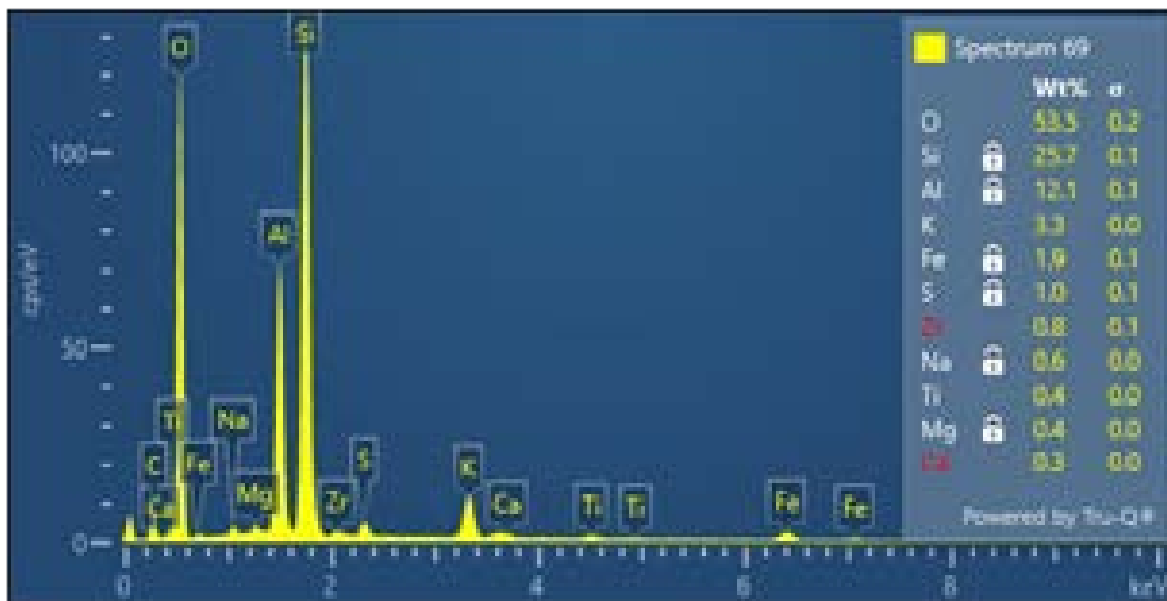
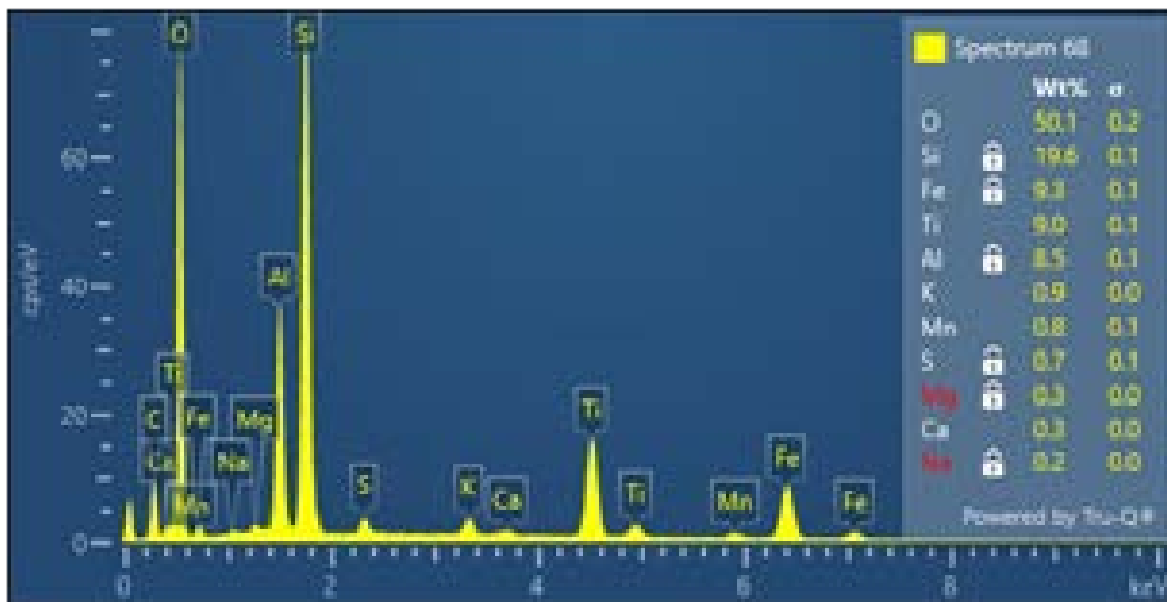


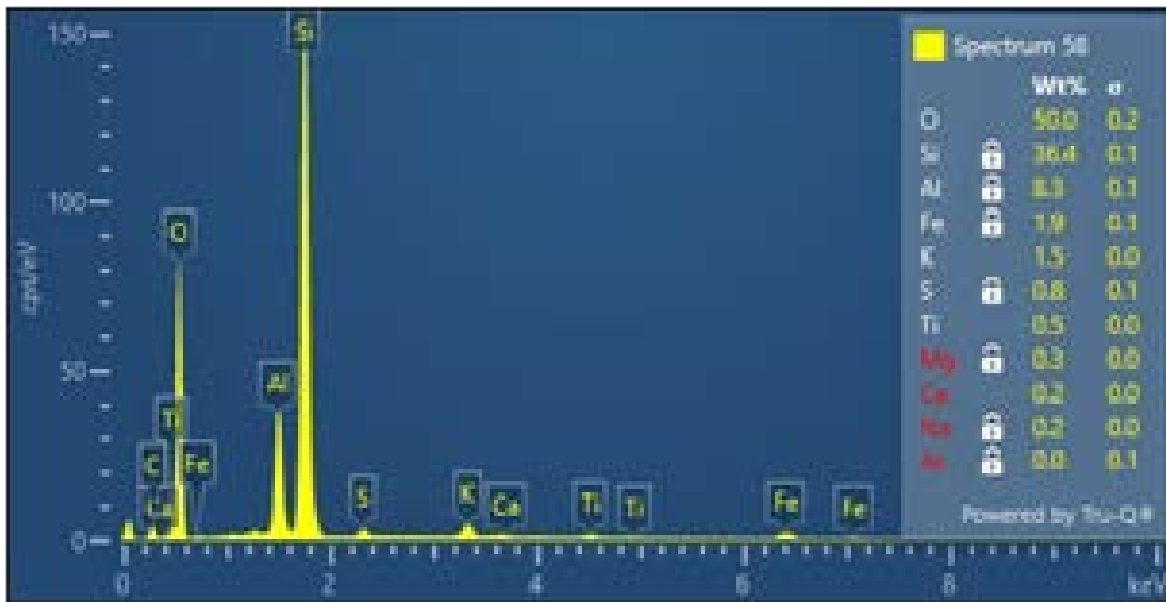
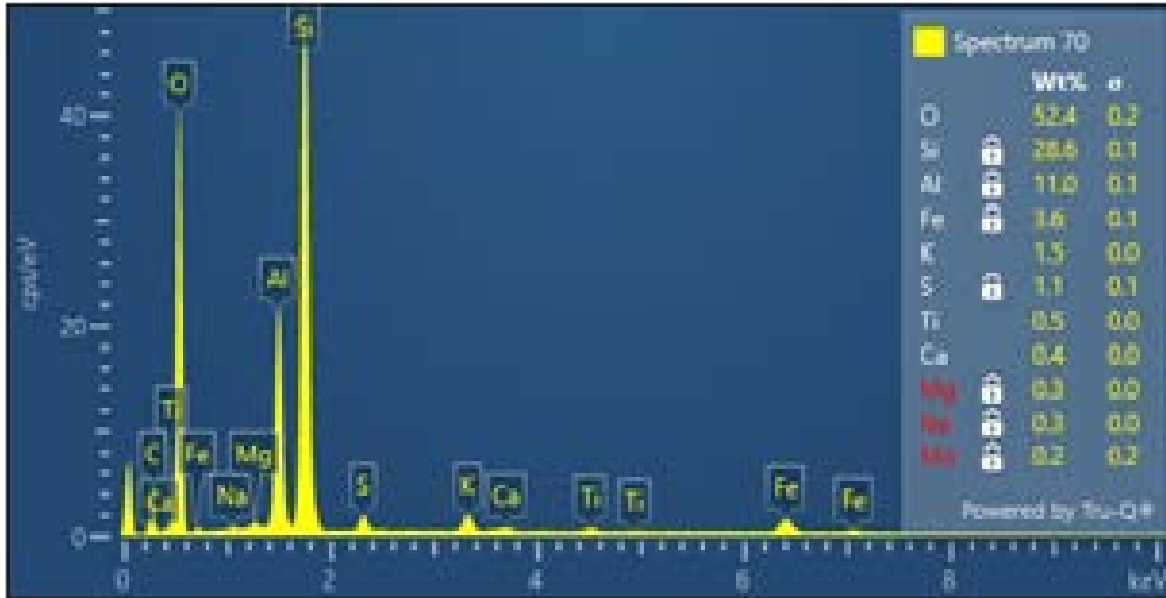


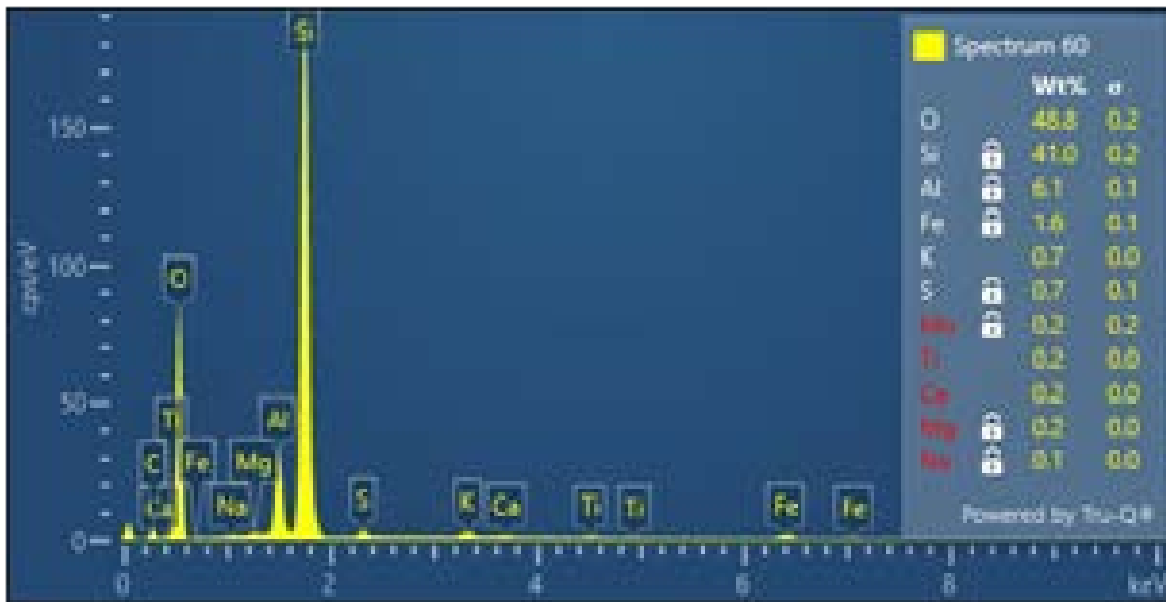
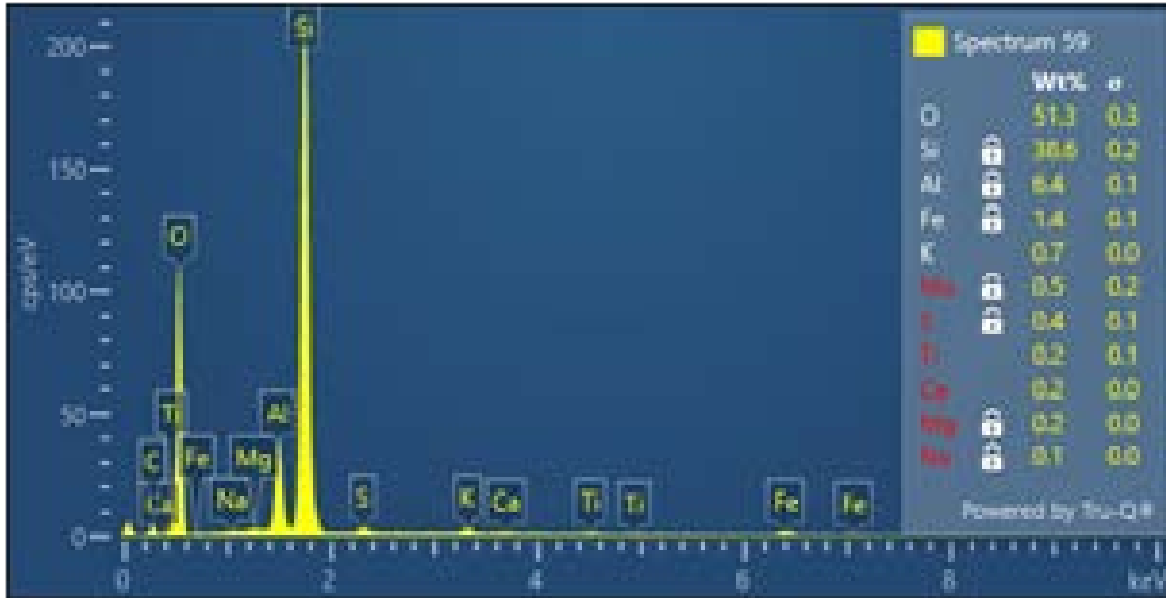


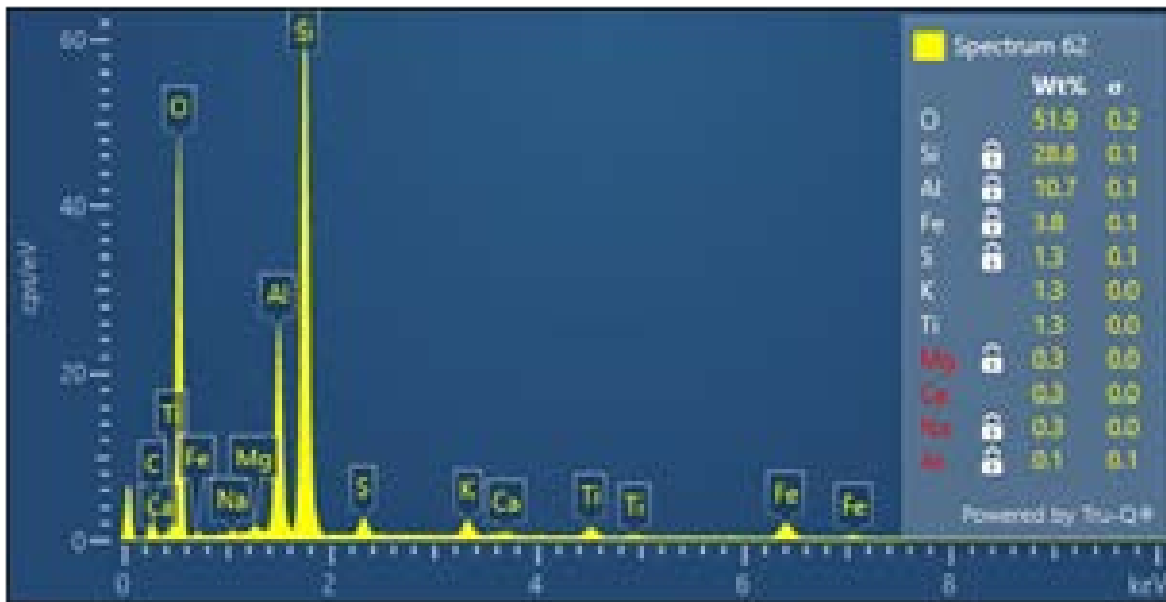
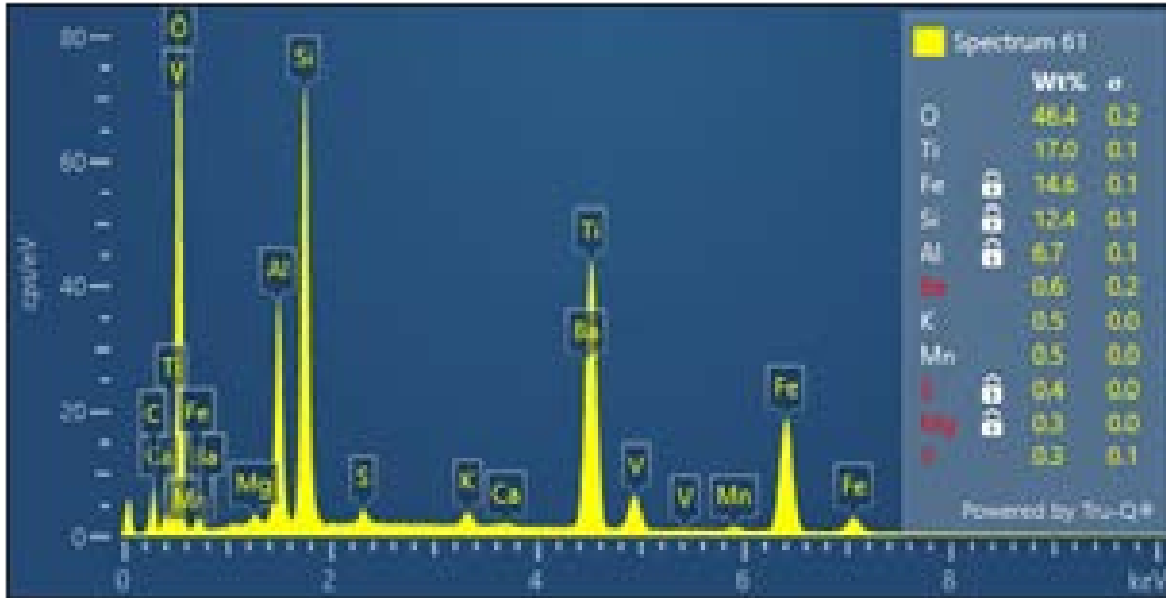




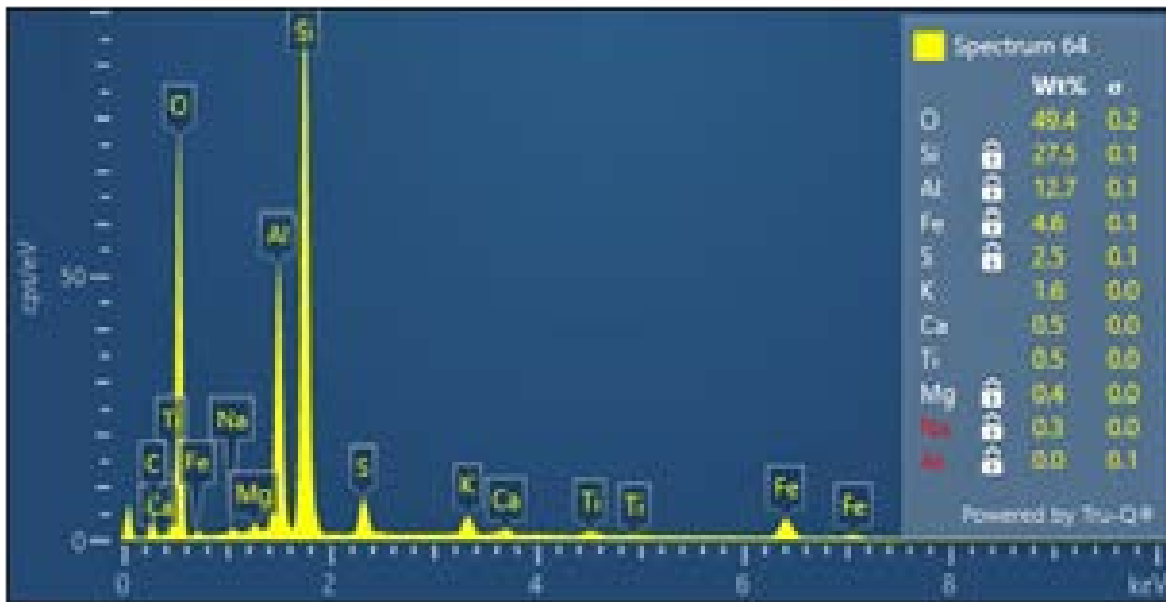
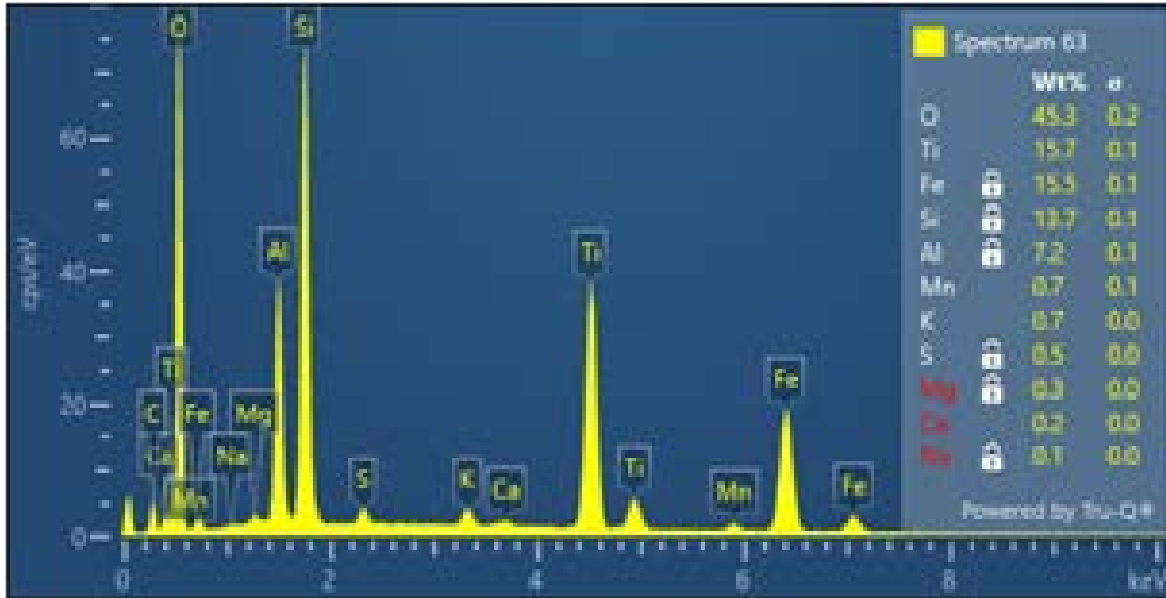


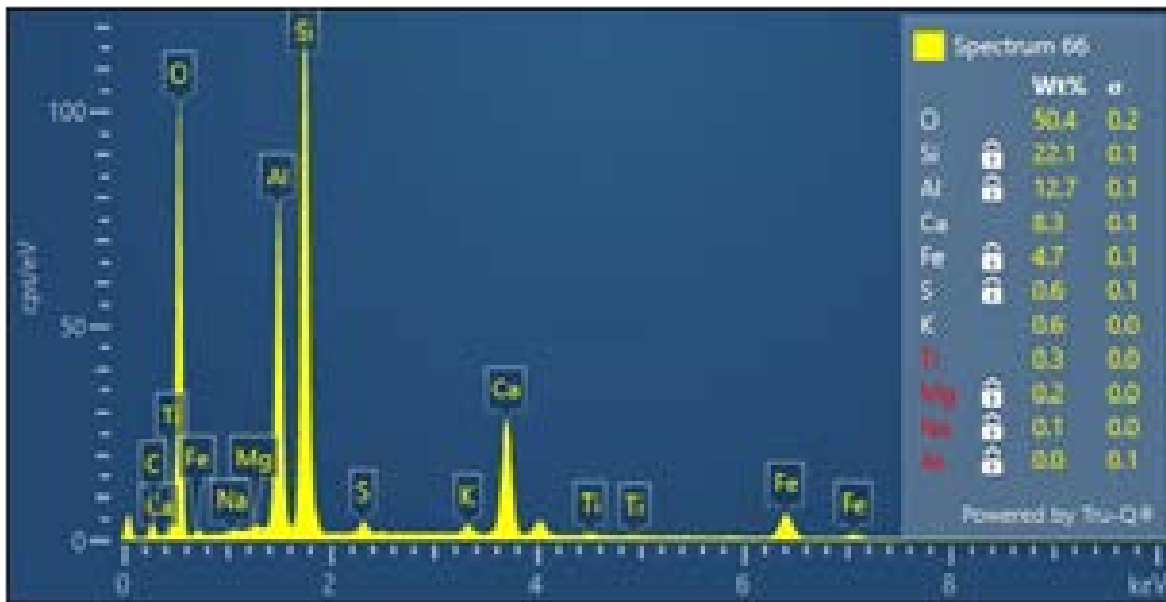
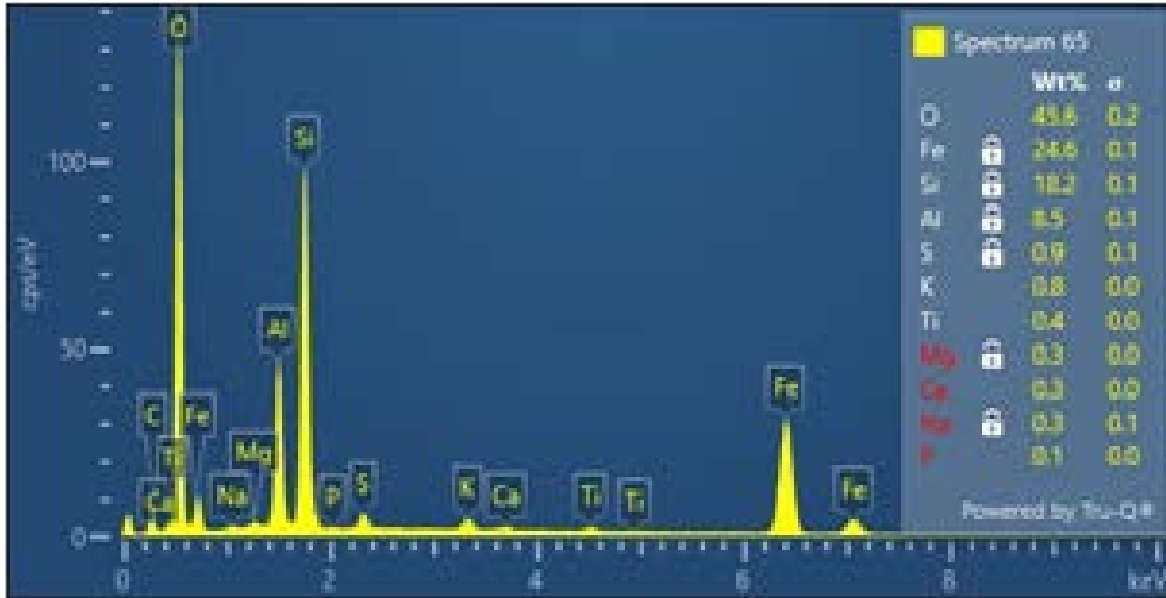


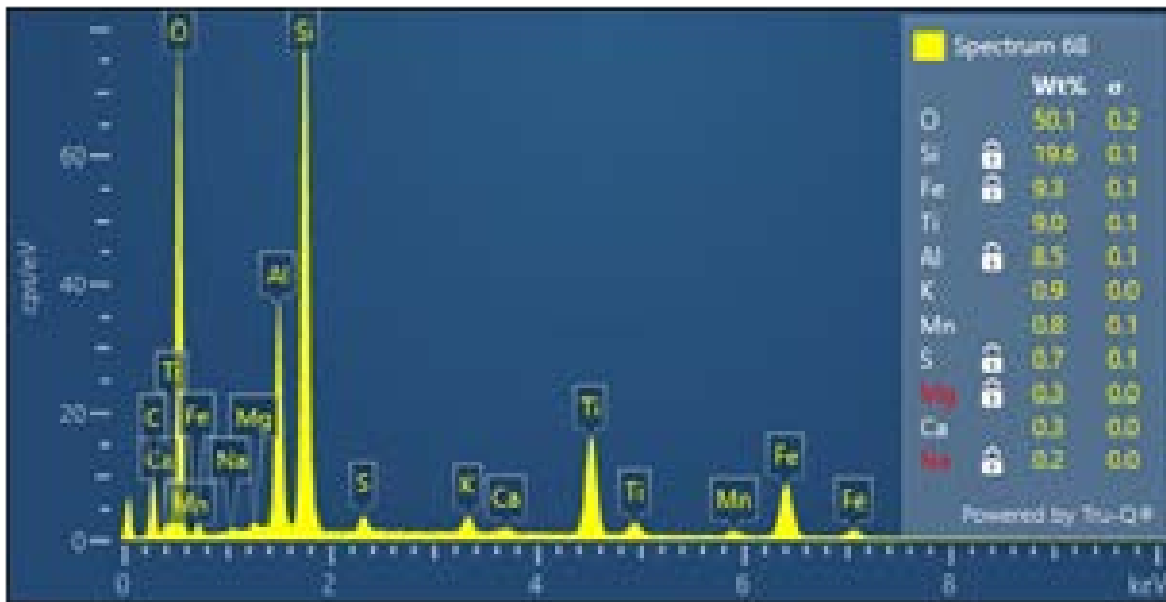
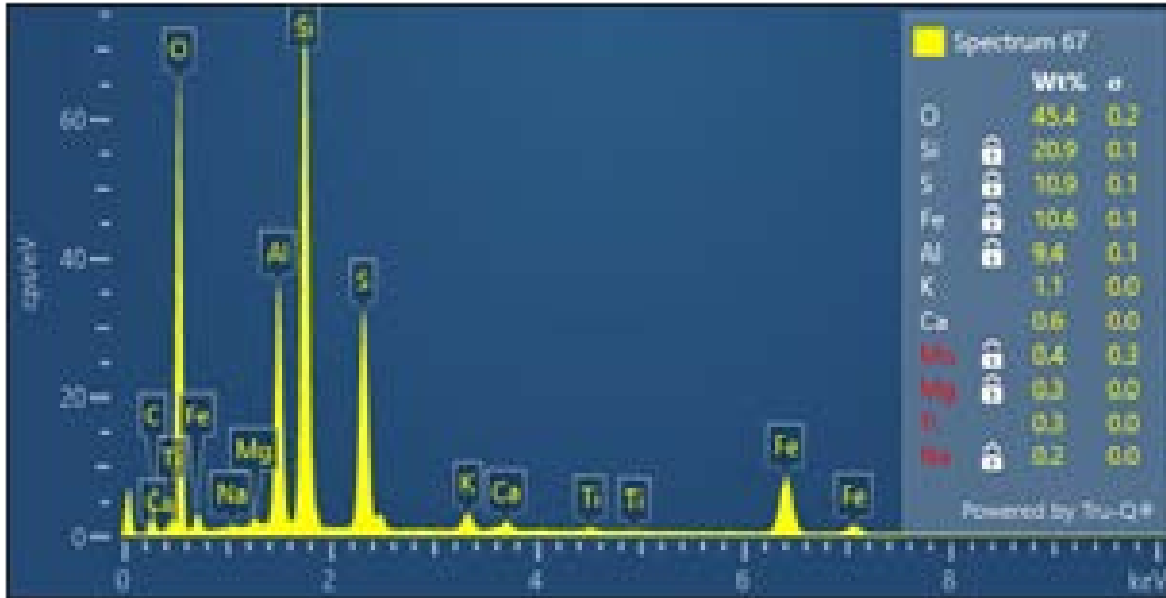


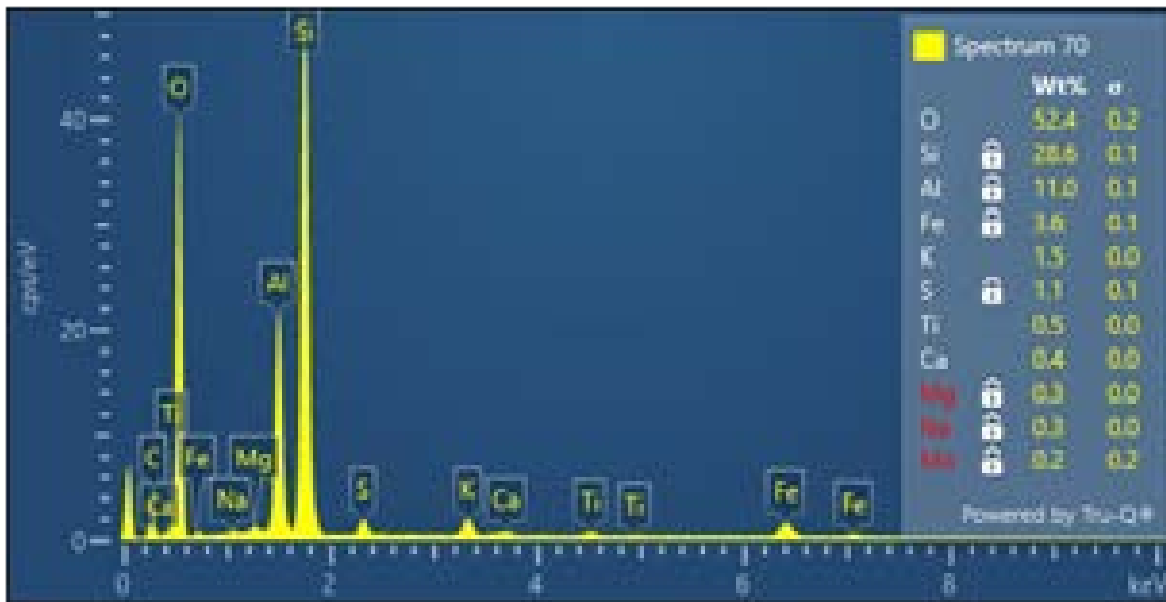
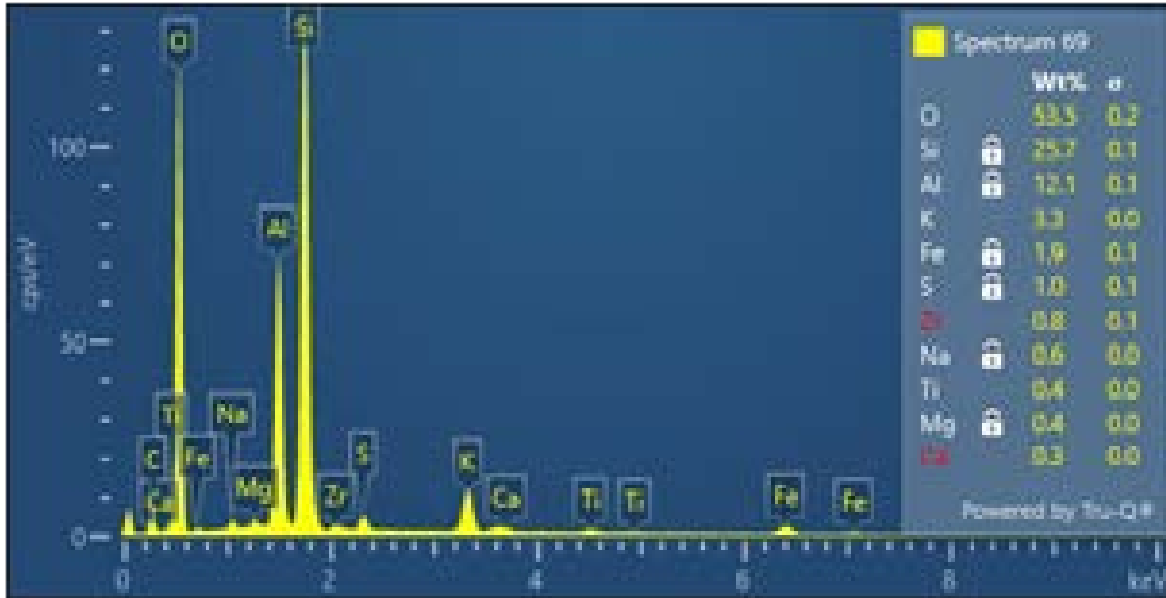


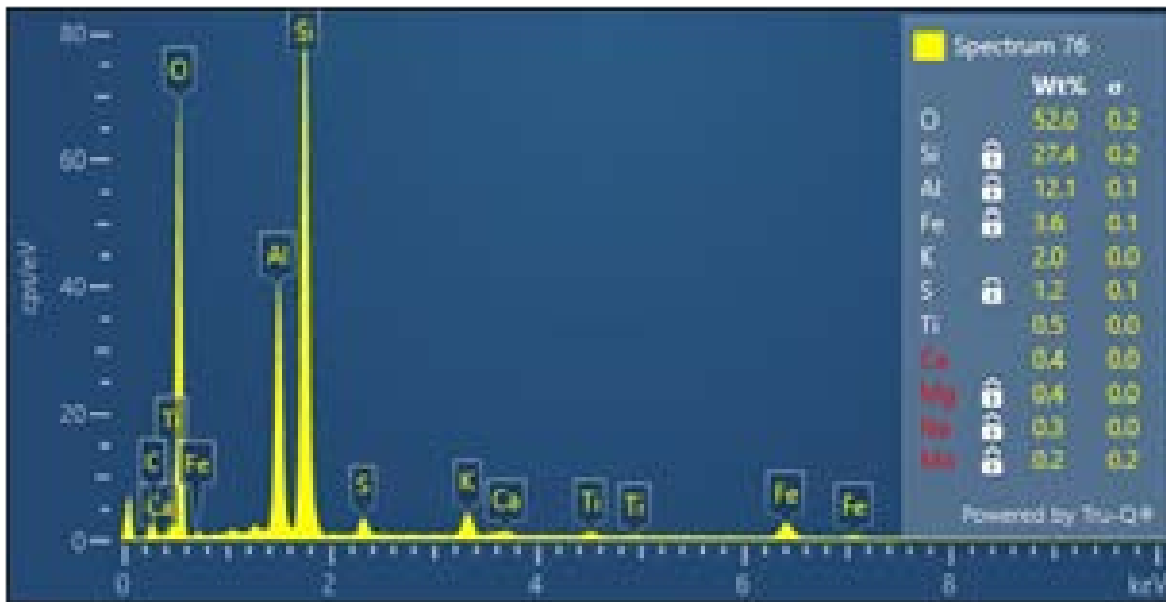
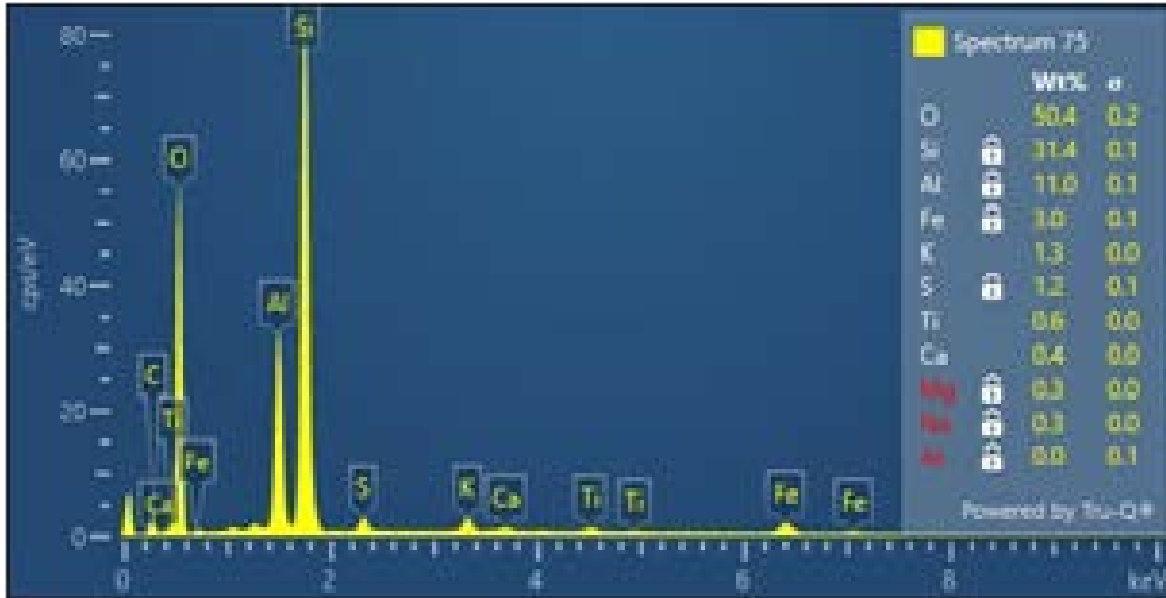


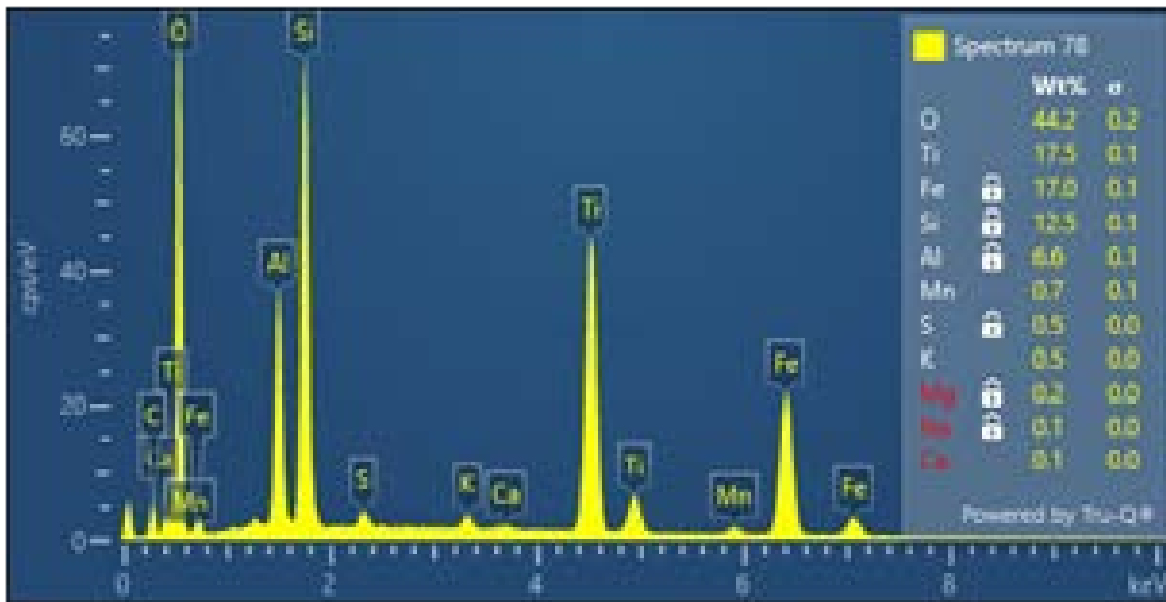
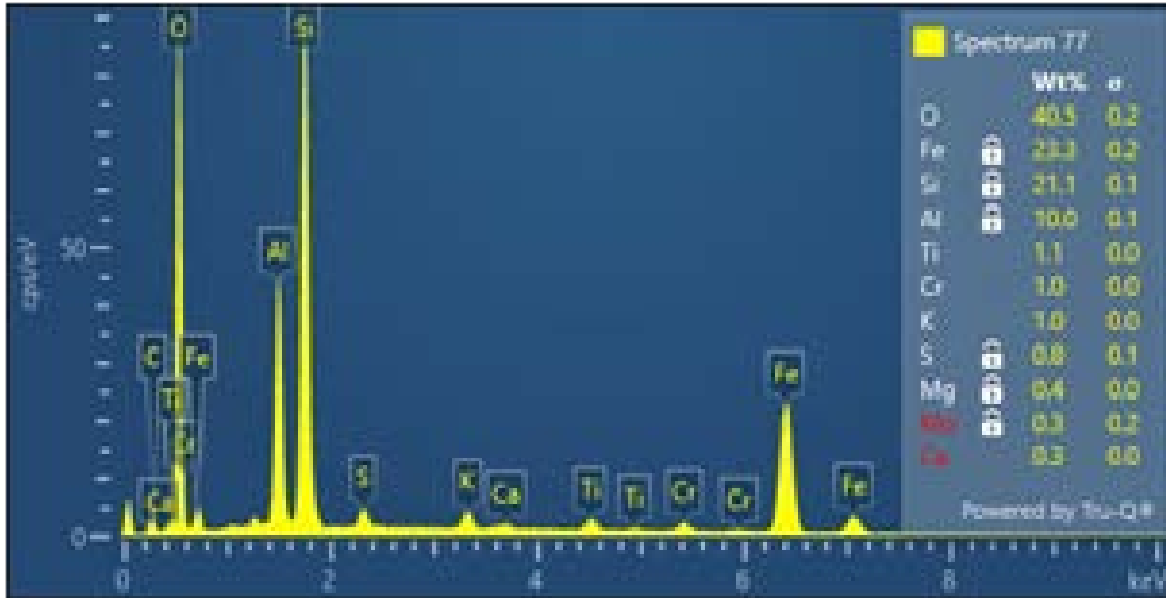


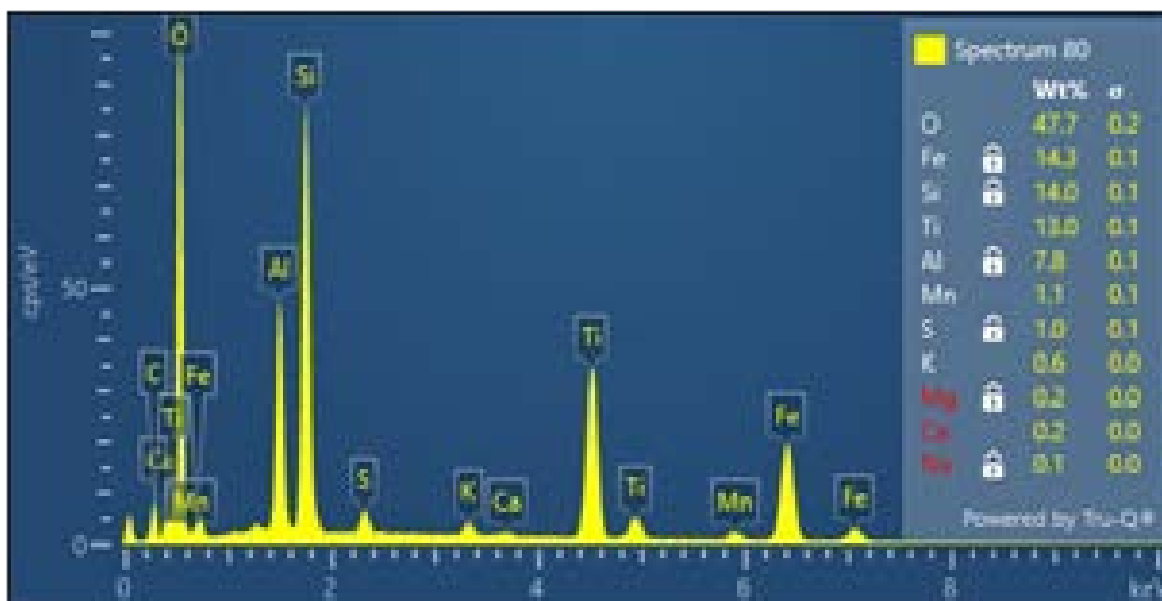
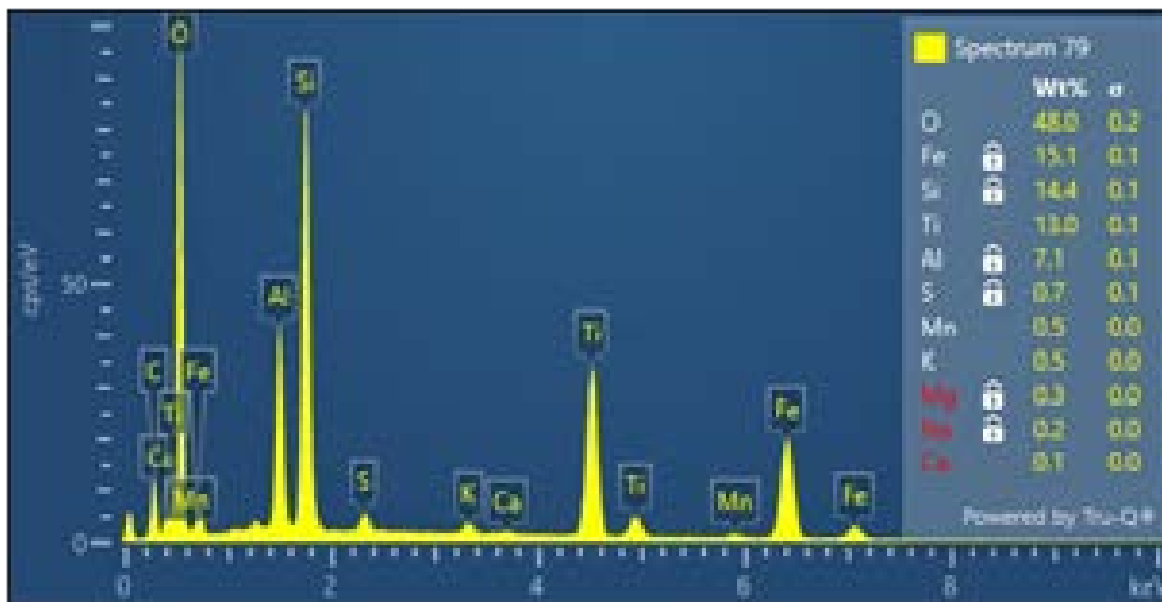


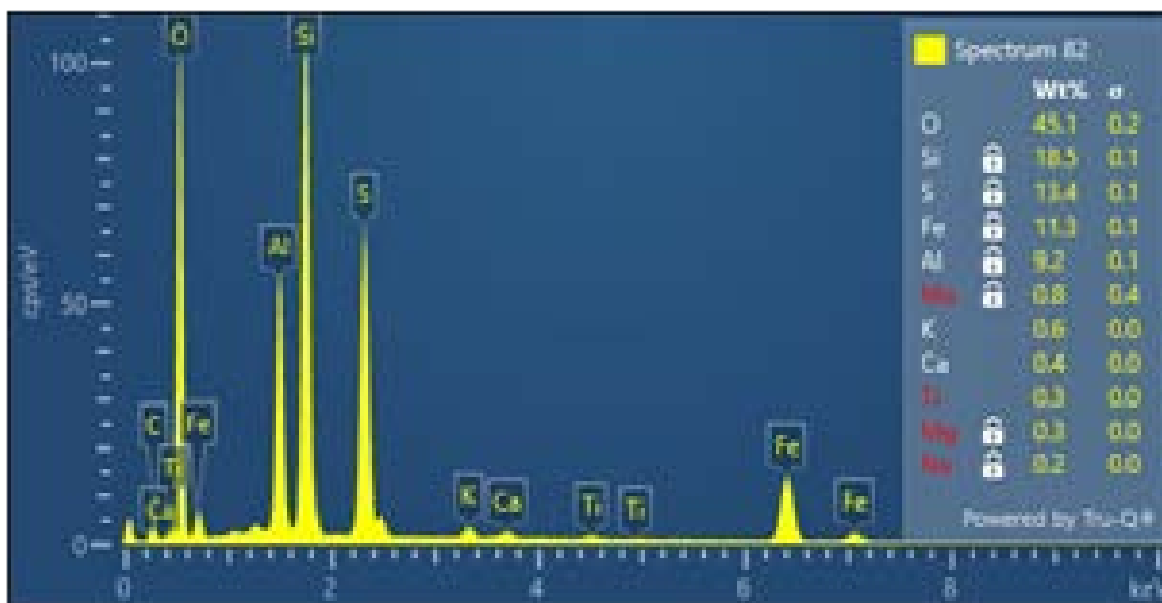
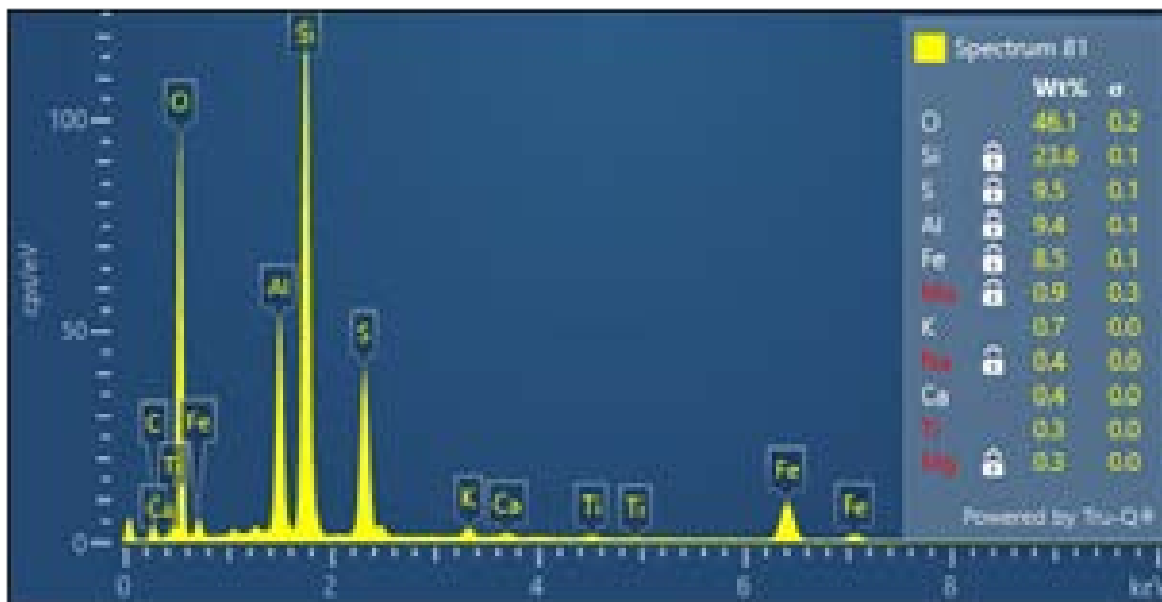




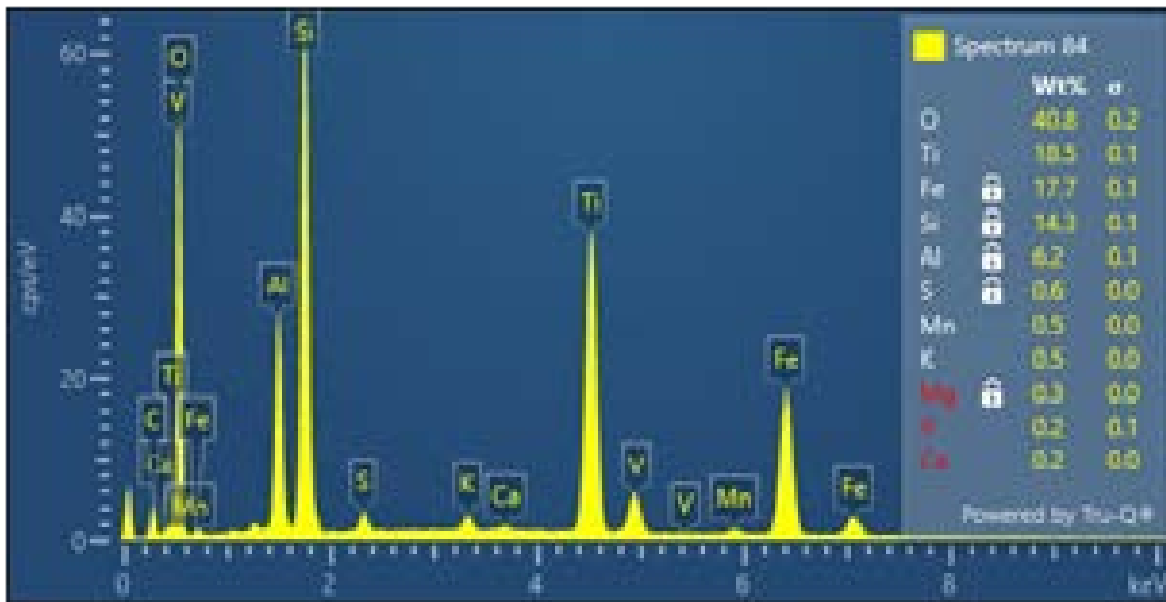
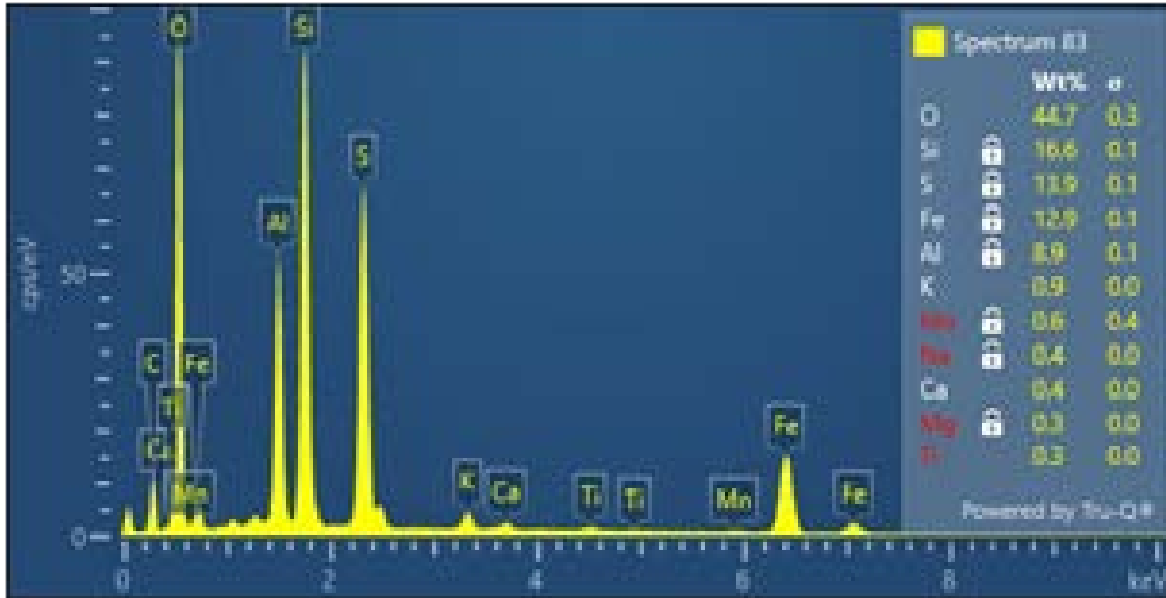


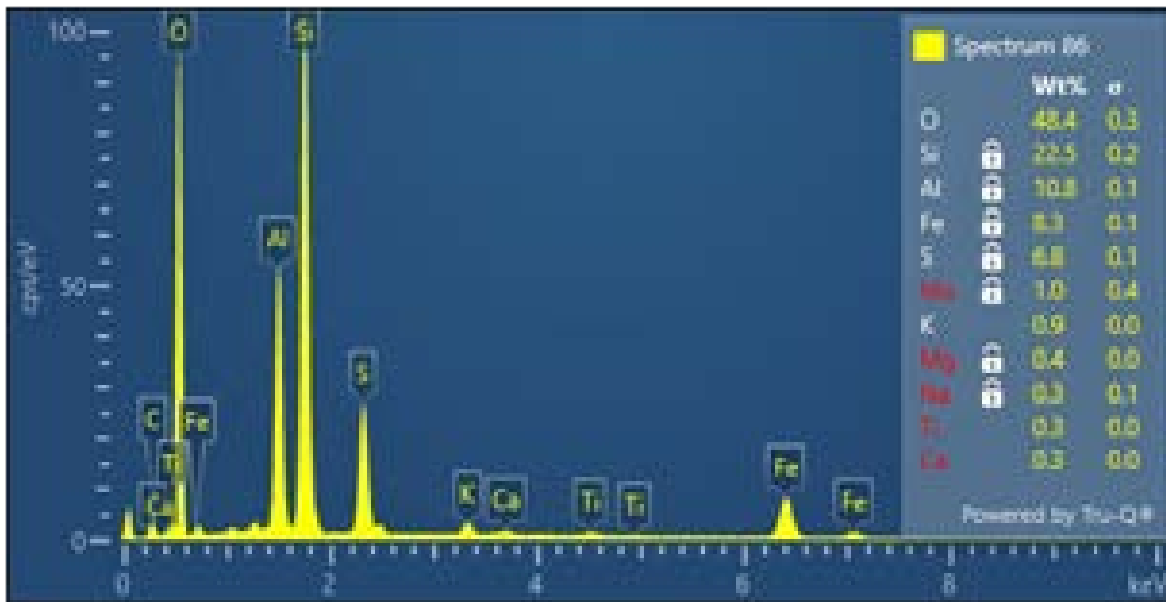
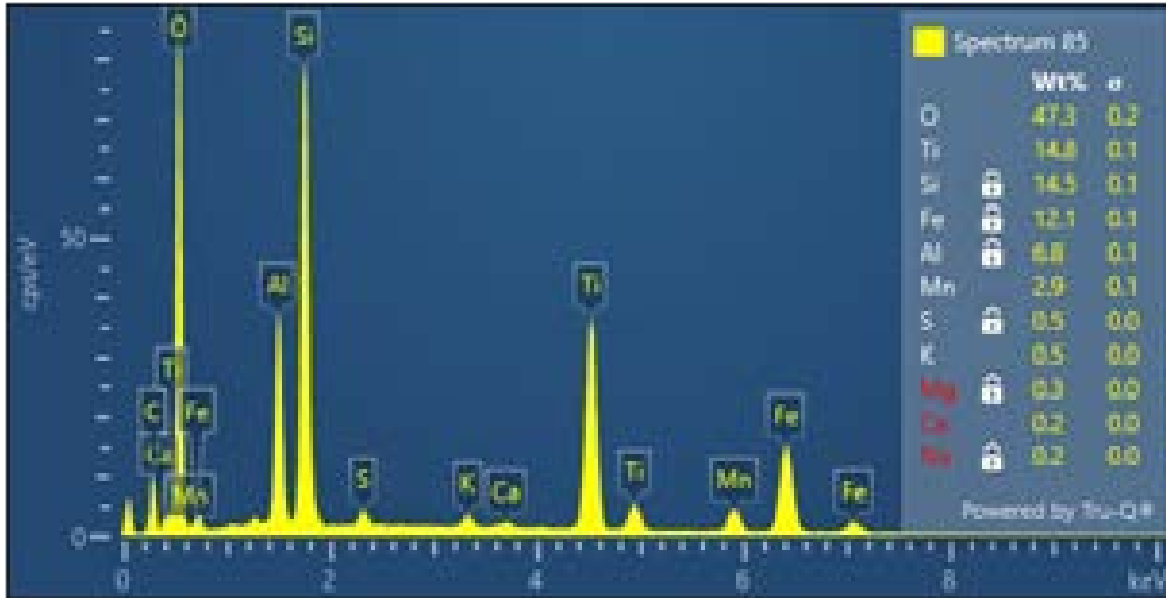




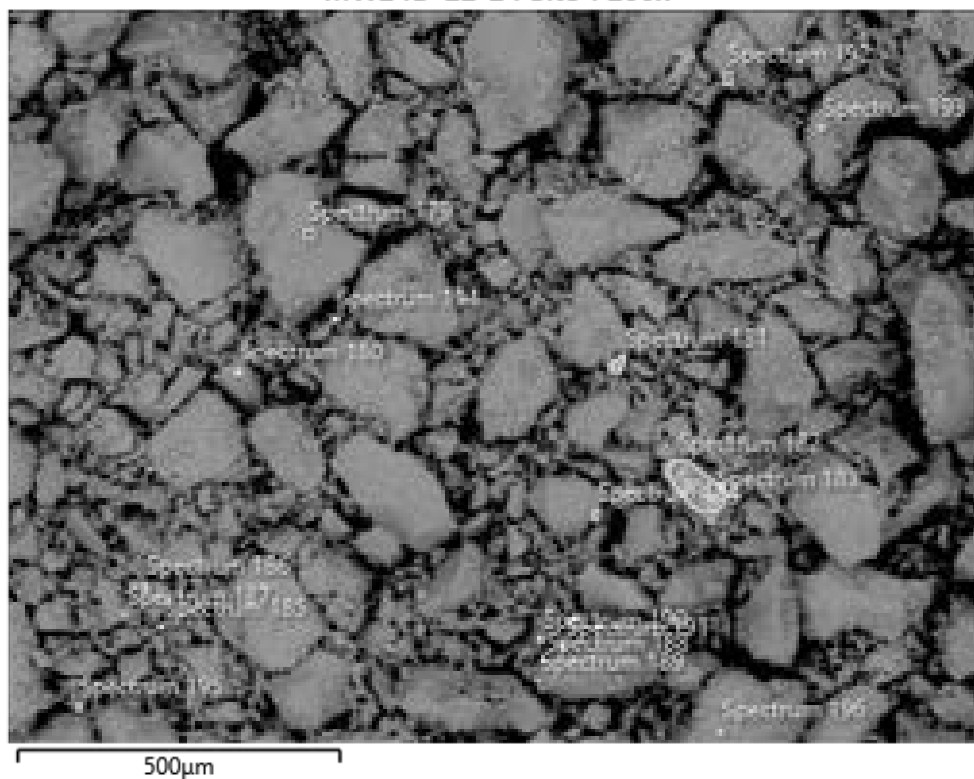




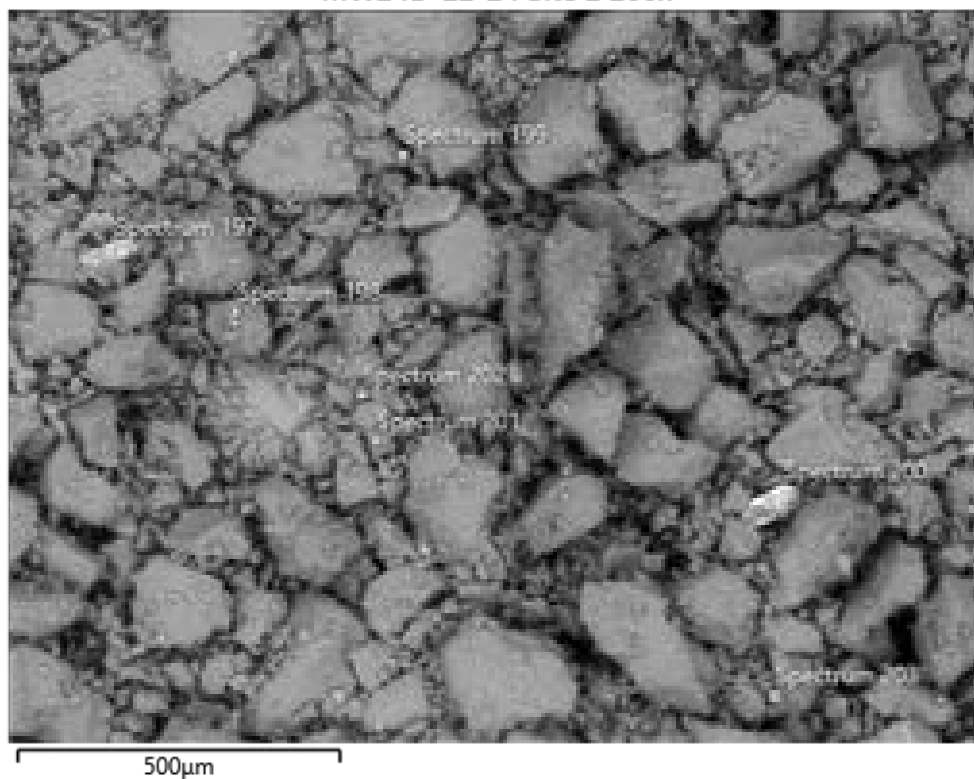




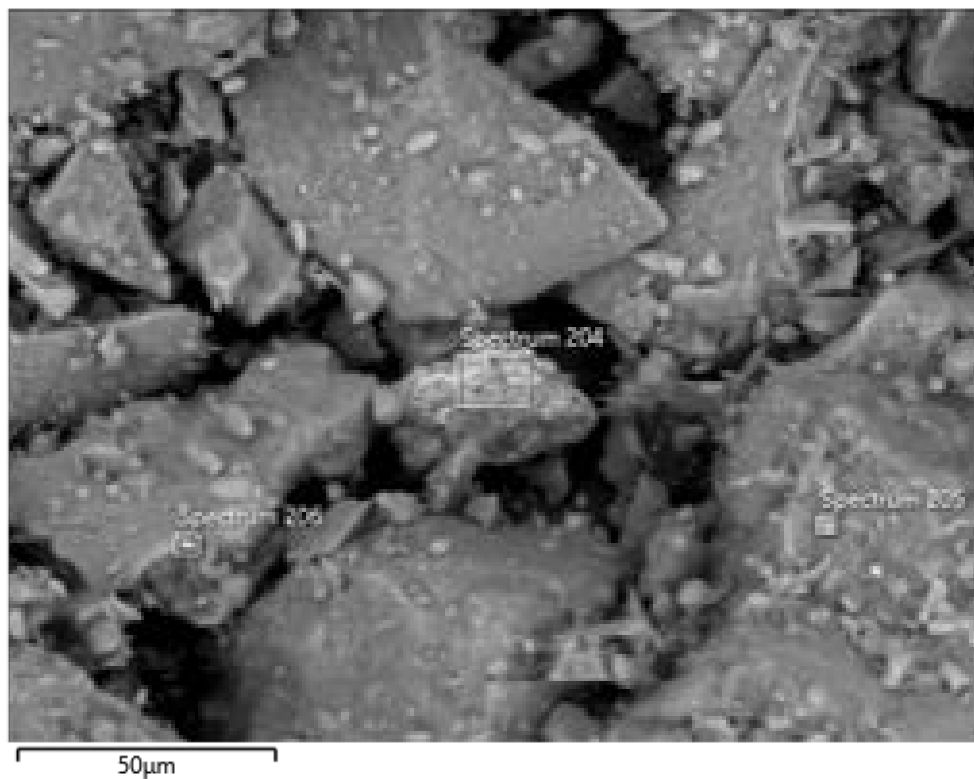
MW24D-22-24 Site 1 200x



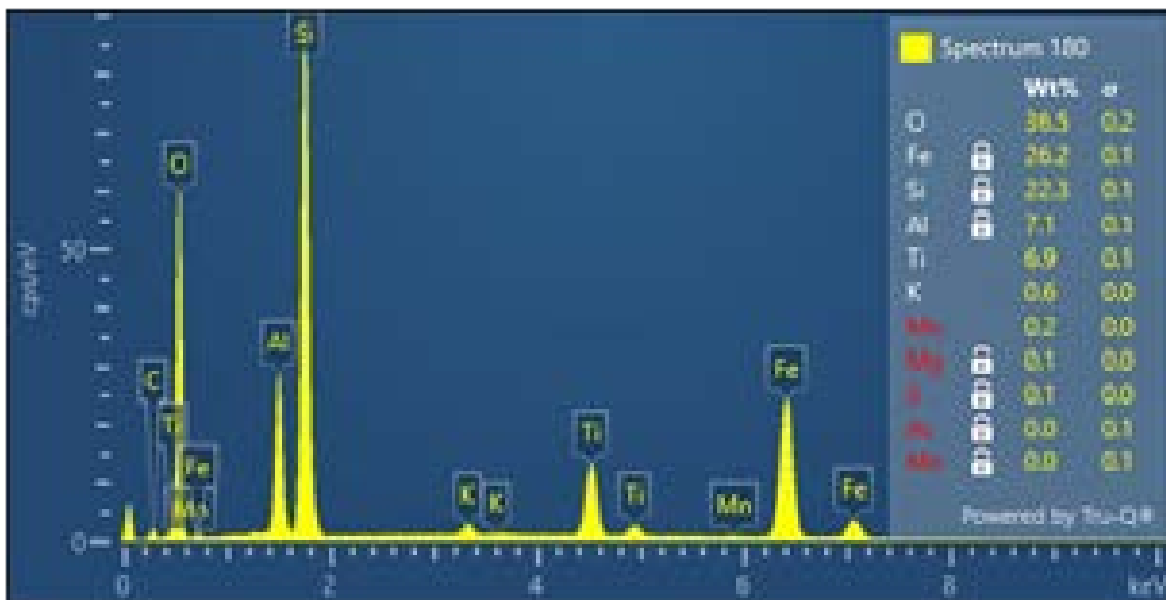
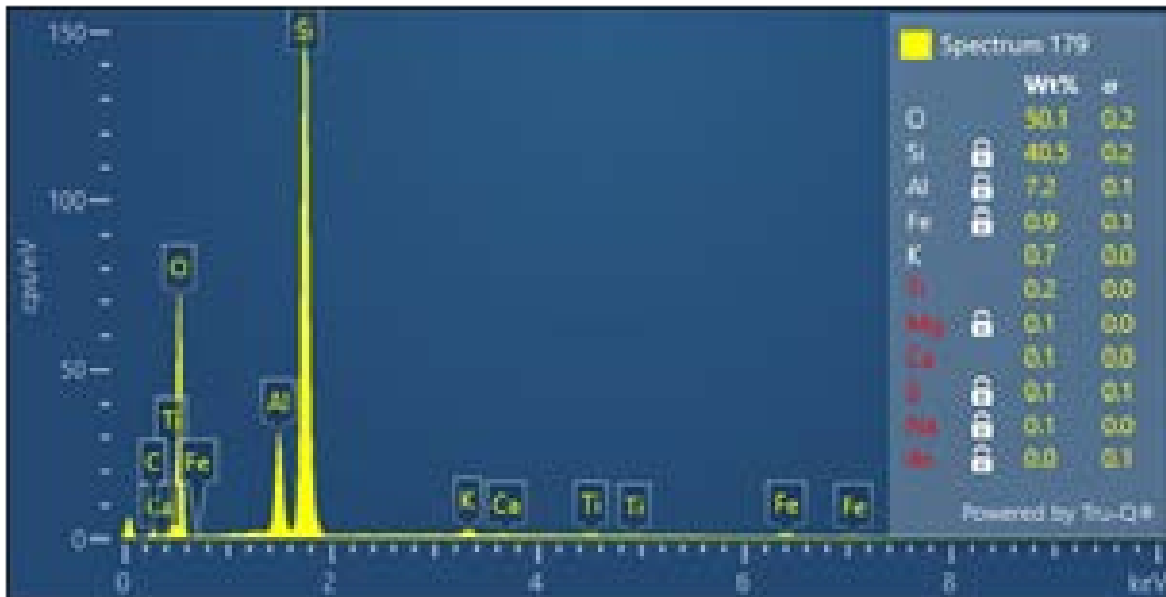
MW24D-22-24 Site 2 200x

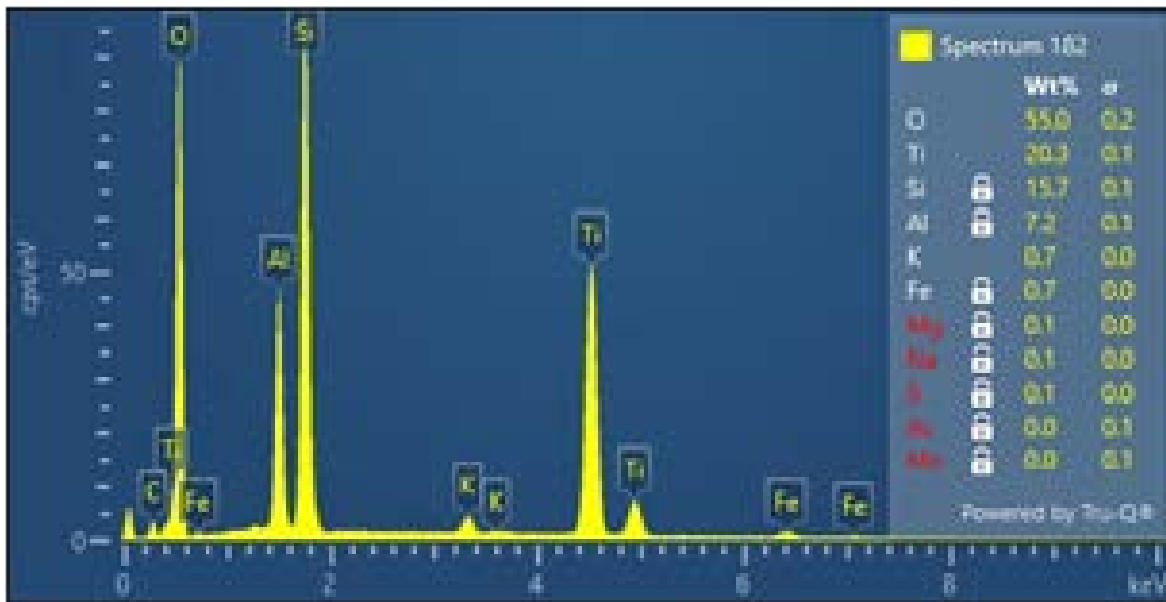
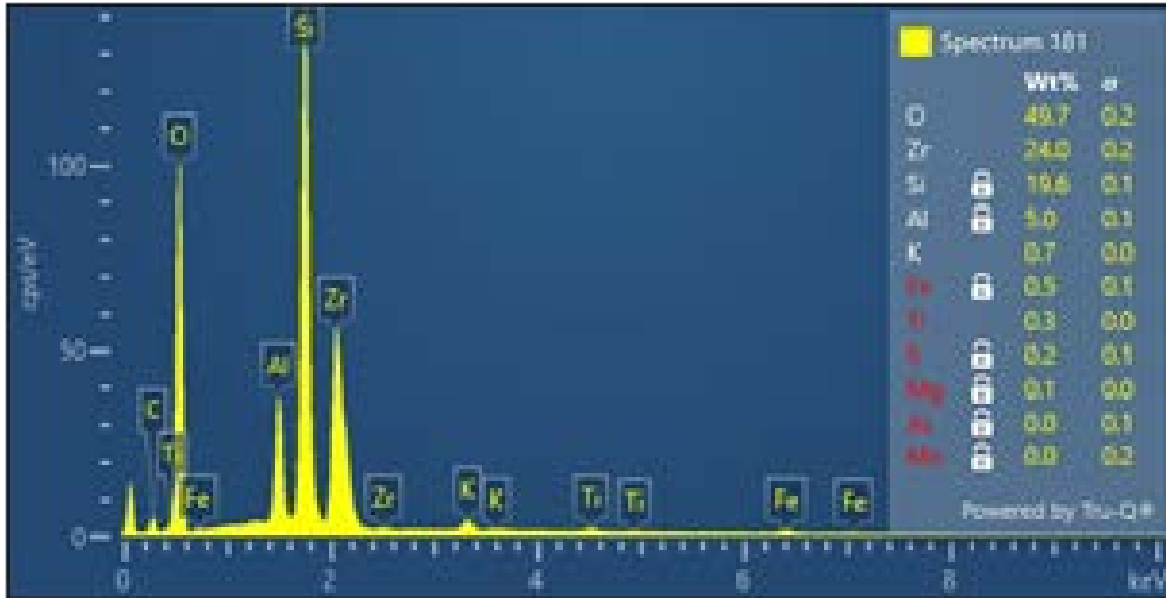


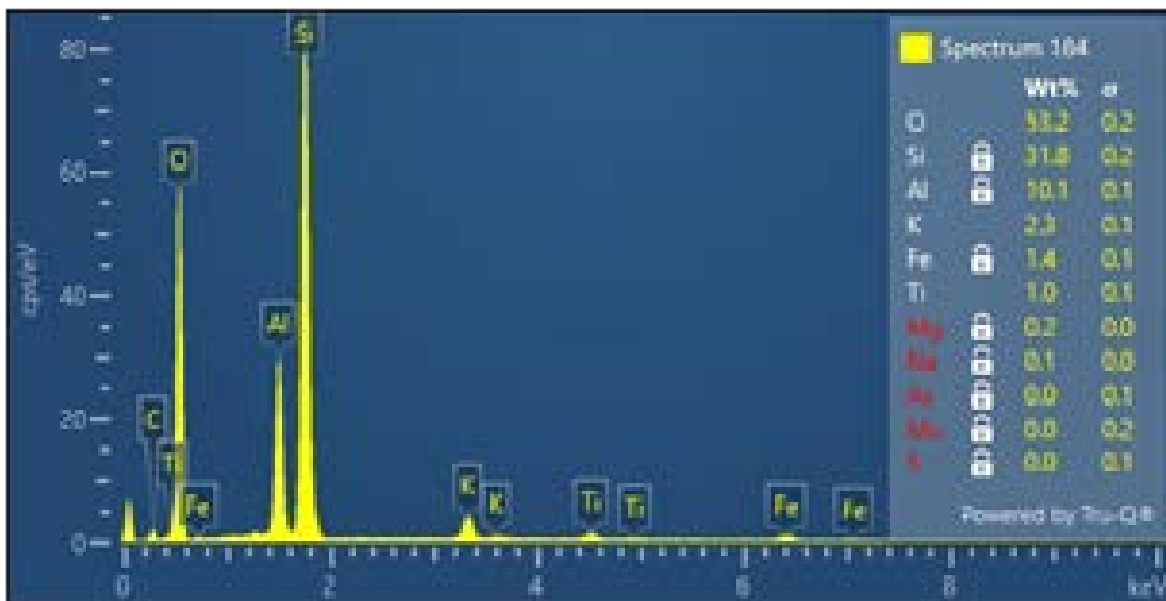
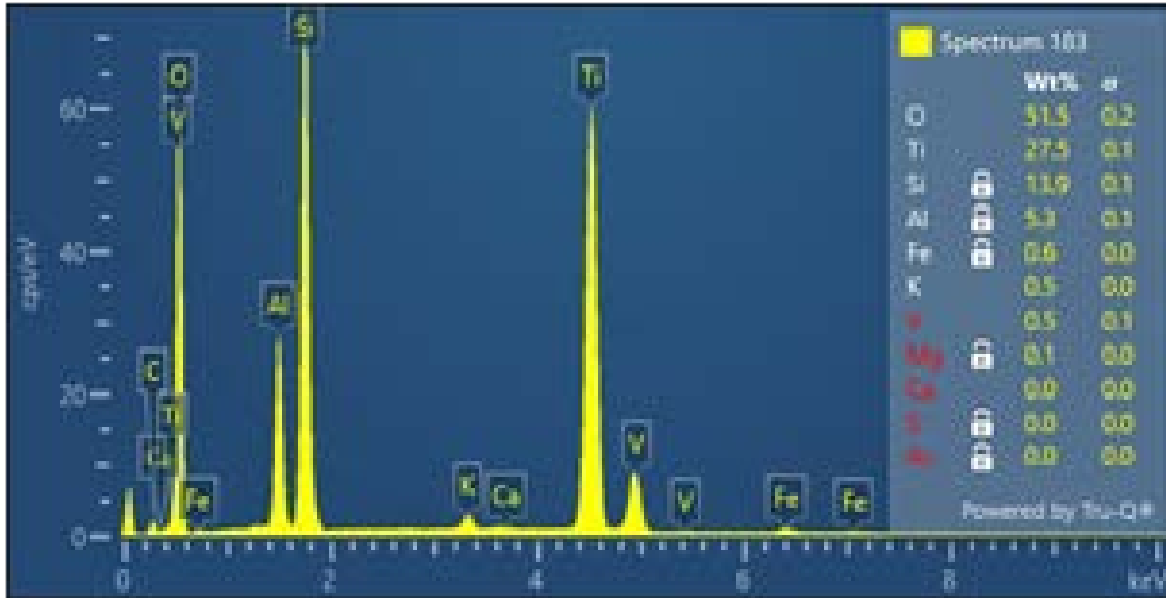
MW24D-22-24 Site 2 1600x

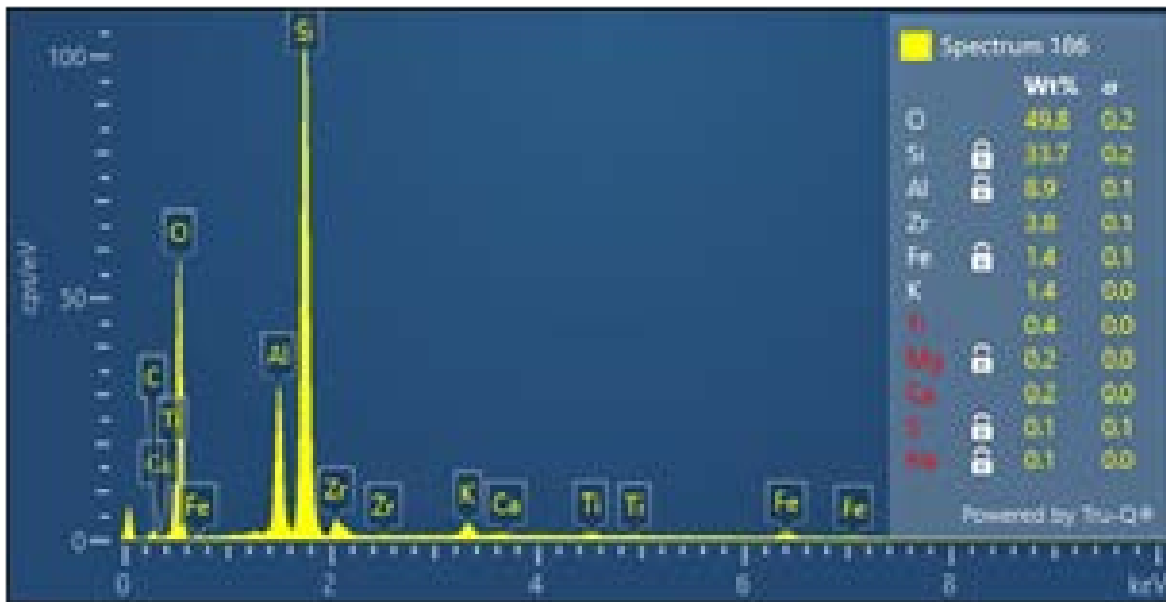
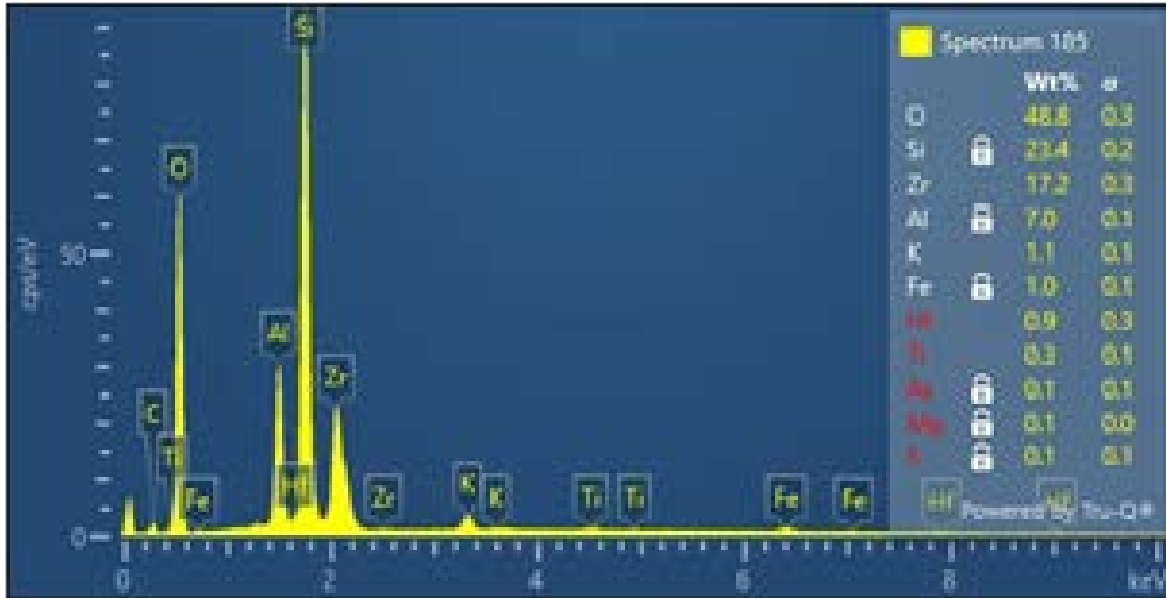


Spectrum images

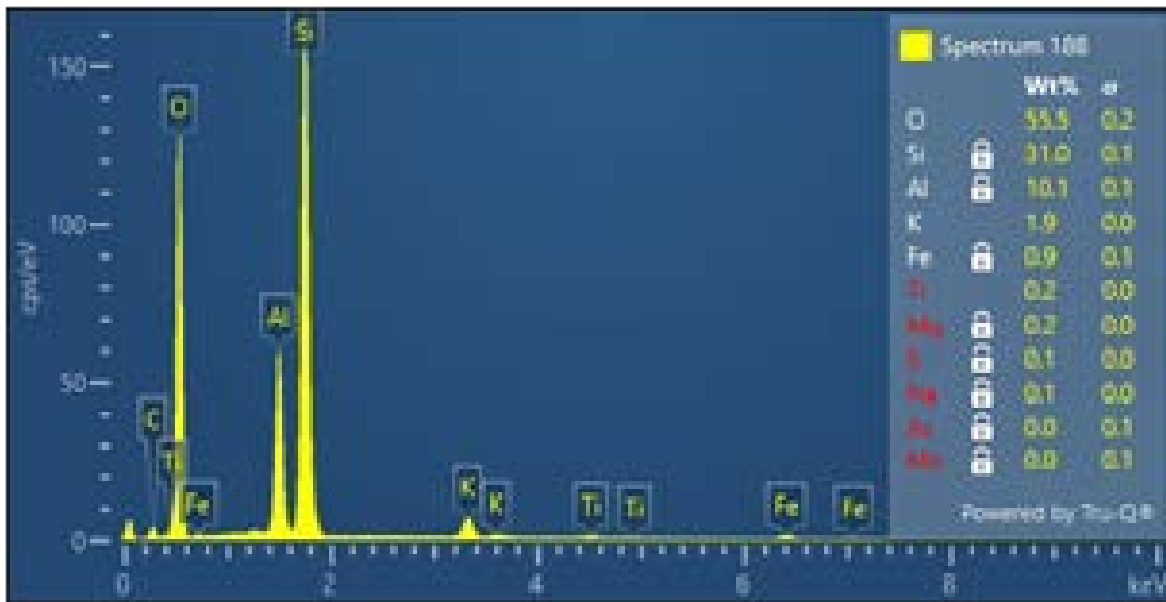
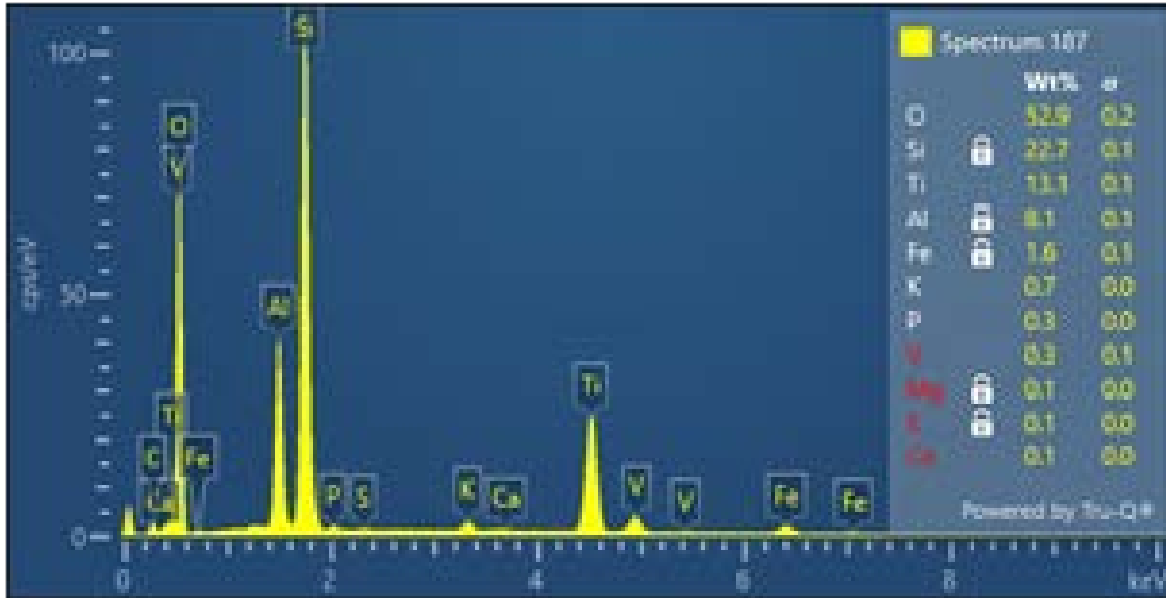


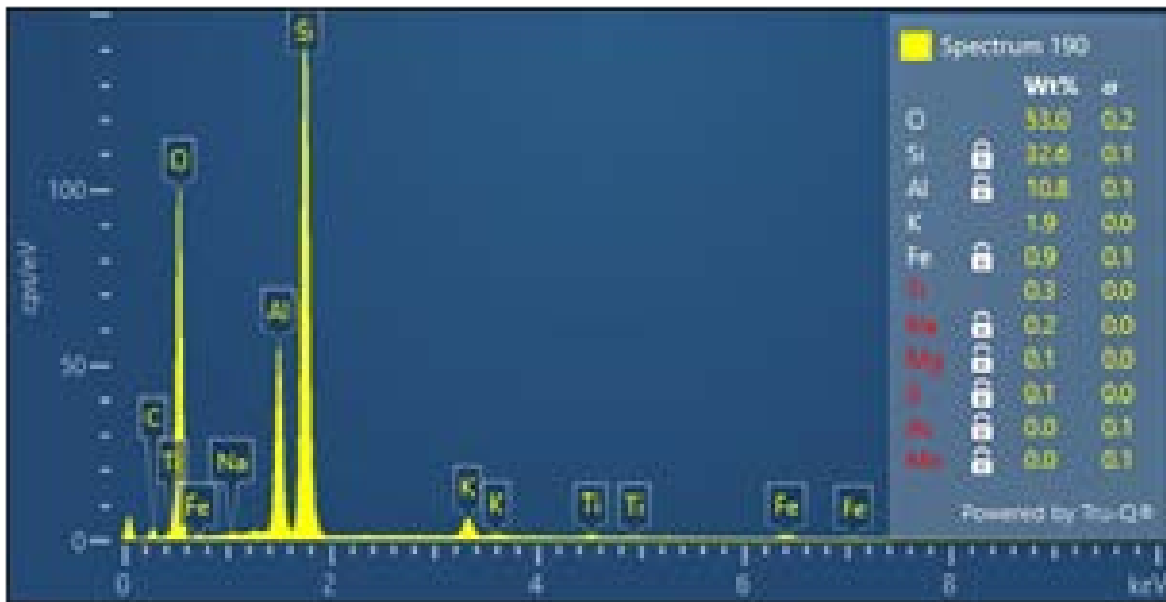
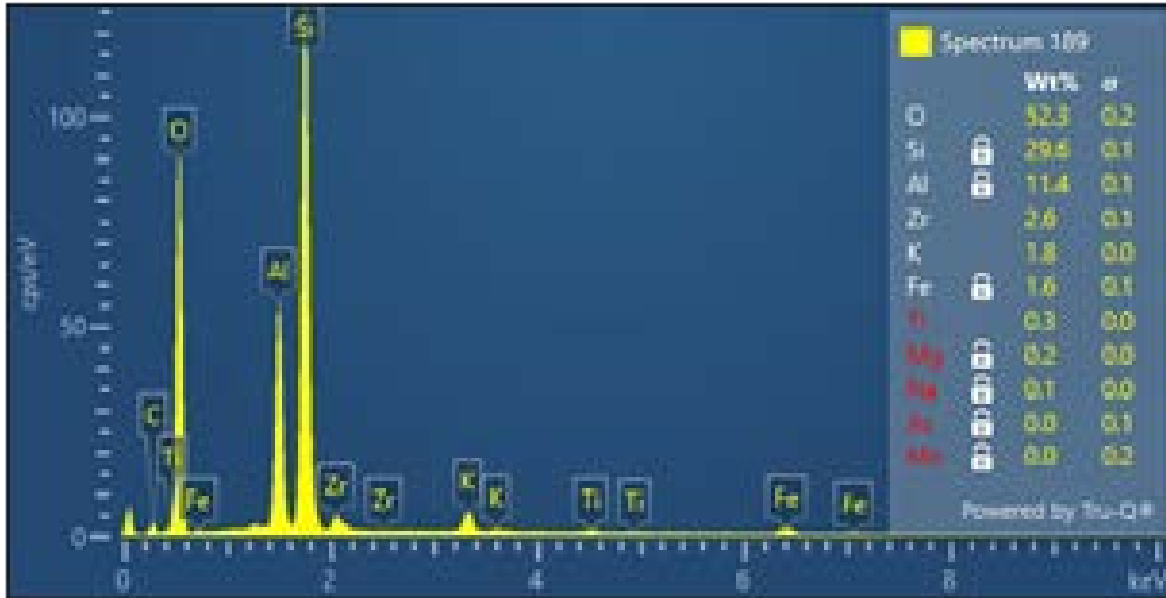


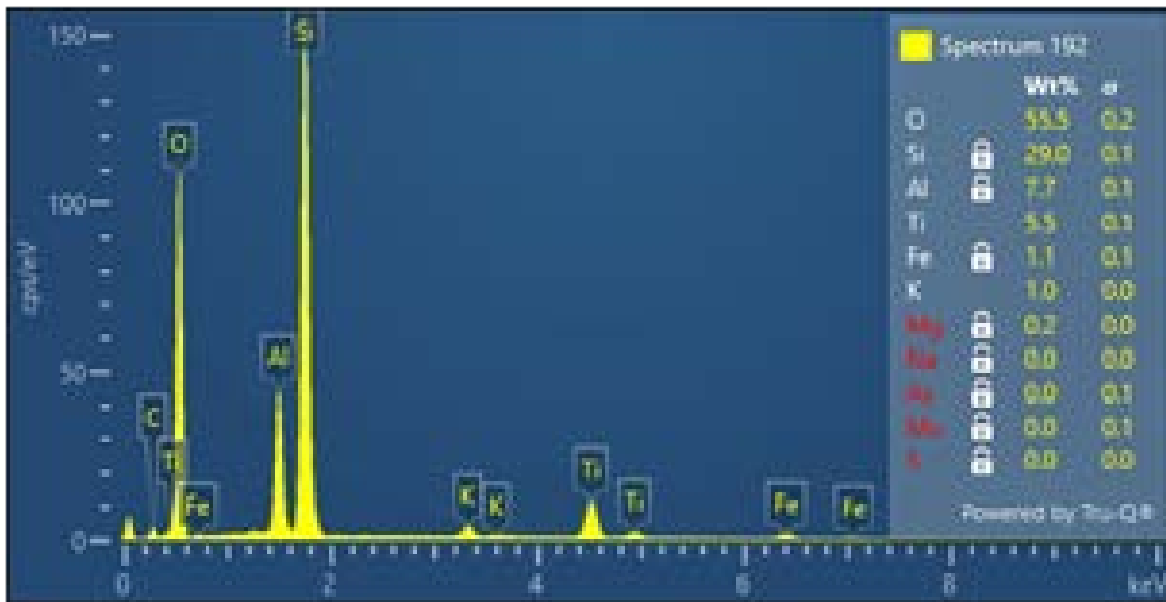
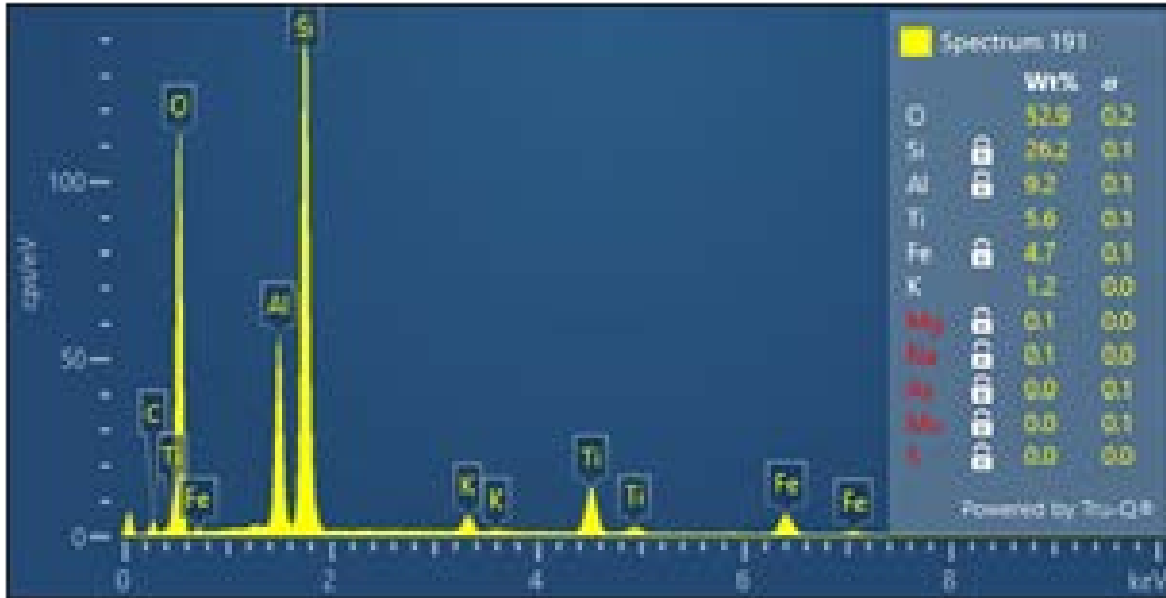


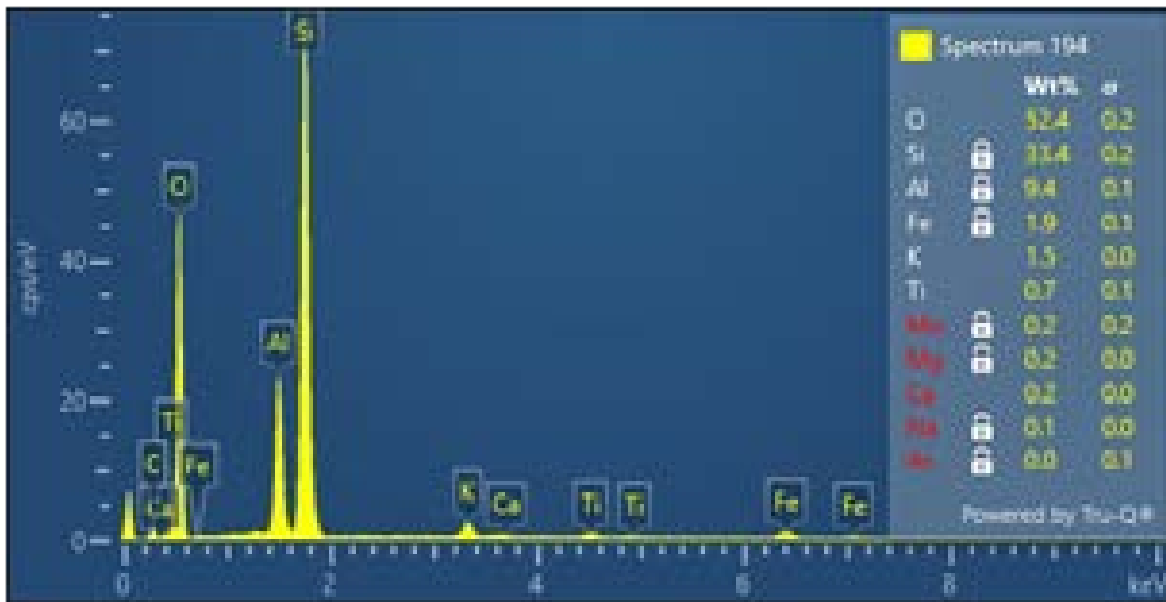
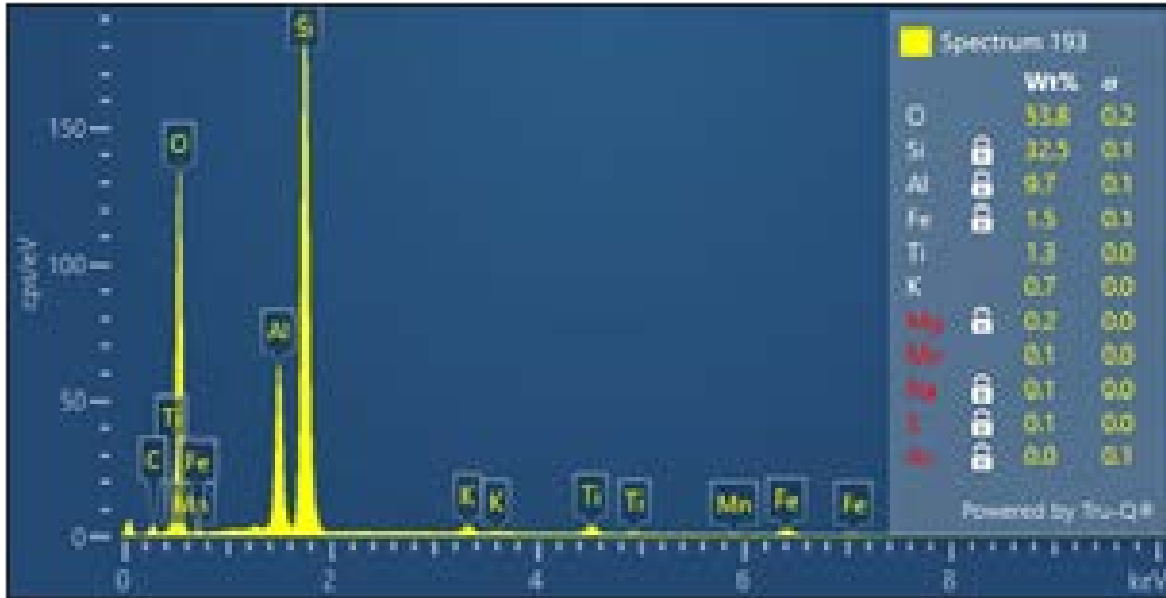


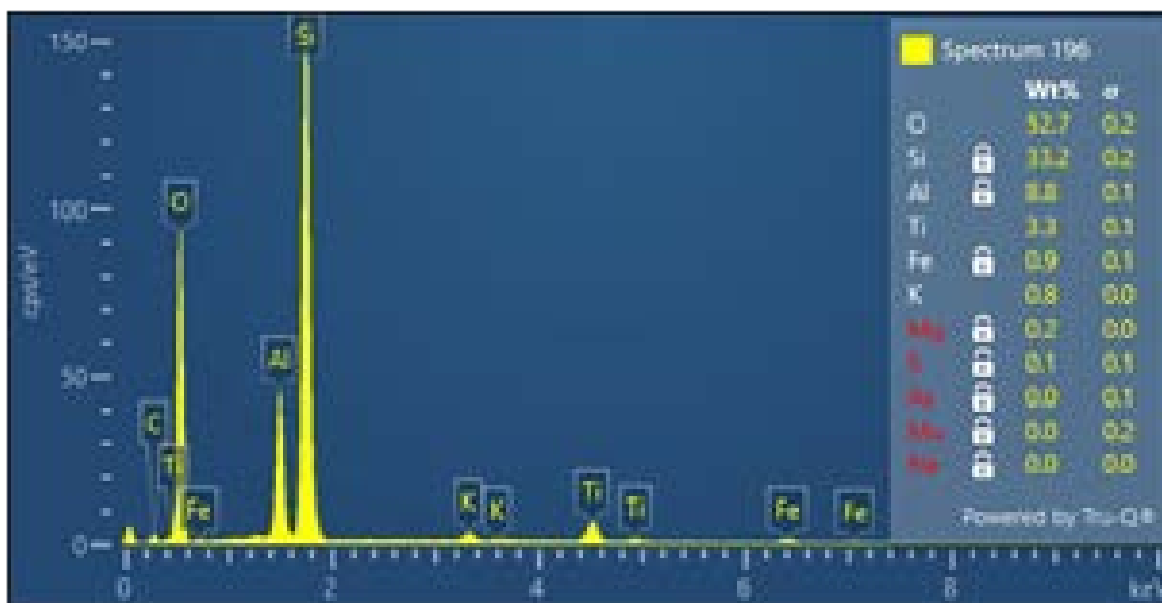
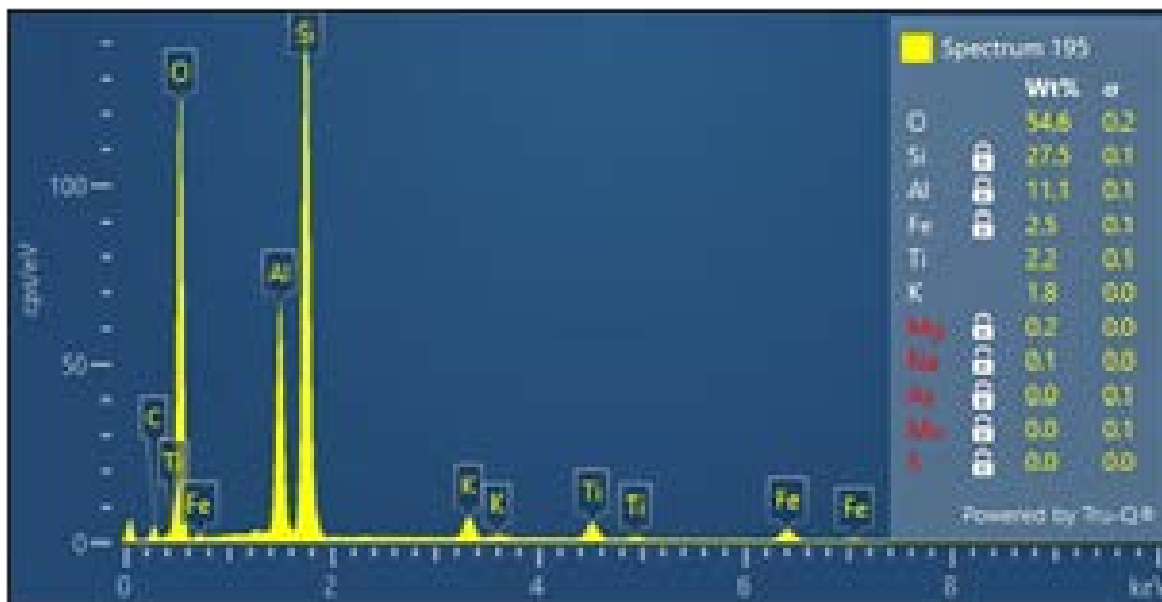


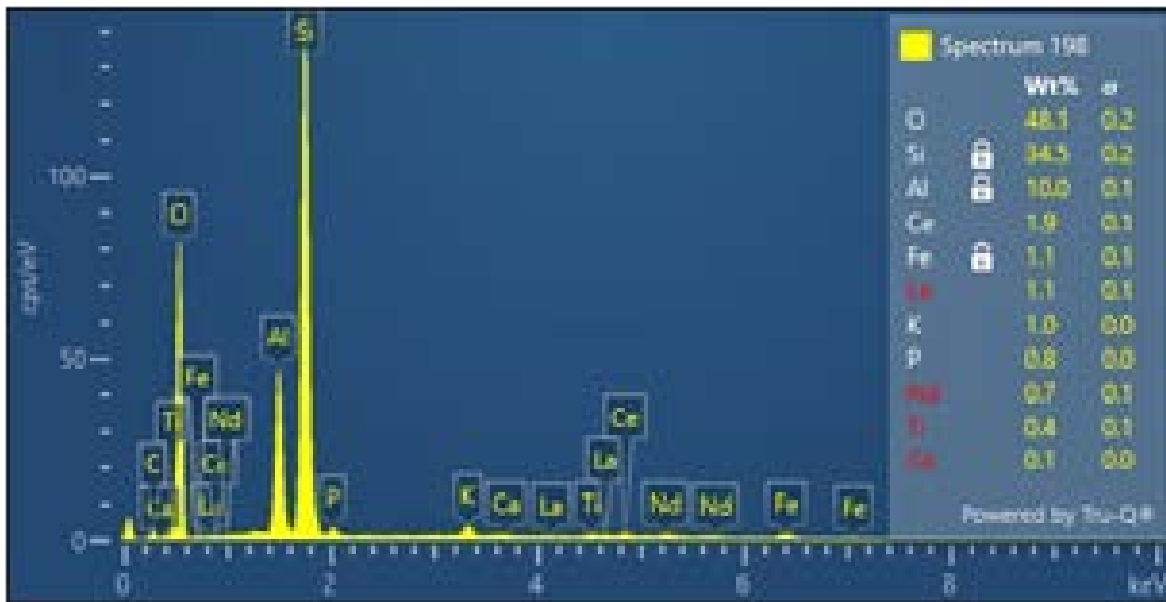
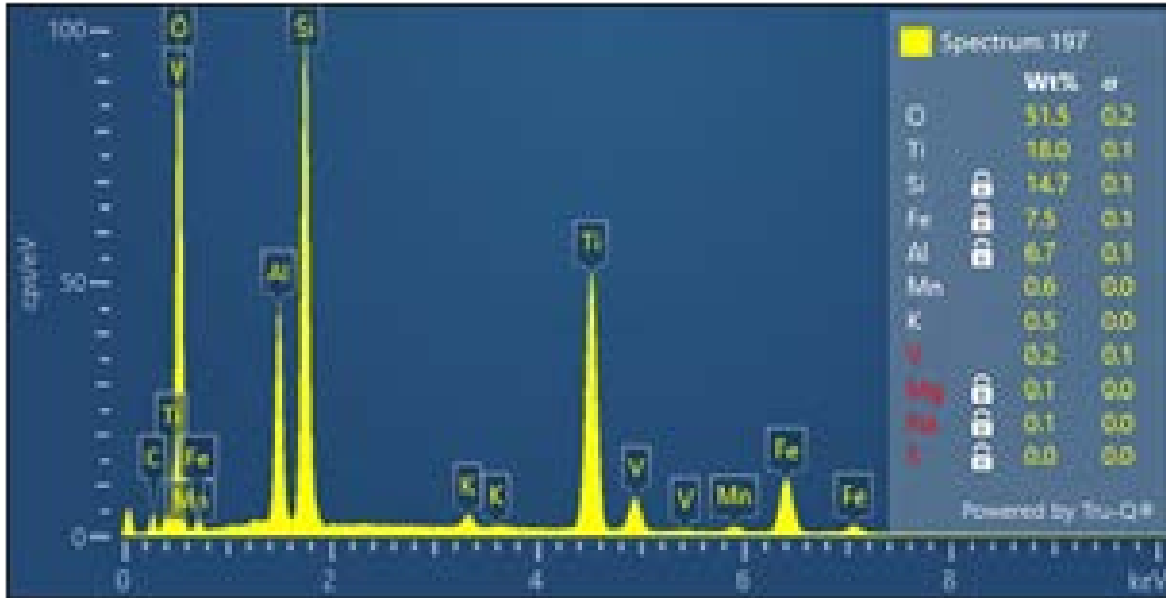


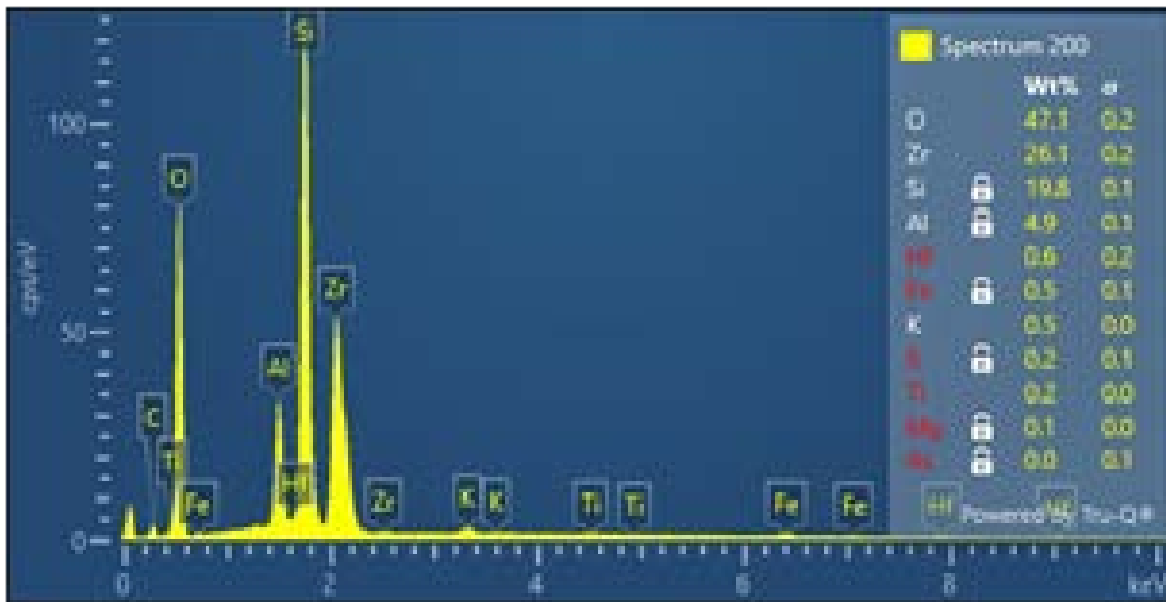
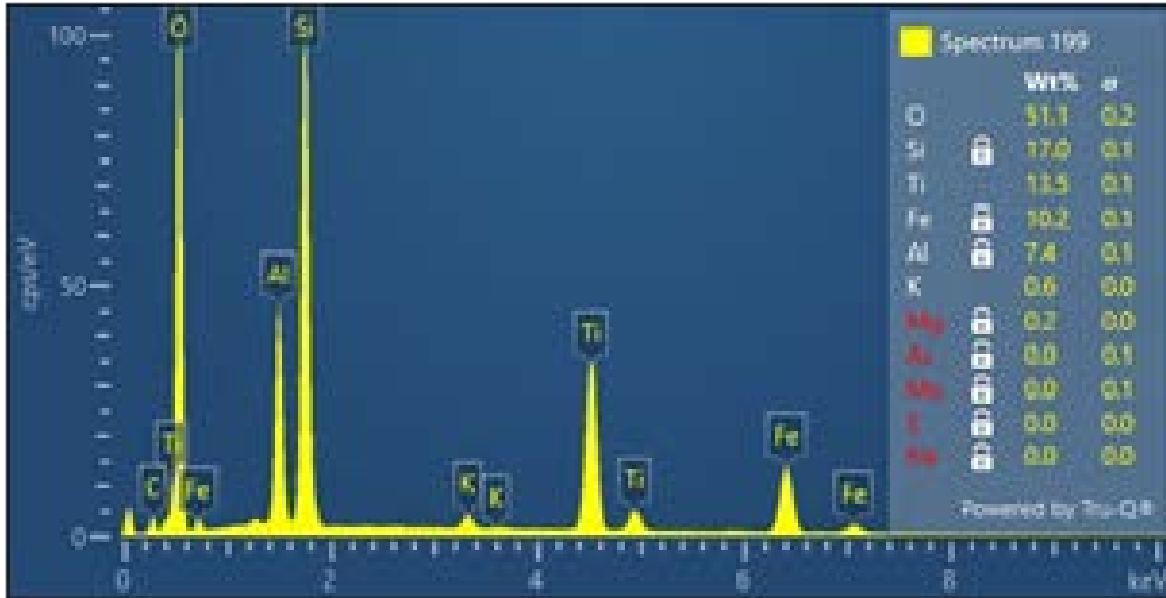


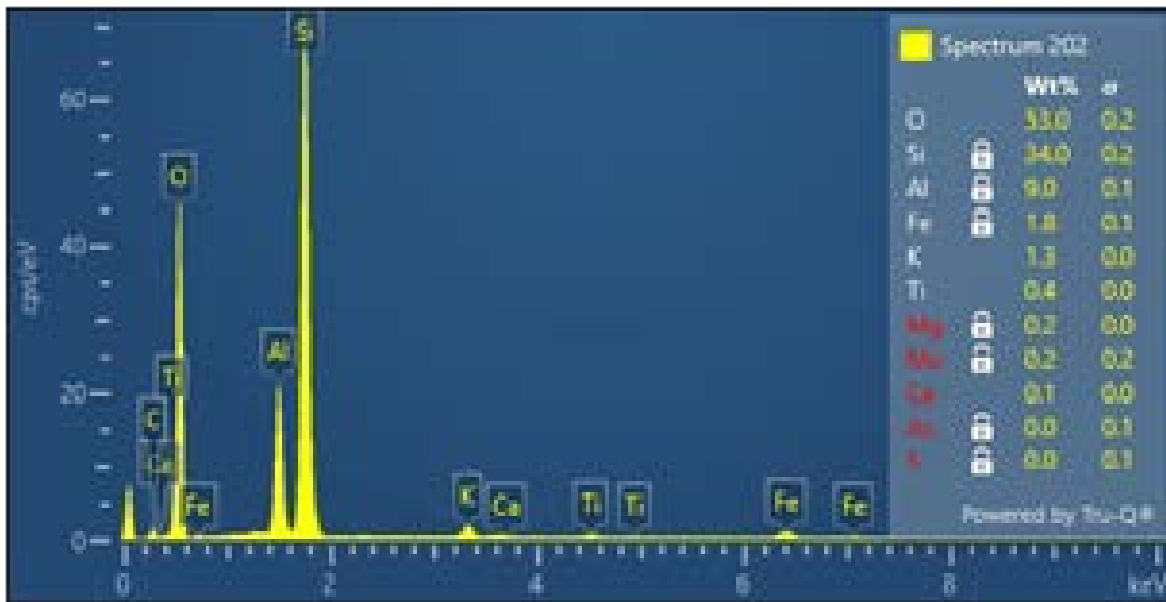
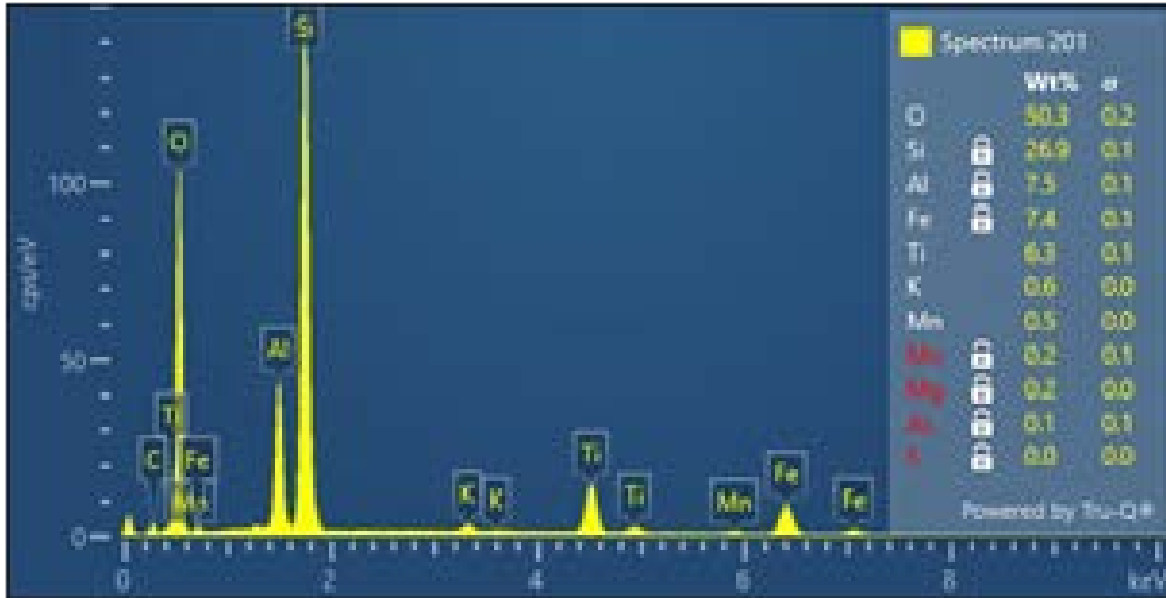




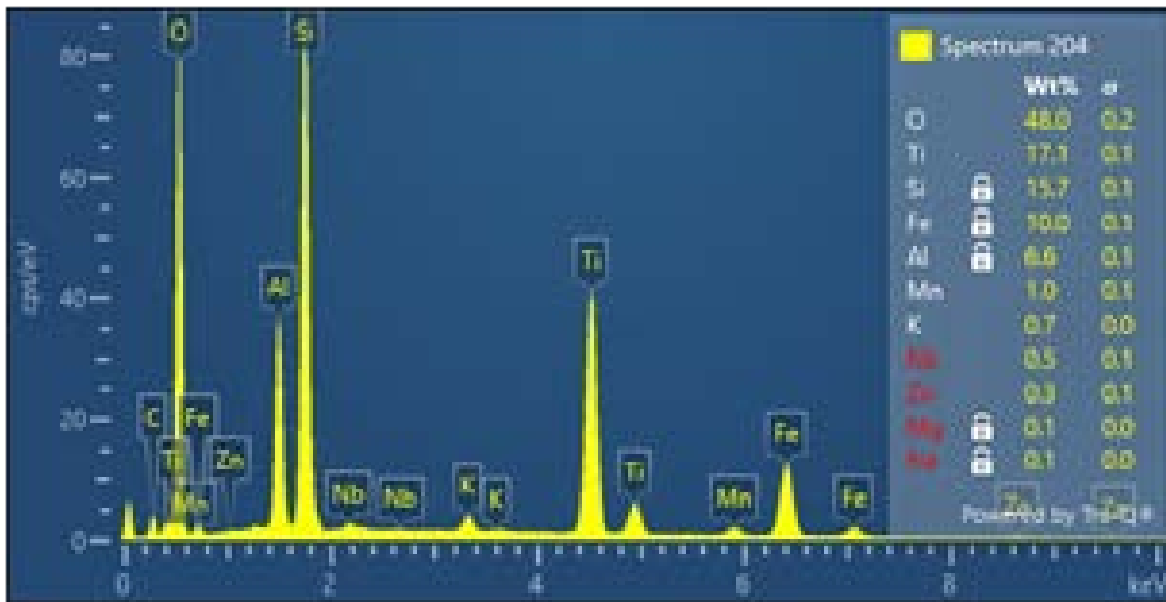
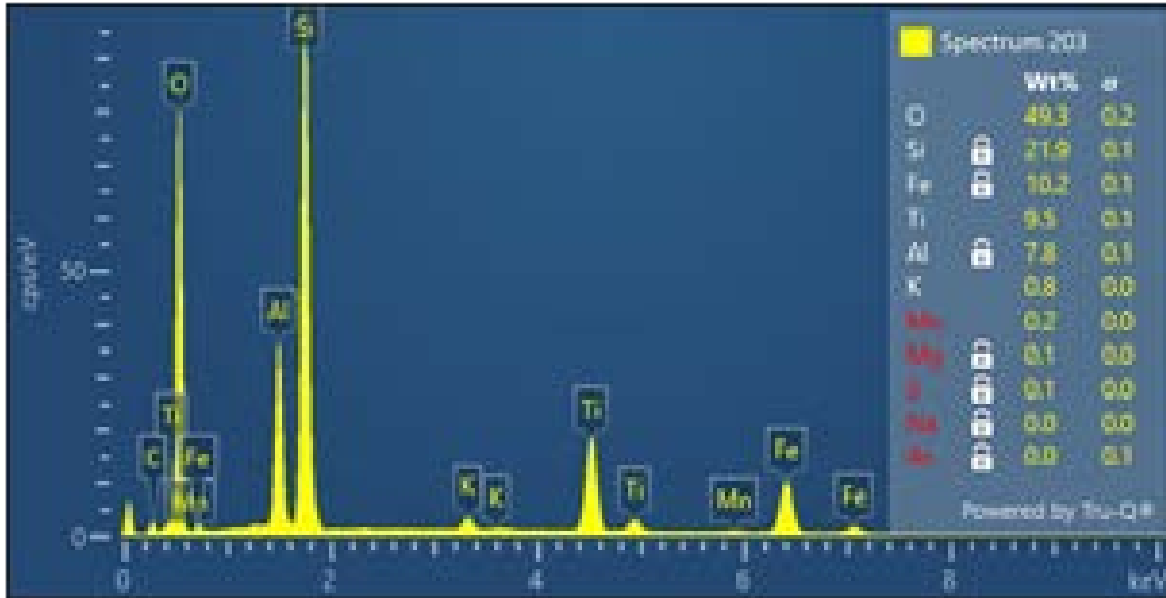


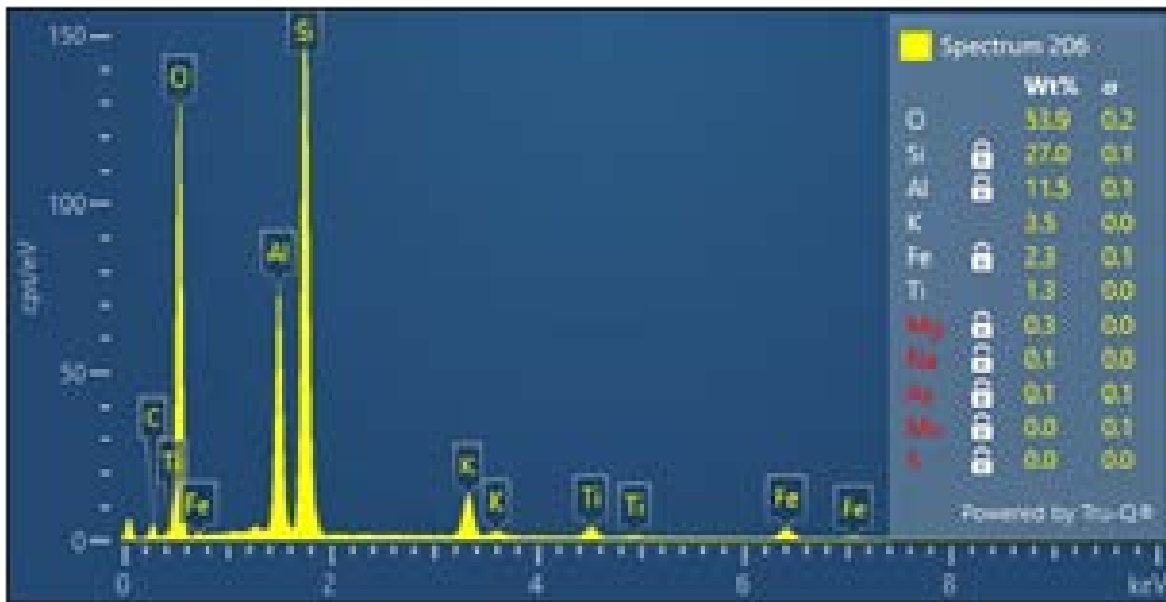
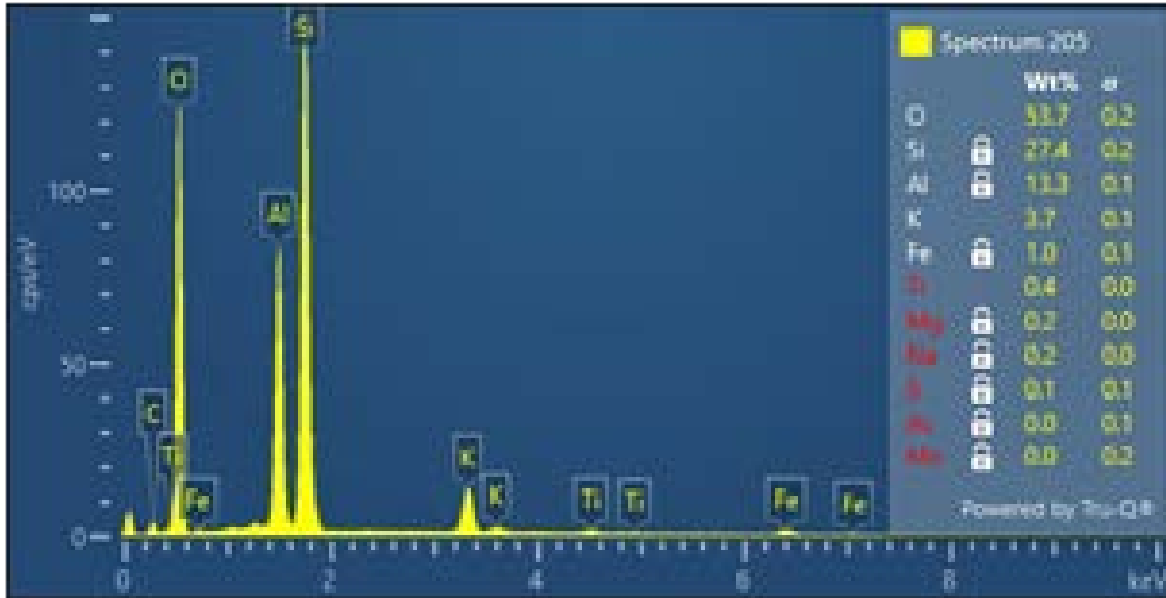




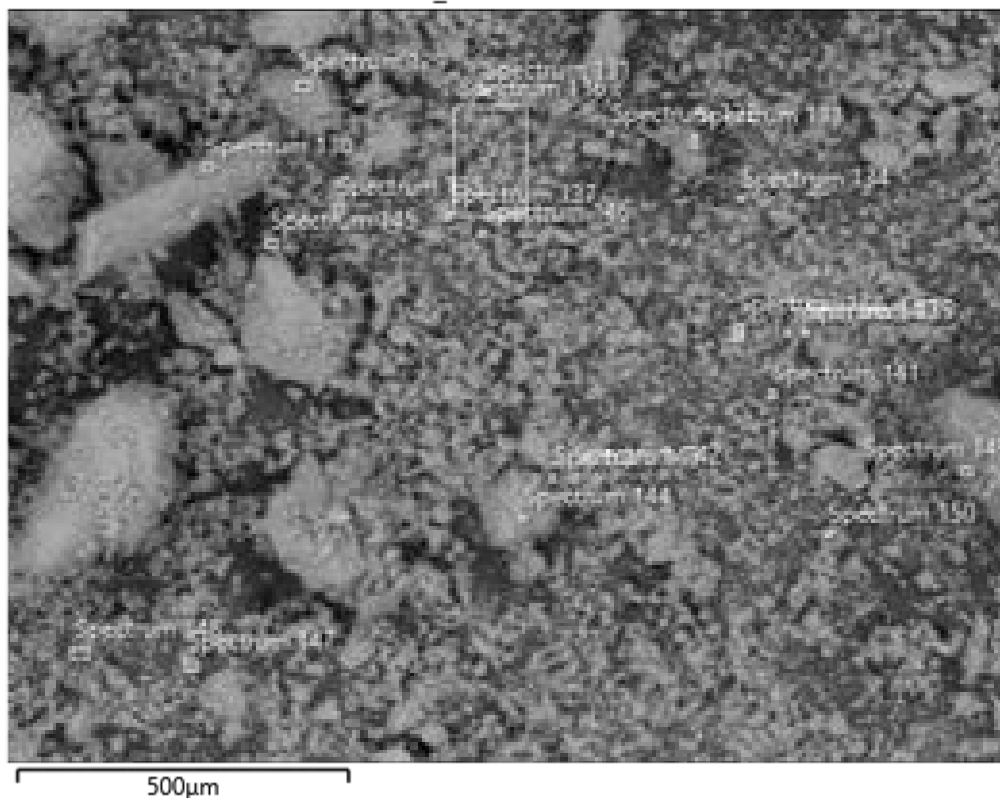




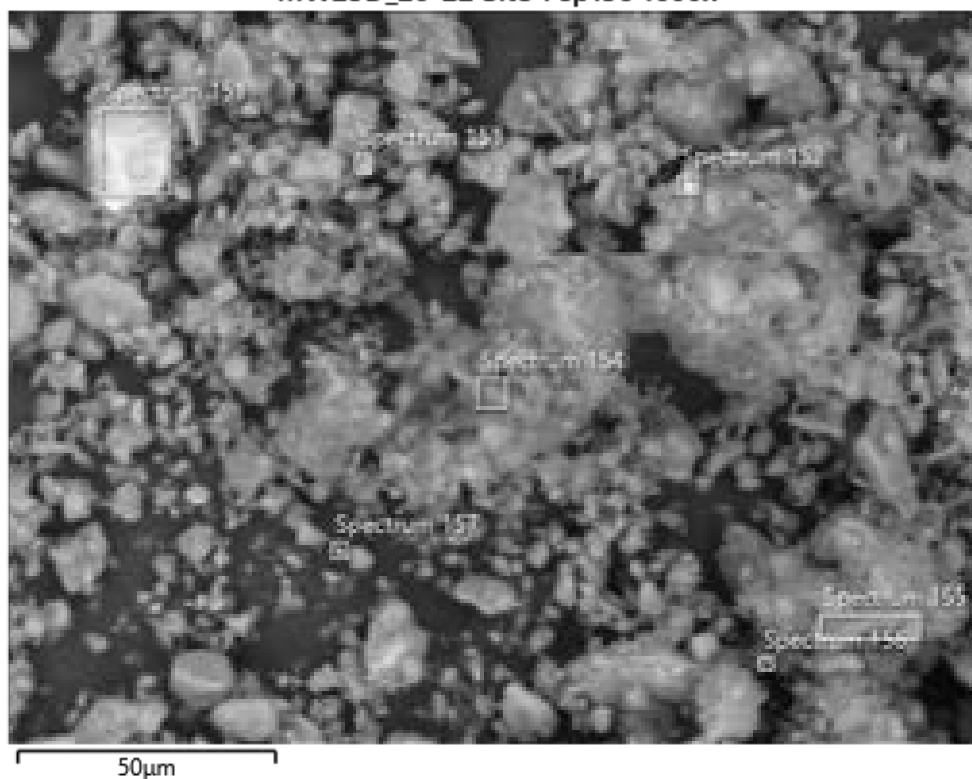




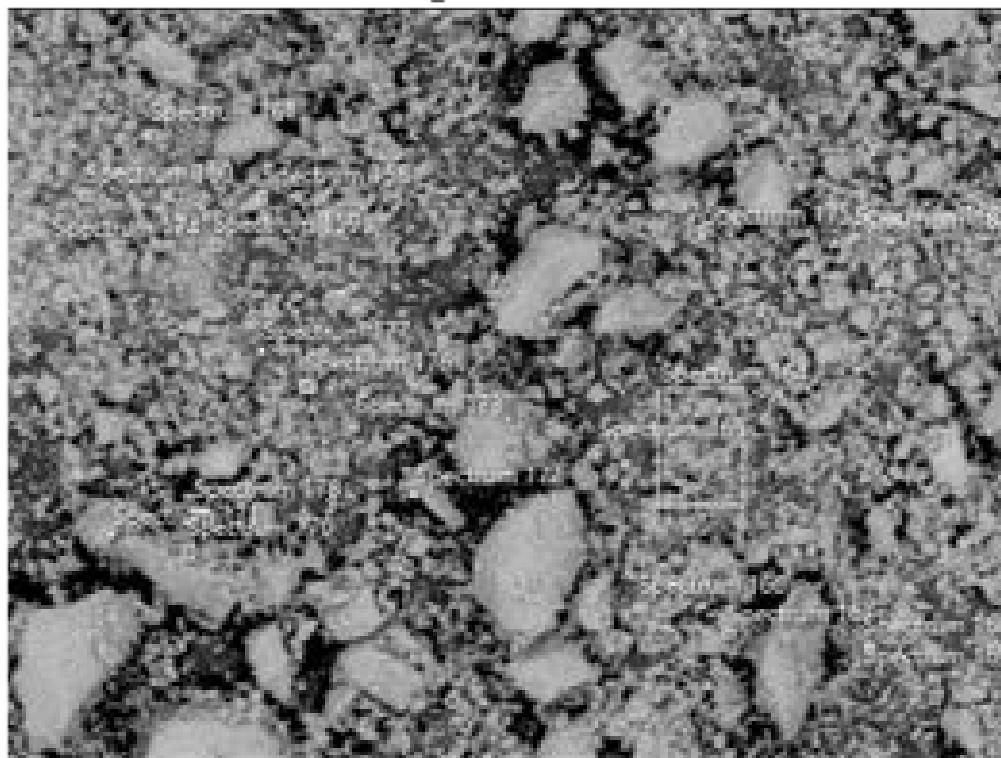
MW25D\_20-22 Site 1 - 200x



MW25D\_20-22 Site 1 sp138 1600x

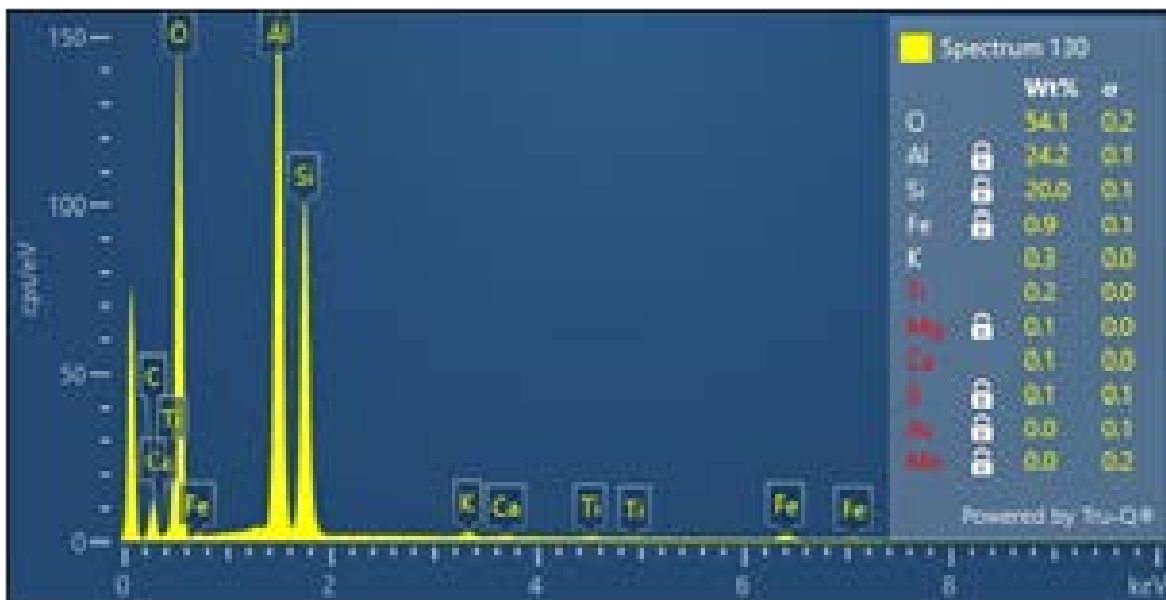
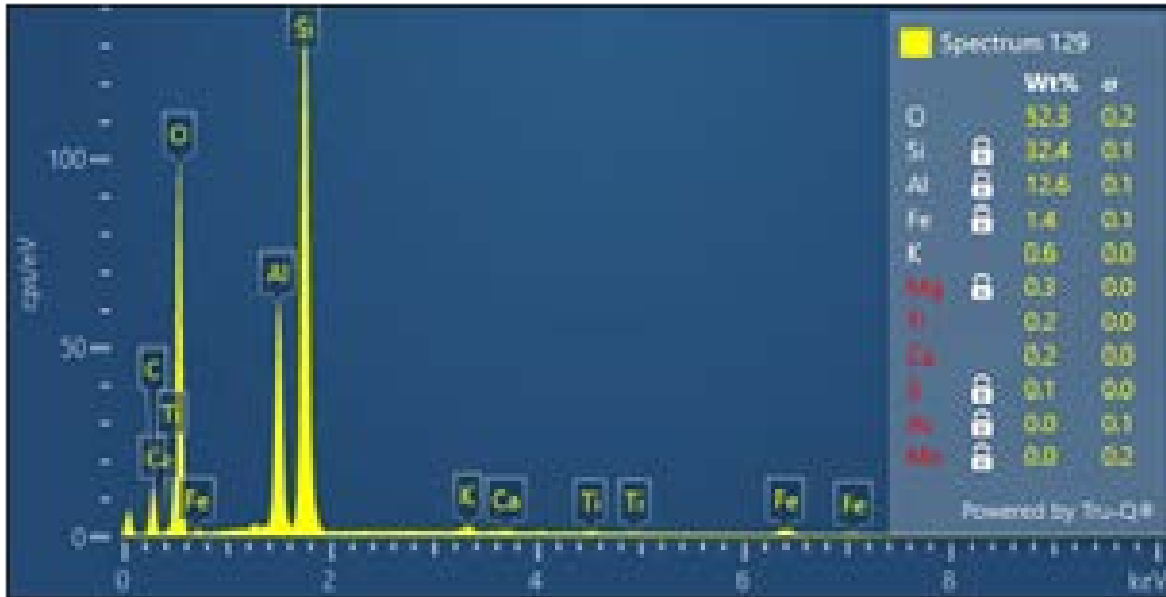


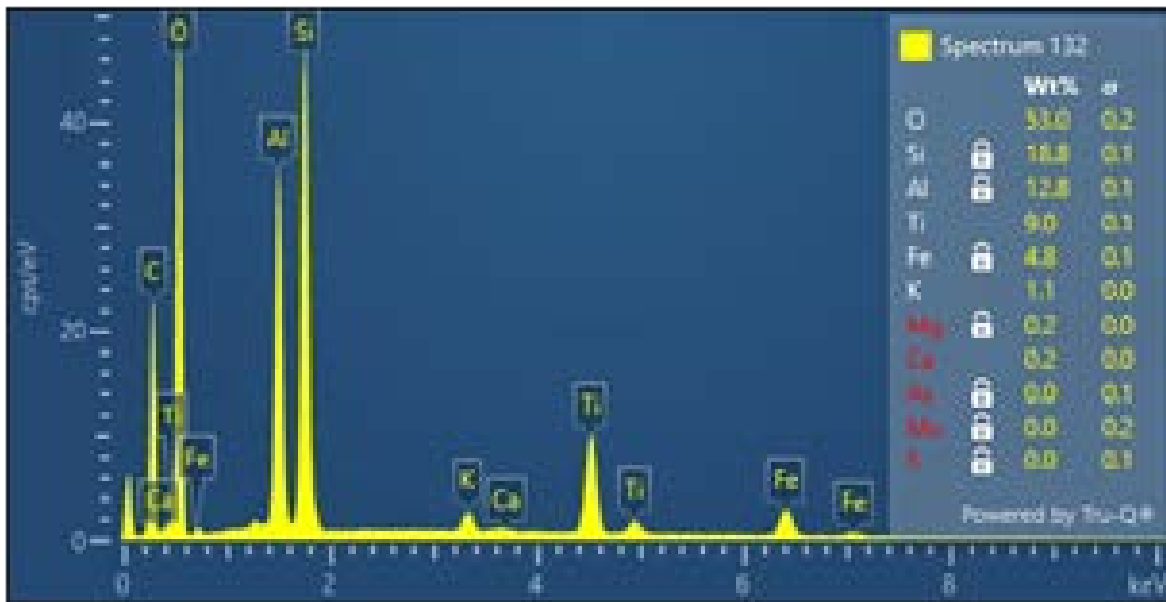
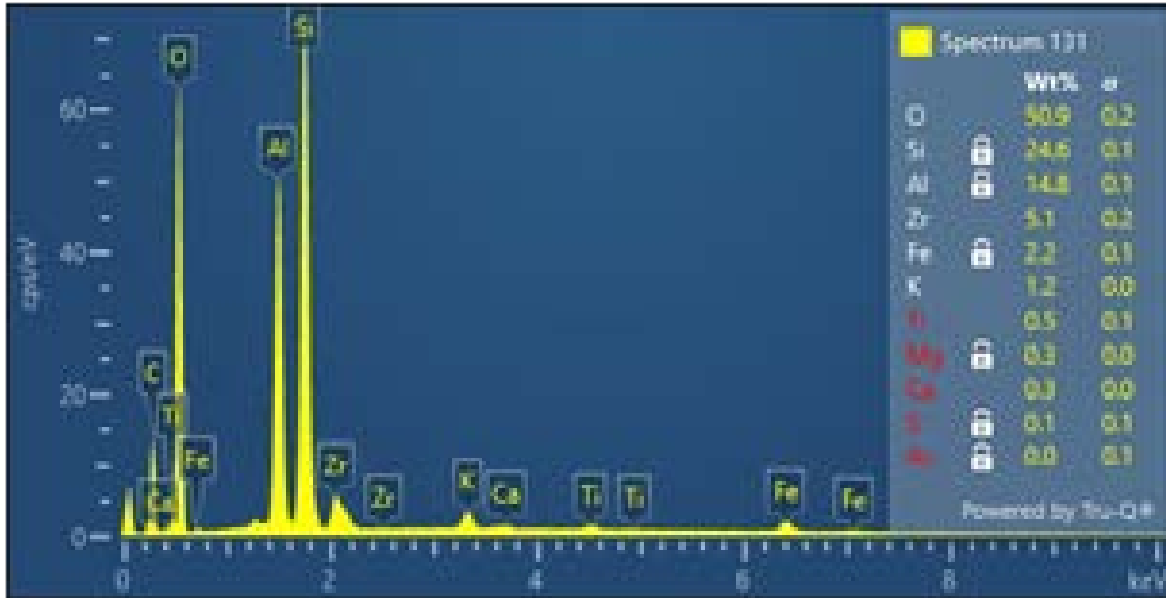
MW25D\_20-22 Site 2 - 200x

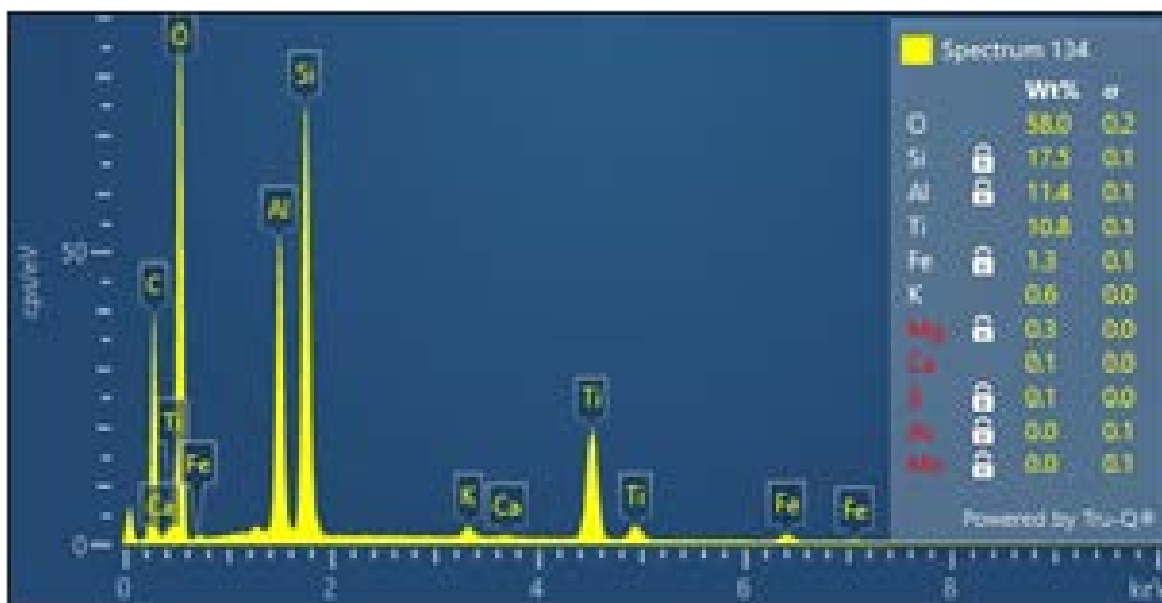
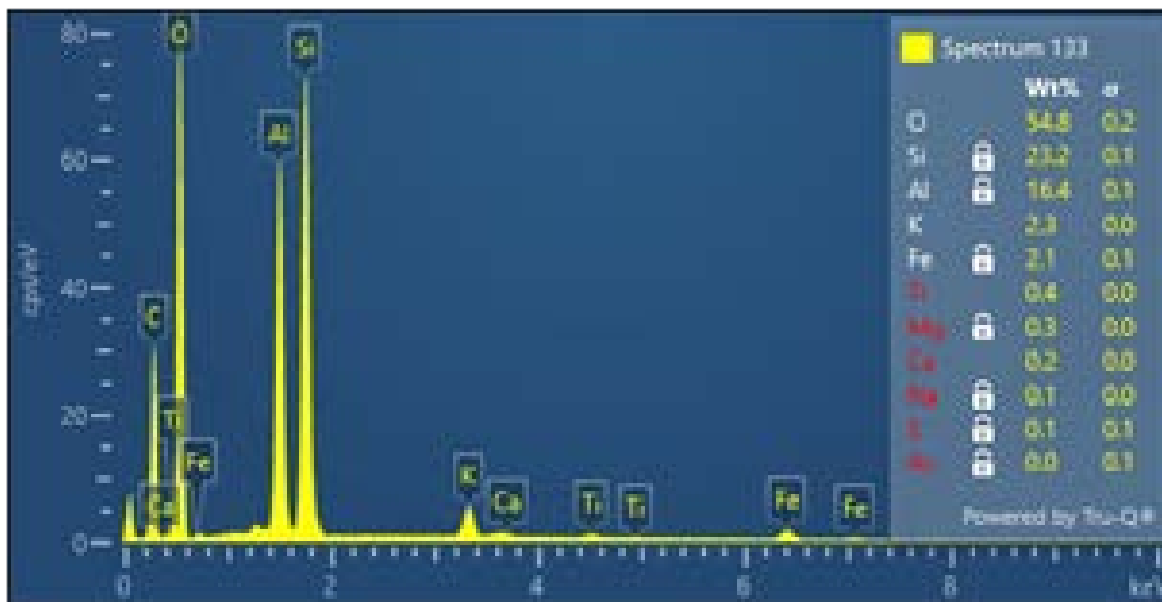


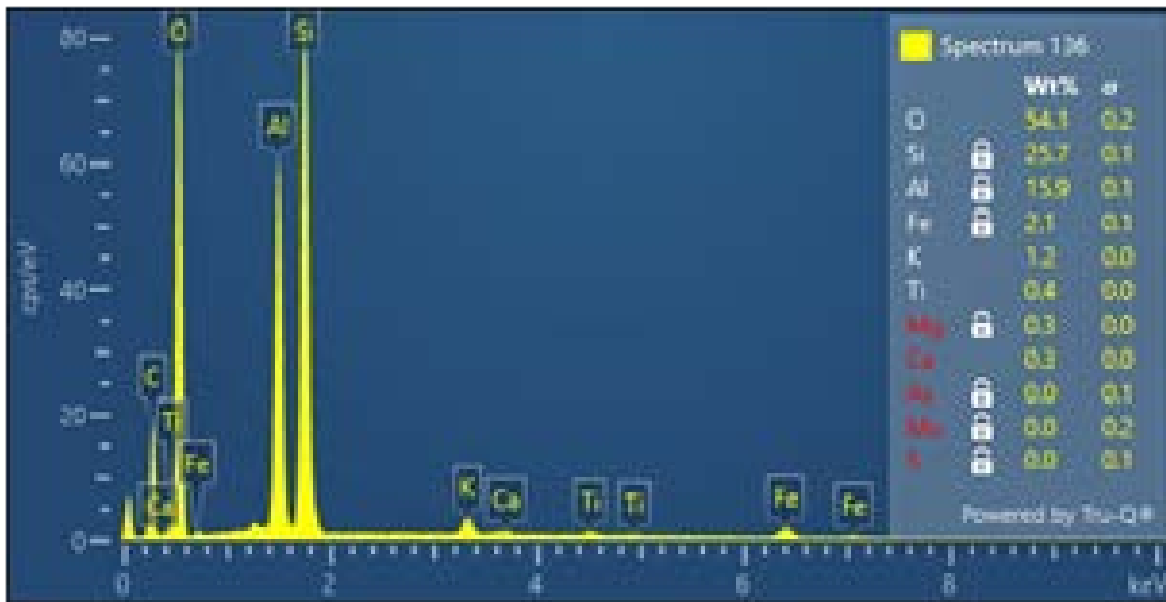
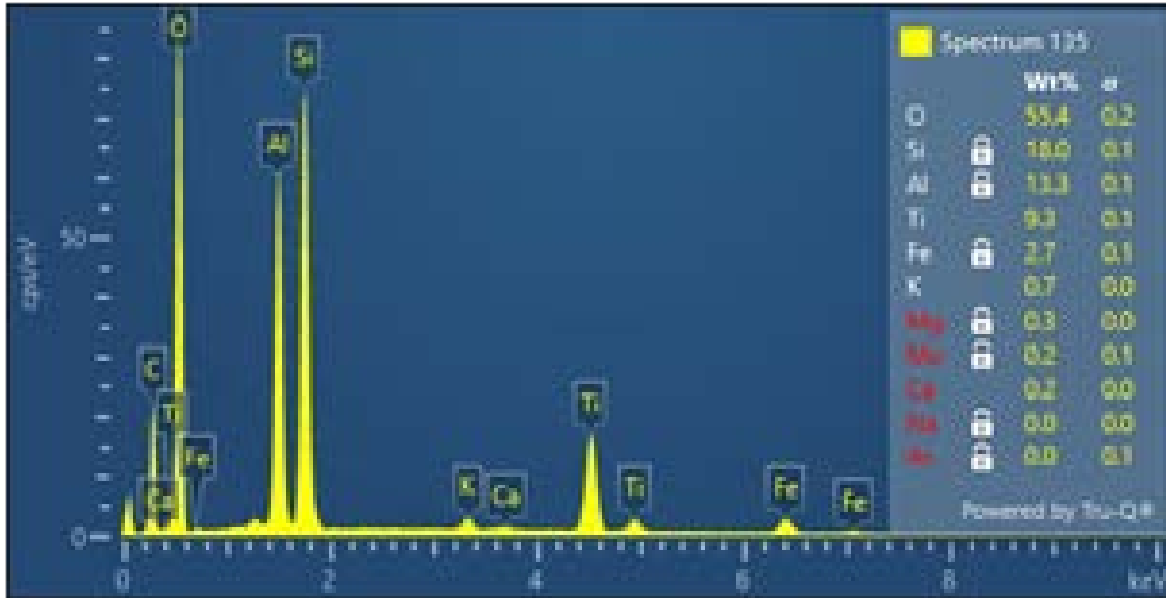
500µm

Spectrum images

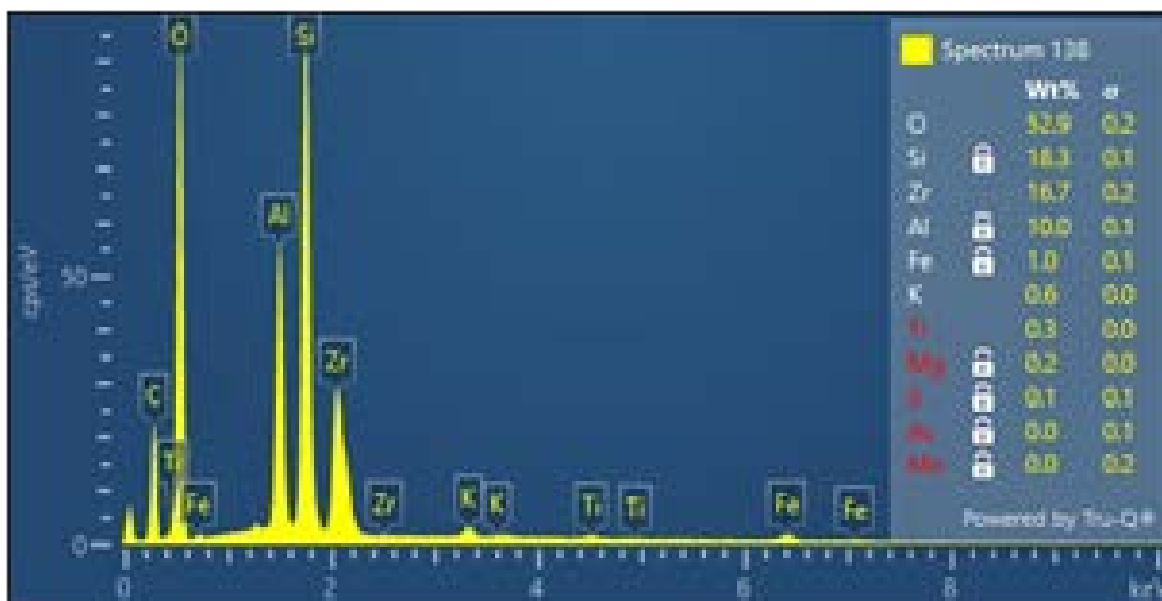
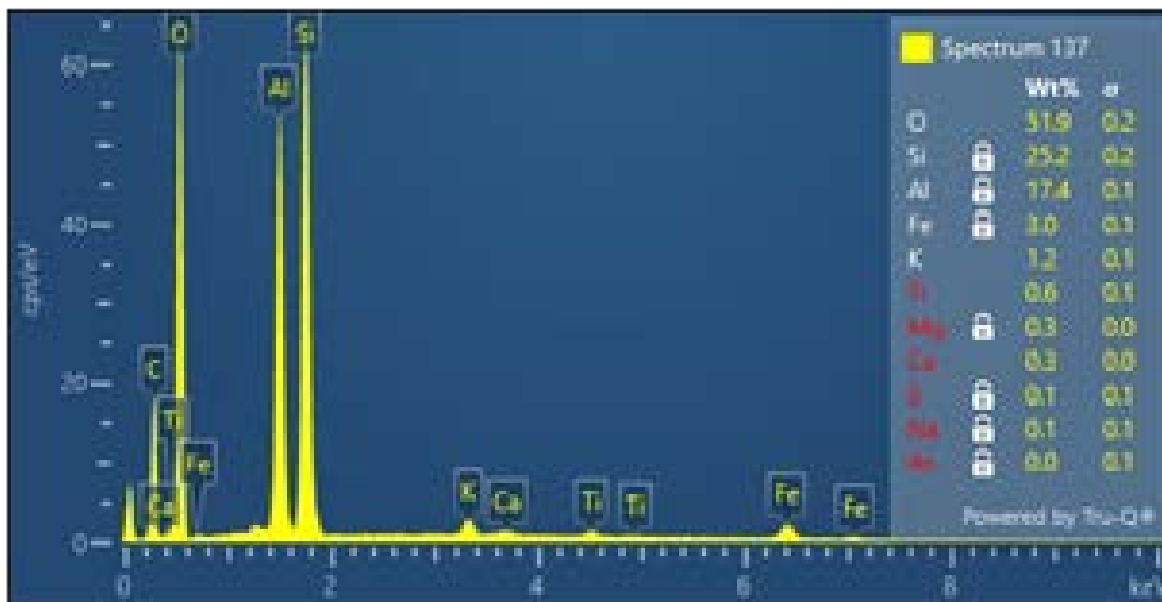


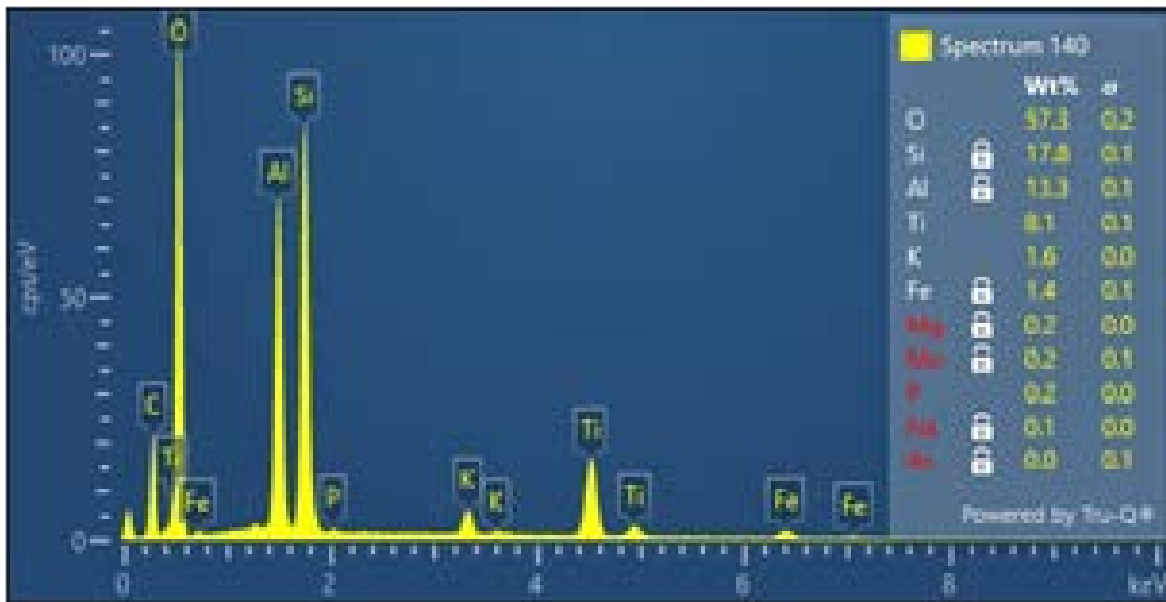
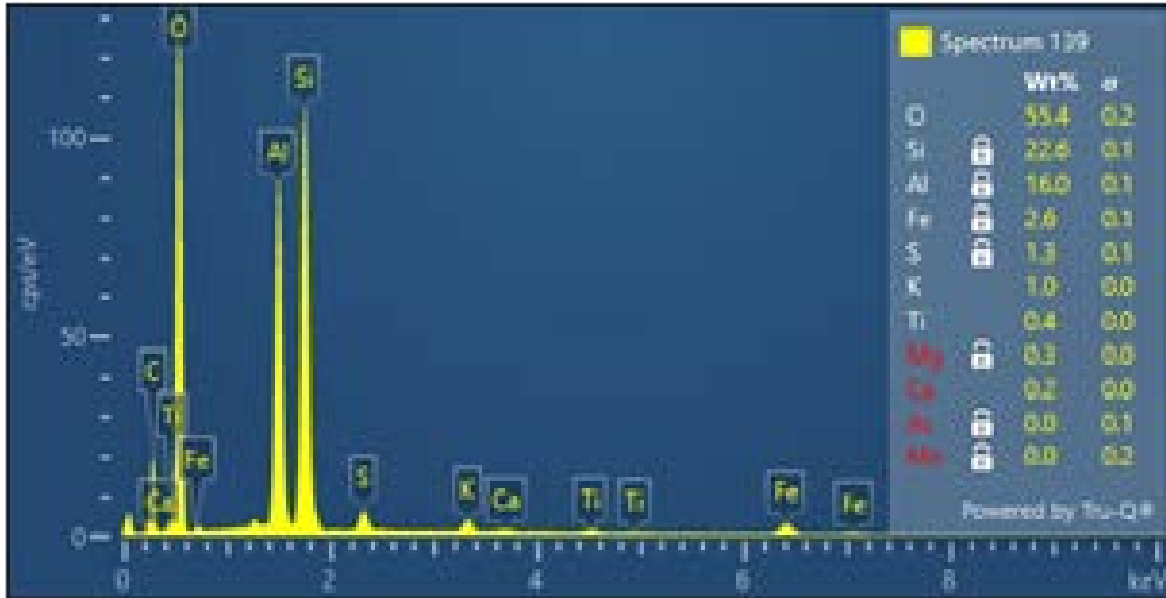


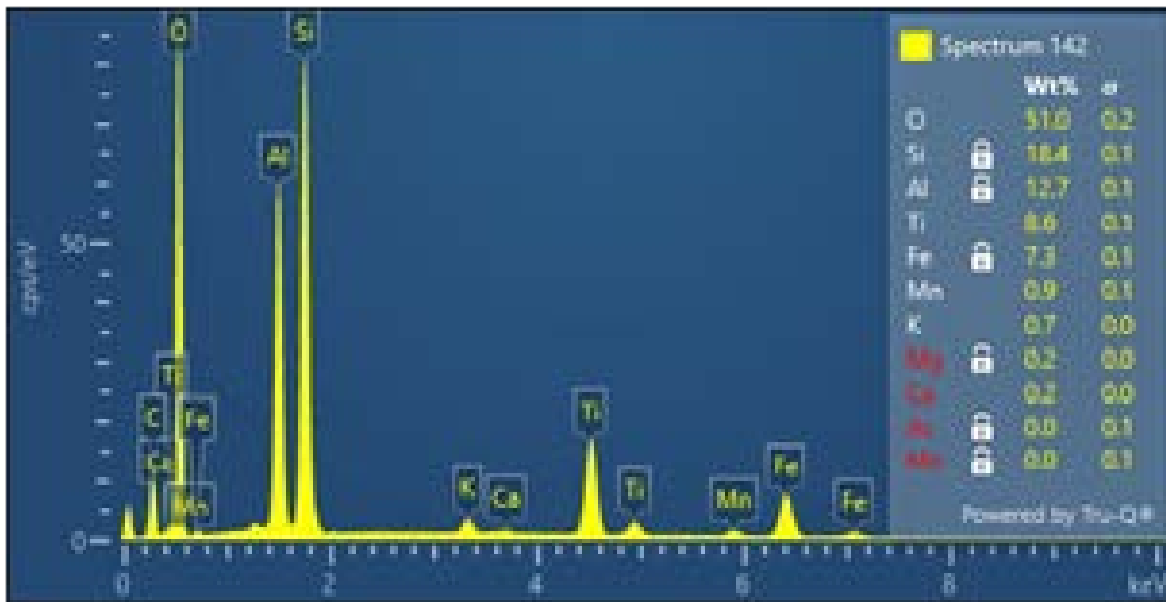
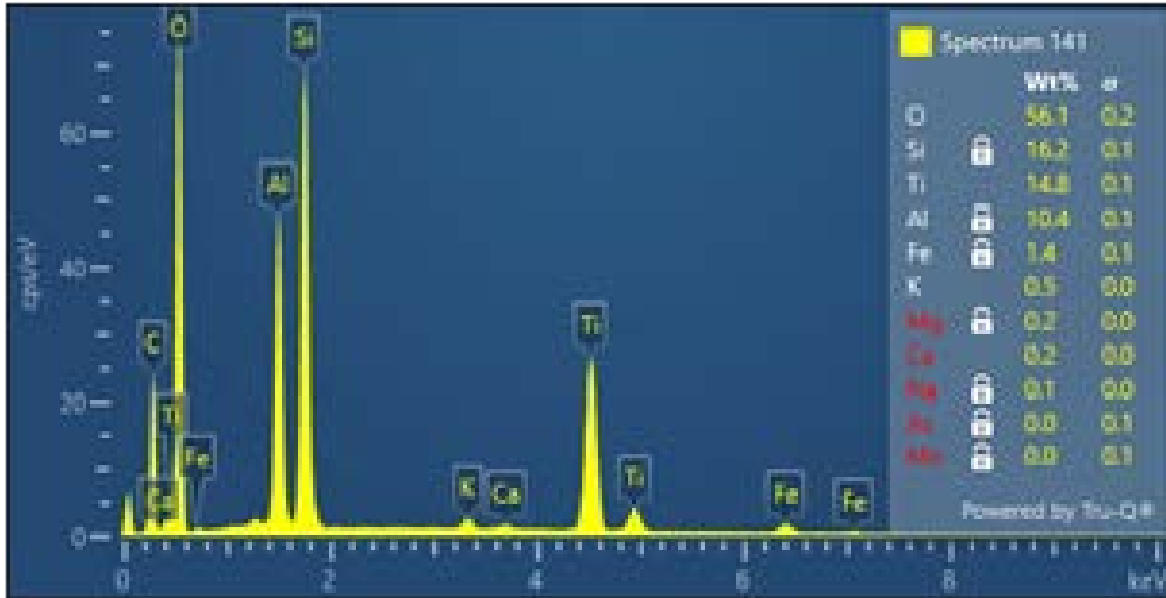


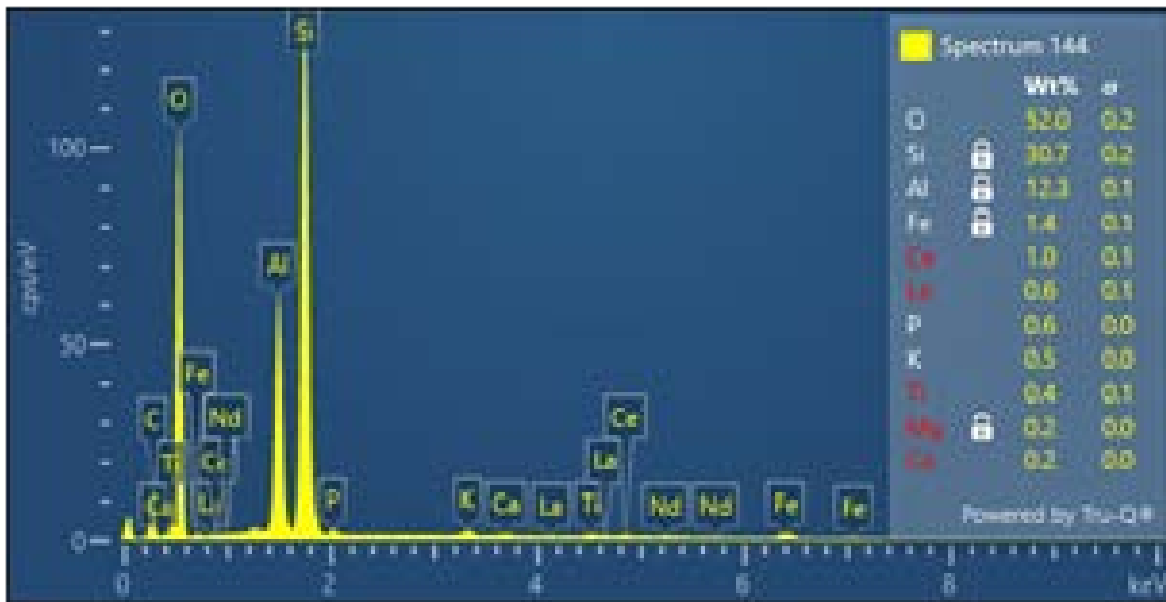
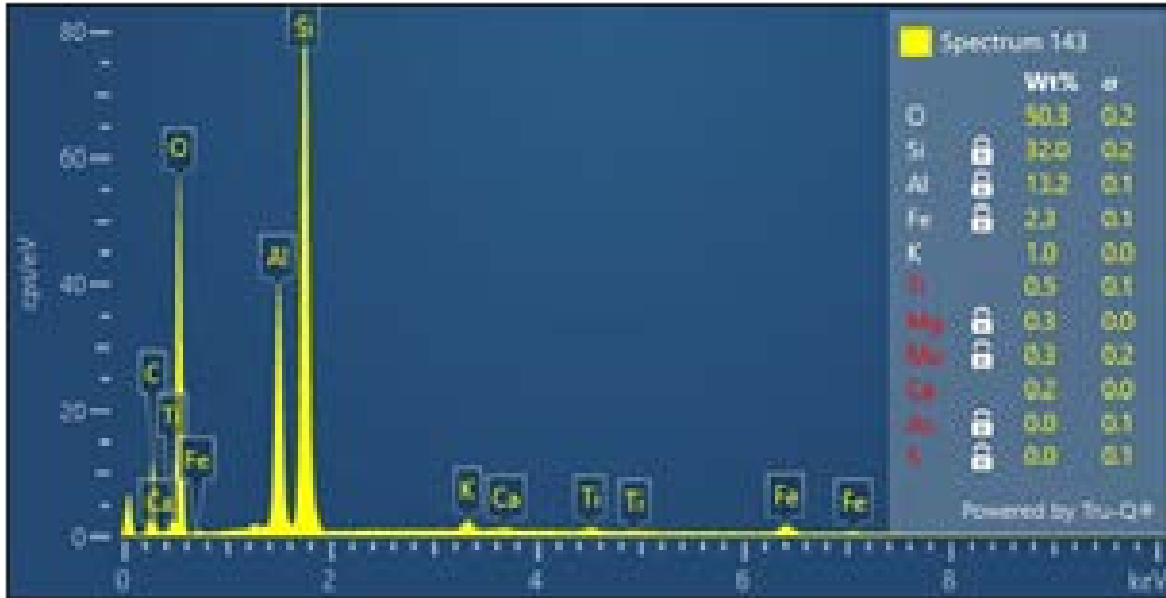


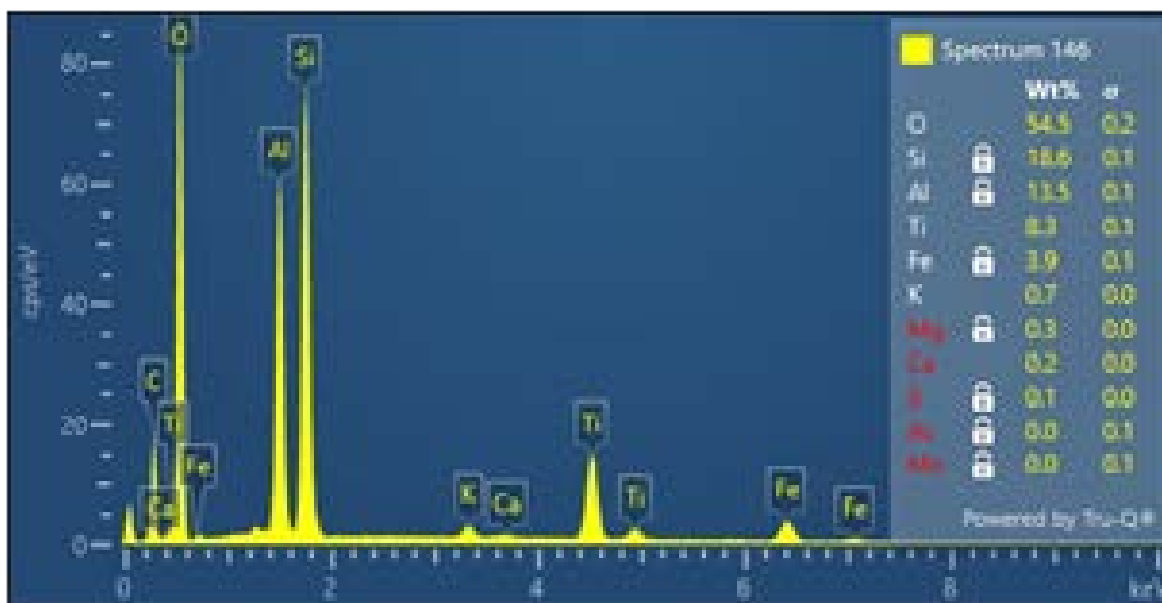
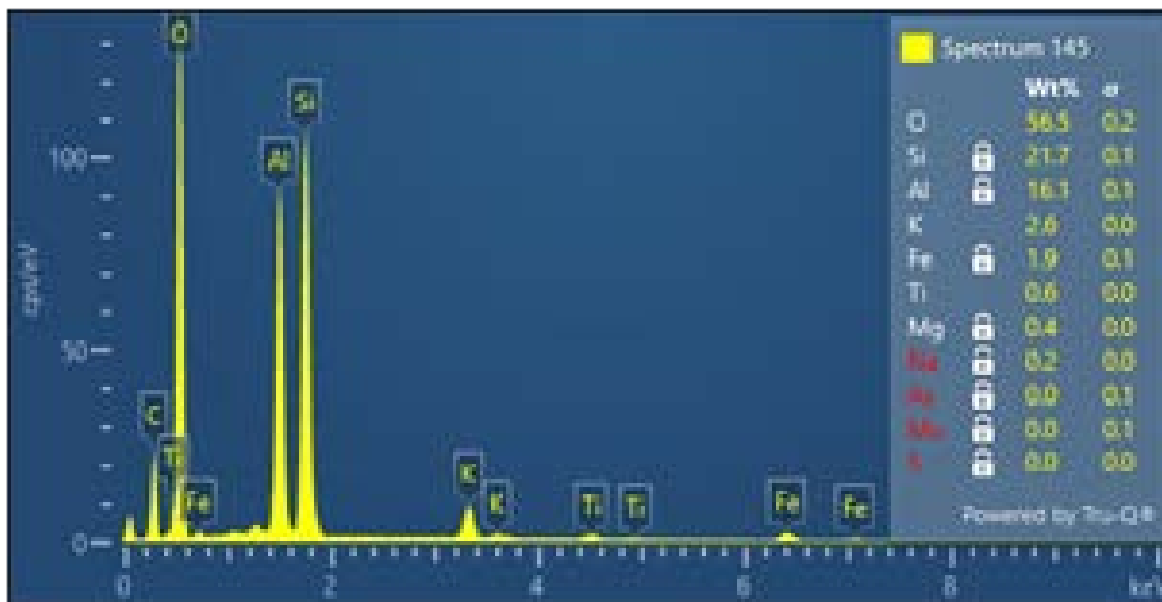


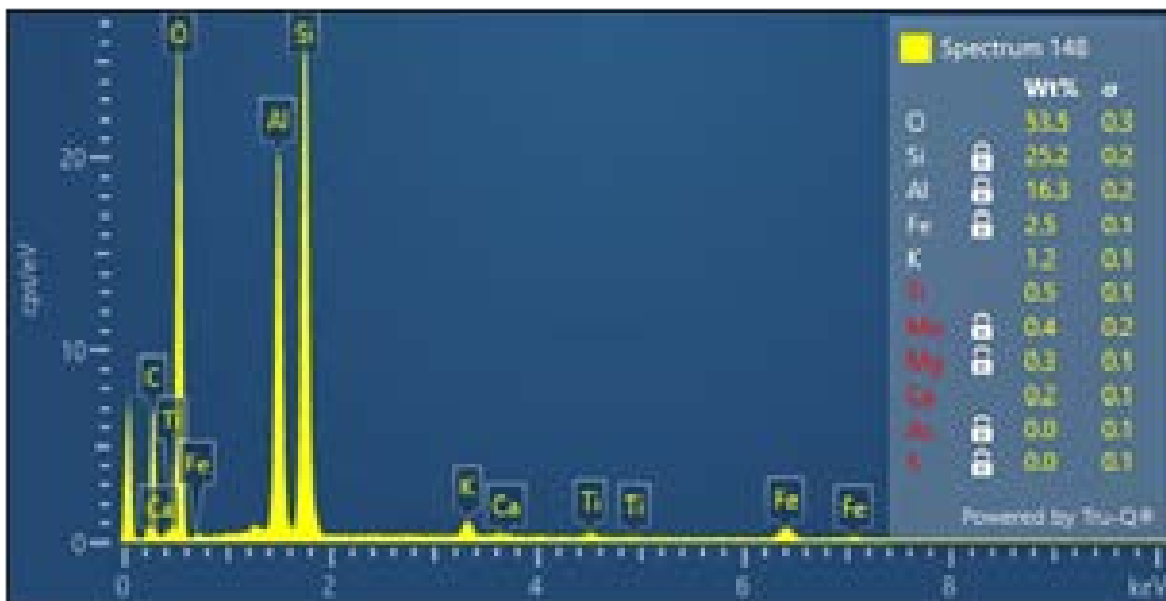
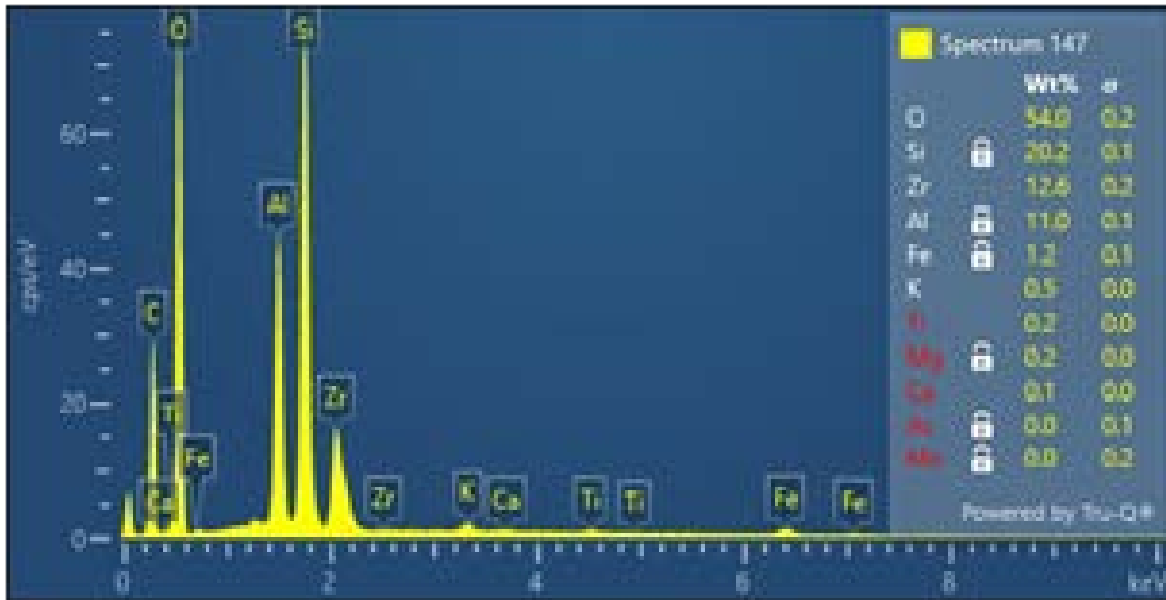


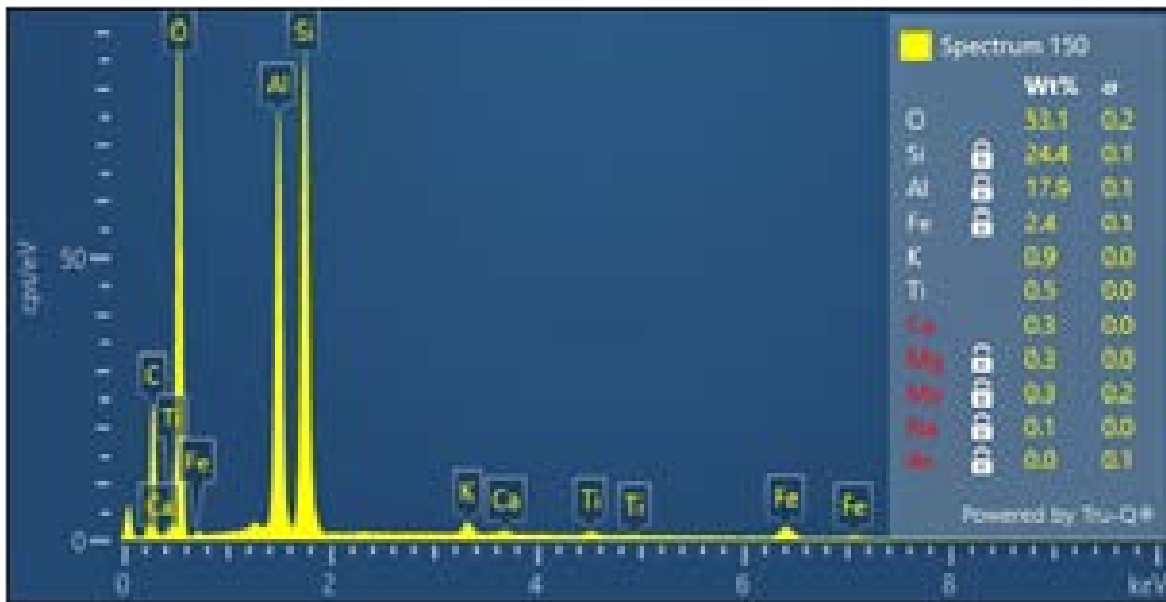
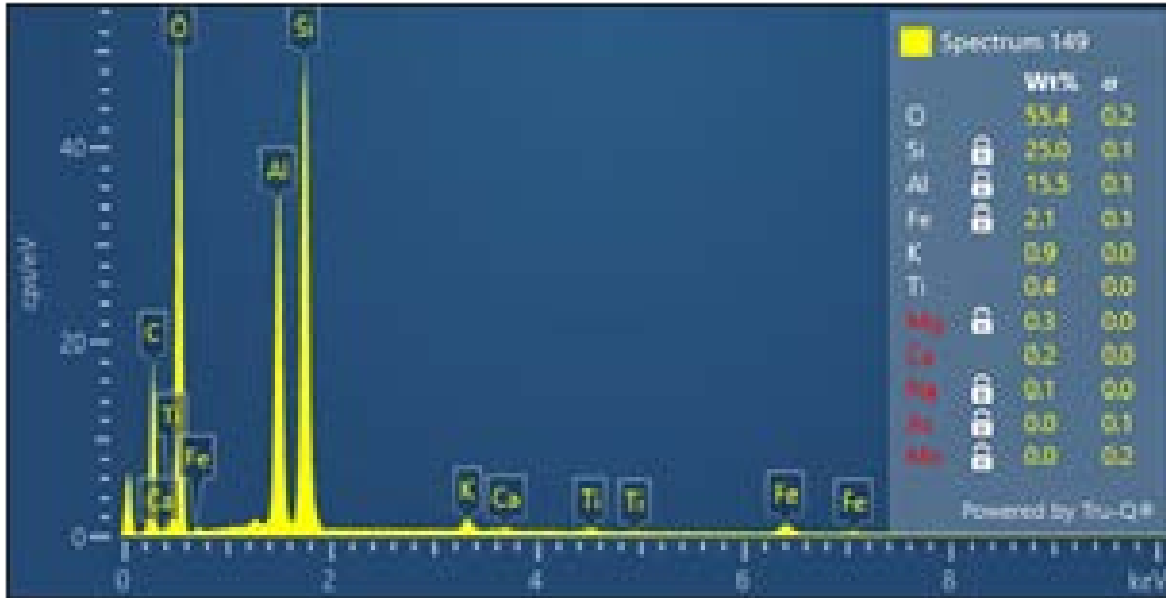


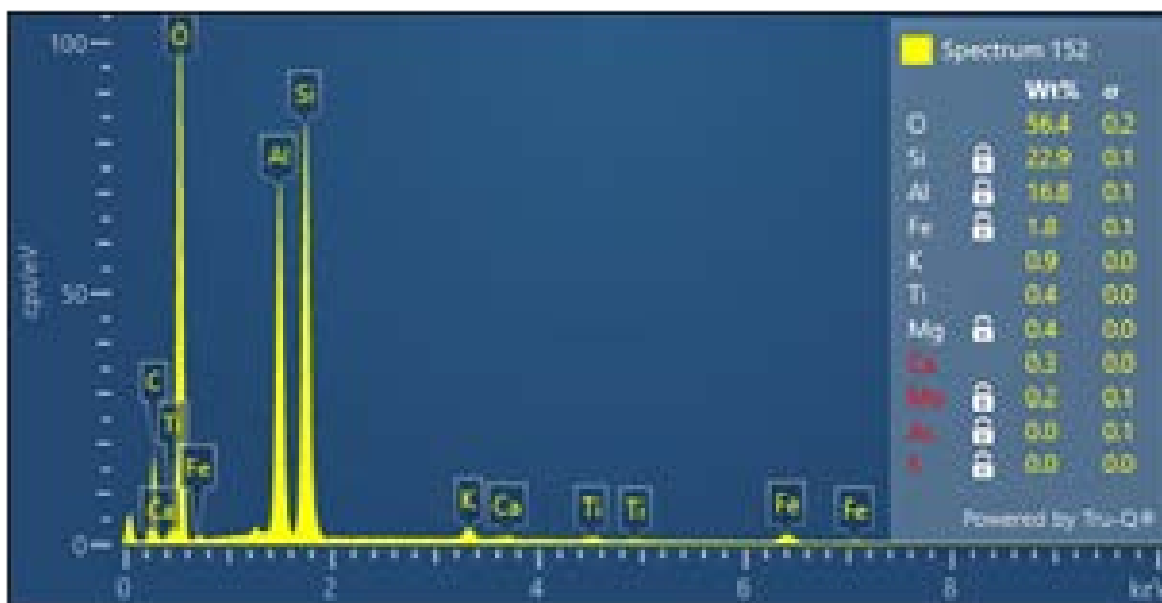
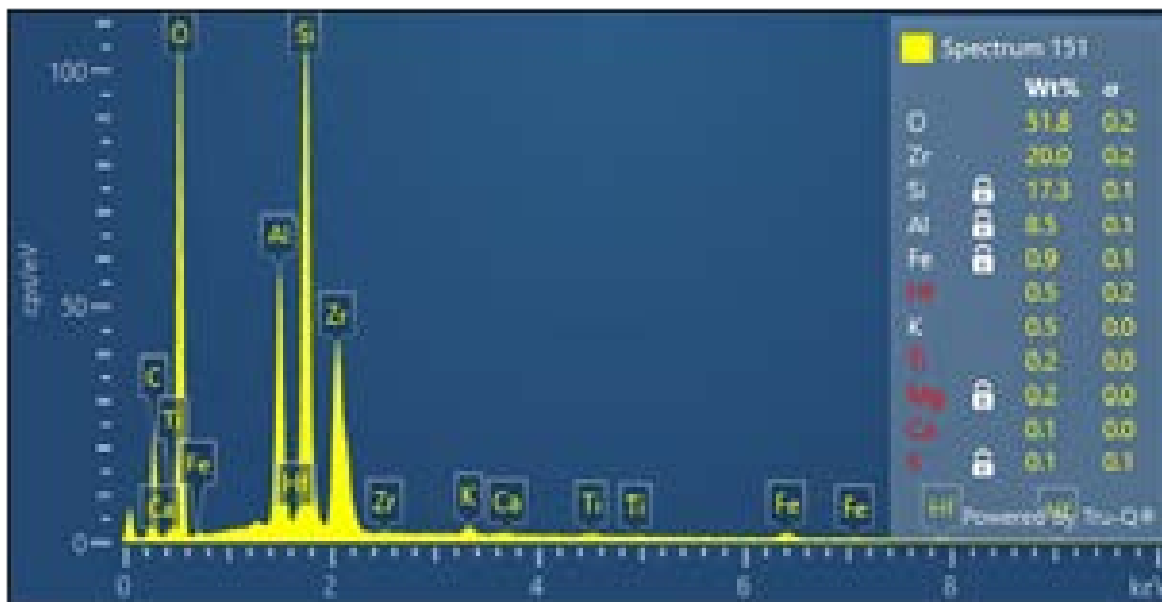




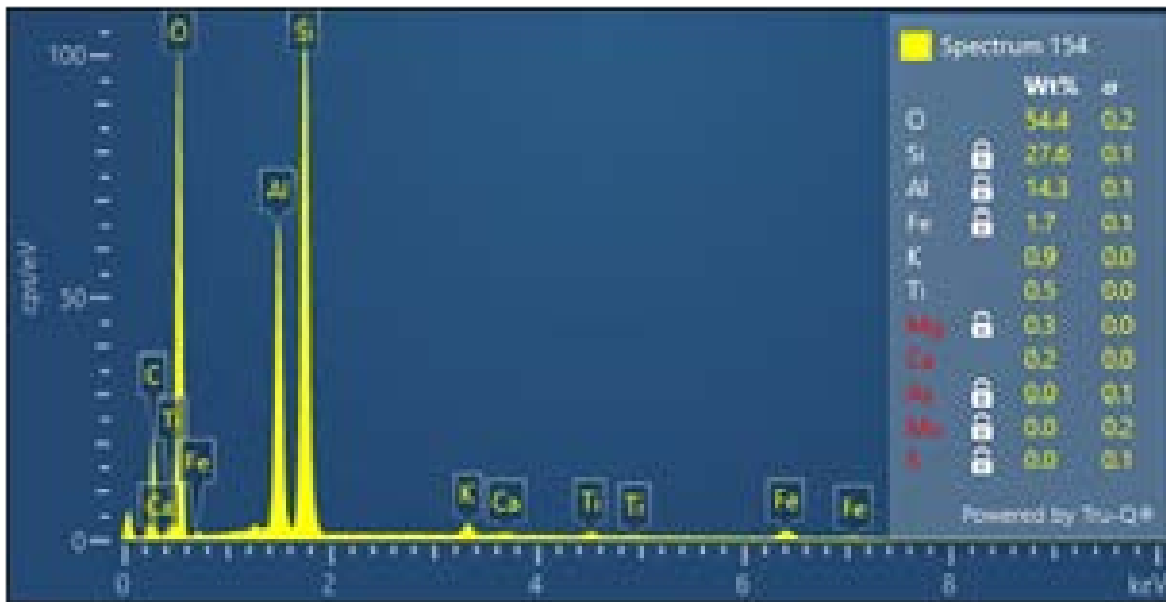
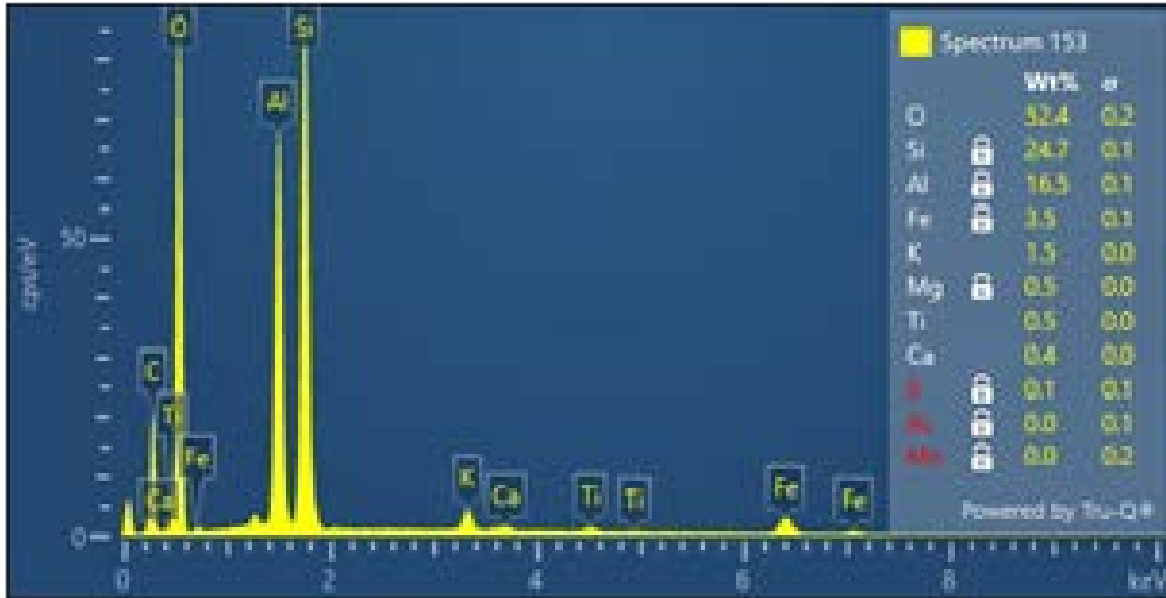


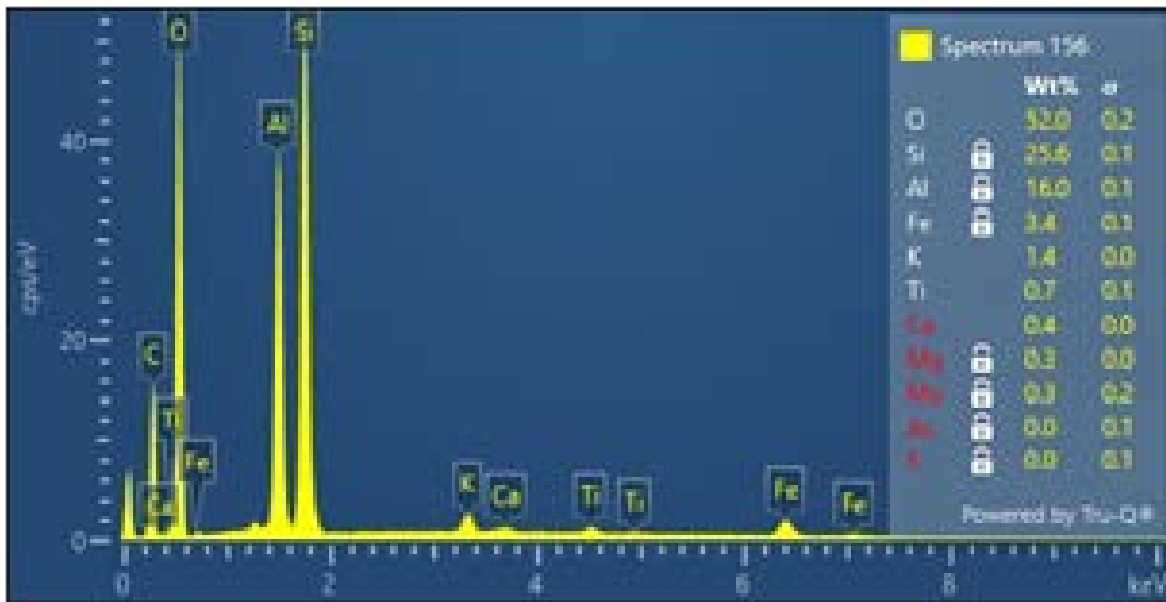
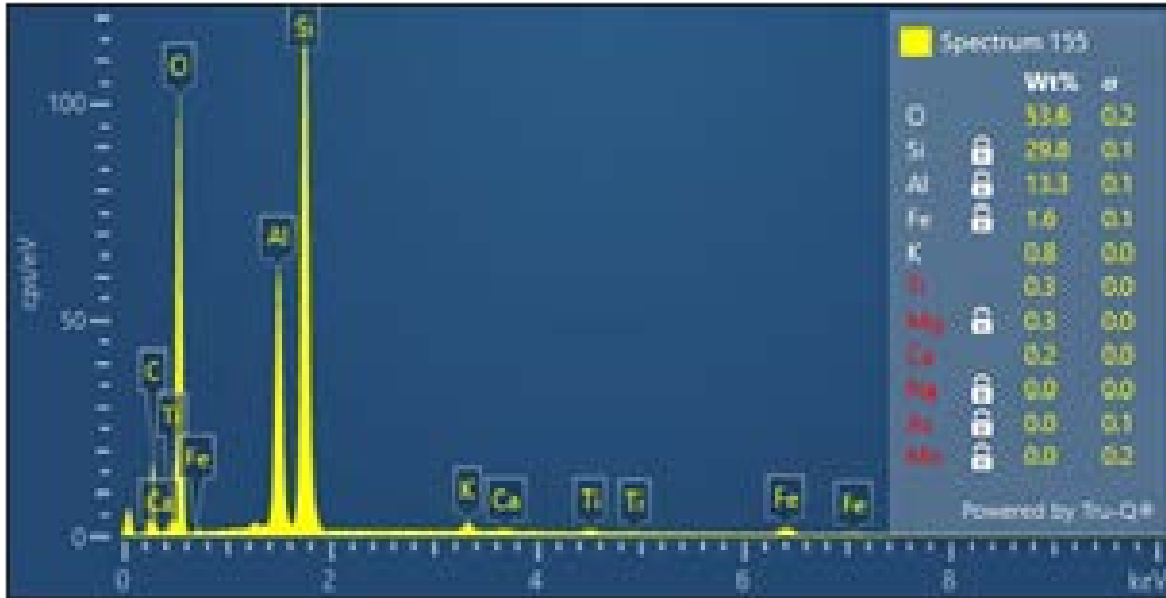


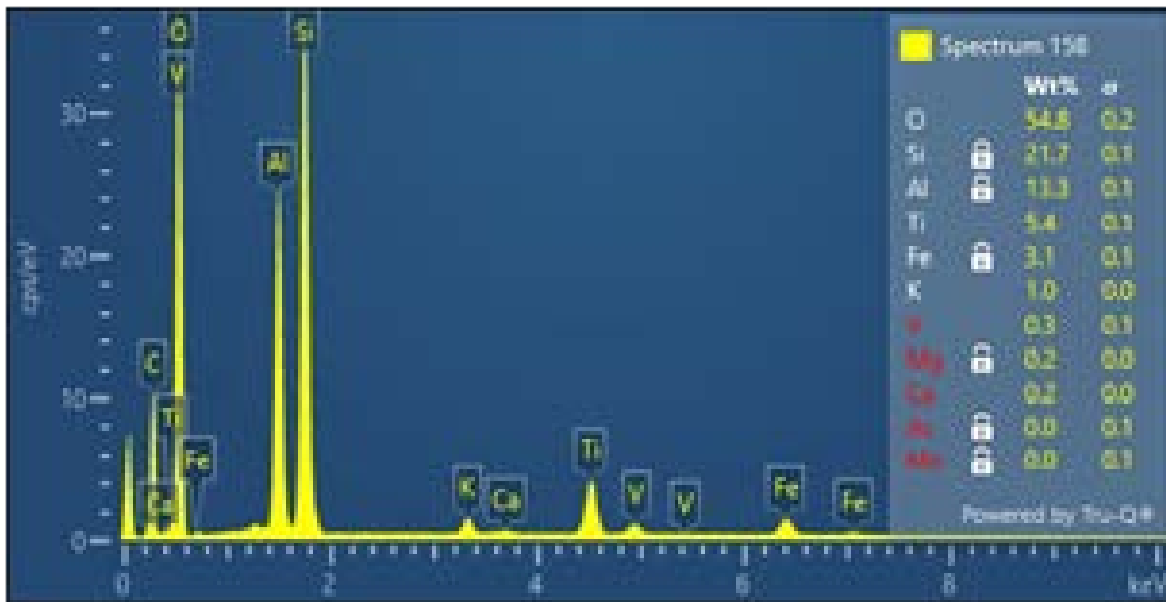
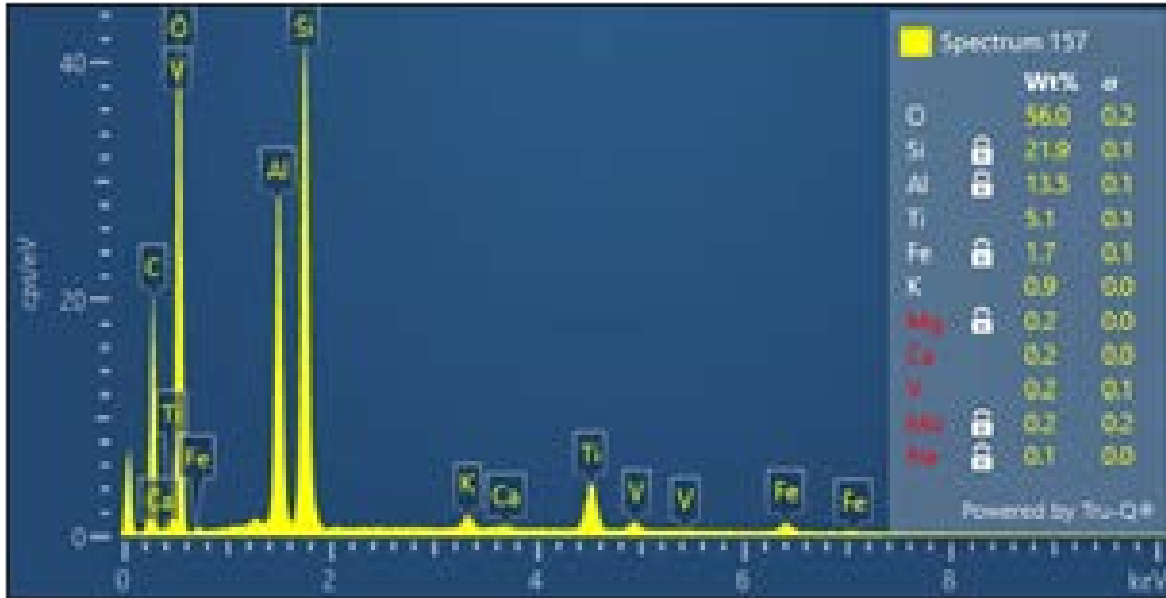


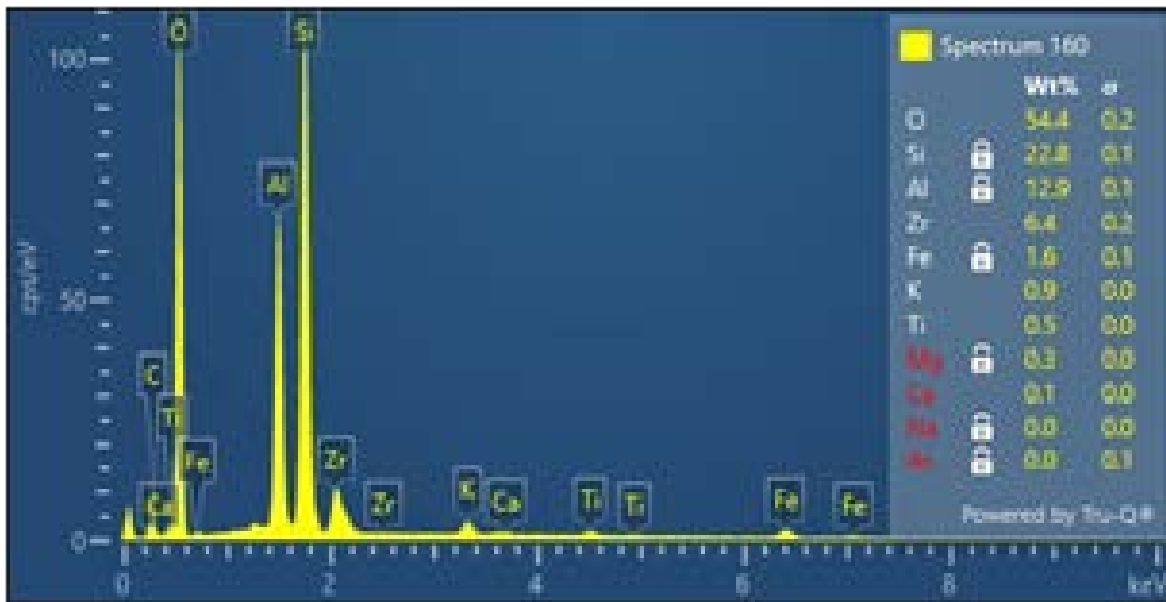
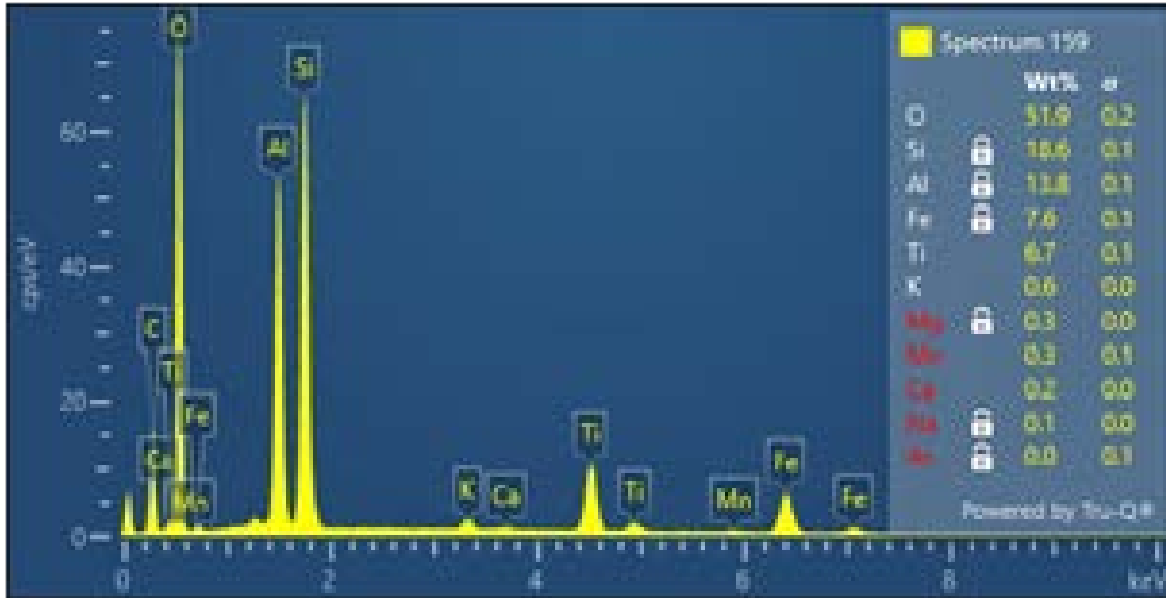


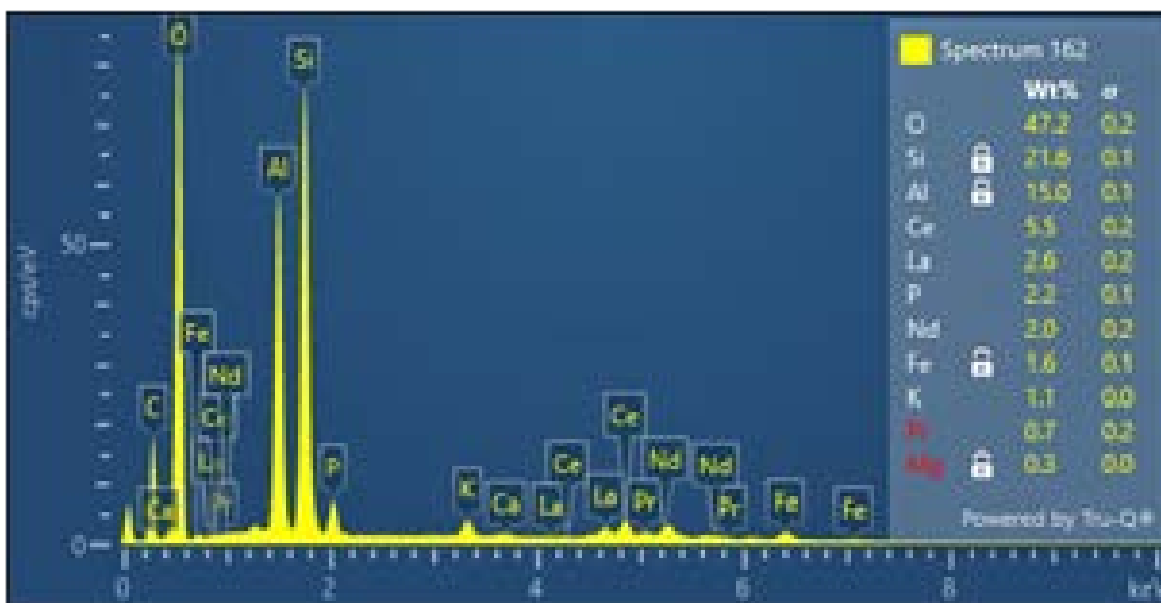
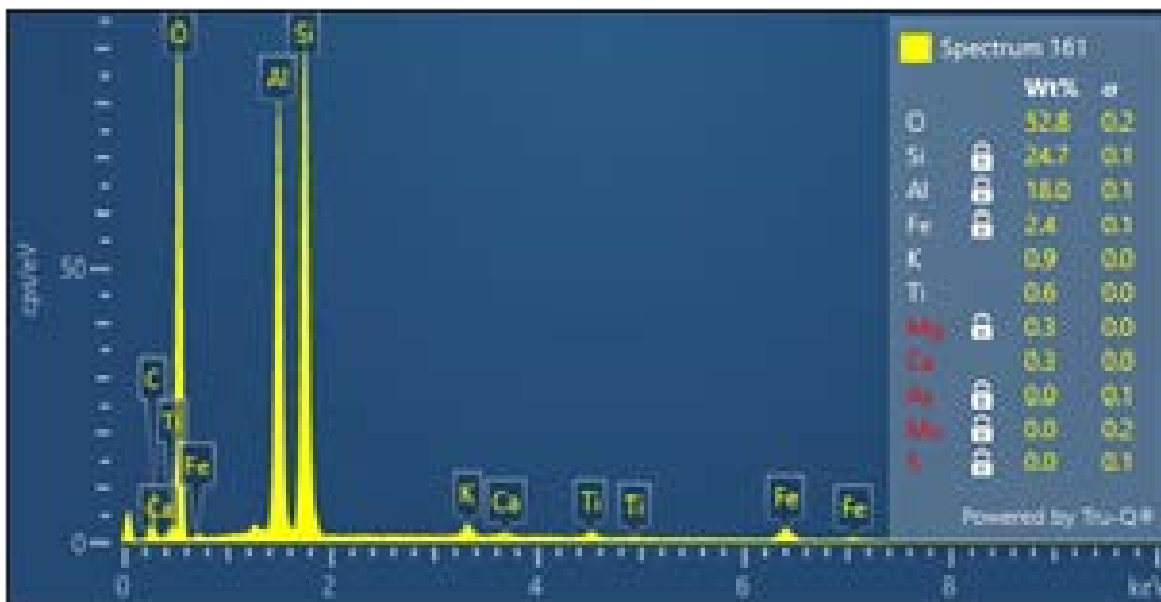


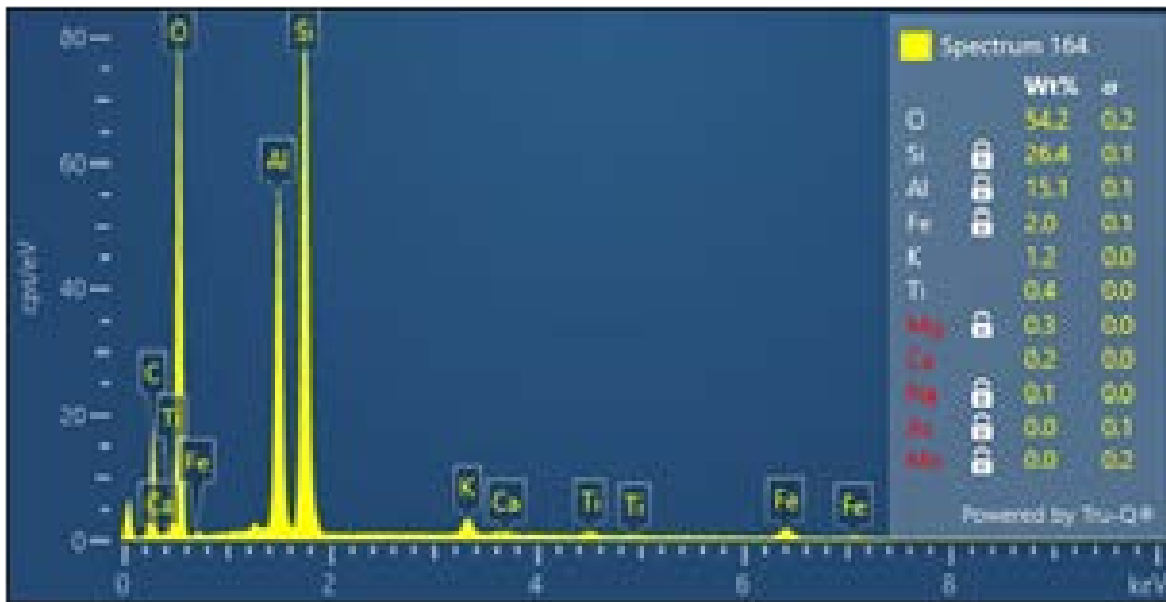
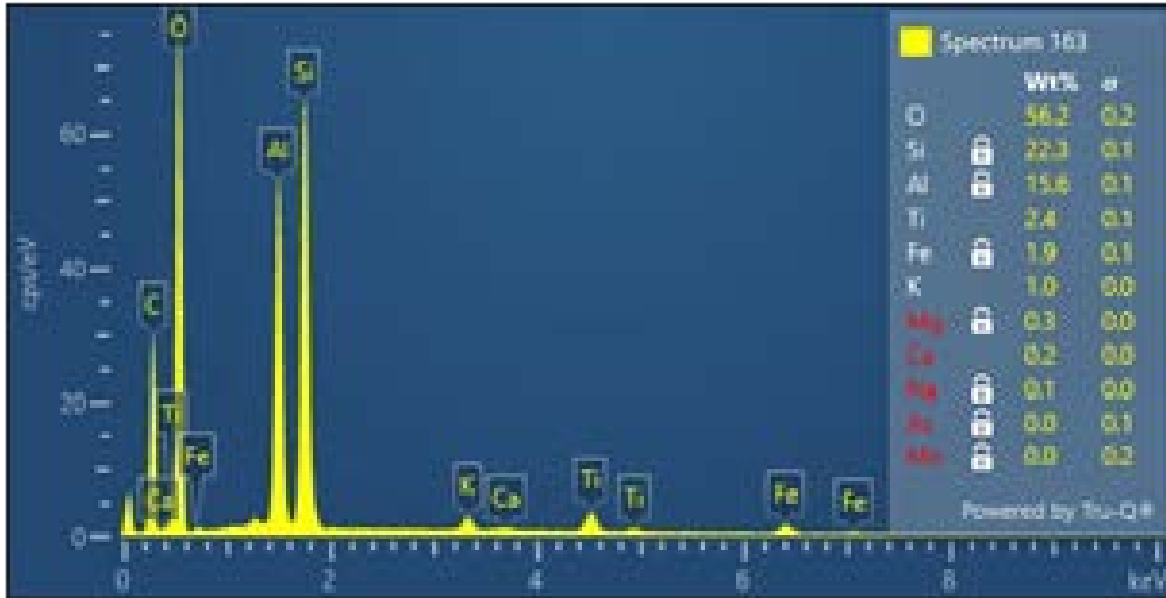


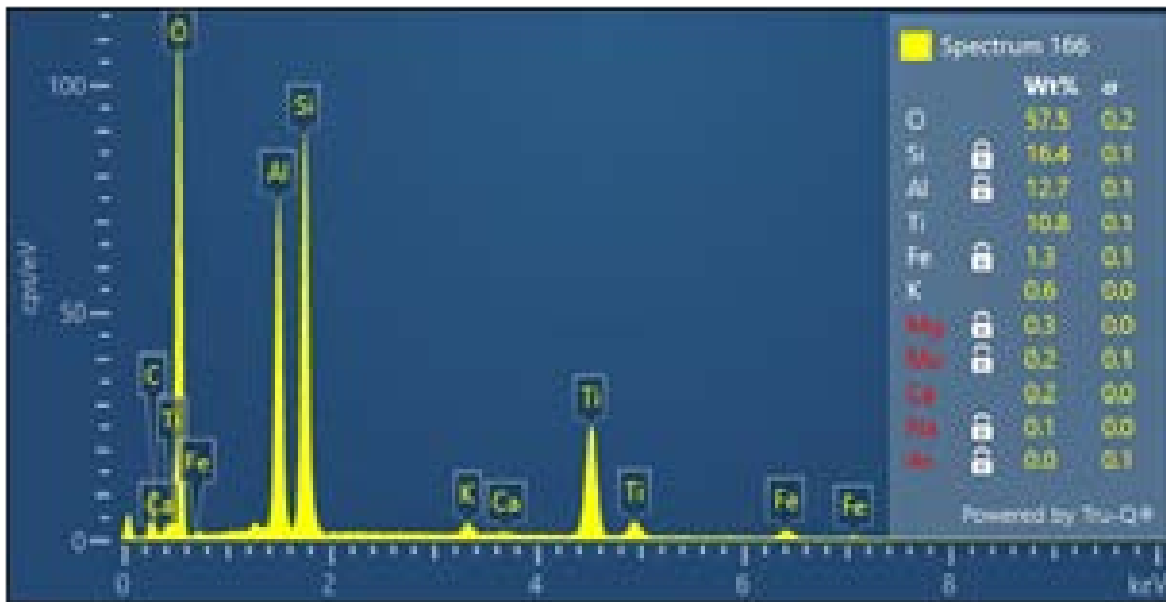
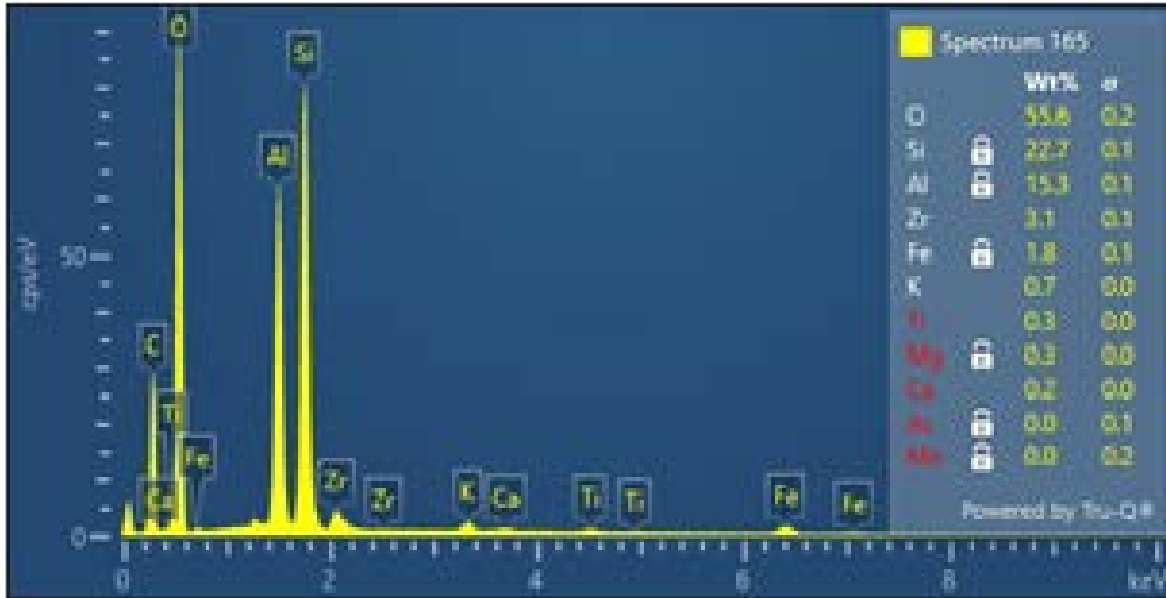


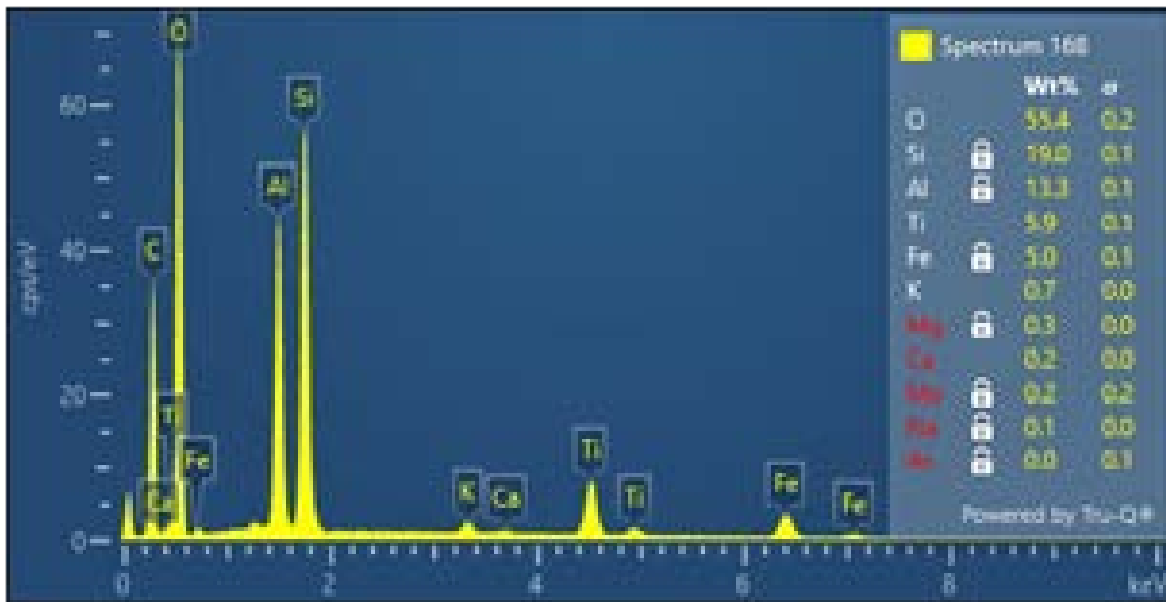
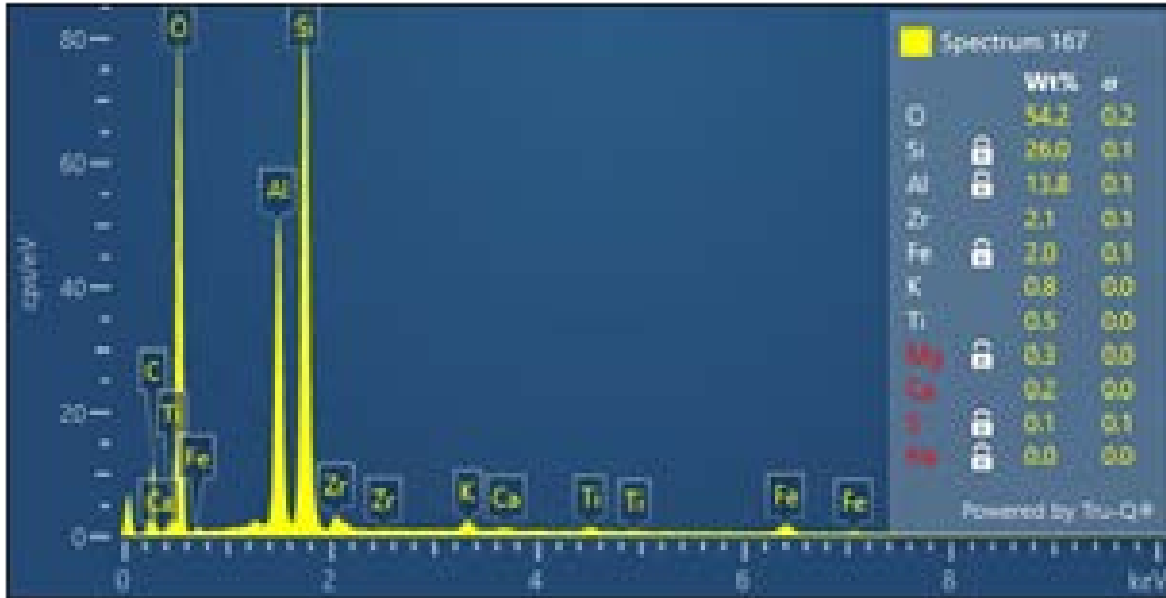




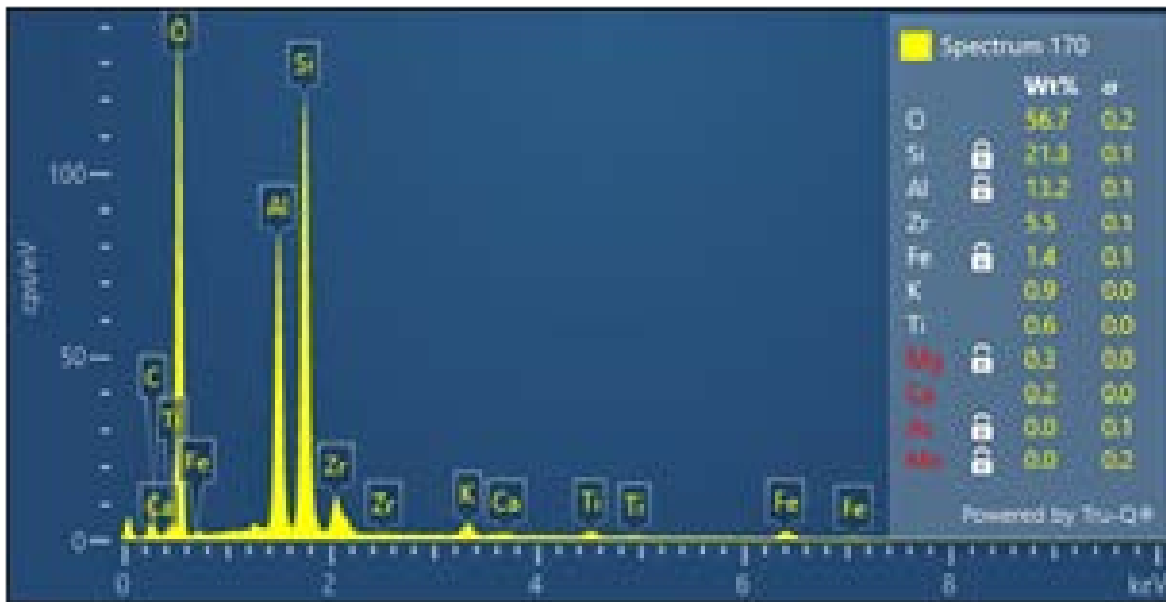
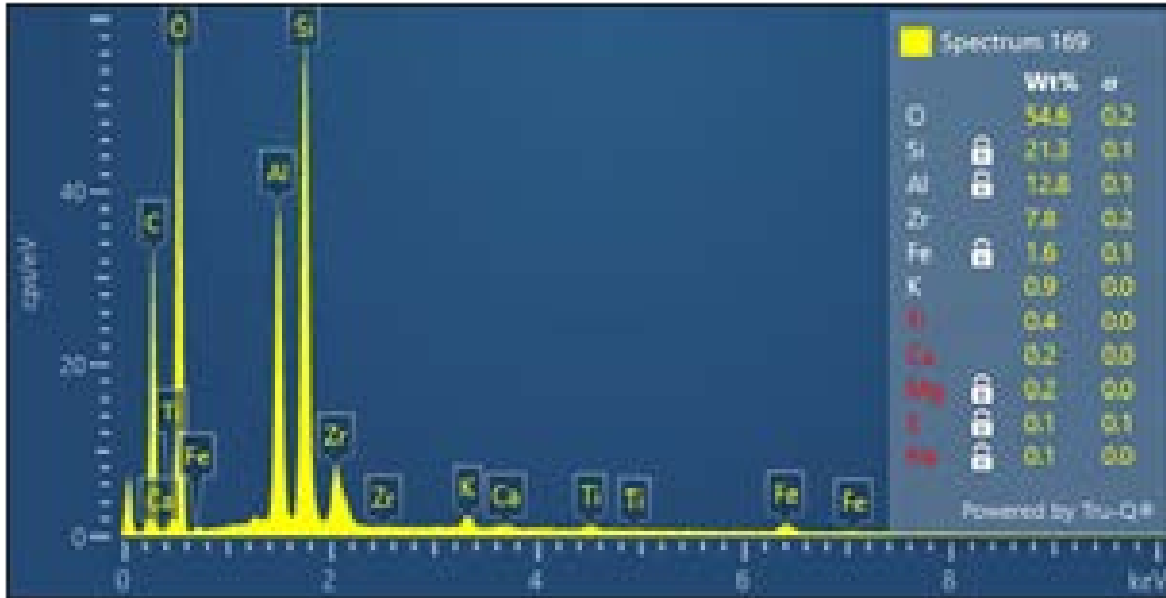


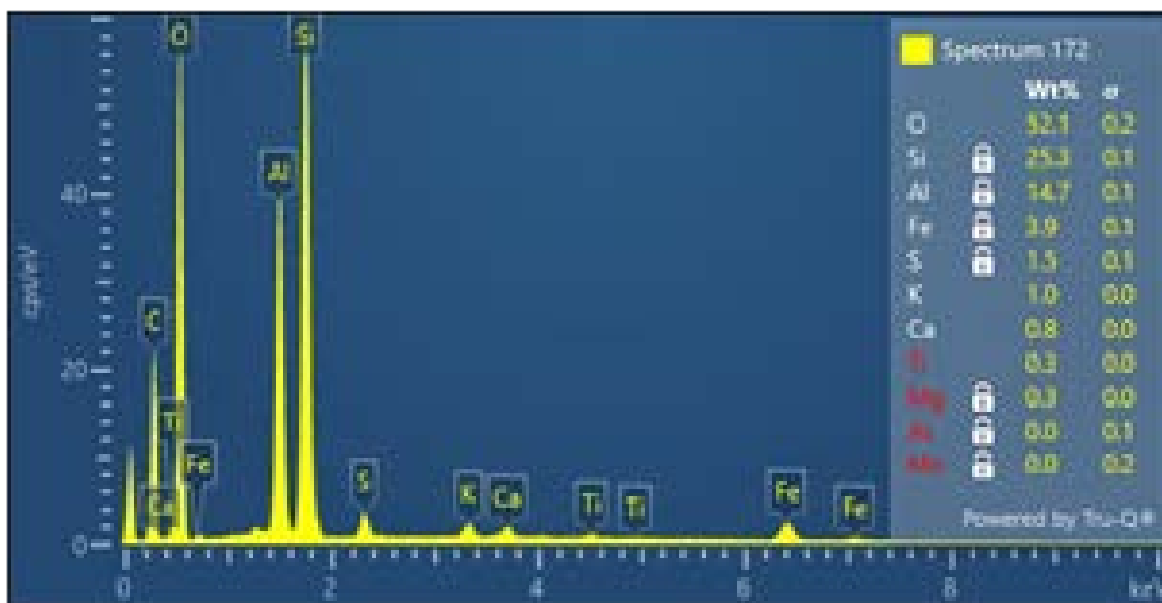
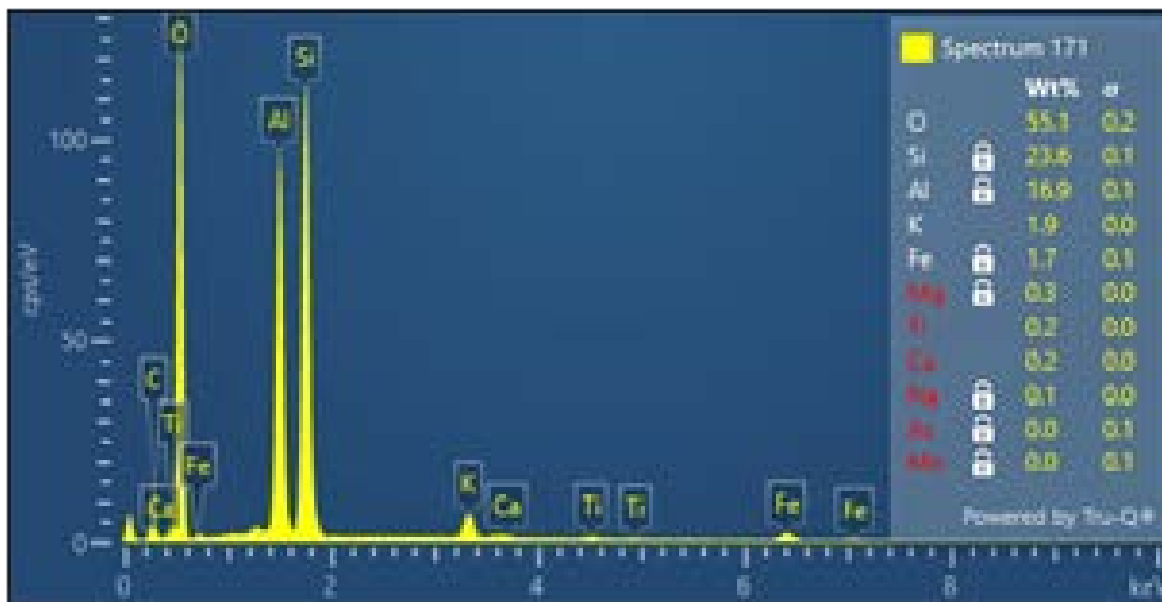


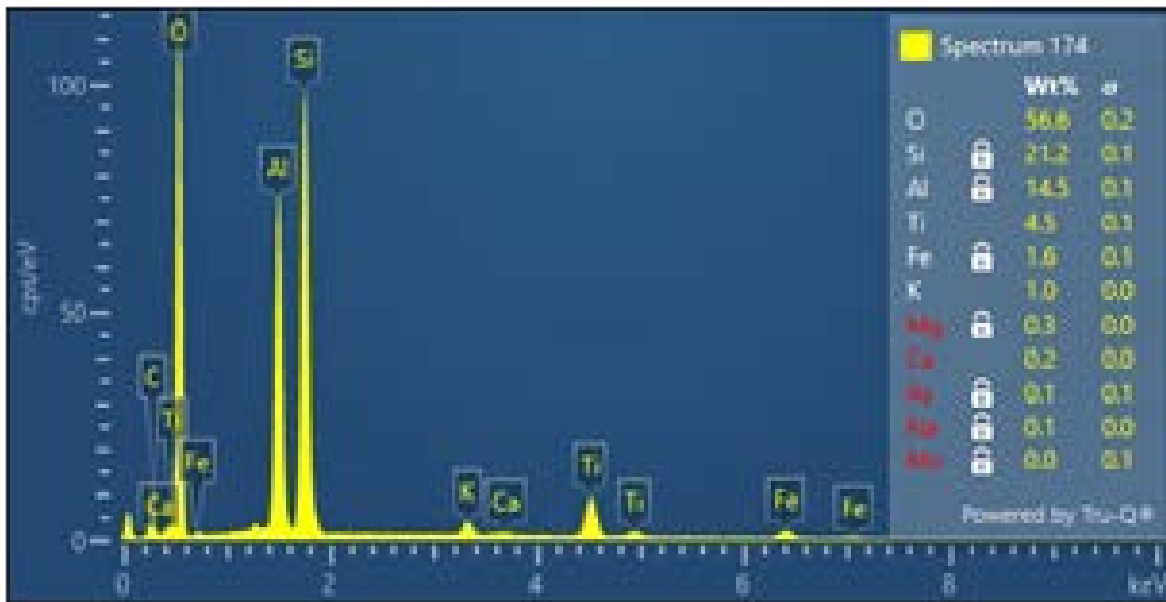
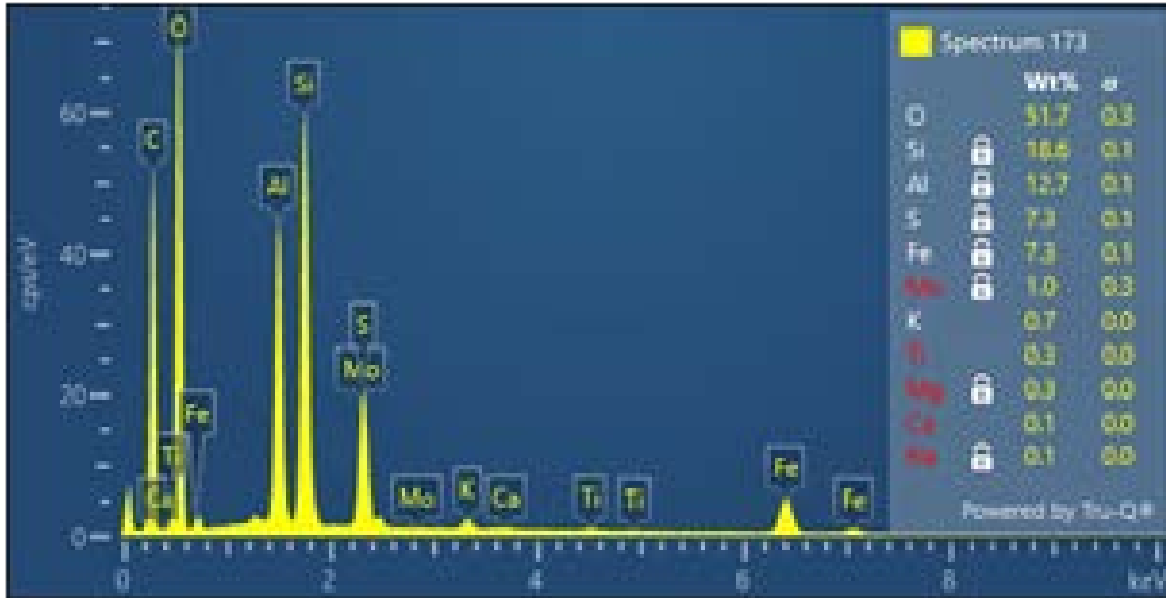


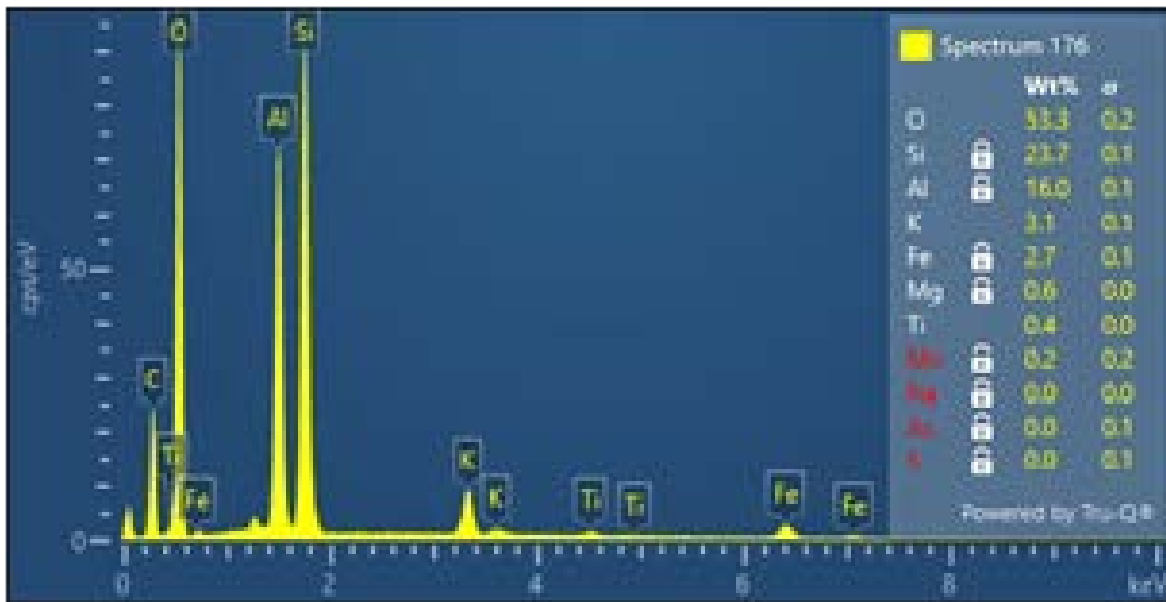
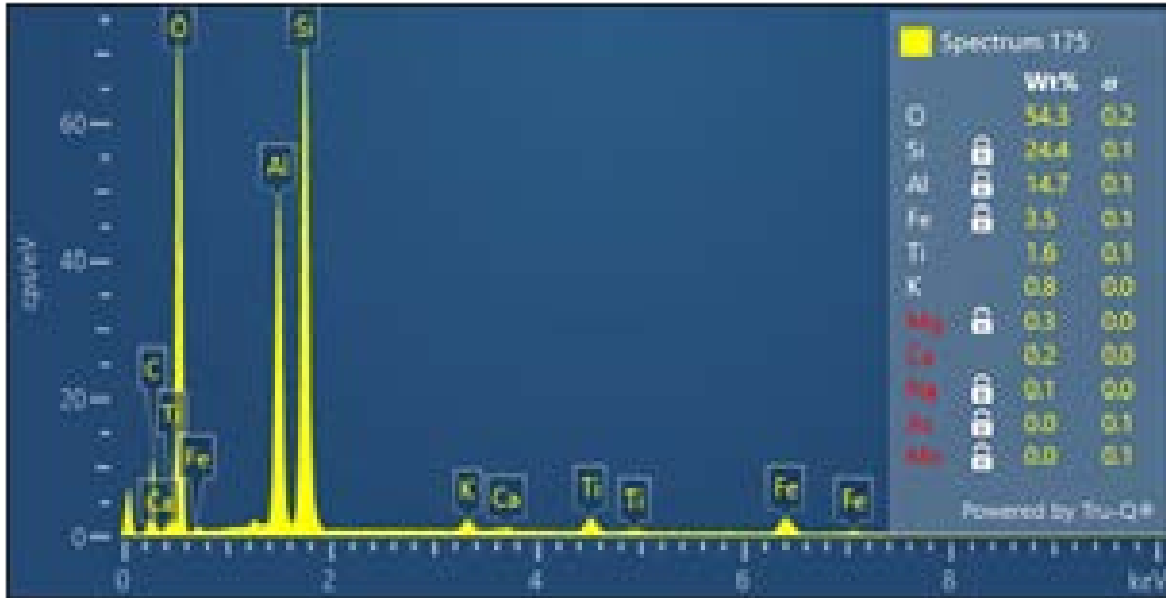


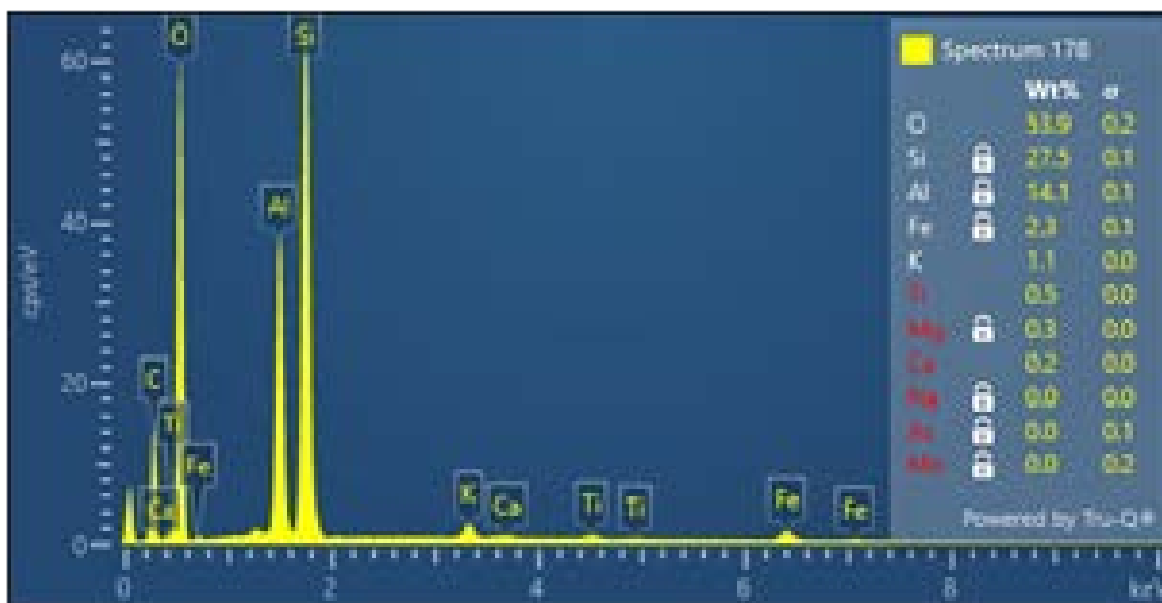
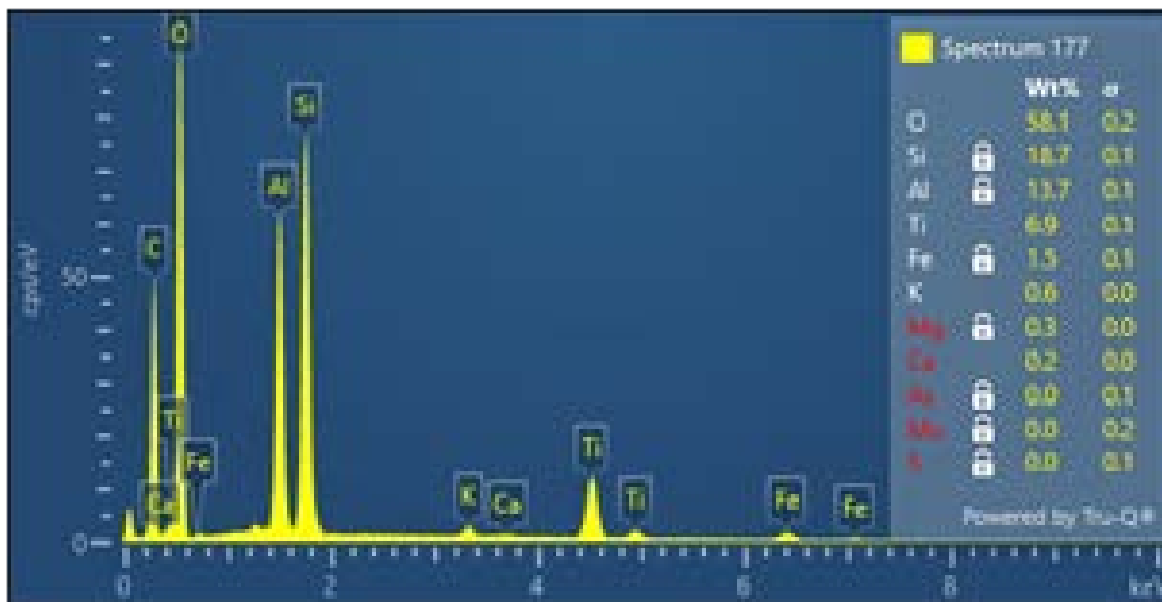




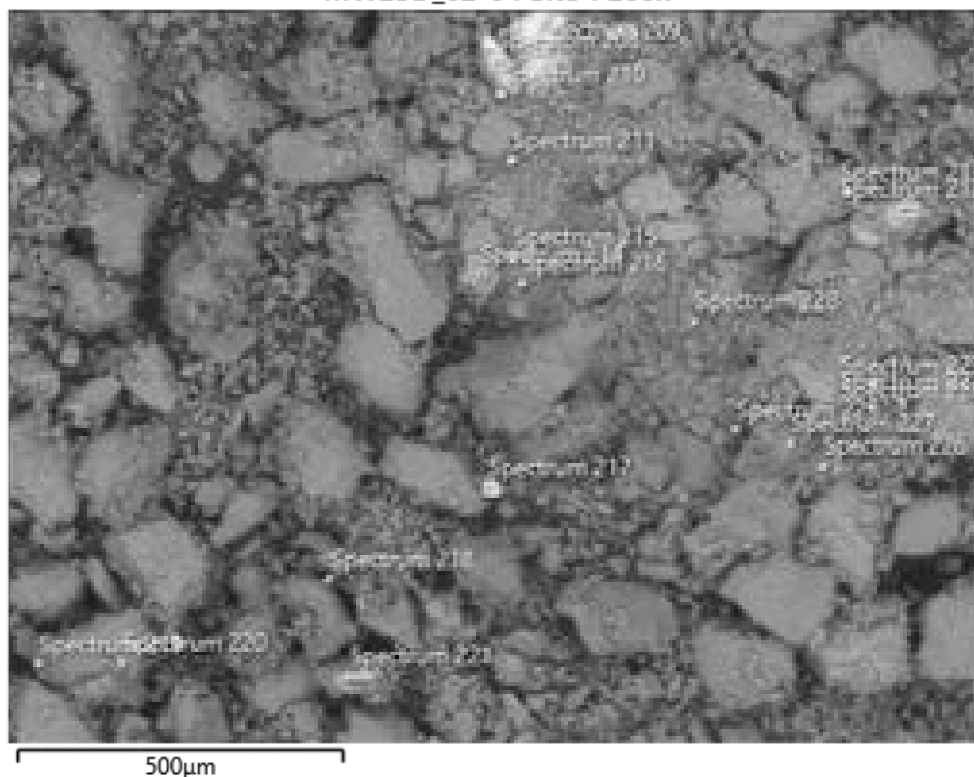




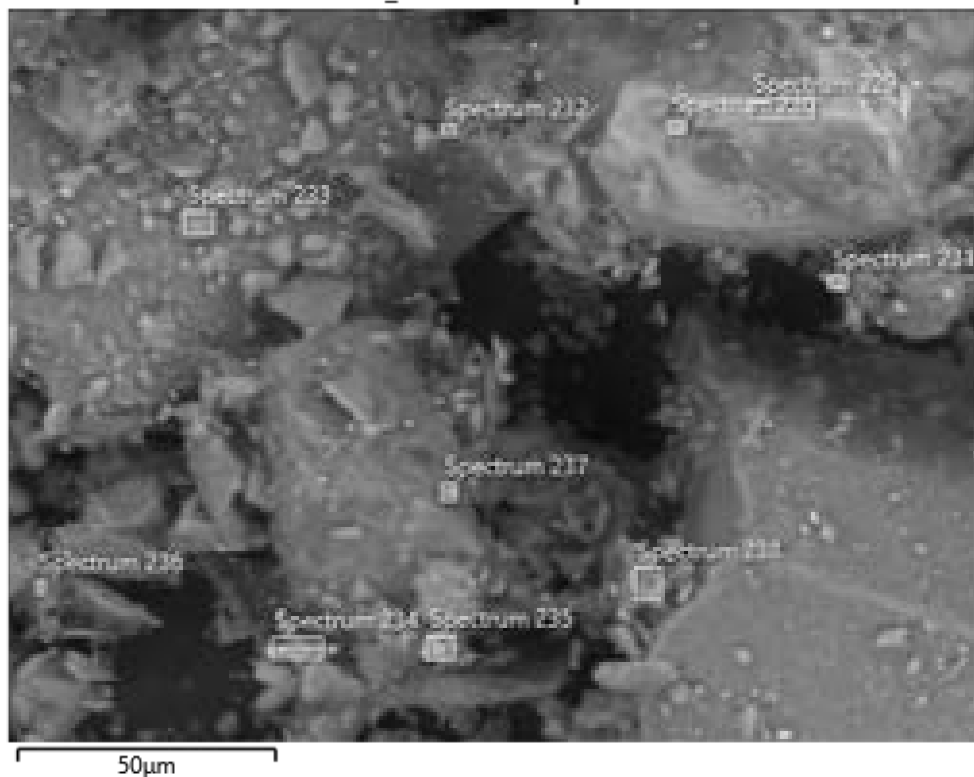




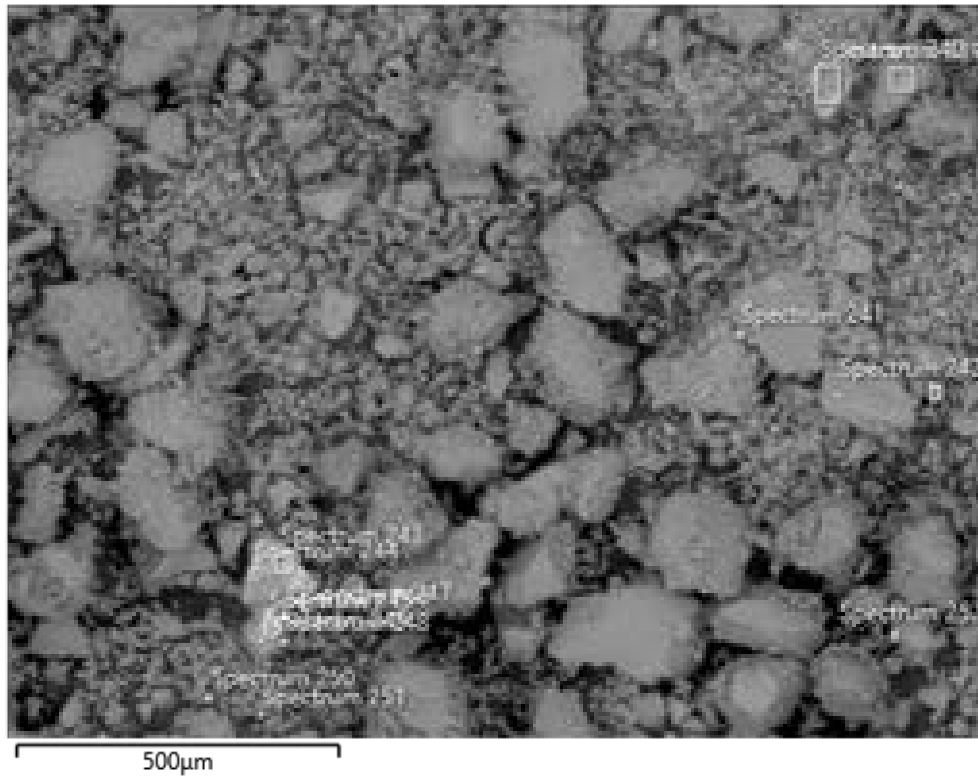
MW25D\_62-64 Site 1 200x



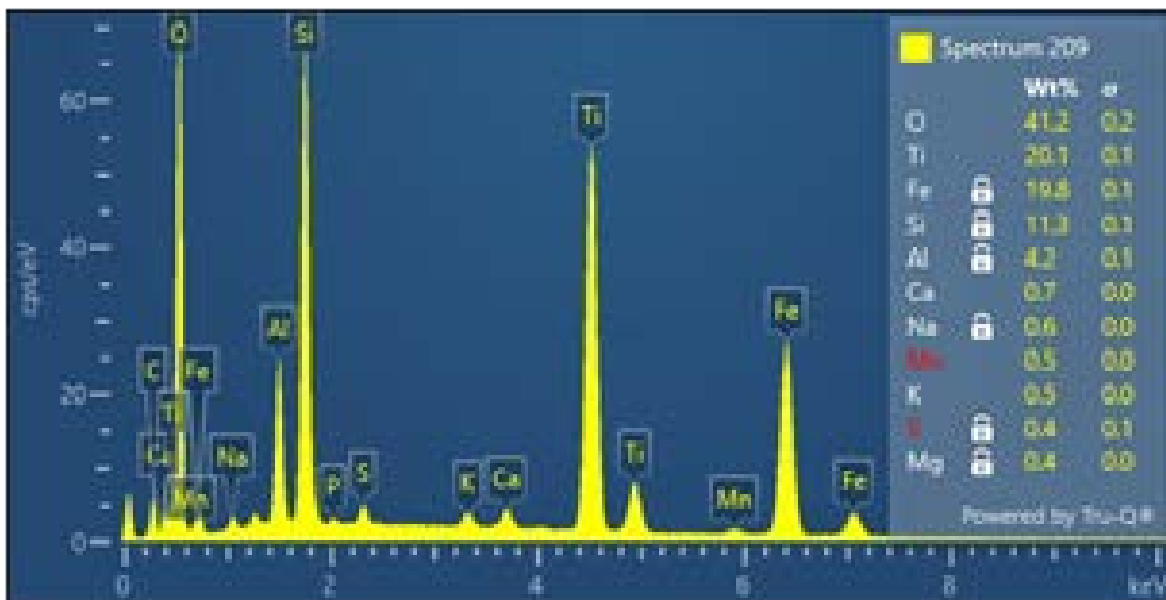
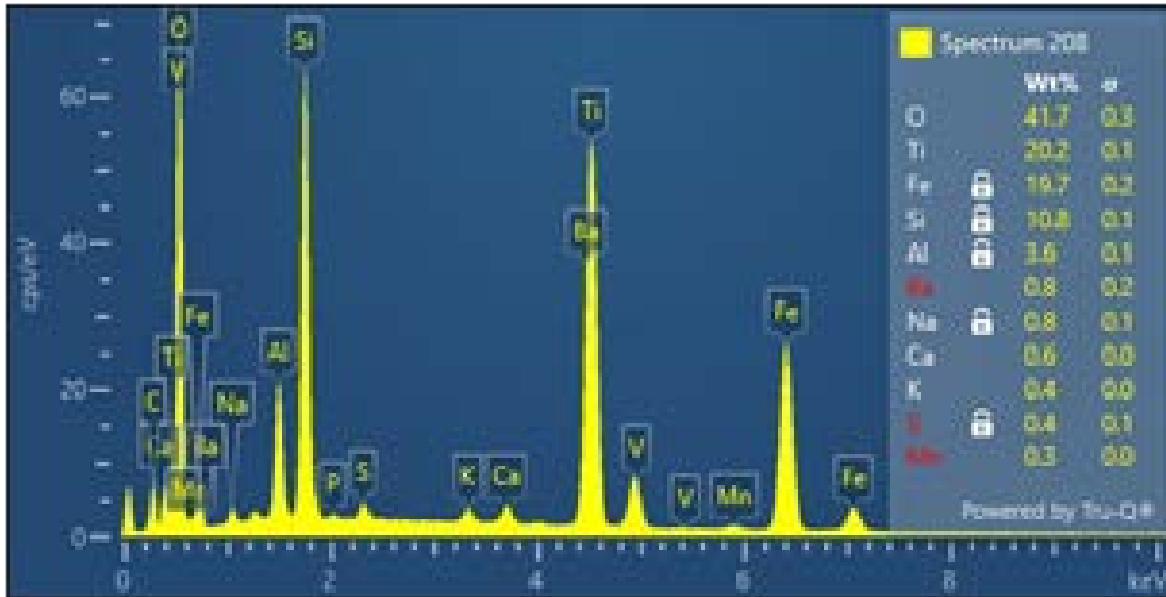
MW25D\_62-64 Site 1 sp221 1600x



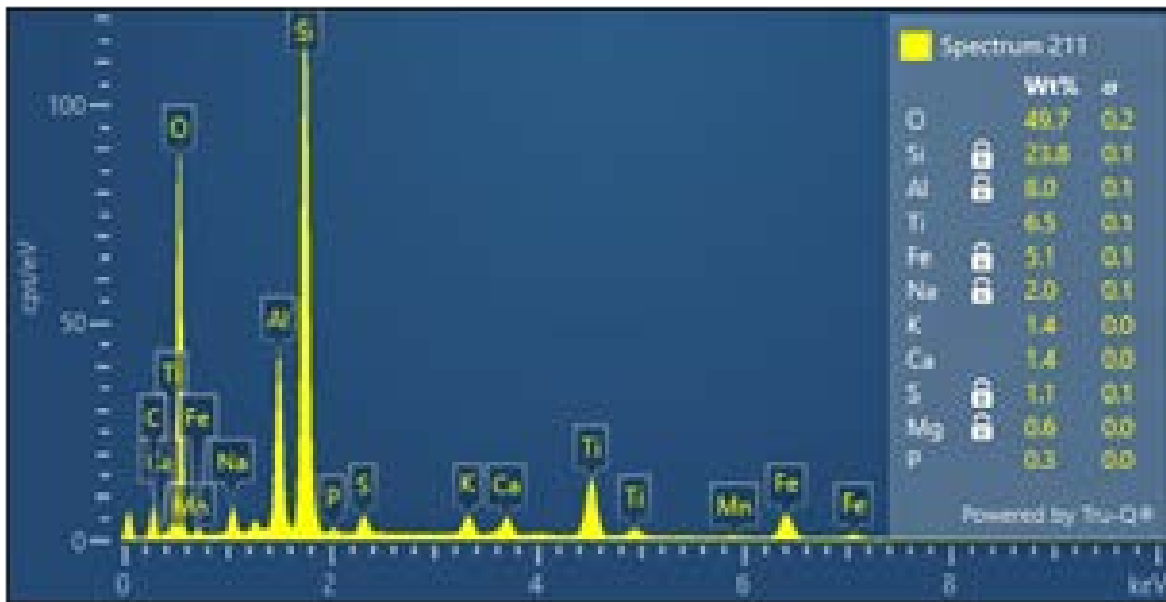
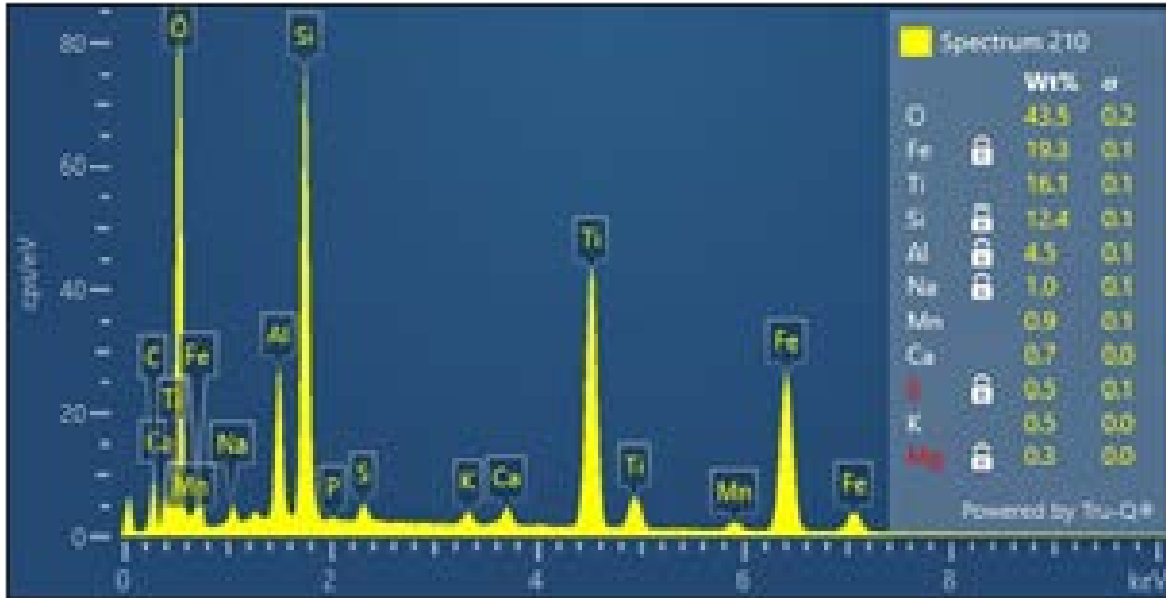
MW25D\_62-64 Site 2 200x

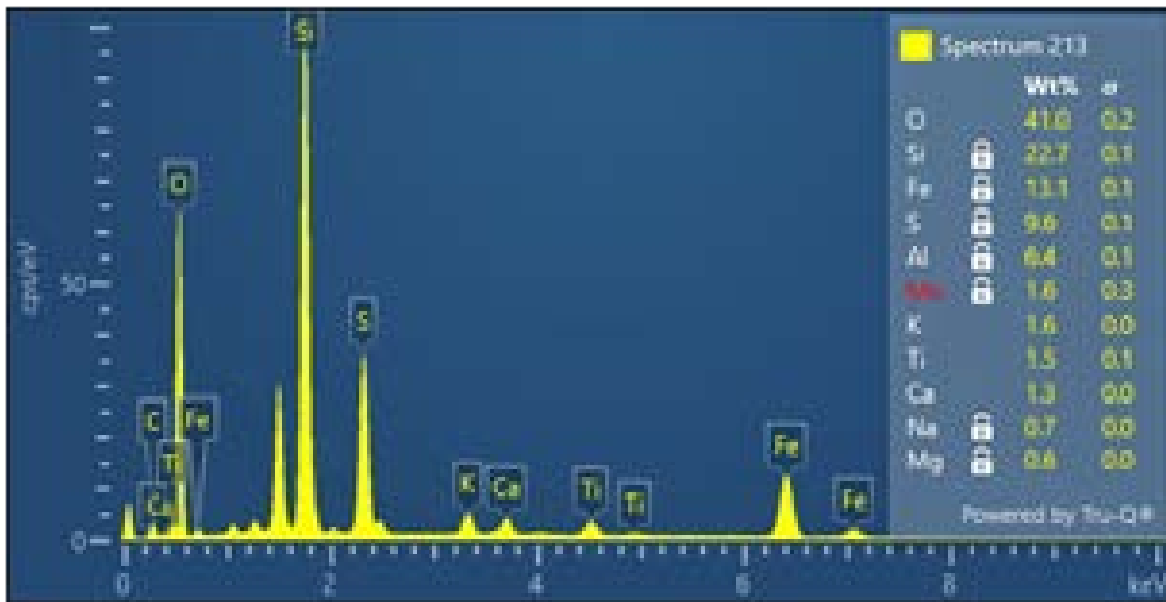
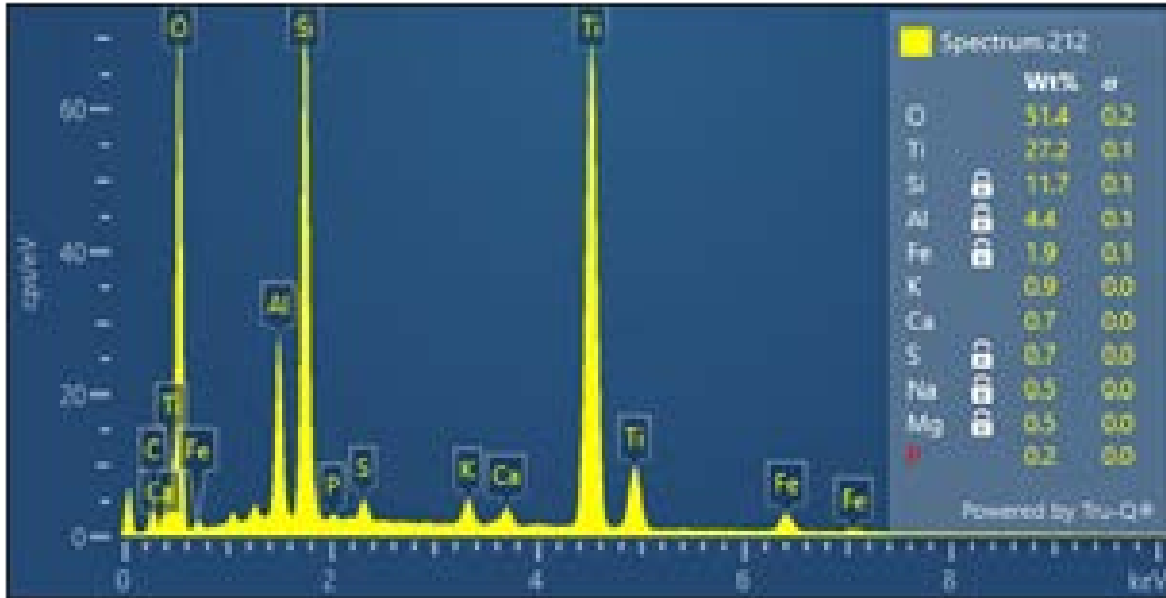


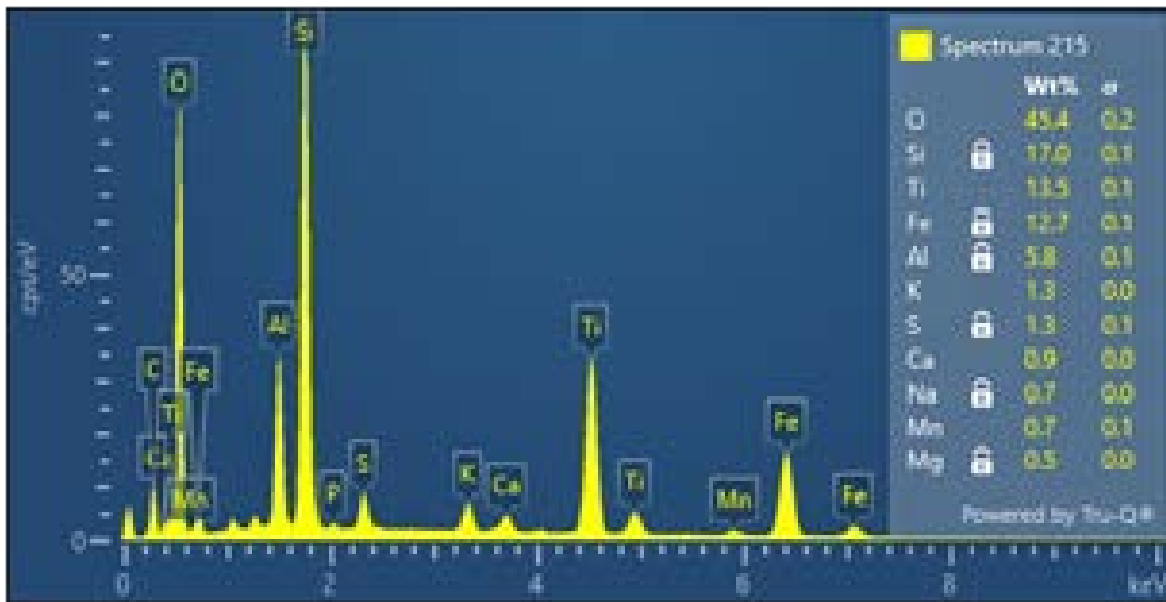
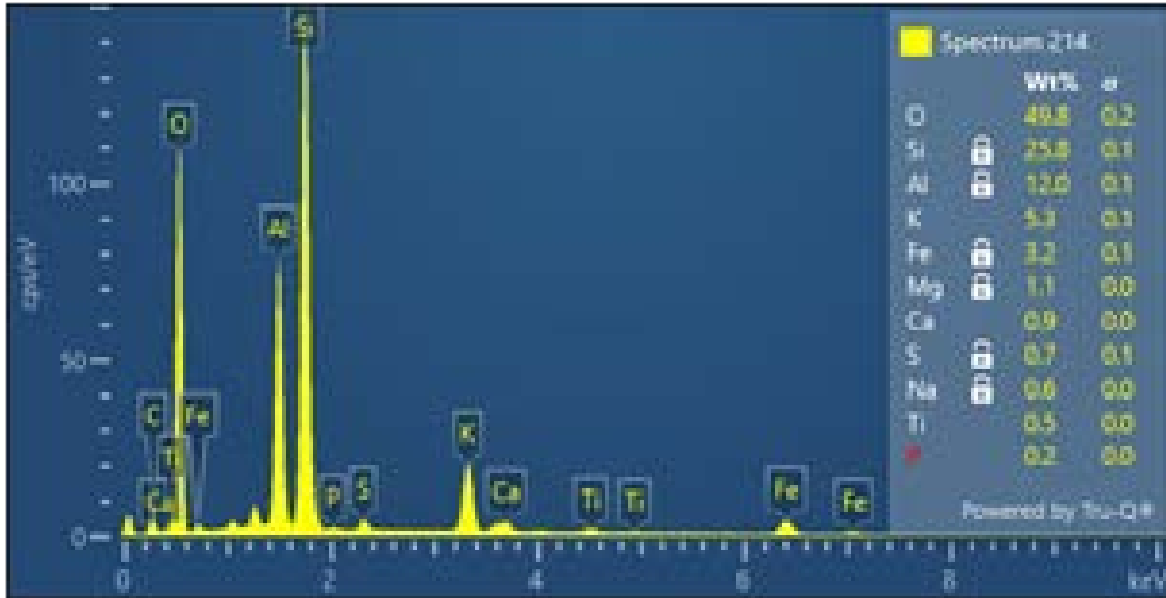
Spectrum images

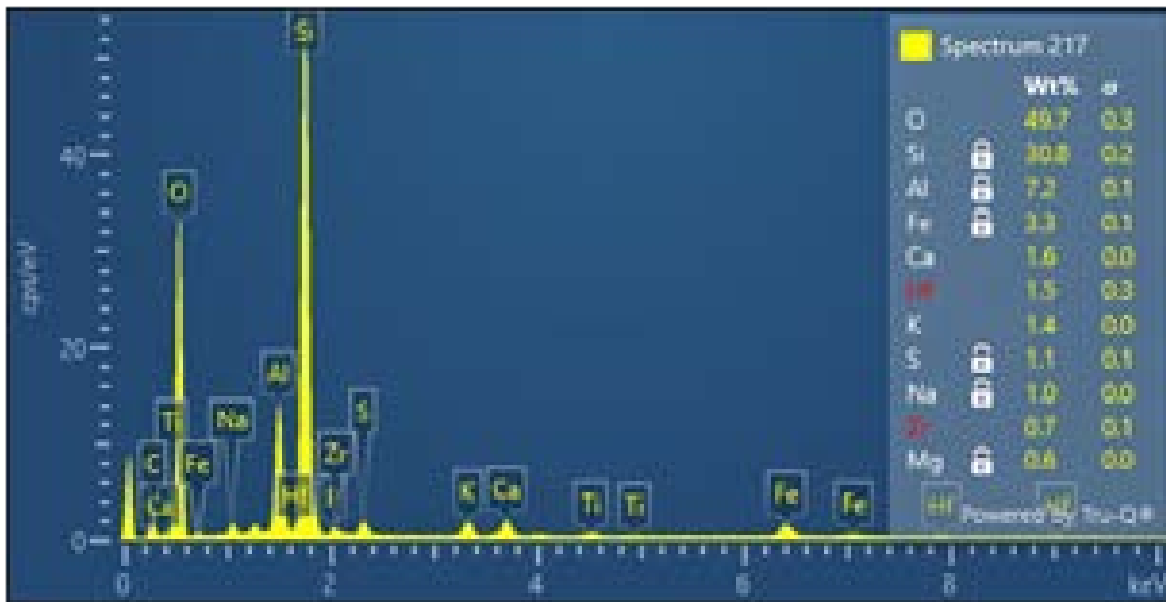
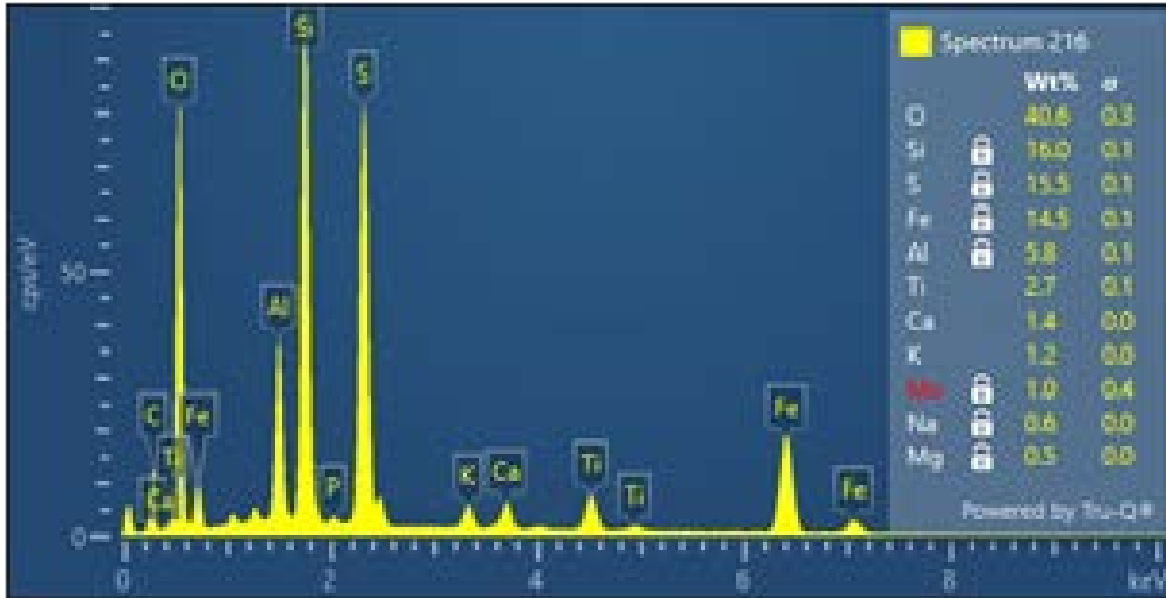


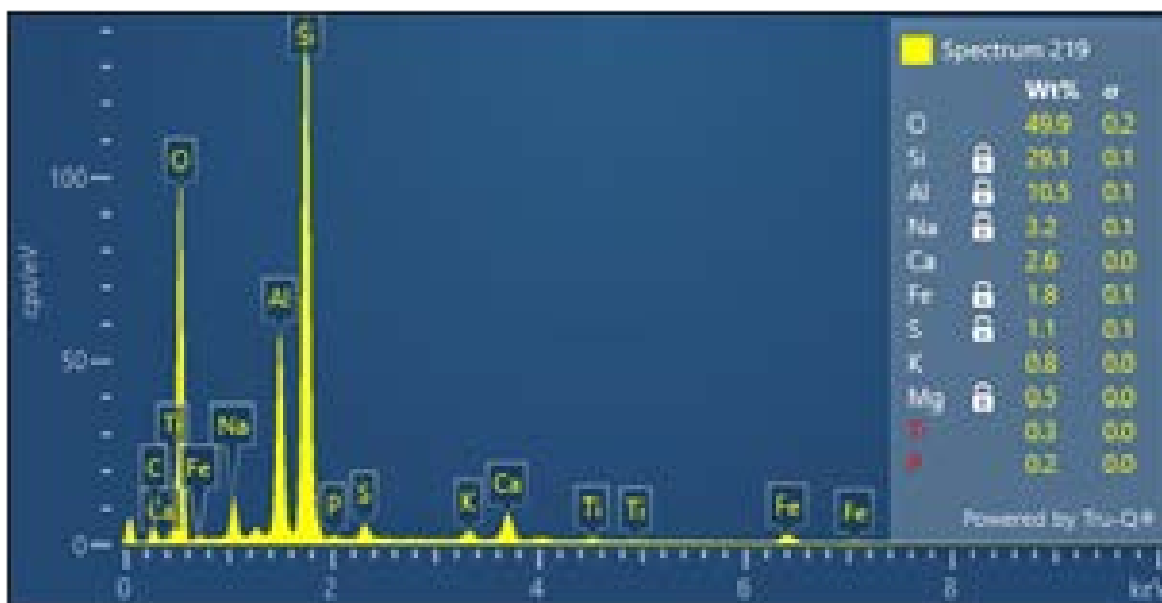
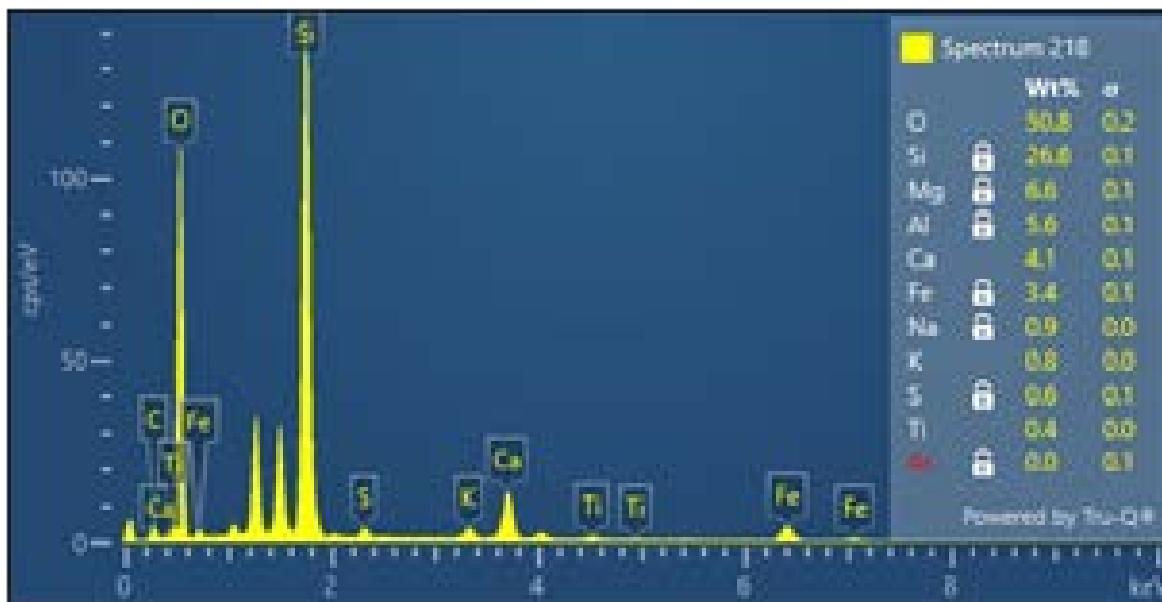


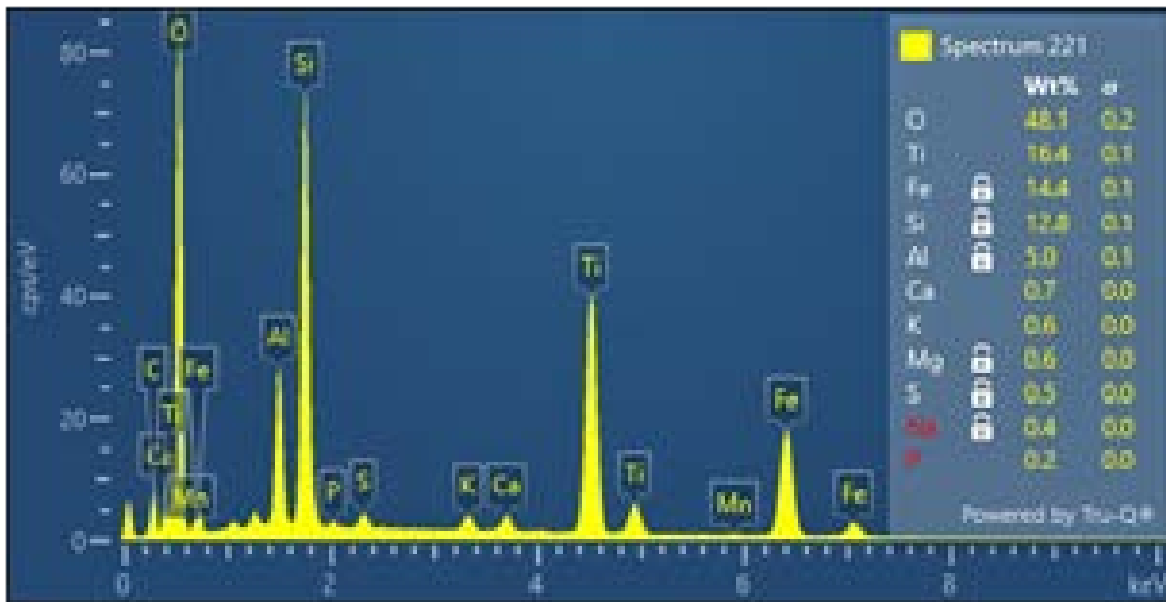
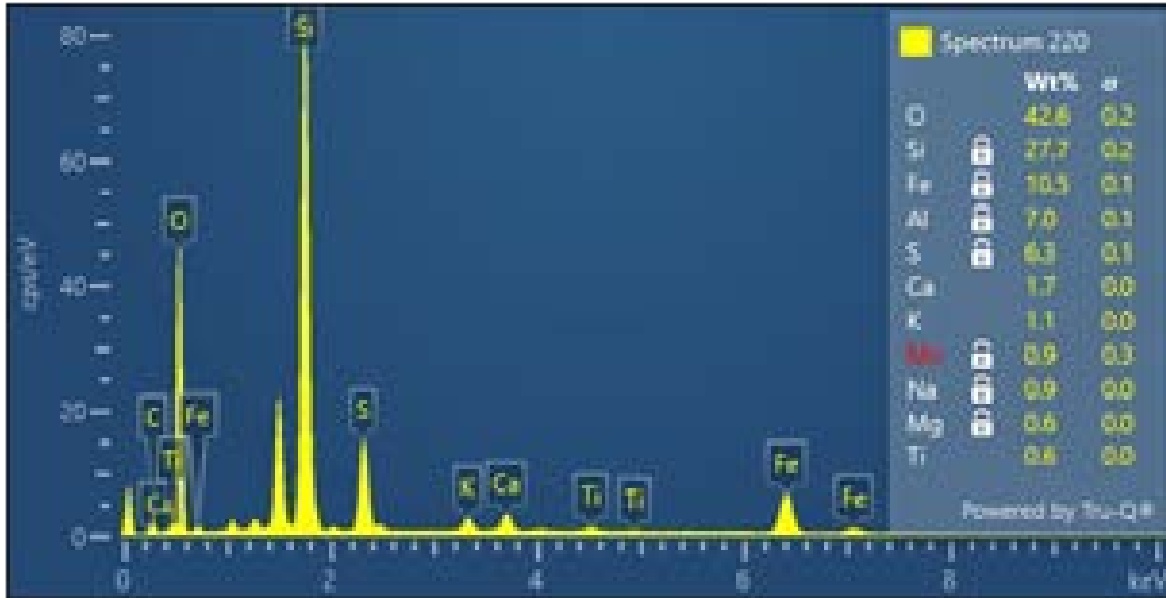


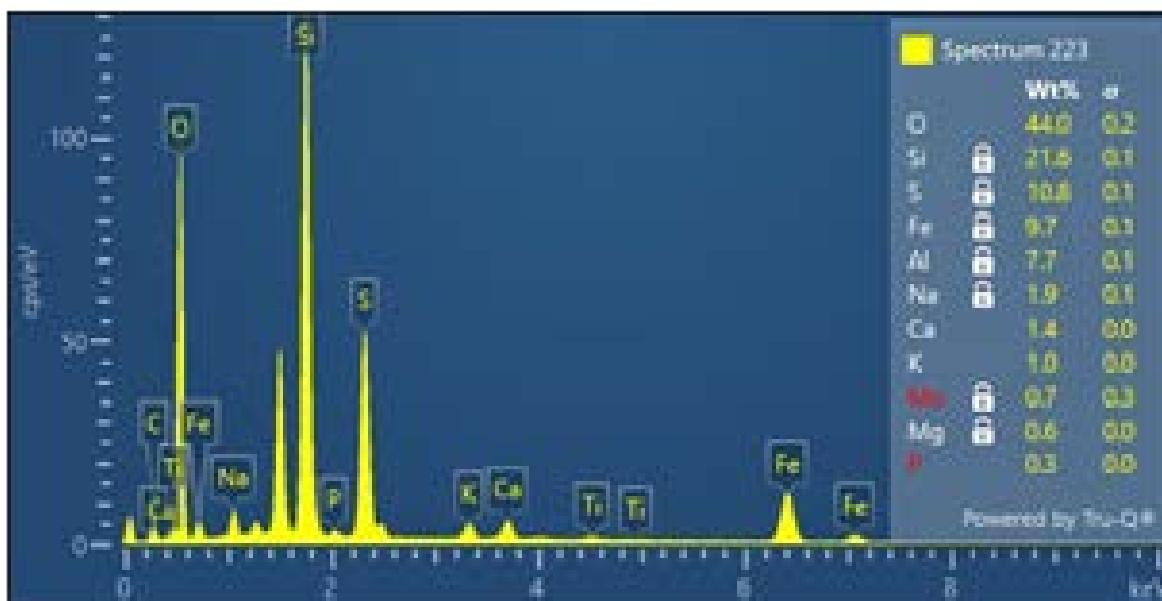
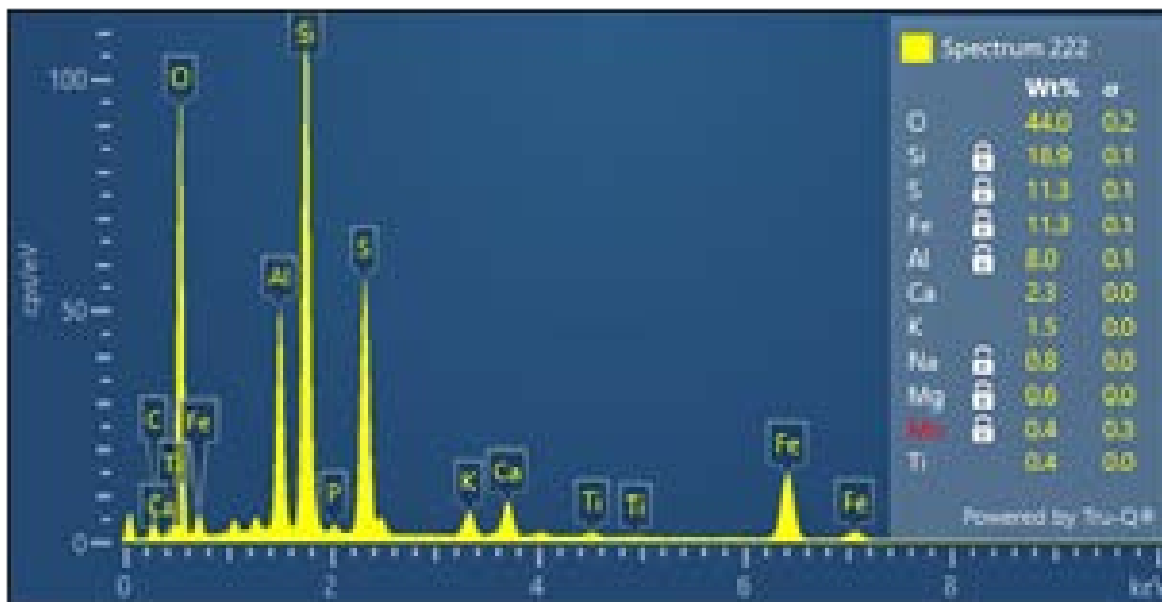


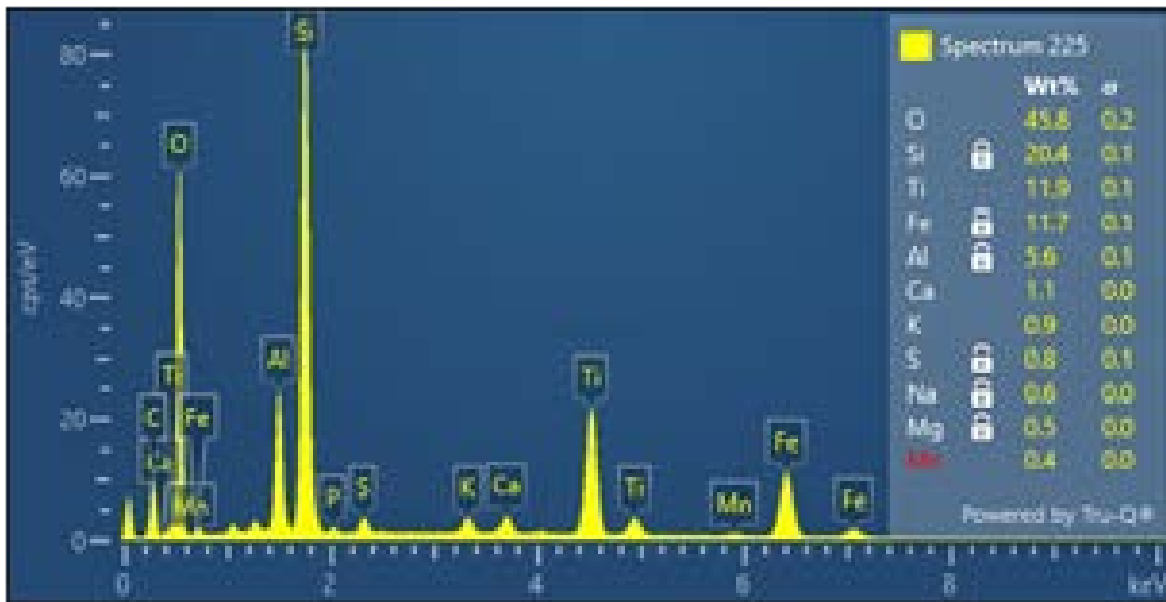
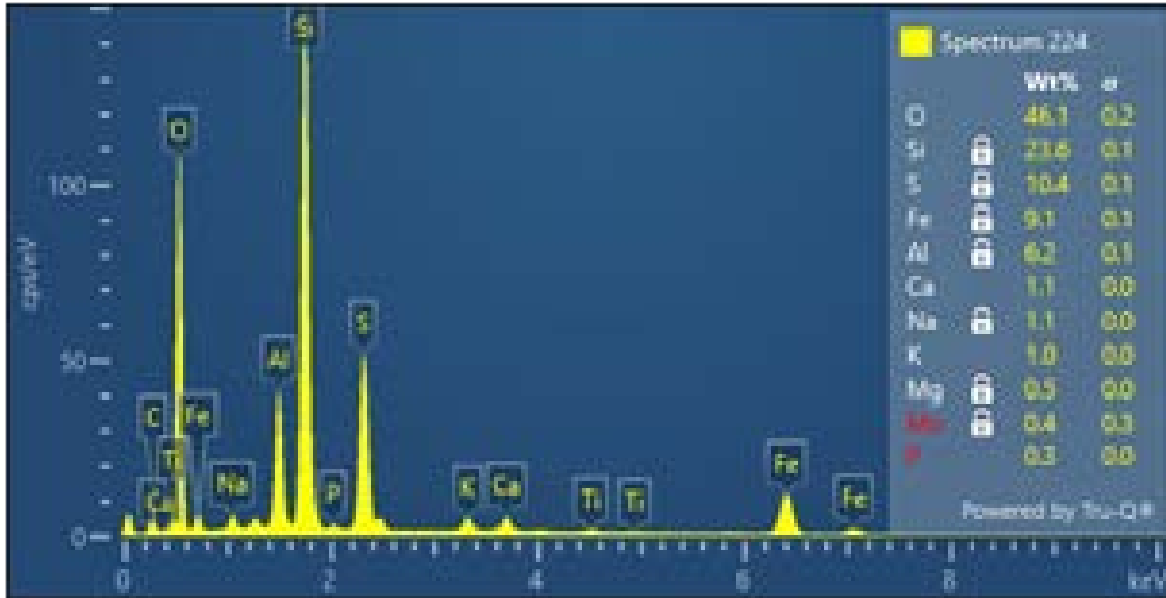




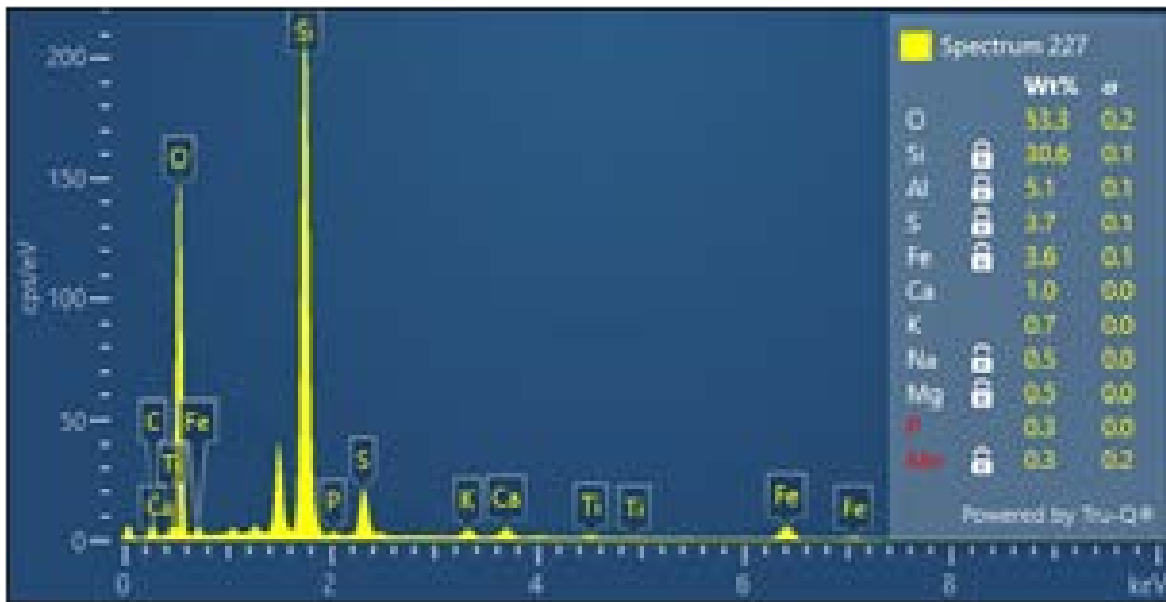
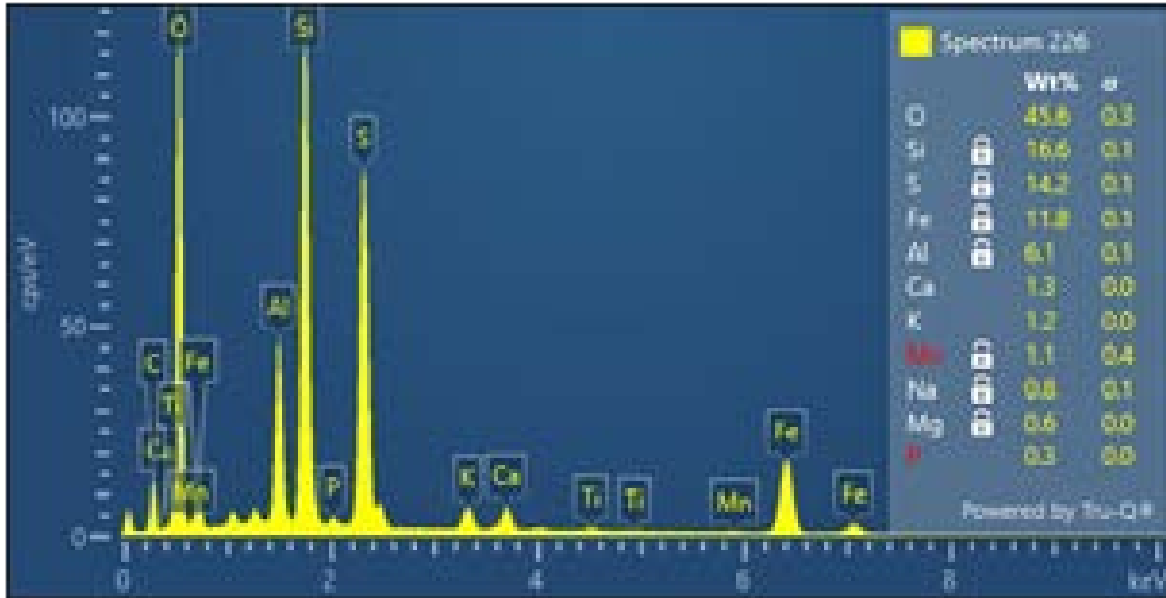


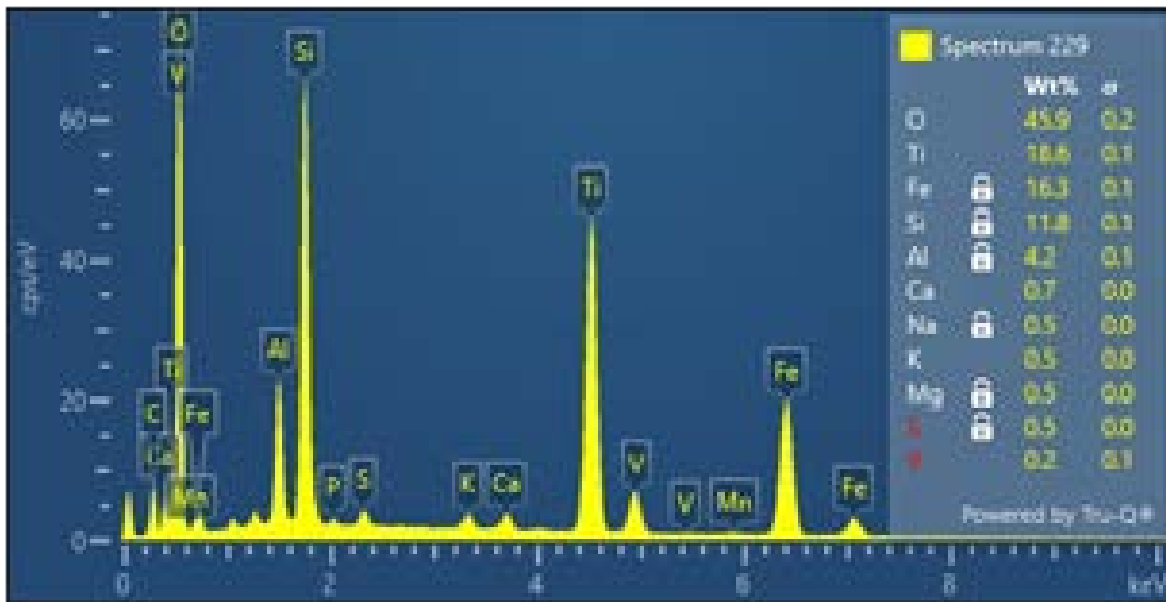
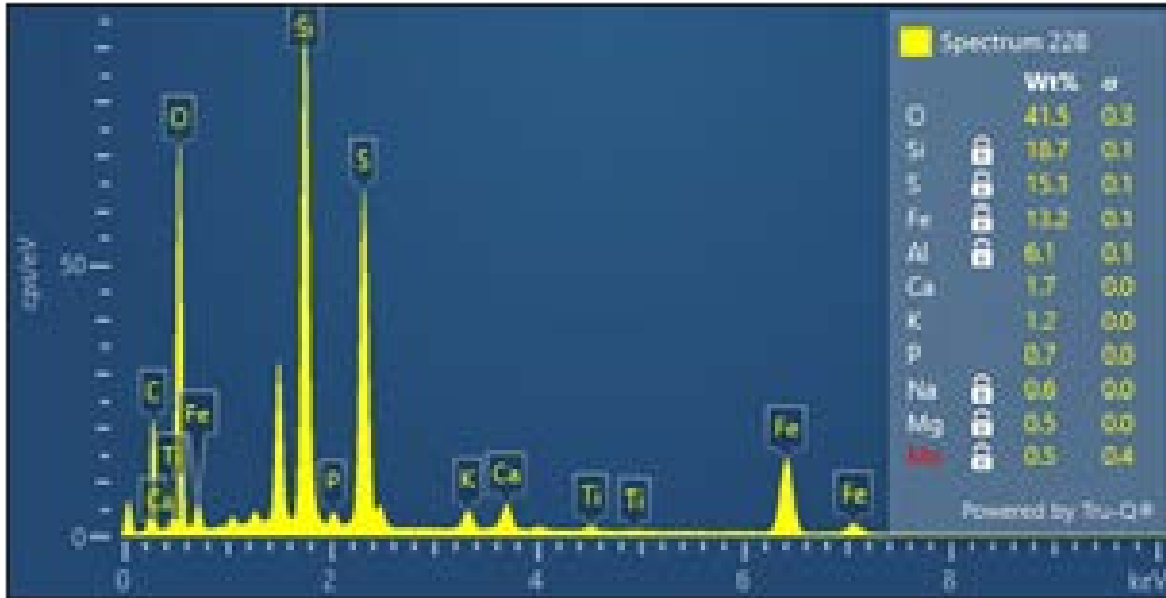


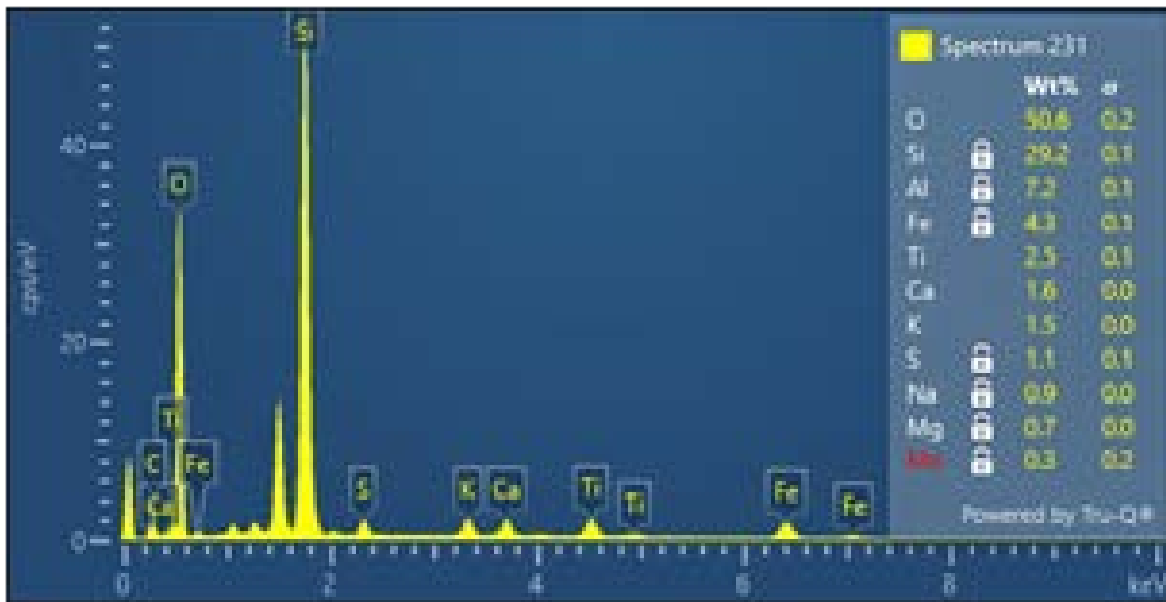
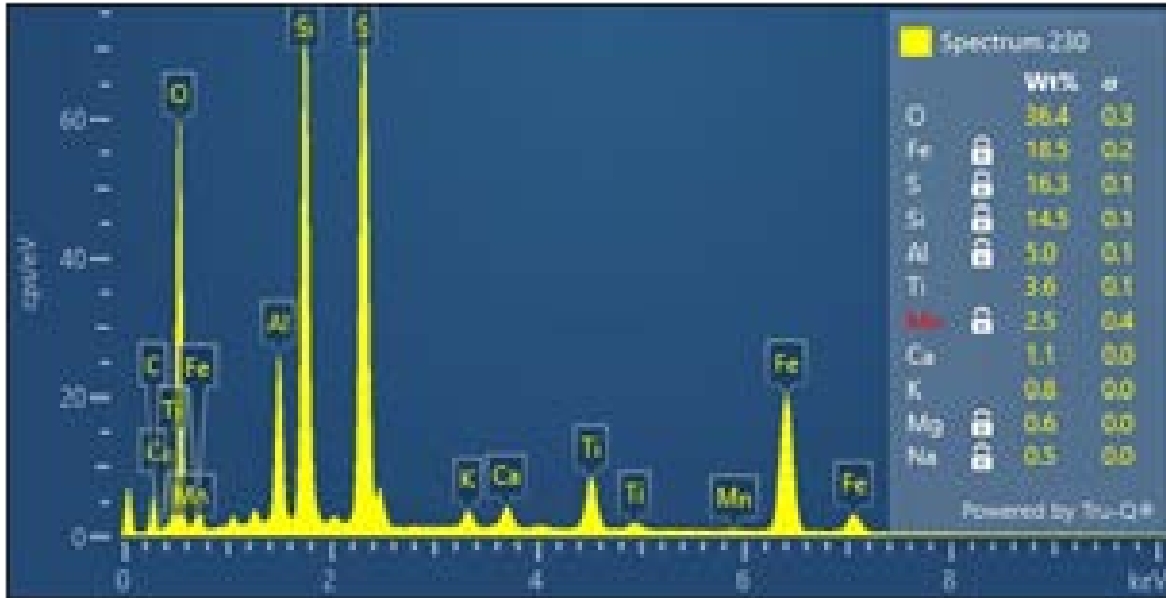


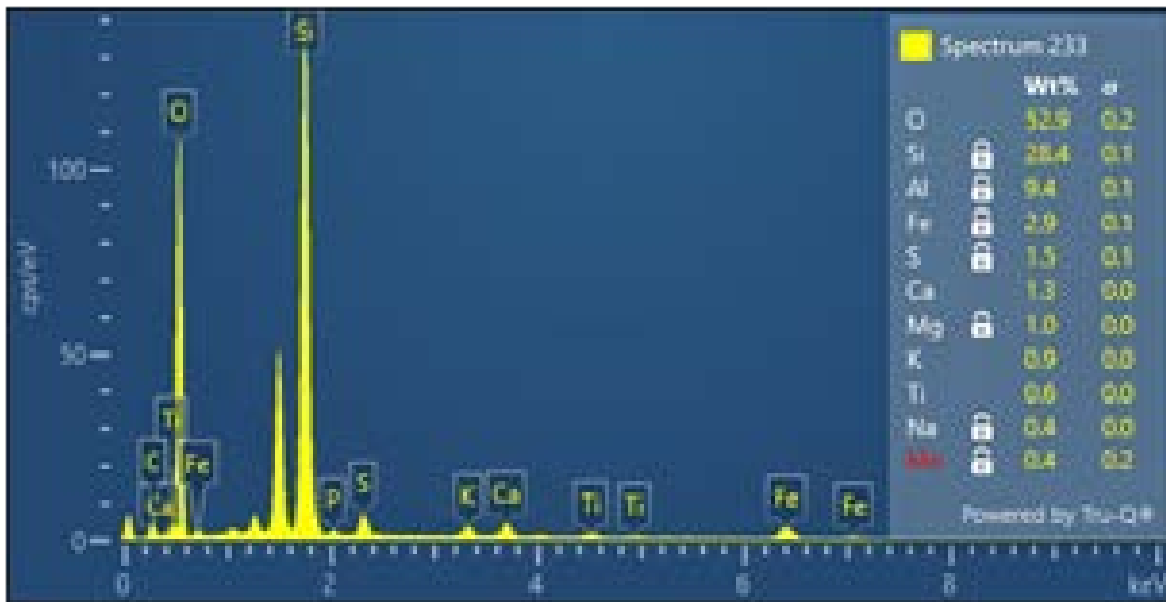
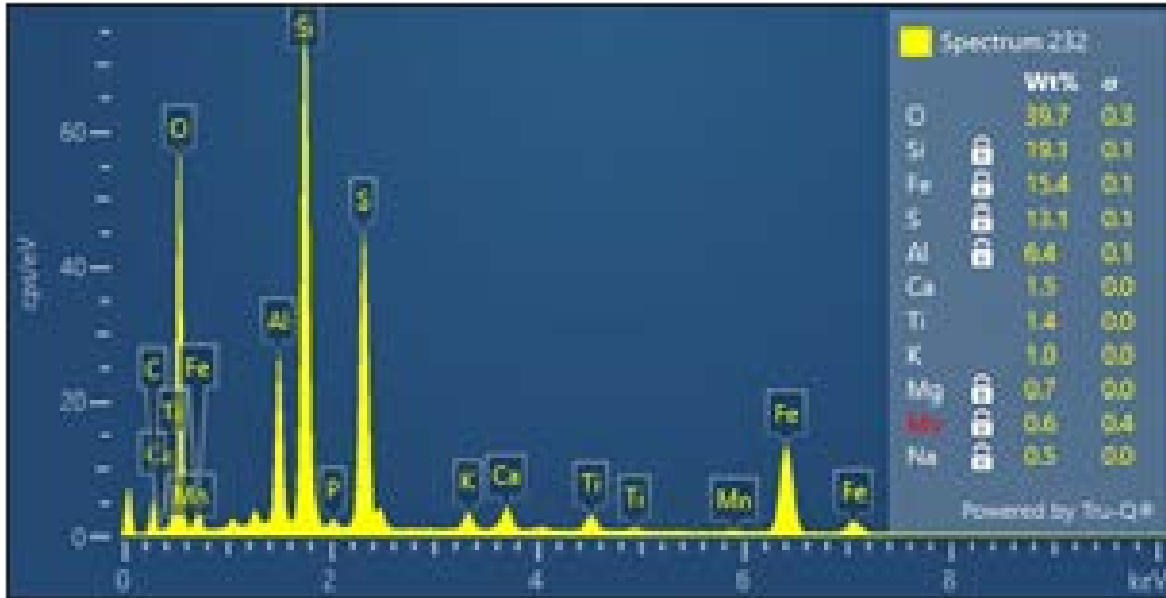


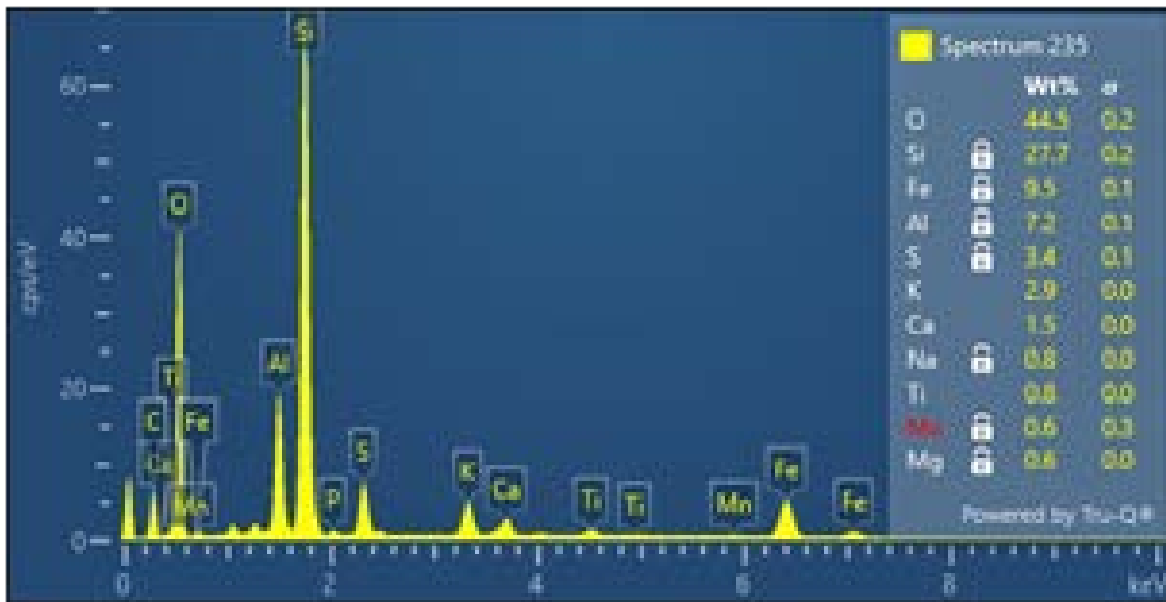
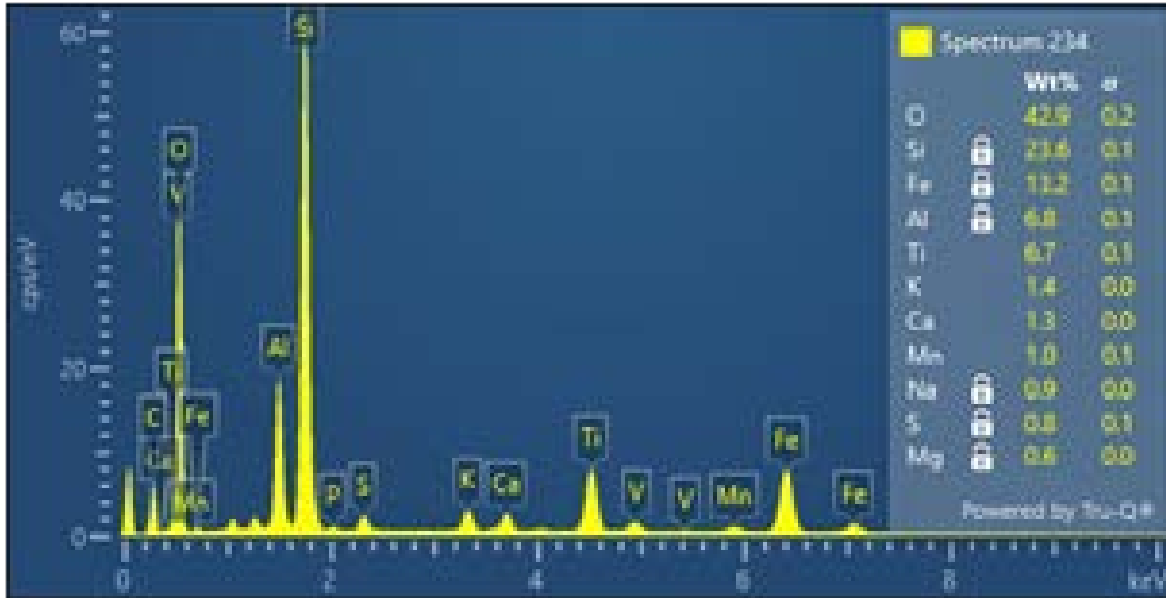


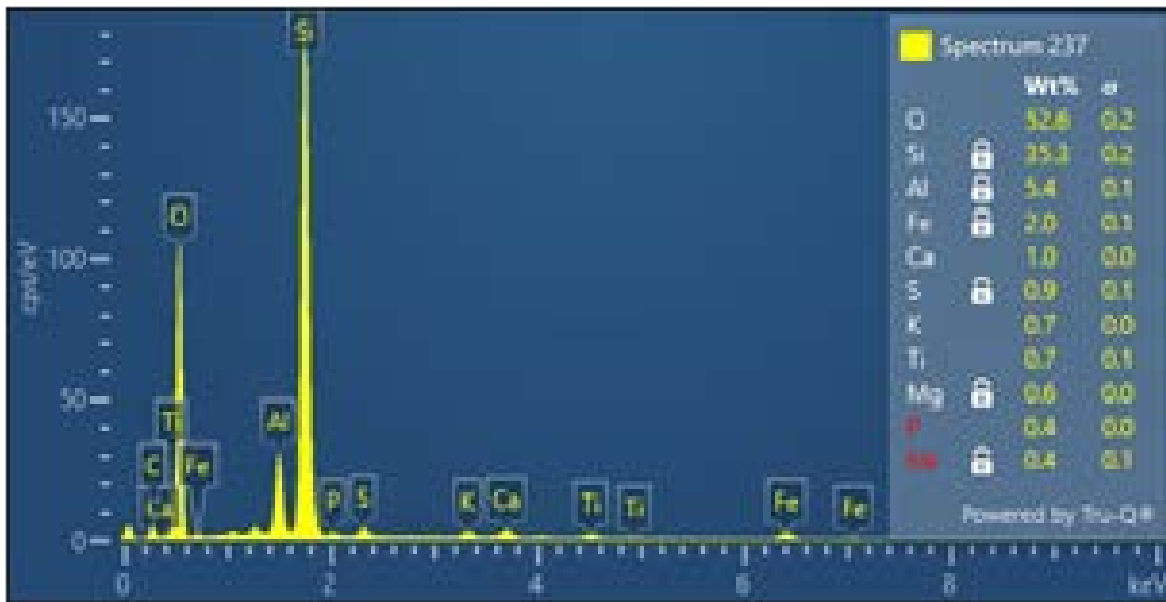
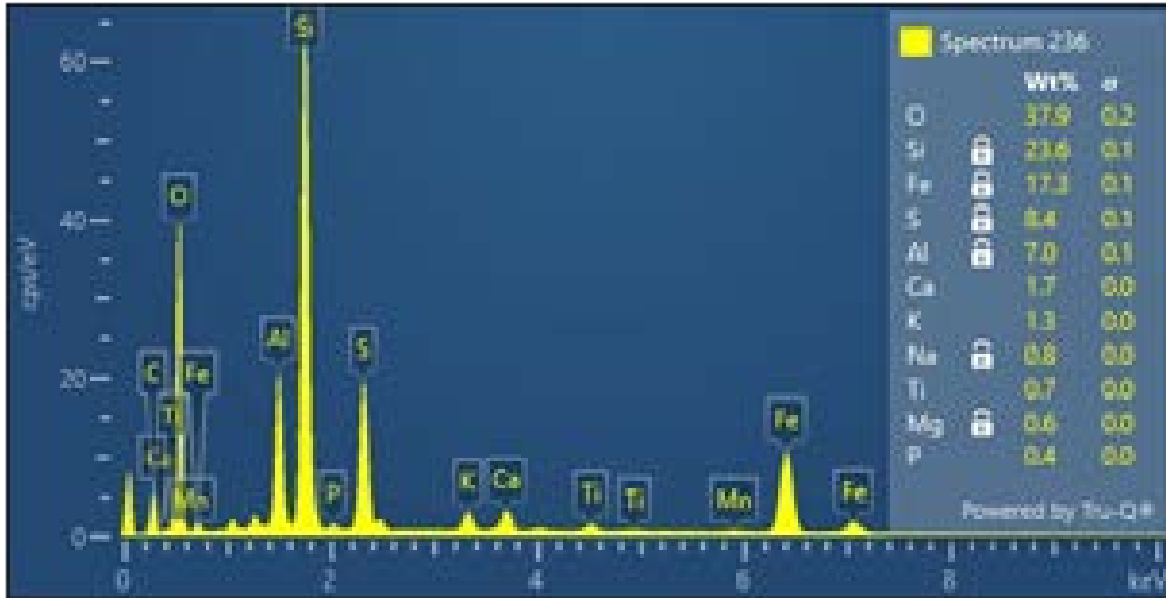


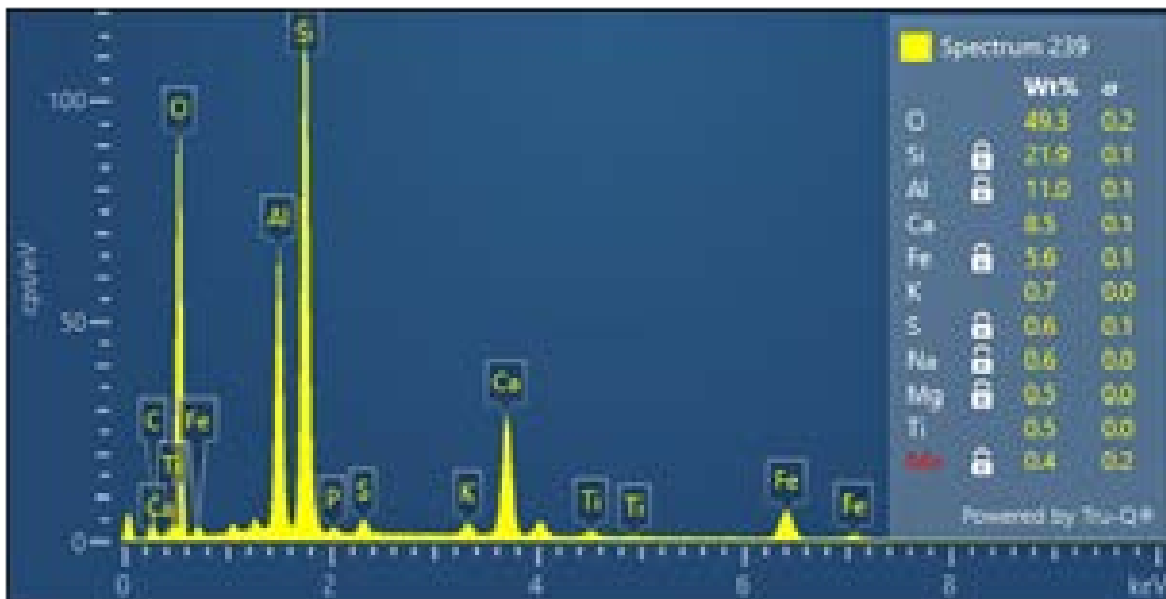
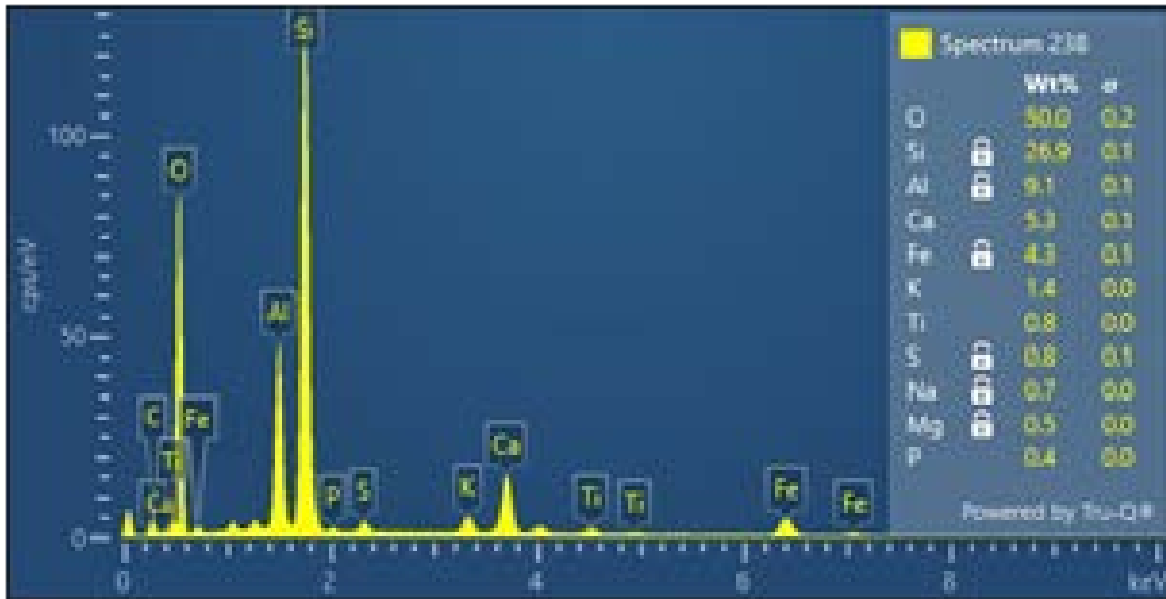


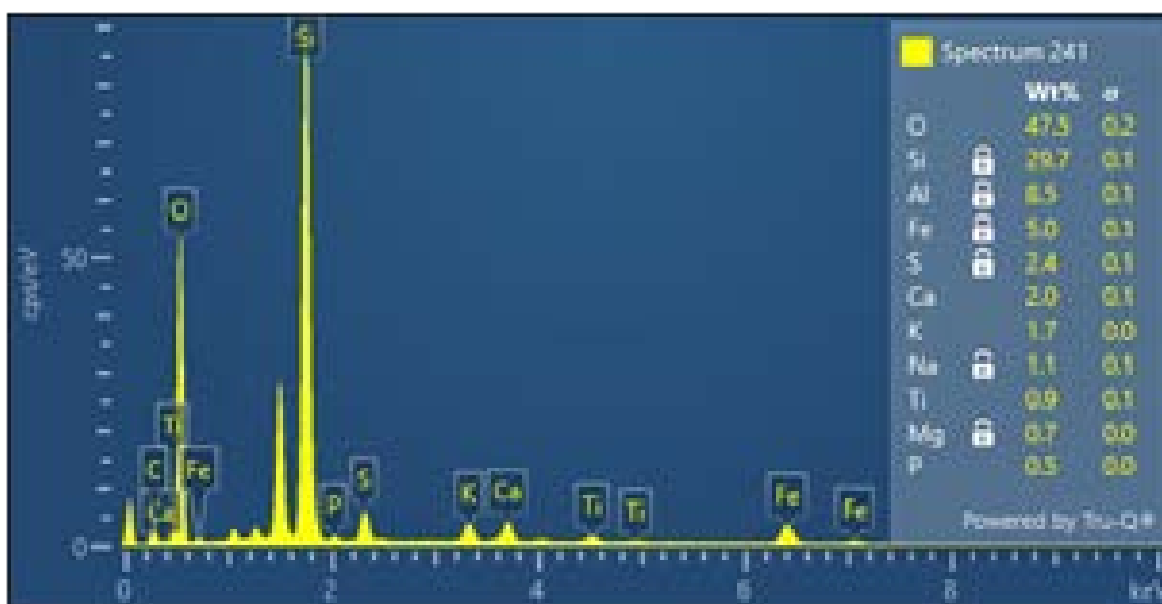
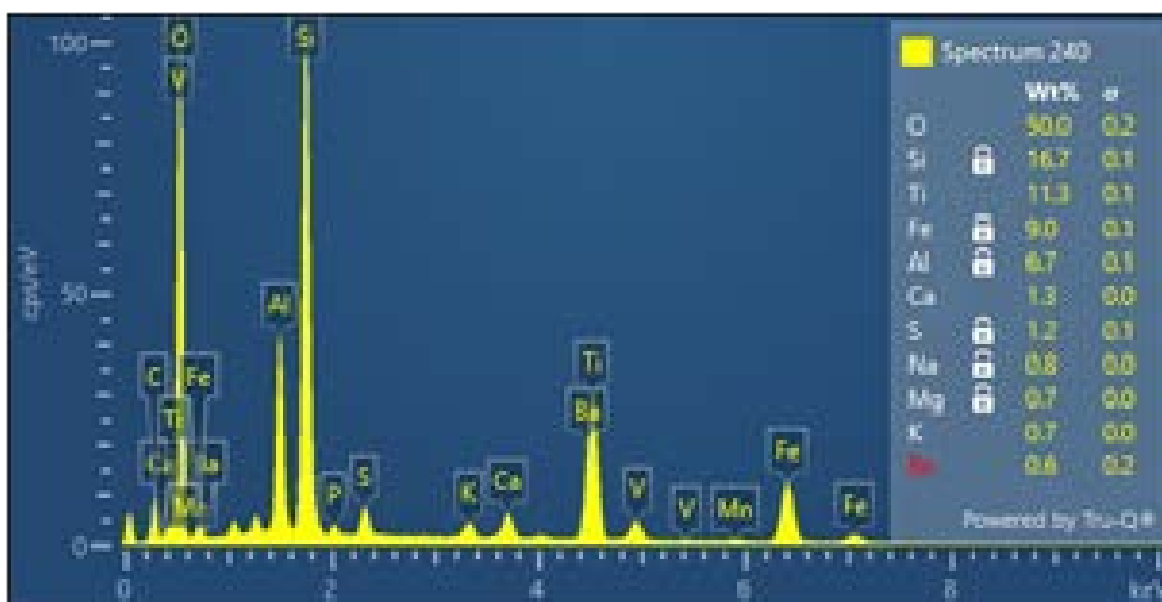




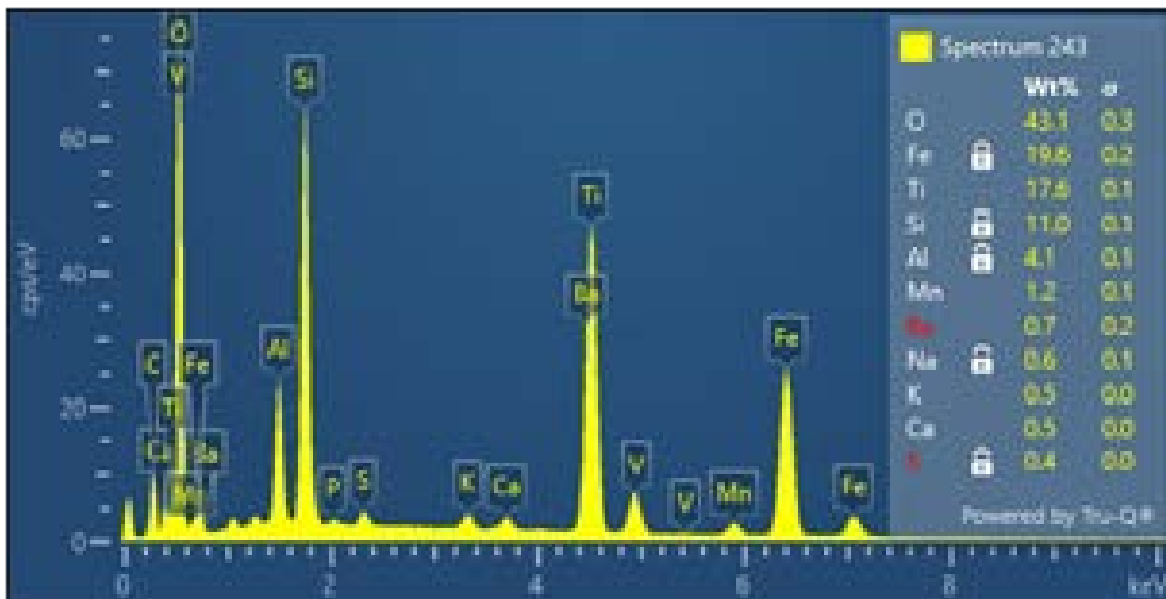
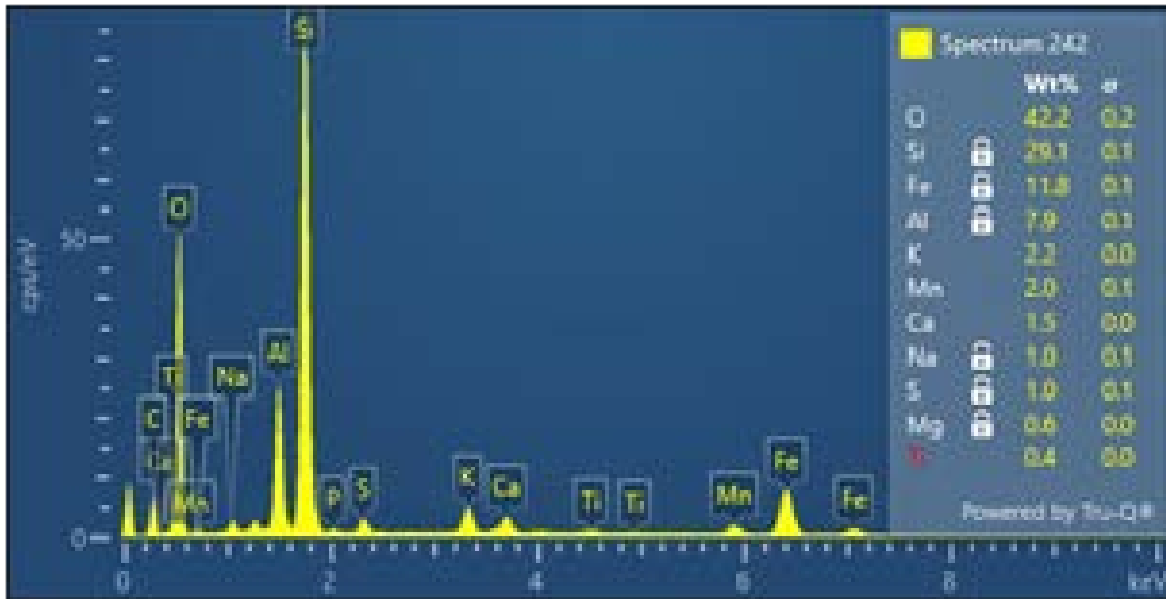


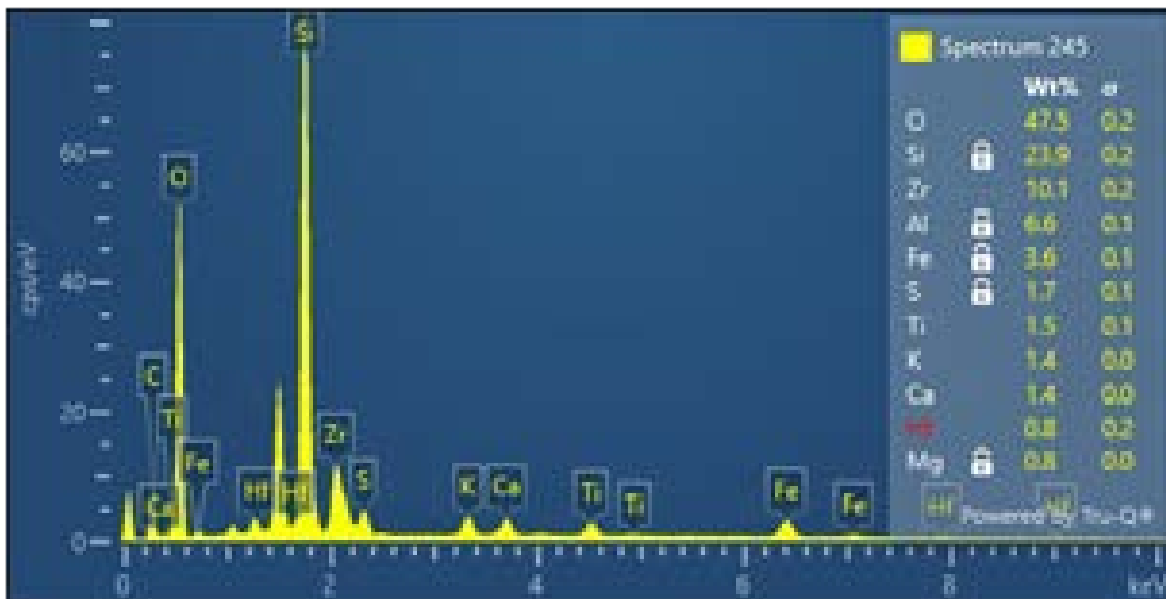
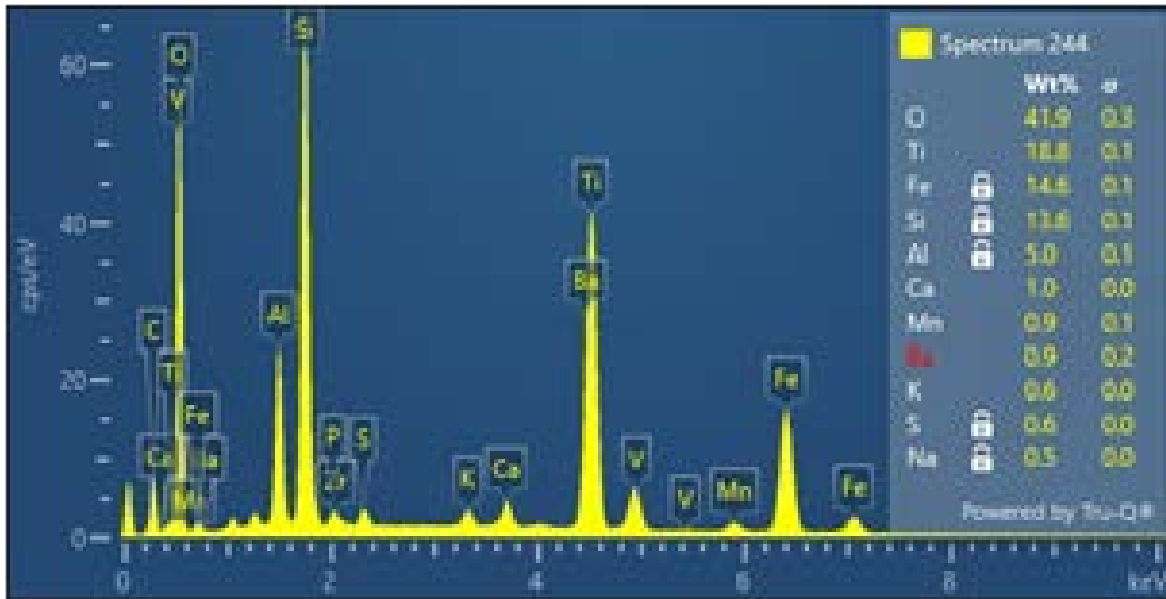


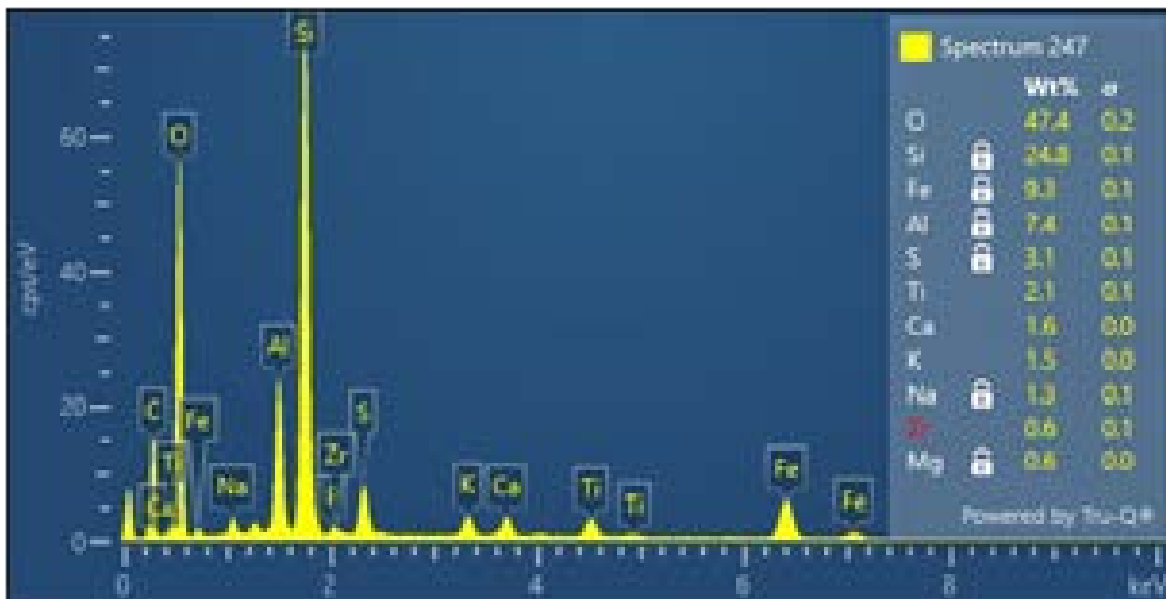
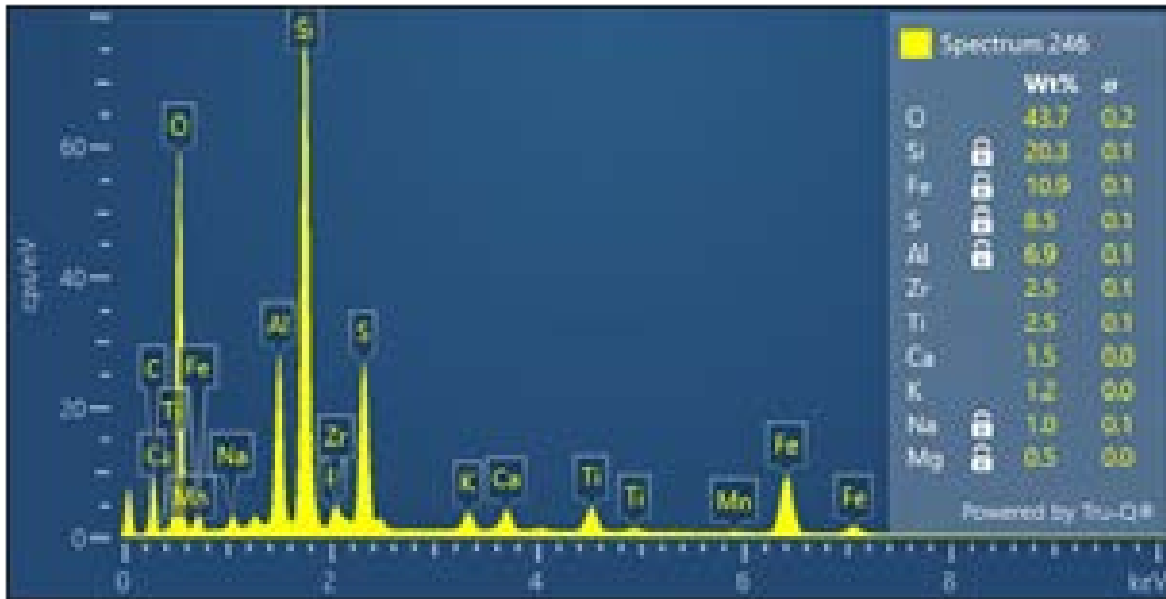


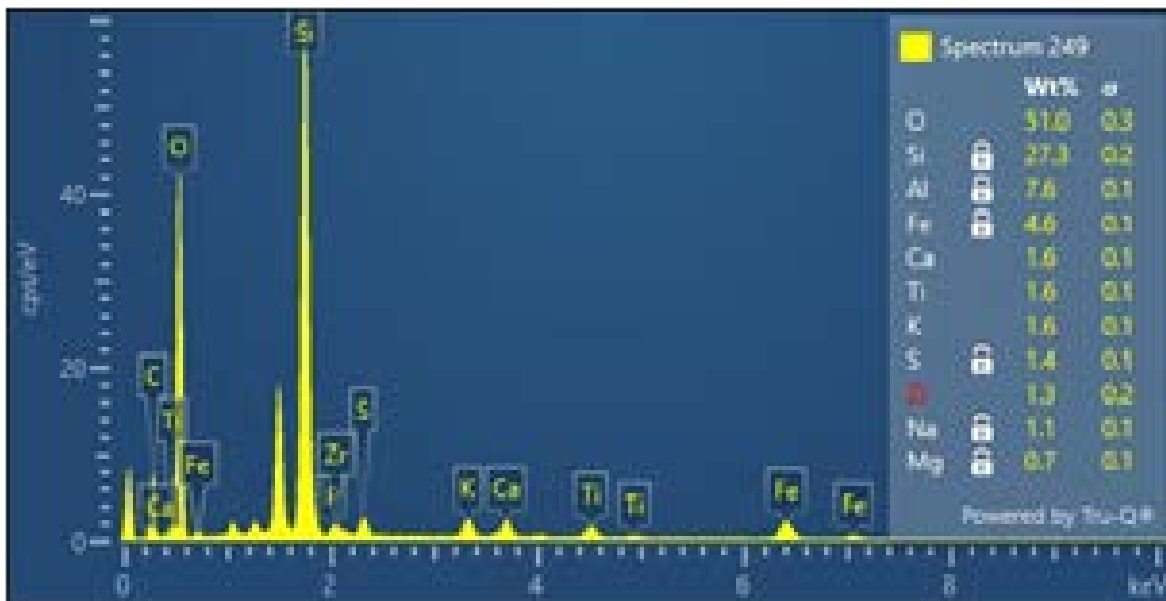
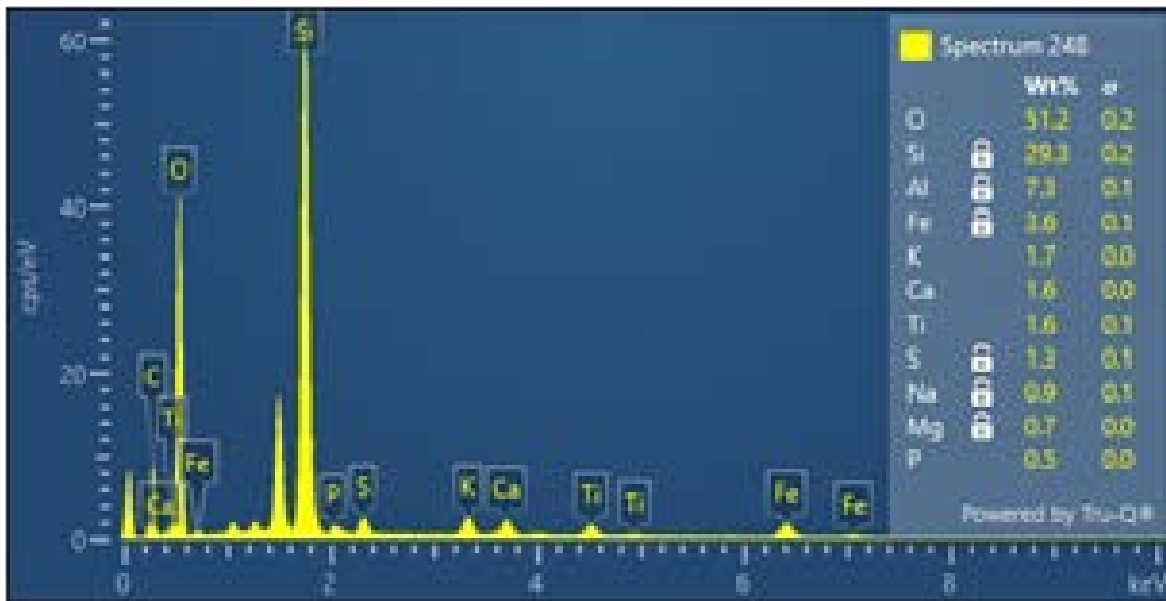


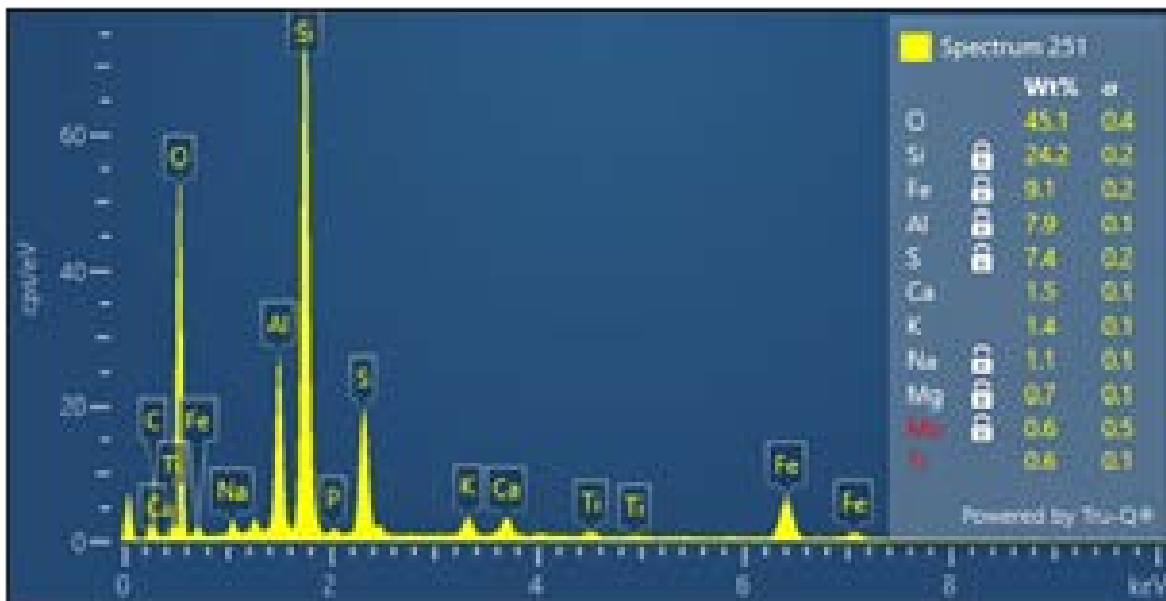
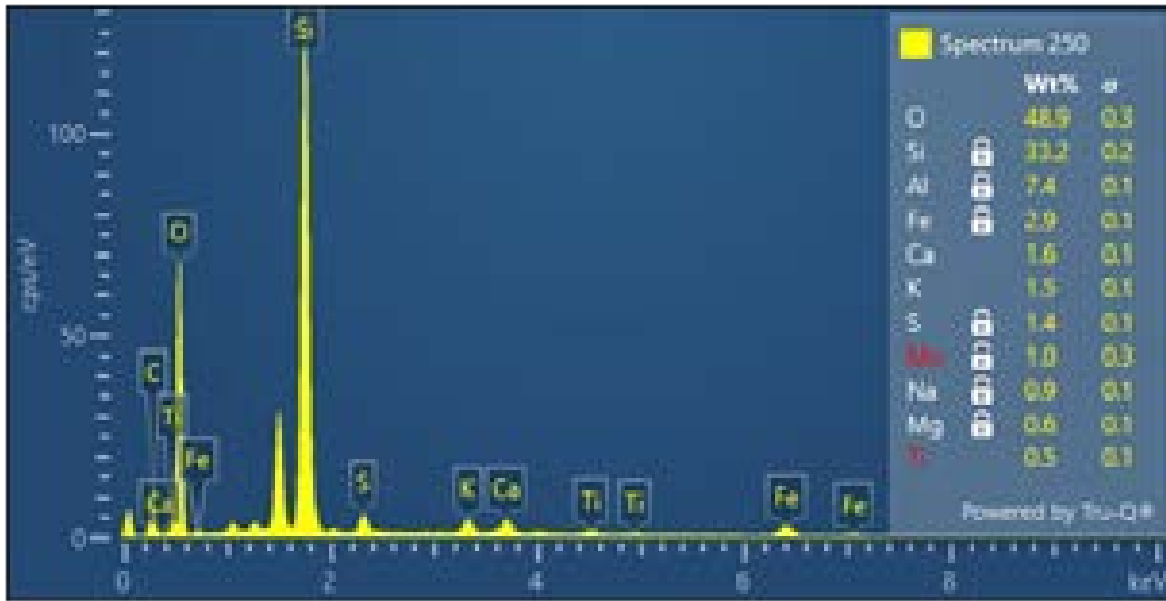


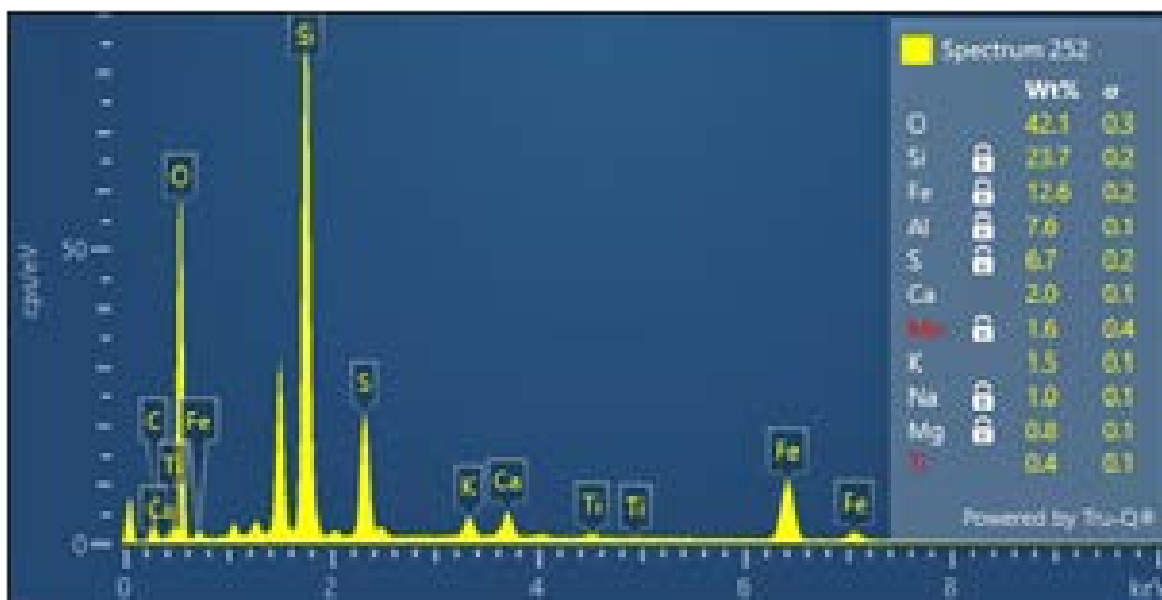




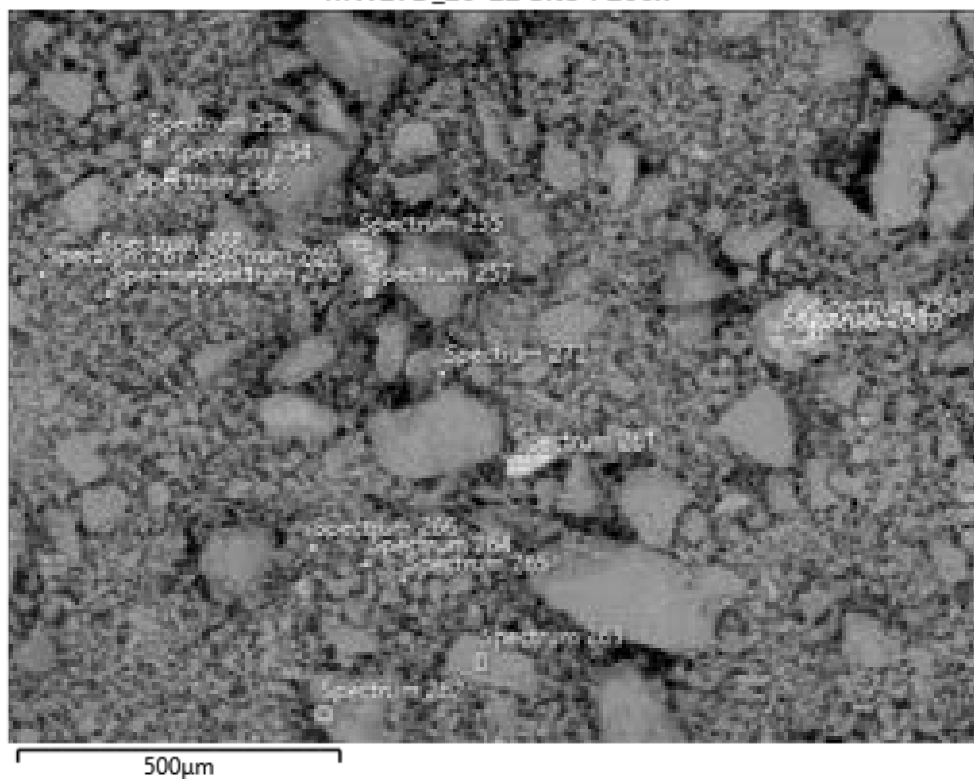




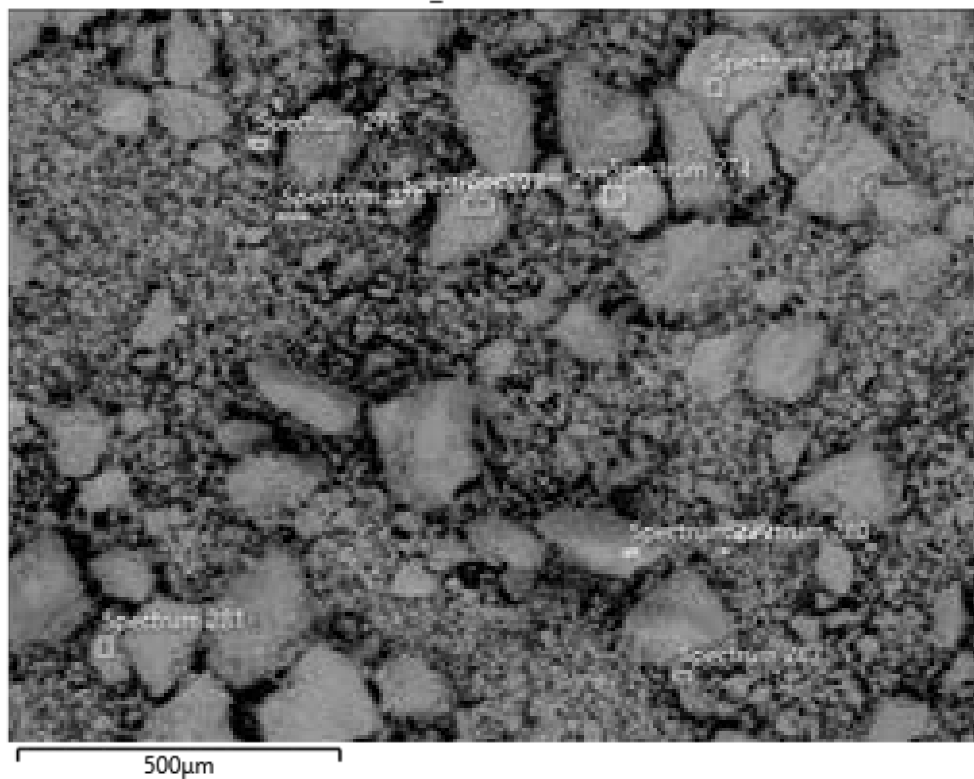




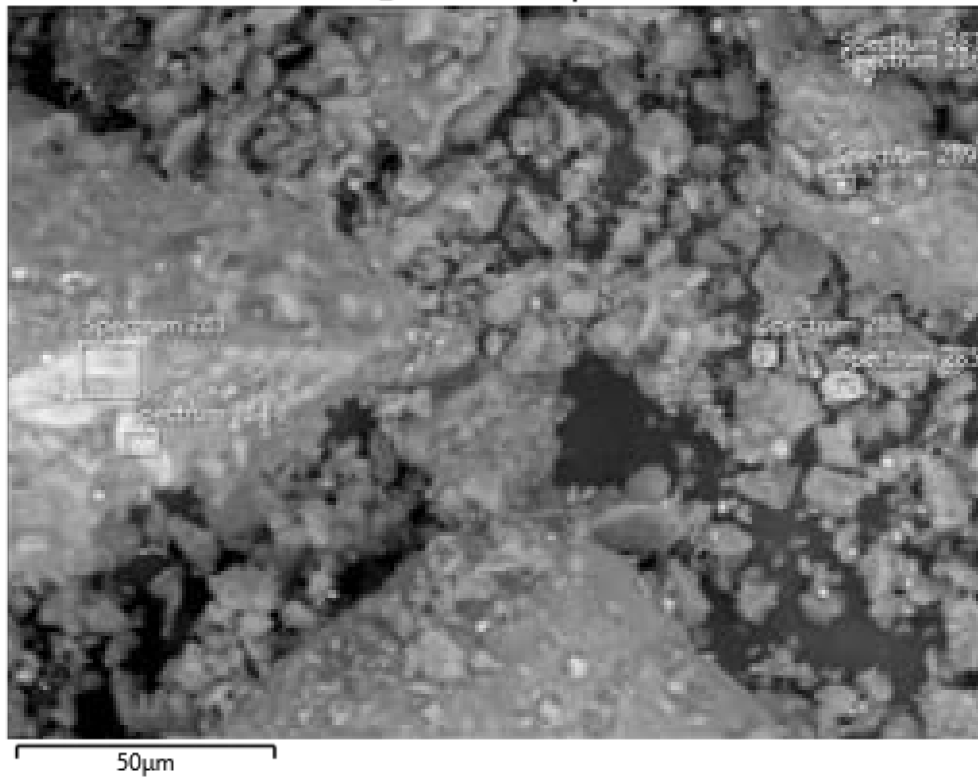
MW27D\_20-22 Site 1 200x



MW27D\_20-22 Site 2 200x

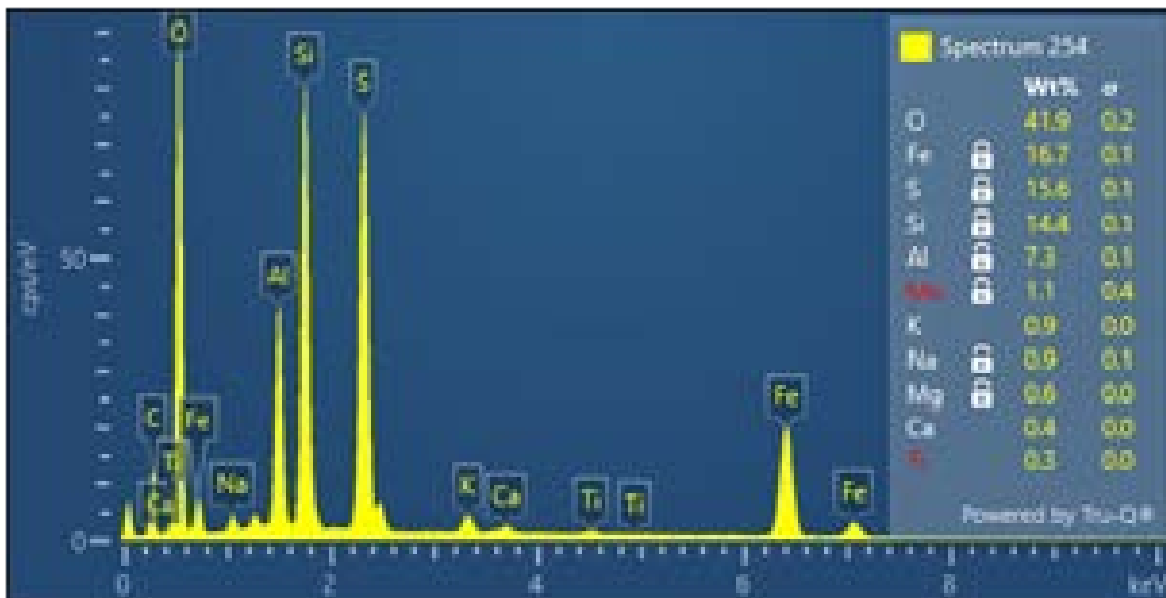
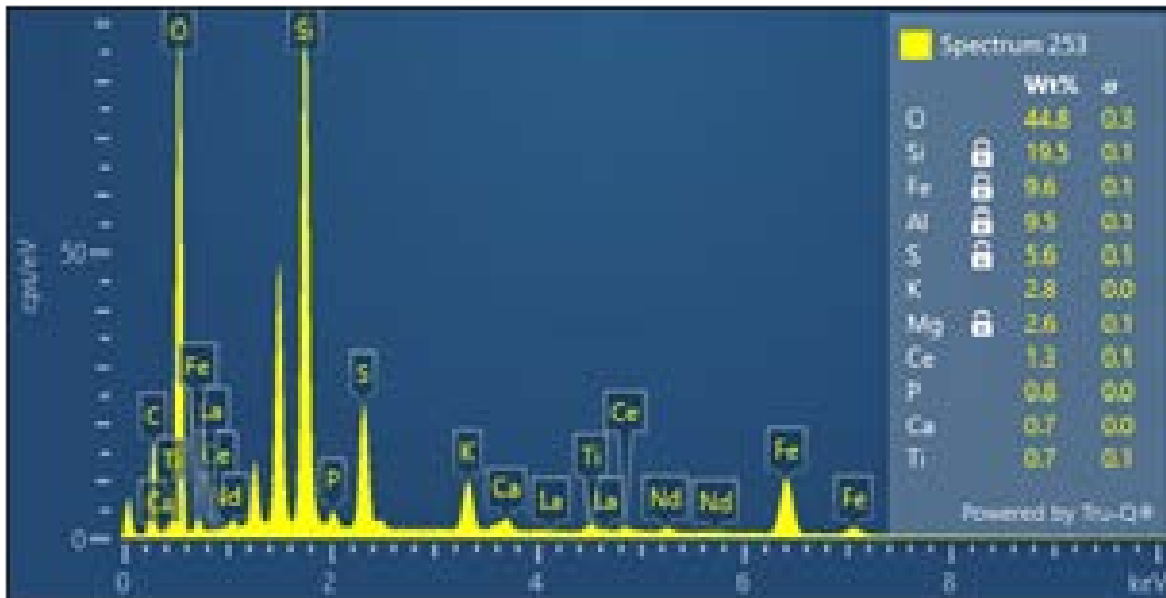


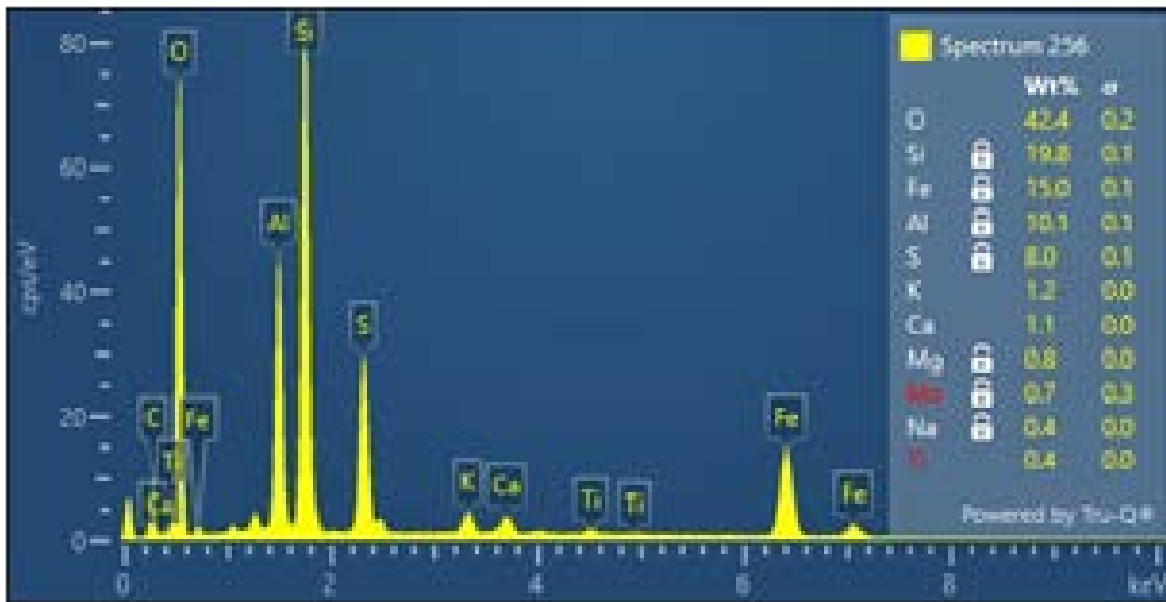
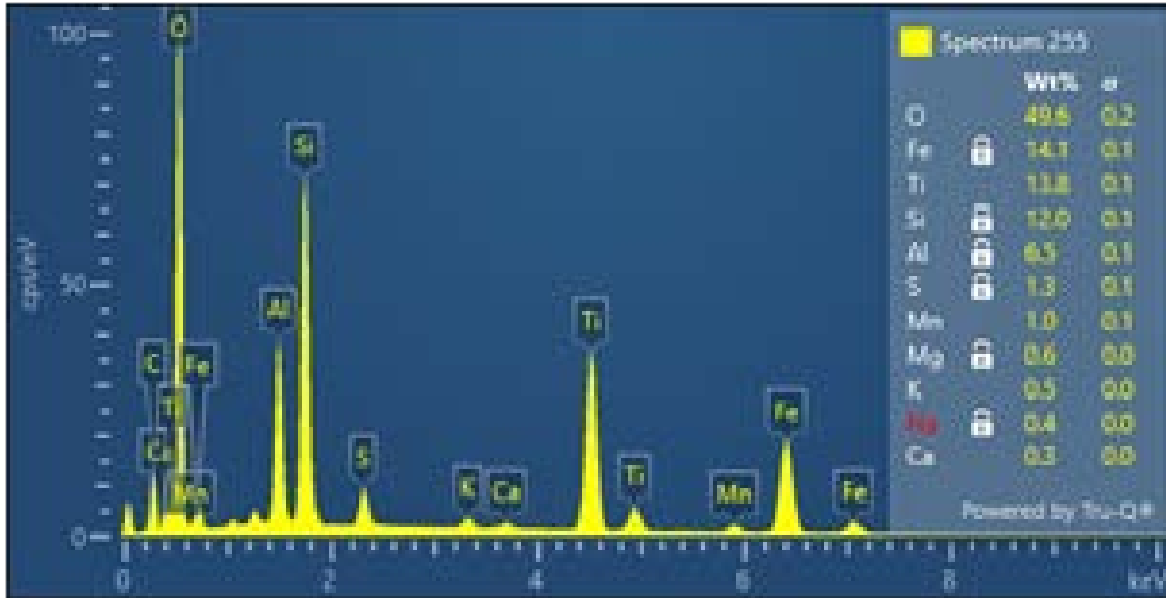
MW27D\_20-22 Site 2 sp279 1600x

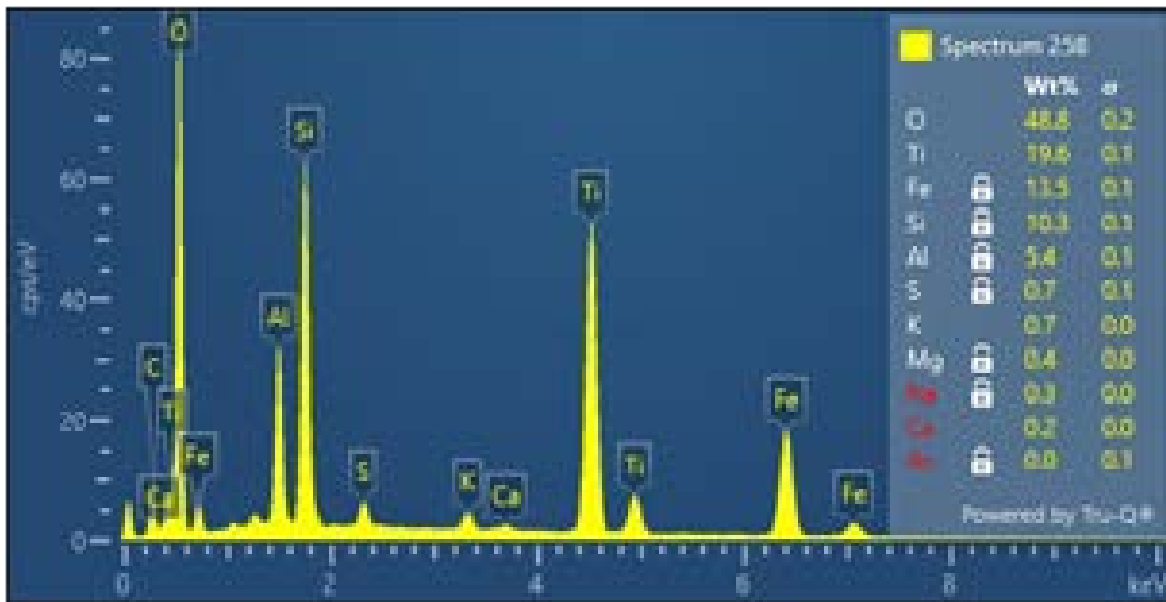
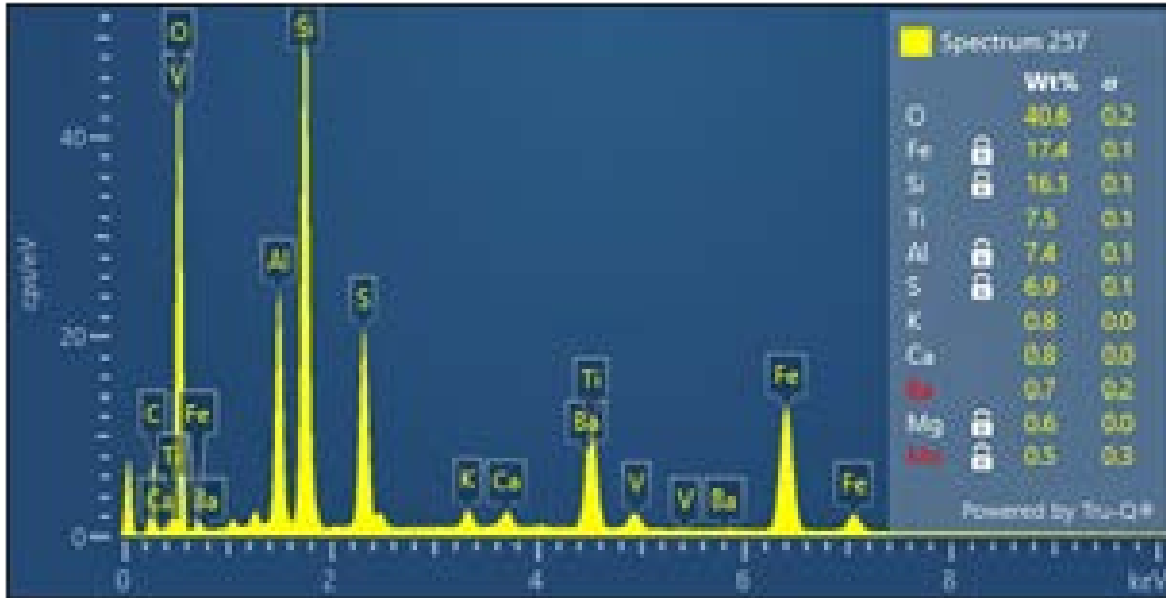


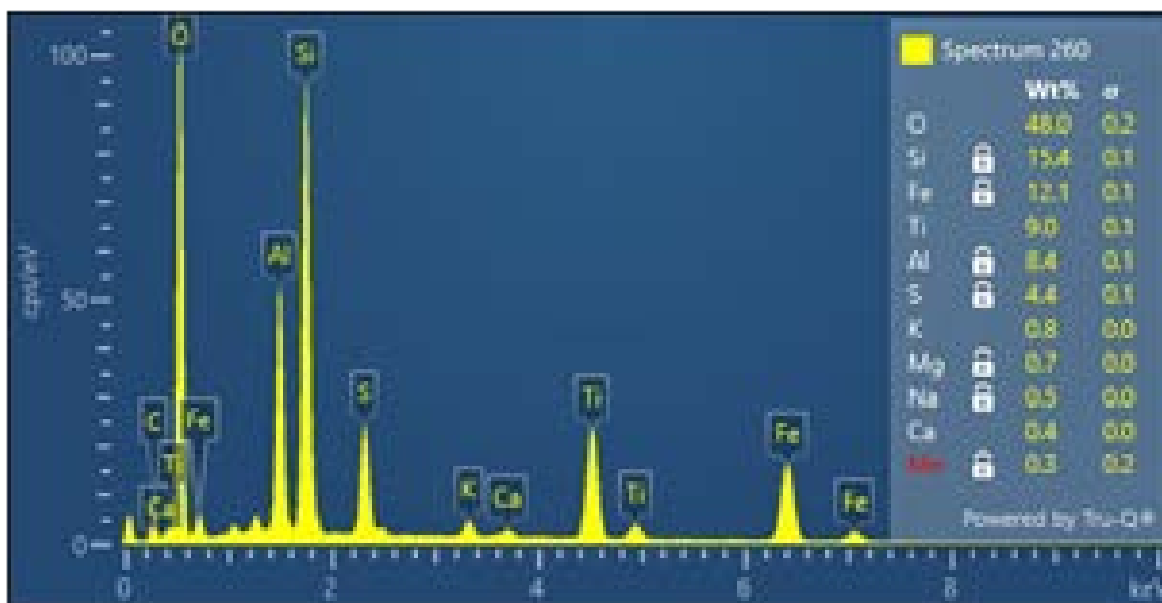
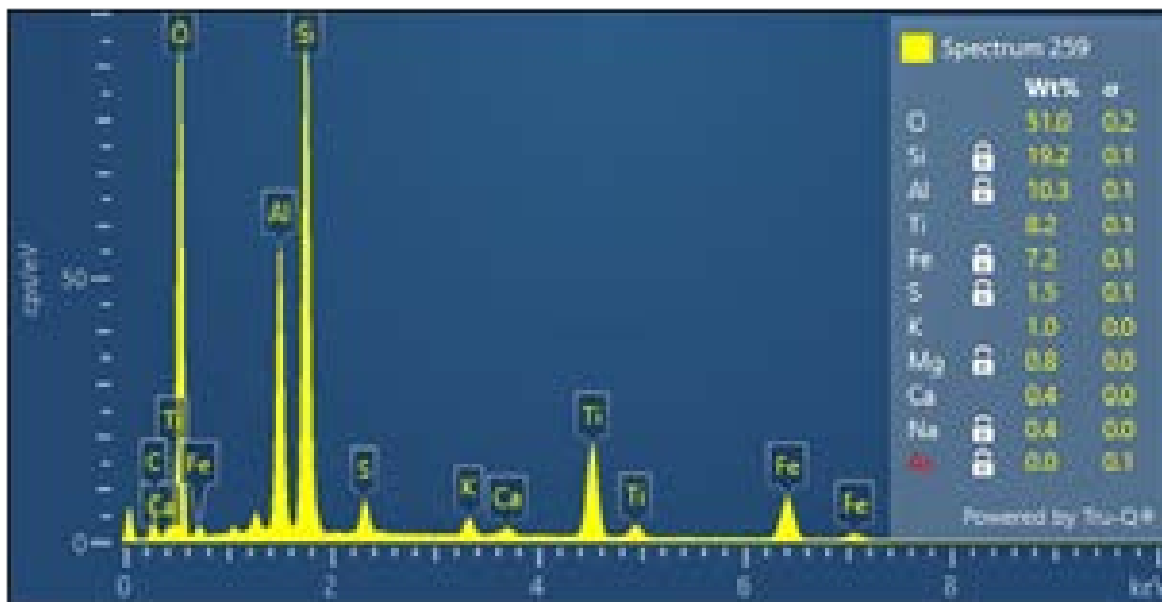


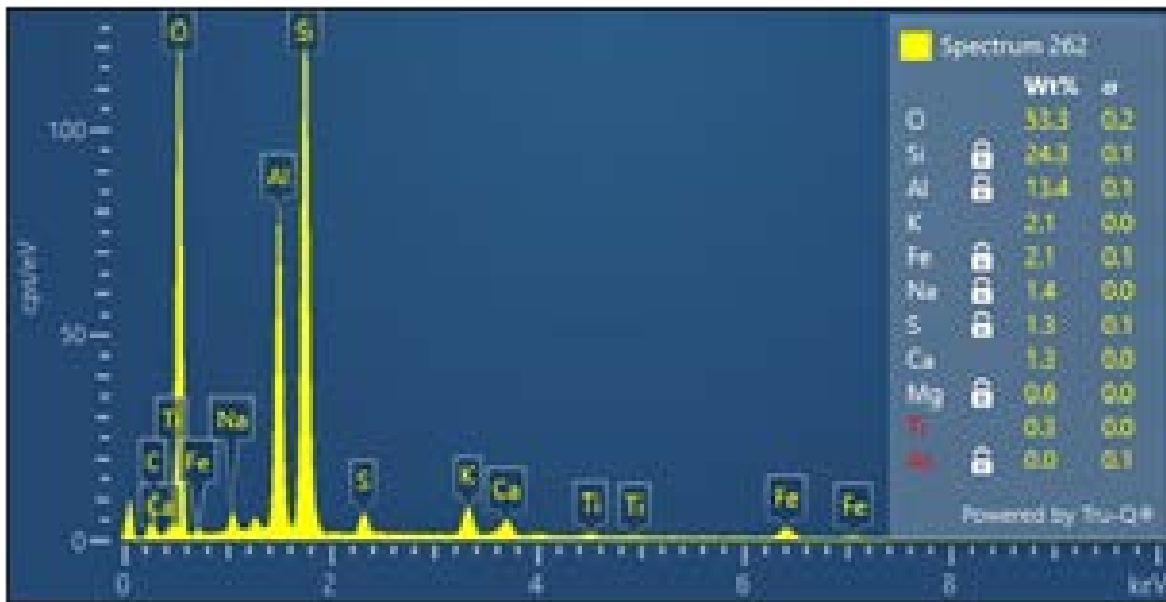
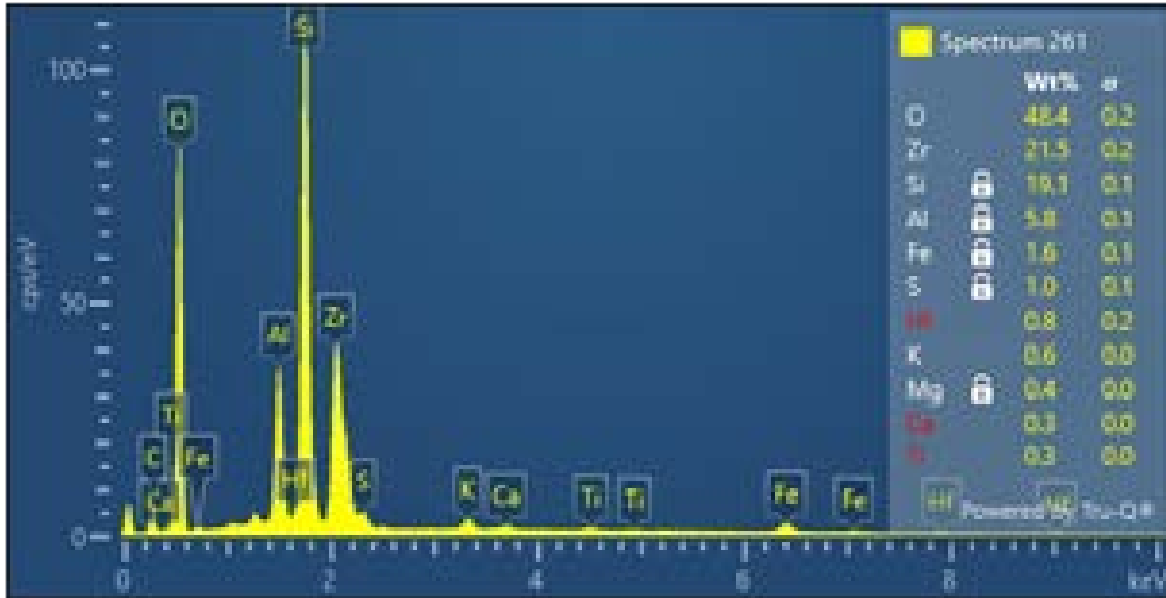
Spectrum images

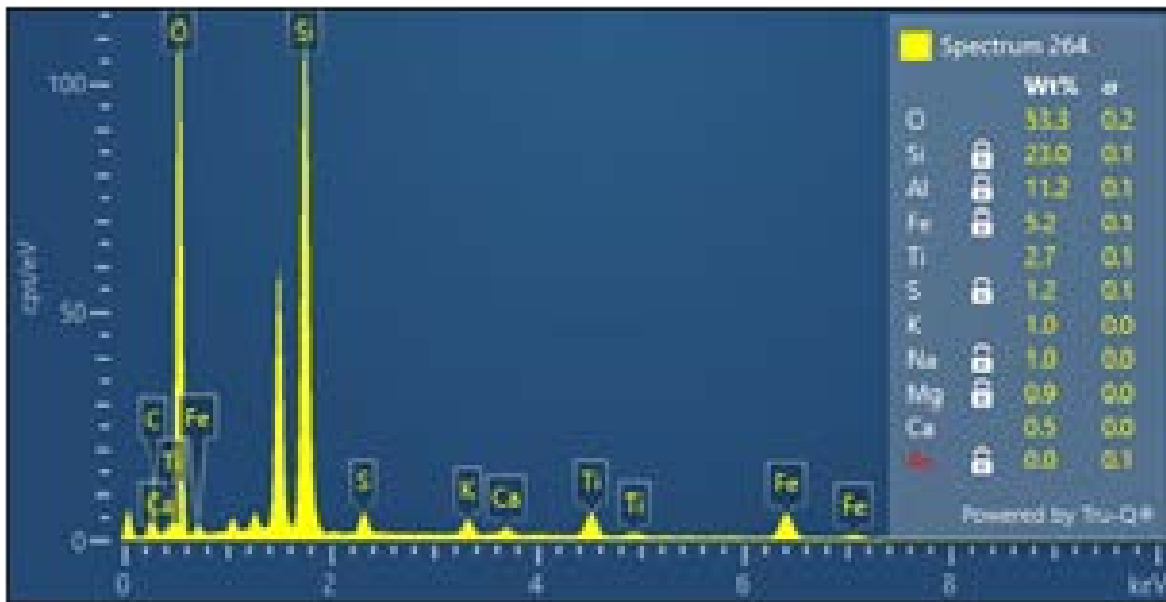
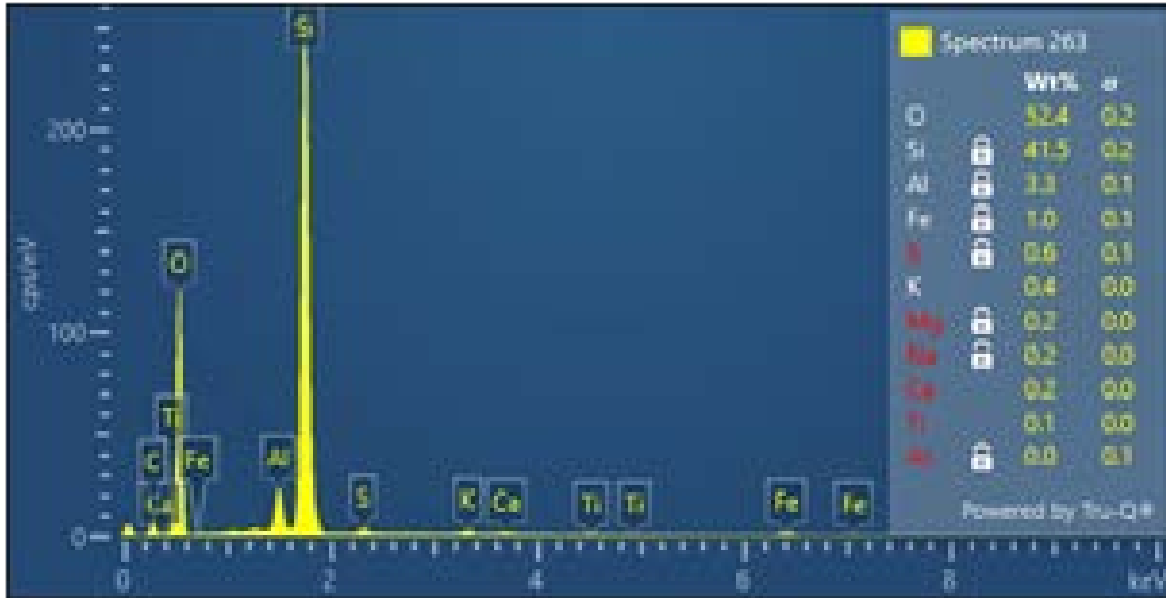


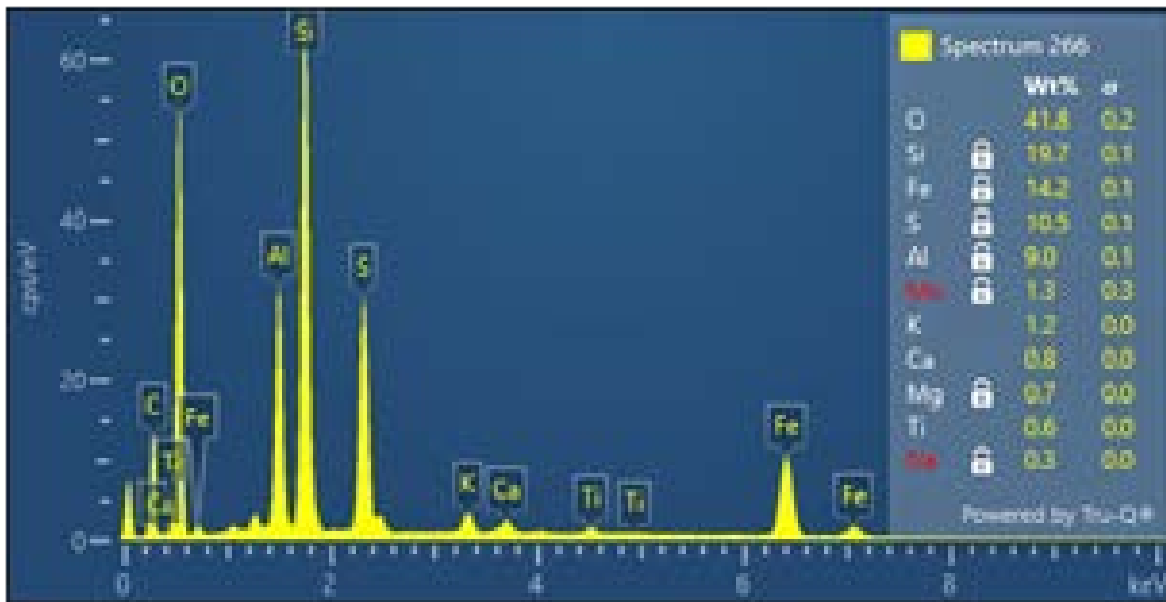
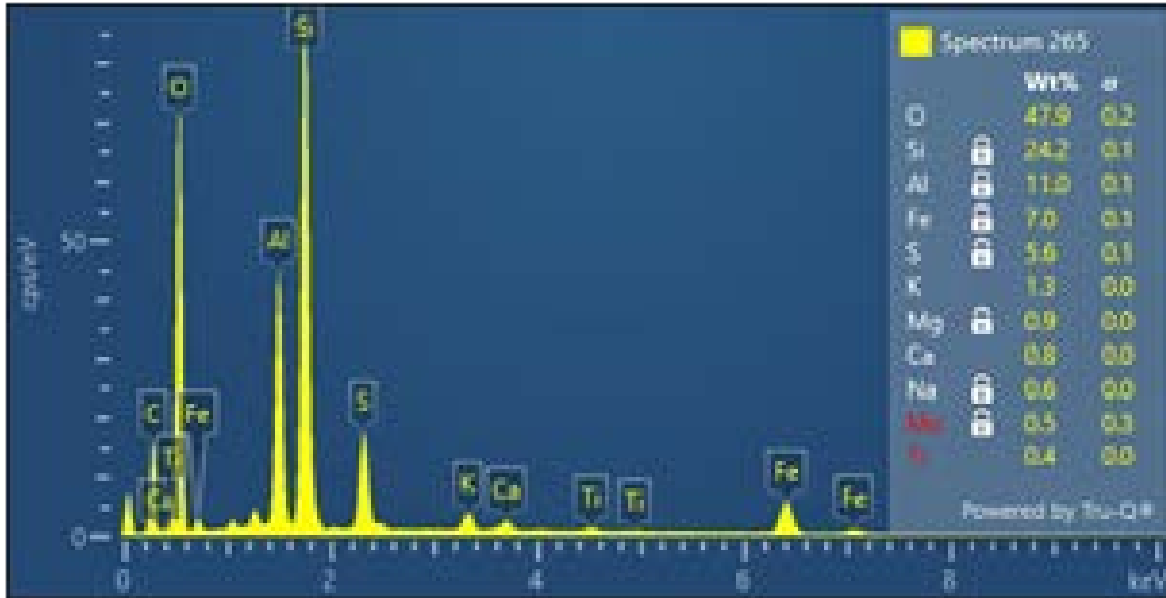


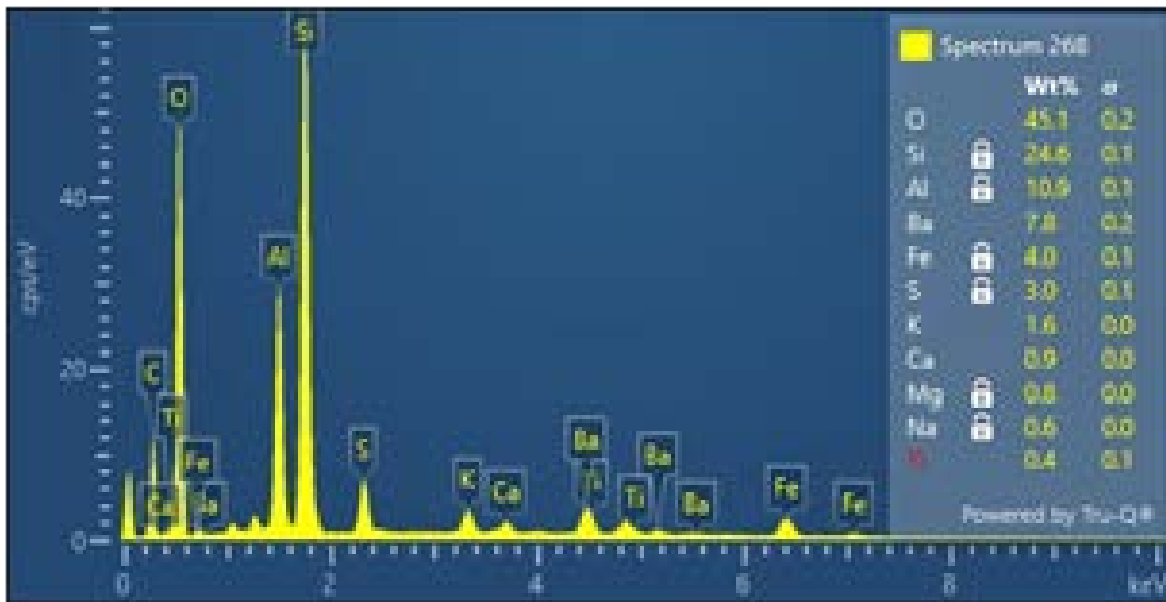
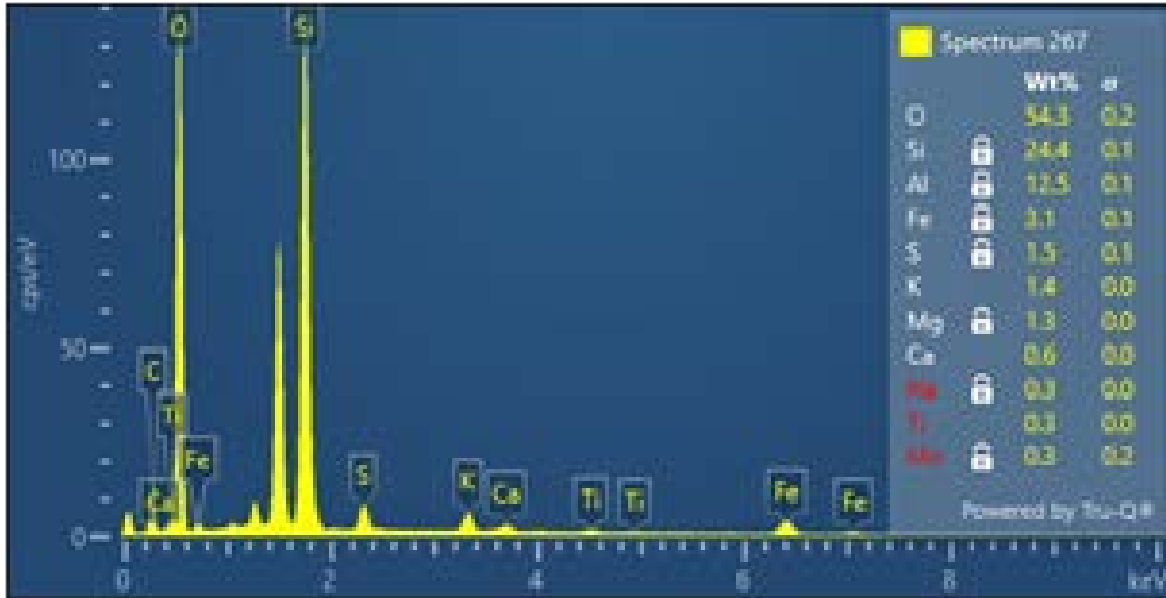




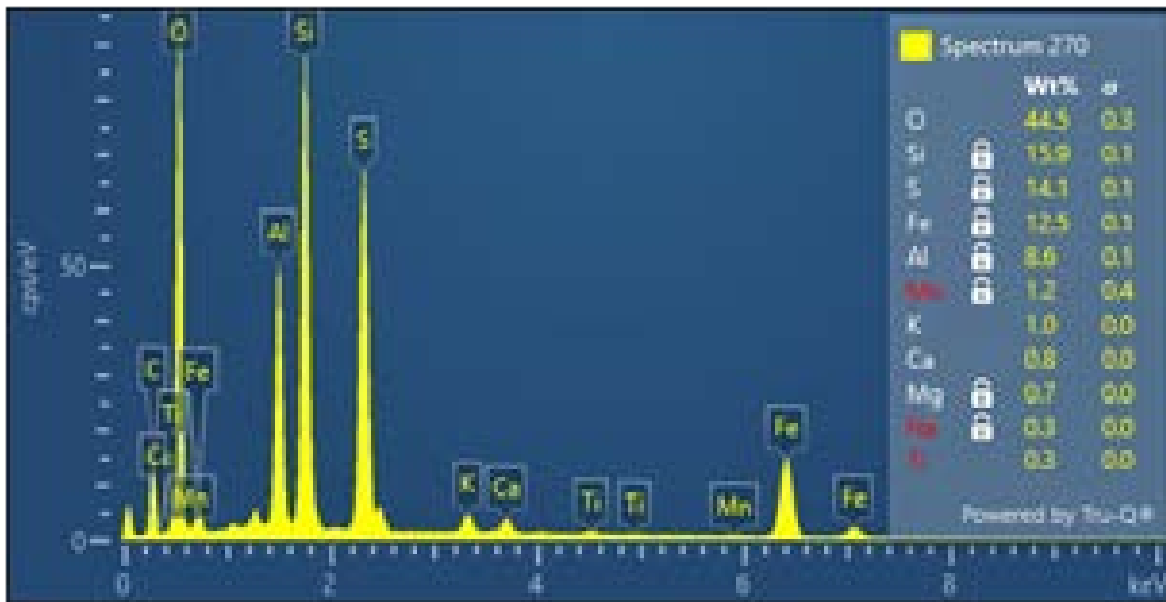
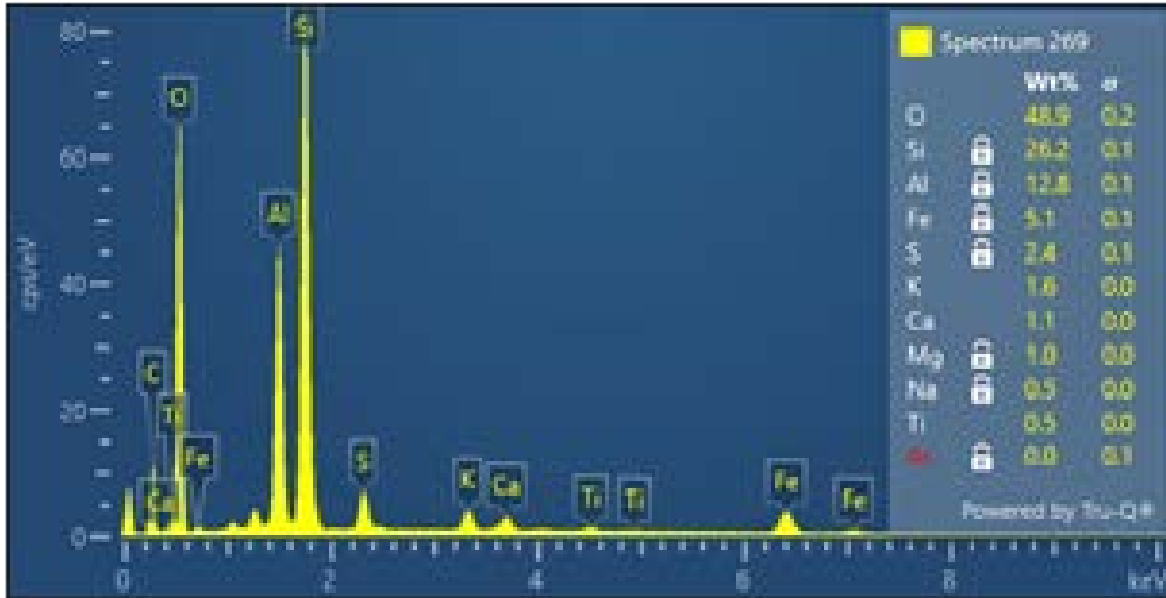


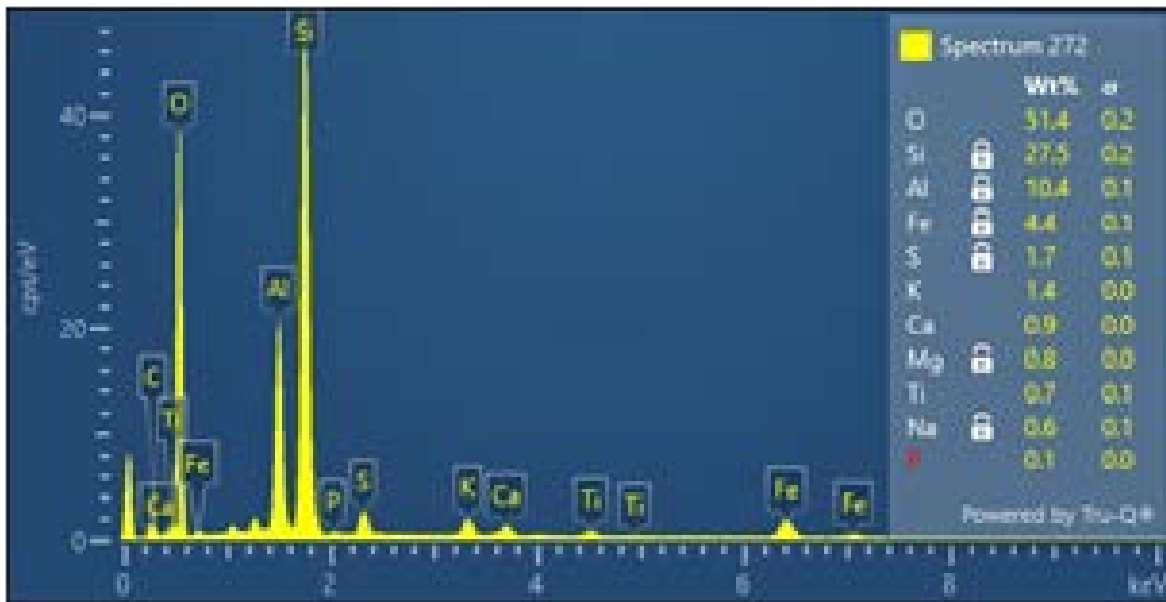
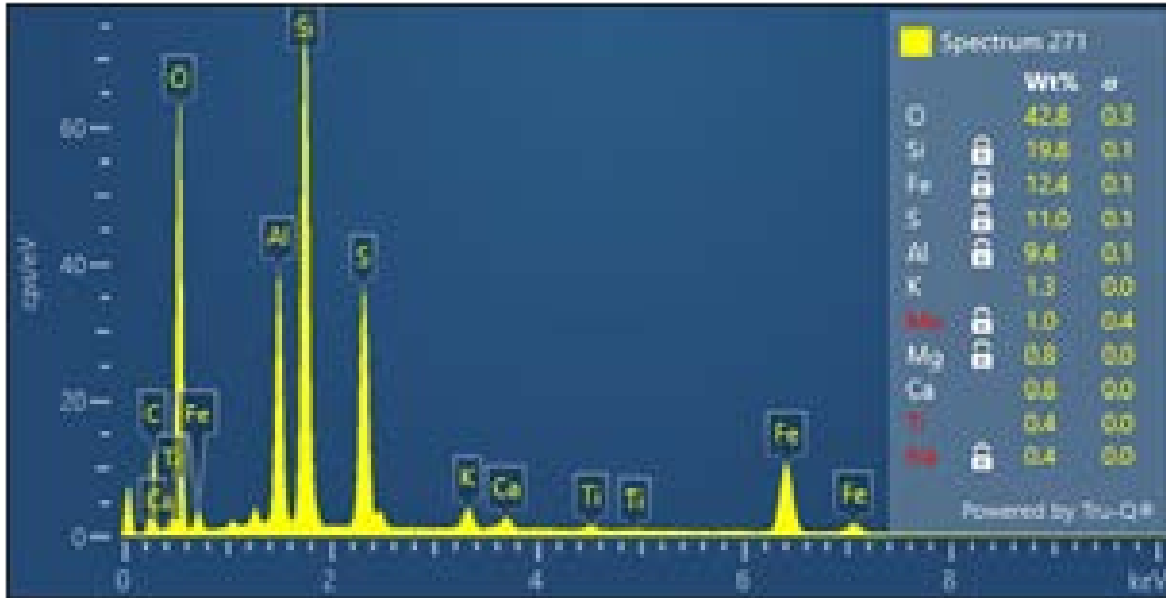


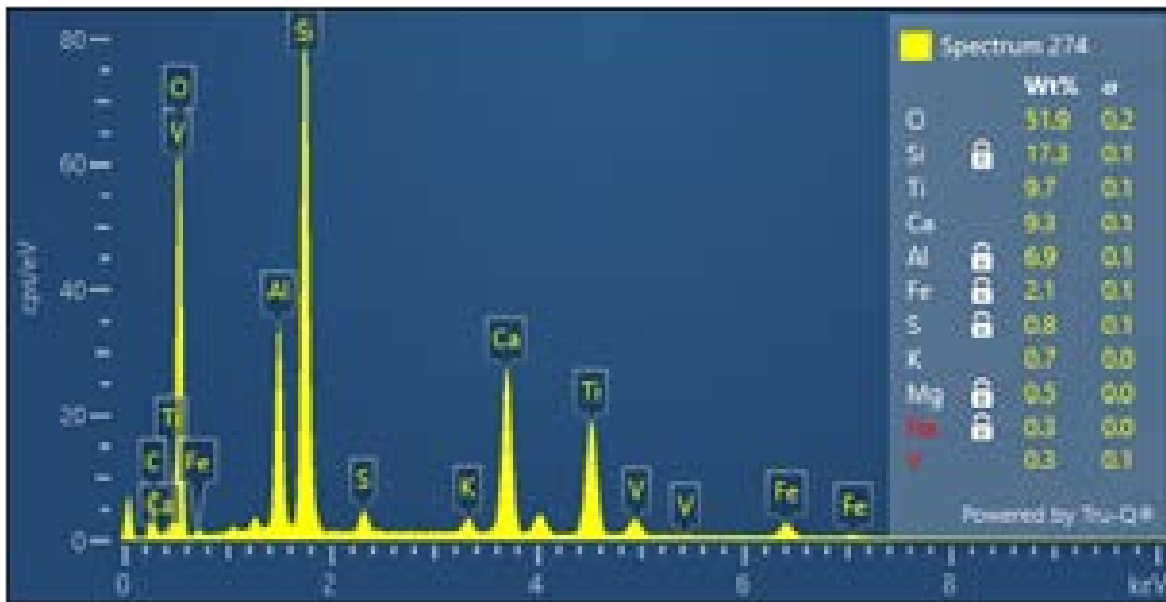
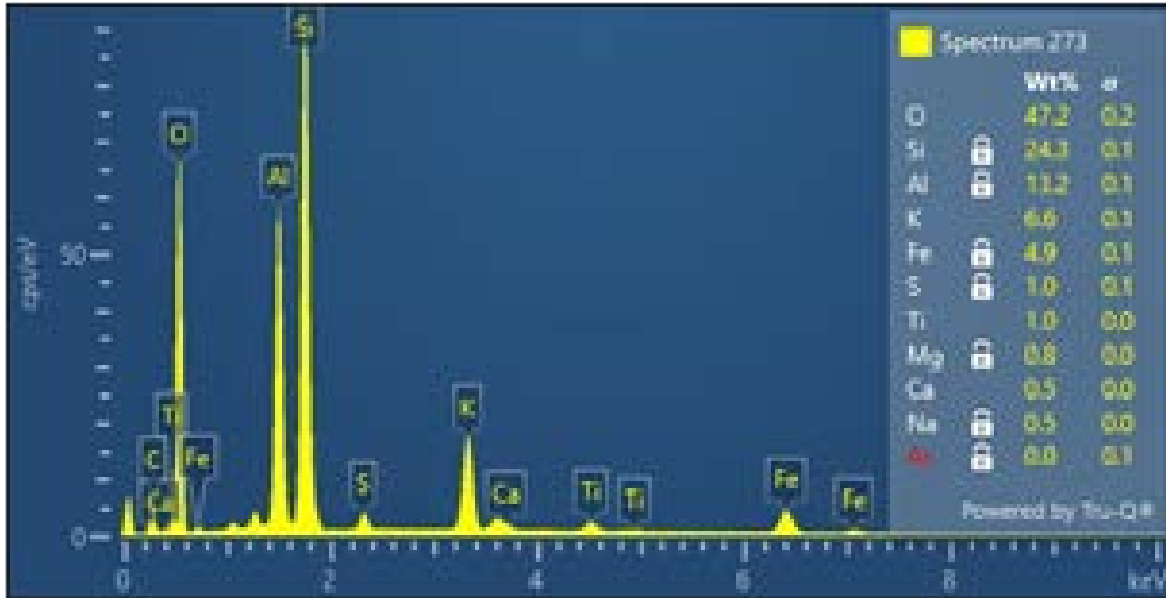


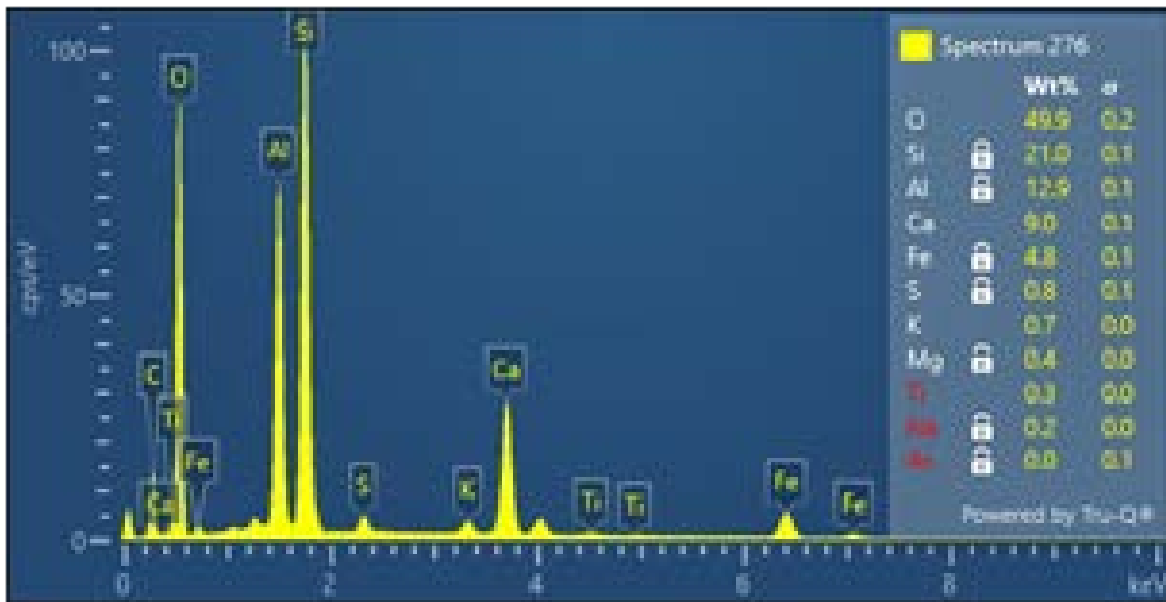
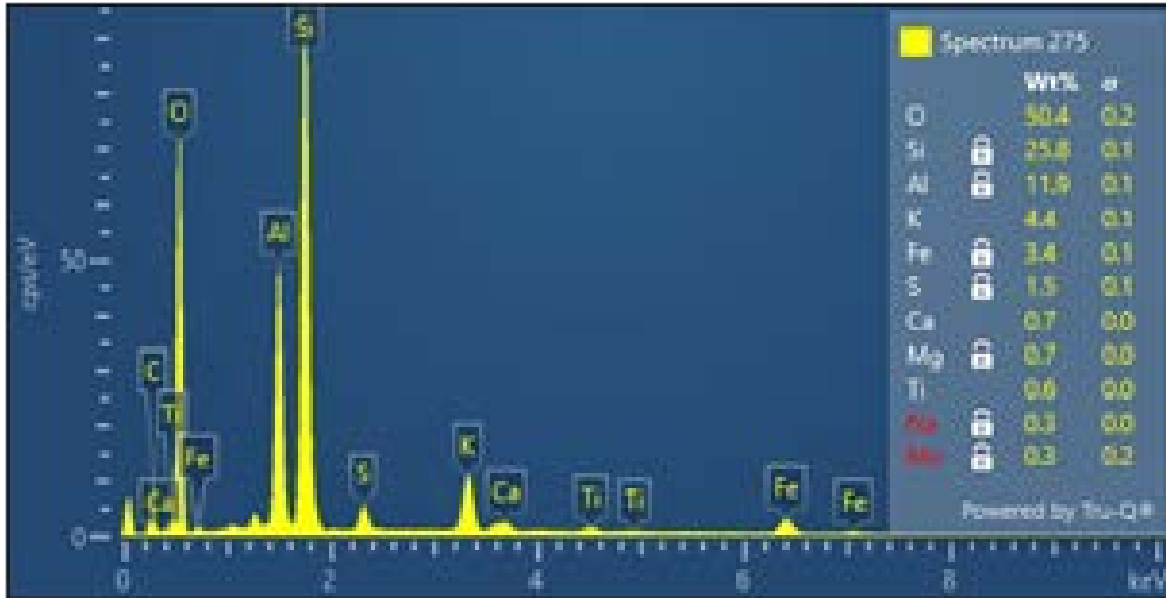


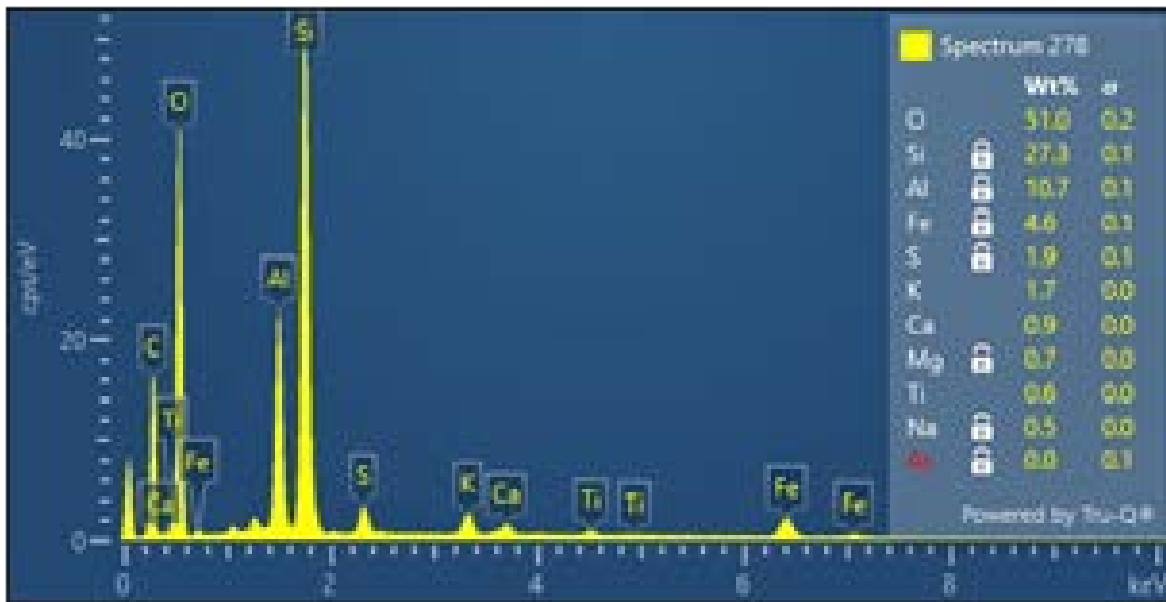
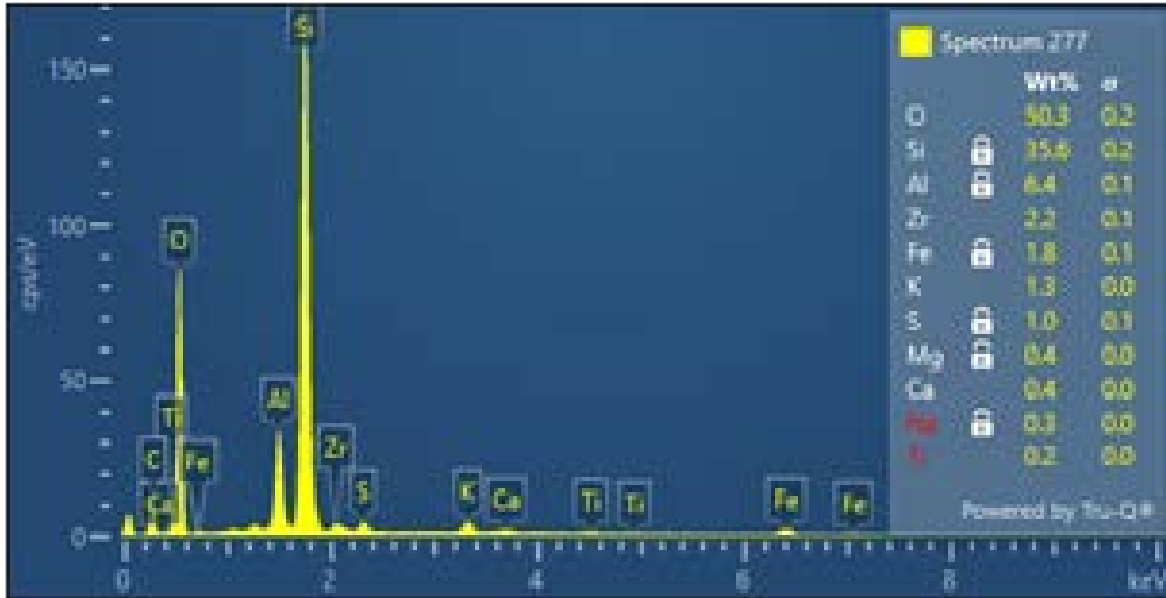


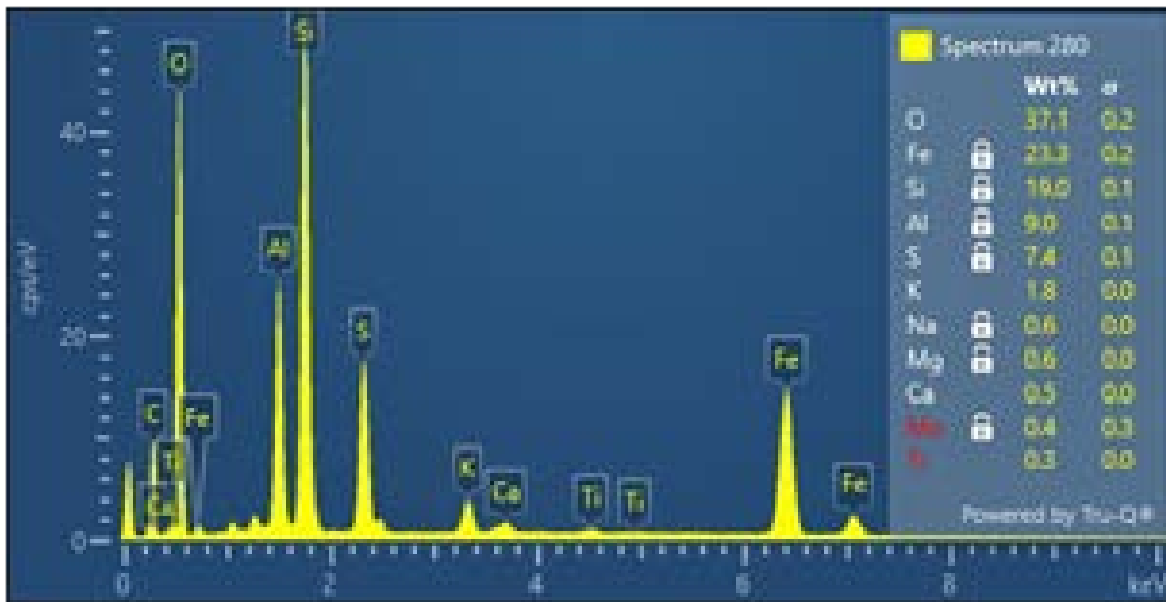
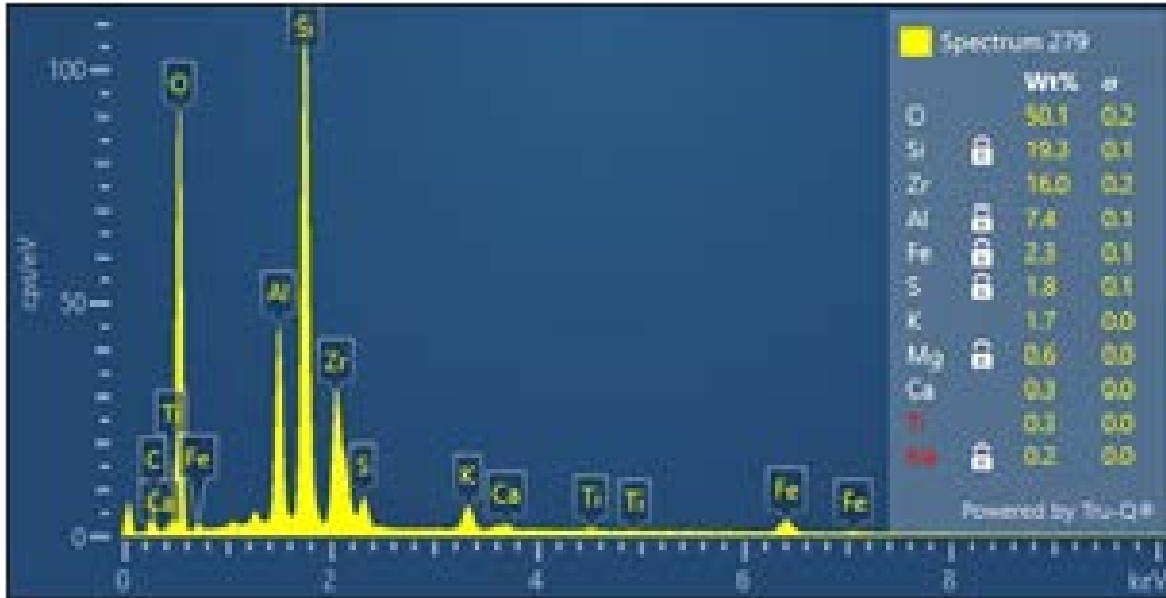


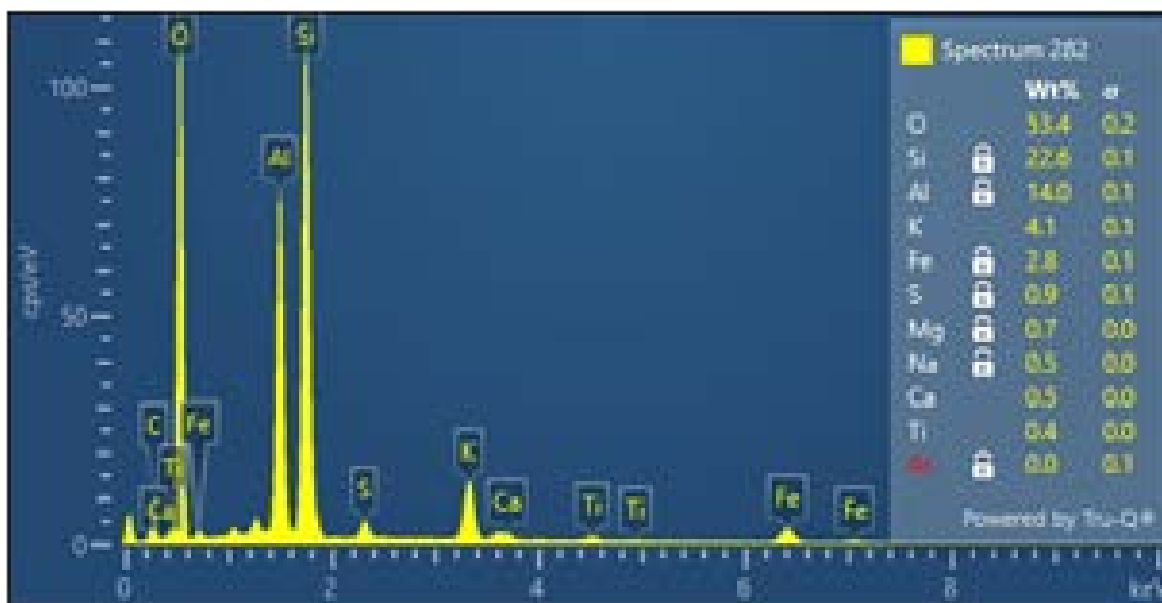
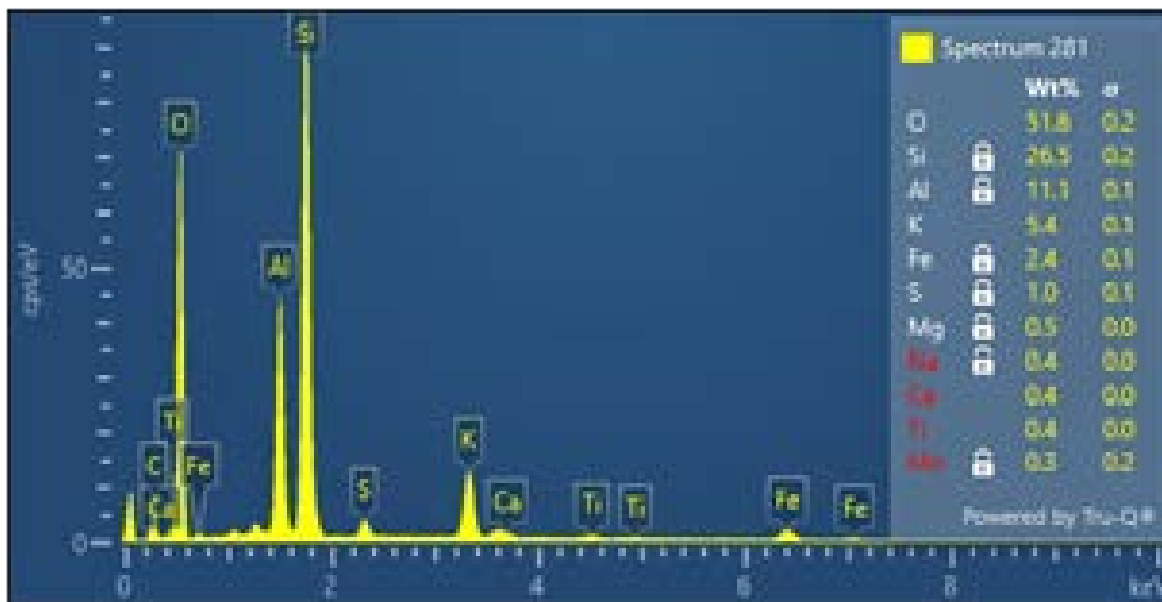


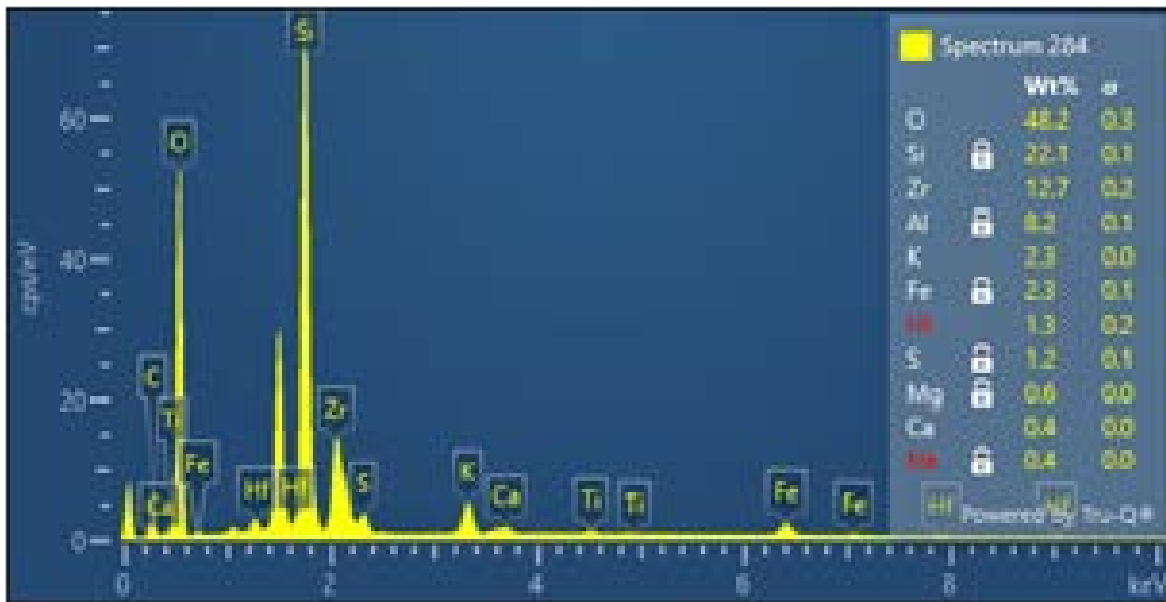
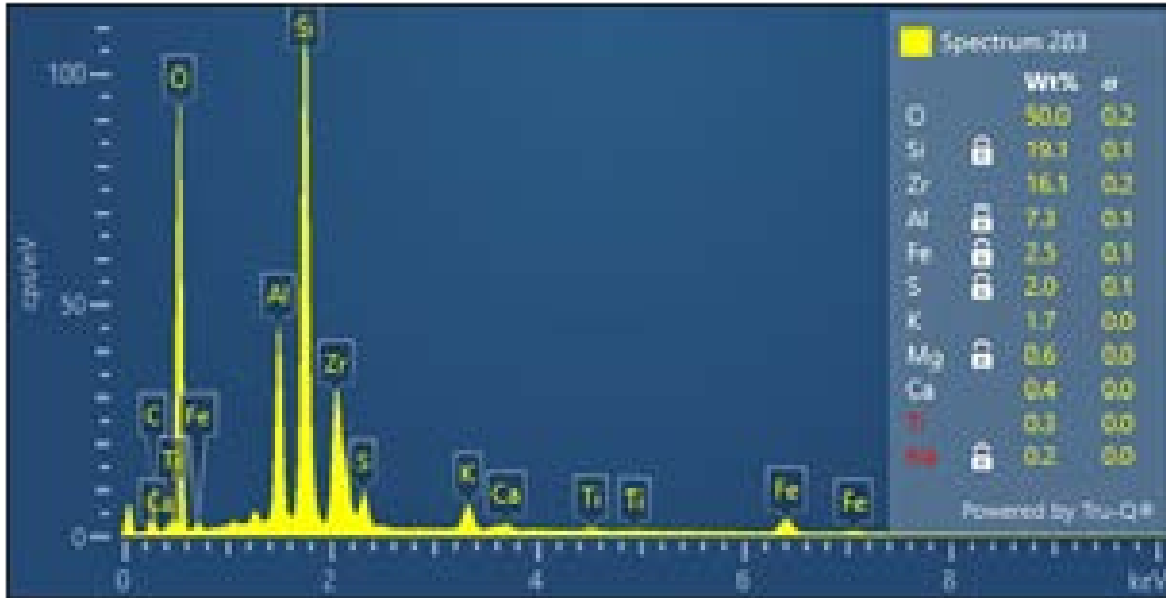




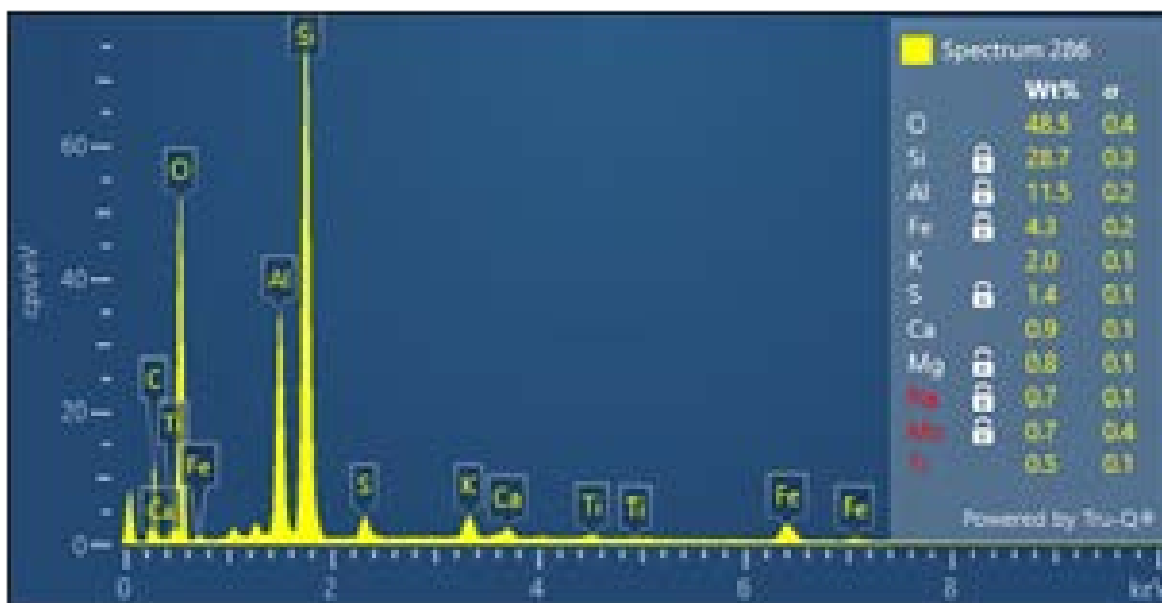
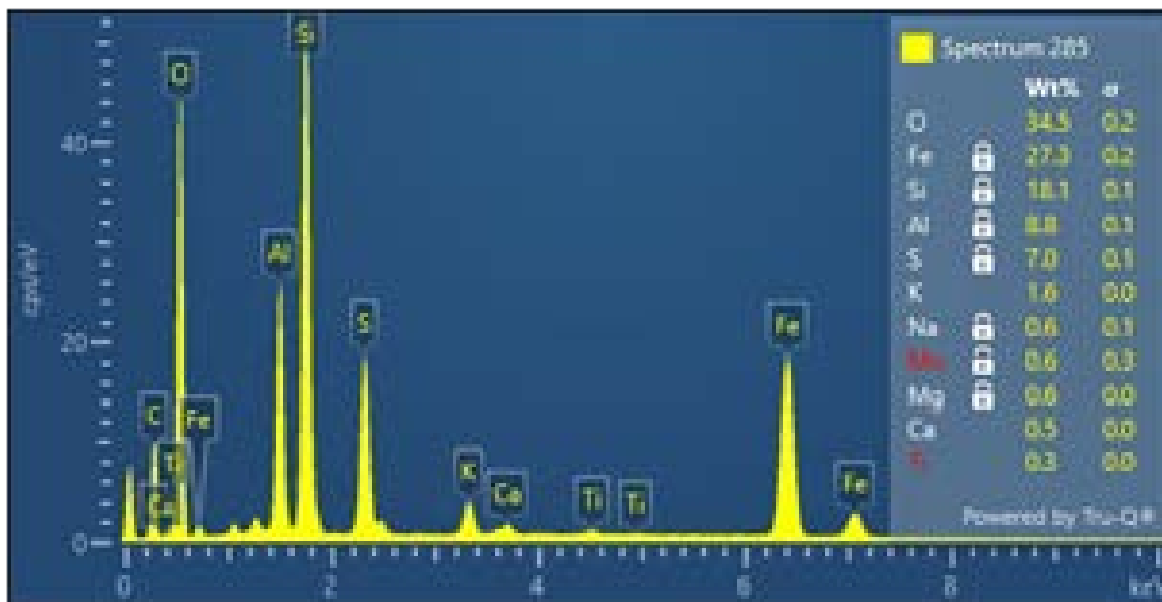


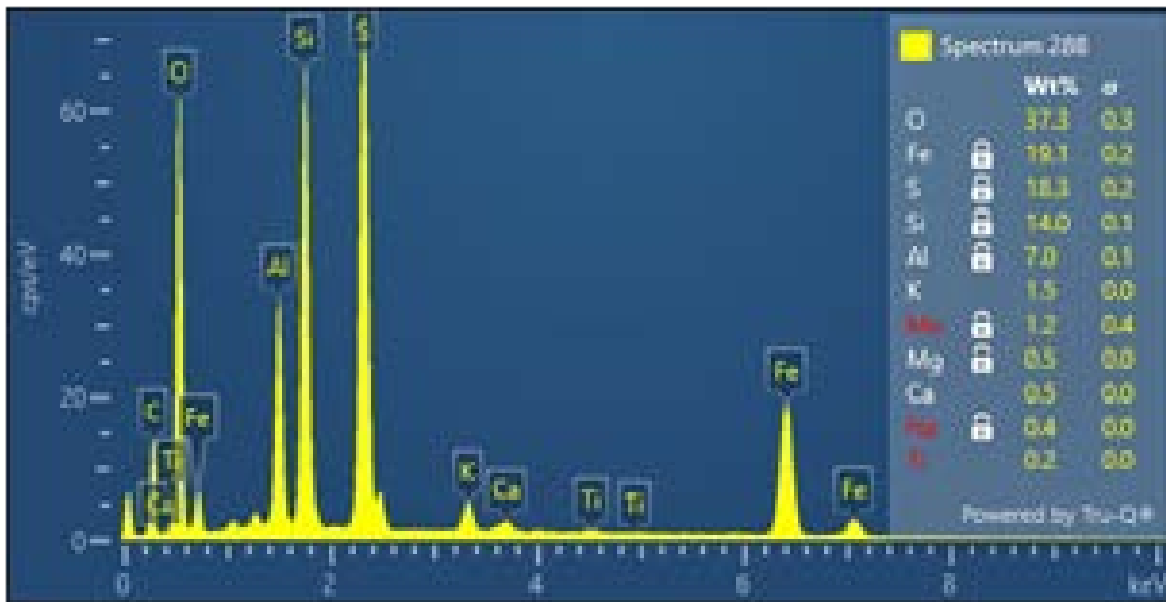
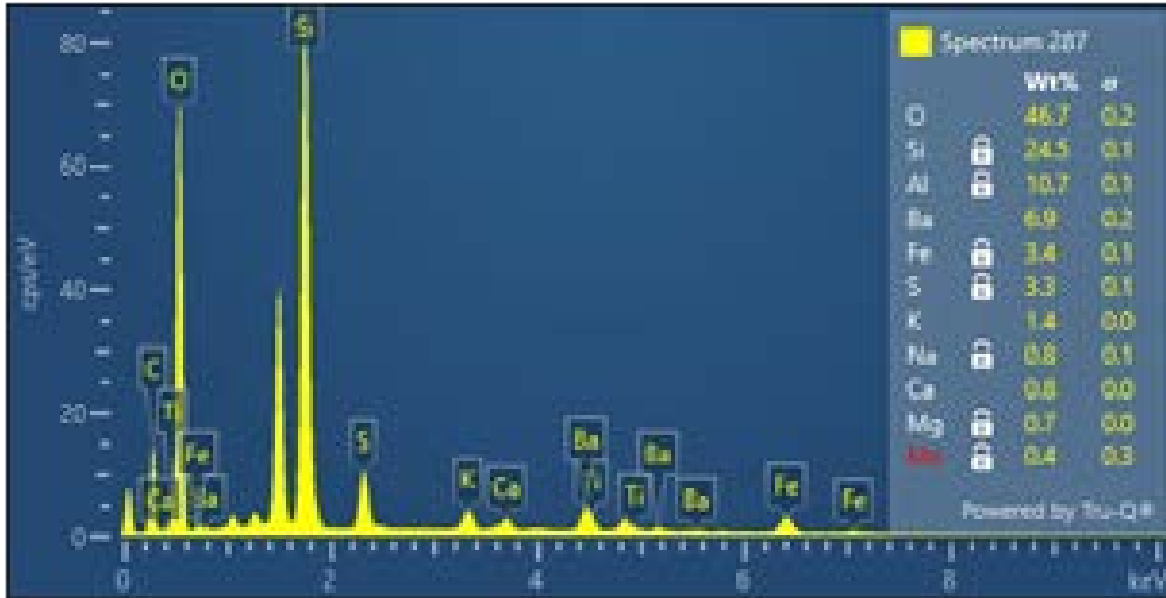


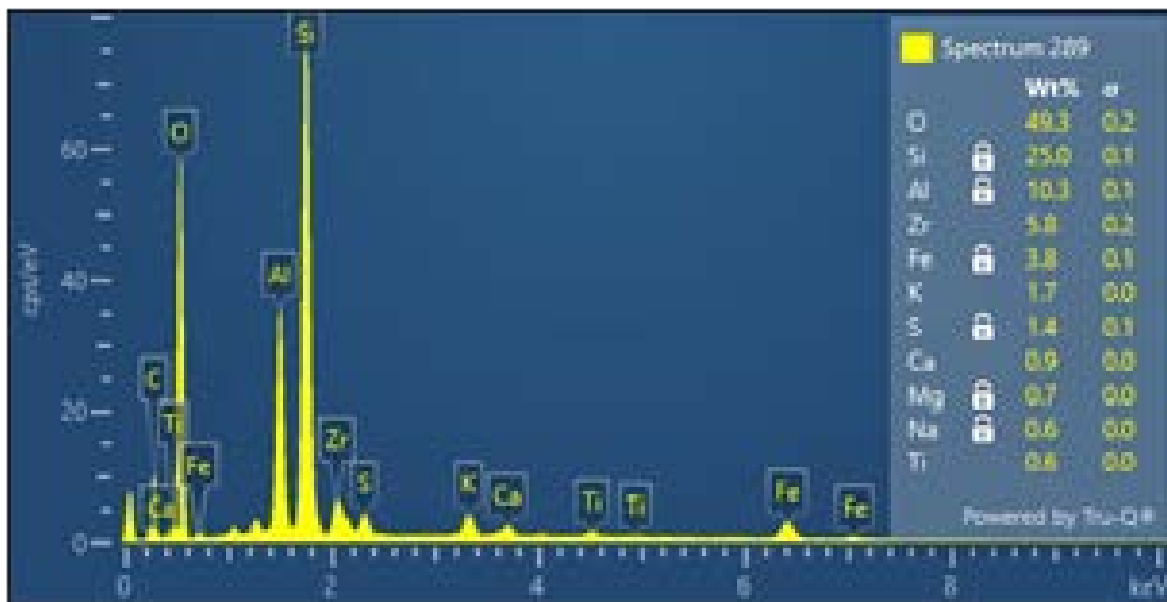




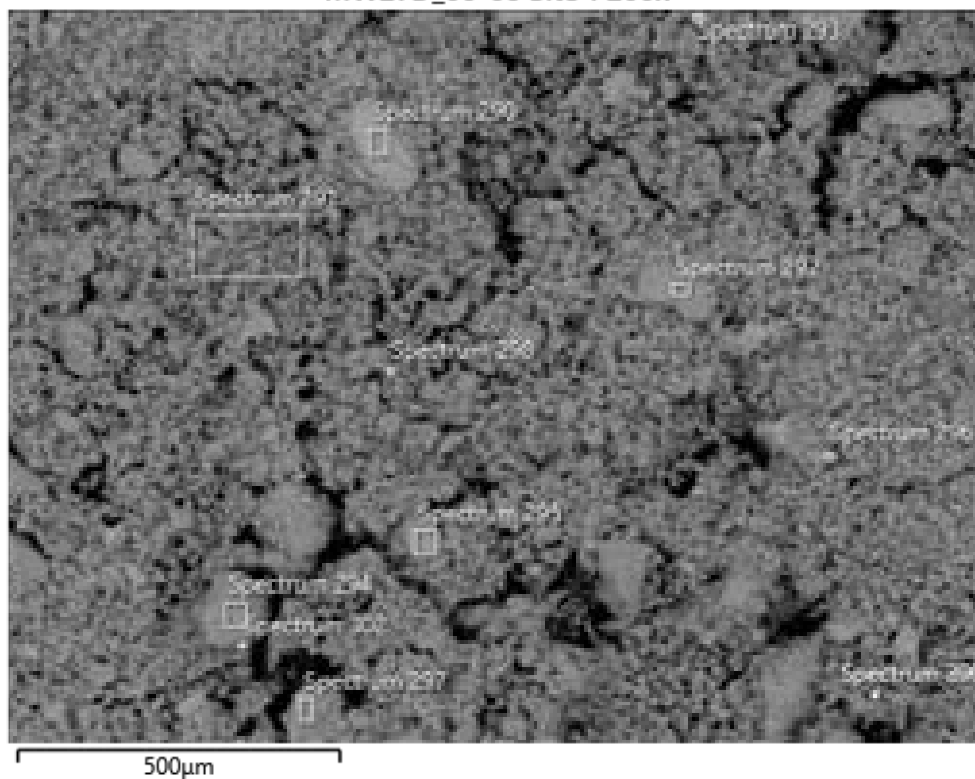




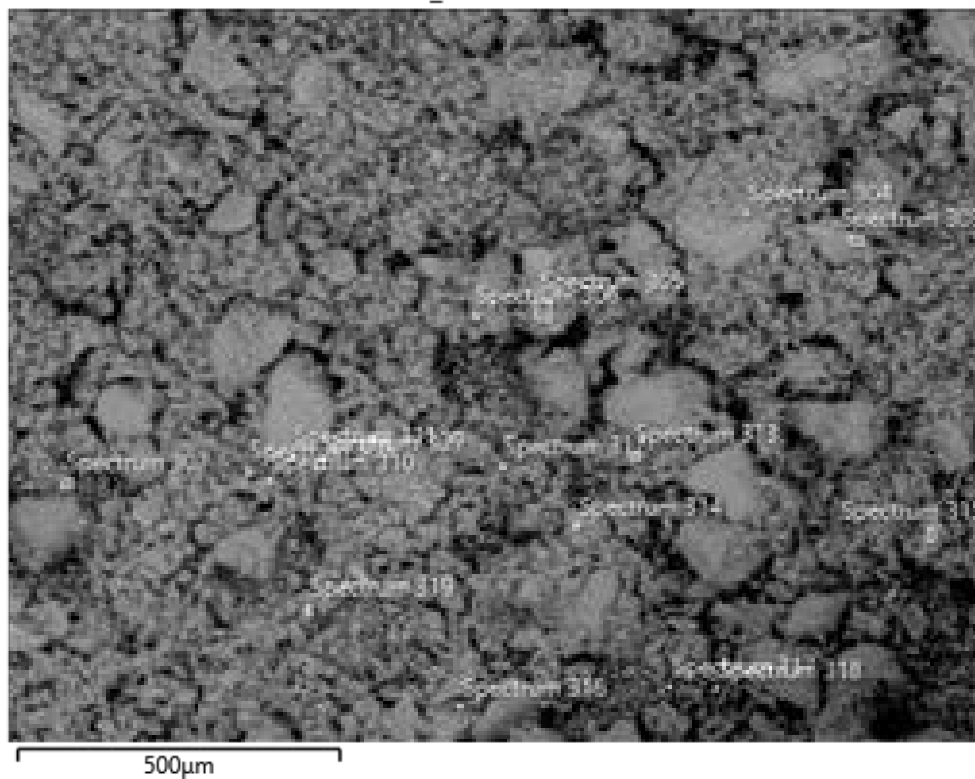




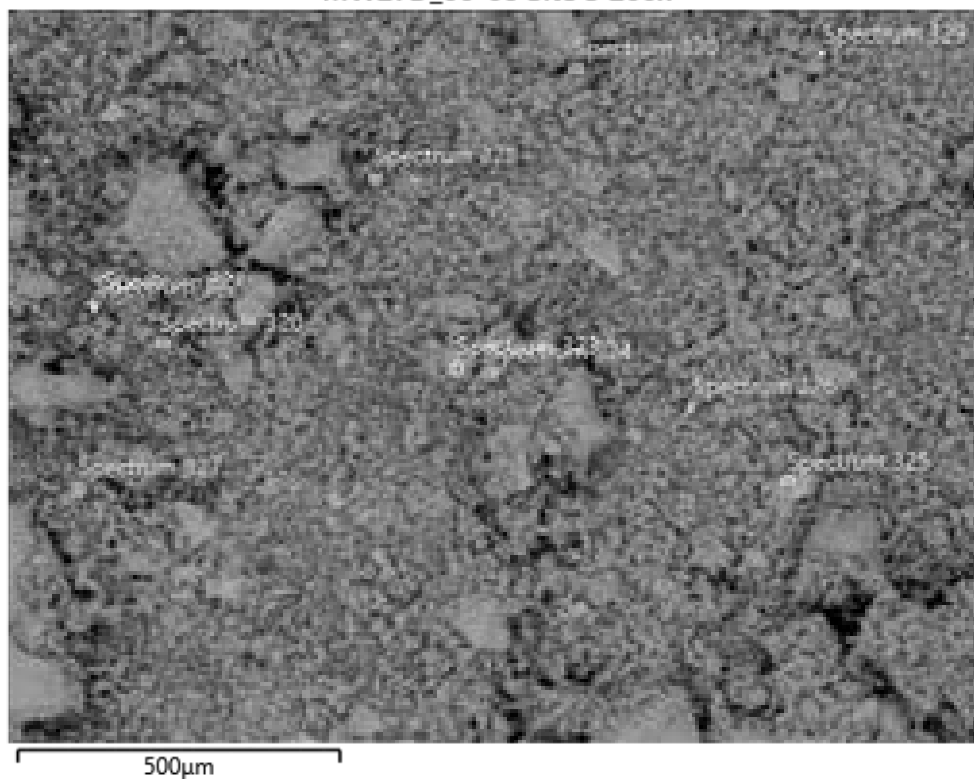
MW27D\_66-68 Site 1 200x



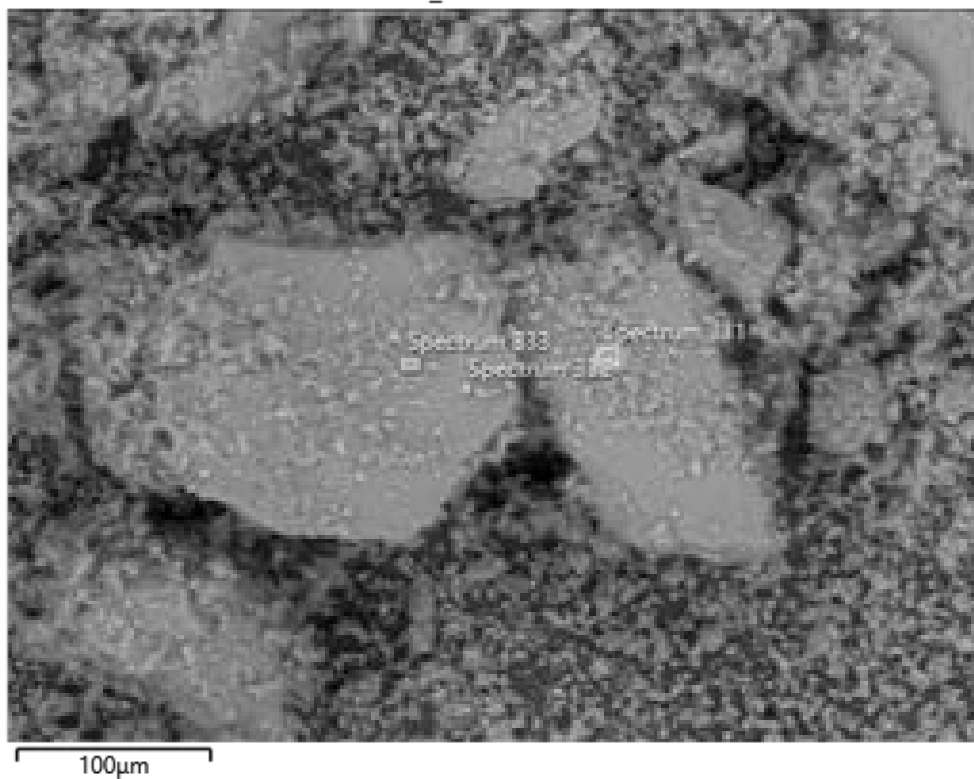
MW27D\_66-68 Site 2 200x



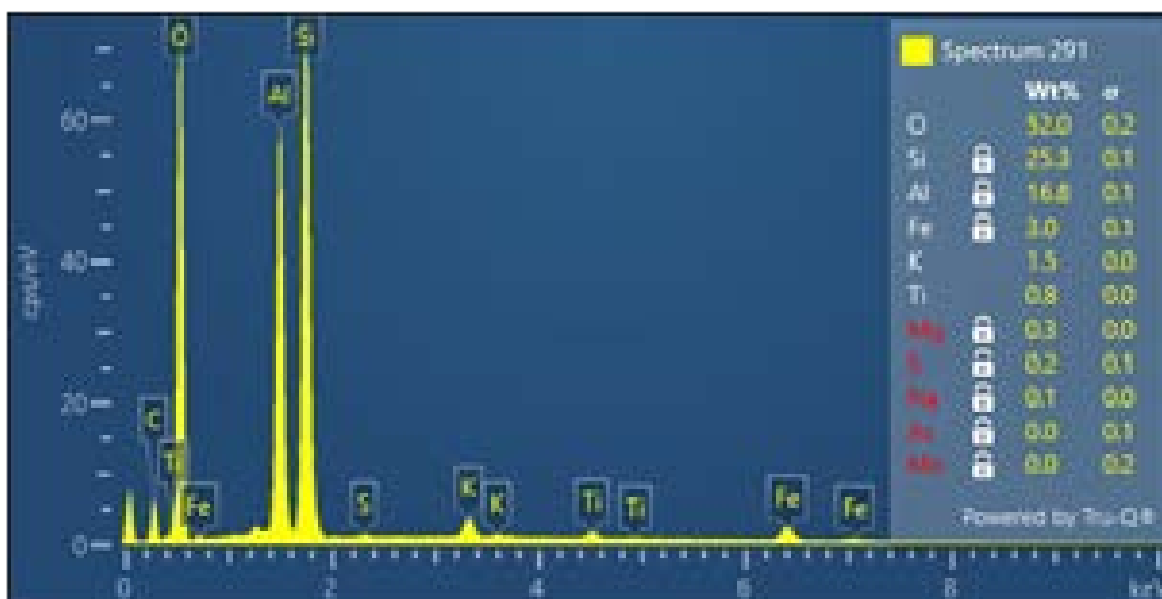
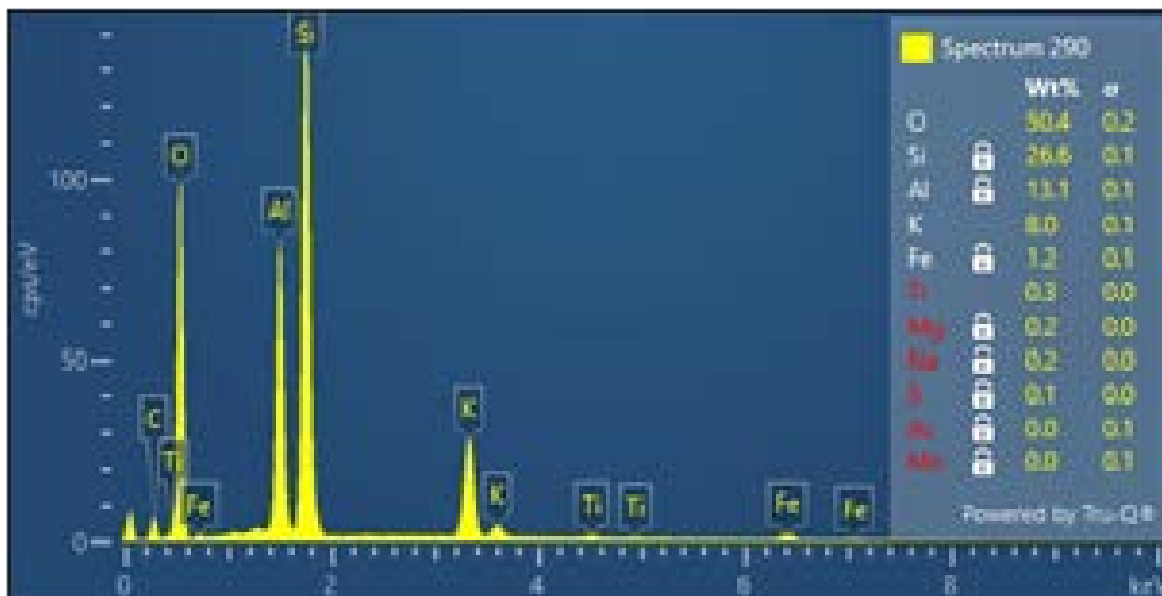
MW27D\_66-68 Site 3 200x

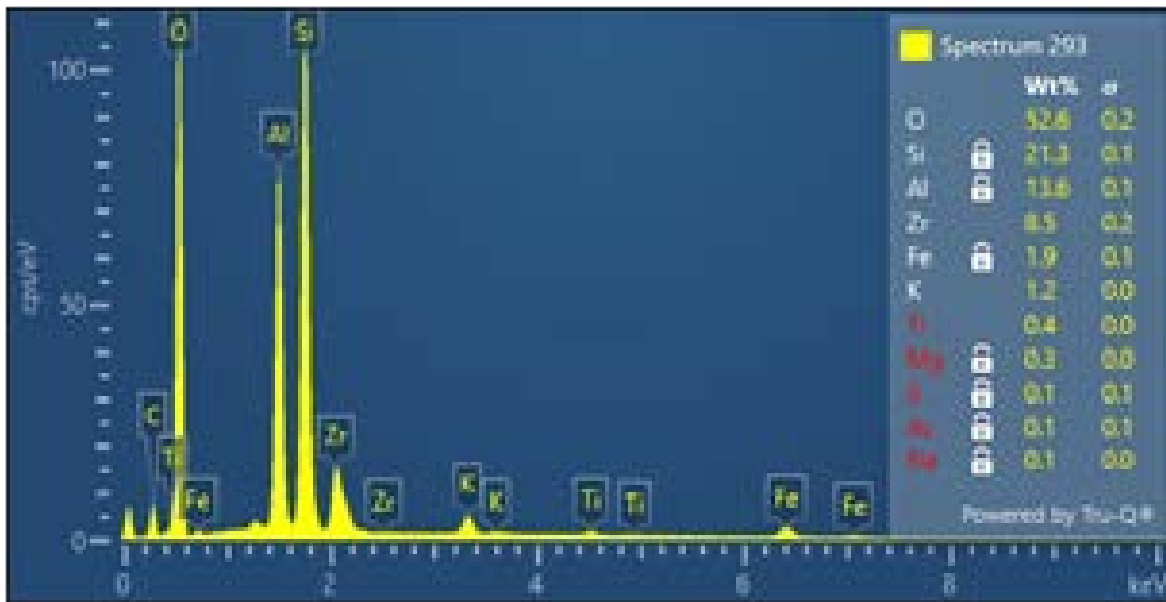
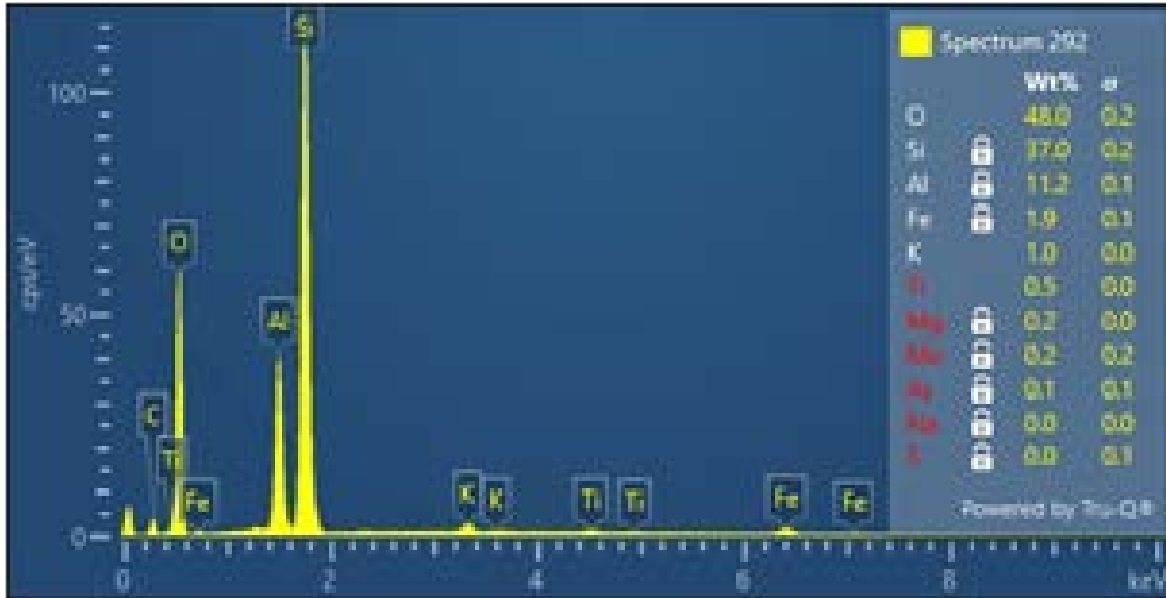


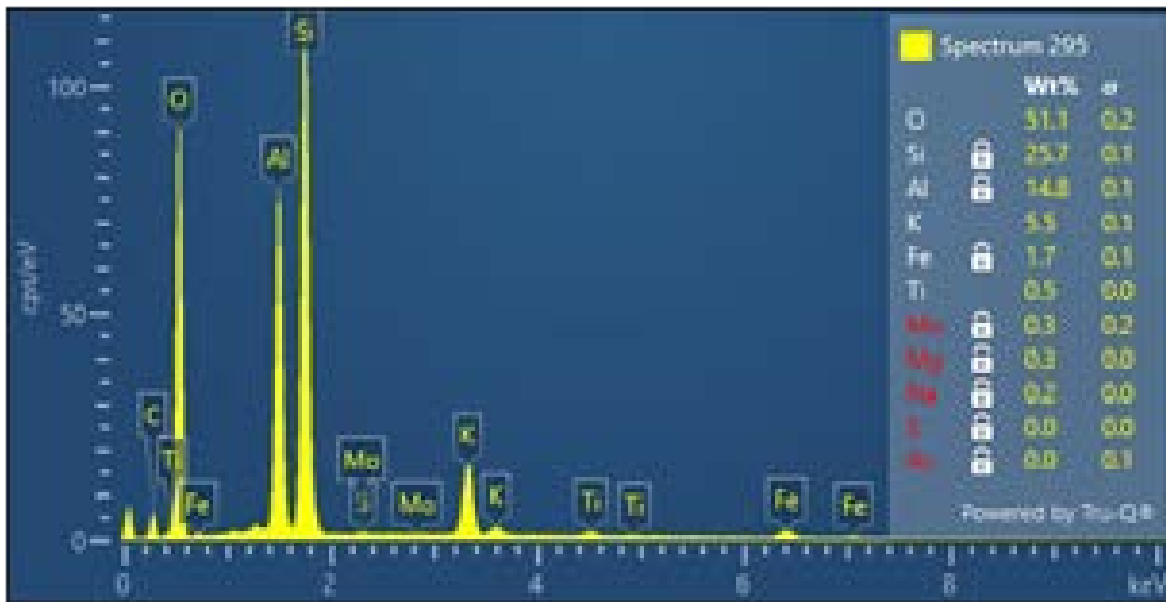
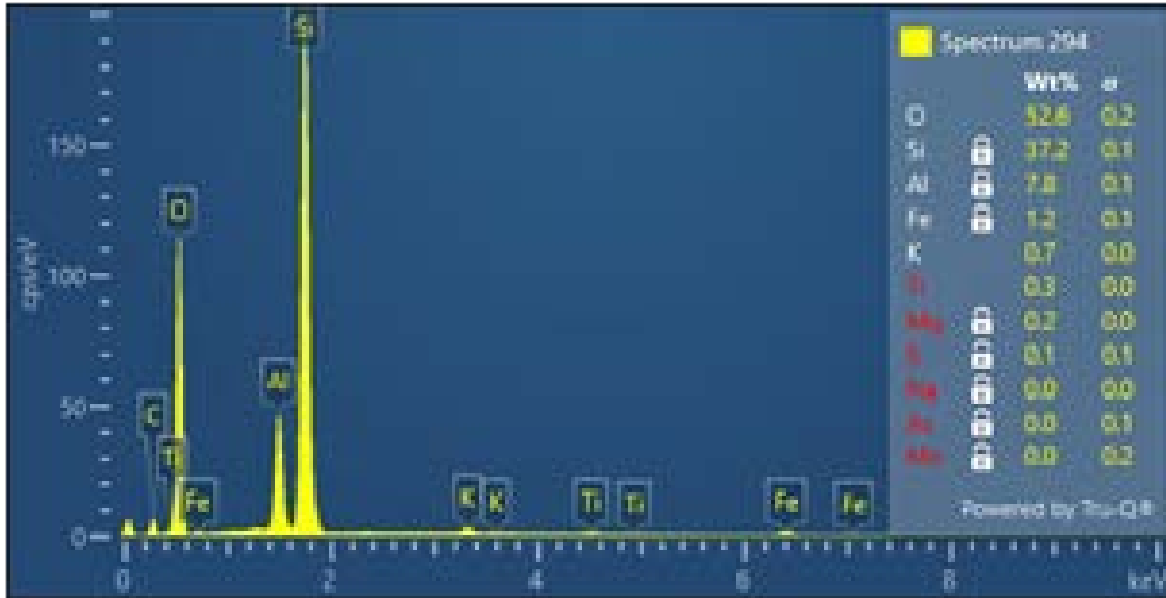
MW27D\_66-68 Site 4 600x



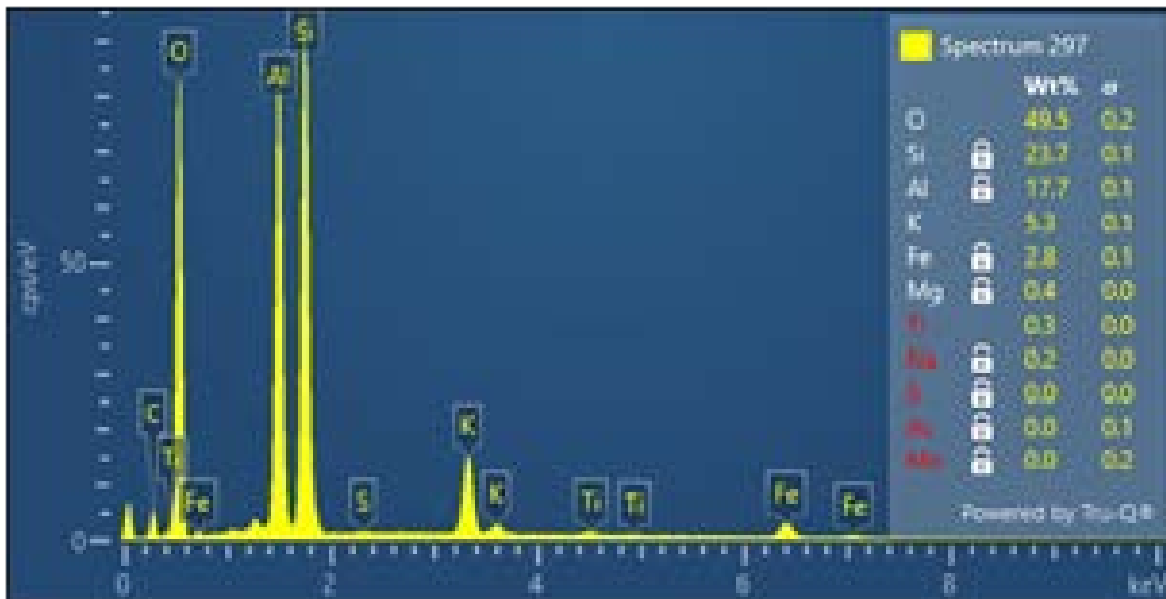
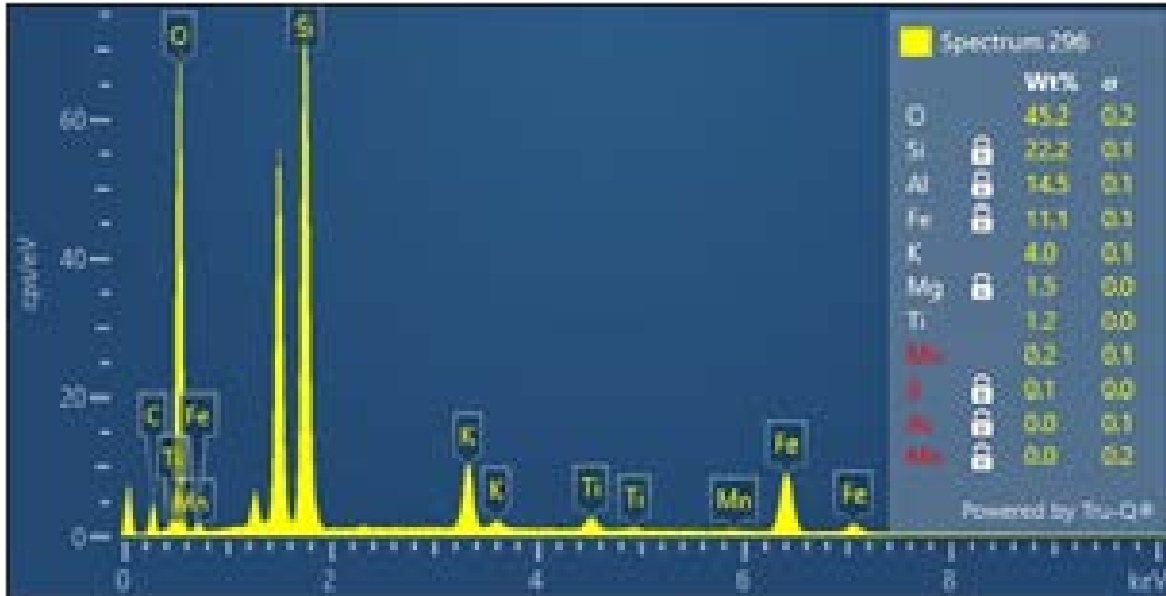
## Spectrum images

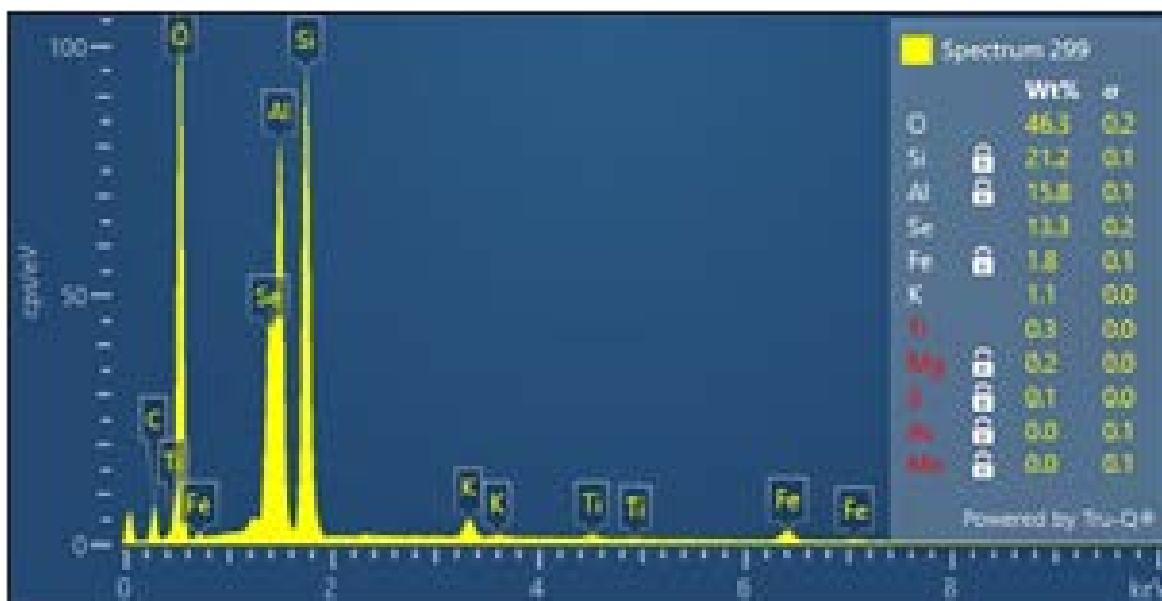
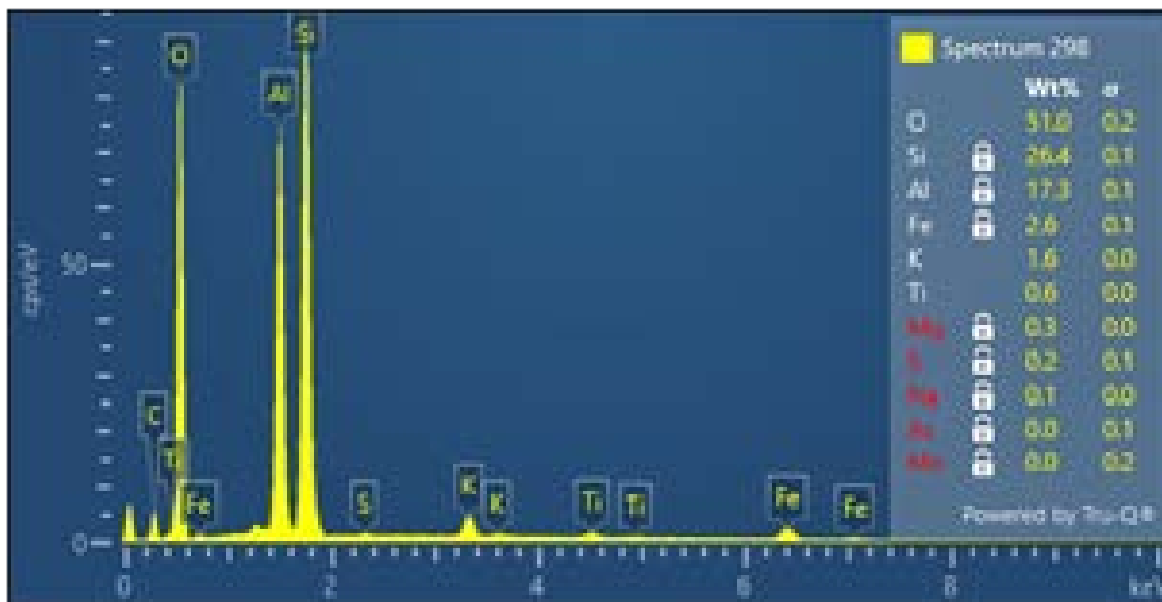


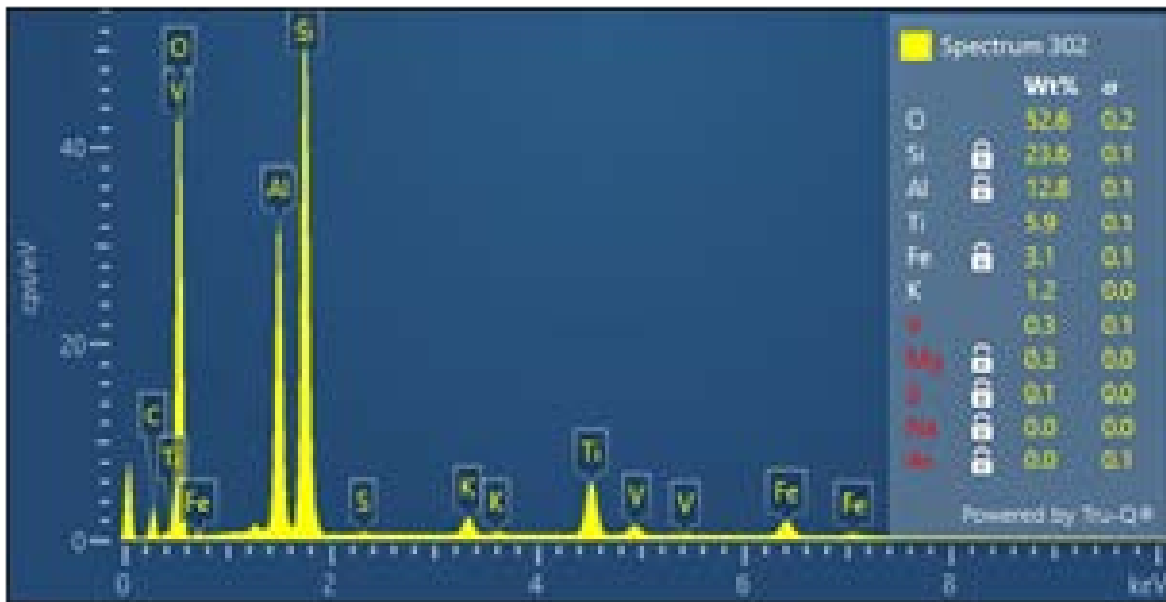
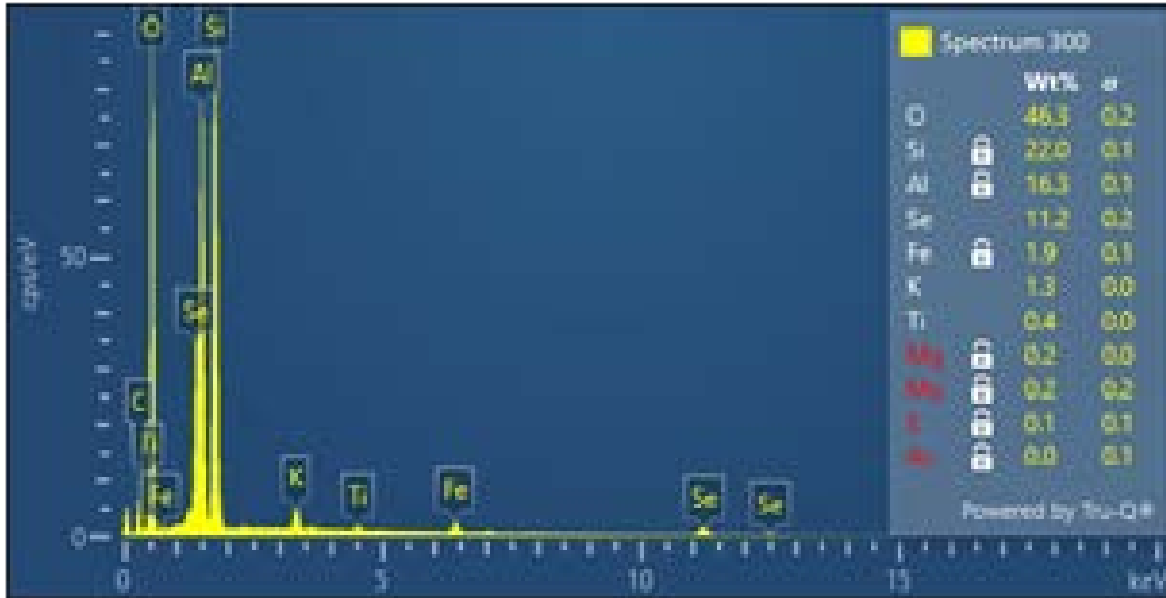


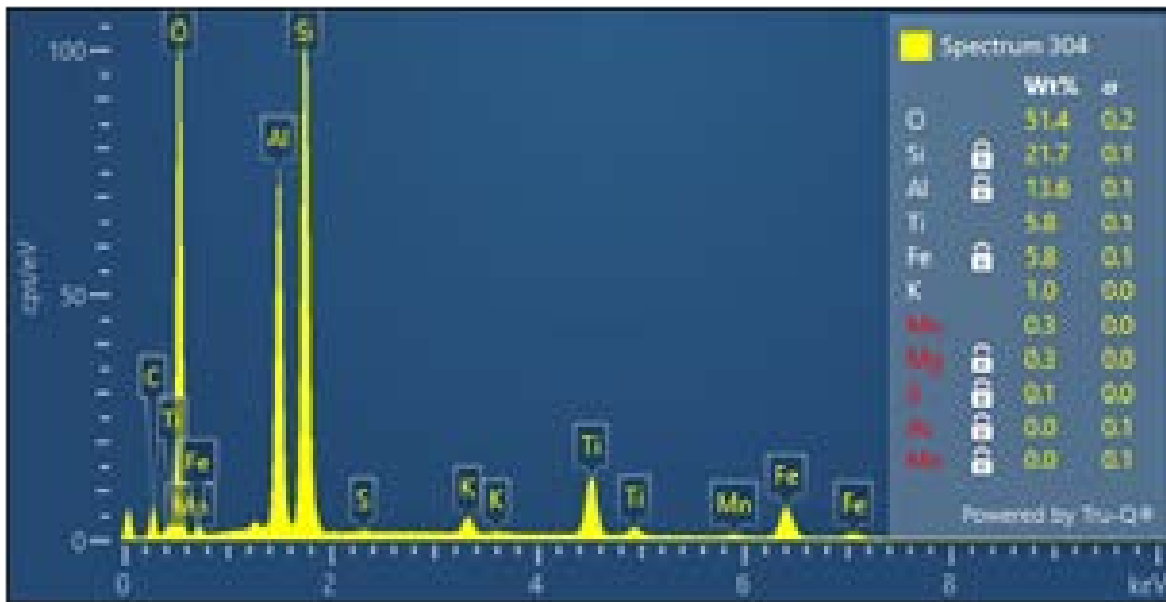
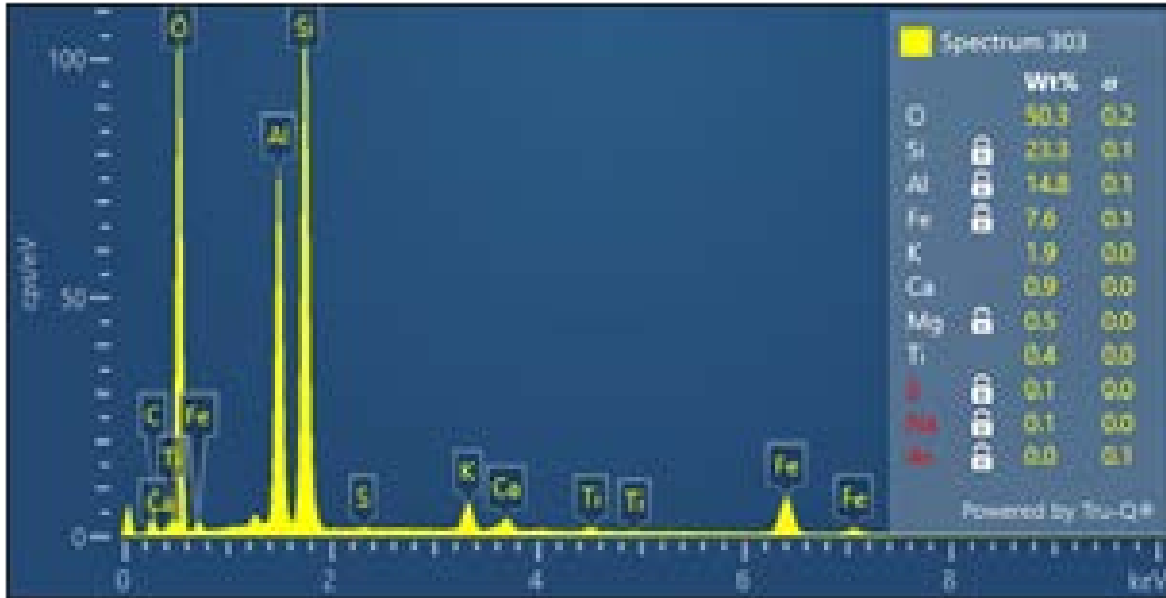


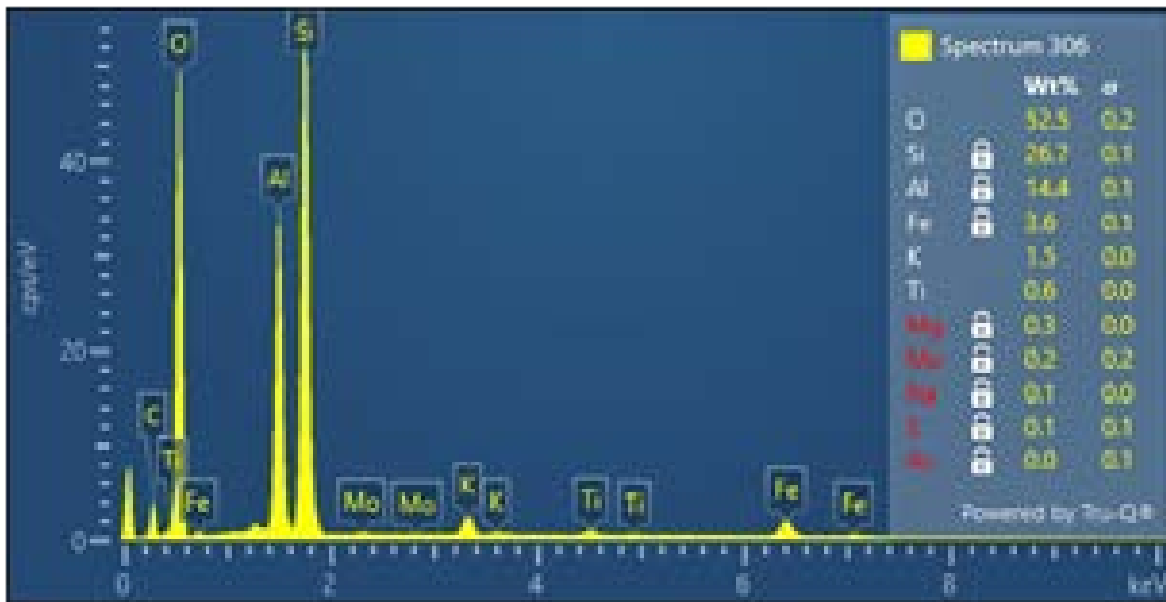
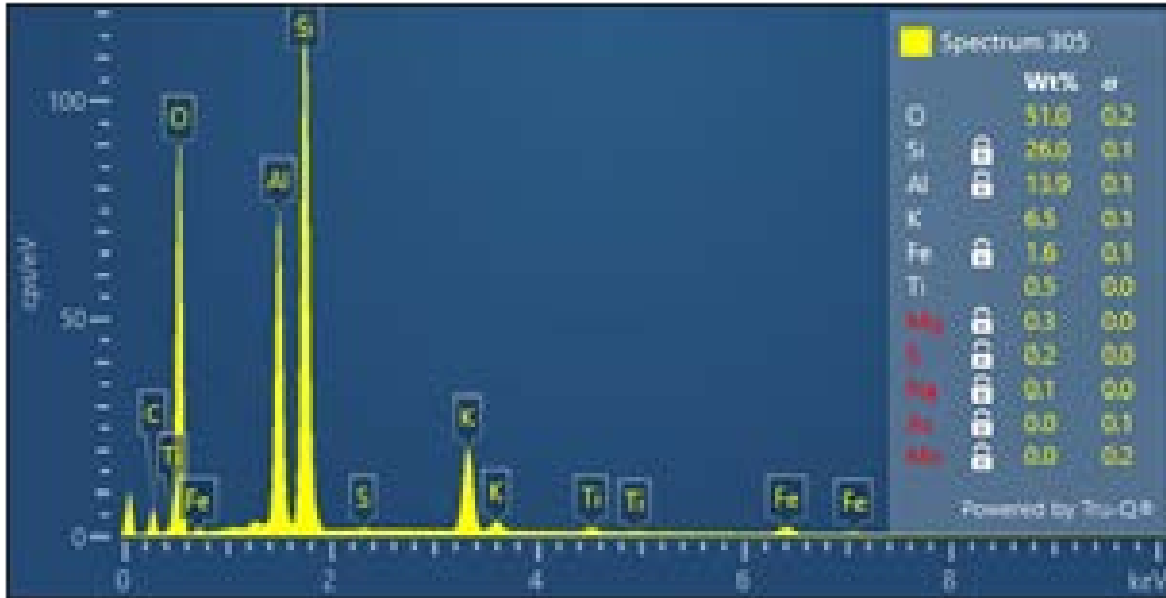


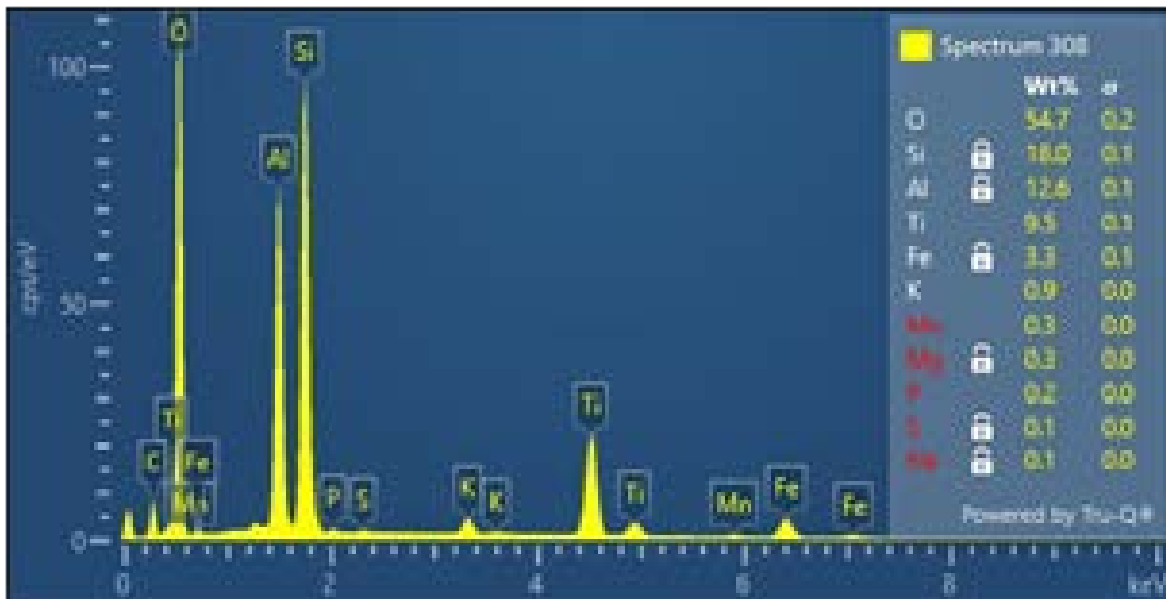
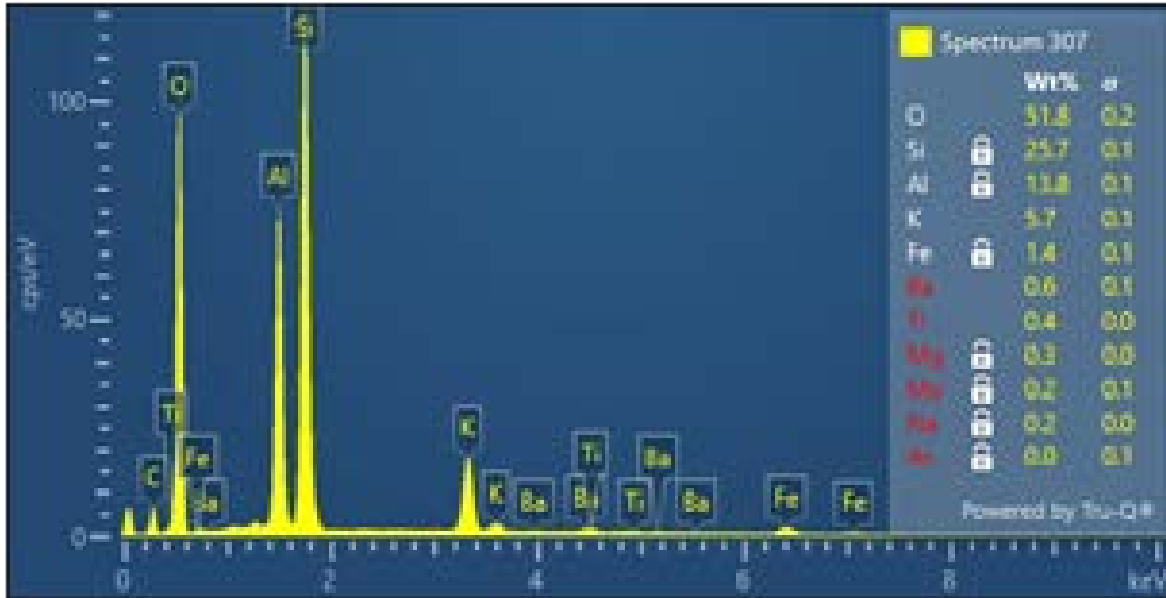


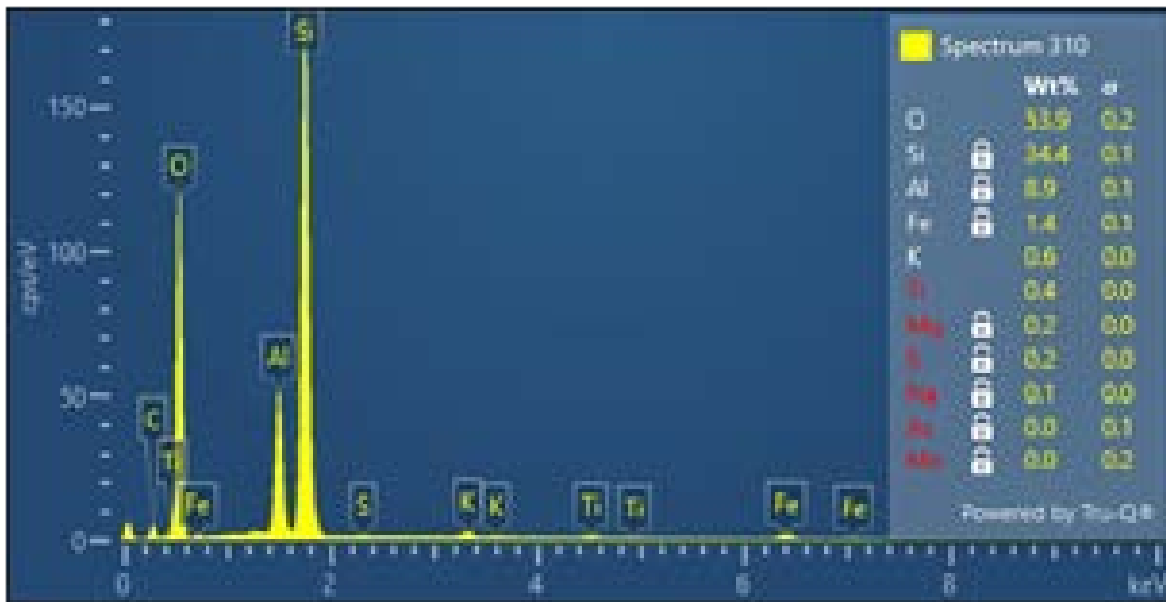
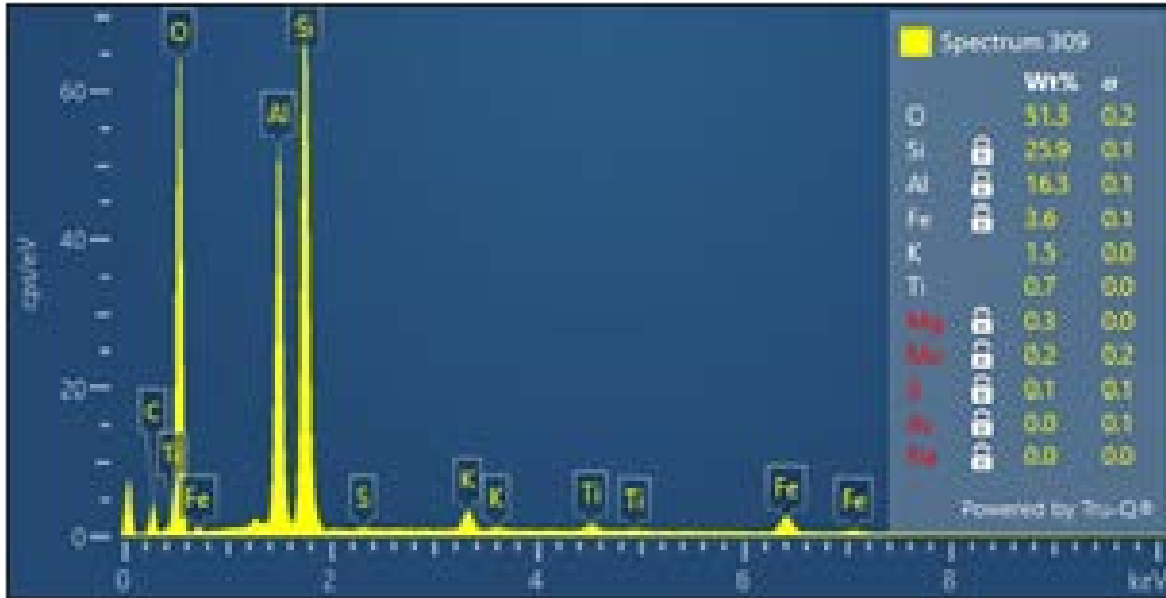


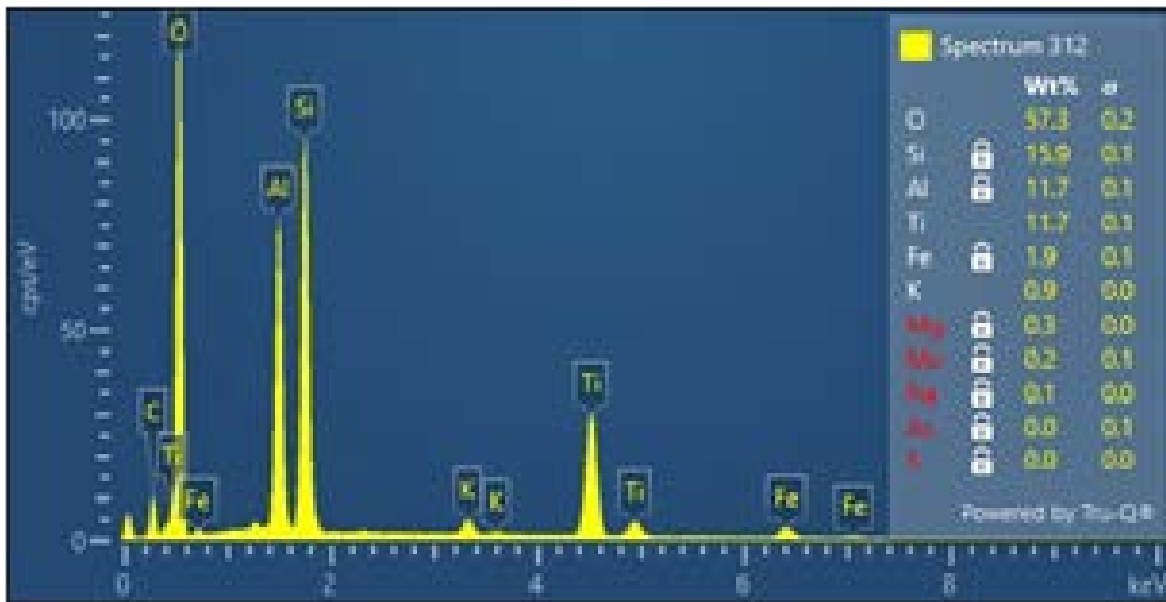
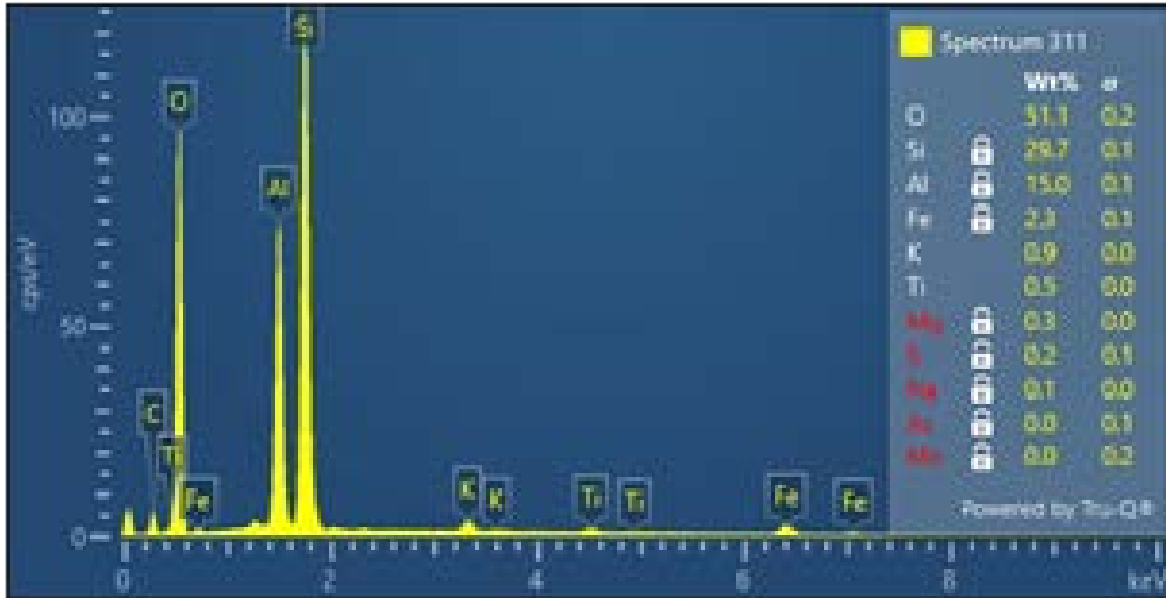




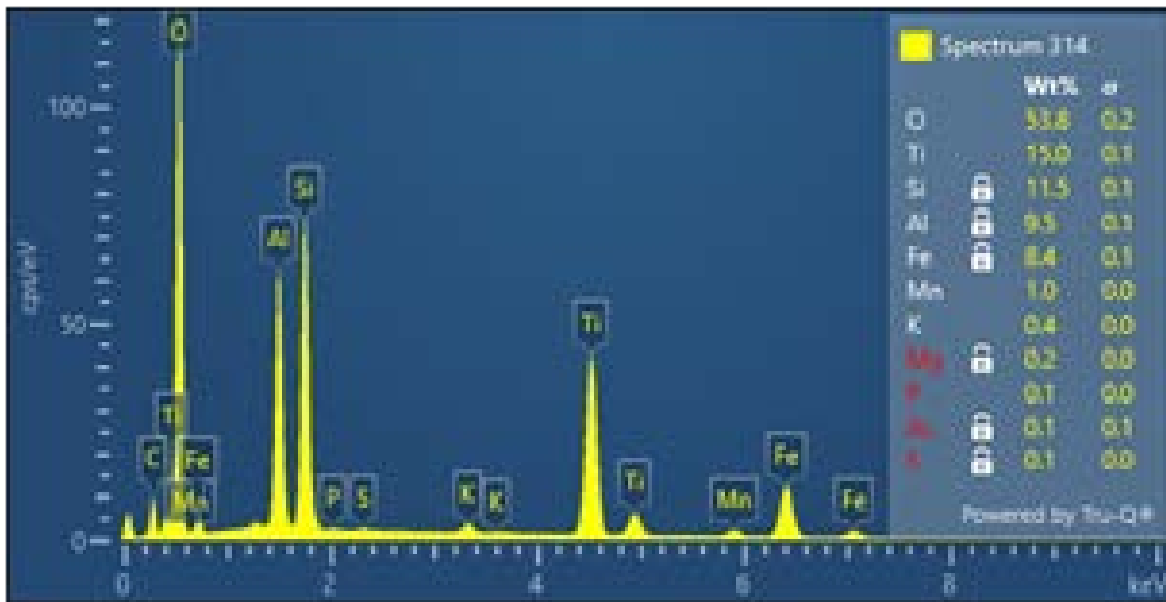
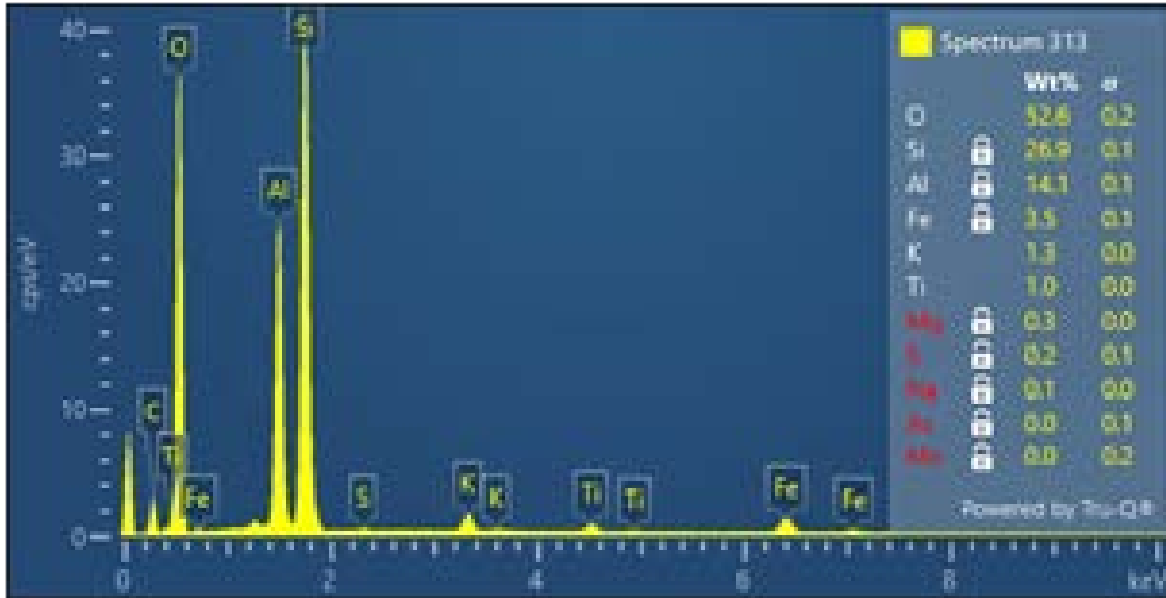


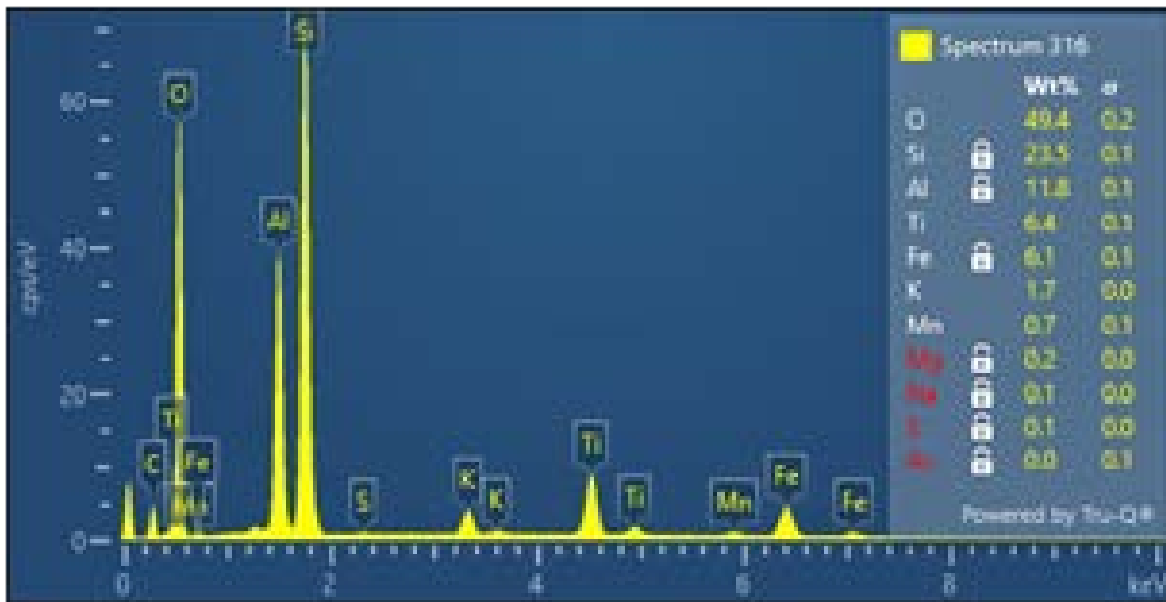
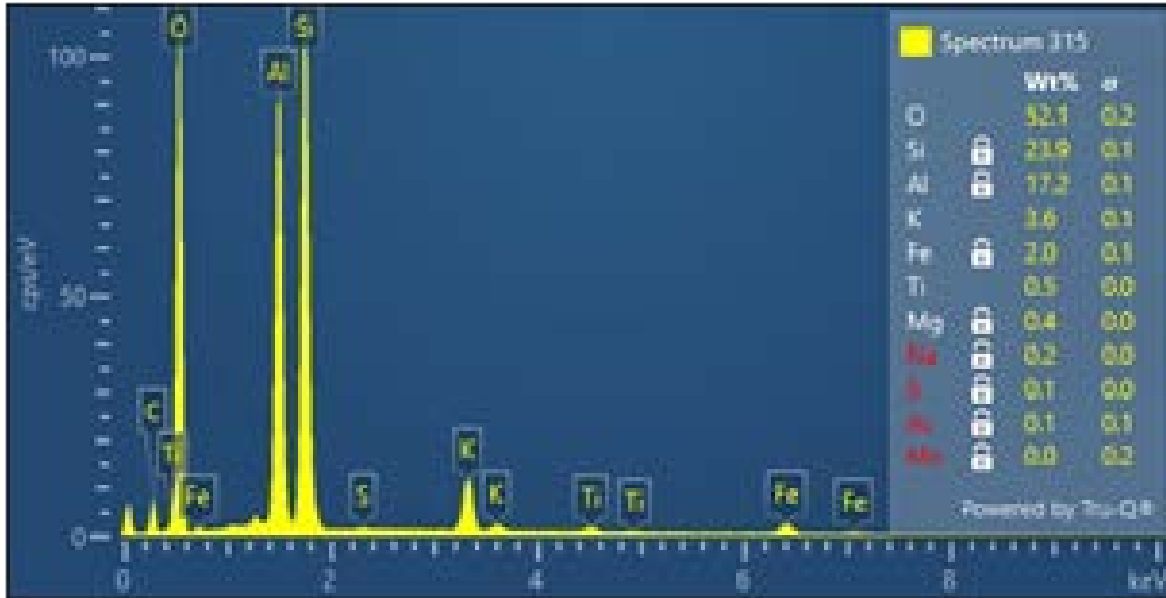


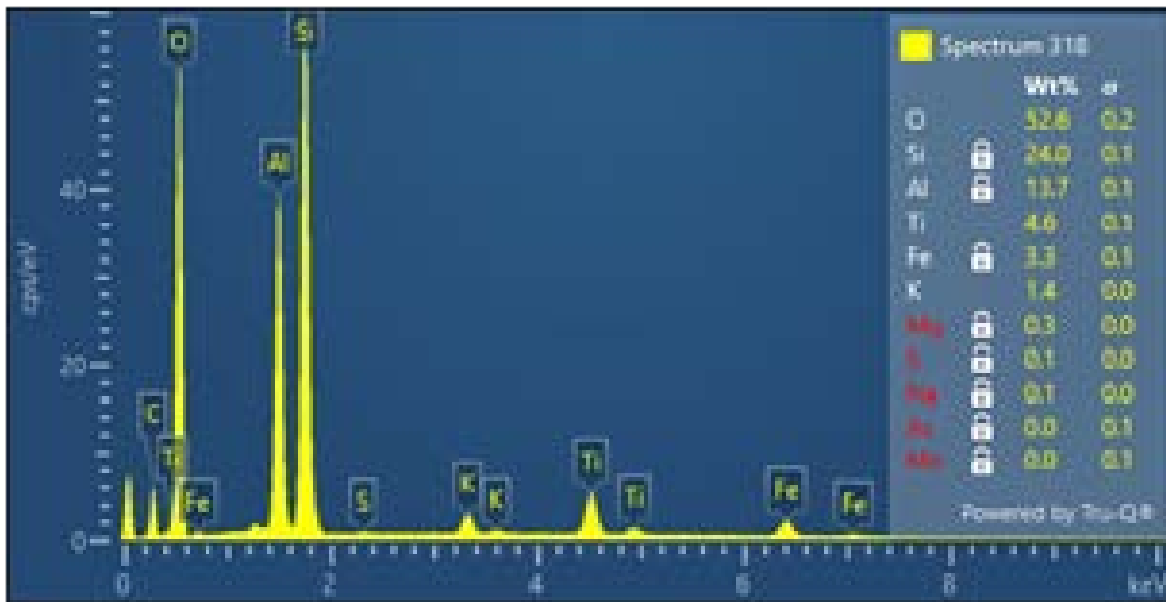
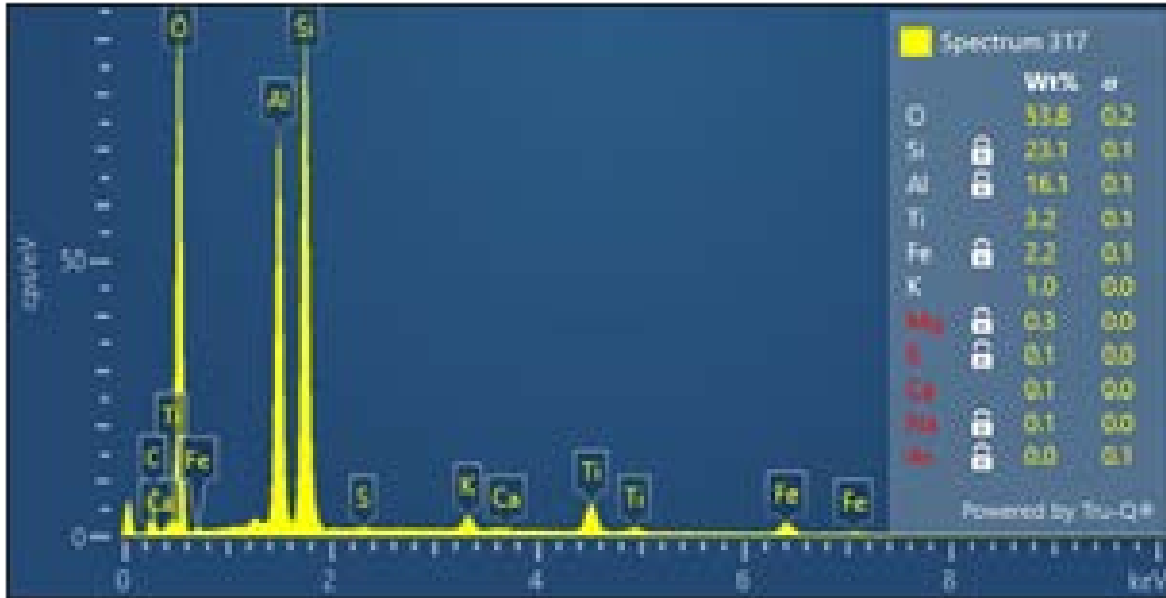


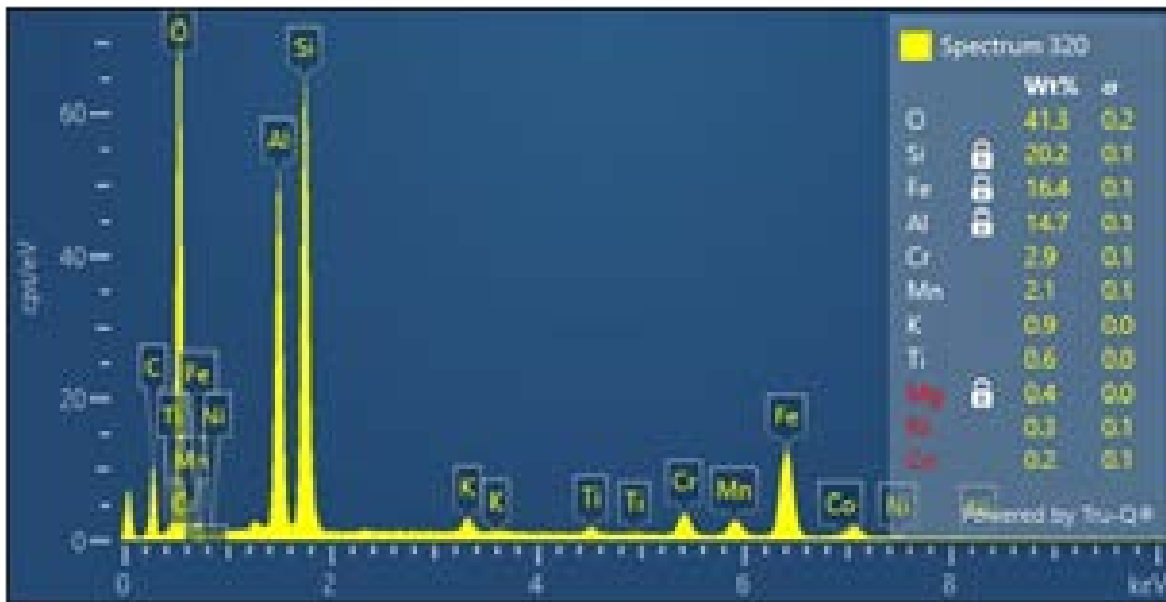
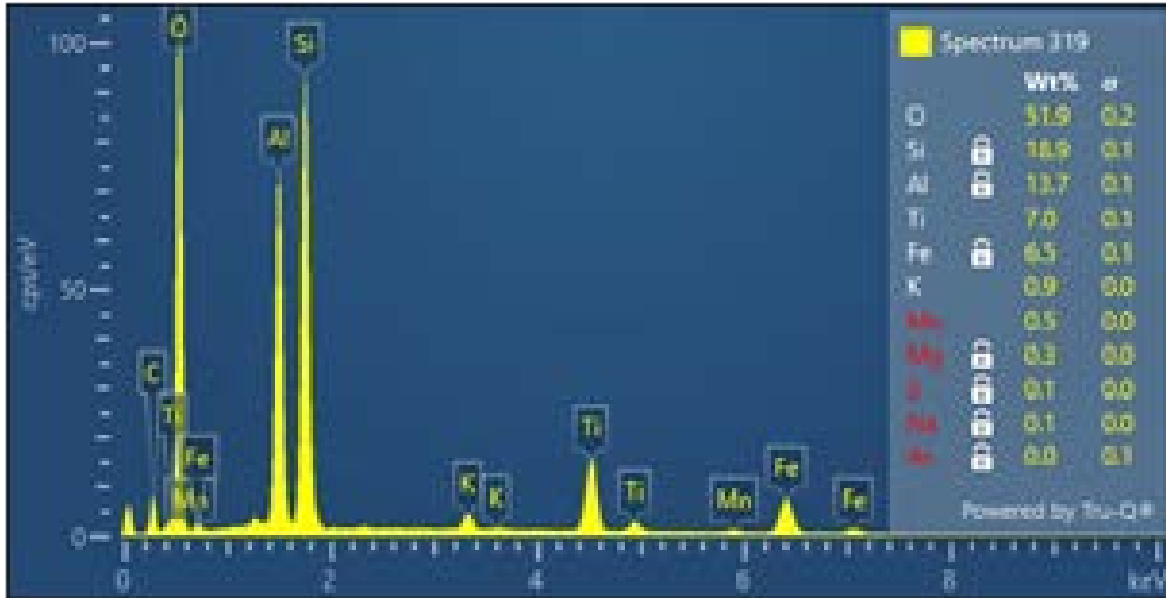


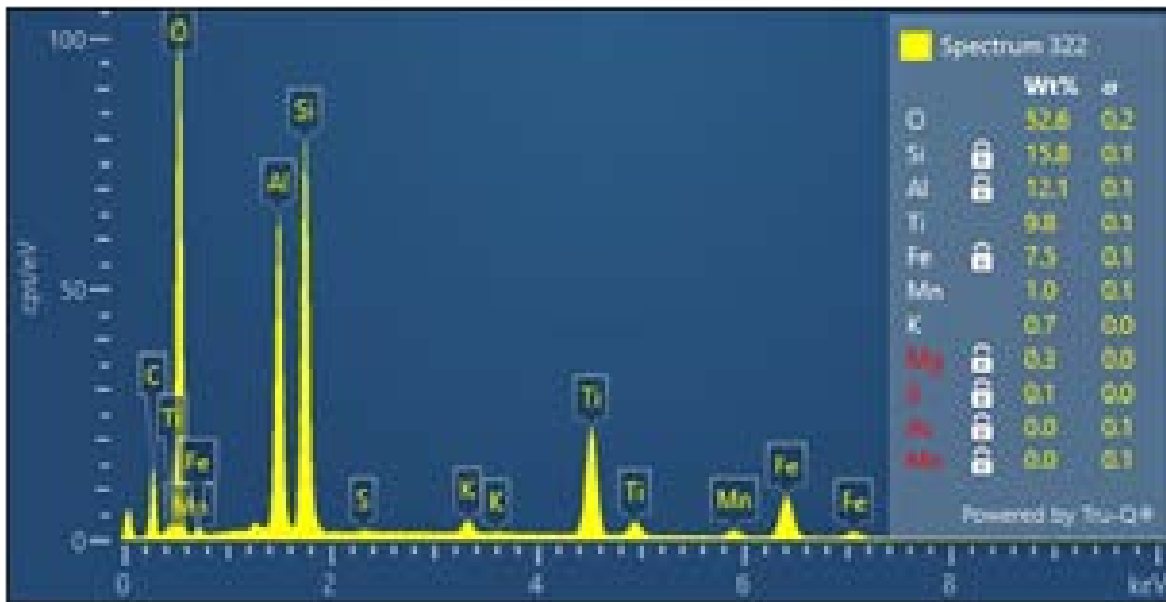
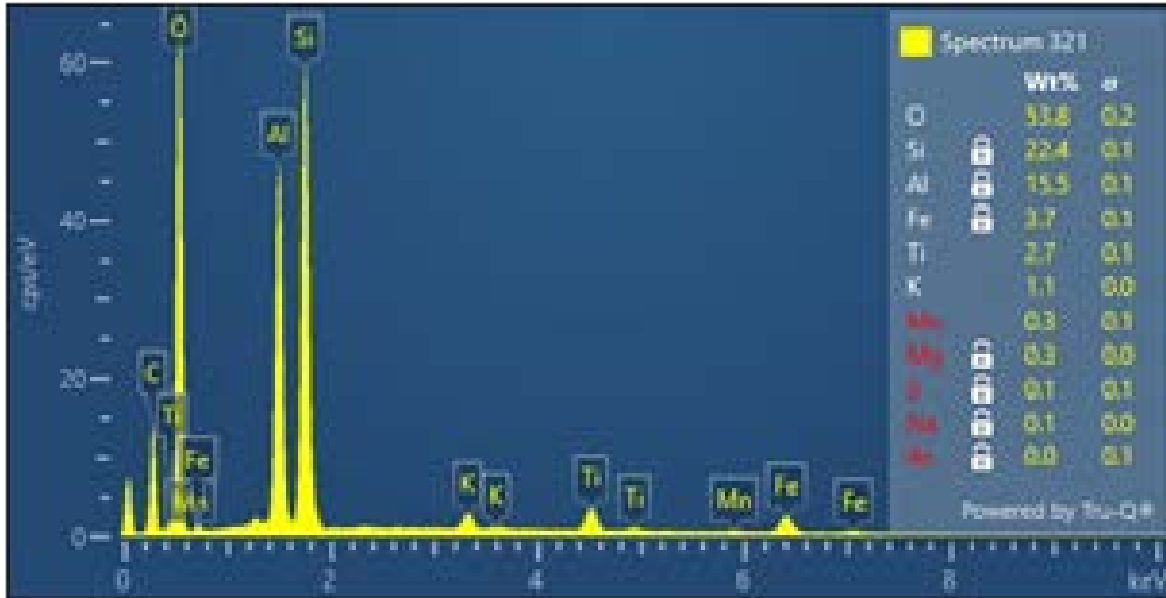


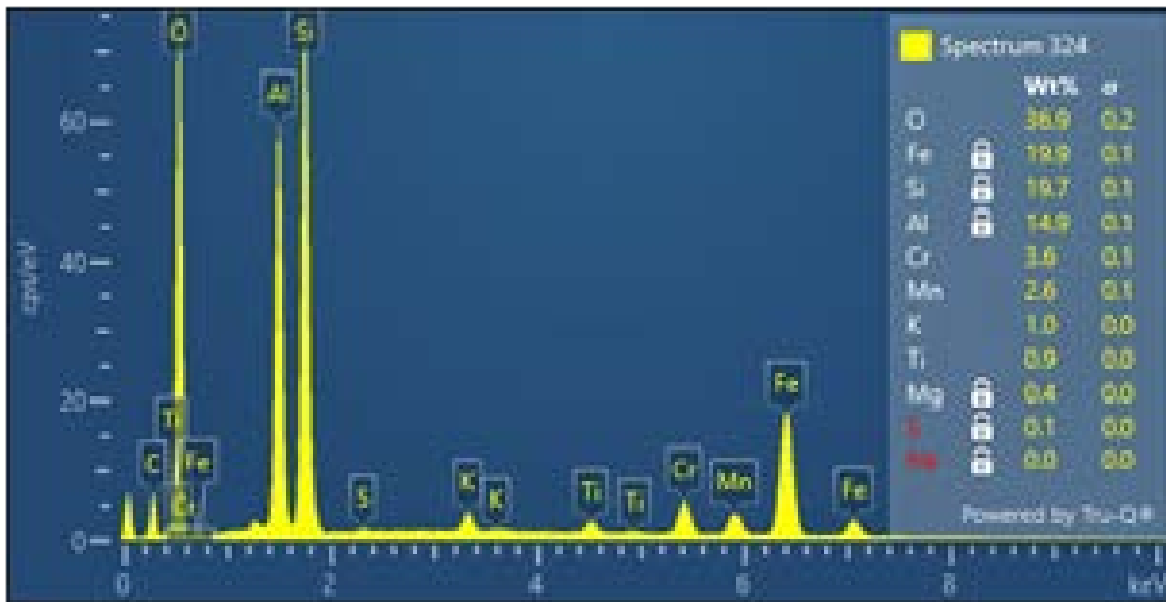
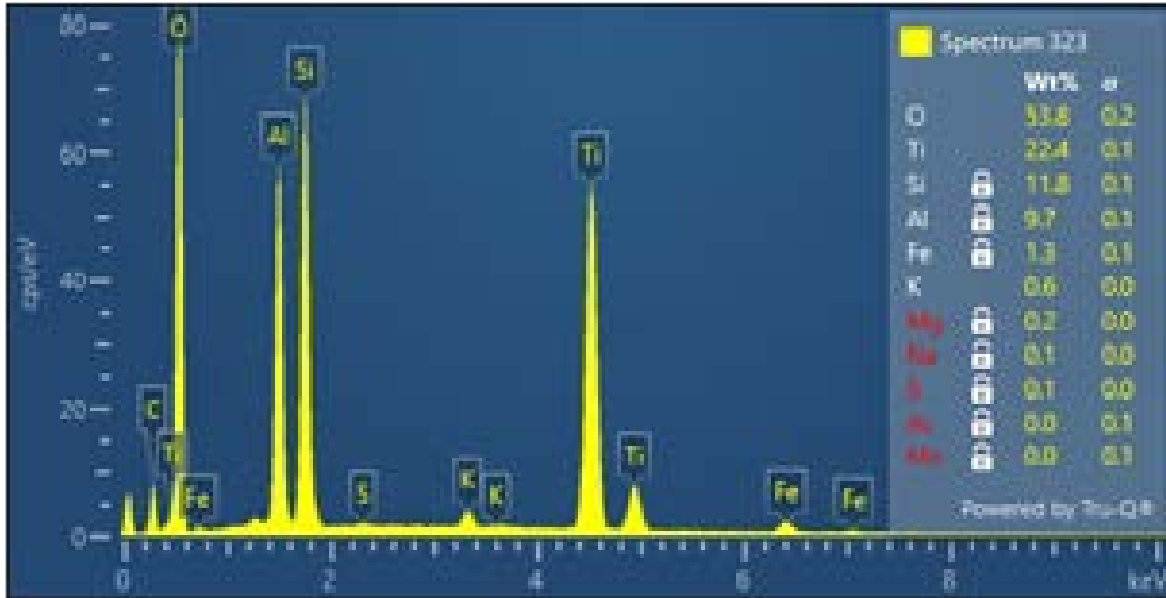


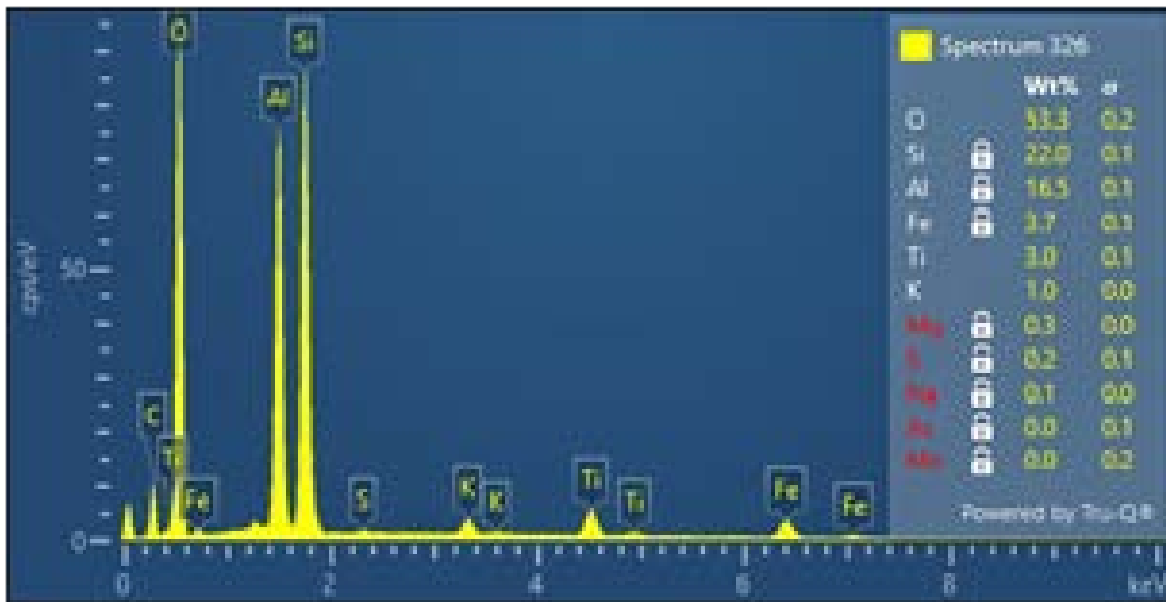
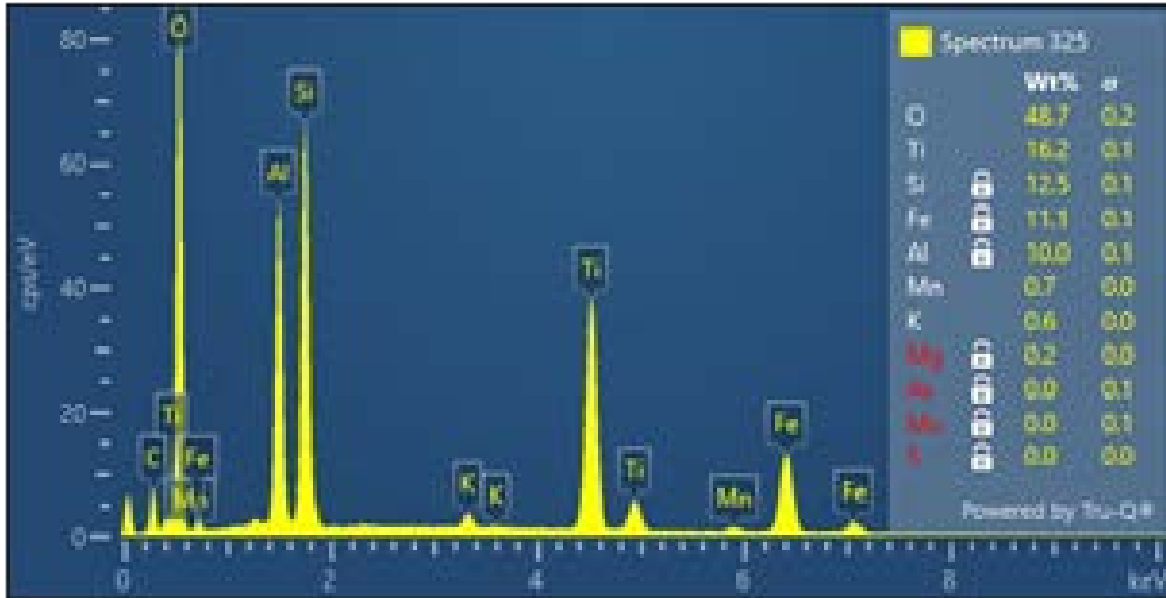


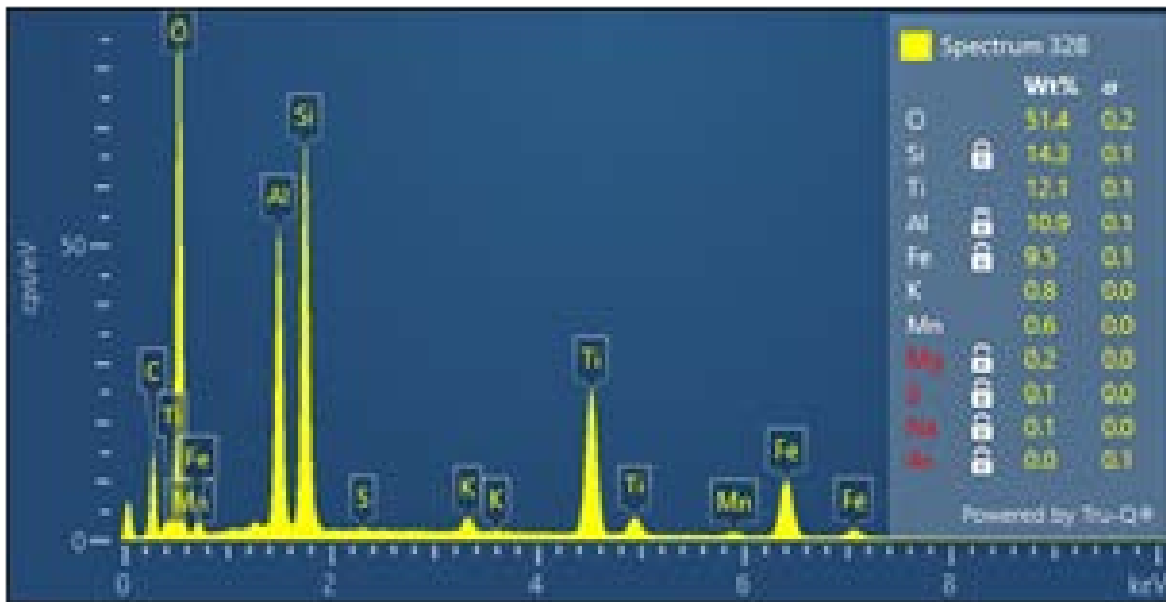
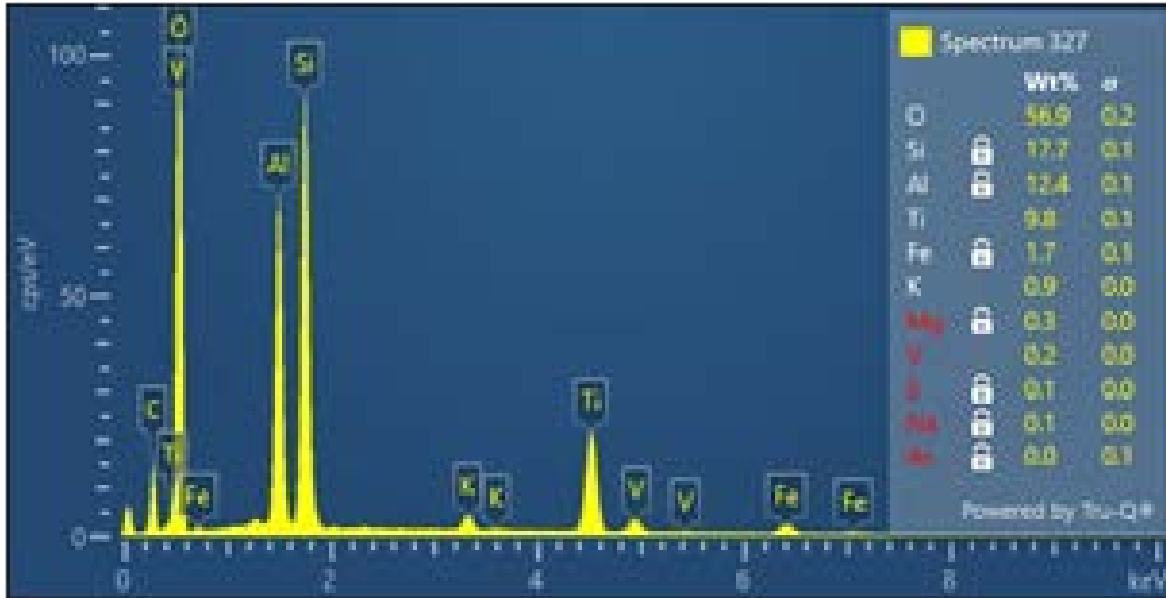




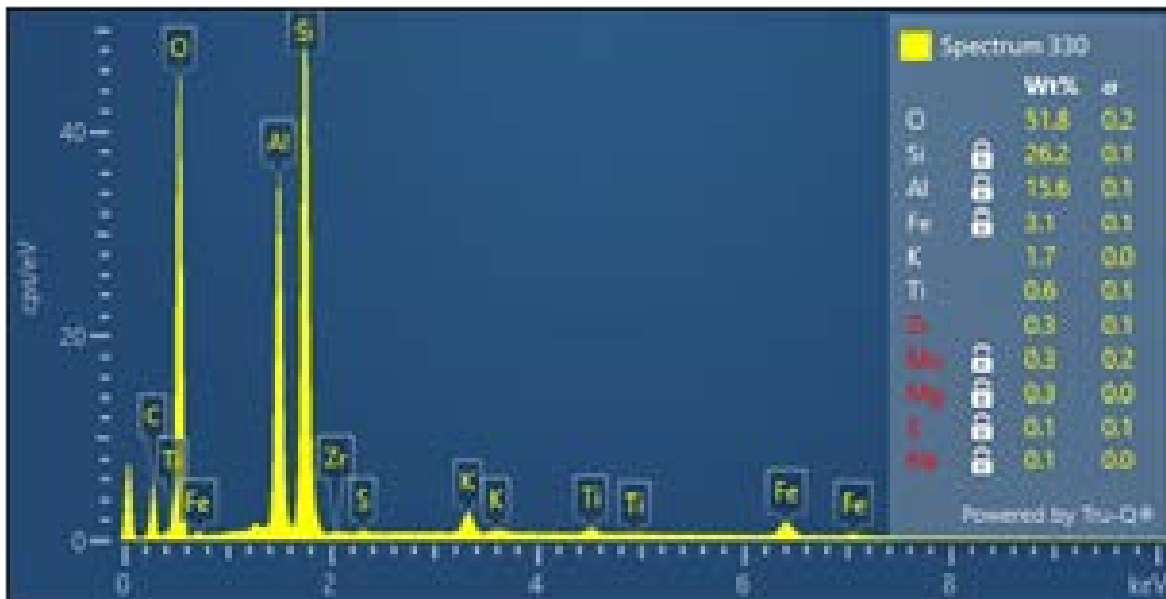
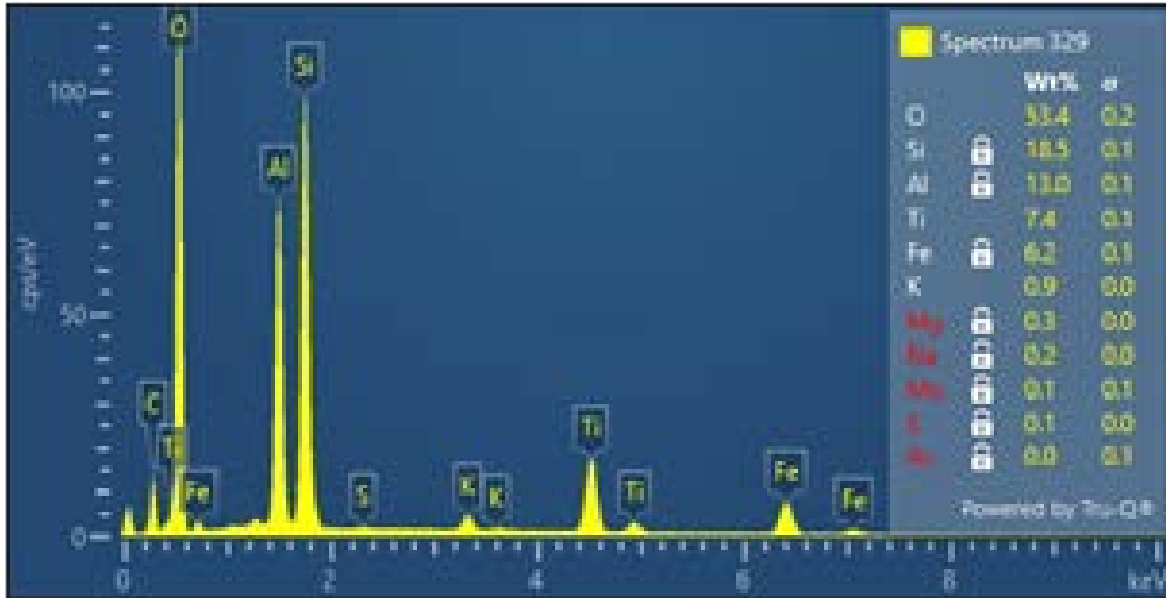


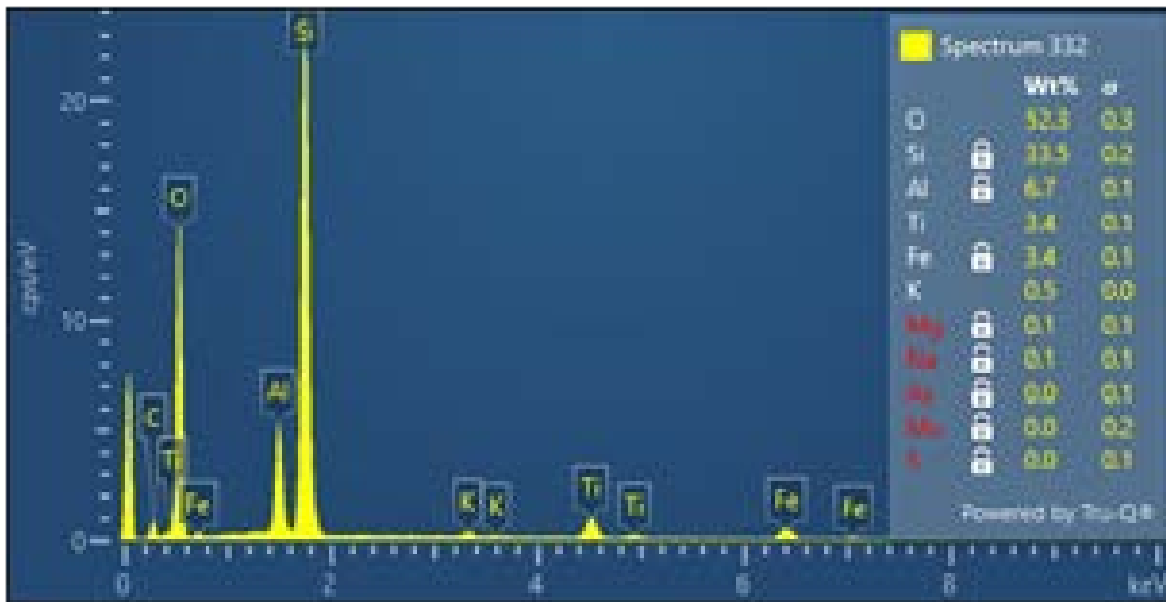
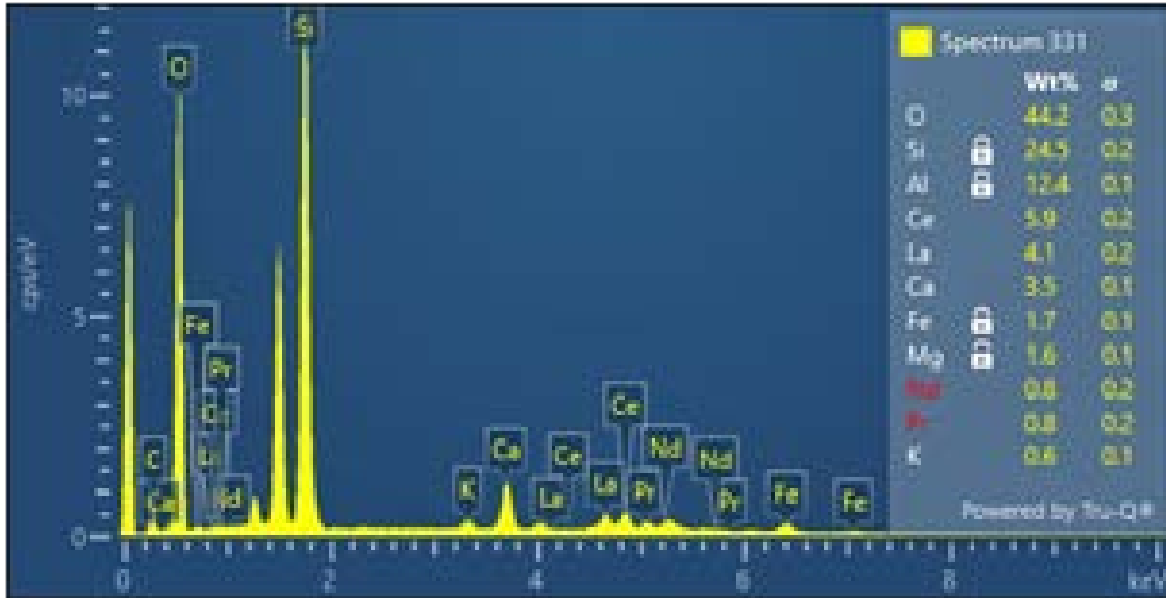


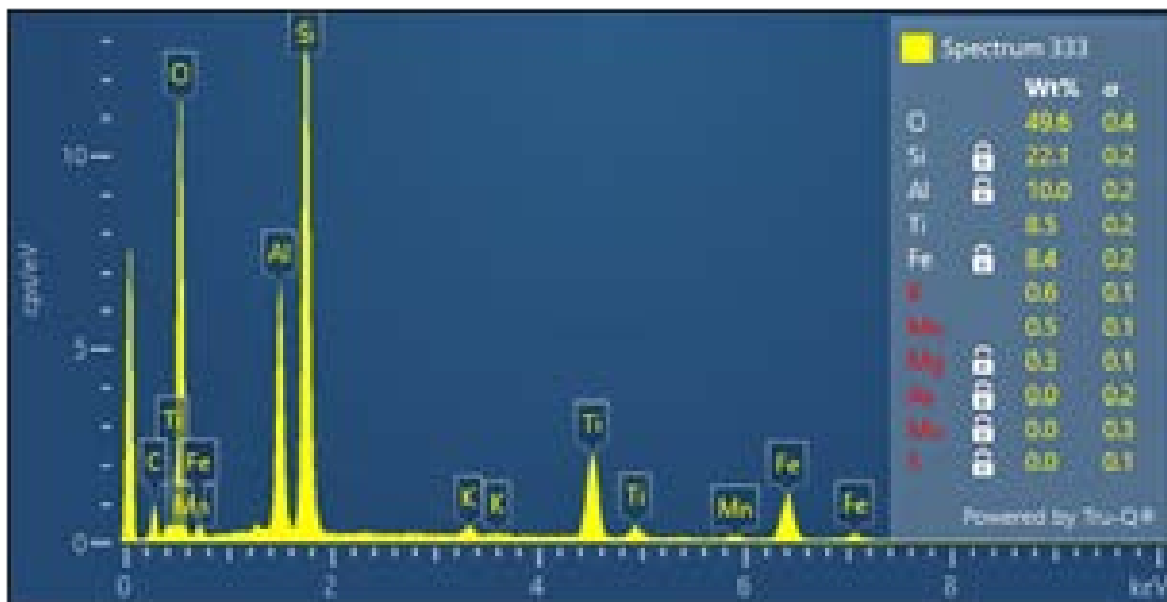










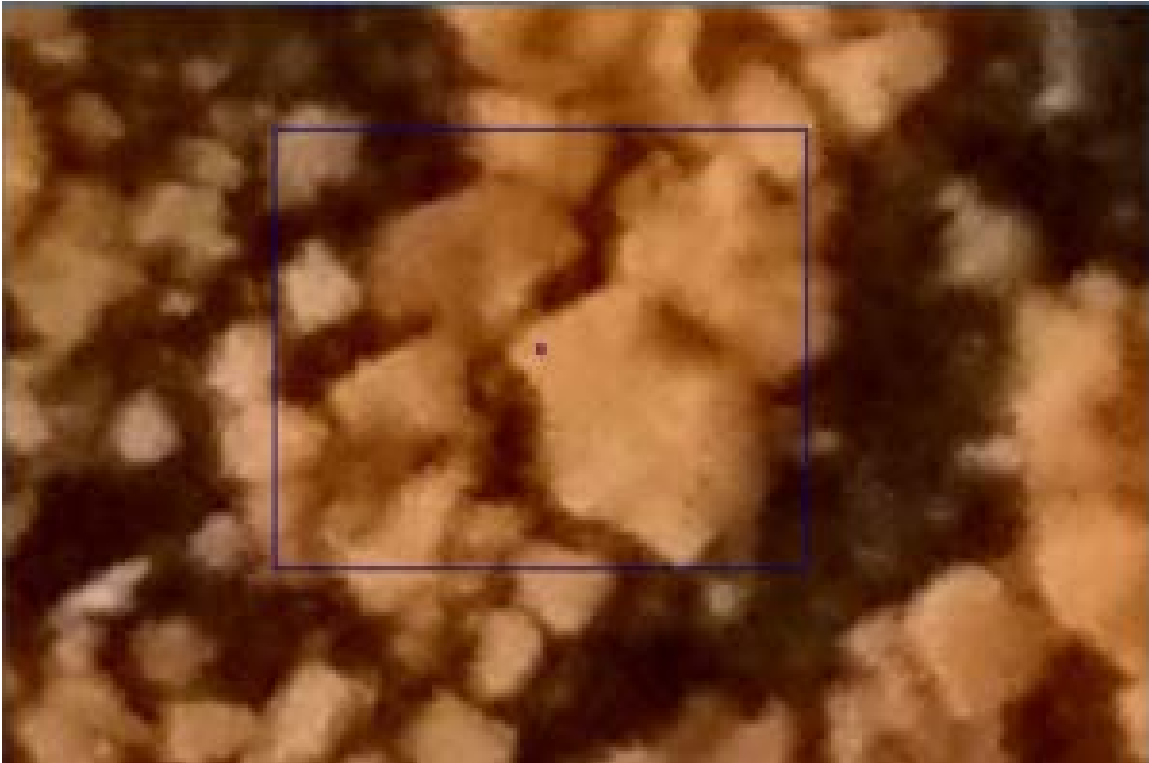


## Summary

Sample is composed primarily of uniform, massive, anhedral Fe oxides with significant amounts of S. Co, As, and Sr was consistently measured well above EDS detection limits, and Mo was occasionally measured above detectability. Mn was at or below the EDS detectabion limit. Sample also contains infrequent, euhedral Ca-Fe sulfata/sulfite needles.

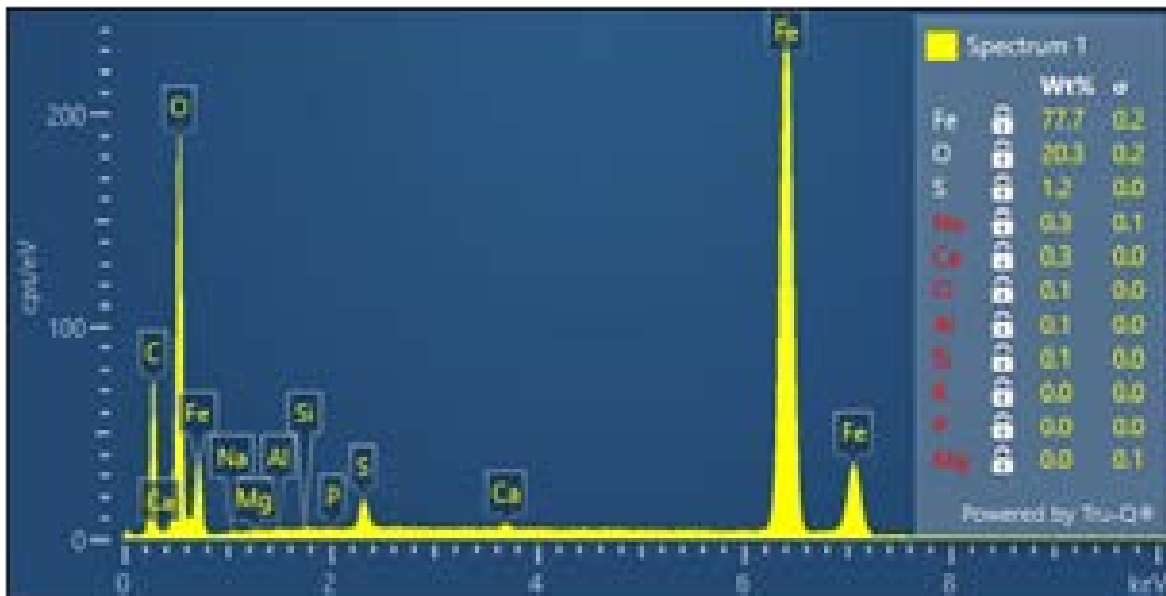
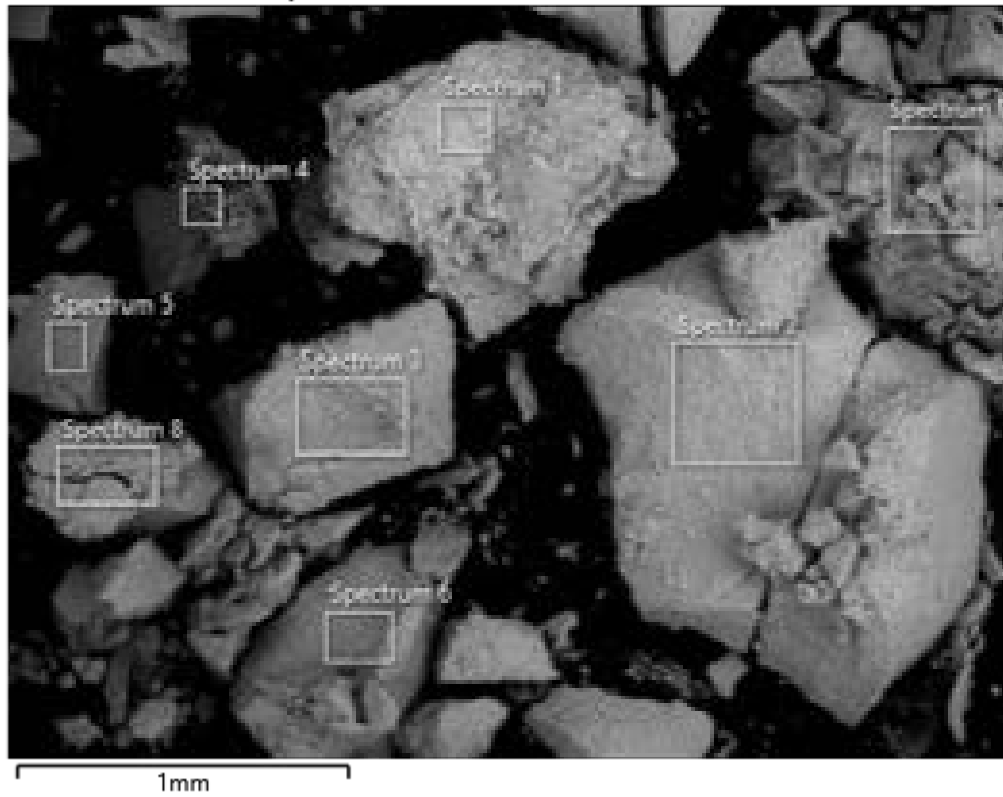
Note that many spectra contain large carbon peaks. These peaks are inconsistent with carbonate stoichiometries and are thus likely due to the carbon substrate. For this reason carbon was removed from all composition calculations.

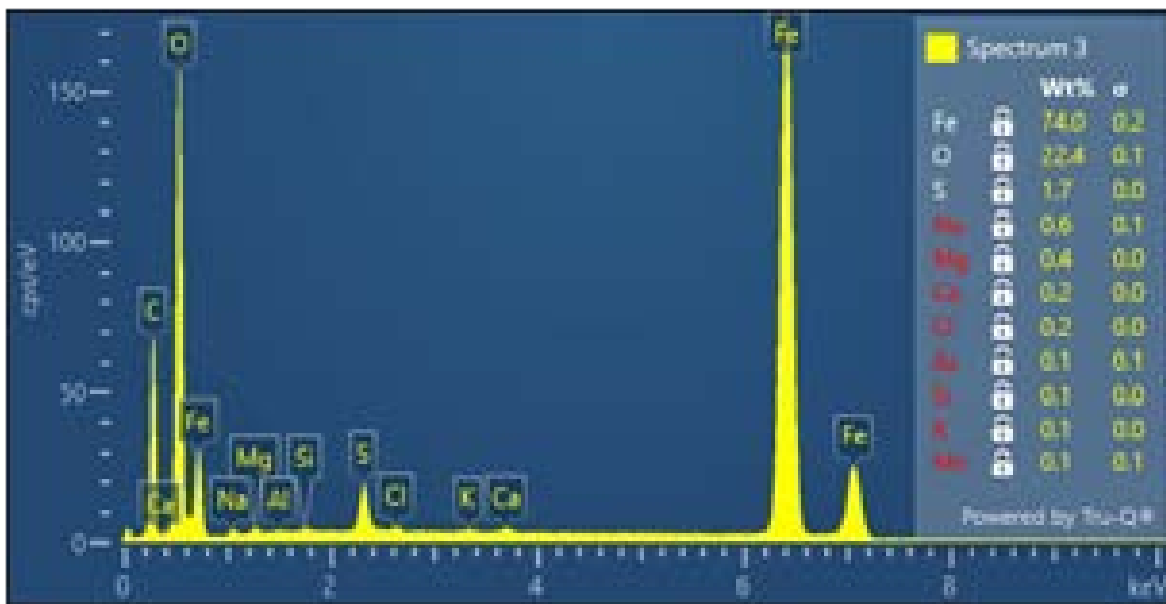
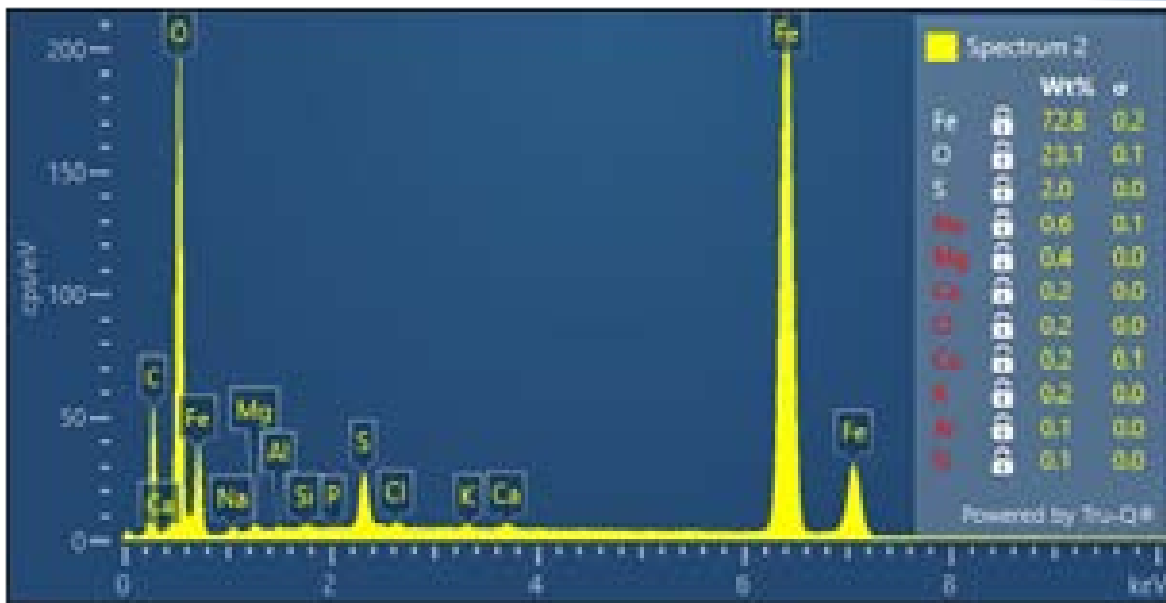
## Site 1 Optical (low resolution, for rough orientation only)

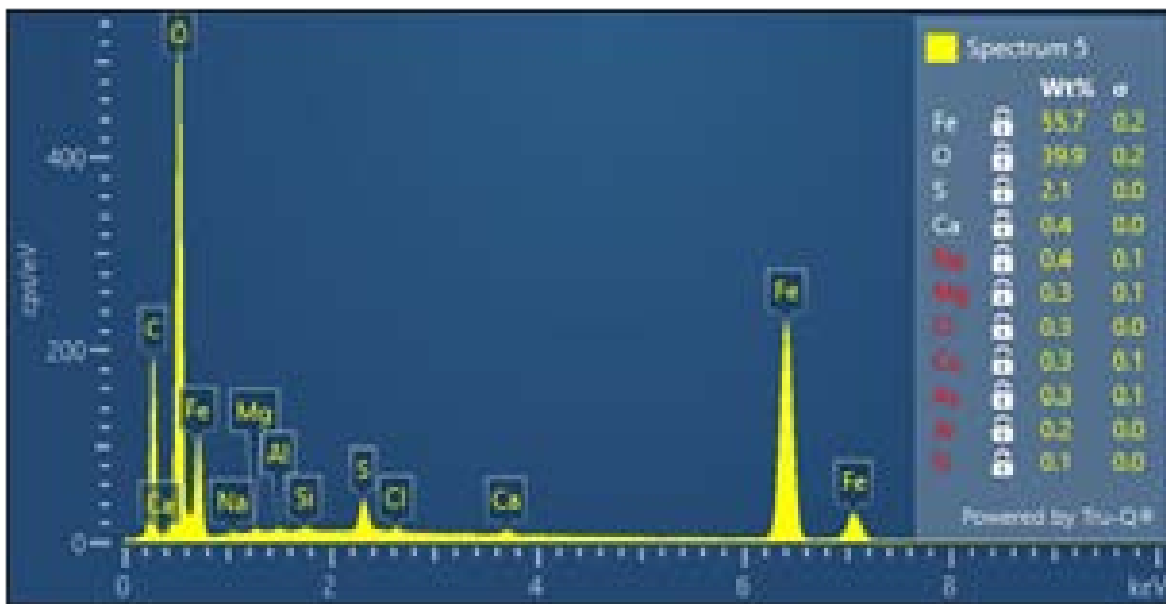
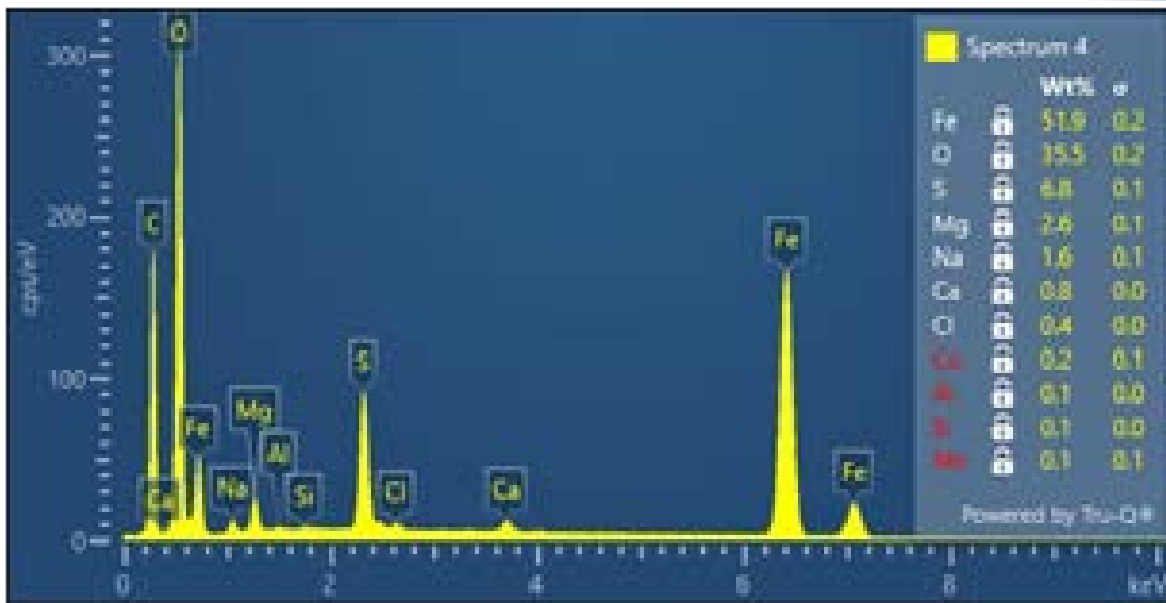


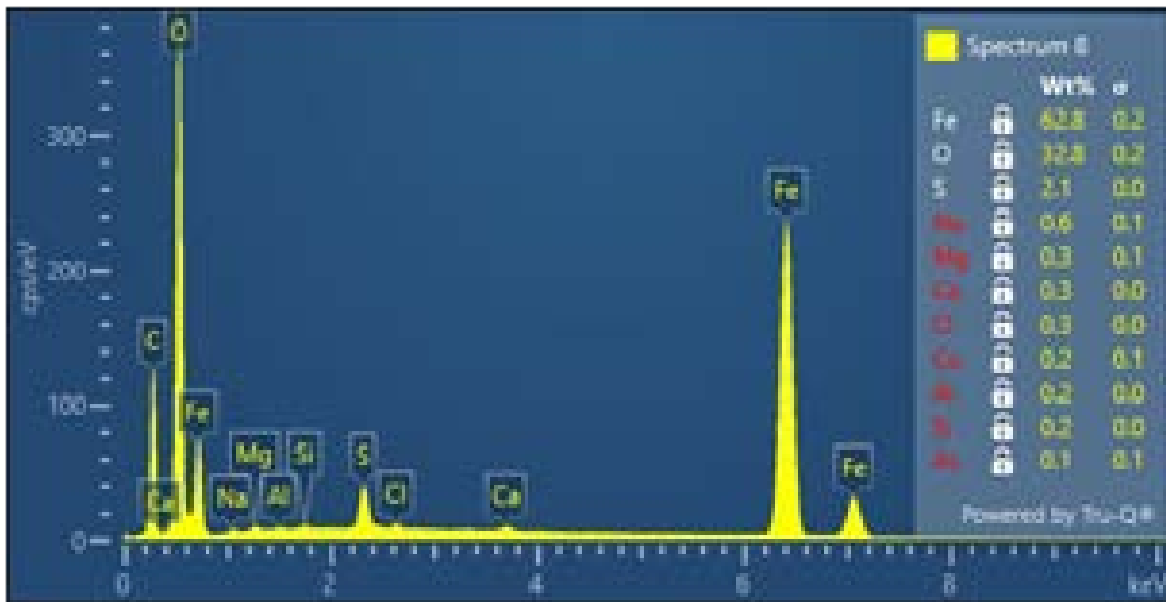
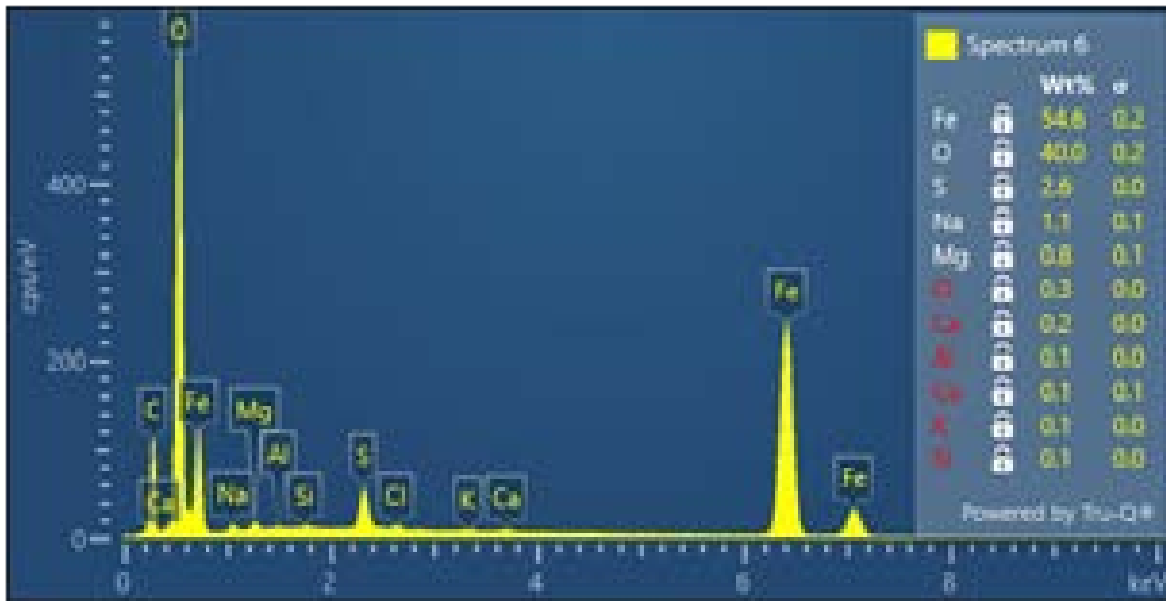
# Site 1 BSE/EDS

Specimen1-Site1 overview 100x BSE

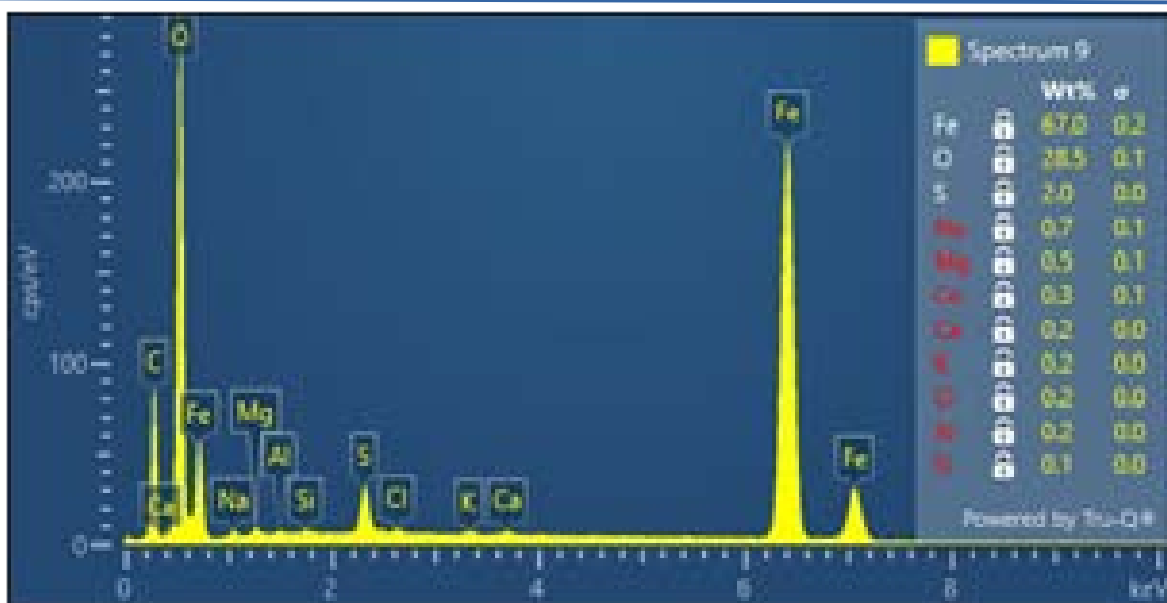






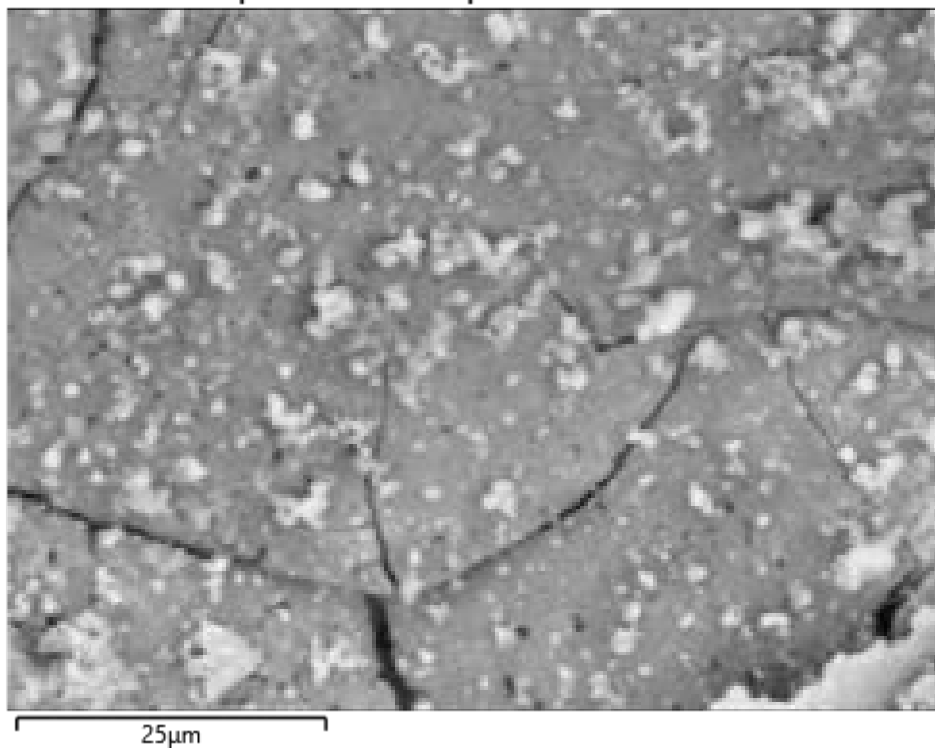




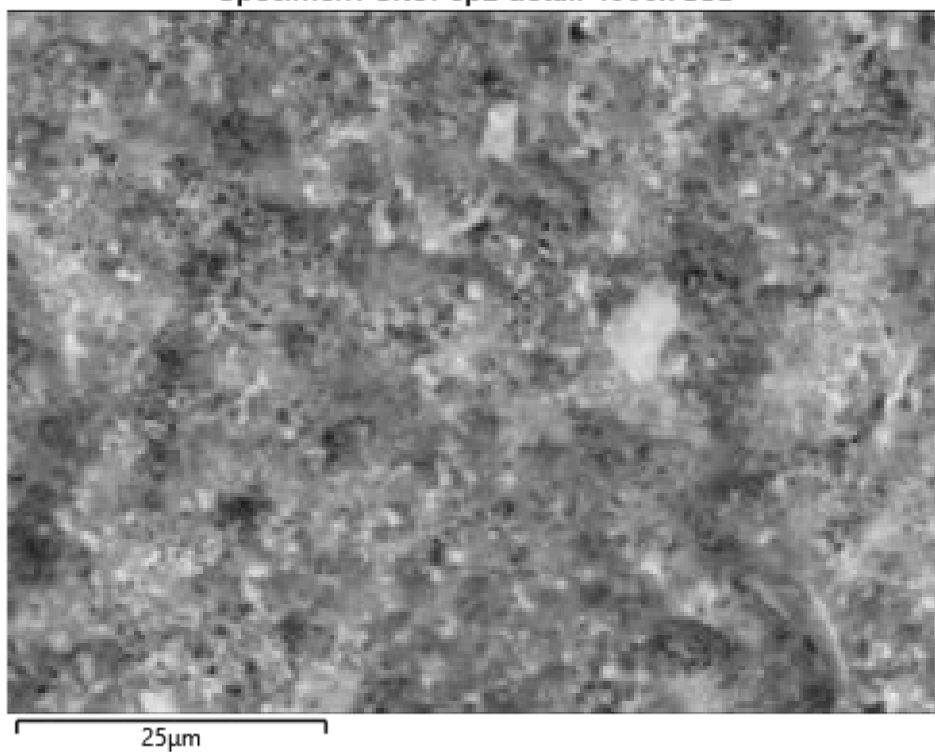


## Site 1 detail images

Specimen1-Site1-sp1 detail 4000x BSE

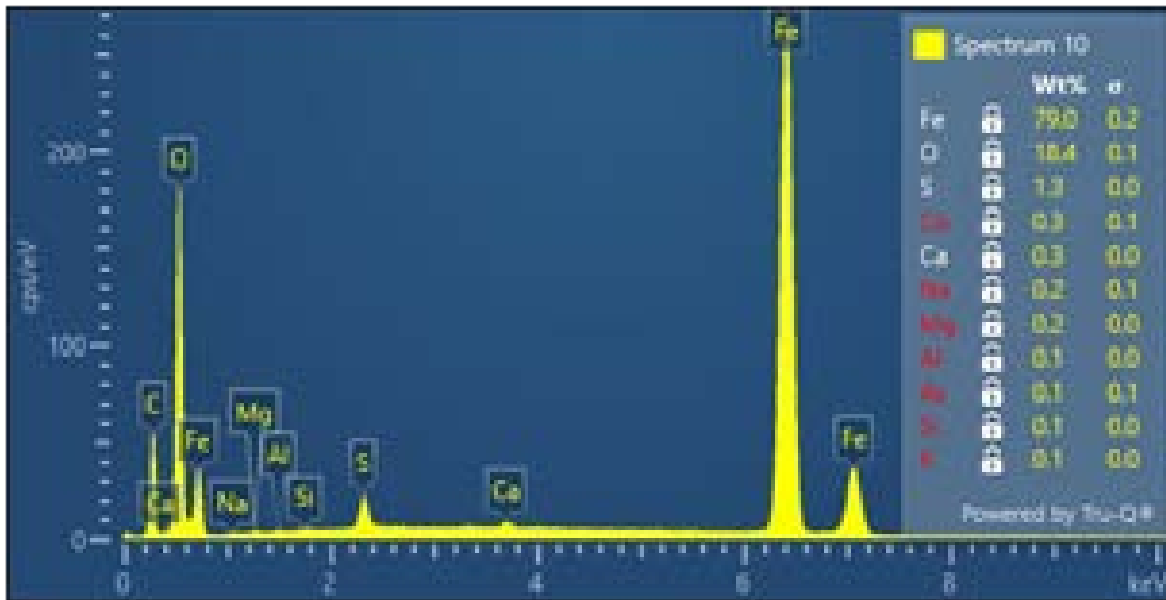
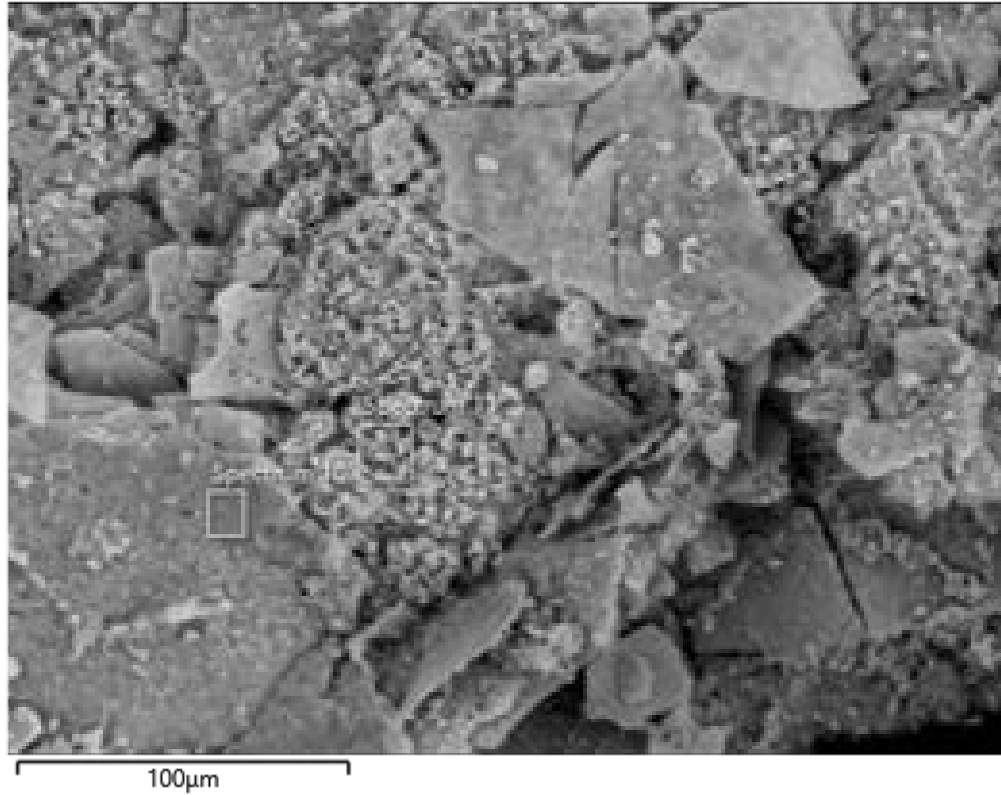


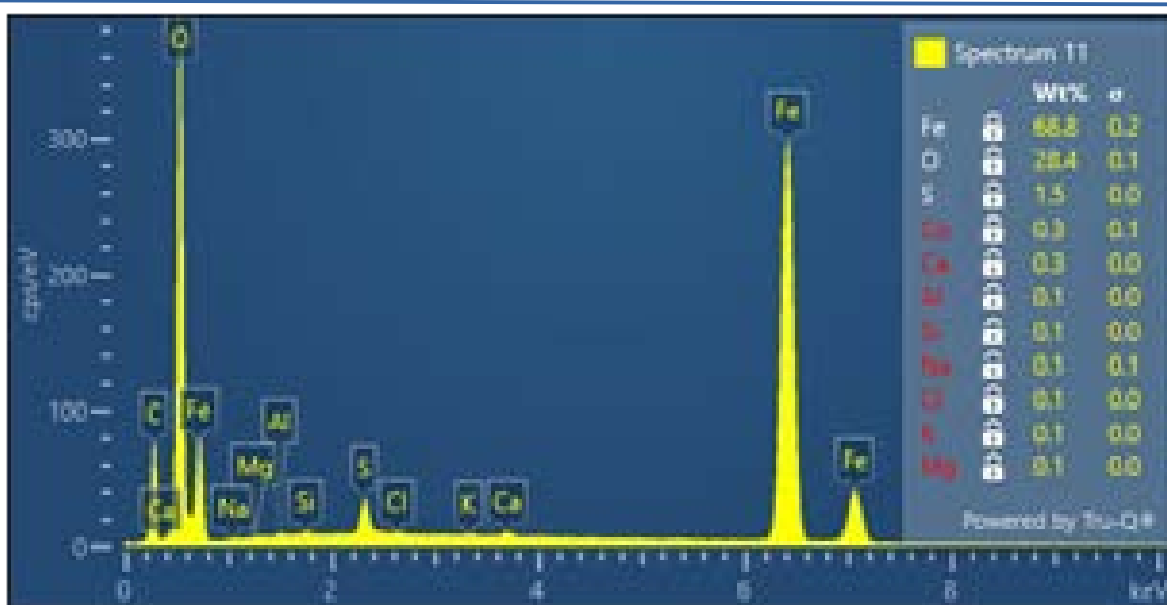
Specimen1-Site1-sp2 detail 4000x BSE



### Site 1 spectrum 1 details

Specimen1-Site1-sp1 1000x BSE





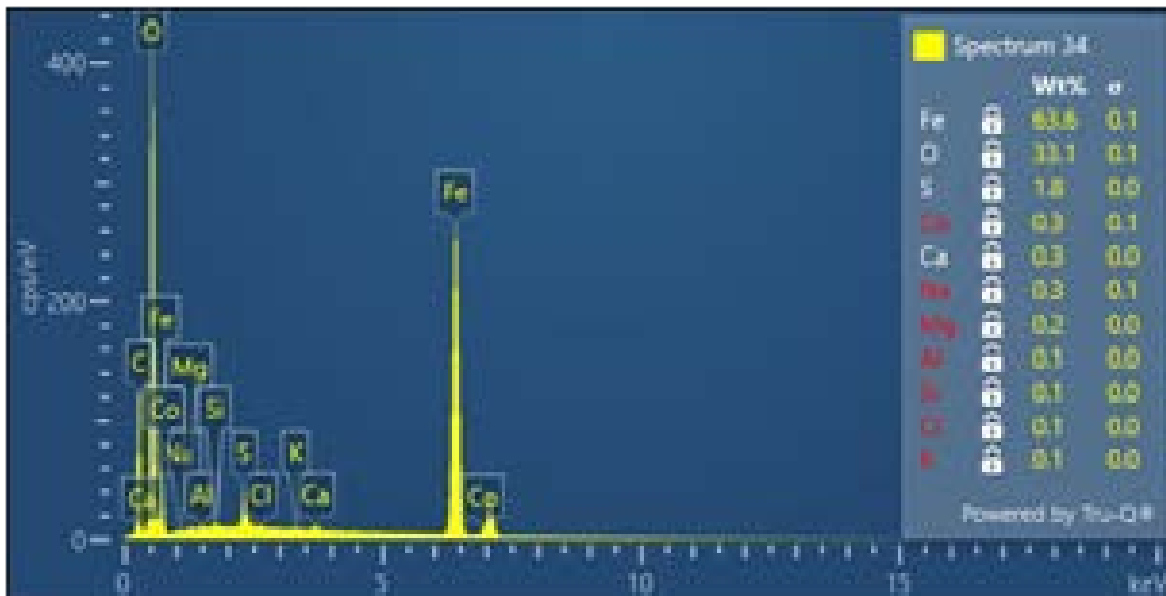
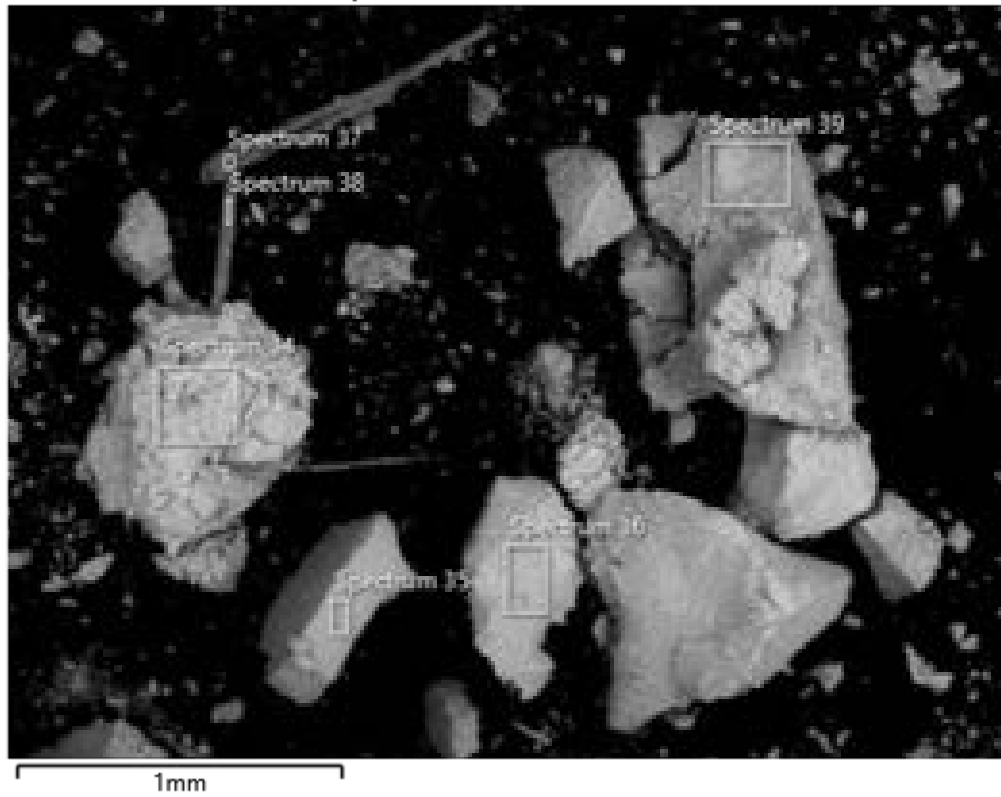
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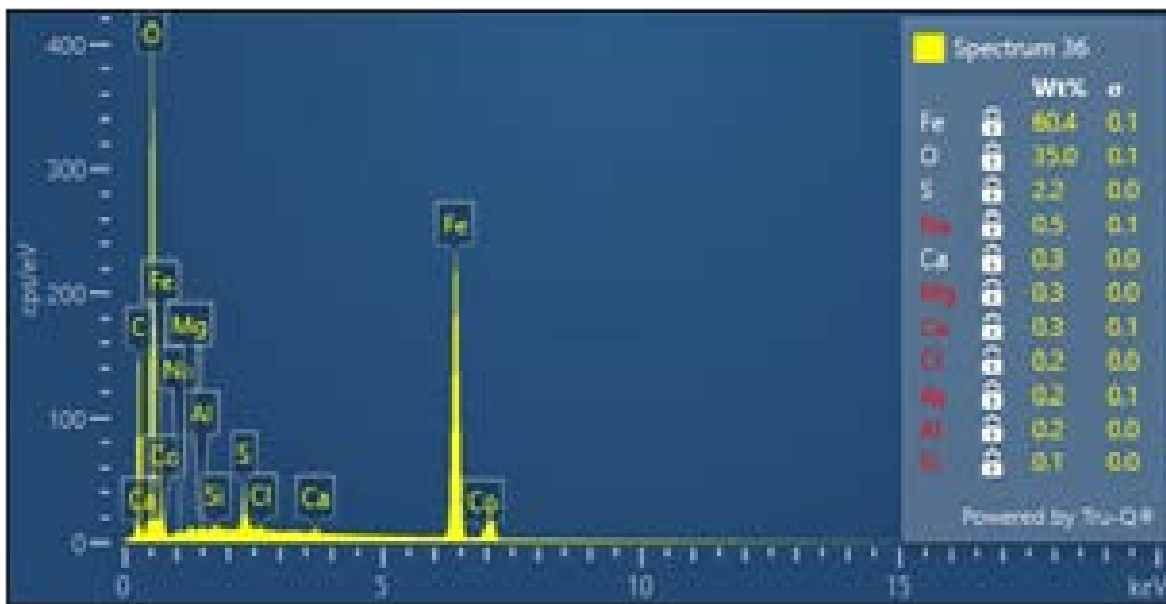
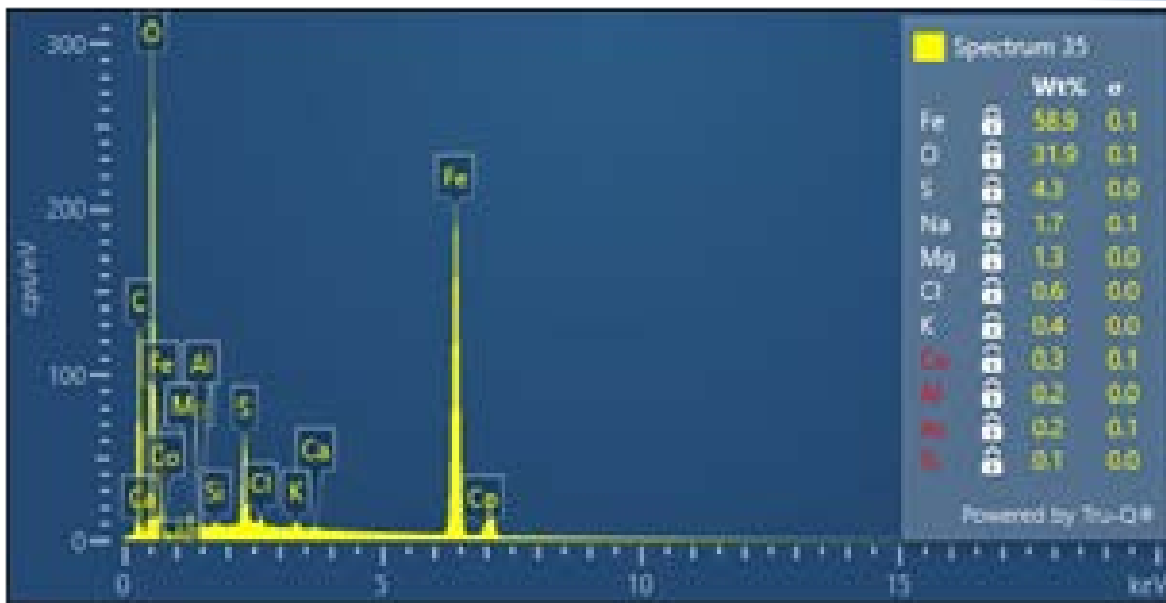
## Site 2 Optical

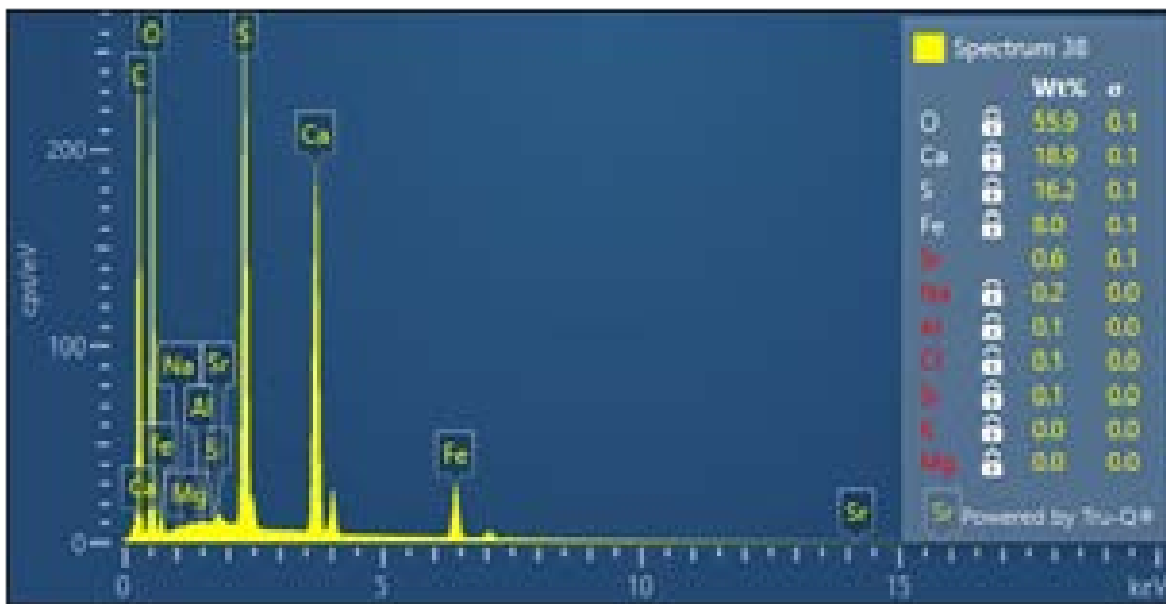
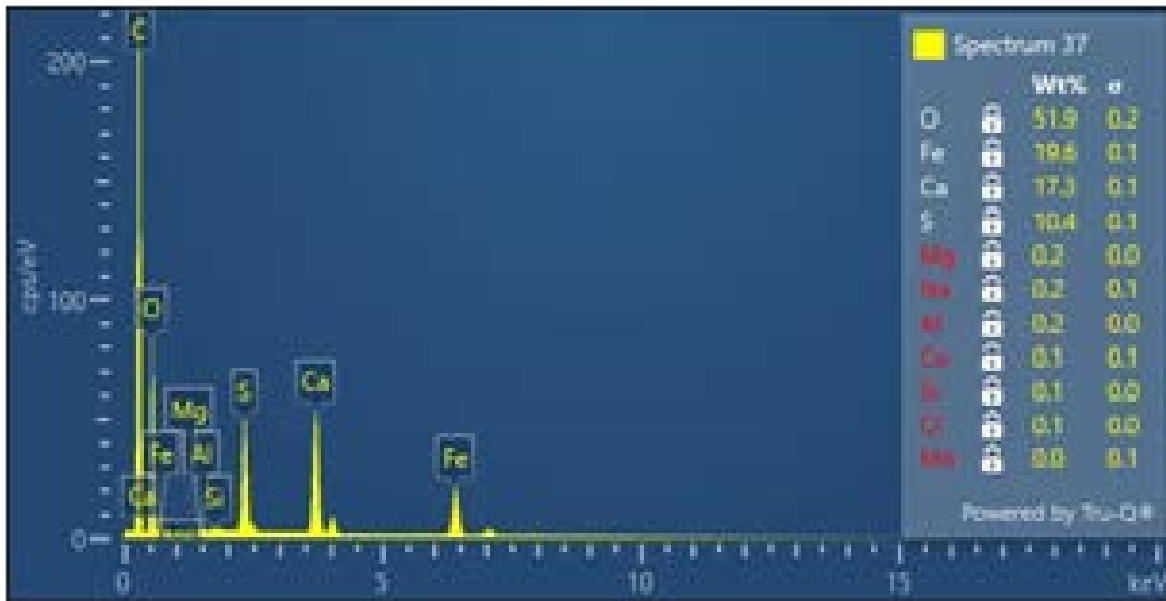


## Site 2 BSE/EDS

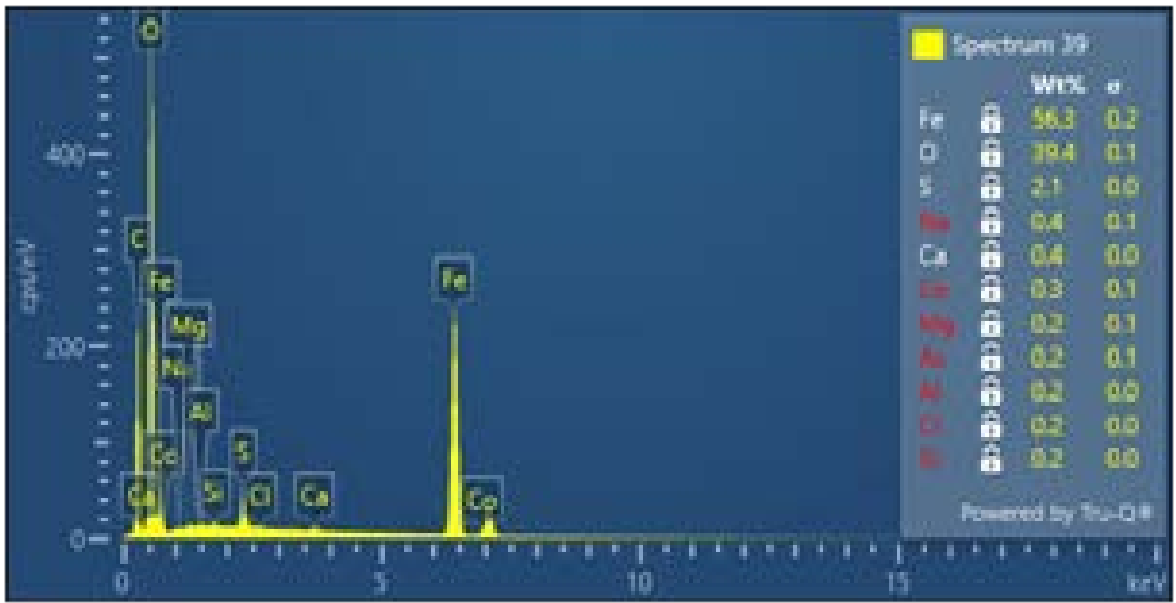
Specimen1-Site2 100x BSE





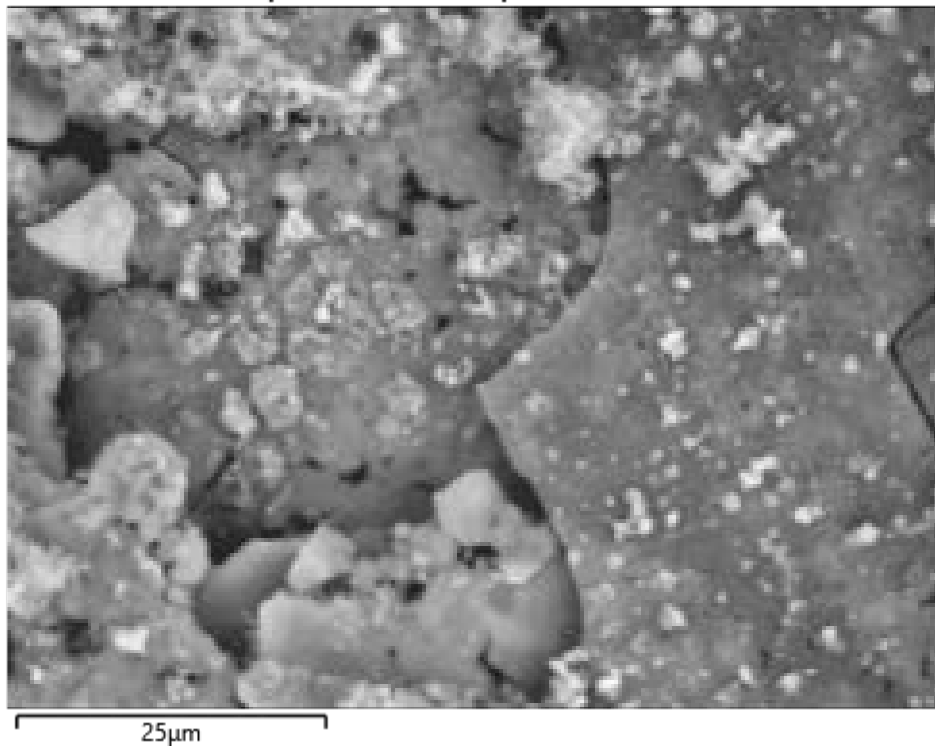




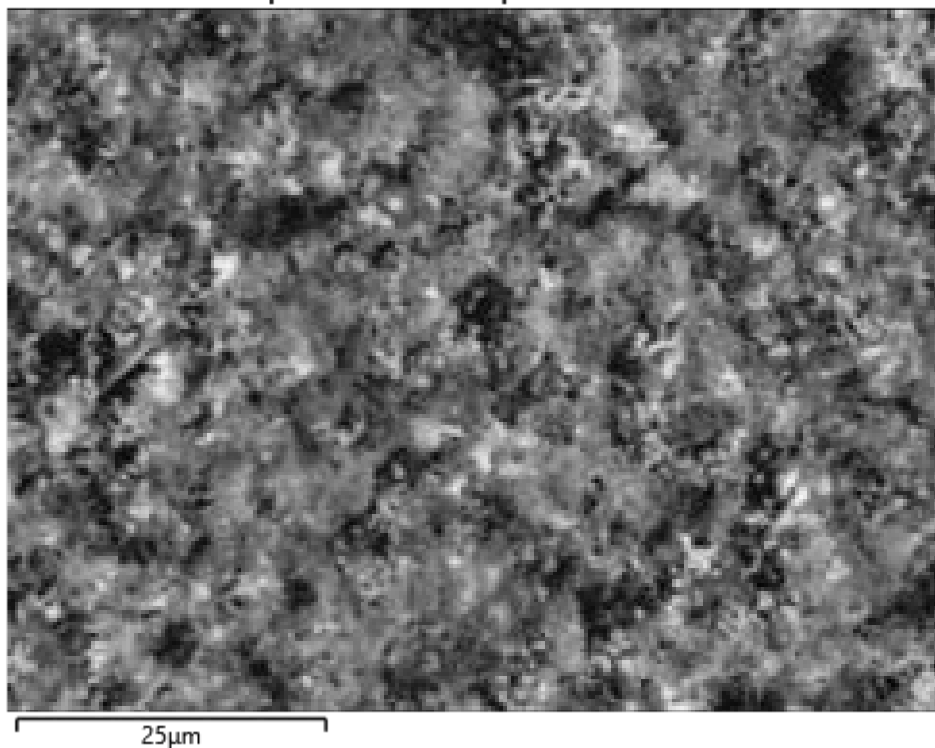


## Site 2 detail images

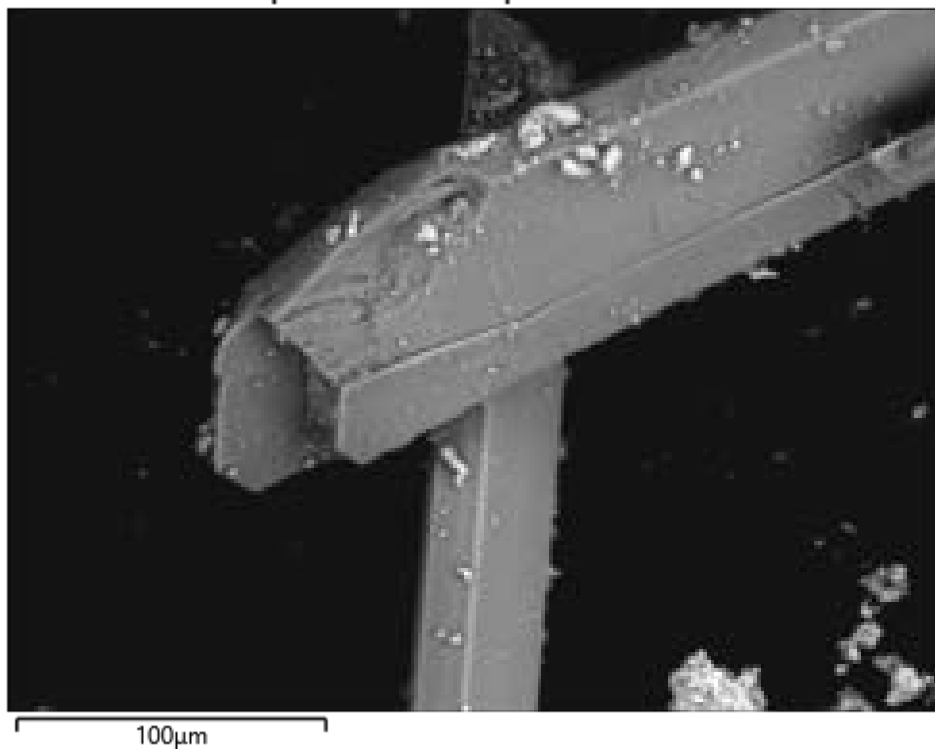
Specimen1-Site2-sp34 4000x BSE



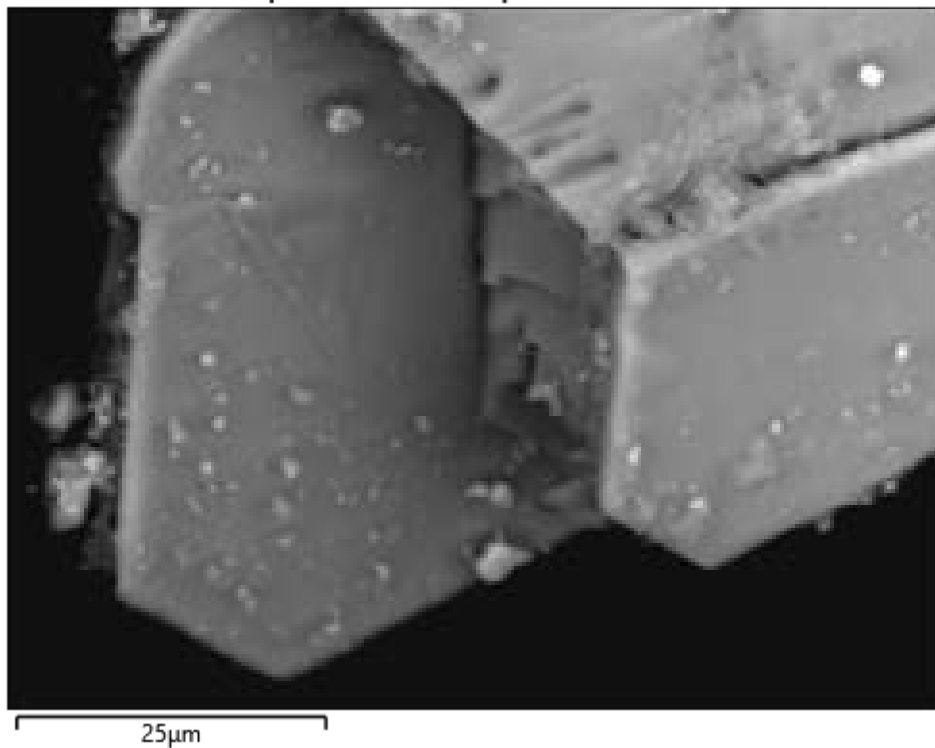
Specimen1-Site2-sp35 4000x BSE



Specimen1-Site2-sp37 1000x BSE



Specimen1-Site2-sp37 4000x BSE

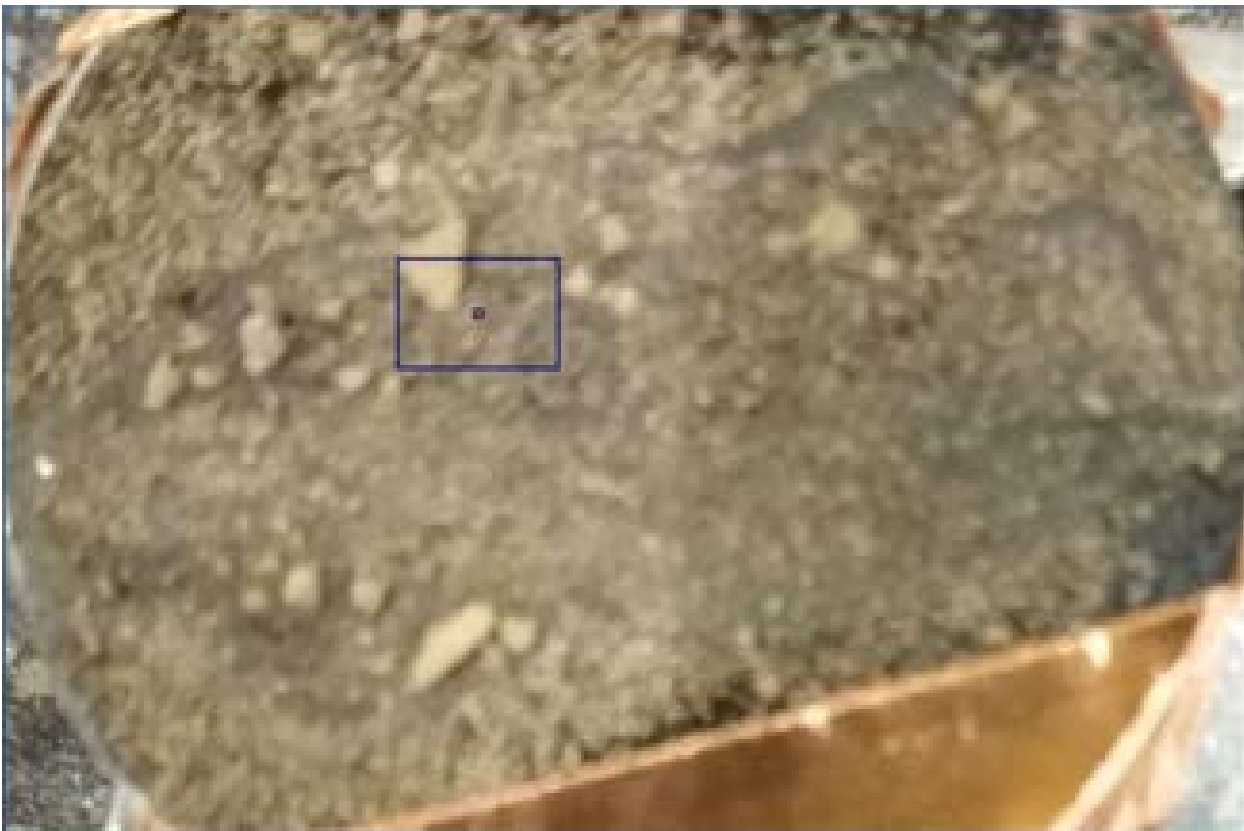


## Summary

This soil sample was comprised primarily of feldspars and qtz grains. Some grains had a coating of Fe-Ti oxide and/or Ba sulf\*te. Mn, S, and Sr were frequently detected at levels somewhat above EDS detection limits. Mo and Co were generally at or below the EDS detection limit. As was not identified in any spectrum. No sulfides, sulf\*tes or Mn oxides were detected.

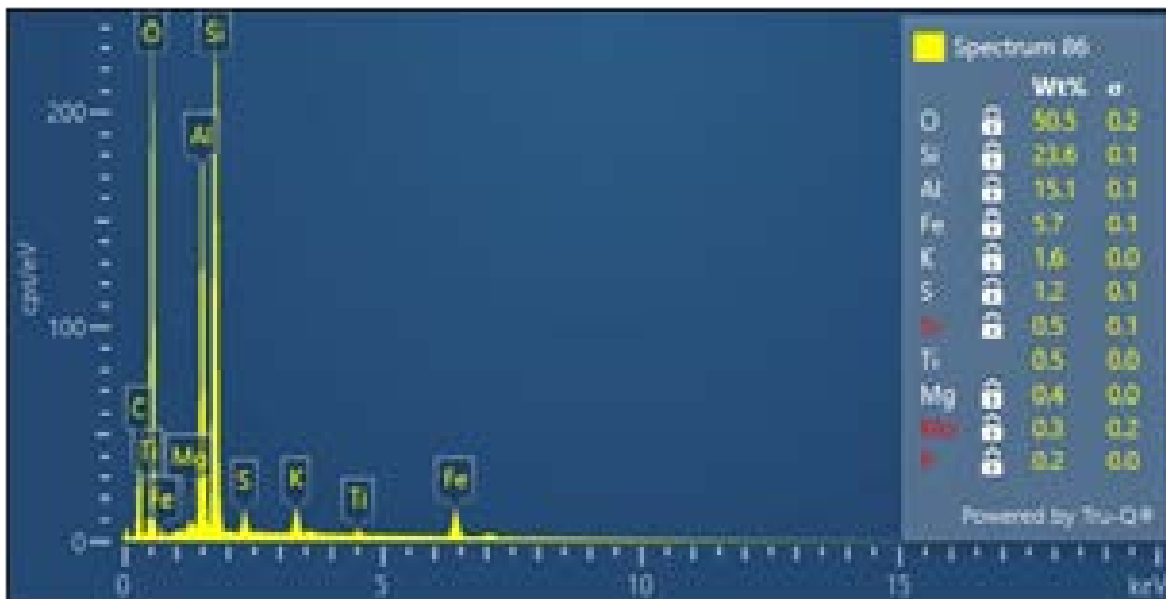
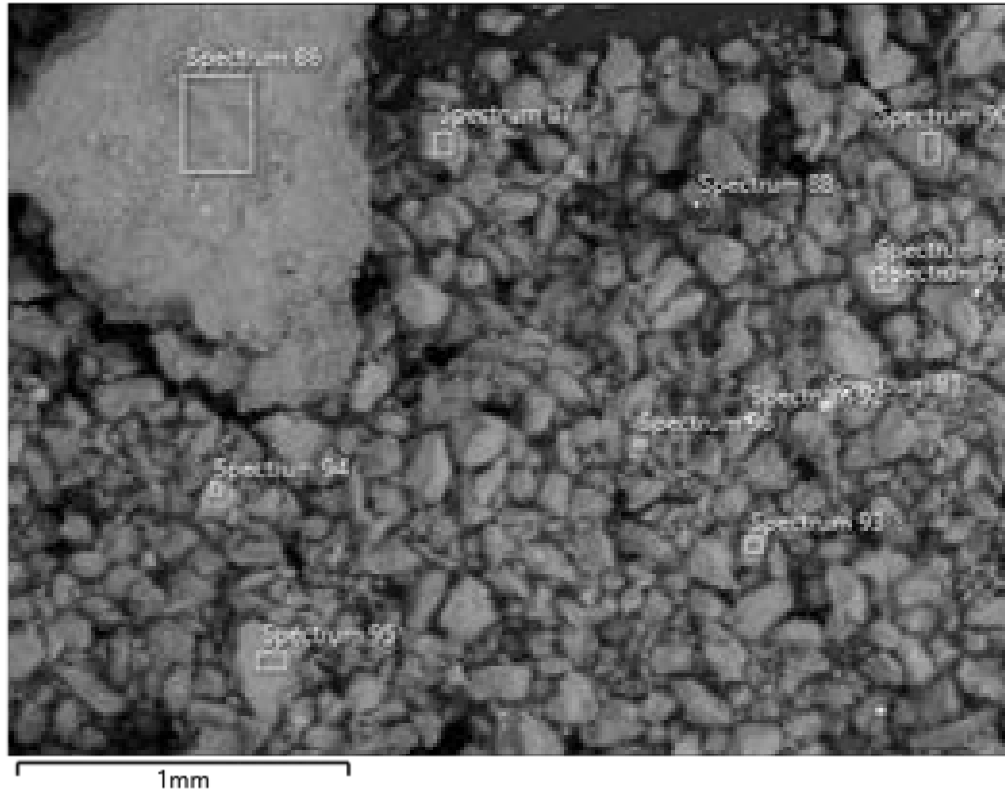
Note, carbon peaks were highly variable, suggesting they originated from the C substrate. These peaks were removed from the composition calculations.

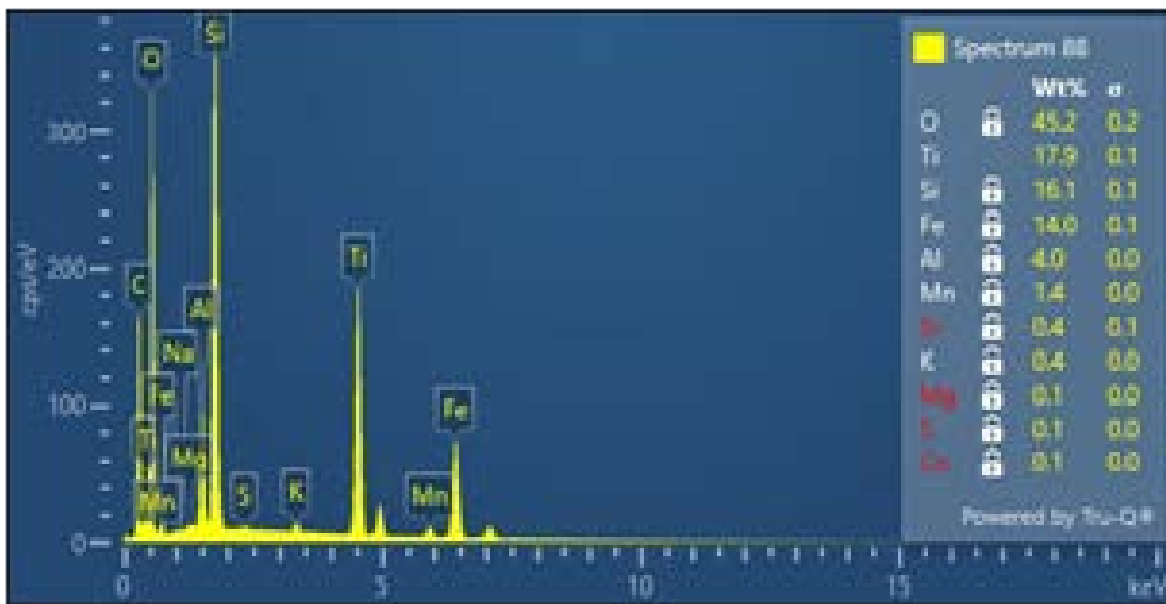
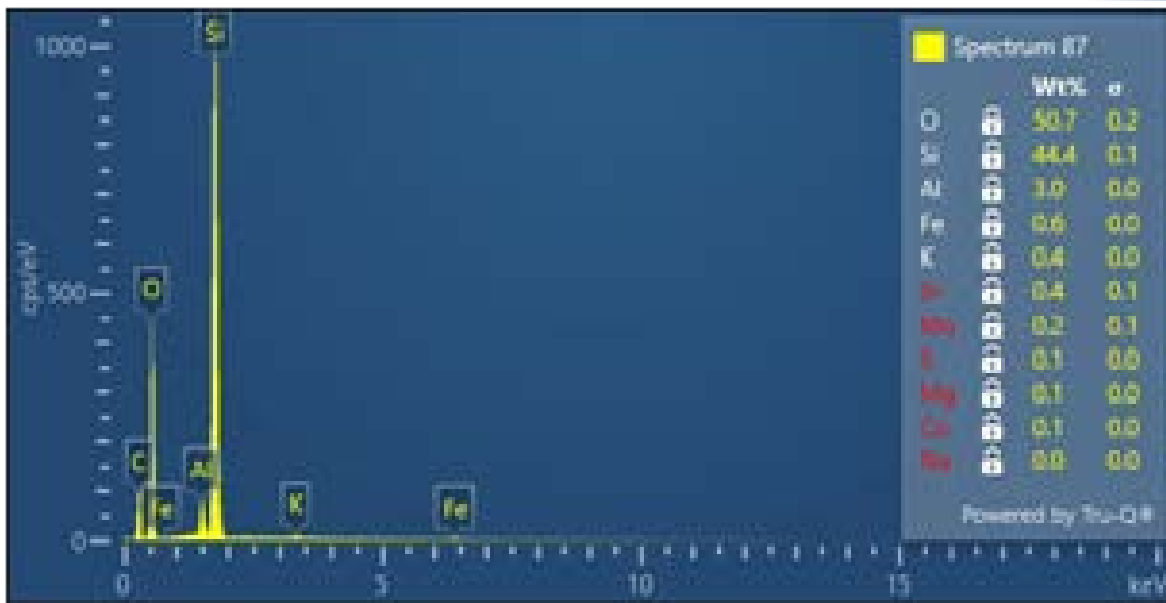
## Site 1 optical map



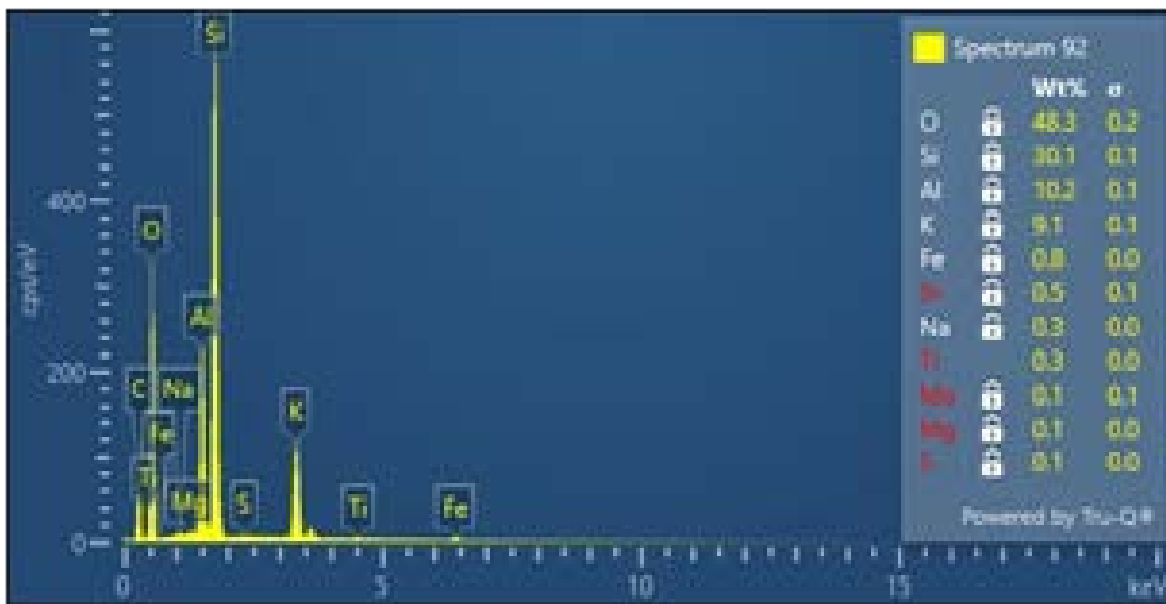
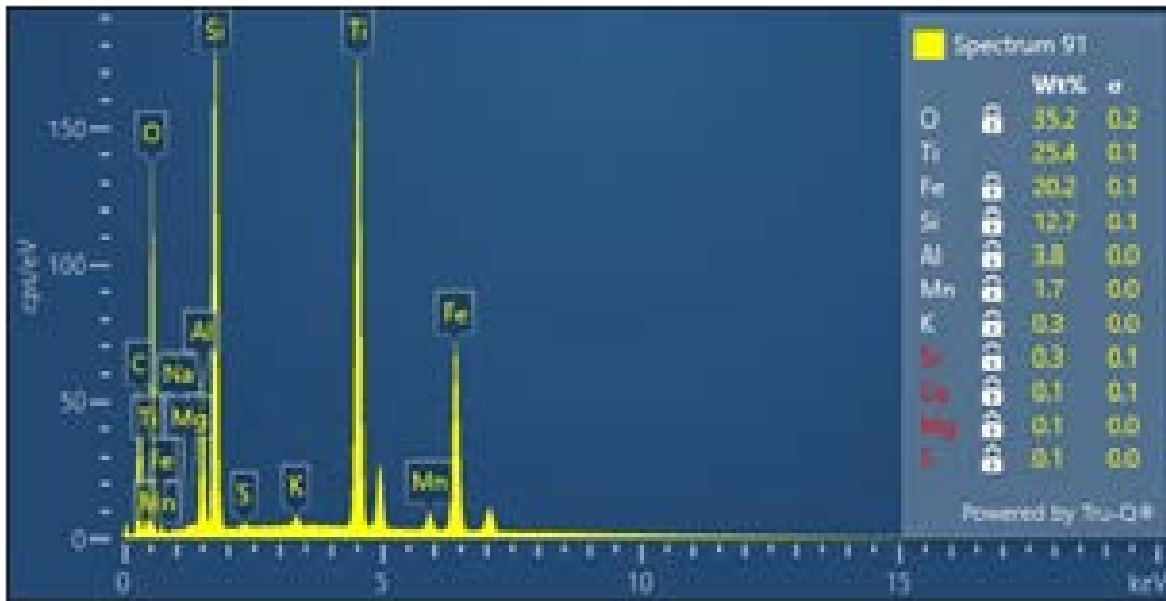
### Site 1 BSE/EDS

Specimen18-Site1 100x BSE

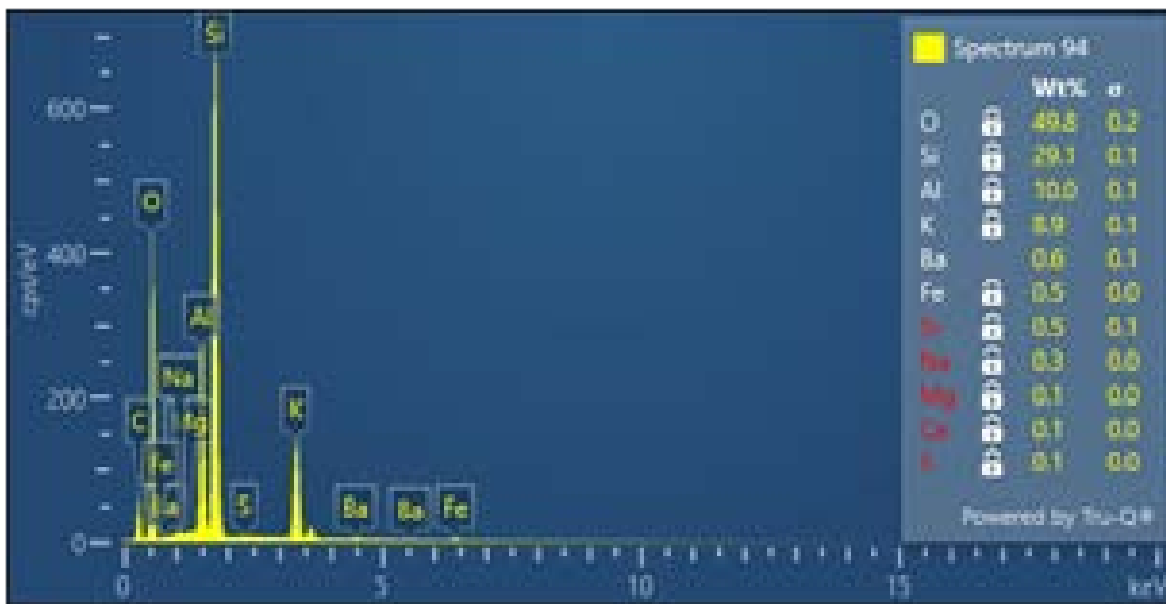
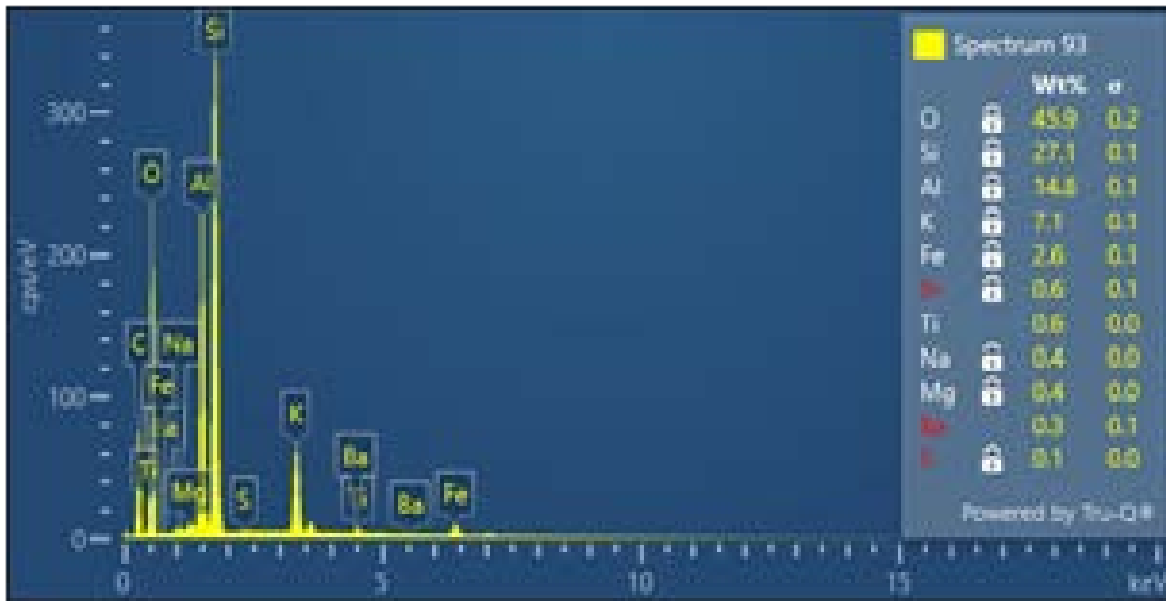


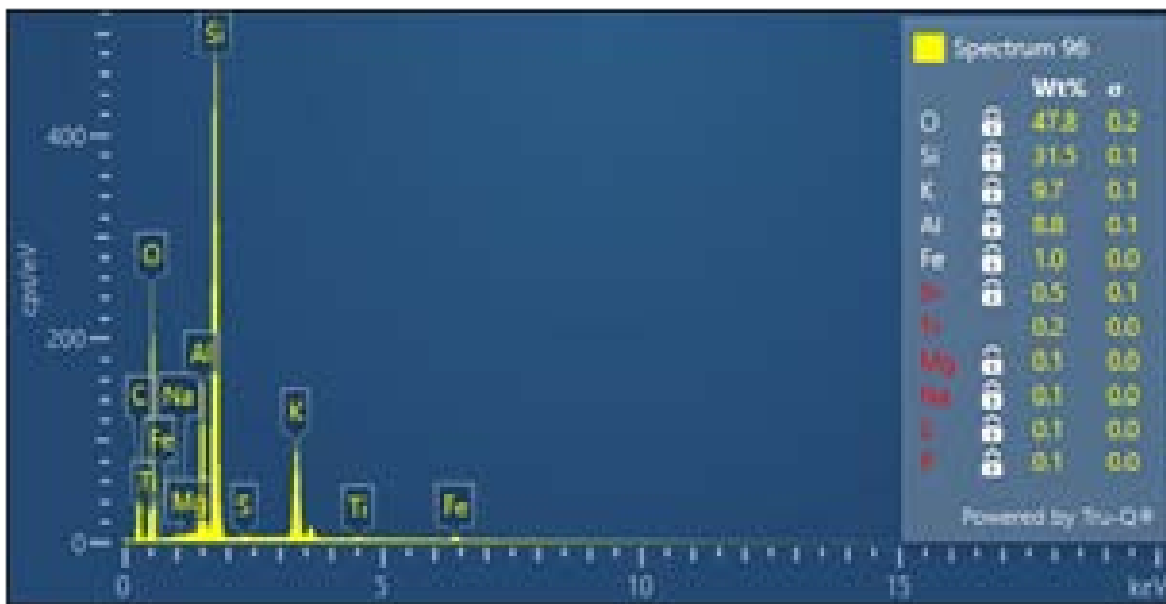


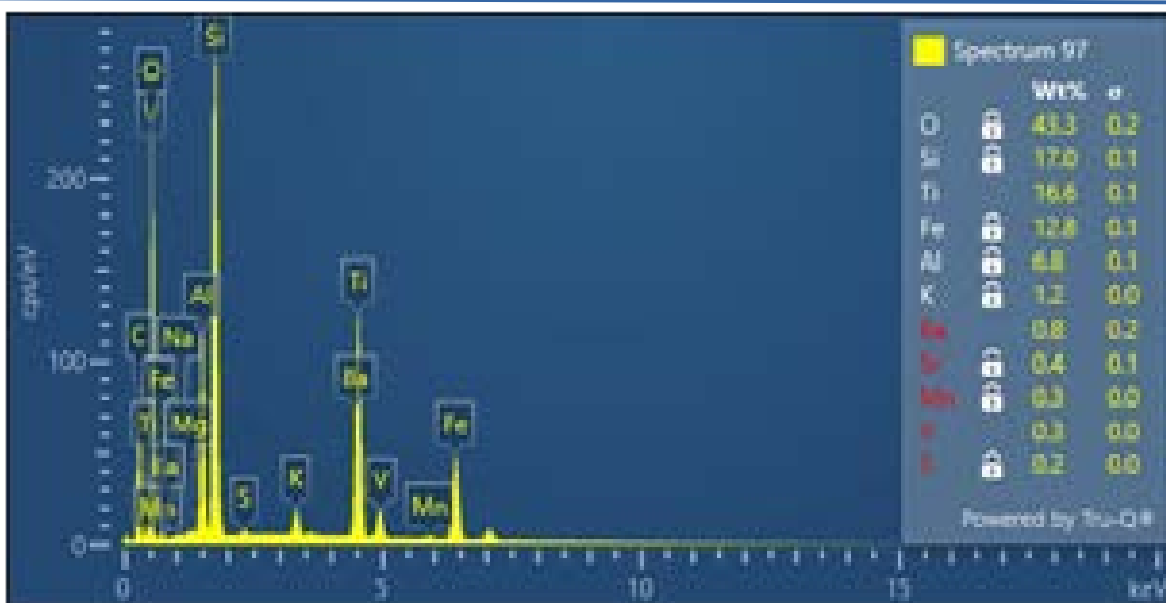






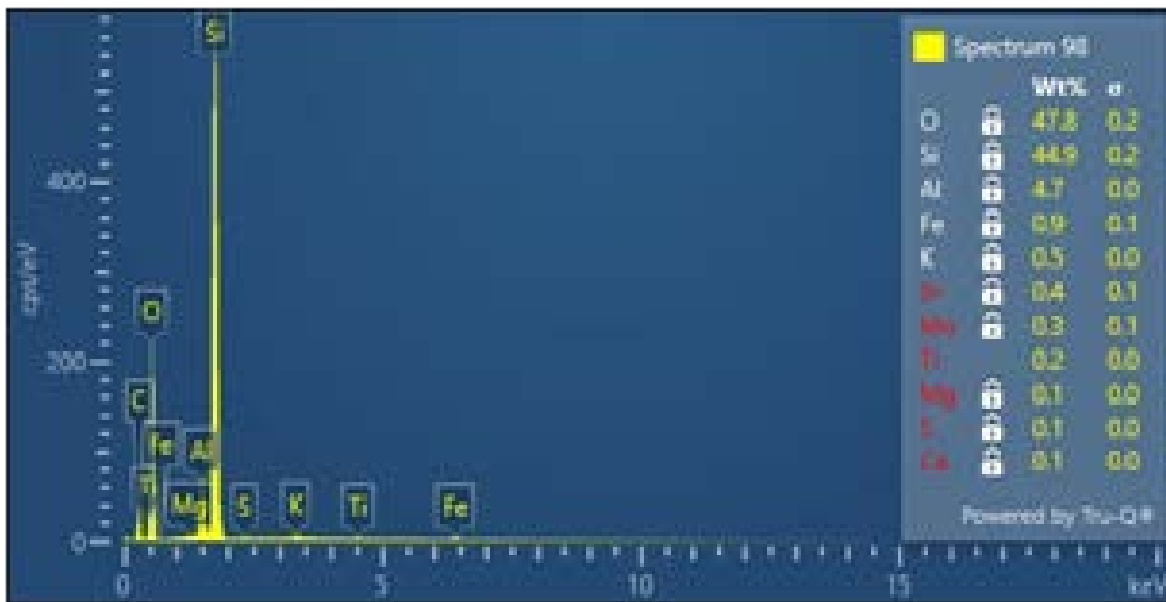
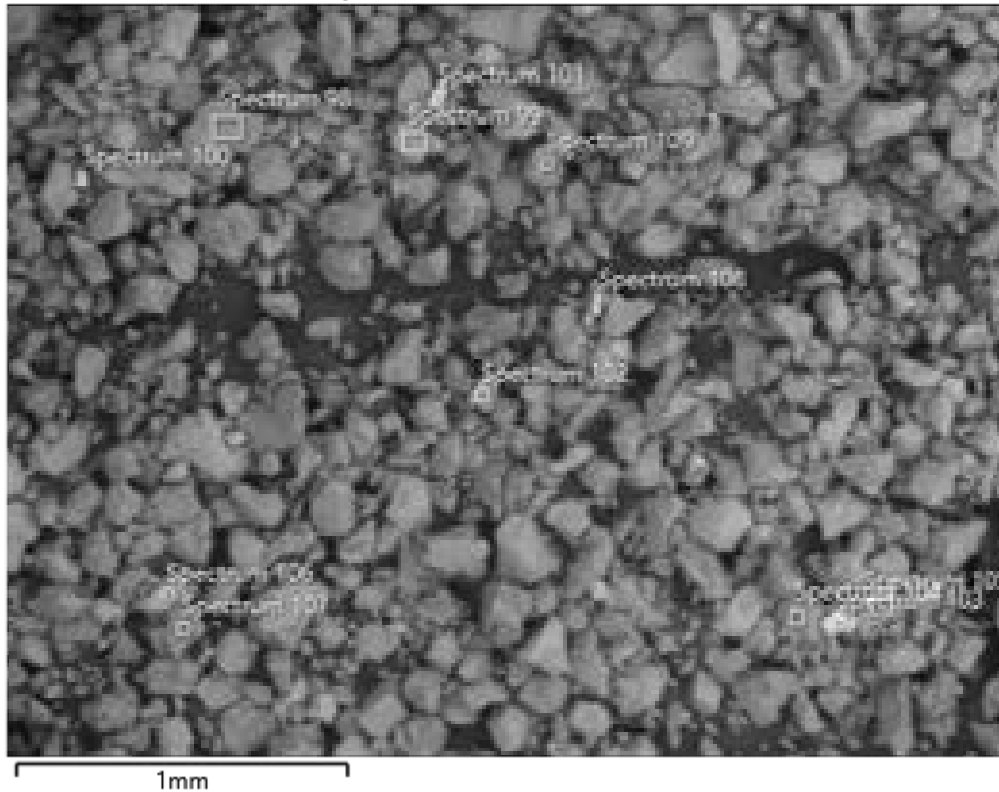


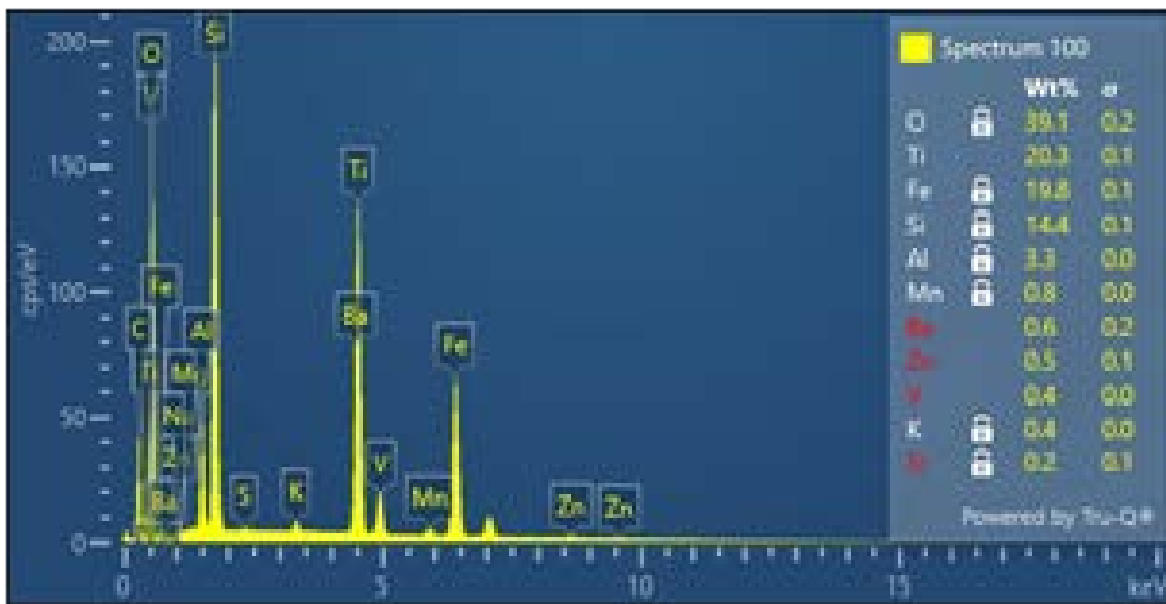
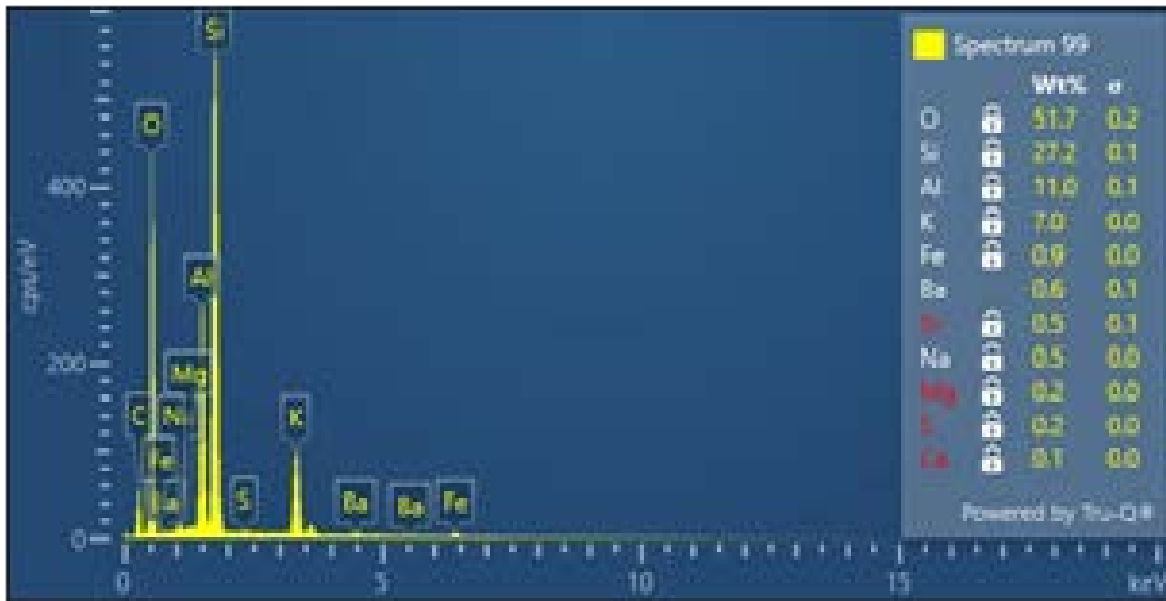


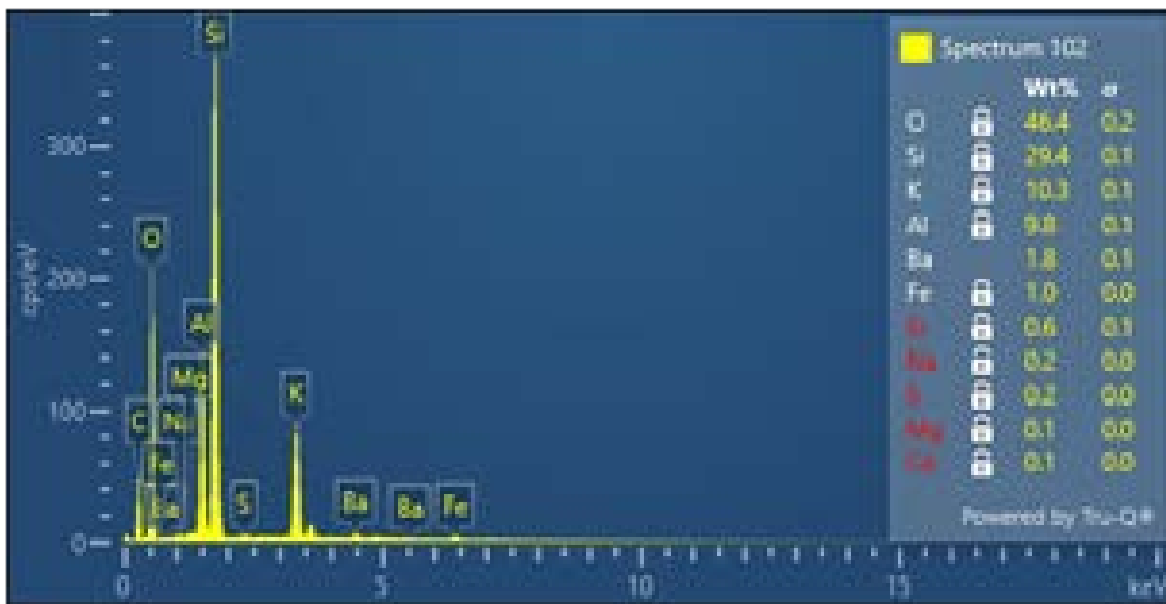
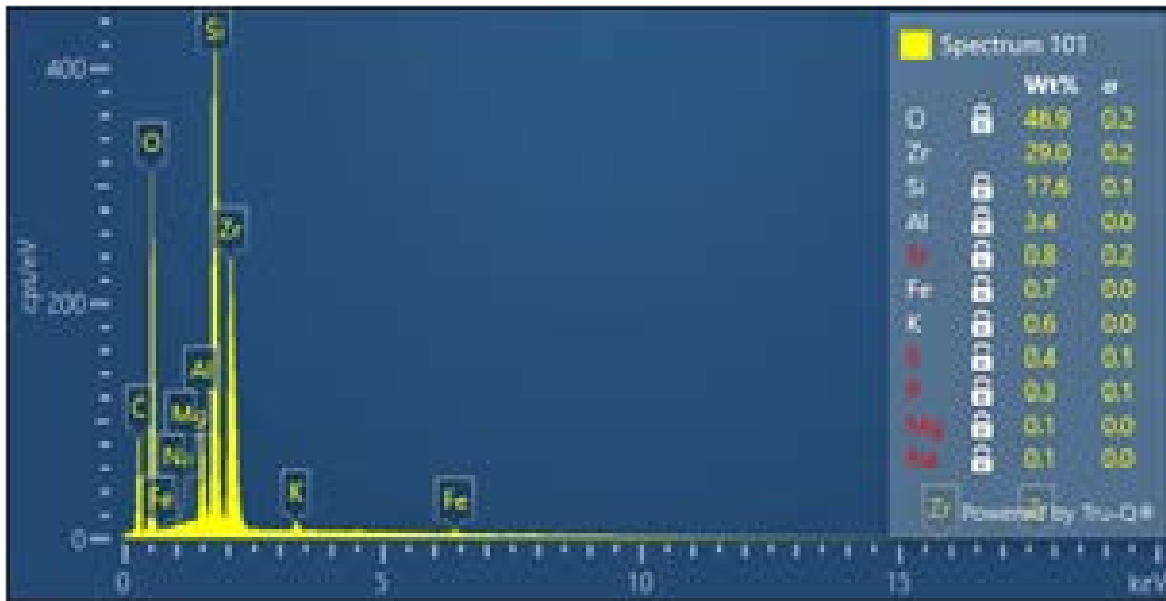


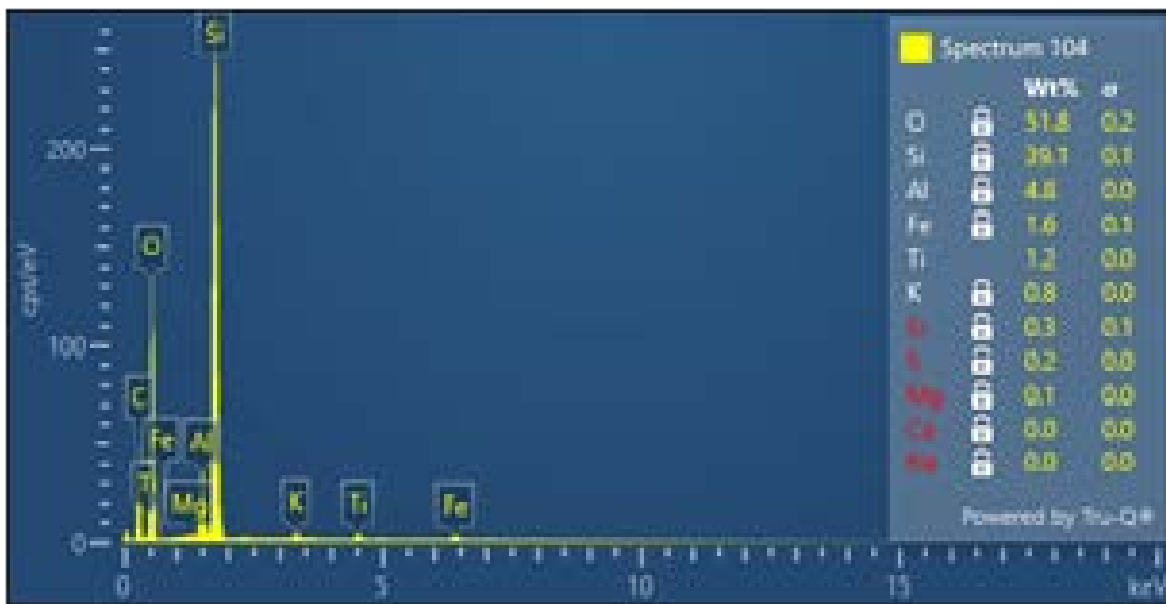
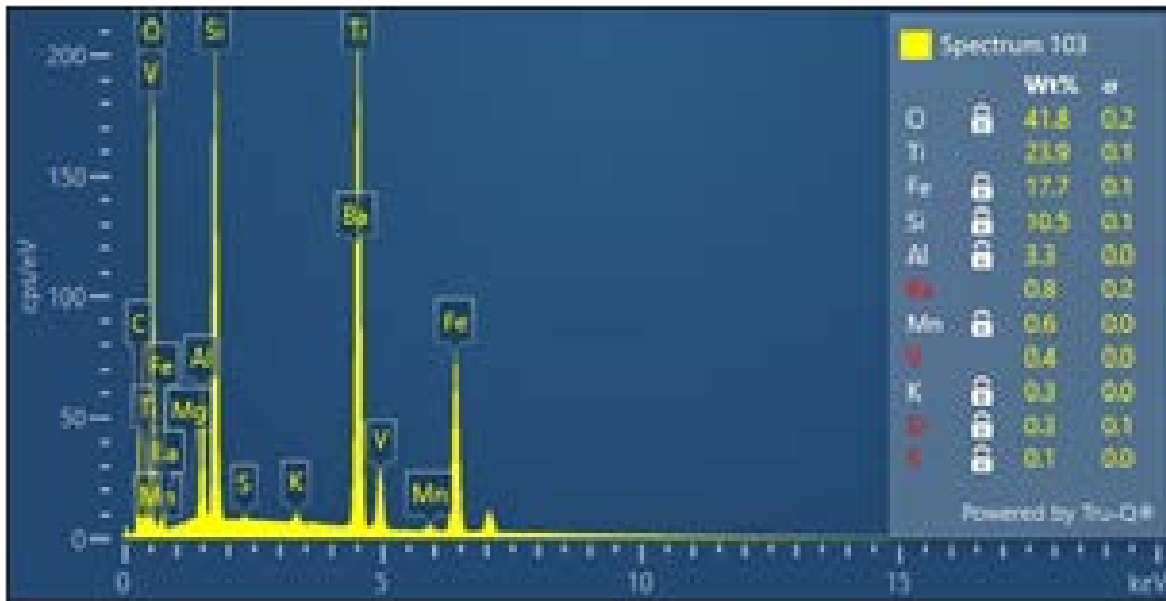
### Site 2 BSE/EDS

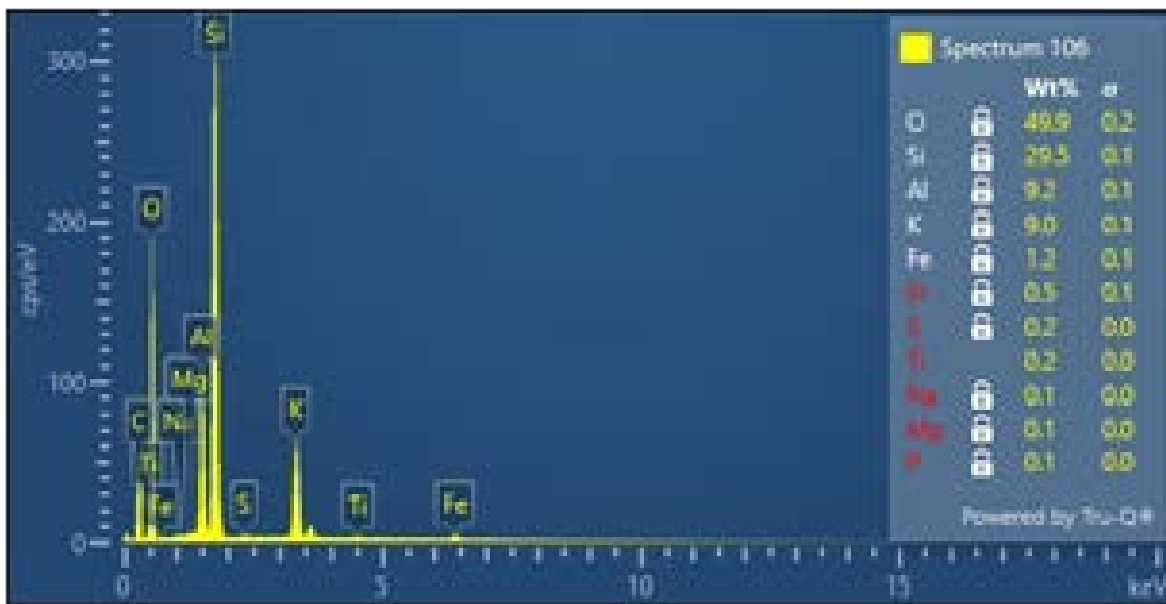
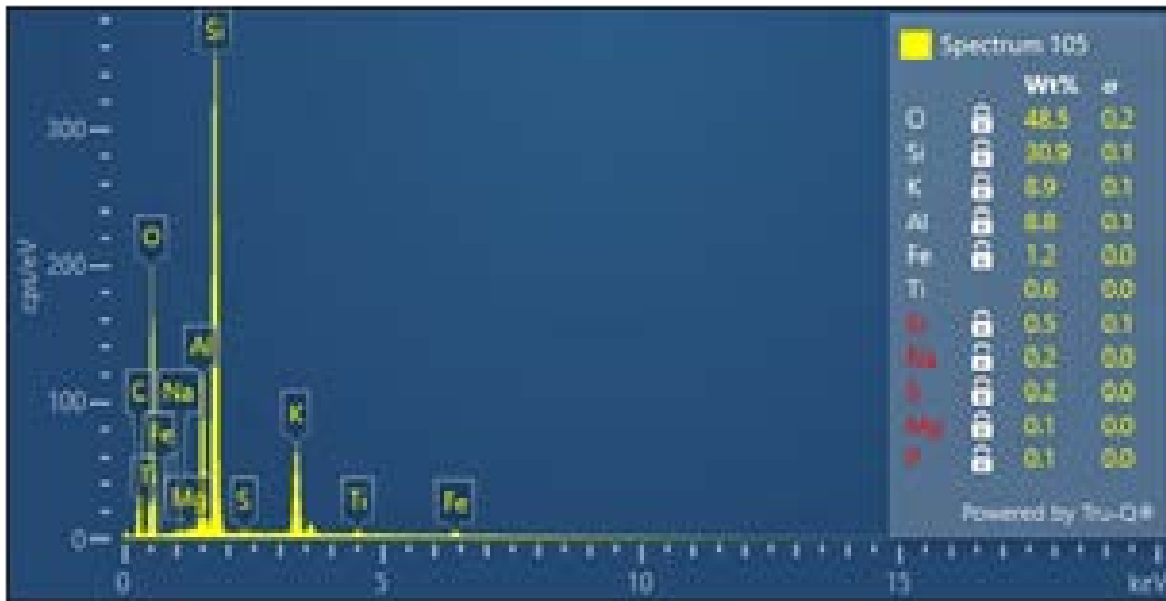
Specimen18-Site2 100x BSE



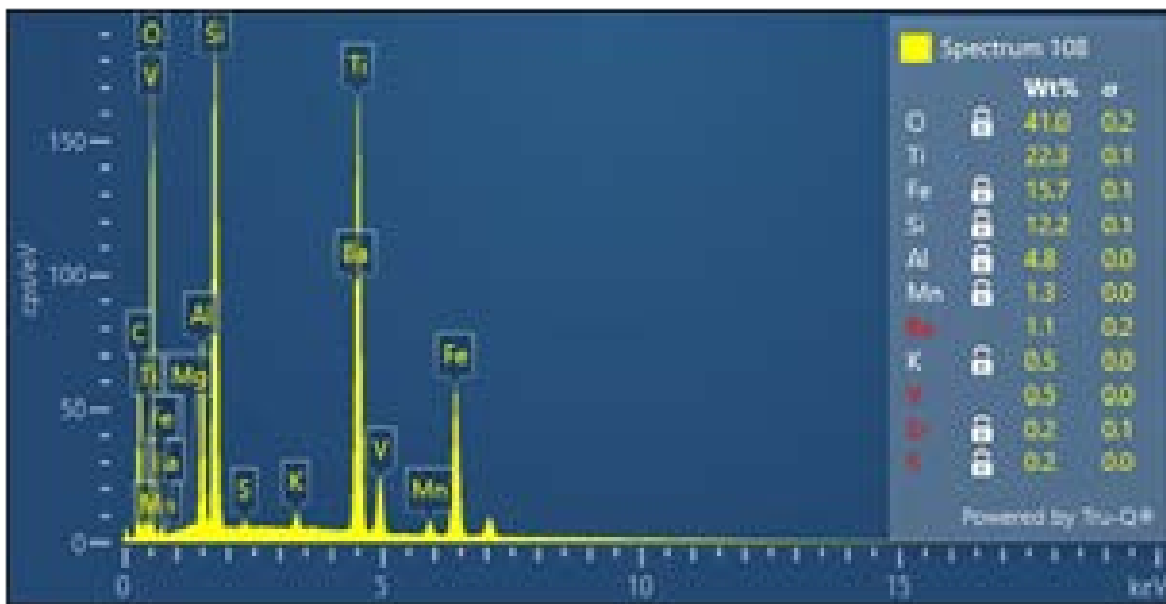
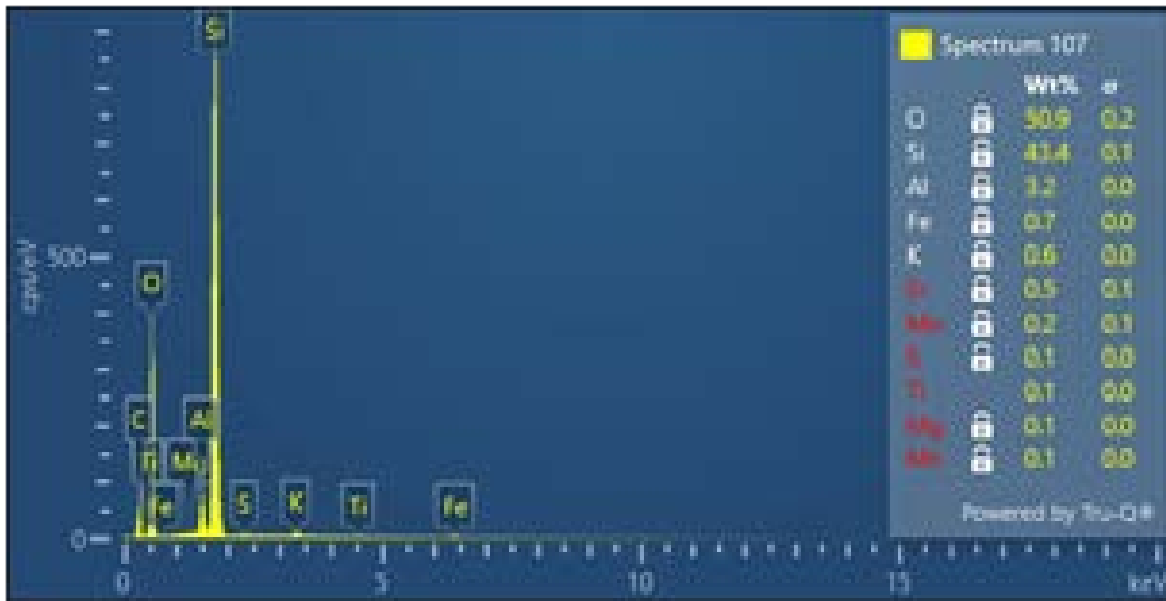


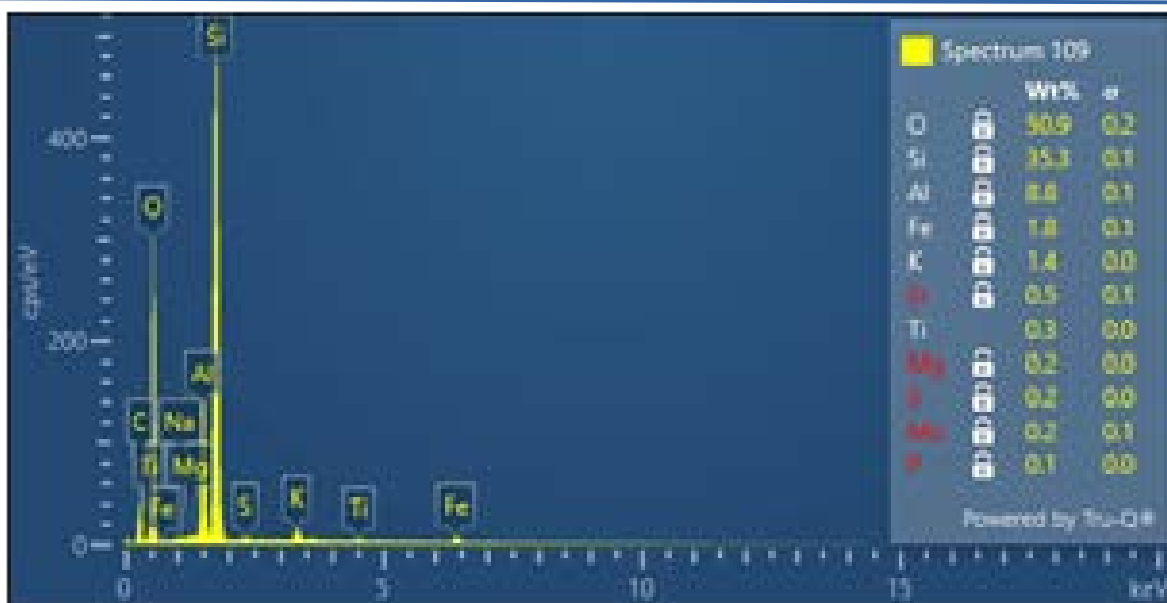












## Summary

Sample was comprised of massive, anhedral Mn oxides with significant Ca. Fe, As, Sr and Mo were consistently measured well above EDS detection limits. Ba and S were also consistently measured in most areas, which may correspond to bright inclusions interspersed throughout the specimen.

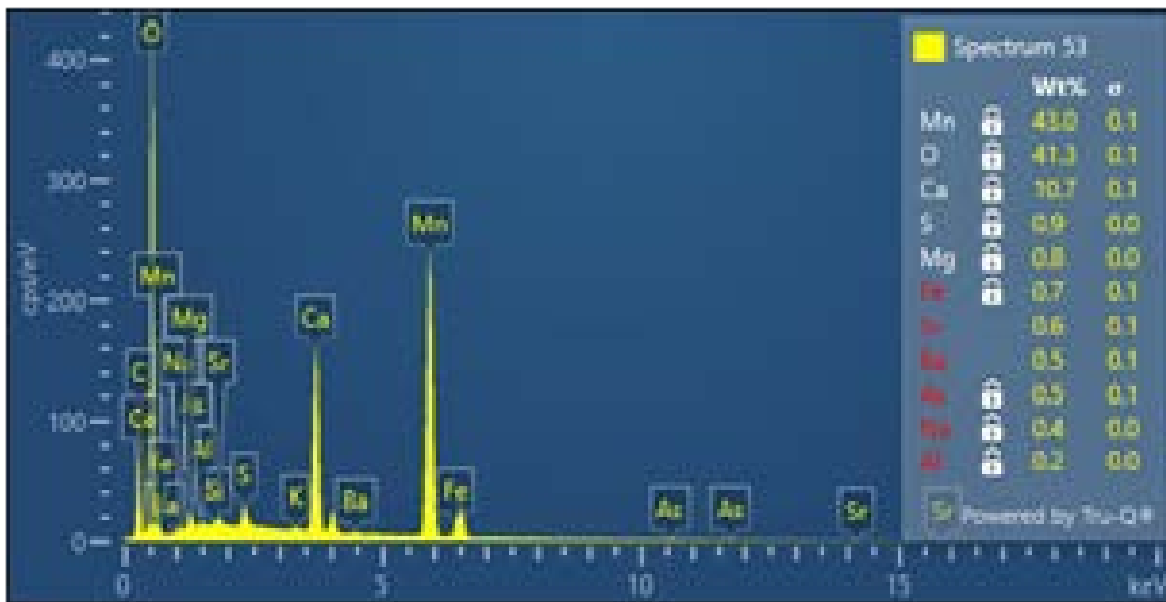
Note, carbon peaks were highly variable, suggesting they originated from the C substrate. These peaks were removed from the composition calculations.

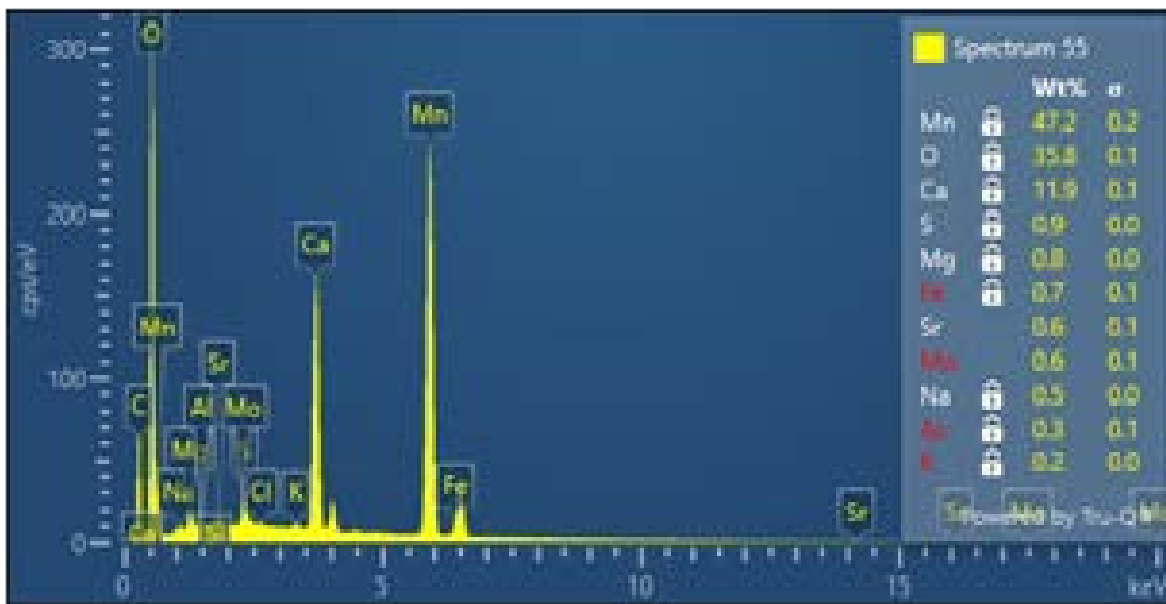
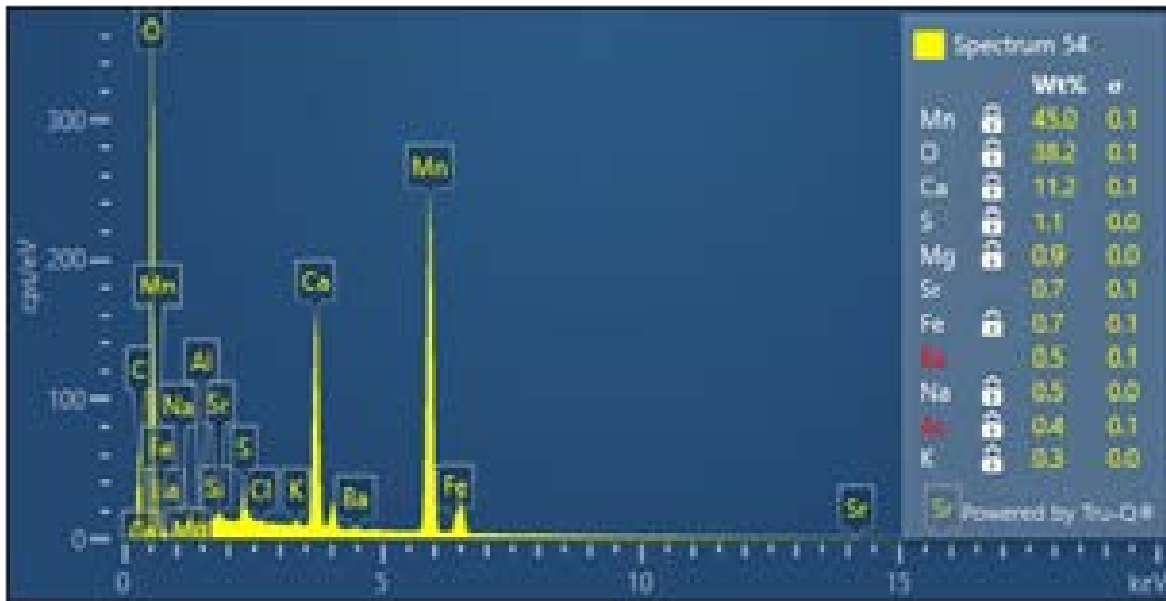
## Site 1 optical map

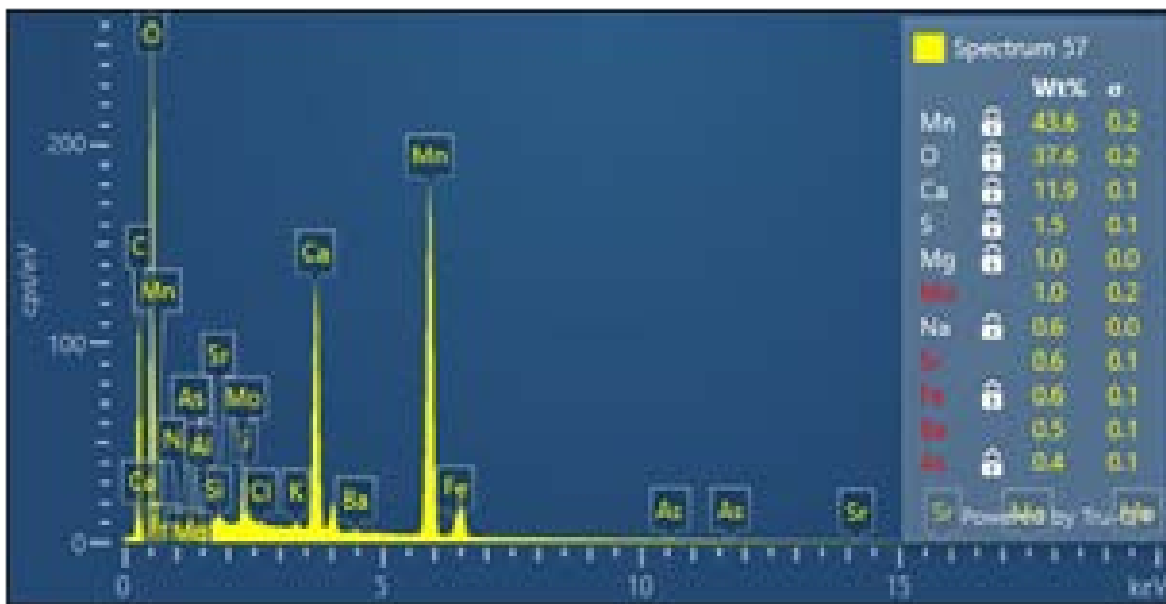
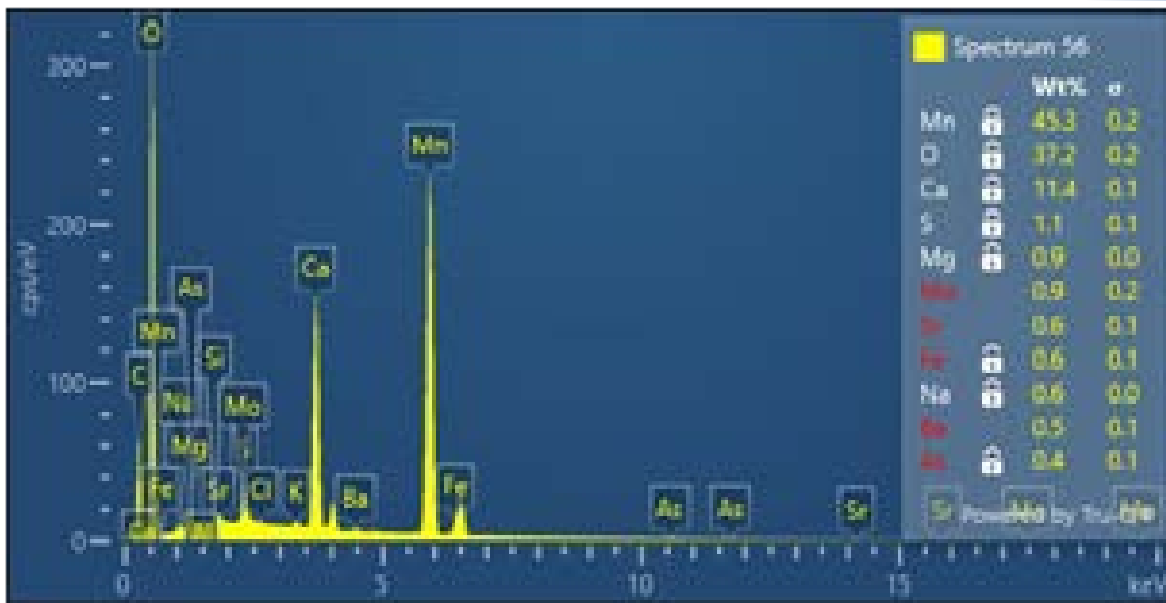


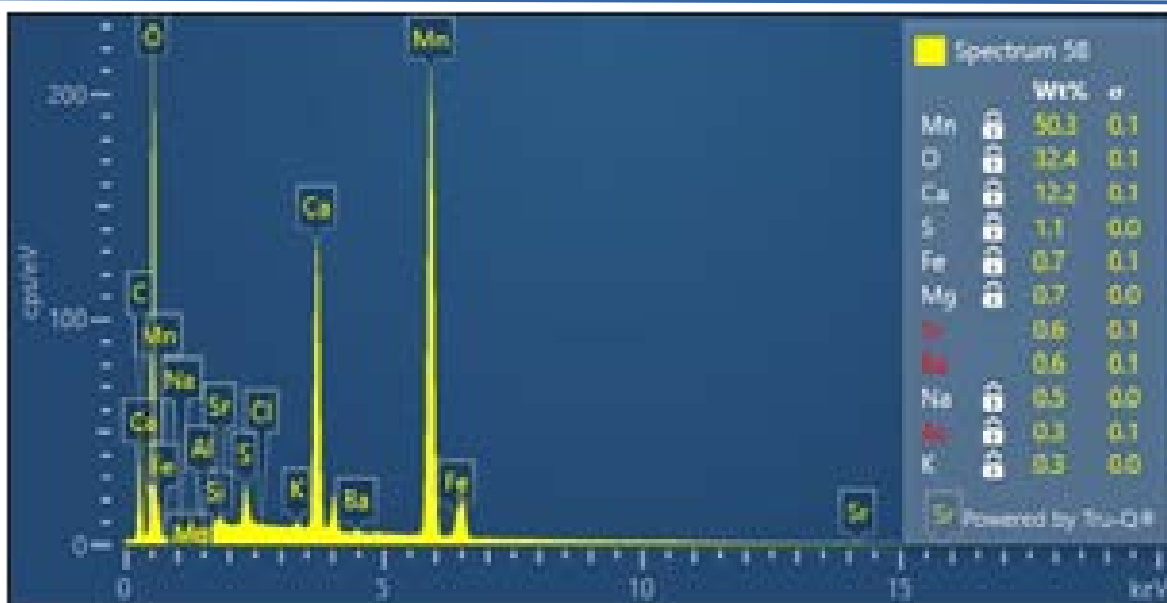
### Site 1 BSE/EDS

Specimen12-Site1 100x BSE



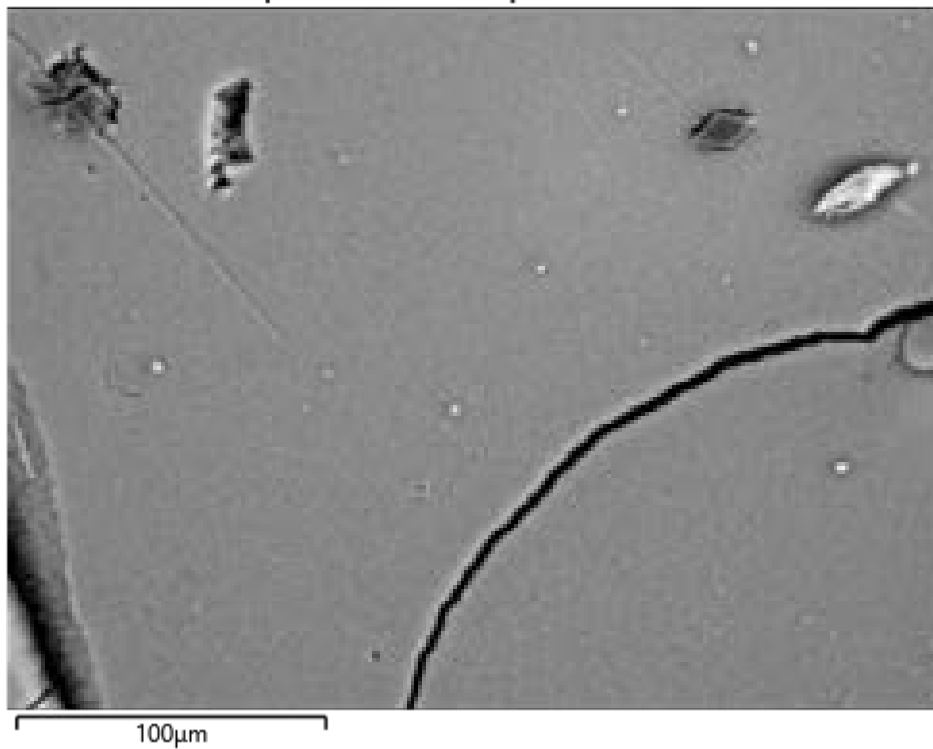




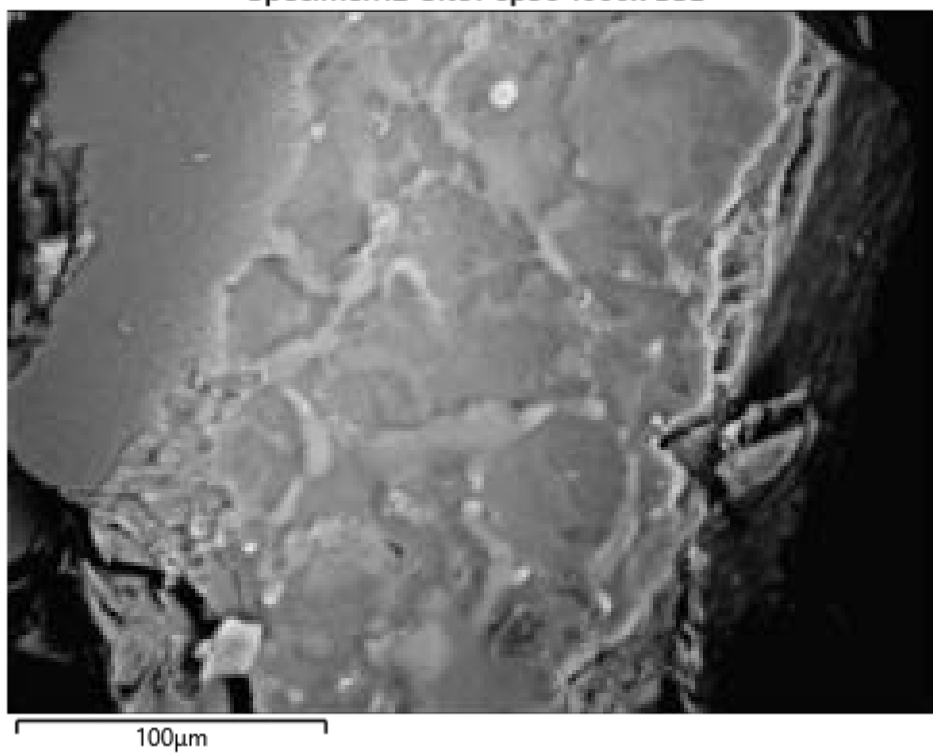


## Site 1 detail images

Specimen12-Site1-sp54 1000x BSE

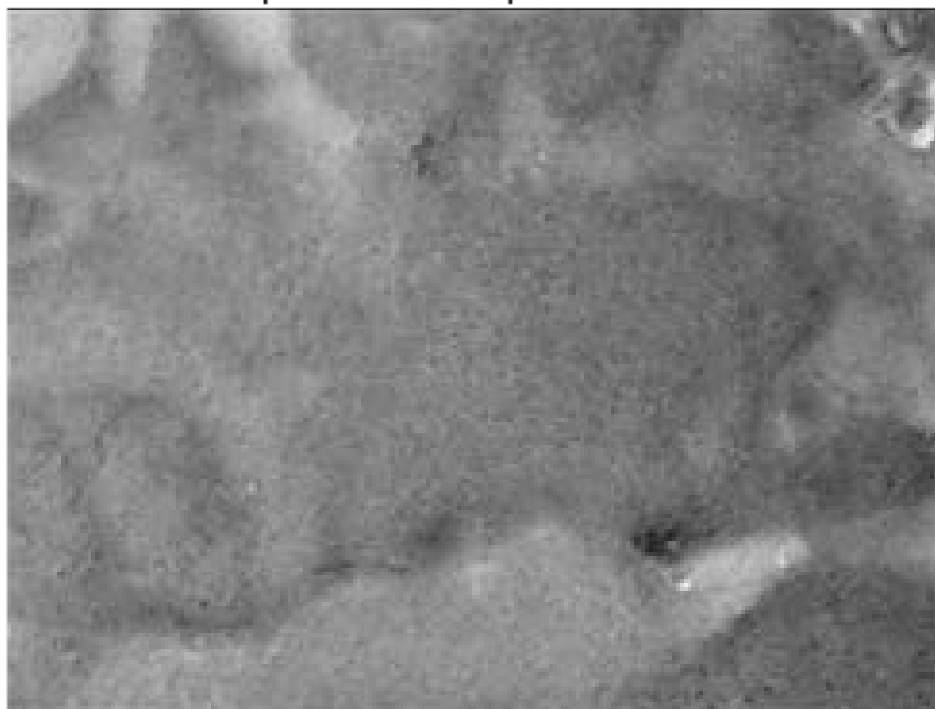


Specimen12-Site1-sp58 1000x BSE





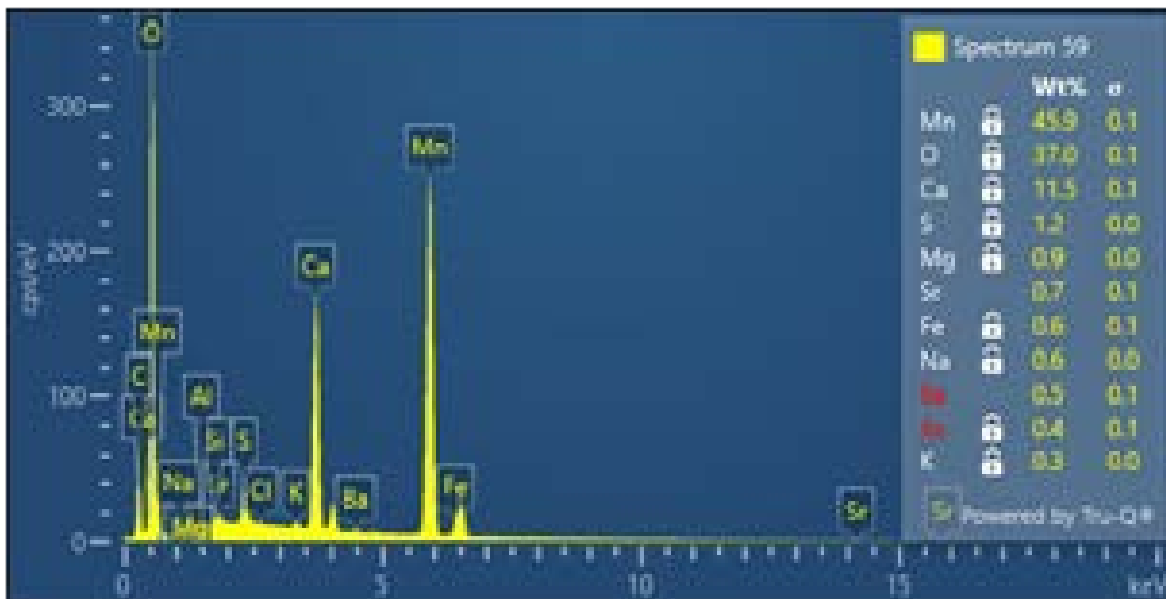
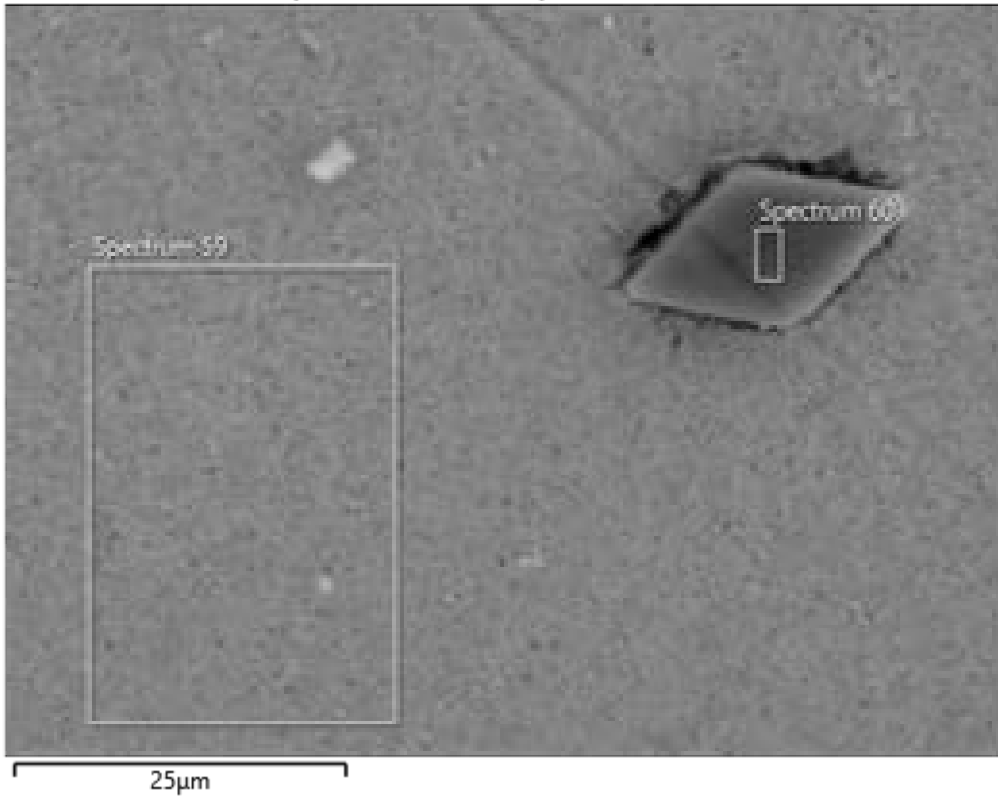
Specimen12-Site1-sp58 4000x BSE

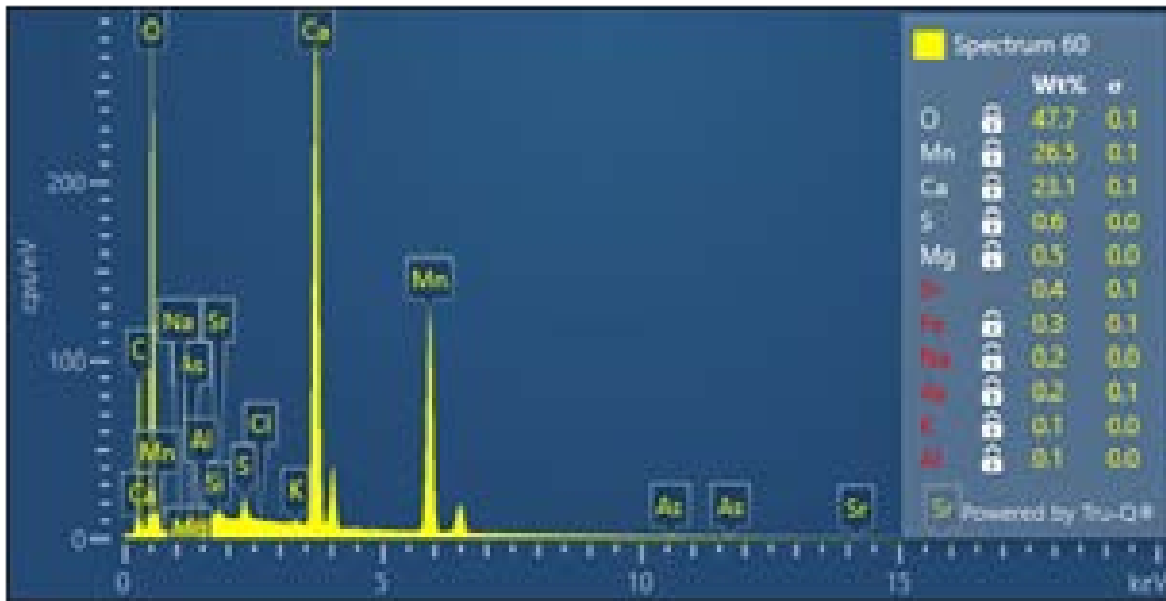


25µm

### Site 1 sp54 details

Specimen12-Site1-sp54 4000x BSE



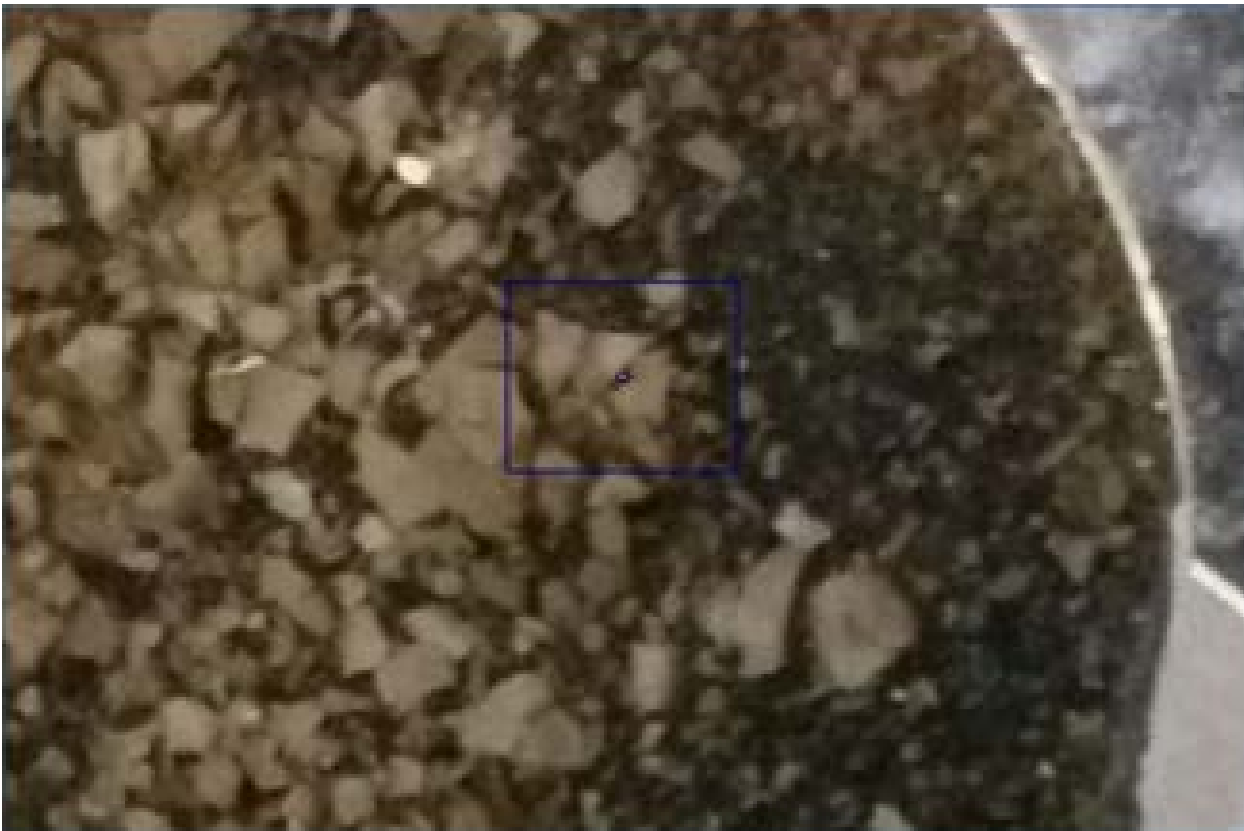


## Summary

Sample is comprised of very uniform, massive, anhedral precipitates of Mn oxides with significant Ca. Fe, Sr, and As were consistently found well above EDS detection limits. Co and Mo were at or below detection limits.

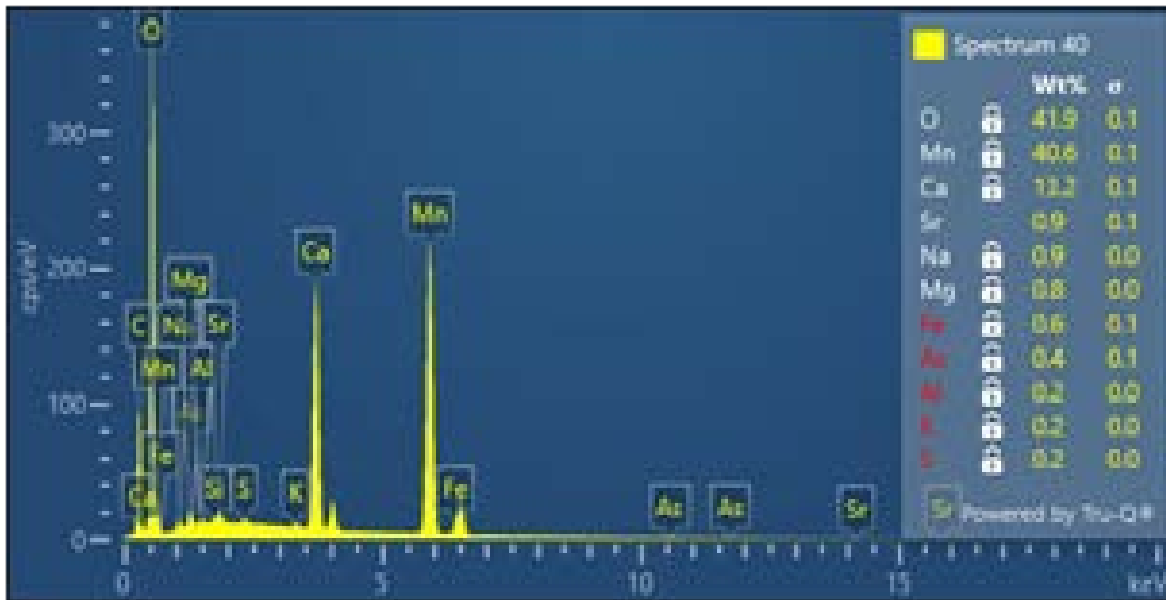
Note, carbon peaks were highly variable, suggesting they originated from the C substrate. These peaks were removed from the composition calculations.

## Site 1 optical map (low resolution, for rough orientation only)

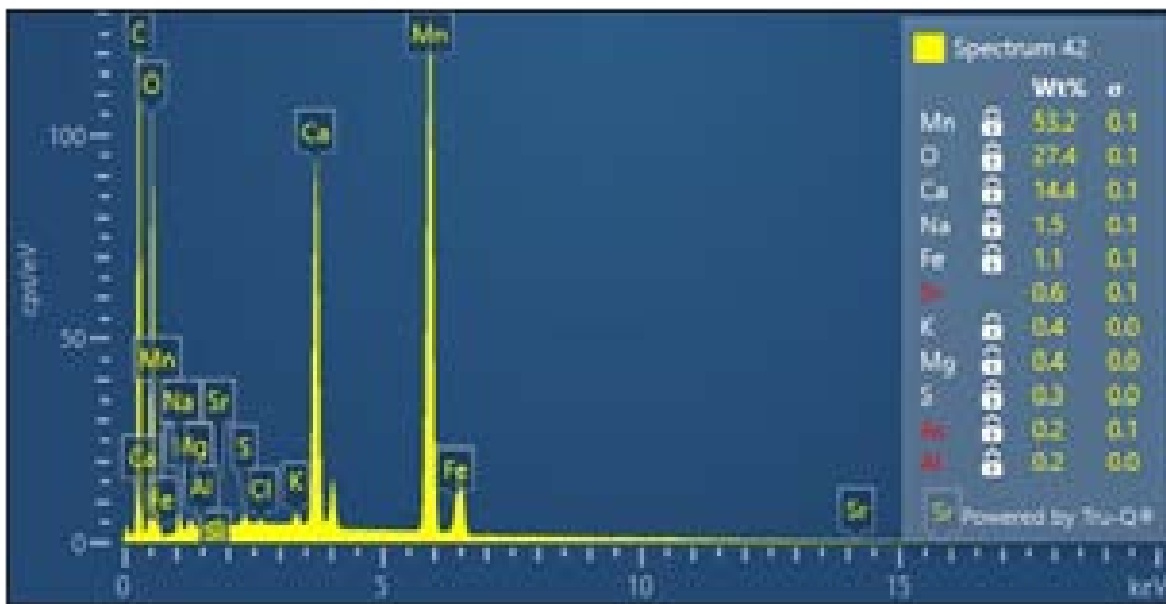
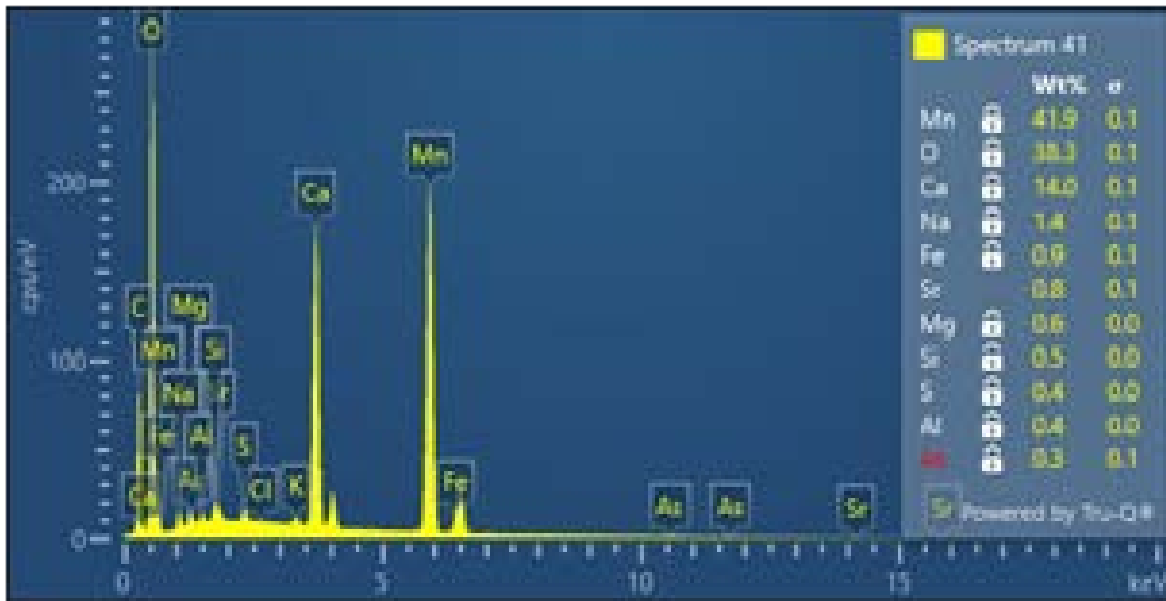


### Site 1 BSE/EDS

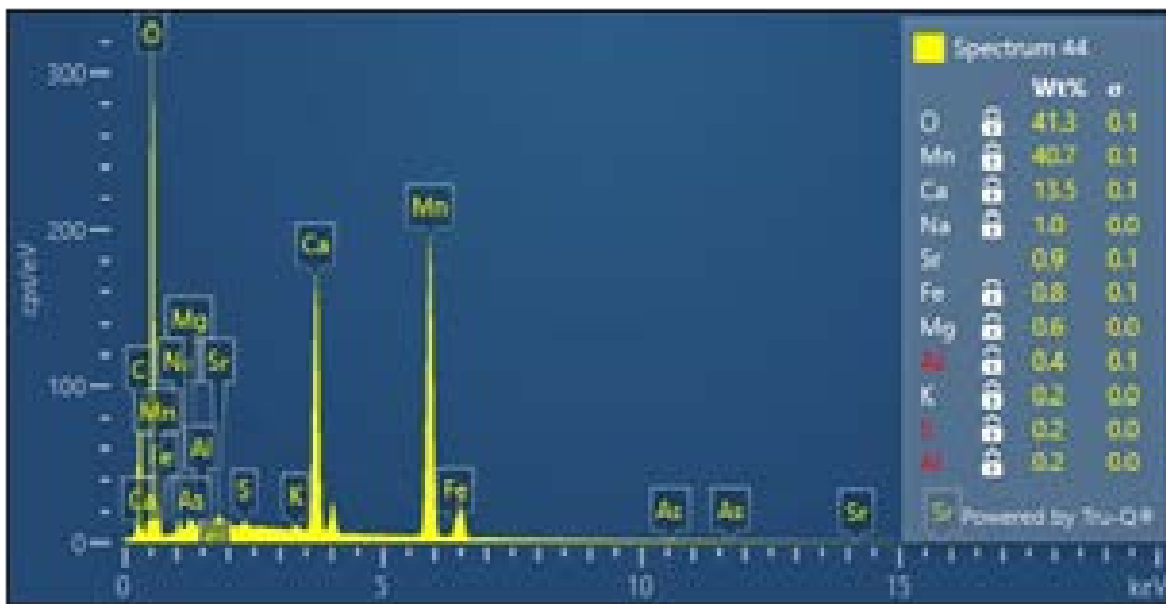
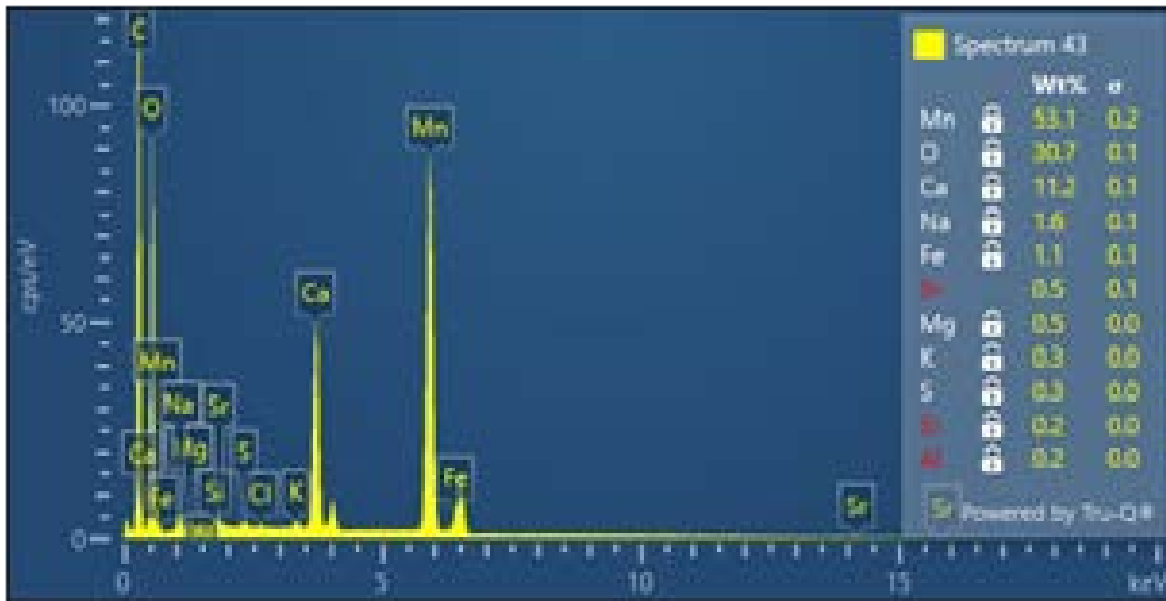
Specimen5-Site1 100x BSE



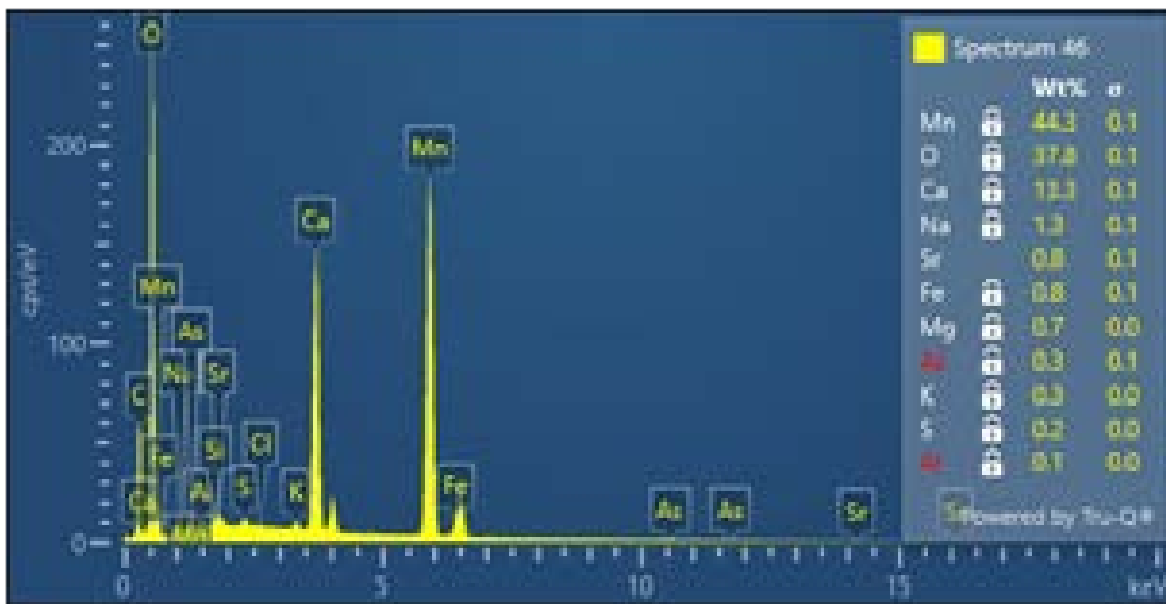
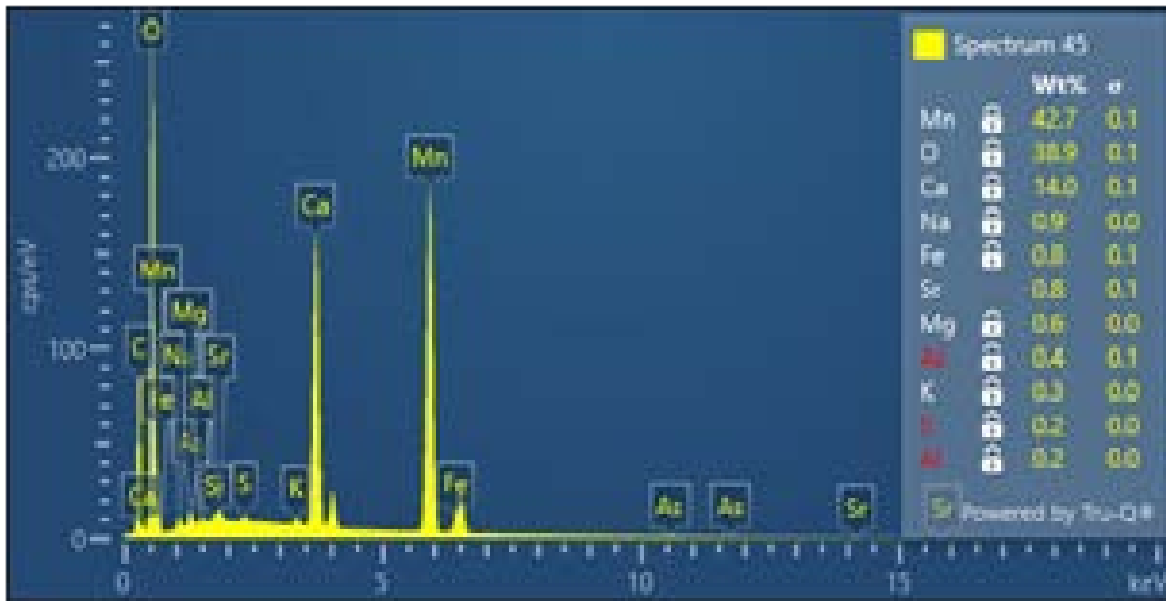
SEM report - CHEM-1xMnO4 ("Specimen 5") Nov 27, 2021



SEM report - CHEM-1xMnO4 ("Specimen 5") Nov 27, 2021



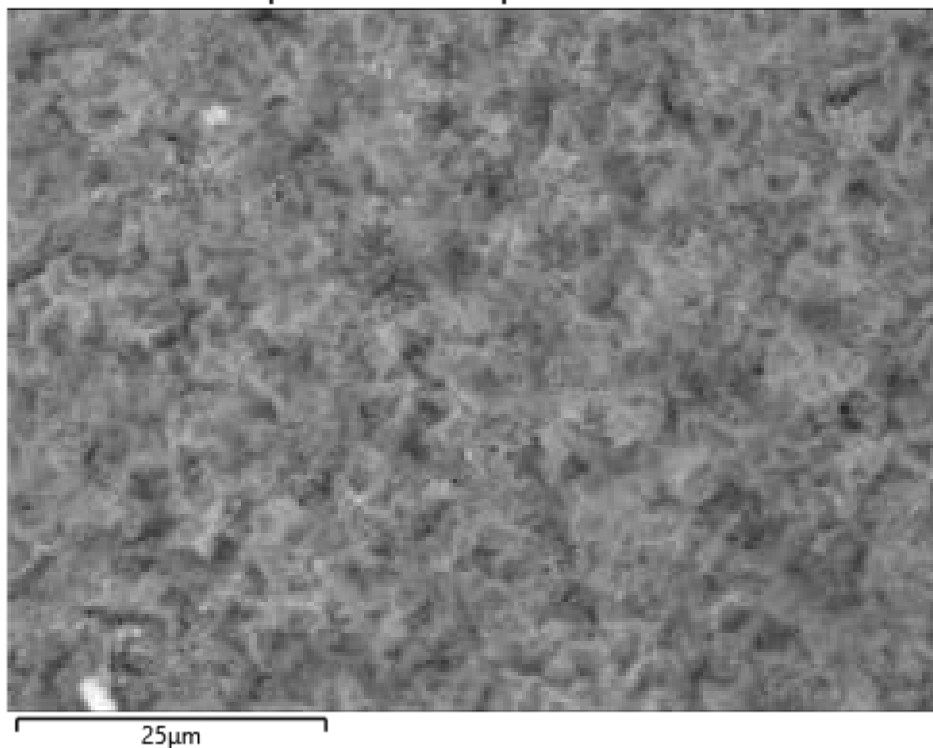
SEM report - CHEM-1xMnO4 ("Specimen 5") Nov 27, 2021



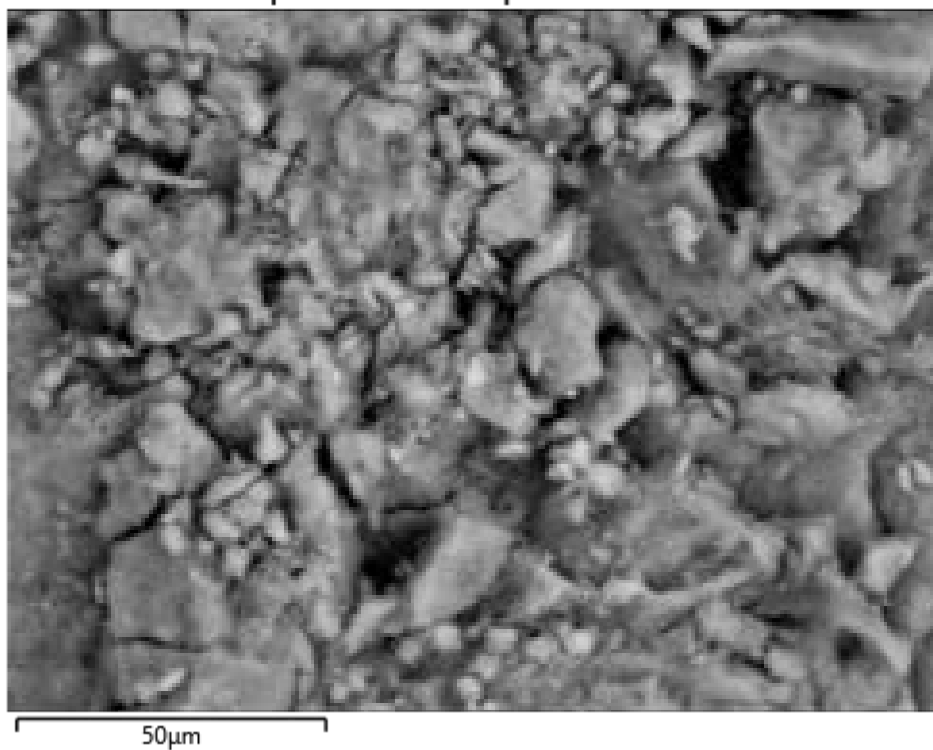


## Site 1 detail images

Specimen5-Site1-sp40 4000x BSE

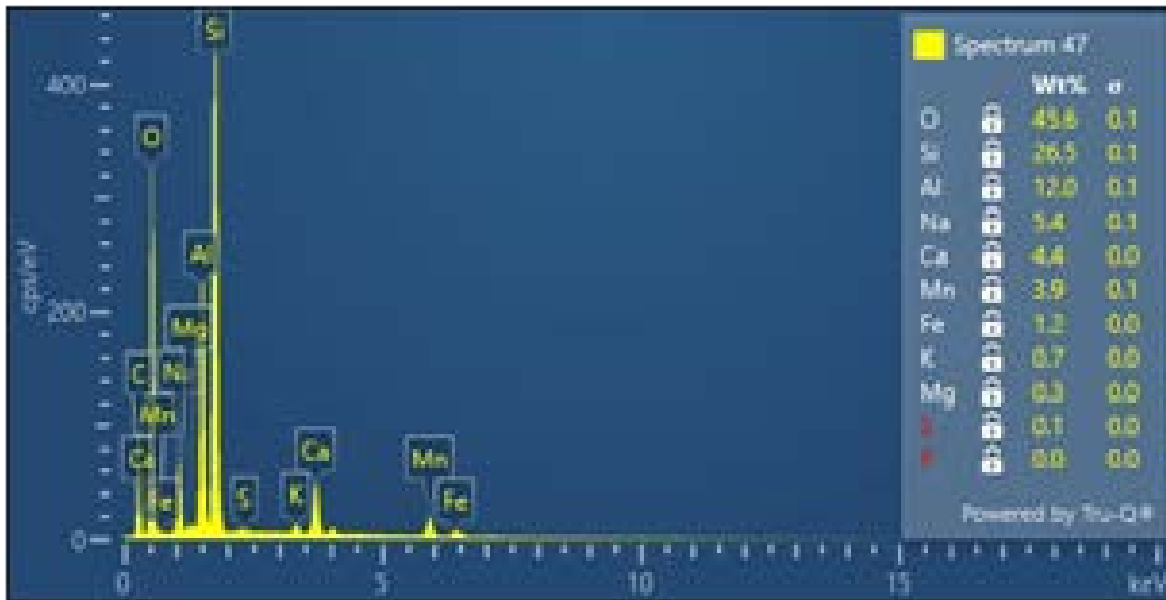
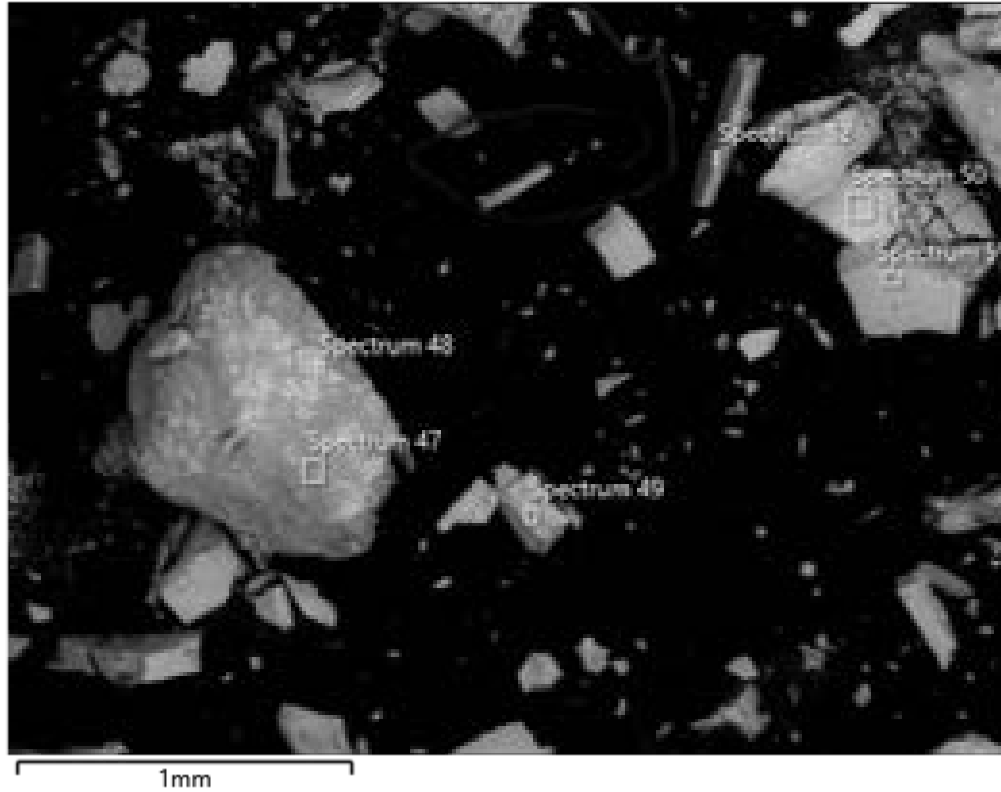


Specimen5-Site1-sp41 2000x BSE

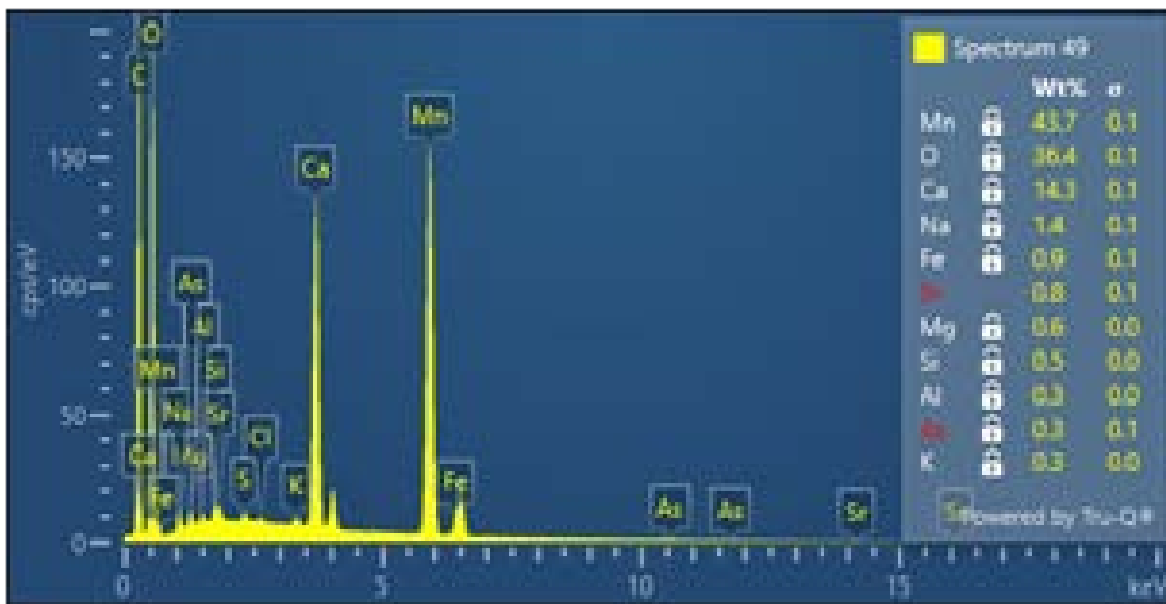
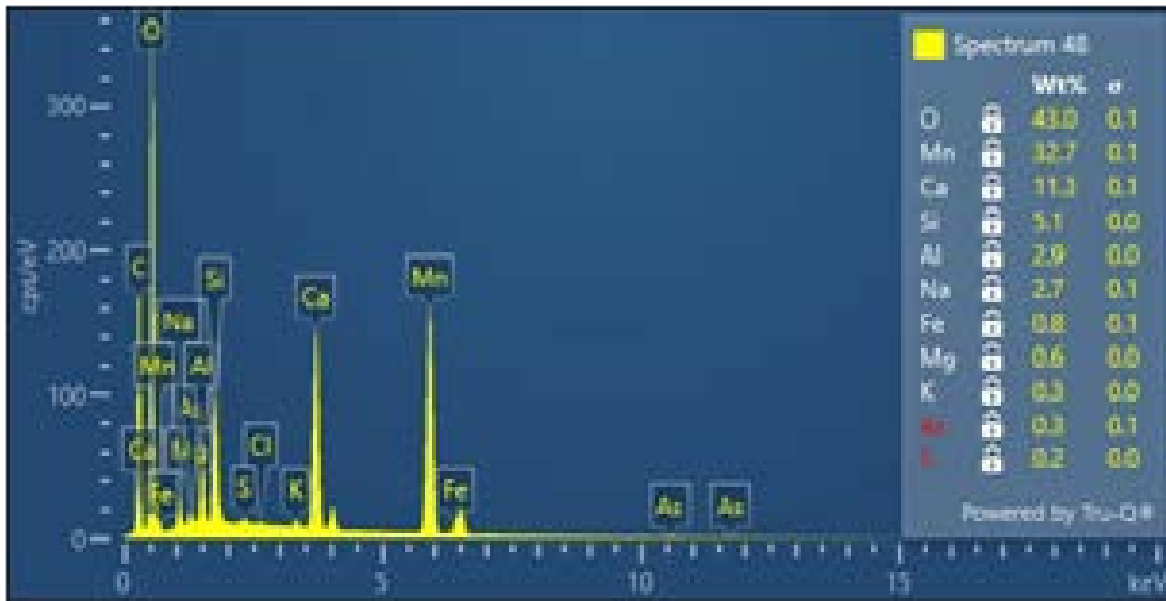


## Site 2 BSE/EDS

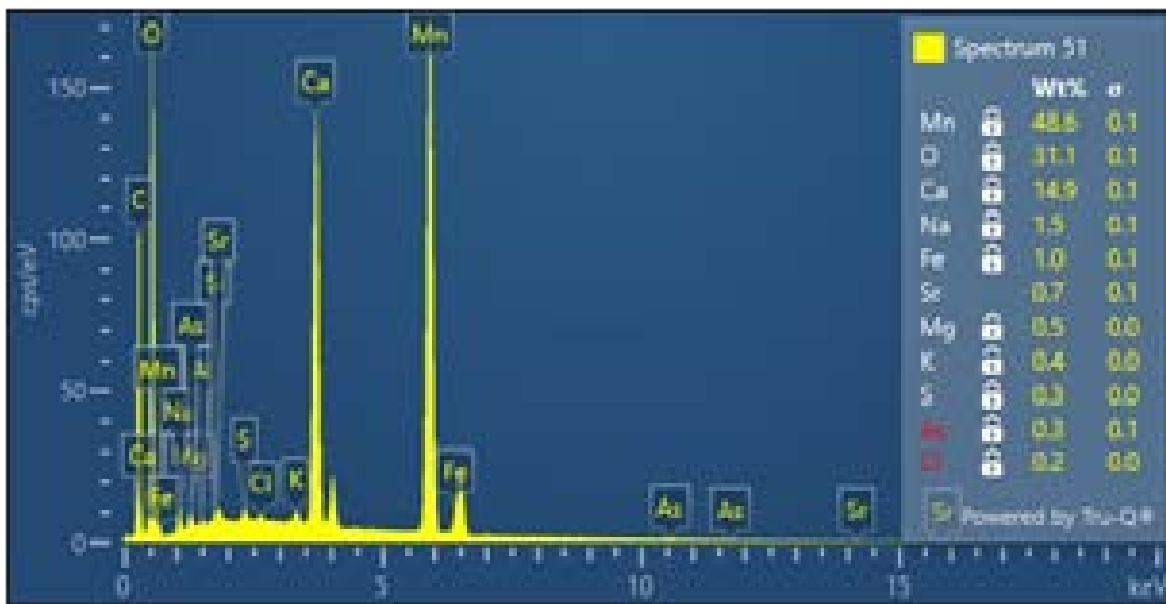
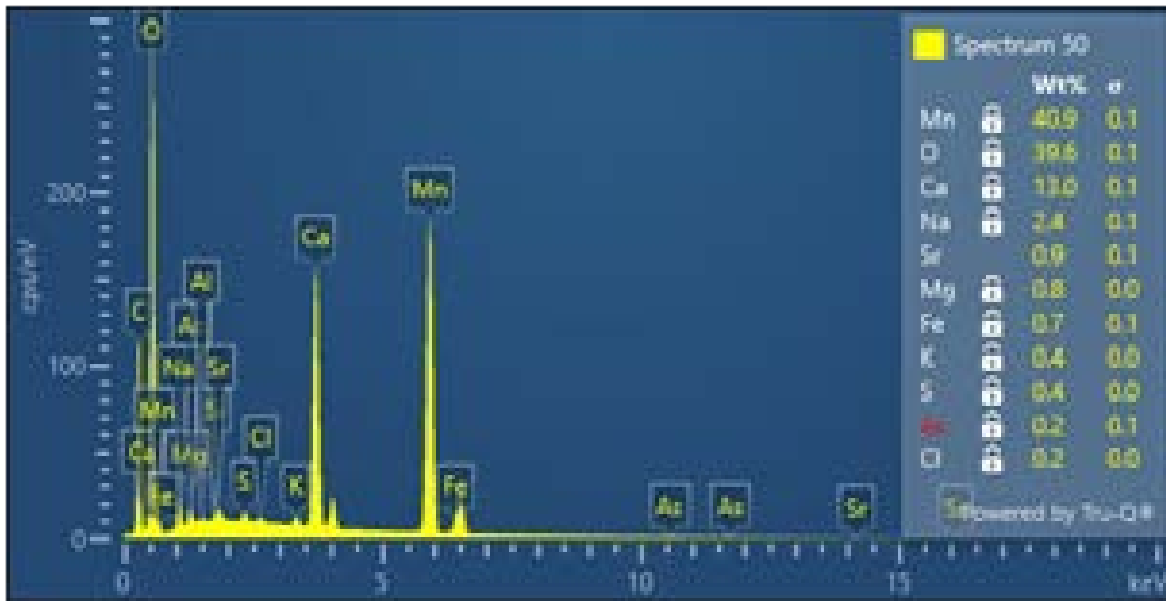
Specimen5-Site2 100x BSE



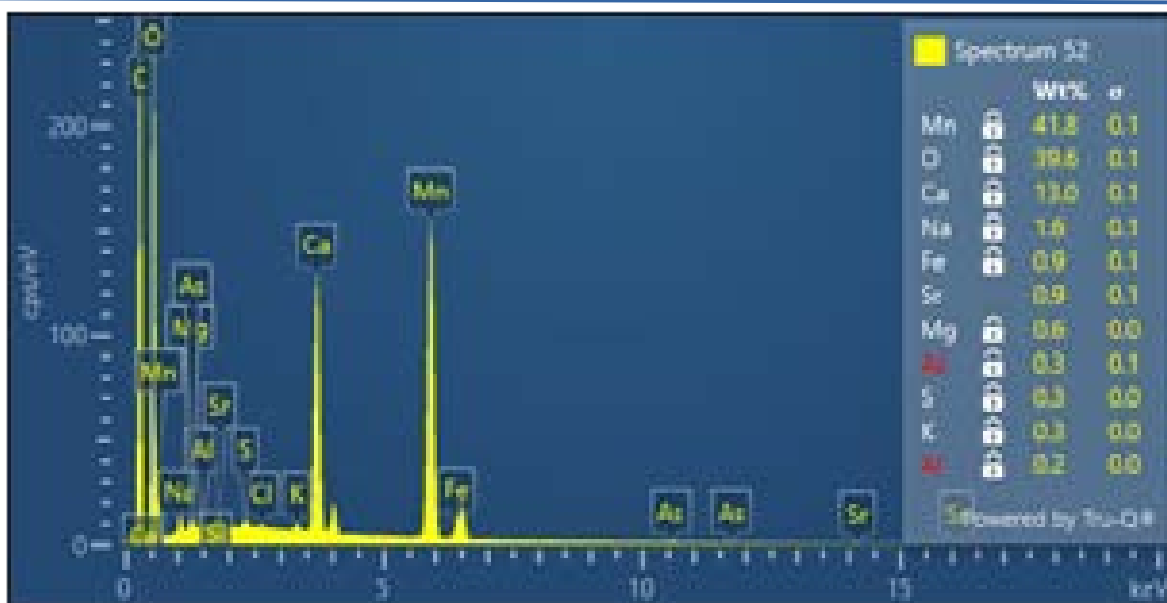
SEM report - CHEM-1xMnO4 ("Specimen 5") Nov 27, 2021



SEM report - CHEM-1xMnO4 ("Specimen 5") Nov 27, 2021



SEM report - CHEM-1xMnO4 ("Specimen 5") Nov 27, 2021



## Summary

Sample is composed of Ca-Fe sulfate/sulfites. As, Sr, and Mo are frequently measured well above EDS detection limits. Mn and Co are generally at or below detection limits.

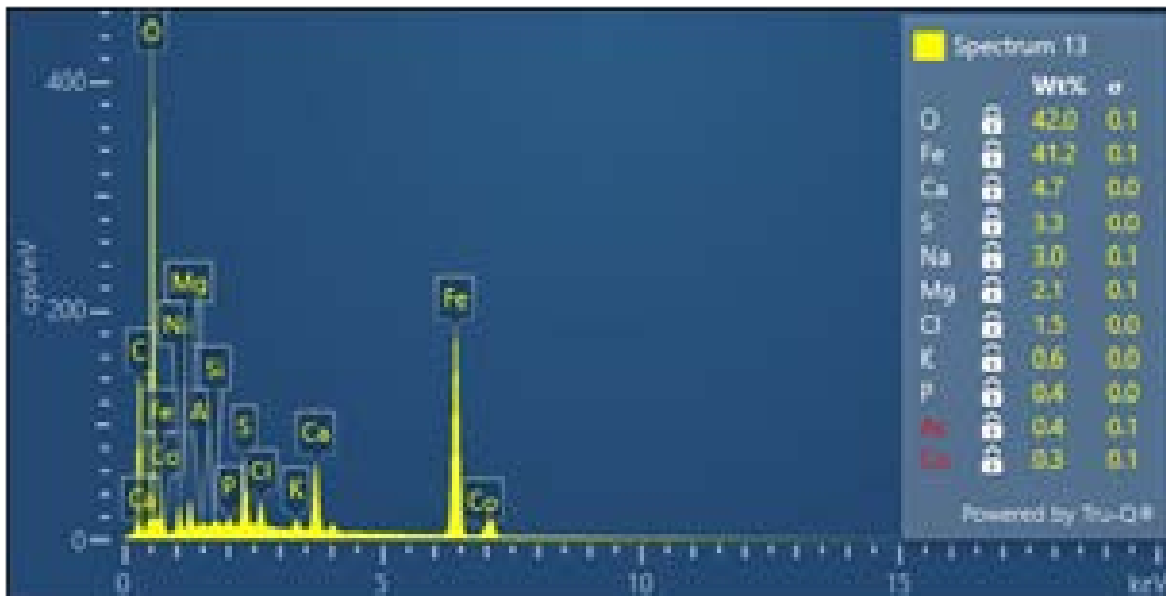
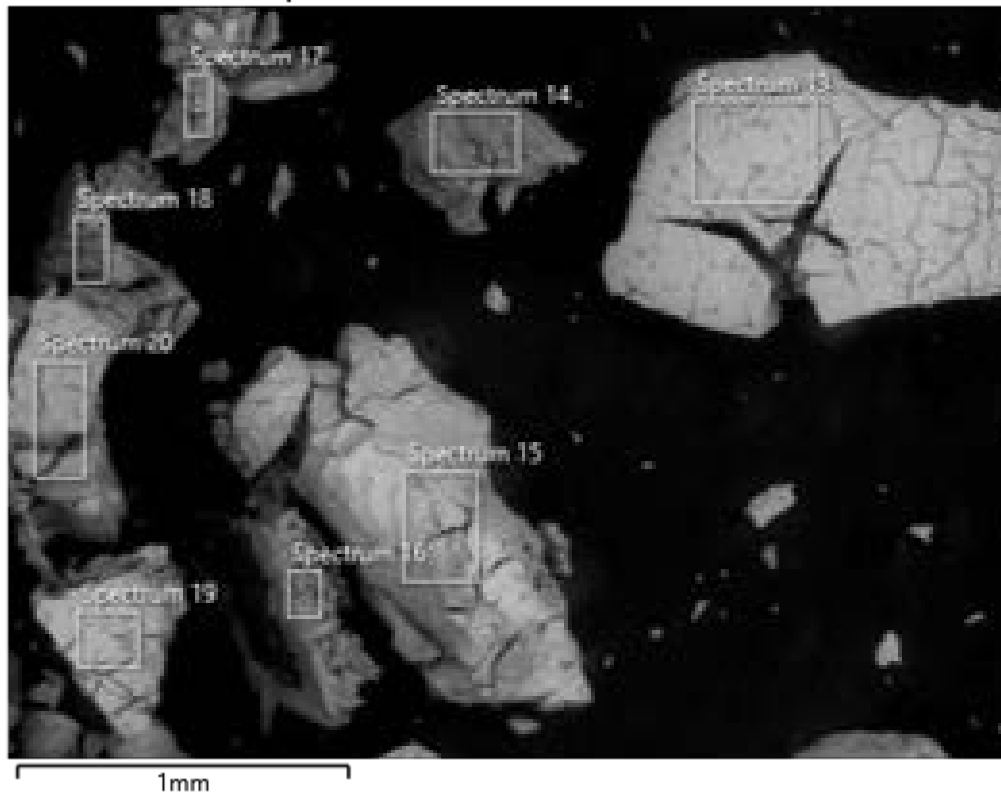
Note that many spectra contain variable but large carbon peaks. These peaks are inconsistent with typical carbonate stoichiometries and are thus likely due to the carbon substrate. For this reason carbon was removed from all composition calculations.

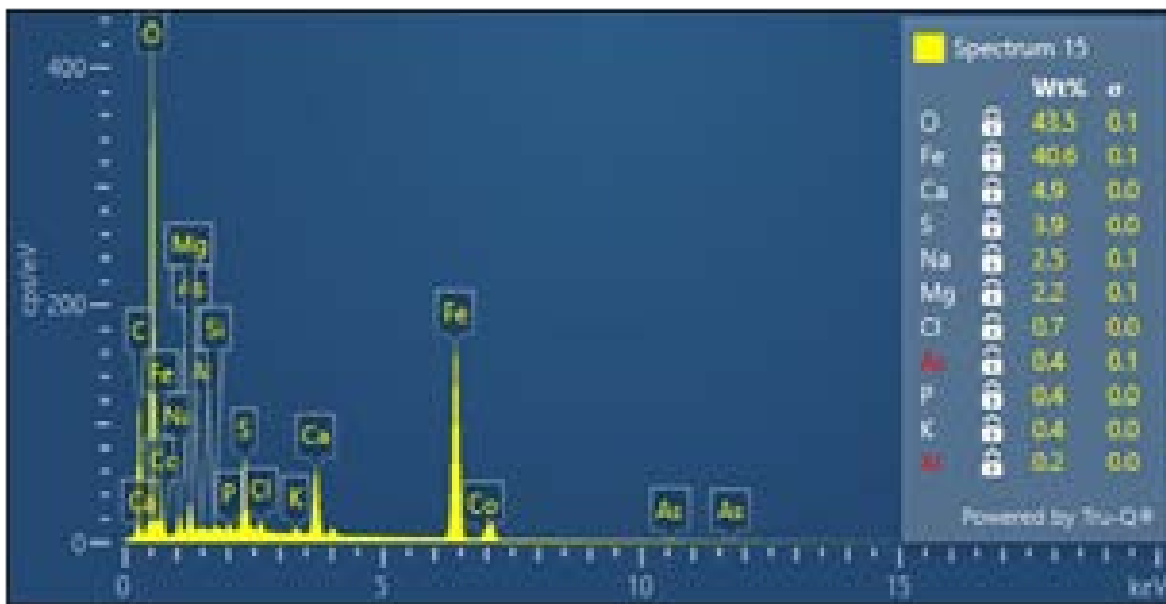
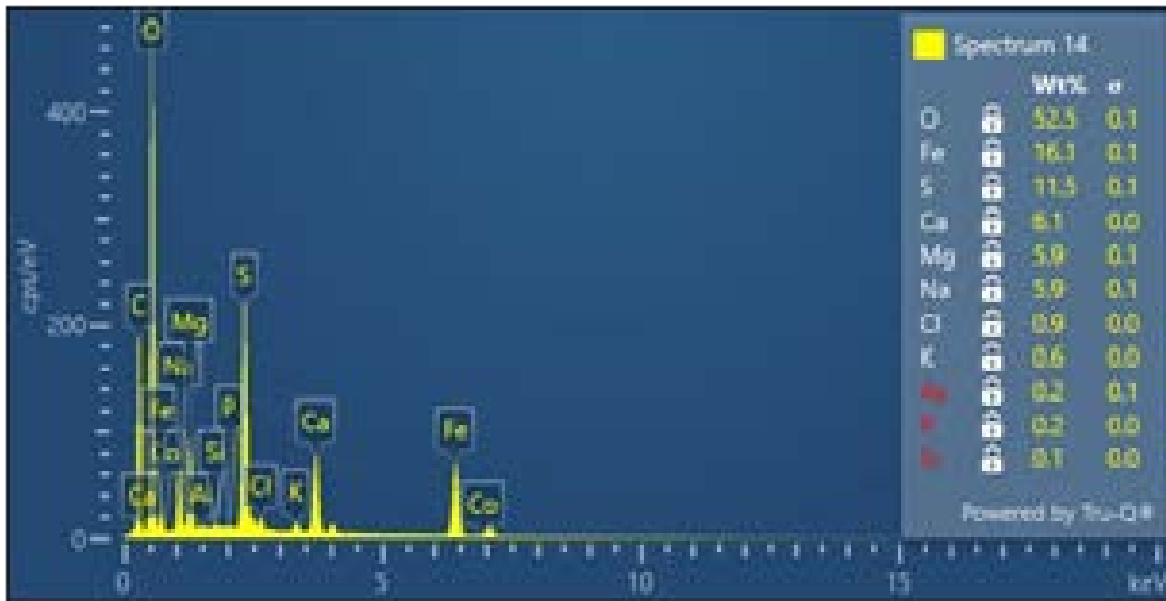
## Site 1 Optical (low resolution, for rough orientation only)



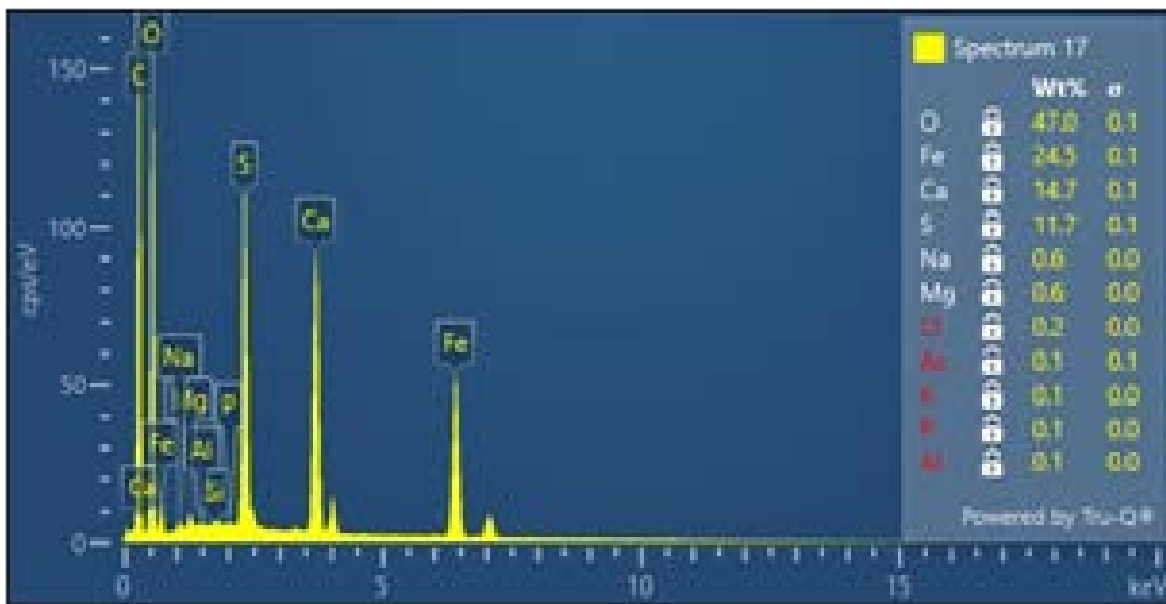
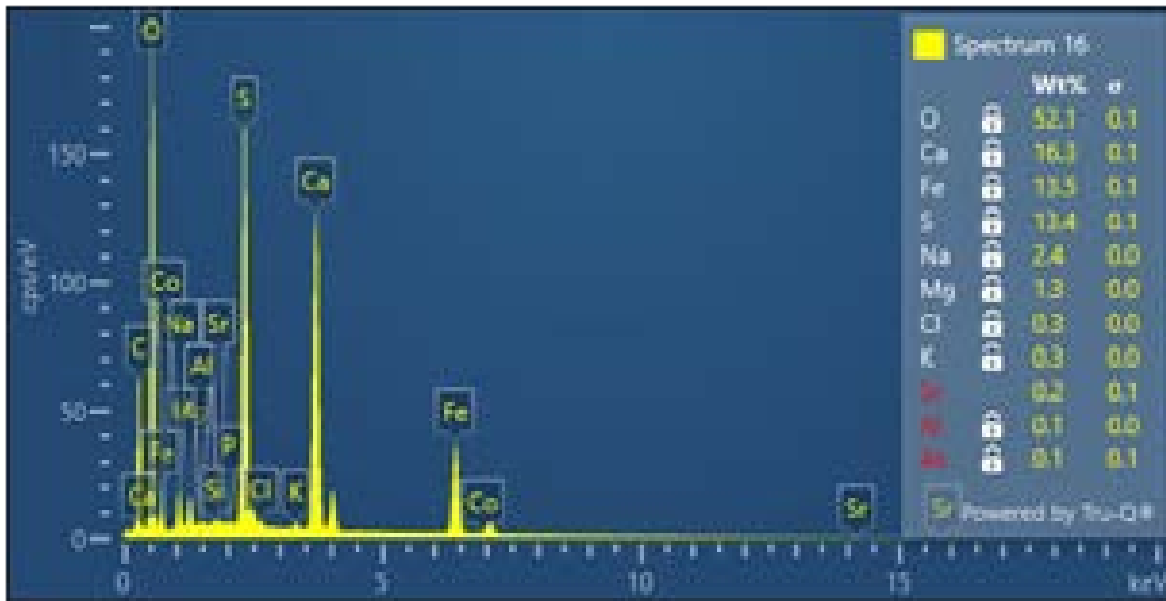
## Site 1 BSE/EDS

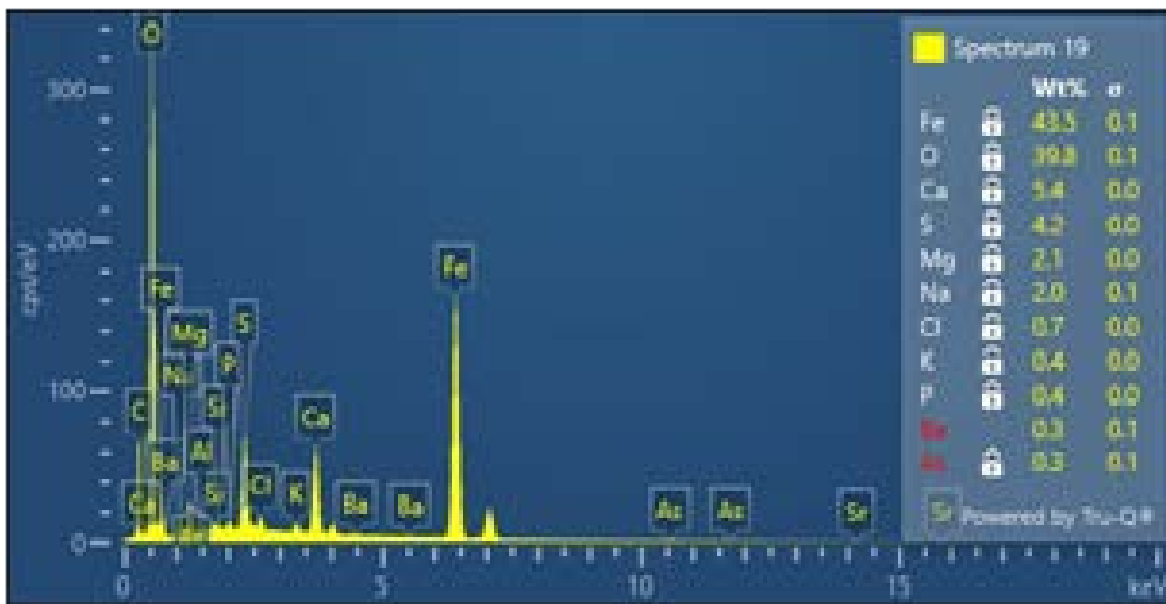
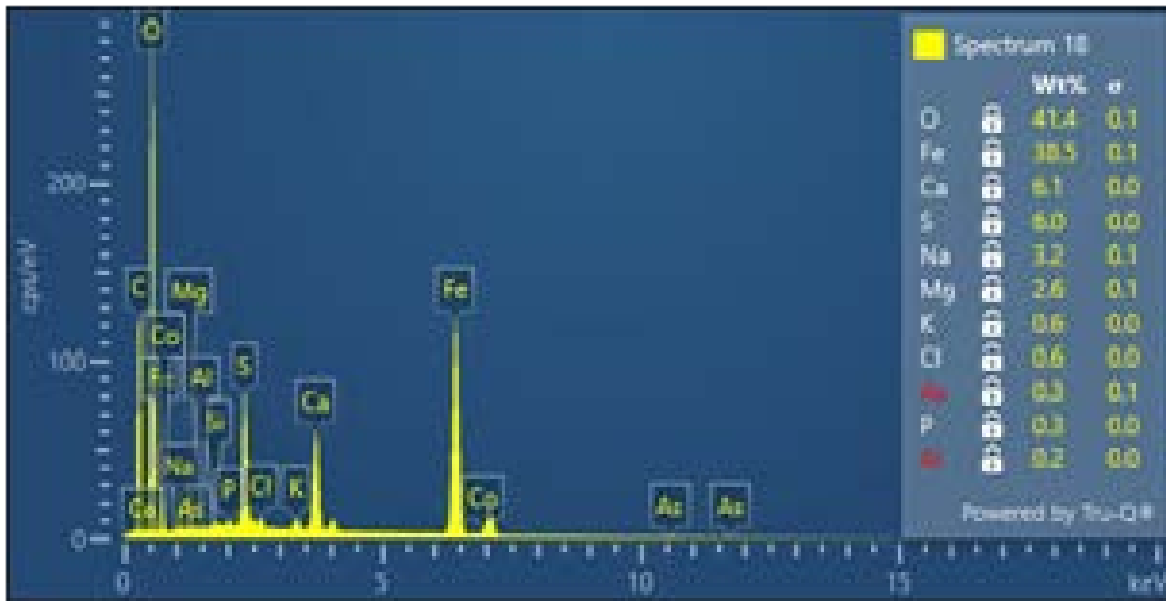
Specimen3-Site1 overview 100x BSE

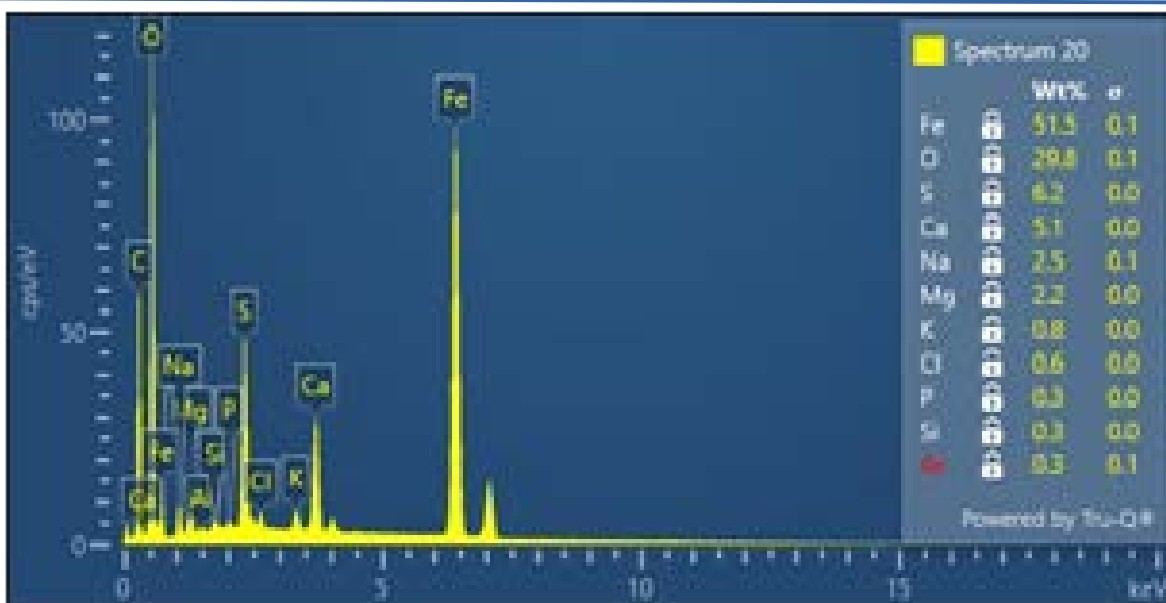




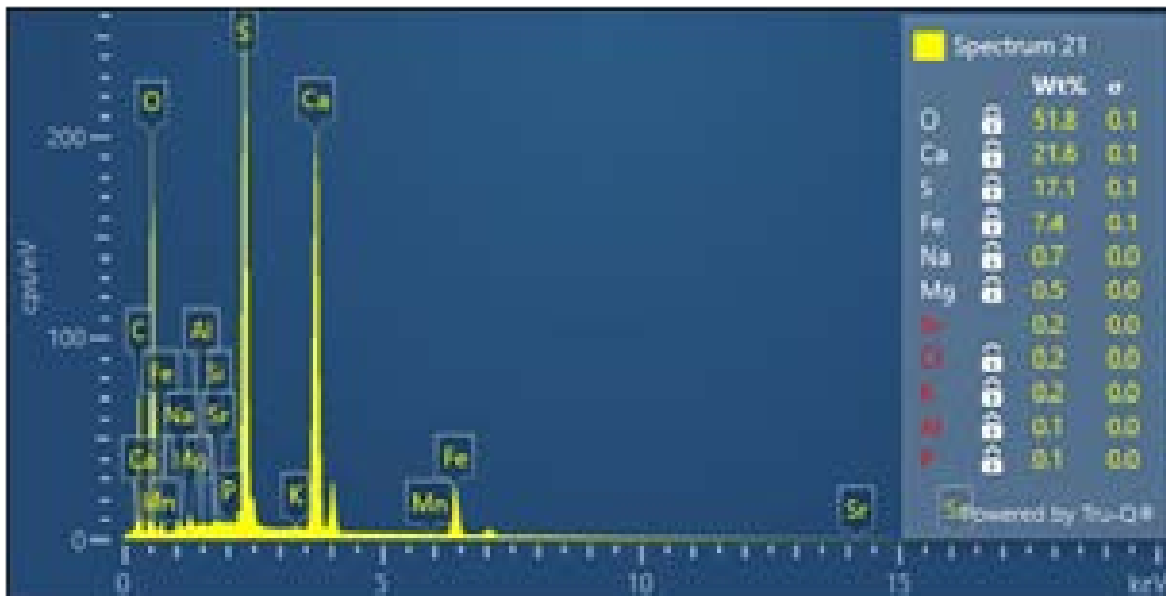
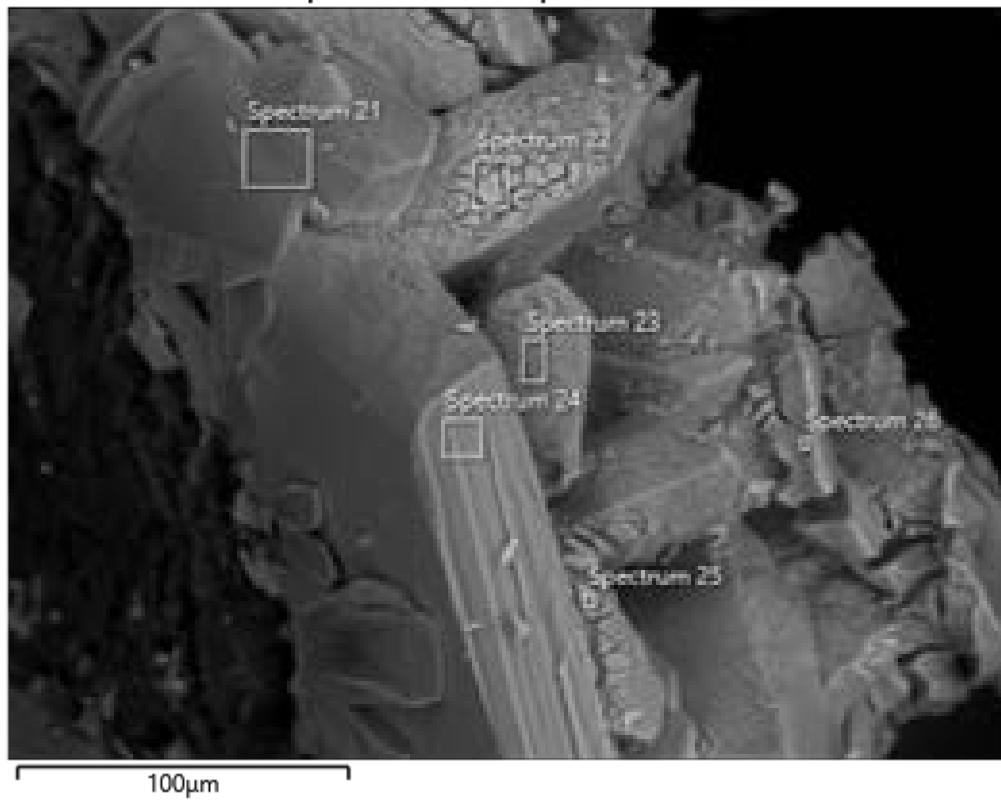


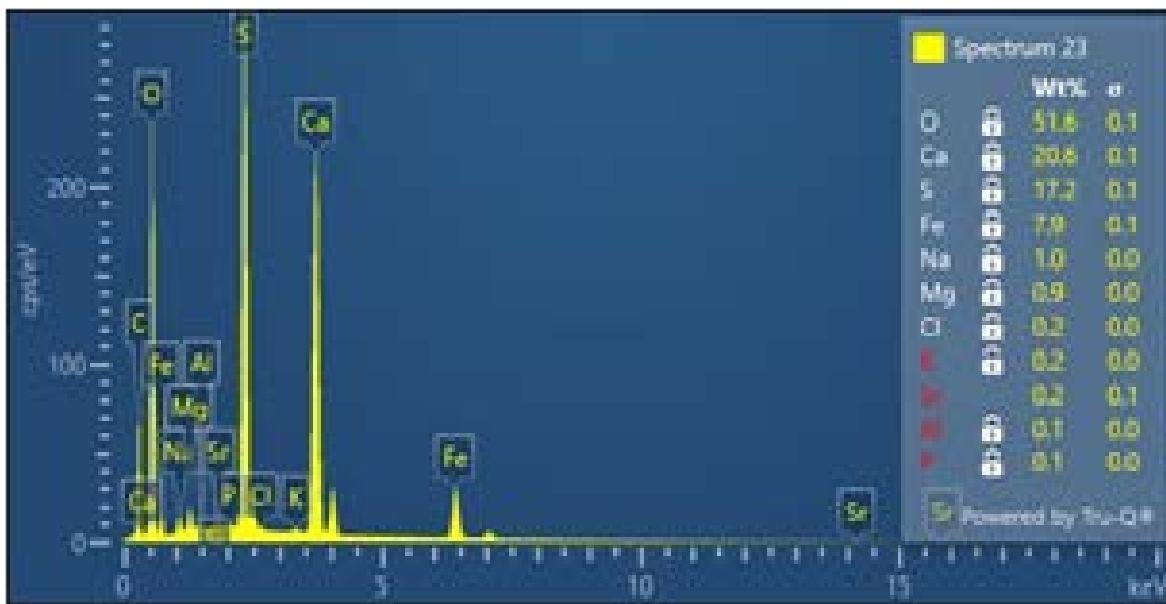
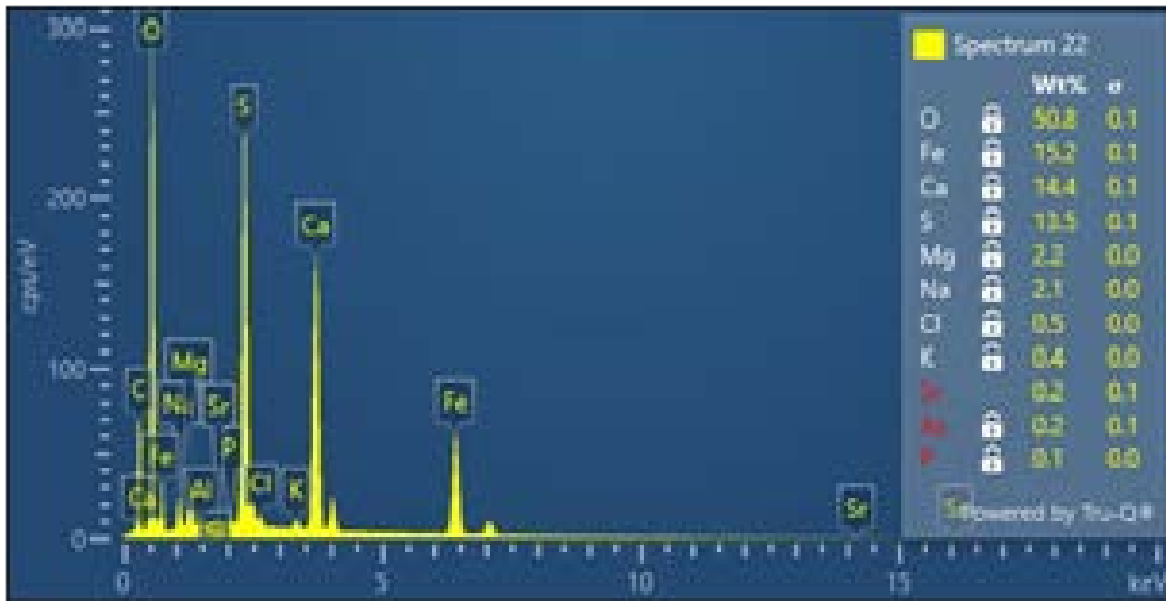


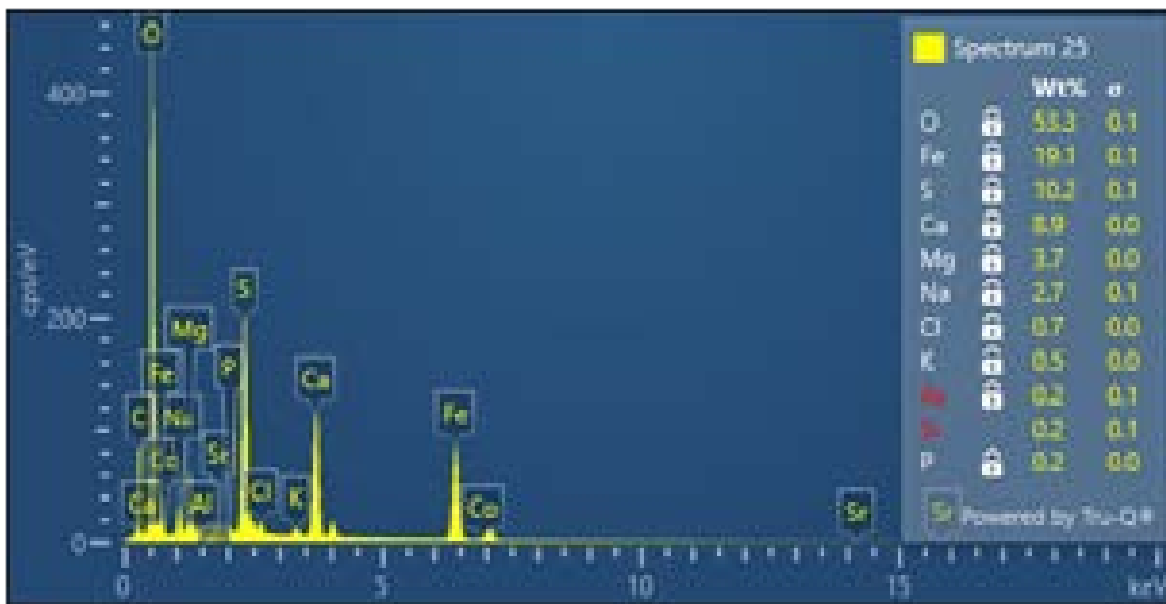
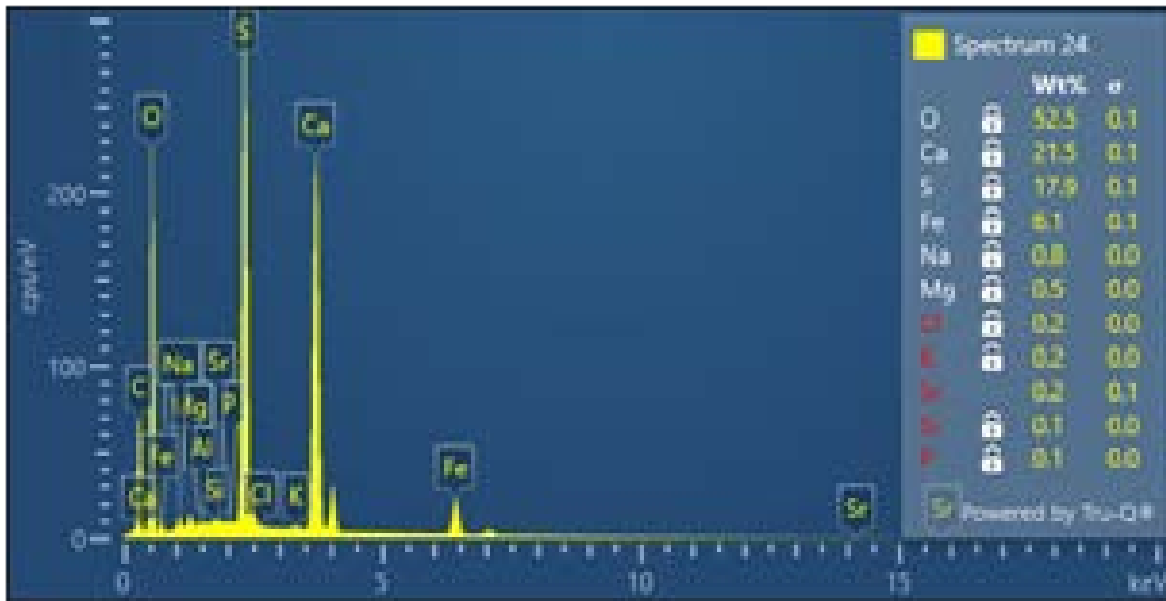


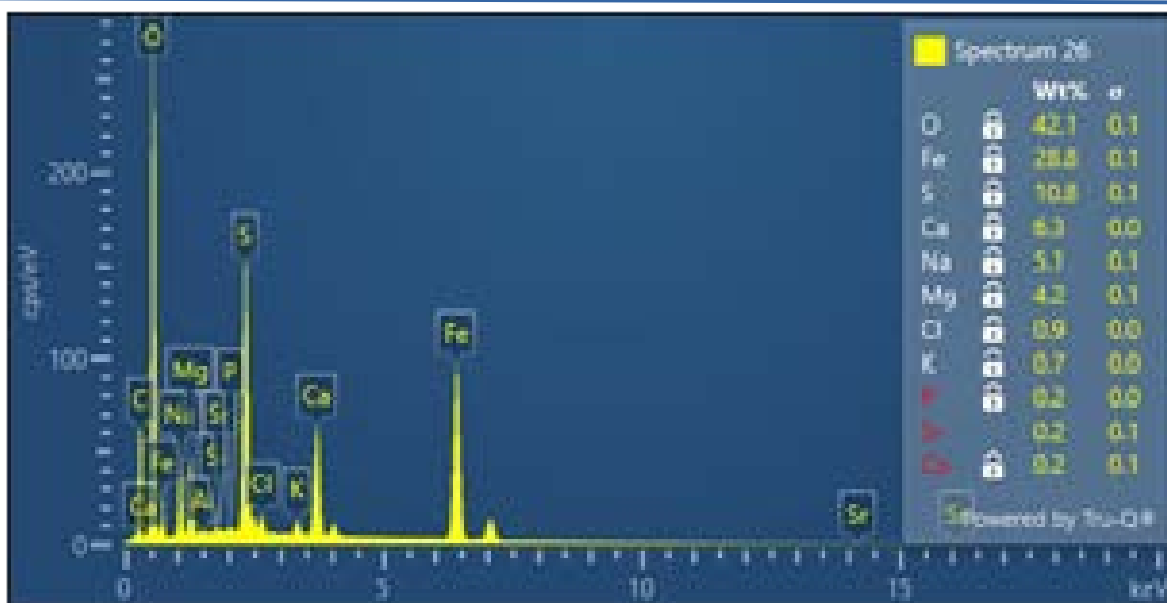


Site 1 dp16 details  
 Specimen3-Site1-sp16 1000x BSE



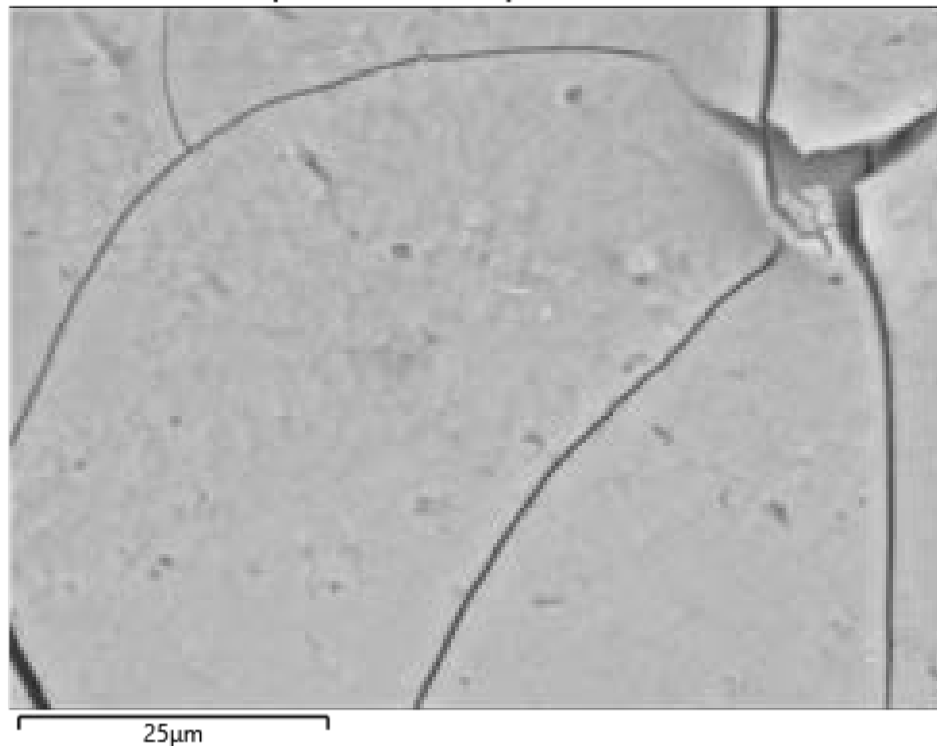






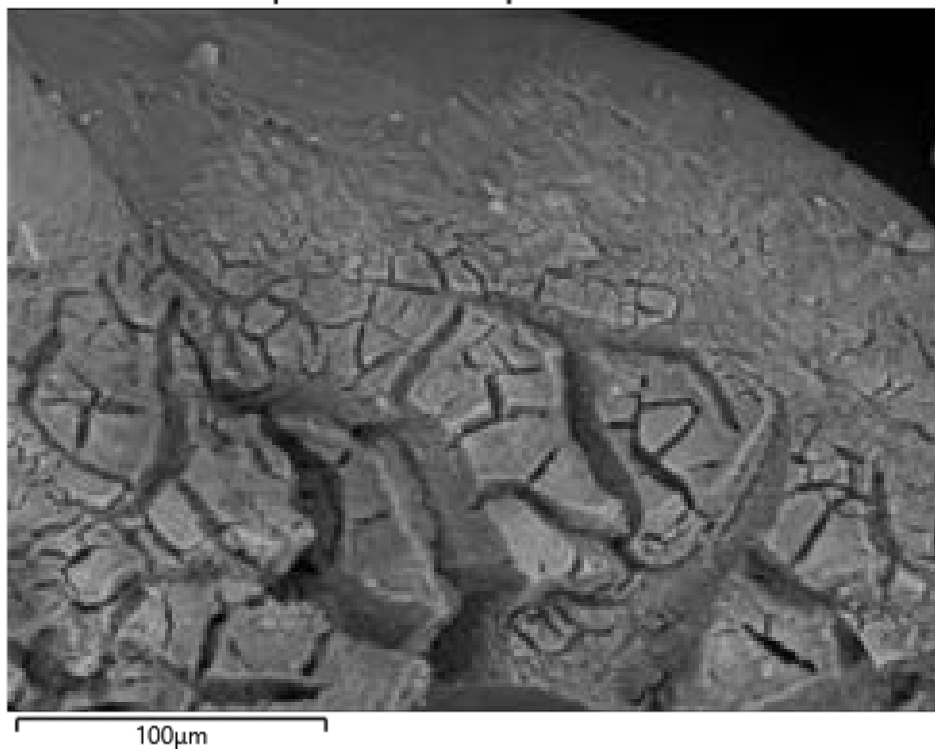
### Site 1 detail images

Specimen3-Site1-sp13 4000x BSE

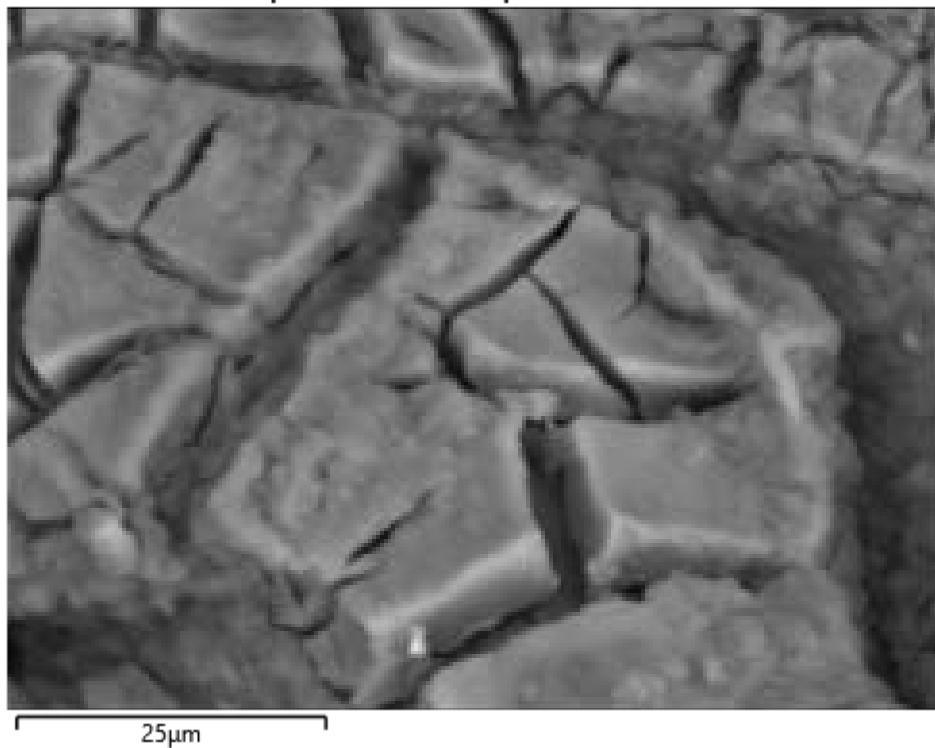




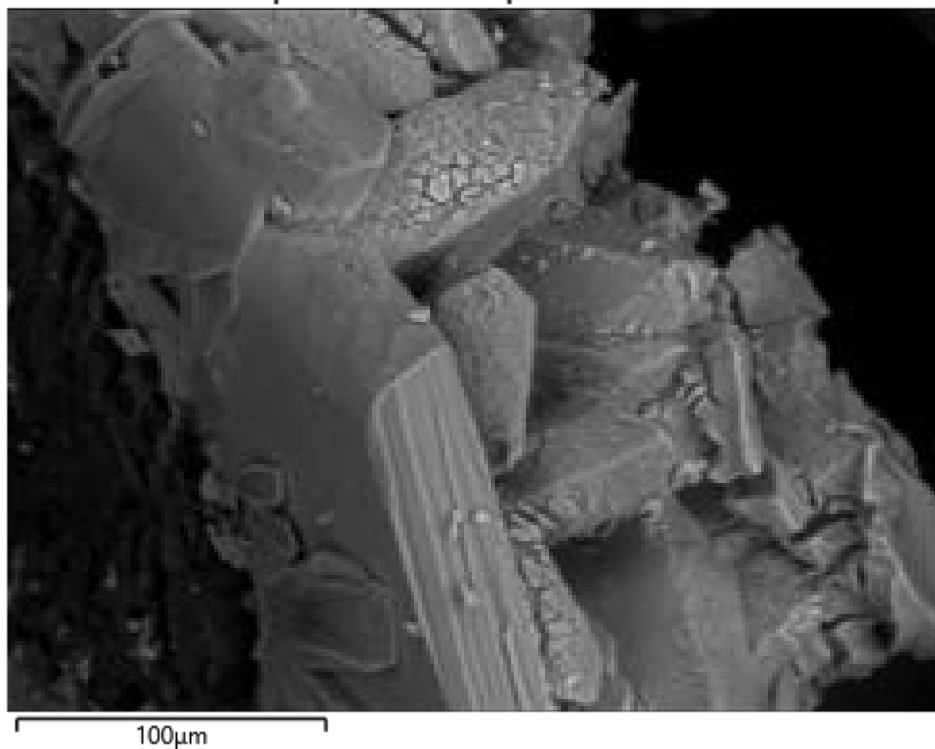
Specimen3-Site1-sp14 1000x BSE



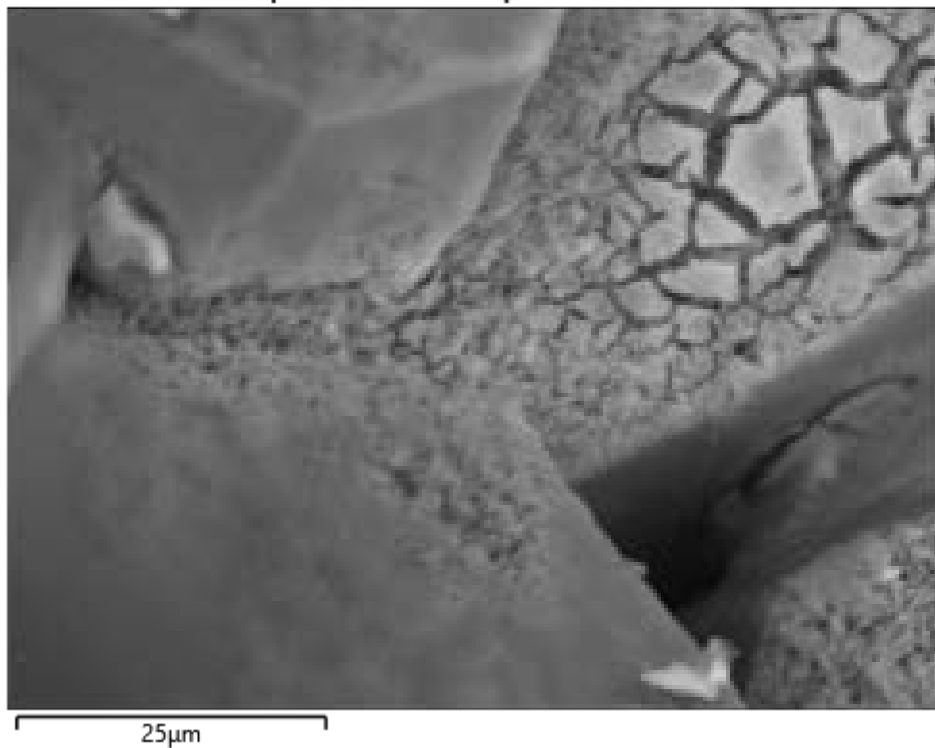
Specimen3-Site1-sp14 4000x BSE



Specimen3-Site1-sp16 1000x BSE

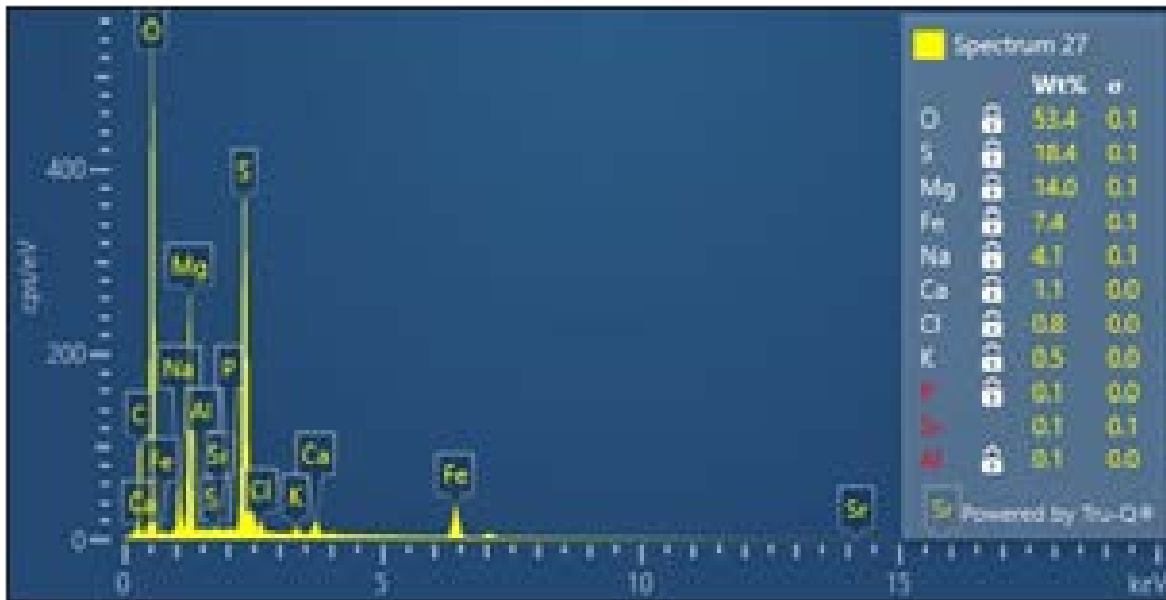
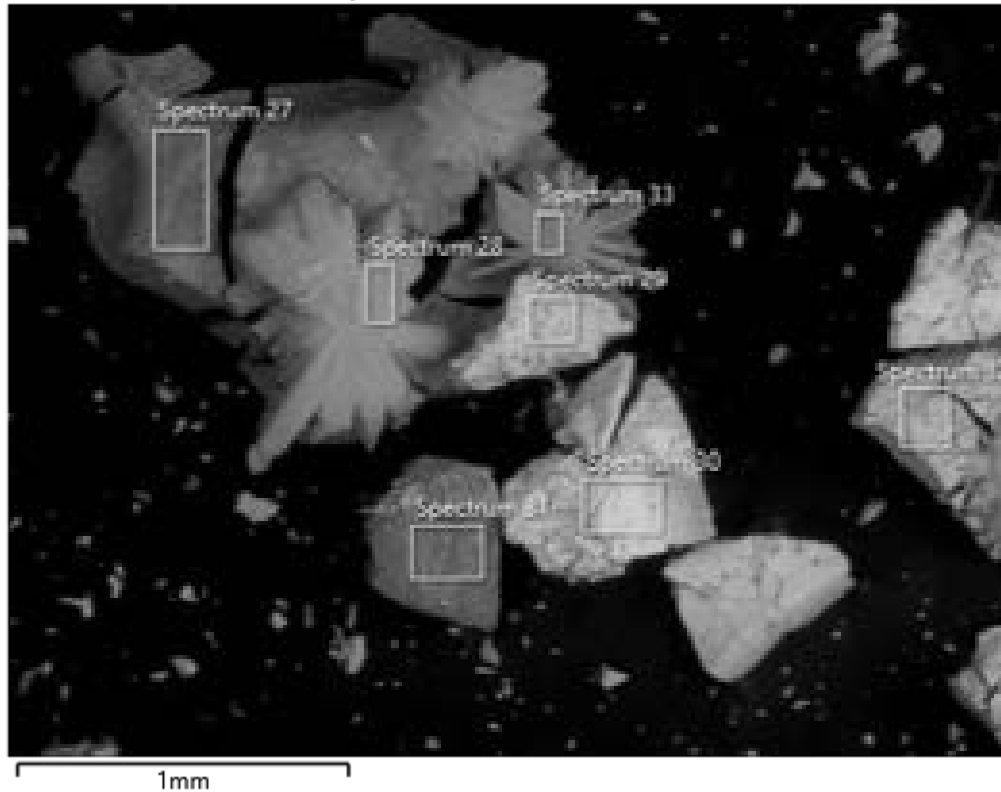


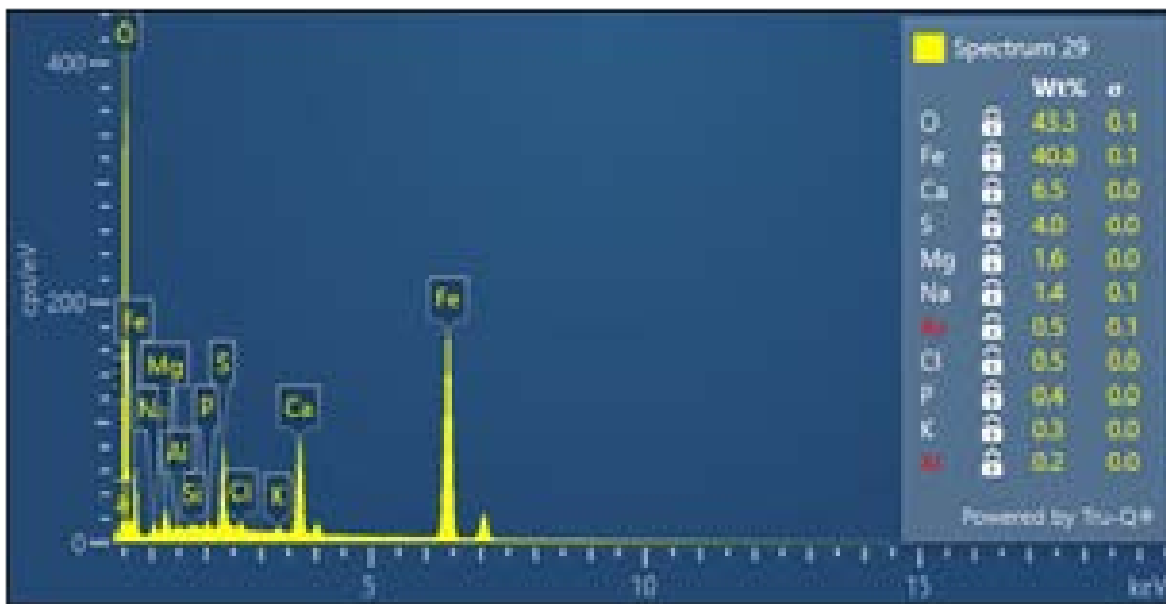
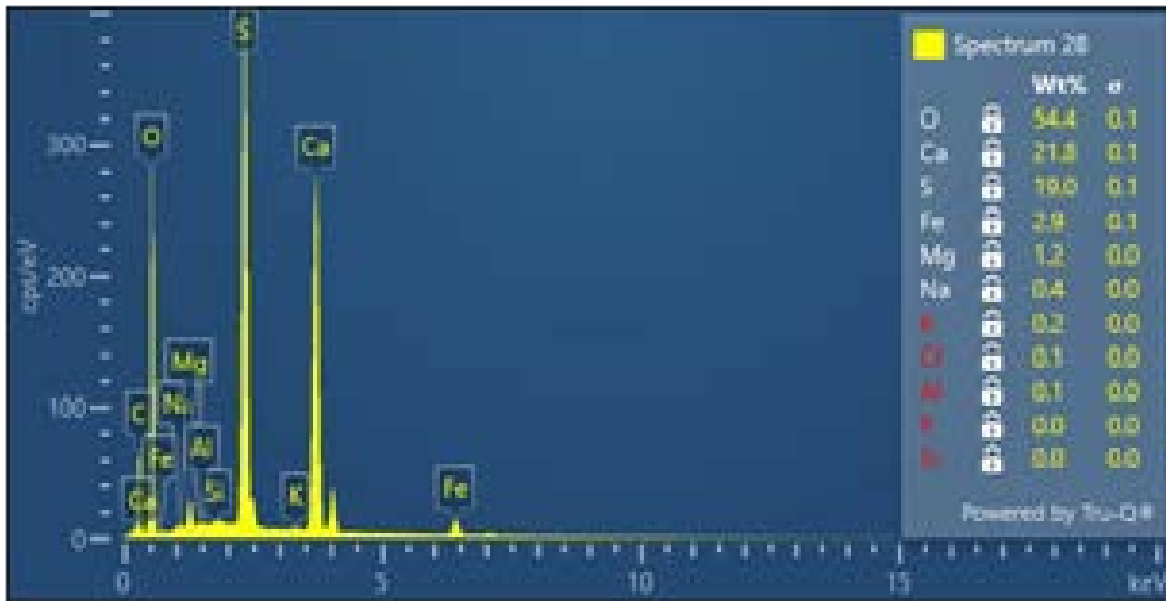
Specimen3-Site1-sp16 4000x BSE

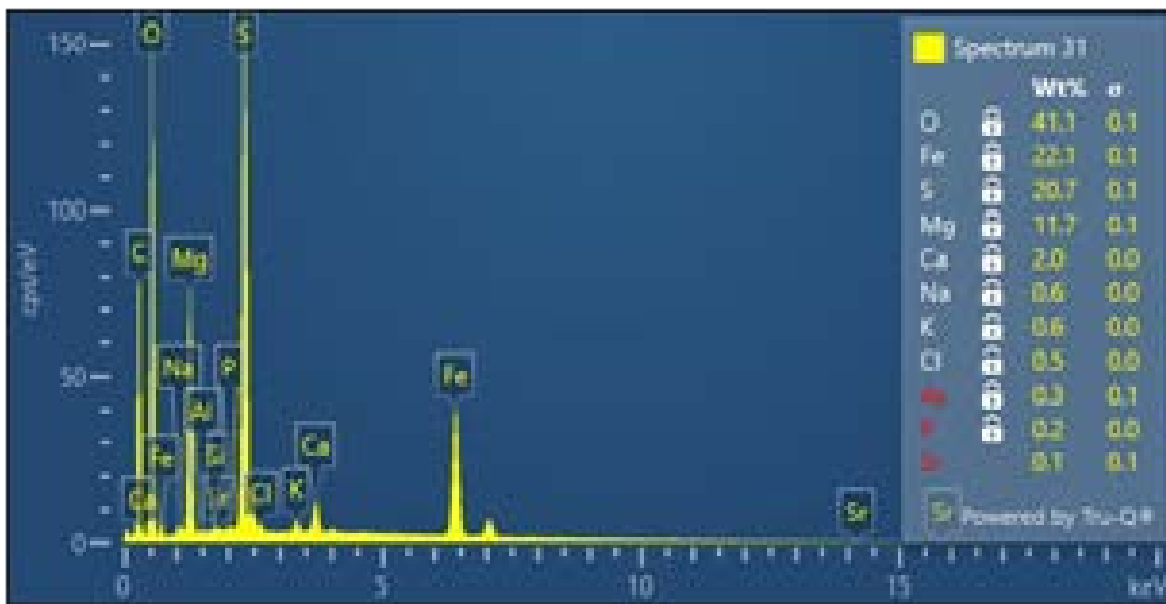
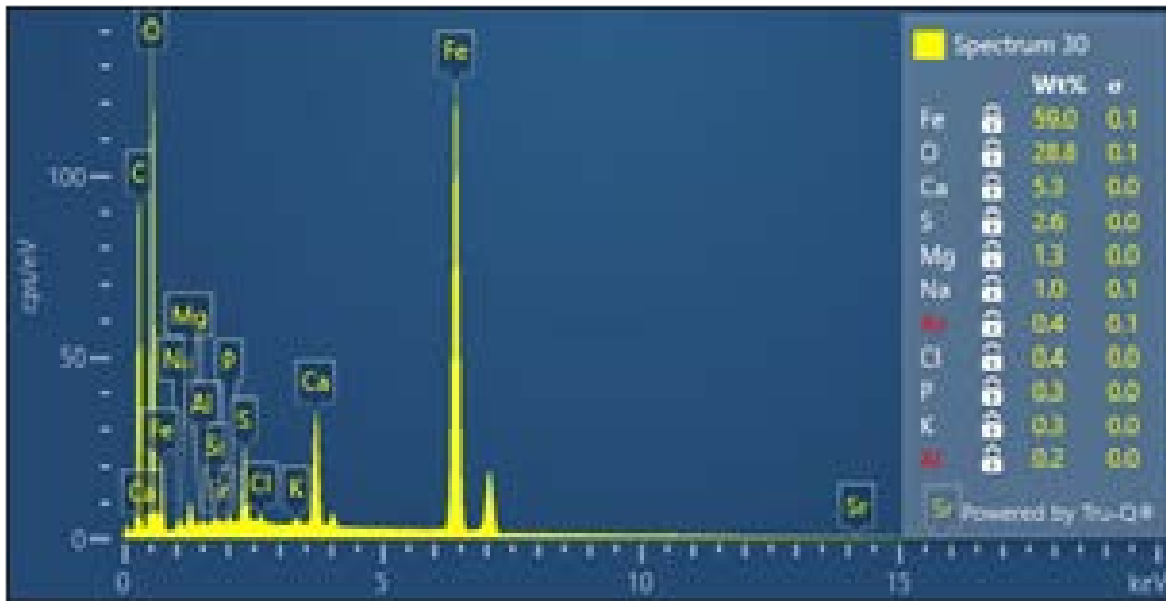


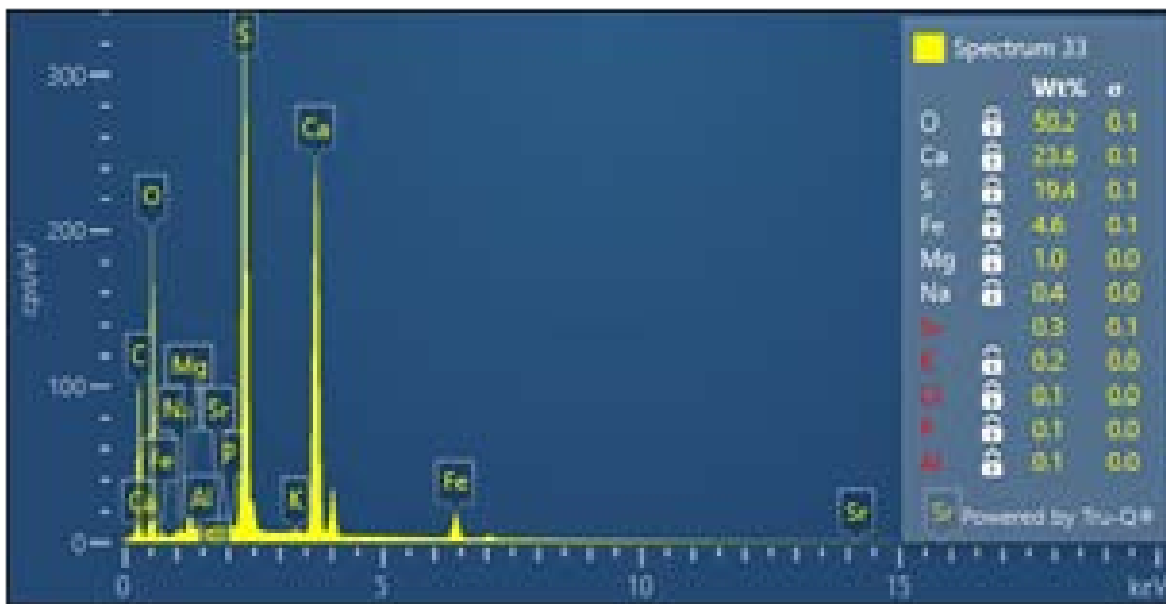
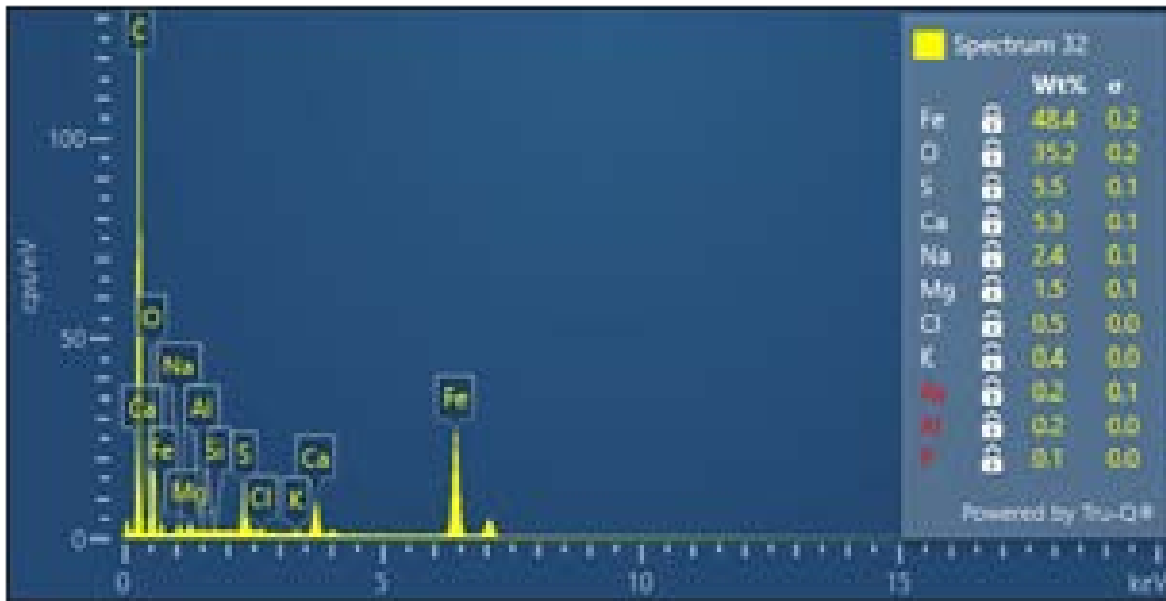
## Site 2

Specimen3-Site2 100x BSE



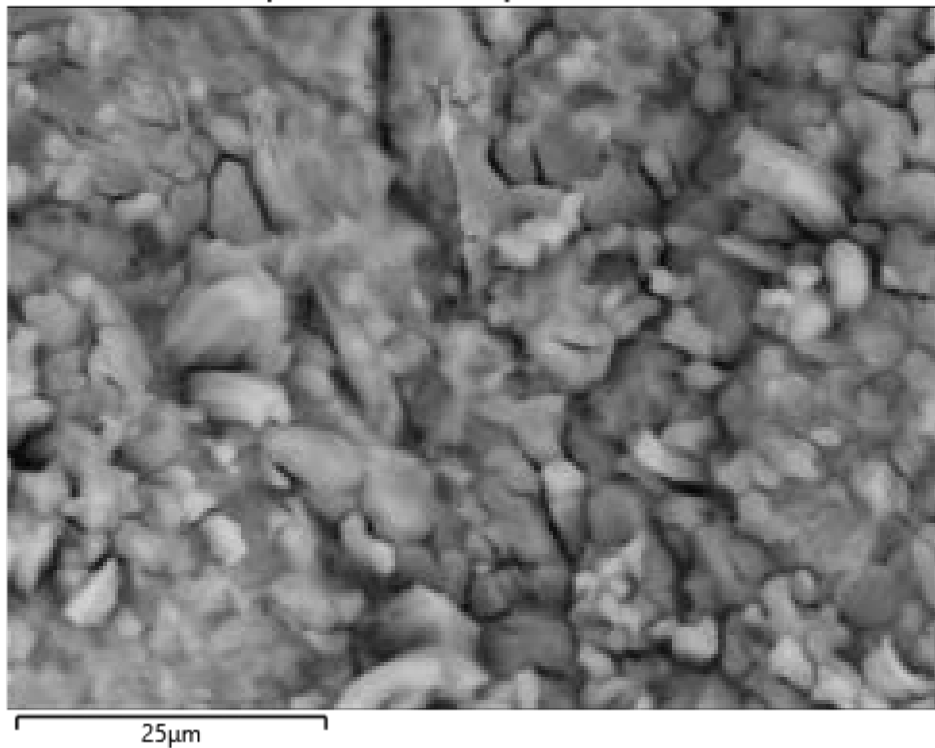






## Site 2 detail images

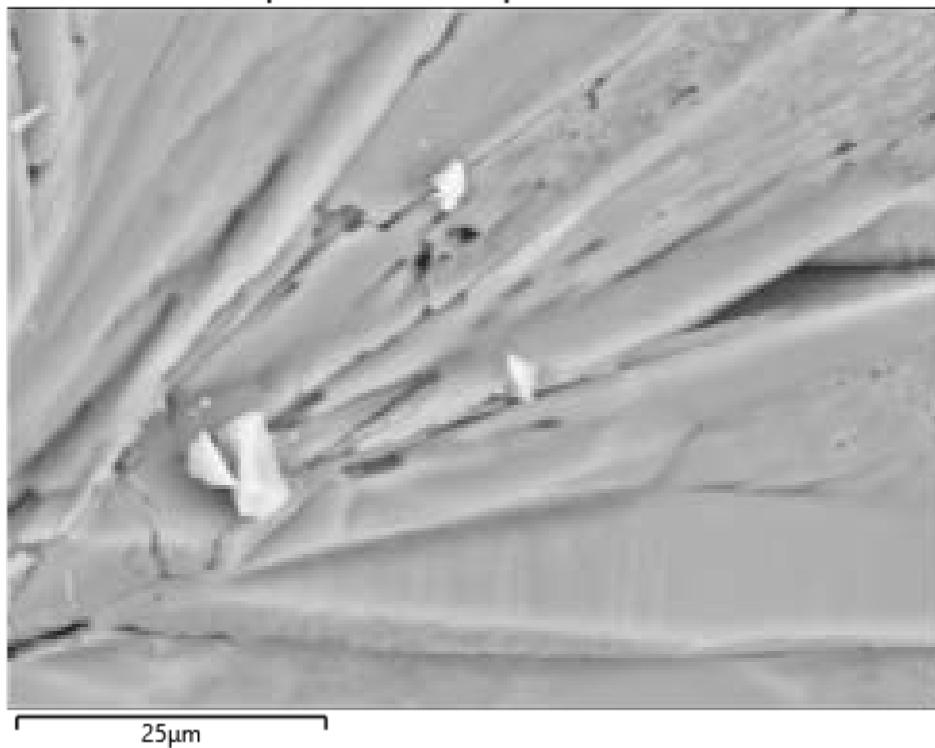
Specimen3-Site2-sp27 4000x BSE



Specimen3-Site2-sp28 1000x BSE

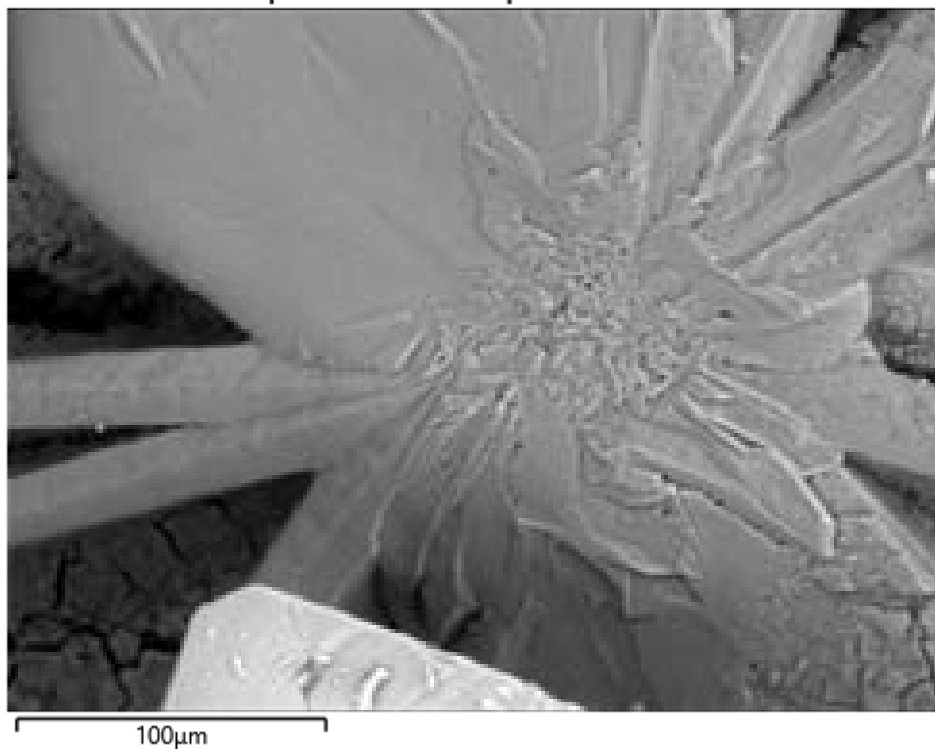


Specimen3-Site2-sp28 4000x BSE

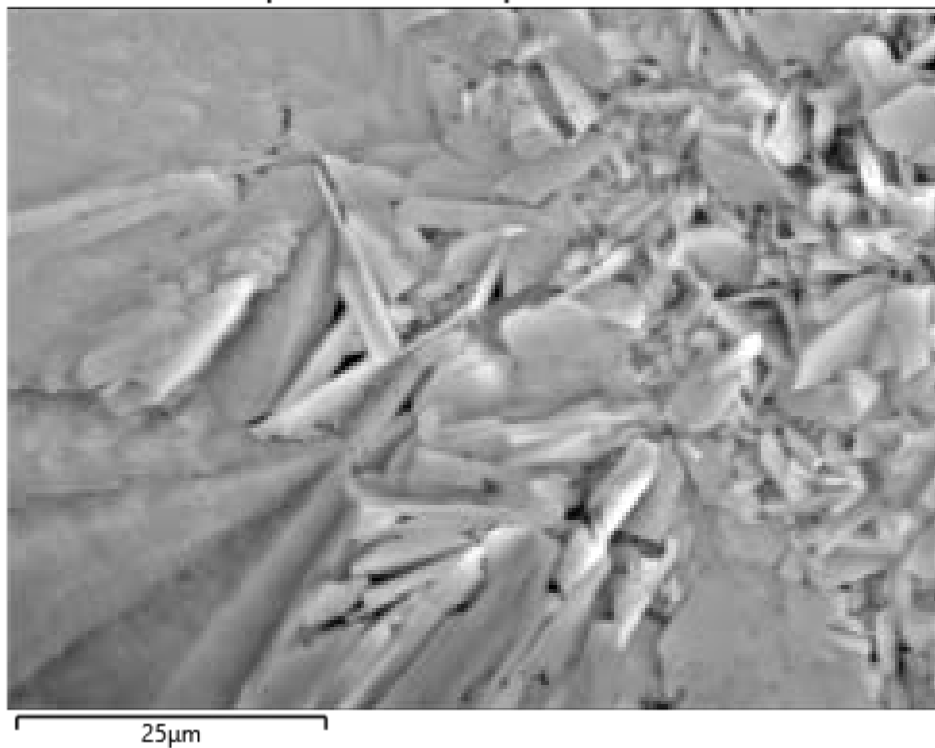




Specimen3-Site2-sp33 1000x BSE



Specimen3-Site2-sp33 4000x BSE



## Summary

Sample was primarily comprised of Fe sulf\*tes with significant Na and/or Ca concentrations. Mn, As, Mo, Co, and Sr were consistently found well above EDS detection limits. Microscopic Ba sulf\*tes, such as as seen in [Site2-sp71 2000x BSE](#) were interspersed throughout the sample. One large Ba-SOx crystal was found to have a large Pb concentration.

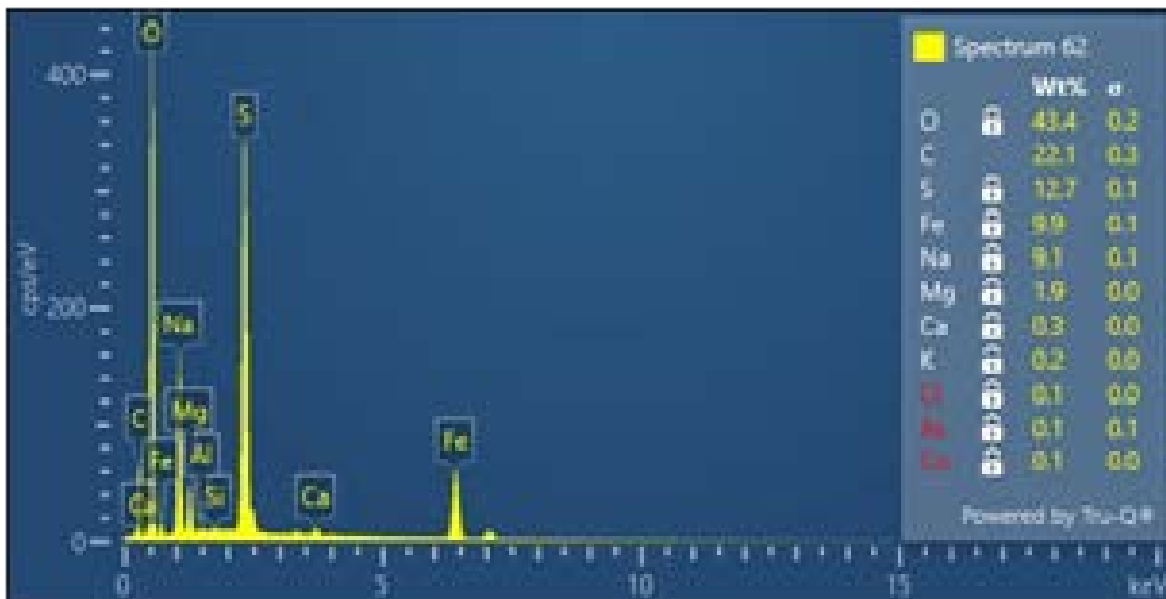
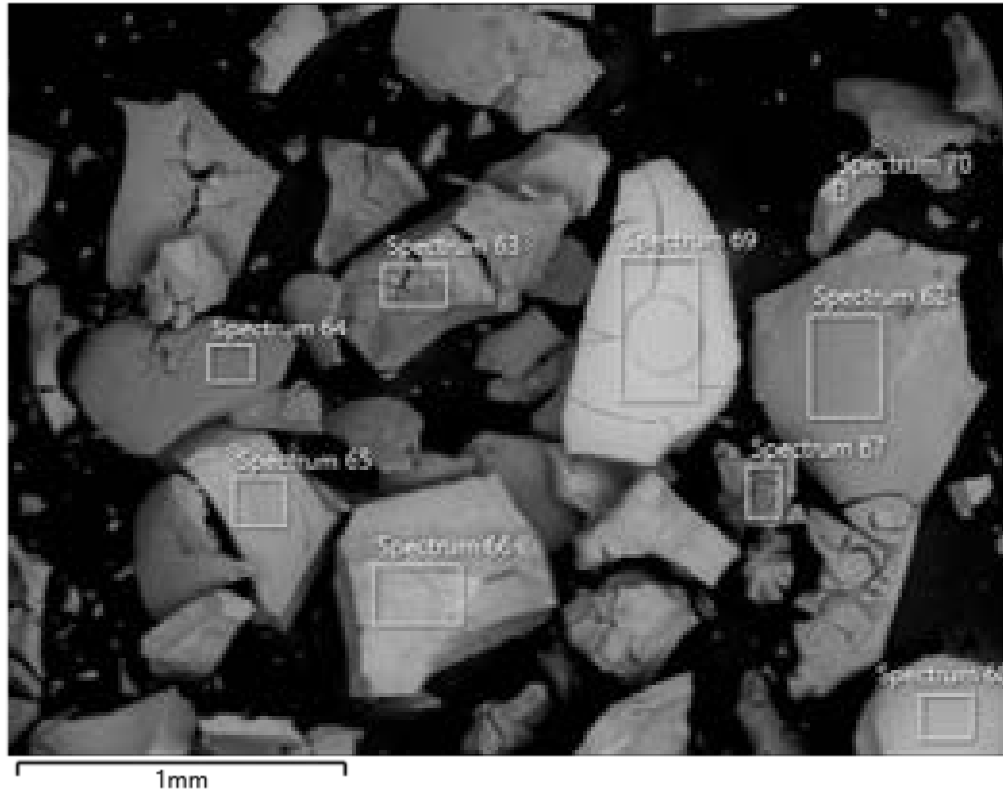
Note, carbon peaks were highly variable, suggesting they originated from the C substrate. These peaks were removed from the composition calculations.

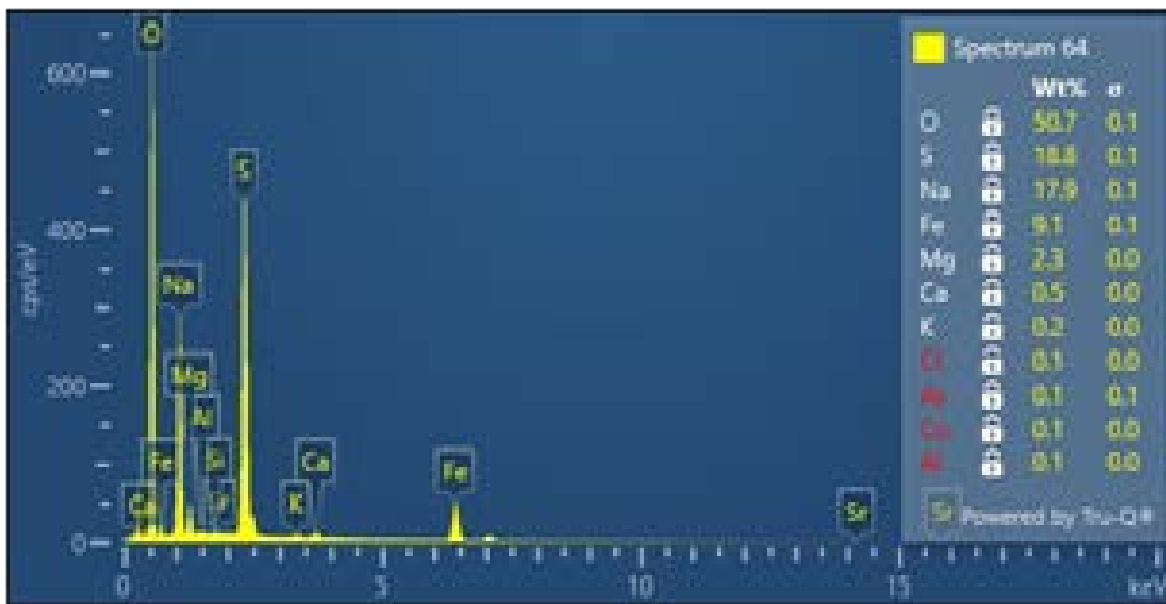
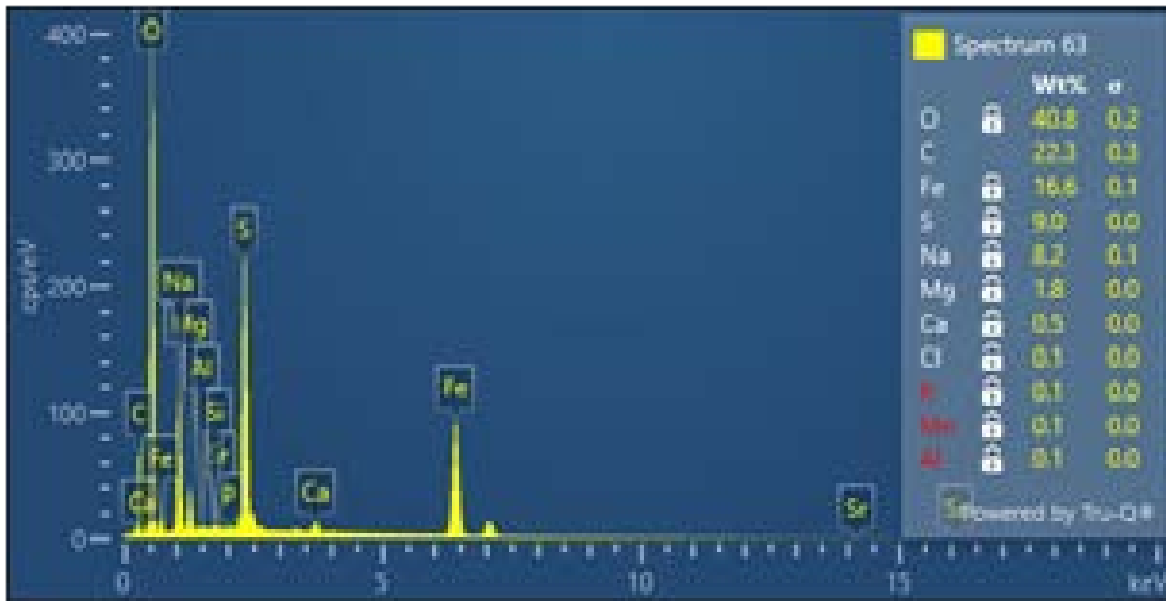
## Site 1 optical map (low rseolution – for rough orientation only)

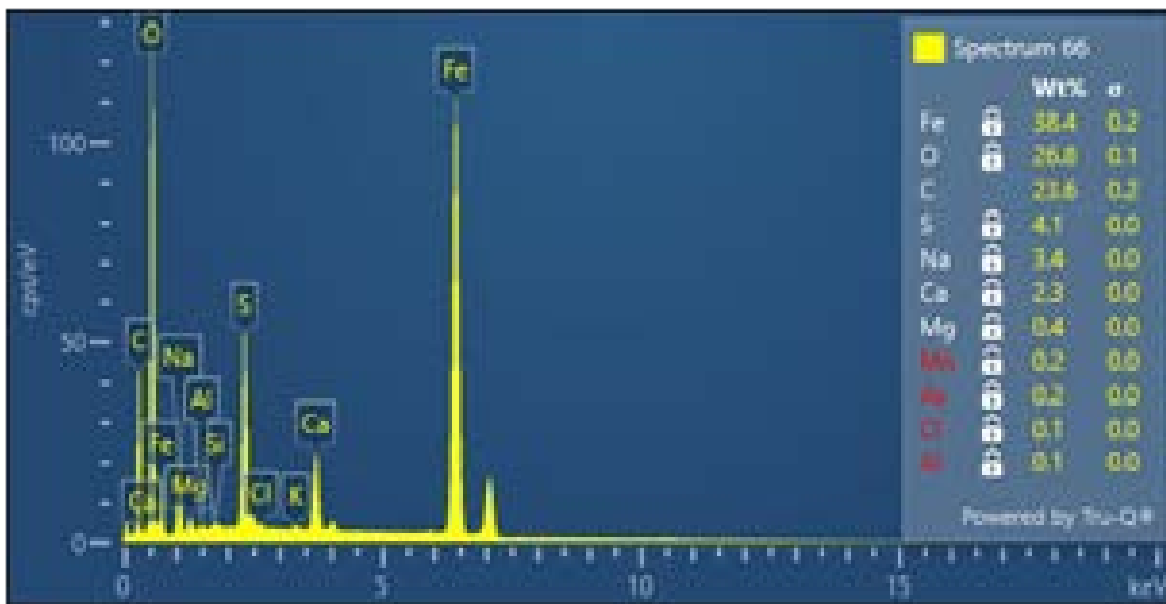
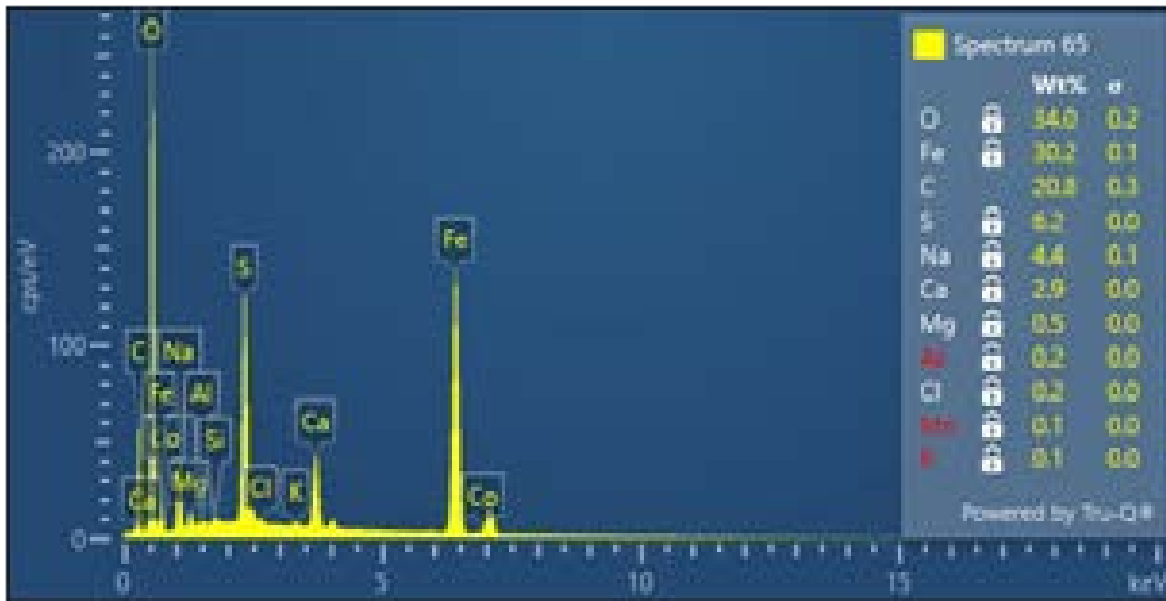


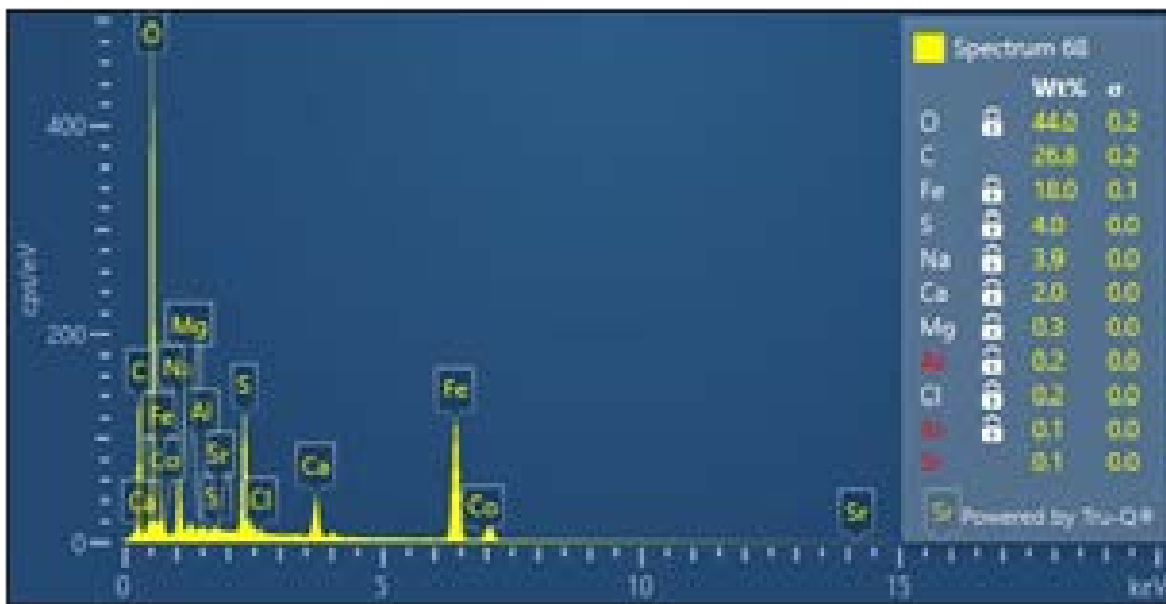
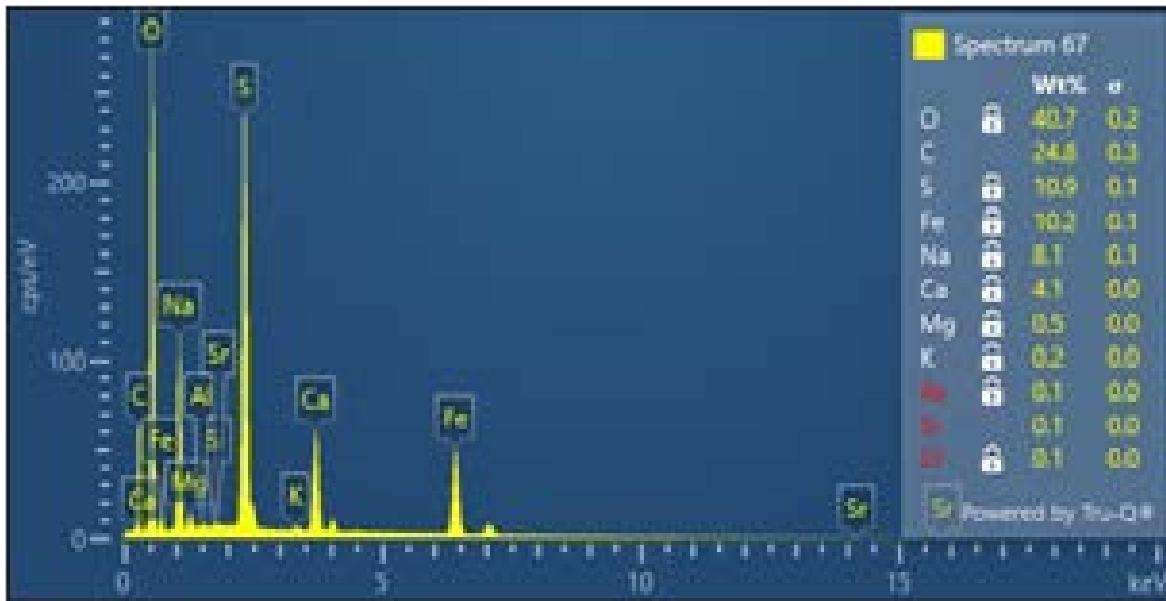
### Site 1 BSE/ED

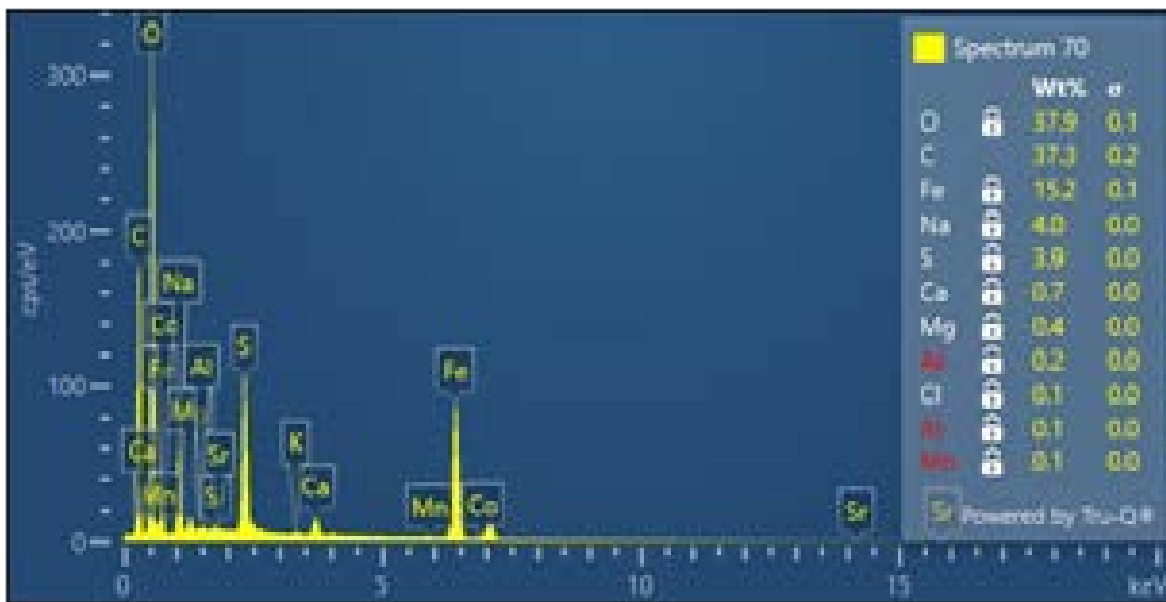
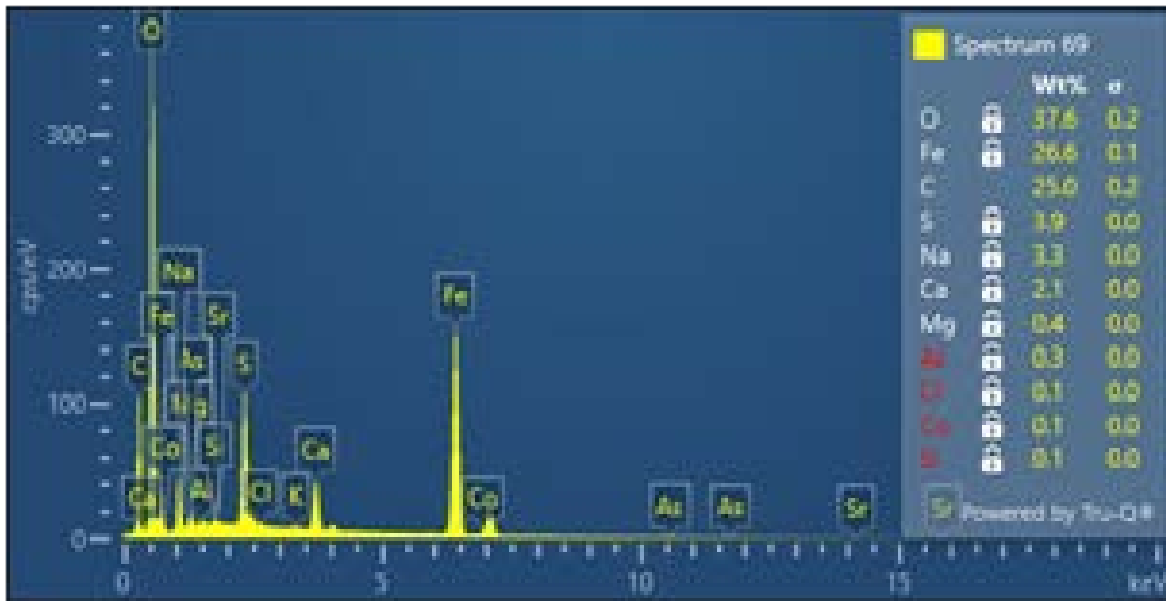
Specimen15-Site1 100x BSE





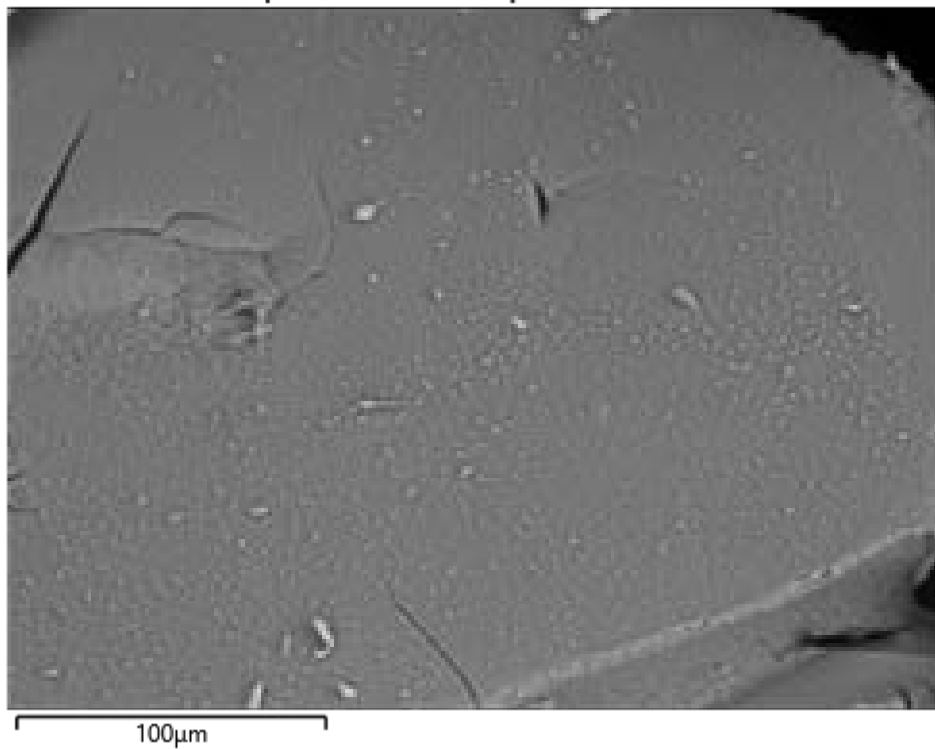




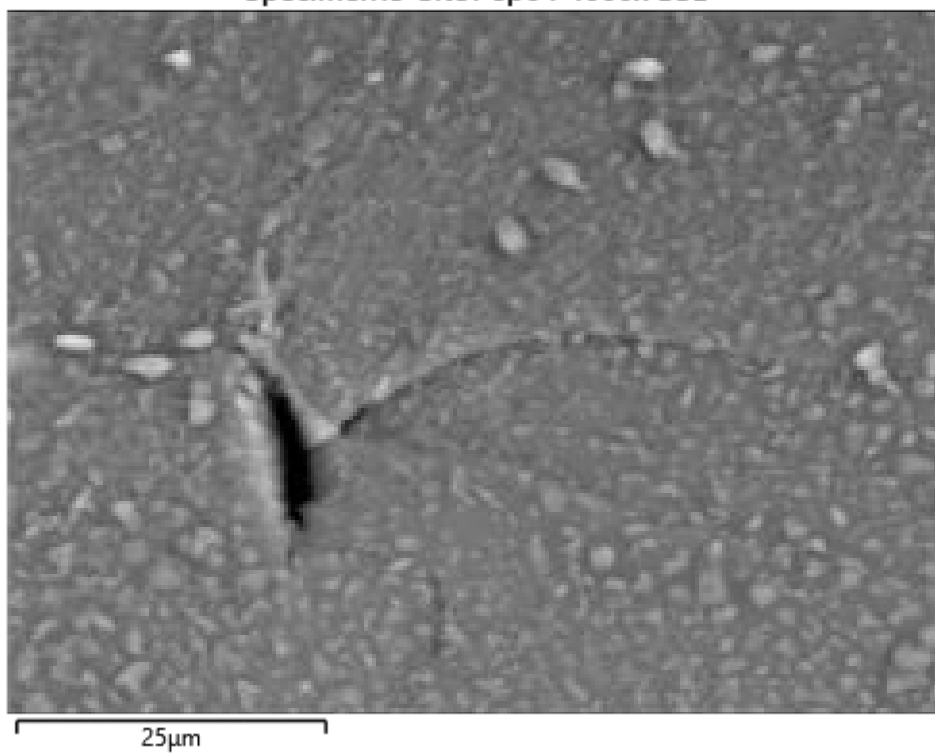


## Site 1 detail images

Specimen15-Site1-sp64 1000x BSE

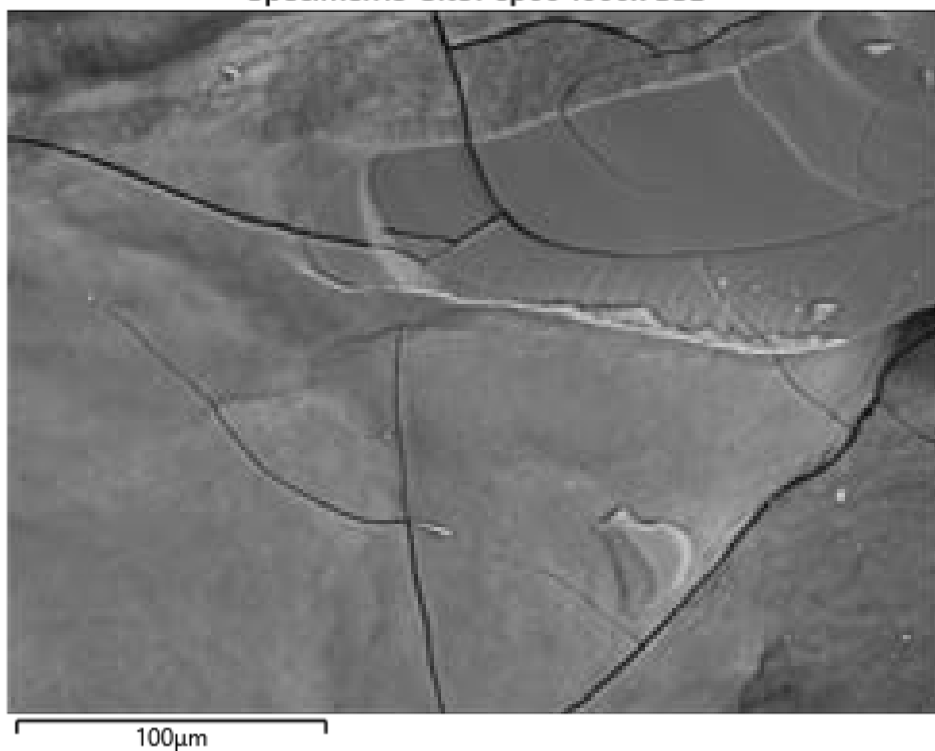


Specimen15-Site1-sp64 4000x BSE

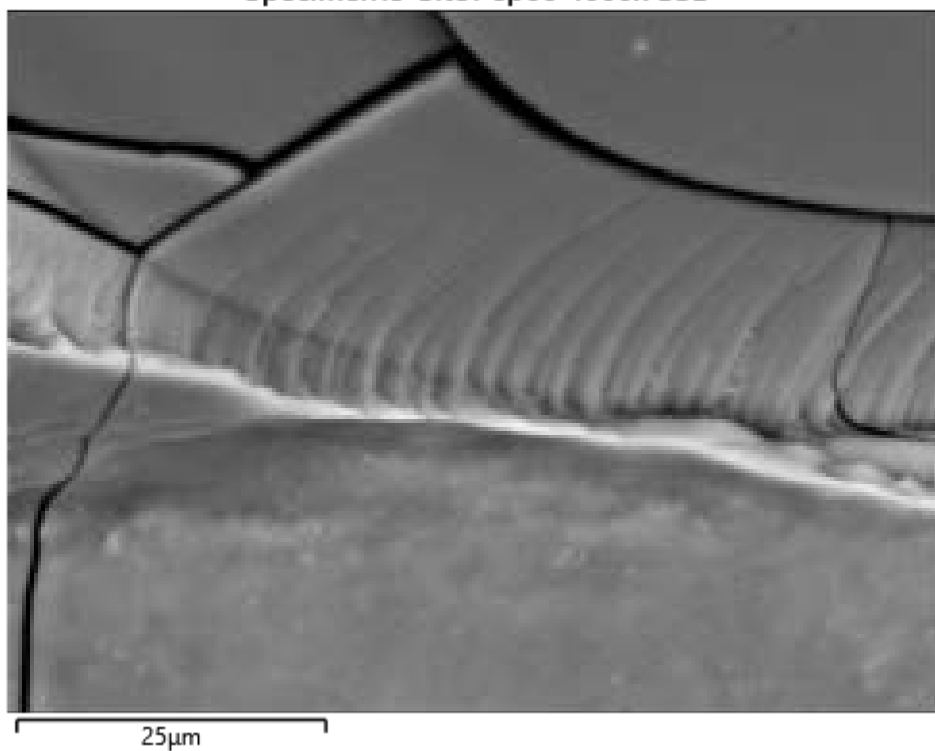




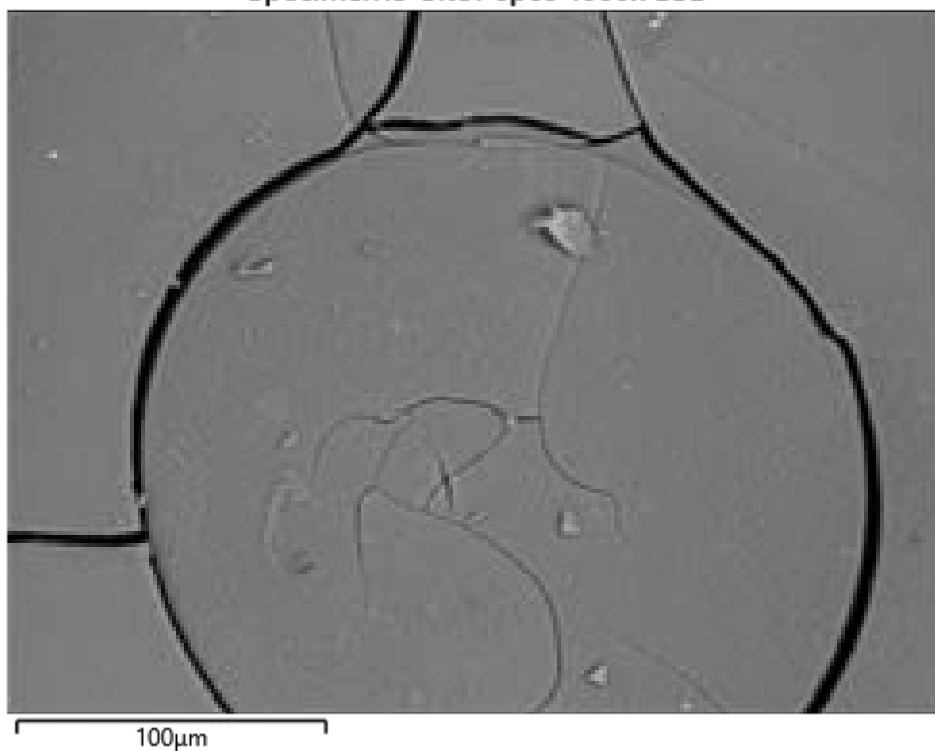
Specimen15-Site1-sp66 1000x BSE



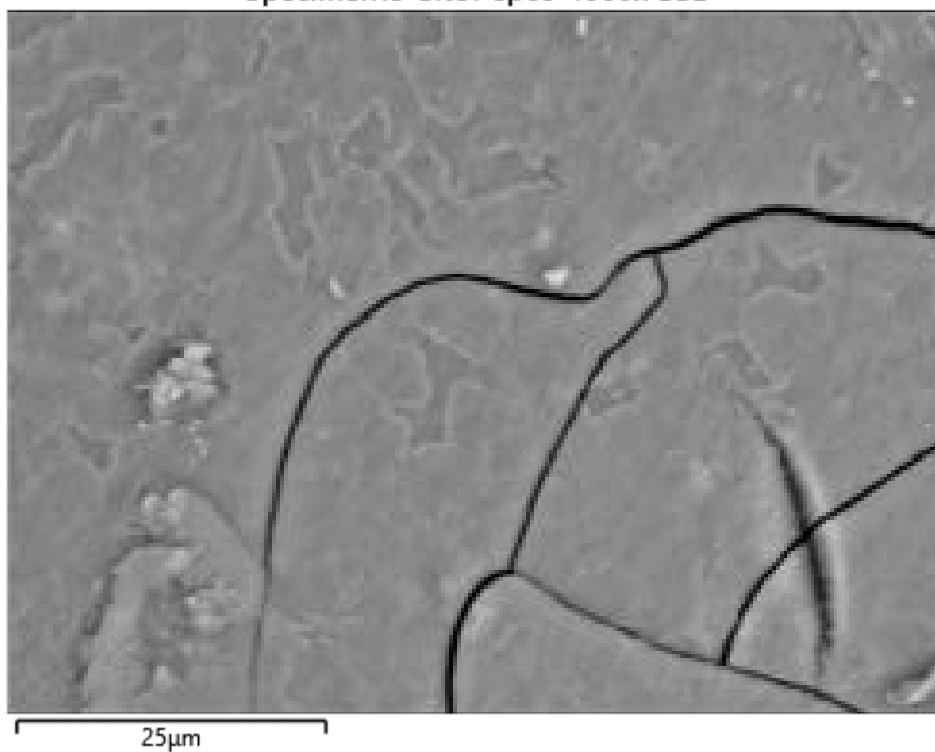
Specimen15-Site1-sp66 4000x BSE



Specimen15-Site1-sp69 1000x BSE



Specimen15-Site1-sp69 4000x BSE

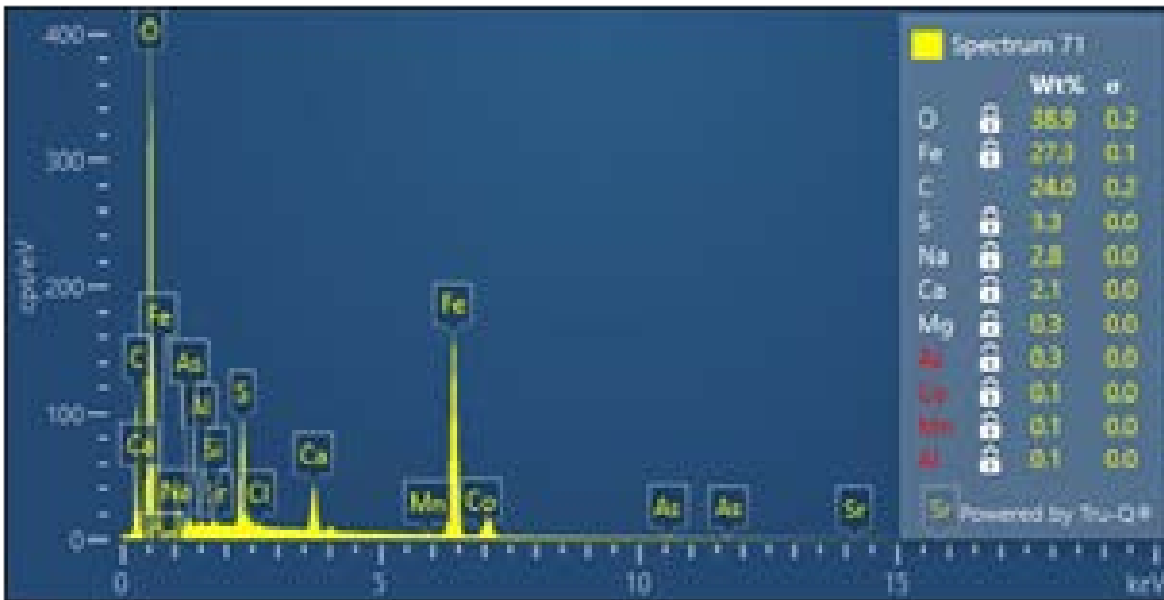
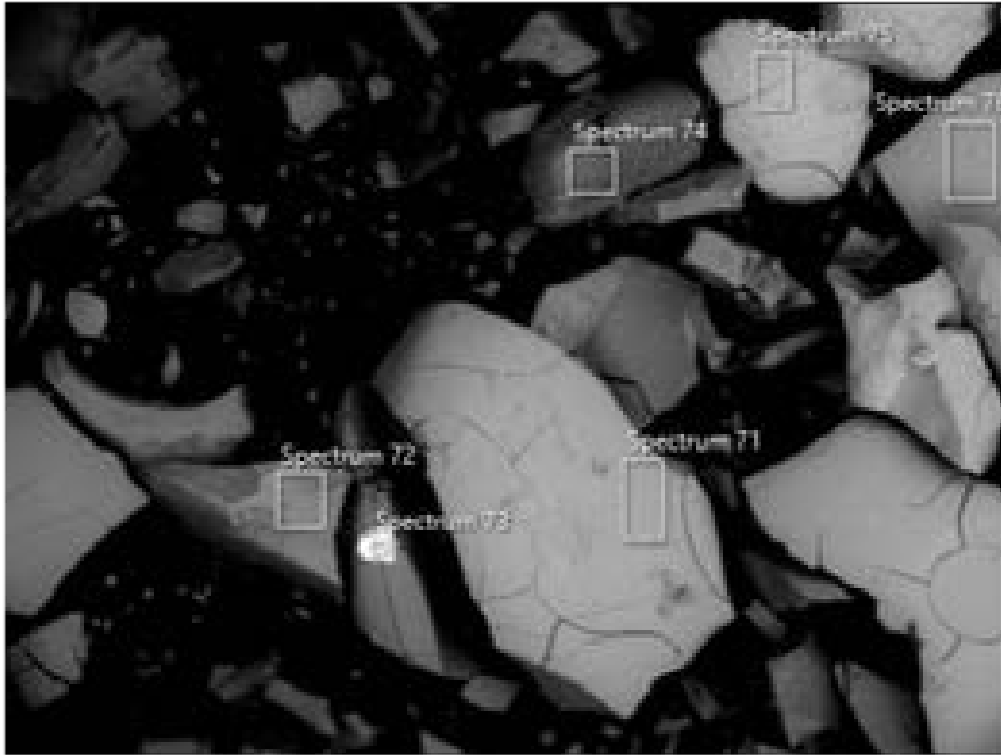


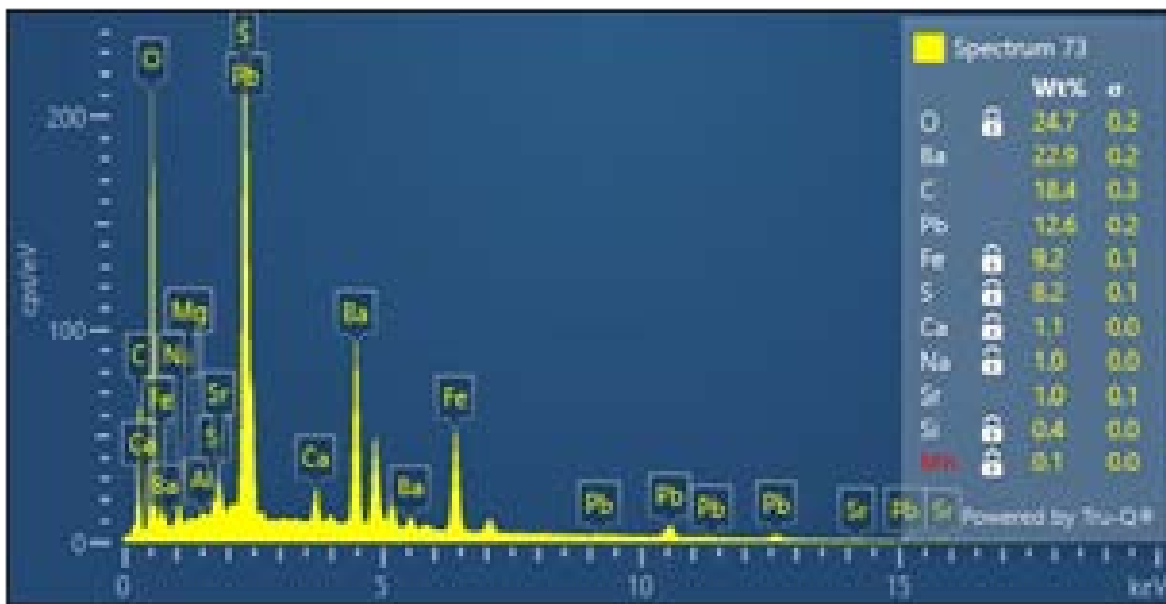
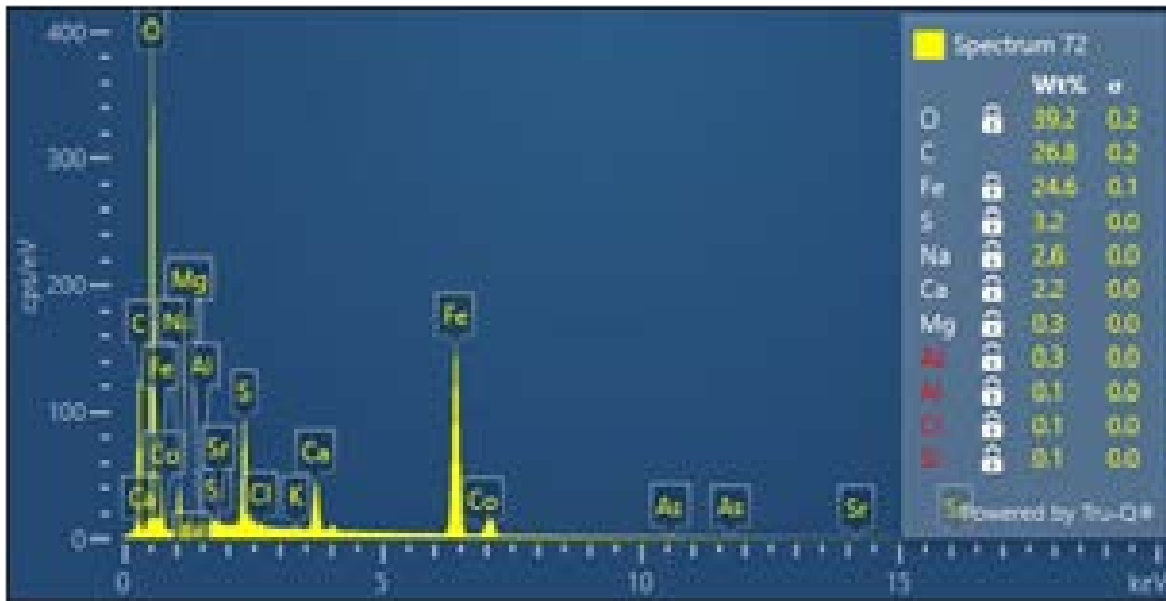
**Site 2 optical**

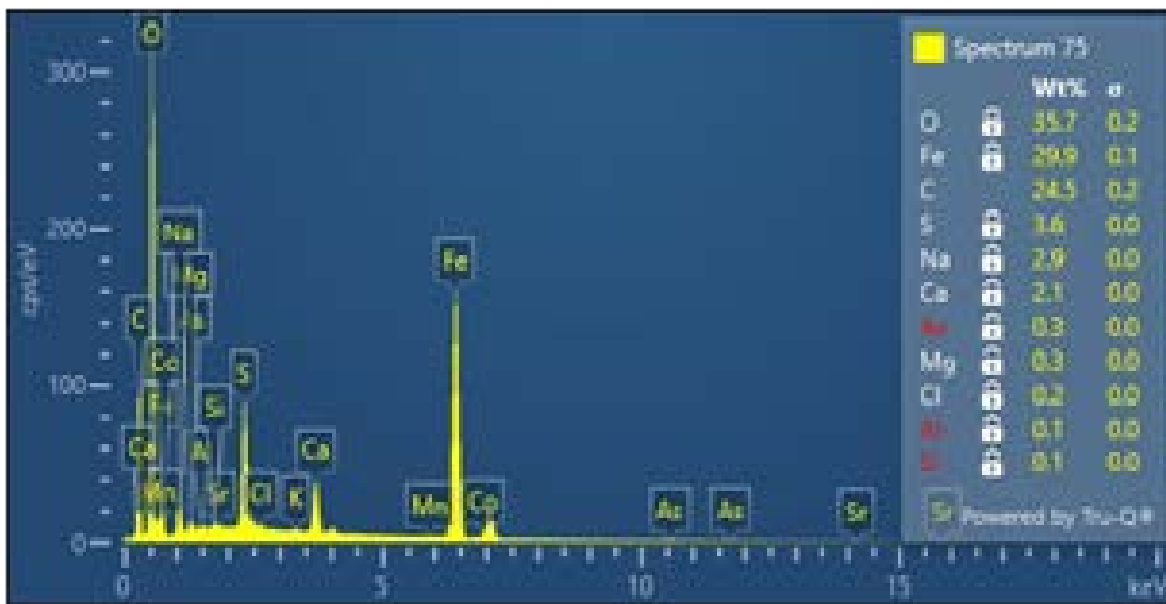
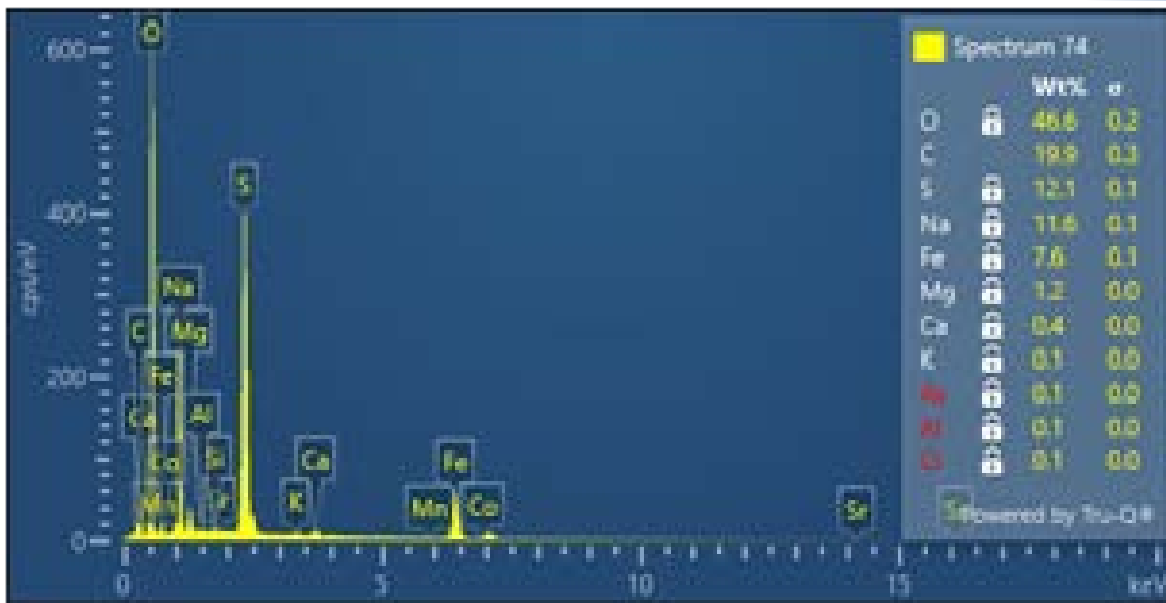


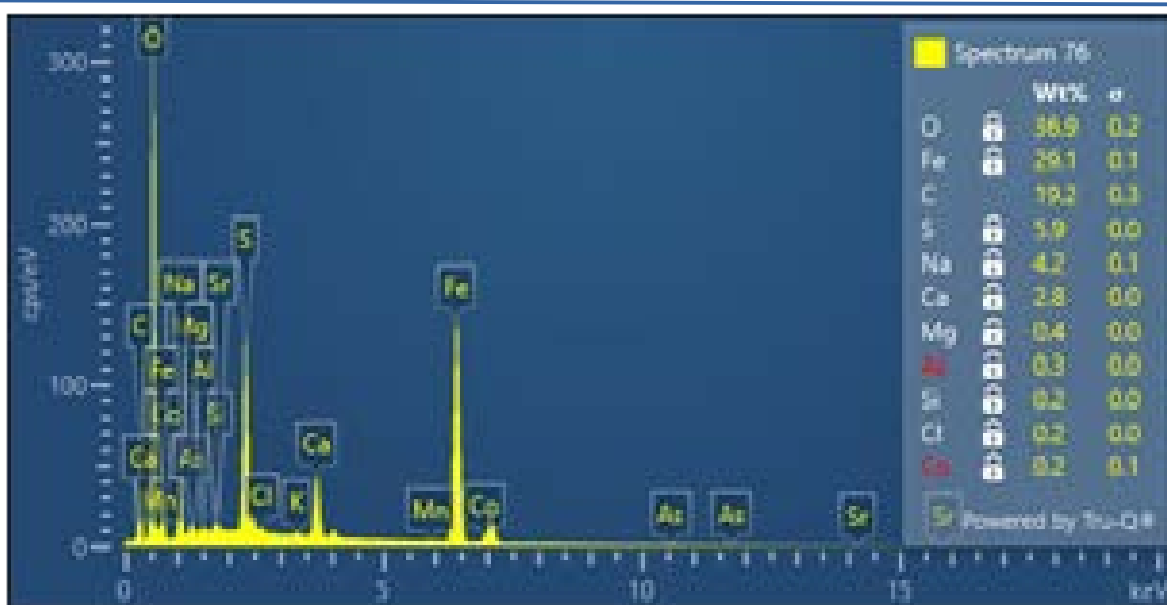
### Site 2 BSE/EDS

Specimen15-Site2 100x BSE



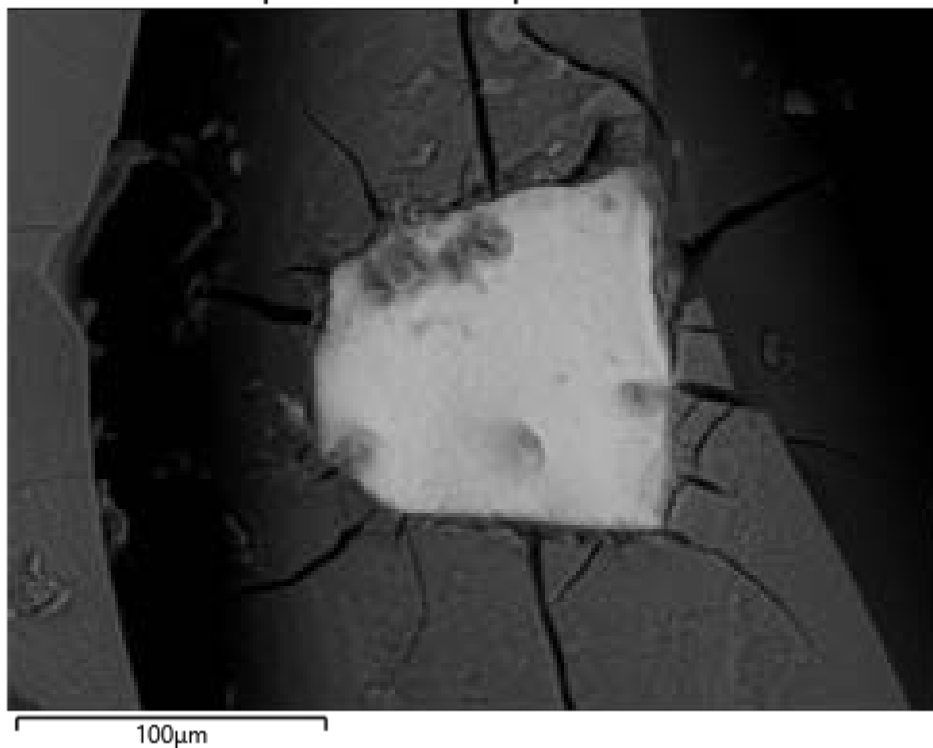




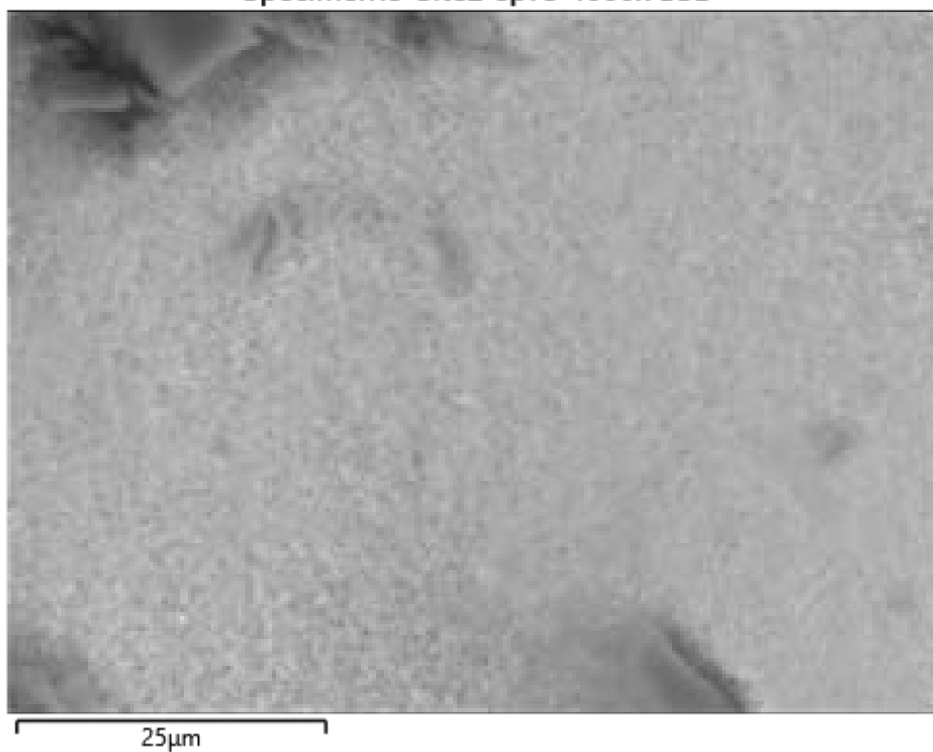


## Site 2 detail images

Specimen15-Site2-sp73 1000x BSE

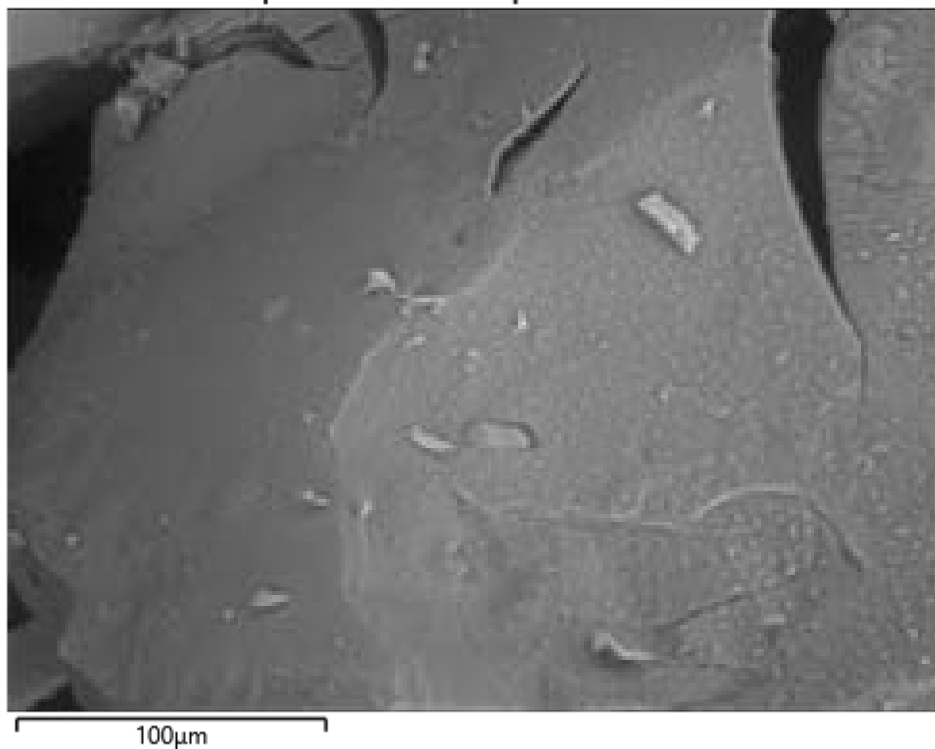


Specimen15-Site2-sp73 4000x BSE

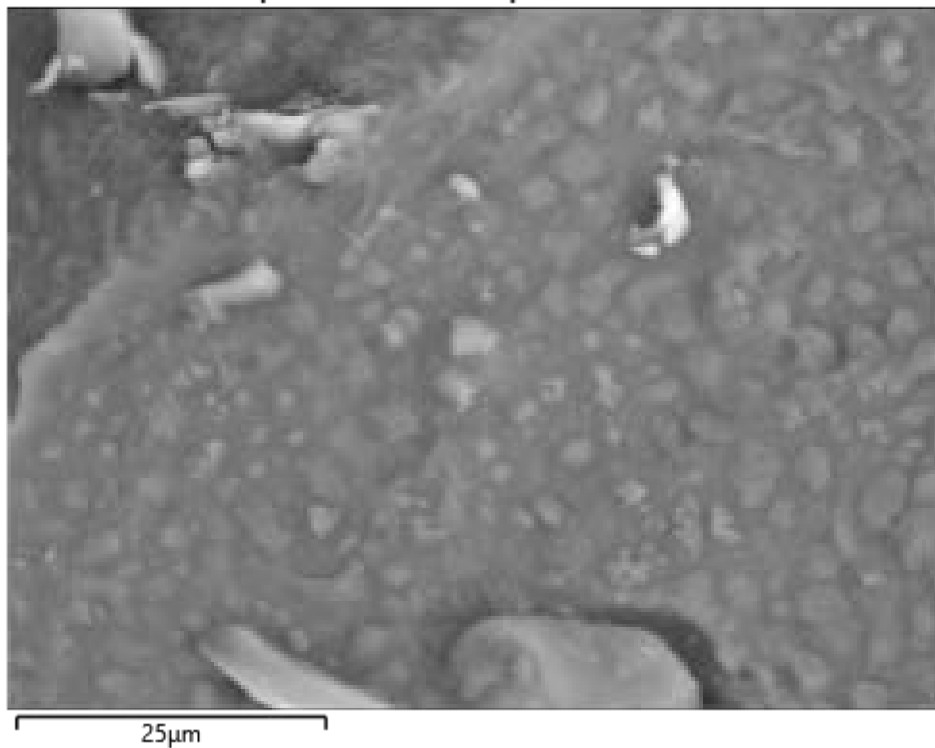




Specimen15-Site2-sp74 1000x BSE

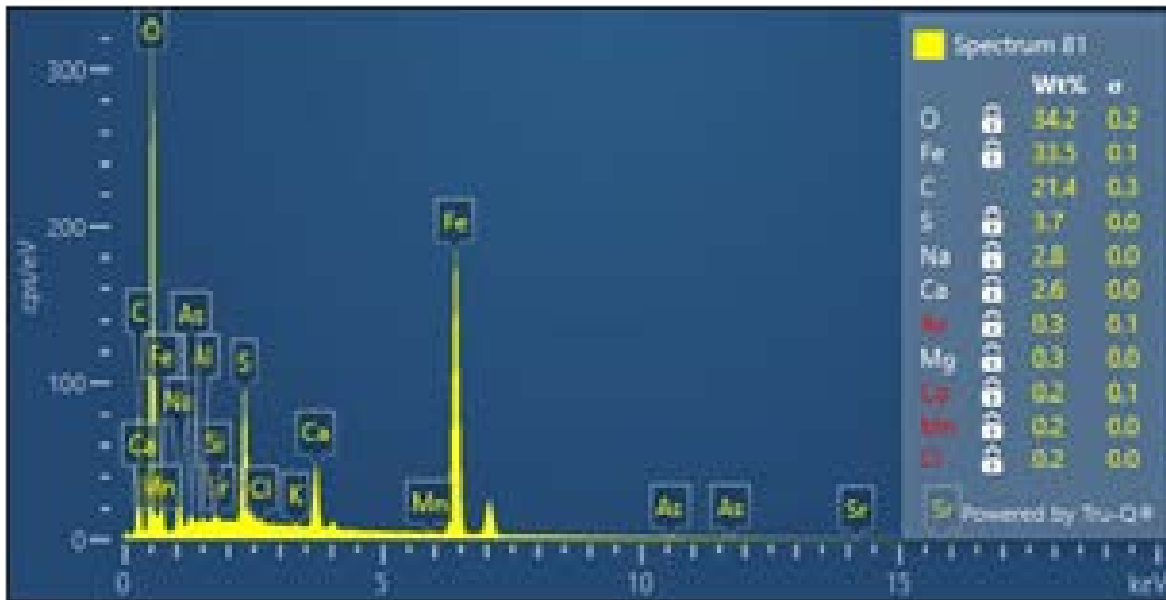
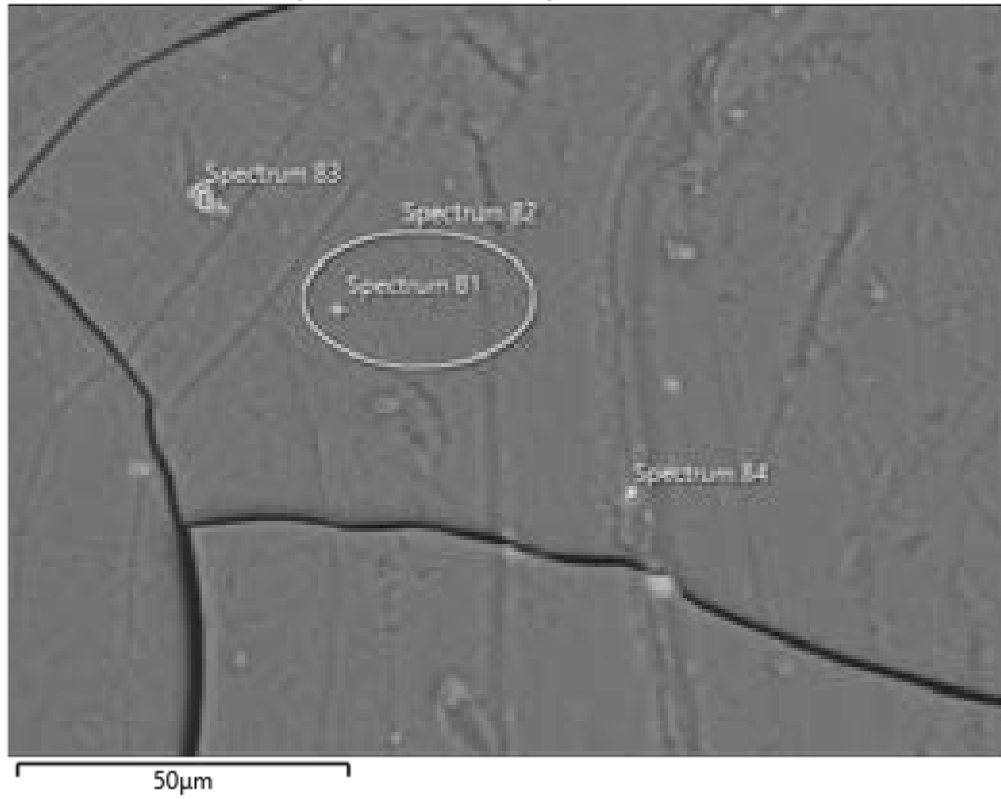


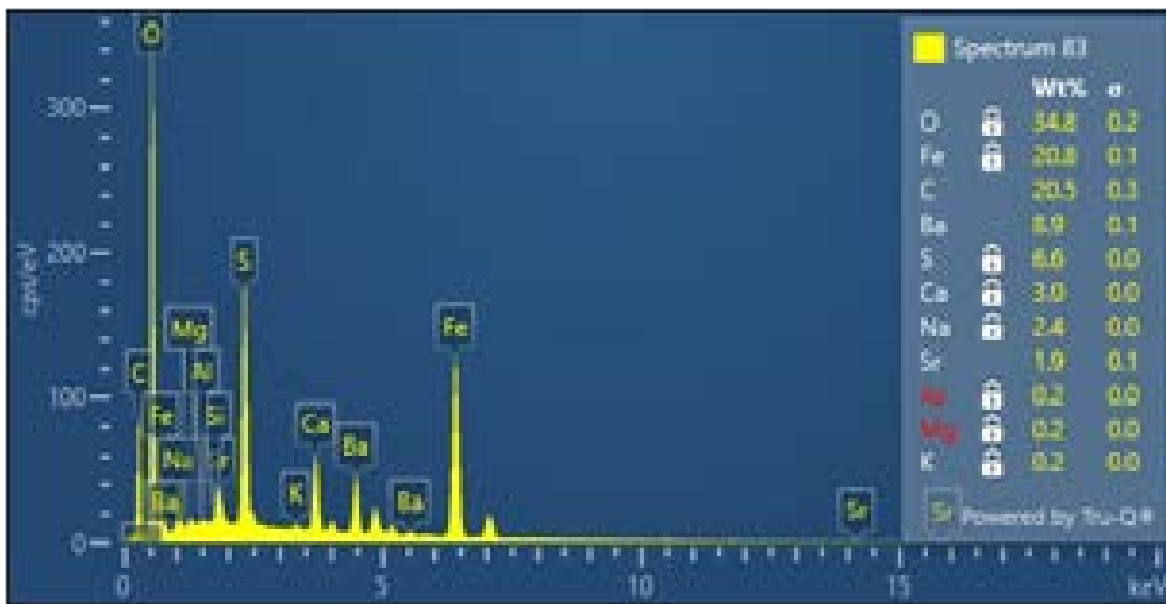
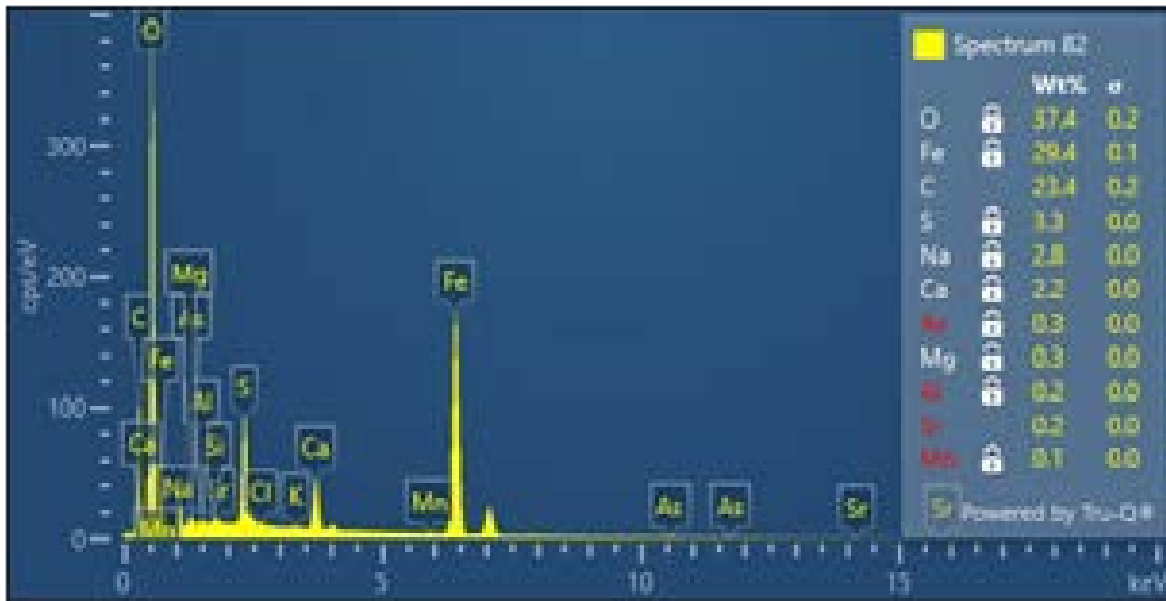
Specimen15-Site2-sp74 4000x BSE

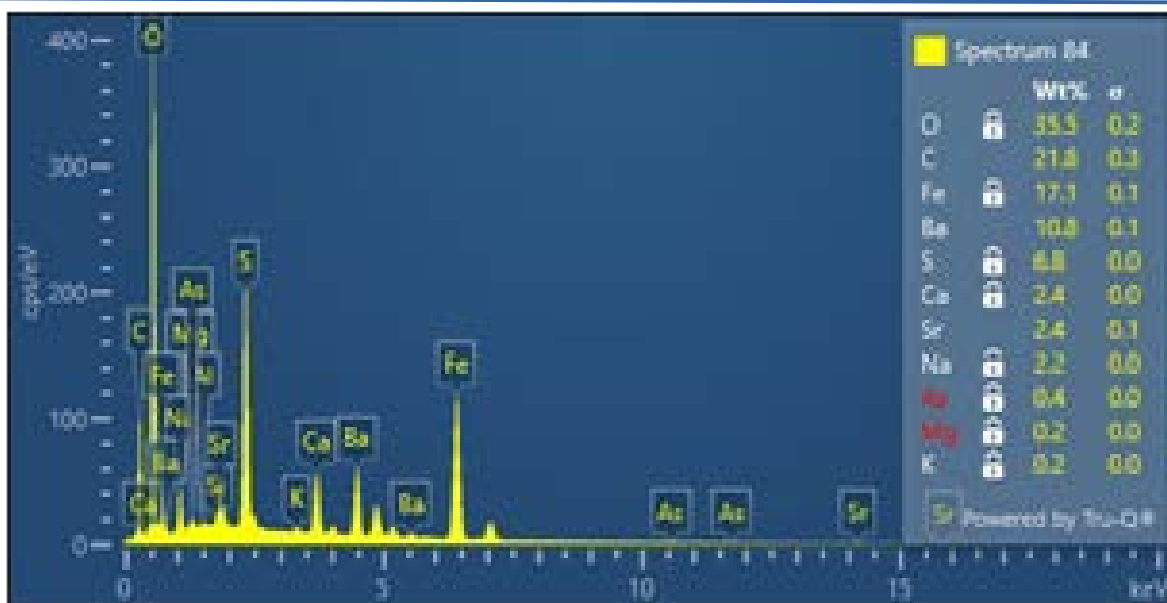


### Site 2 sp71 details

Specimen15-Site2-sp71 2000x BSE







## Appendix C

### Selective Sequential Extraction Results for Biogenic Treatability Test Solids

Groundwater Sample Location	Iron Addition	Arsenic (mg/kg)					Iron (mg/kg)					Molybdenum (mg/kg)					Cobalt (mg/kg)				
		F1	F2	F3	F4	F5	F1	F2	F3	F4	F5	F1	F2	F3	F4	F5	F1	F2	F3	F4	F5
GWC-15	100x	<0.5	0.74	<0.5	<0.5	<0.5	203	<25	45	33	820	<0.5	<0.5	<0.5	<0.5	0.71	<0.5	<0.5	<0.5	<0.5	<0.5
	1000x	<0.5	0.83	<0.5	<0.5	<0.5	1300	<25	97	67	910	<0.5	<0.5	<0.5	0.757	0.72	<0.5	<0.5	<0.5	<0.5	<0.5
GWC-20	100x	<0.5	0.79	<0.5	<0.5	<0.5	82	<25	49	42	570	0.51	1.1	<0.5	1.0	0.71	<0.5	<0.5	<0.5	<0.5	<0.5
	1000x	<0.5	0.92	<0.5	<0.5	<0.5	990	<25	190	180	800	<0.5	1.6	<0.5	1.7	1.04	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

F1: soluble

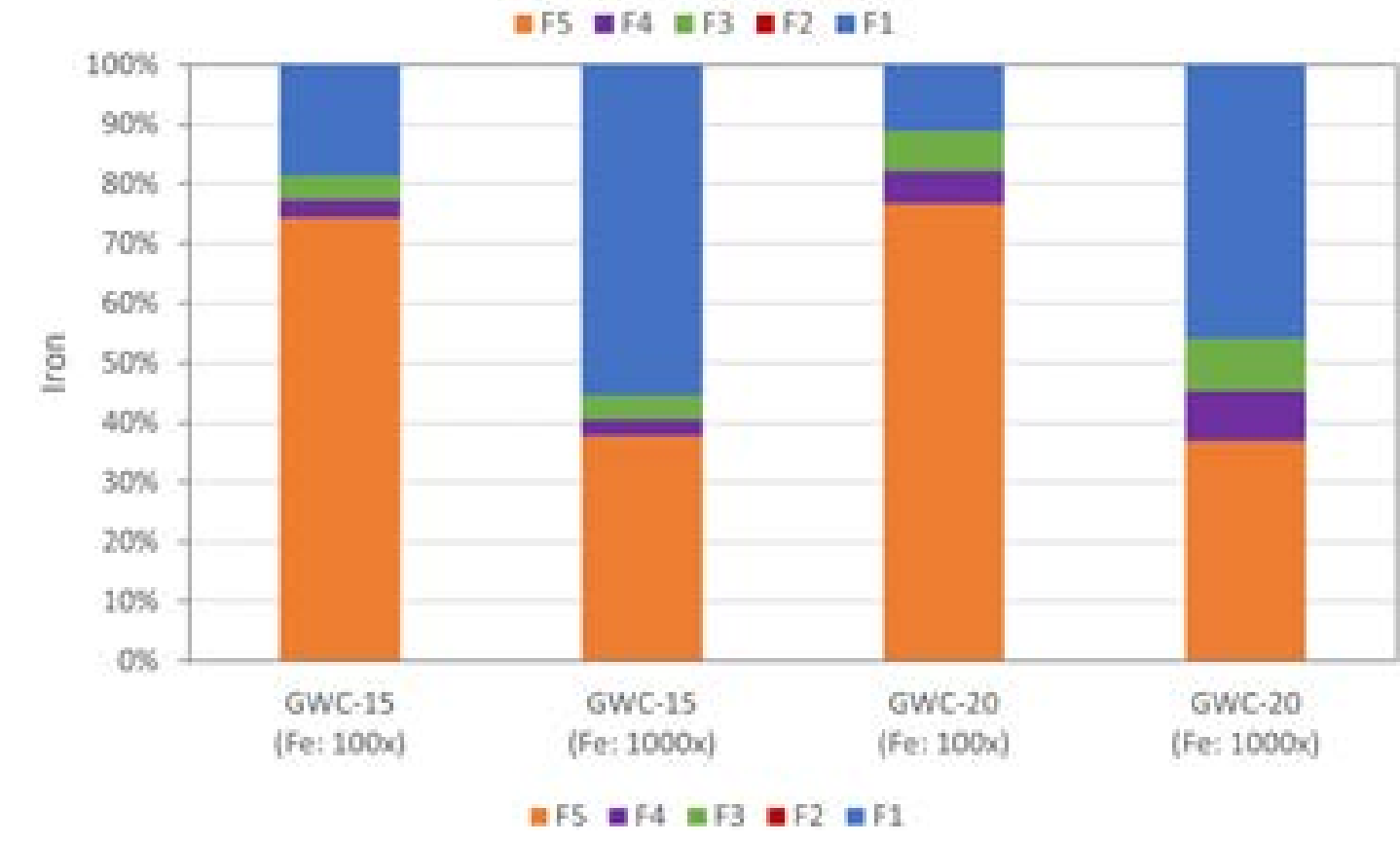
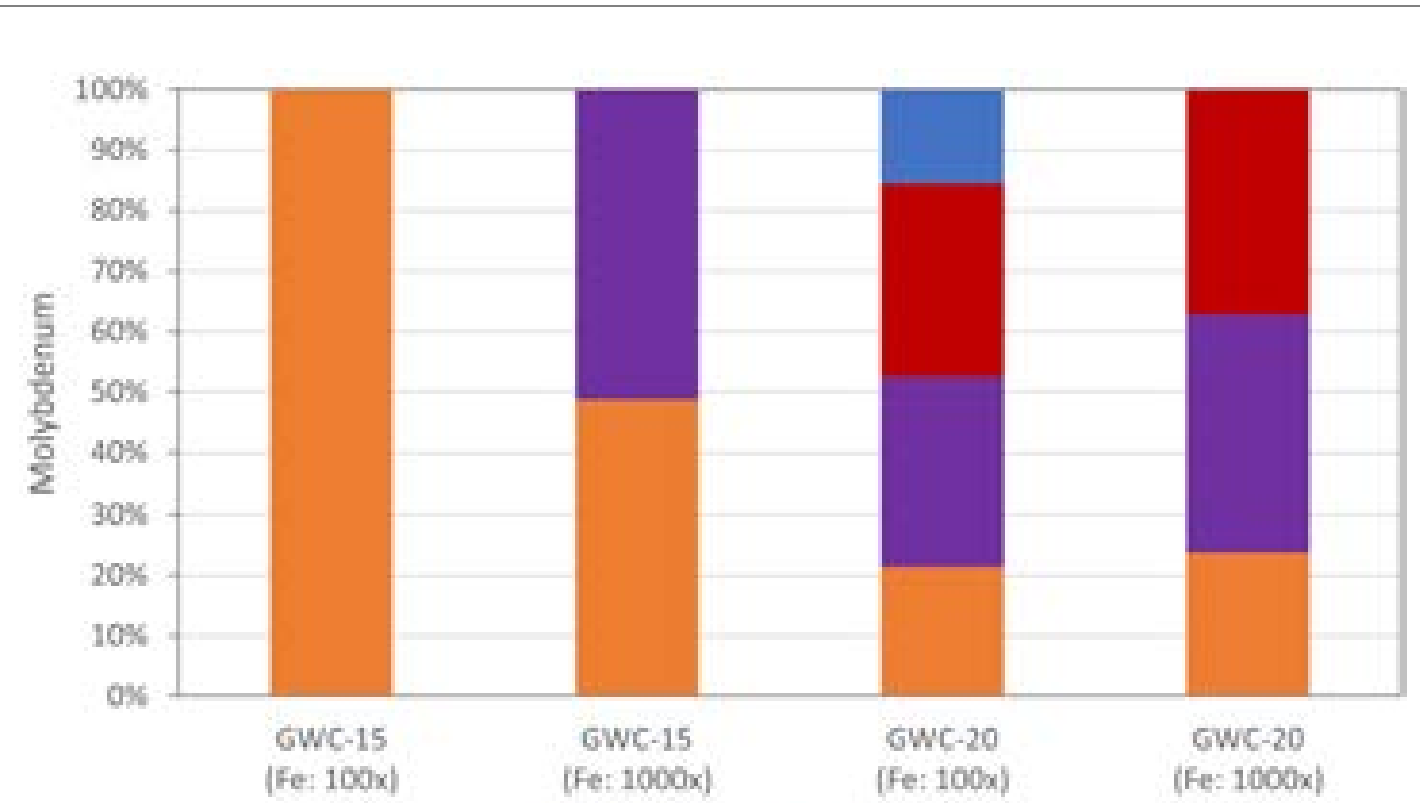
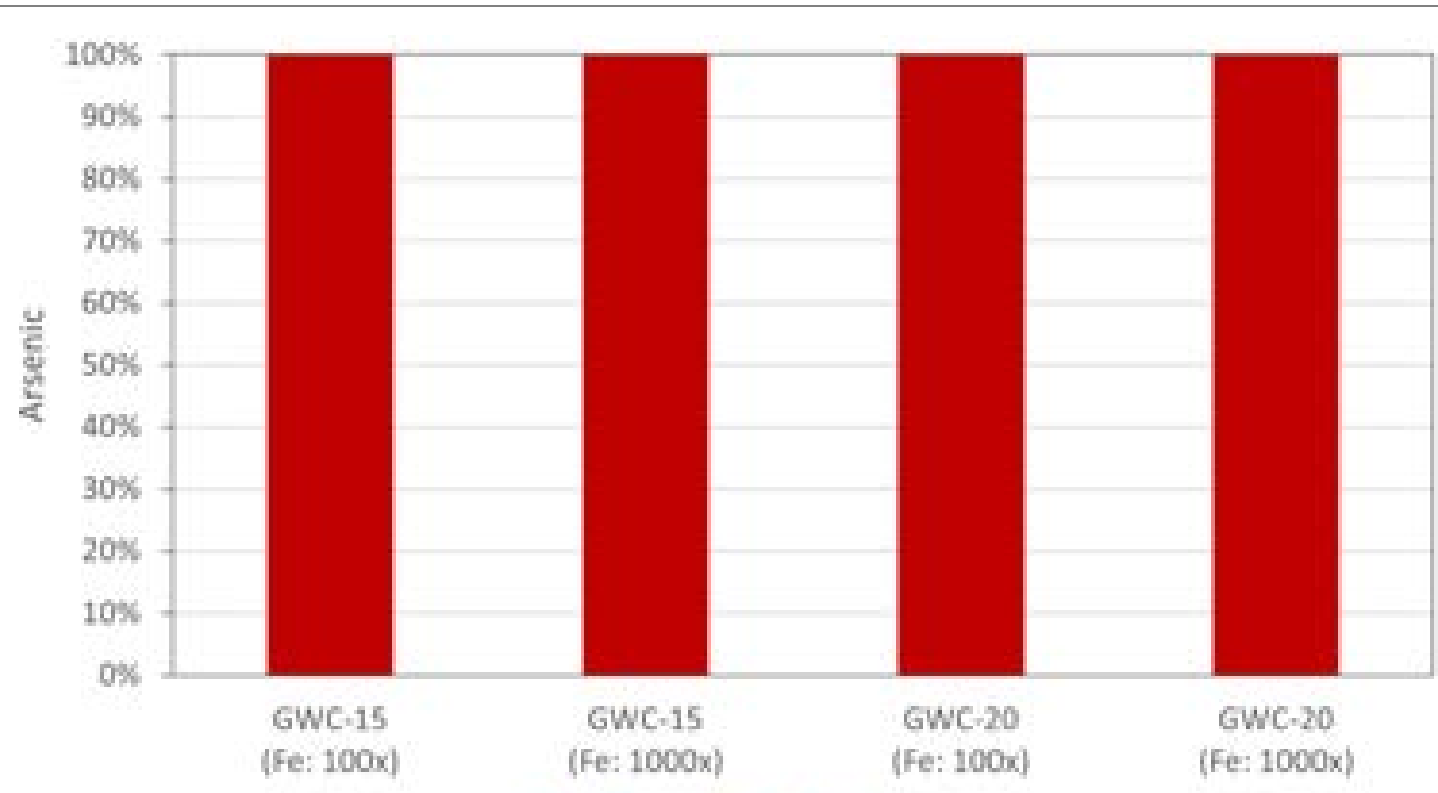
F2: exchangeable

F3: reducible (iron/manganese oxide bound)

F4: oxidizable (sulfide/organic/crystalline oxide bound)

F5: residual

mg/kg: milligrams per kilogram



Notes:

- F1: water soluble
- F2: exchangeable
- F3: reducible (e.g., poorly crystalline metal oxides such as iron oxides)
- F4: oxidizable (e.g., crystalline oxide and crystalline sulfide minerals)
- F5: residual (e.g., silicate phases)



ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

Monday, January 31, 2022

Jessica Goin, PhD  
Anchor QEA, LLC  
6720 SW Macadam Ave. Suite 125  
Portland, OR 97219

RE: A1K0704 - Grumman Road Treatability - 201114-05.01

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A1K0704, which was received by the laboratory on 11/12/2021 at 3:07:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: [dthomas@apex-labs.com](mailto:dthomas@apex-labs.com), or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

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Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1                      3.7 degC

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This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road Treatability</b> Project Number: 201114-05.01 Project Manager: Jessica Goin, PhD	<b>Report ID:</b> A1K0704 - 01 31 22 0437
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**ANALYTICAL REPORT FOR SAMPLES**

**SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GR-SSE-F1-01	A1K0704-01	W	11/09/21 12:30	11/12/21 15:07
GR-SSE-F1-02	A1K0704-02	W	11/09/21 12:35	11/12/21 15:07
GR-SSE-F1-03	A1K0704-03	W	11/09/21 12:40	11/12/21 15:07
GR-SSE-F1-04	A1K0704-04	W	11/09/21 12:45	11/12/21 15:07
GR-SSE-F1-05	A1K0704-05	W	11/09/21 12:50	11/12/21 15:07
GR-SSE-F1-06	A1K0704-06	W	11/09/21 12:55	11/12/21 15:07
GR-SSE-F1-07	A1K0704-07	W	11/09/21 13:00	11/12/21 15:07
GR-SSE-F1-08	A1K0704-08	W	11/09/21 13:05	11/12/21 15:07
GR-SSE-F2-01	A1K0704-09	W	11/10/21 09:00	11/12/21 15:07
GR-SSE-F2-02	A1K0704-10	W	11/10/21 09:05	11/12/21 15:07
GR-SSE-F2-03	A1K0704-11	W	11/10/21 09:10	11/12/21 15:07
GR-SSE-F2-04	A1K0704-12	W	11/10/21 09:15	11/12/21 15:07
GR-SSE-F2-05	A1K0704-13	W	11/10/21 09:20	11/12/21 15:07
GR-SSE-F2-06	A1K0704-14	W	11/10/21 09:25	11/12/21 15:07
GR-SSE-F2-07	A1K0704-15	W	11/10/21 09:30	11/12/21 15:07
GR-SSE-F2-08	A1K0704-16	W	11/10/21 09:35	11/12/21 15:07
GR-SSE-F3-01	A1K0784-01	W	11/12/21 09:00	11/15/21 16:10
GR-SSE-F3-02	A1K0784-02	W	11/12/21 09:05	11/15/21 16:10
GR-SSE-F3-03	A1K0784-03	W	11/12/21 09:10	11/15/21 16:10
GR-SSE-F3-04	A1K0784-04	W	11/12/21 09:15	11/15/21 16:10
GR-SSE-F3-05	A1K0784-05	W	11/12/21 09:20	11/15/21 16:10
GR-SSE-F3-06	A1K0784-06	W	11/12/21 09:25	11/15/21 16:10
GR-SSE-F3-07	A1K0784-07	W	11/12/21 09:30	11/15/21 16:10
GR-SSE-F3-08	A1K0784-08	W	11/12/21 09:35	11/15/21 16:10
GR-SSE-F4-01	A1K0784-09	W	11/15/21 14:30	11/15/21 16:10
GR-SSE-F4-02	A1K0784-10	W	11/15/21 14:35	11/15/21 16:10
GR-SSE-F4-03	A1K0784-11	W	11/15/21 14:40	11/15/21 16:10
GR-SSE-F4-04	A1K0784-12	W	11/15/21 14:45	11/15/21 16:10
GR-SSE-F4-05	A1K0784-13	W	11/15/21 14:50	11/15/21 16:10
GR-SSE-F4-06	A1K0784-14	W	11/15/21 14:55	11/15/21 16:10
GR-SSE-F4-07	A1K0784-15	W	11/15/21 15:00	11/15/21 16:10
GR-SSE-F4-08	A1K0784-16	W	11/15/21 15:05	11/15/21 16:10
GR-SSE-F5-01	A1K0955-01	SO	11/15/21 15:30	11/18/21 12:28

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Darwin Thomas, Business Development Director





**ANALYTICAL REPORT**

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road Treatability</b> Project Number: 201114-05.01 Project Manager: Jessica Goin, PhD	<b>Report ID:</b> A1K0955 - 01 31 22 0437
--	---	--

**ANALYTICAL REPORT FOR SAMPLES**

**SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GR-SSE-F5-02	A1K0955-02	SO	11/15/21 15:35	11/18/21 12:28
GR-SSE-F5-03	A1K0955-03	SO	11/15/21 15:40	11/18/21 12:28
GR-SSE-F5-04	A1K0955-04	SO	11/15/21 15:45	11/18/21 12:28
GR-SSE-F5-05	A1K0955-05	SO	11/15/21 15:50	11/18/21 12:28
GR-SSE-F5-06	A1K0955-06	SO	11/15/21 15:55	11/18/21 12:28
GR-SSE-F5-07	A1K0955-07	SO	11/15/21 16:00	11/18/21 12:28

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Darwin Thomas, Business Development Director



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503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road Treatability</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A1K0955 - 01 31 22 0437</b>
--	---	---

**ANALYTICAL SAMPLE RESULTS**

**Total Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GR-SSE-F5-01 (A1K0955-01) Matrix: SO</b>								
Batch: 21L0252								
Arsenic	ND	0.546	1.09	mg/kg	10	12/07/21 23:54	EPA 6020B	
Cobalt	ND	0.546	1.09	mg/kg	10	12/07/21 23:54	EPA 6020B	
<b>Iron</b>	<b>817</b>	27.3	54.6	mg/kg	10	12/07/21 23:54	EPA 6020B	
<b>Molybdenum</b>	<b>0.707</b>	0.546	1.09	mg/kg	10	12/07/21 23:54	EPA 6020B	J
<b>GR-SSE-F5-02 (A1K0955-02) Matrix: SO</b>								
Batch: 21L0252								
Arsenic	ND	0.524	1.05	mg/kg	10	12/08/21 00:00	EPA 6020B	
Cobalt	ND	0.524	1.05	mg/kg	10	12/08/21 00:00	EPA 6020B	
<b>Iron</b>	<b>914</b>	26.2	52.4	mg/kg	10	12/08/21 00:00	EPA 6020B	
<b>Molybdenum</b>	<b>0.721</b>	0.524	1.05	mg/kg	10	12/08/21 00:00	EPA 6020B	J
<b>GR-SSE-F5-03 (A1K0955-03) Matrix: SO</b>								
Batch: 21L0252								
Arsenic	ND	0.524	1.05	mg/kg	10	12/08/21 00:05	EPA 6020B	
Cobalt	ND	0.524	1.05	mg/kg	10	12/08/21 00:05	EPA 6020B	
<b>Iron</b>	<b>571</b>	26.2	52.4	mg/kg	10	12/08/21 00:05	EPA 6020B	
<b>Molybdenum</b>	<b>0.714</b>	0.524	1.05	mg/kg	10	12/08/21 00:05	EPA 6020B	J
<b>GR-SSE-F5-04 (A1K0955-04) Matrix: SO</b>								
Batch: 21L0252								
Arsenic	ND	0.551	1.10	mg/kg	10	12/08/21 00:11	EPA 6020B	
Cobalt	ND	0.551	1.10	mg/kg	10	12/08/21 00:11	EPA 6020B	
<b>Iron</b>	<b>796</b>	27.5	55.1	mg/kg	10	12/08/21 00:11	EPA 6020B	
<b>Molybdenum</b>	<b>1.04</b>	0.551	1.10	mg/kg	10	12/08/21 00:11	EPA 6020B	J
<b>GR-SSE-F5-05 (A1K0955-05) Matrix: SO</b>								
Batch: 21L0252								
Arsenic	ND	0.502	1.00	mg/kg	10	12/08/21 00:27	EPA 6020B	
Cobalt	ND	0.502	1.00	mg/kg	10	12/08/21 00:27	EPA 6020B	
<b>Iron</b>	<b>460</b>	25.1	50.2	mg/kg	10	12/08/21 00:27	EPA 6020B	
<b>Molybdenum</b>	<b>0.580</b>	0.502	1.00	mg/kg	10	12/08/21 00:27	EPA 6020B	J
<b>GR-SSE-F5-06 (A1K0955-06) Matrix: SO</b>								

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503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road Treatability</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A1K0955 - 01 31 22 0437</b>
--	---	---

**ANALYTICAL SAMPLE RESULTS**

**Total Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
<b>GR-SSE-F5-06 (A1K0955-06)</b>		<b>Matrix: SO</b>							
Batch: 21L0252									
Arsenic	ND	0.497	0.994	mg/kg	10	12/08/21 00:33	EPA 6020B		
Cobalt	ND	0.497	0.994	mg/kg	10	12/08/21 00:33	EPA 6020B		
<b>Iron</b>	<b>657</b>	24.9	49.7	mg/kg	10	12/08/21 00:33	EPA 6020B		
<b>Molybdenum</b>	<b>0.602</b>	0.497	0.994	mg/kg	10	12/08/21 00:33	EPA 6020B	<b>J</b>	
<b>GR-SSE-F5-07 (A1K0955-07)</b>		<b>Matrix: SO</b>							
Batch: 21L0252									
Arsenic	ND	0.522	1.04	mg/kg	10	12/08/21 00:38	EPA 6020B		
Cobalt	ND	0.522	1.04	mg/kg	10	12/08/21 00:38	EPA 6020B		
<b>Iron</b>	<b>841</b>	26.1	52.2	mg/kg	10	12/08/21 00:38	EPA 6020B		
<b>Molybdenum</b>	<b>1.10</b>	0.522	1.04	mg/kg	10	12/08/21 00:38	EPA 6020B		

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road Treatability</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A1K0955 - 01 31 22 0437</b>
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**ANALYTICAL SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
<b>GR-SSE-F1-01 (A1K0704-01)</b>				<b>Matrix: W</b>					
Batch: 21K1008									
Arsenic	ND	5.00	10.0	ug/L	10	12/01/21 16:32	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 16:32	EPA 6020B (Diss)	R-04	
<b>Iron</b>	<b>2050</b>	250	500	ug/L	10	12/01/21 16:32	EPA 6020B (Diss)		
Molybdenum	ND	5.00	10.0	ug/L	10	12/01/21 16:32	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F1-02 (A1K0704-02)</b>				<b>Matrix: W</b>					
Batch: 21K1008									
Arsenic	ND	5.00	10.0	ug/L	10	12/01/21 16:37	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 16:37	EPA 6020B (Diss)	R-04	
<b>Iron</b>	<b>13400</b>	250	500	ug/L	10	12/01/21 16:37	EPA 6020B (Diss)		
Molybdenum	ND	5.00	10.0	ug/L	10	12/01/21 16:37	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F1-03 (A1K0704-03)</b>				<b>Matrix: W</b>					
Batch: 21K1008									
Arsenic	ND	5.00	10.0	ug/L	10	12/01/21 16:42	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 16:42	EPA 6020B (Diss)	R-04	
<b>Iron</b>	<b>832</b>	250	500	ug/L	10	12/01/21 16:42	EPA 6020B (Diss)		
<b>Molybdenum</b>	<b>5.19</b>	5.00	10.0	ug/L	10	12/01/21 16:42	EPA 6020B (Diss)	<b>J, R-04</b>	
<b>GR-SSE-F1-04 (A1K0704-04)</b>				<b>Matrix: W</b>					
Batch: 21K1008									
Arsenic	ND	5.00	10.0	ug/L	10	12/01/21 17:02	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 17:02	EPA 6020B (Diss)	R-04	
<b>Iron</b>	<b>10000</b>	250	500	ug/L	10	12/01/21 17:02	EPA 6020B (Diss)		
Molybdenum	ND	5.00	10.0	ug/L	10	12/01/21 17:02	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F1-05 (A1K0704-05)</b>				<b>Matrix: W</b>					
Batch: 21K1008									
Arsenic	ND	5.00	10.0	ug/L	10	12/01/21 17:07	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 17:07	EPA 6020B (Diss)	R-04	
Iron	ND	250	500	ug/L	10	12/01/21 17:07	EPA 6020B (Diss)	R-04	
Molybdenum	ND	5.00	10.0	ug/L	10	12/01/21 17:07	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F1-06 (A1K0704-06)</b>				<b>Matrix: W</b>					

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road Treatability</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A1K0955 - 01 31 22 0437</b>
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**ANALYTICAL SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
<b>GR-SSE-F1-06 (A1K0704-06)</b>				<b>Matrix: W</b>					
Batch: 21K1008									
Arsenic	ND	5.00	10.0	ug/L	10	12/01/21 17:12	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 17:12	EPA 6020B (Diss)	R-04	
Iron	ND	250	500	ug/L	10	12/01/21 17:12	EPA 6020B (Diss)	R-04	
Molybdenum	ND	5.00	10.0	ug/L	10	12/01/21 17:12	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F1-07 (A1K0704-07)</b>				<b>Matrix: W</b>					
Batch: 21K1008									
Arsenic	ND	5.00	10.0	ug/L	10	12/01/21 17:17	EPA 6020B (Diss)	R-04	
<b>Cobalt</b>	<b>5.06</b>	5.00	10.0	ug/L	10	12/01/21 17:17	EPA 6020B (Diss)	<b>J, R-04</b>	
<b>Iron</b>	<b>11400</b>	250	500	ug/L	10	12/01/21 17:17	EPA 6020B (Diss)		
Molybdenum	ND	5.00	10.0	ug/L	10	12/01/21 17:17	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F1-08 (A1K0704-08)</b>				<b>Matrix: W</b>					
Batch: 21K1008									
Arsenic	ND	5.00	10.0	ug/L	10	12/01/21 17:22	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 17:22	EPA 6020B (Diss)	R-04	
Iron	ND	250	500	ug/L	10	12/01/21 17:22	EPA 6020B (Diss)	R-04	
Molybdenum	ND	5.00	10.0	ug/L	10	12/01/21 17:22	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F2-01 (A1K0704-09)</b>				<b>Matrix: W</b>					
Batch: 21K1008									
<b>Arsenic</b>	<b>7.43</b>	5.00	10.0	ug/L	10	12/01/21 17:27	EPA 6020B (Diss)	<b>J, R-04</b>	
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 17:27	EPA 6020B (Diss)	R-04	
Iron	ND	250	500	ug/L	10	12/01/21 17:27	EPA 6020B (Diss)	R-04	
Molybdenum	ND	5.00	10.0	ug/L	10	12/01/21 17:27	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F2-02 (A1K0704-10)</b>				<b>Matrix: W</b>					
Batch: 21K1008									
<b>Arsenic</b>	<b>8.29</b>	5.00	10.0	ug/L	10	12/01/21 17:32	EPA 6020B (Diss)	<b>J, R-04</b>	
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 17:32	EPA 6020B (Diss)	R-04	
Iron	ND	250	500	ug/L	10	12/01/21 17:32	EPA 6020B (Diss)	R-04	
Molybdenum	ND	5.00	10.0	ug/L	10	12/01/21 17:32	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F2-03 (A1K0704-11)</b>				<b>Matrix: W</b>					

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Darwin Thomas, Business Development Director



**ANALYTICAL REPORT**

**Apex Laboratories, LLC**

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Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road Treatability</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A1K0955 - 01 31 22 0437</b>
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**ANALYTICAL SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GR-SSE-F2-03 (A1K0704-11) Matrix: W</b>								
Batch: 21K1008								
Arsenic	<b>7.85</b>	5.00	10.0	ug/L	10	12/01/21 17:37	EPA 6020B (Diss)	<b>J, R-04</b>
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 17:37	EPA 6020B (Diss)	R-04
Iron	ND	250	500	ug/L	10	12/01/21 17:37	EPA 6020B (Diss)	R-04
Molybdenum	<b>10.7</b>	5.00	10.0	ug/L	10	12/01/21 17:37	EPA 6020B (Diss)	<b>R-04</b>
<b>GR-SSE-F2-04 (A1K0704-12) Matrix: W</b>								
Batch: 21K1008								
Arsenic	<b>9.17</b>	5.00	10.0	ug/L	10	12/01/21 17:42	EPA 6020B (Diss)	<b>J, R-04</b>
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 17:42	EPA 6020B (Diss)	R-04
Iron	ND	250	500	ug/L	10	12/01/21 17:42	EPA 6020B (Diss)	R-04
Molybdenum	<b>16.4</b>	5.00	10.0	ug/L	10	12/01/21 17:42	EPA 6020B (Diss)	
<b>GR-SSE-F2-05 (A1K0704-13) Matrix: W</b>								
Batch: 21K1008								
Arsenic	<b>22.2</b>	5.00	10.0	ug/L	10	12/01/21 17:47	EPA 6020B (Diss)	
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 17:47	EPA 6020B (Diss)	R-04
Iron	ND	250	500	ug/L	10	12/01/21 17:47	EPA 6020B (Diss)	R-04
Molybdenum	ND	5.00	10.0	ug/L	10	12/01/21 17:47	EPA 6020B (Diss)	R-04
<b>GR-SSE-F2-06 (A1K0704-14) Matrix: W</b>								
Batch: 21K1008								
Arsenic	<b>27.8</b>	5.00	10.0	ug/L	10	12/01/21 18:07	EPA 6020B (Diss)	
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 18:07	EPA 6020B (Diss)	R-04
Iron	ND	250	500	ug/L	10	12/01/21 18:07	EPA 6020B (Diss)	R-04
Molybdenum	<b>7.55</b>	5.00	10.0	ug/L	10	12/01/21 18:07	EPA 6020B (Diss)	<b>J, R-04</b>
<b>GR-SSE-F2-07 (A1K0704-15) Matrix: W</b>								
Batch: 21K1008								
Arsenic	<b>8.59</b>	5.00	10.0	ug/L	10	12/01/21 18:17	EPA 6020B (Diss)	<b>J, R-04</b>
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 18:17	EPA 6020B (Diss)	R-04
Iron	ND	250	500	ug/L	10	12/01/21 18:17	EPA 6020B (Diss)	R-04
Molybdenum	<b>15.2</b>	5.00	10.0	ug/L	10	12/01/21 18:17	EPA 6020B (Diss)	
<b>GR-SSE-F2-08 (A1K0704-16) Matrix: W</b>								

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road Treatability</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A1K0955 - 01 31 22 0437</b>
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**ANALYTICAL SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
<b>GR-SSE-F2-08 (A1K0704-16)</b>				<b>Matrix: W</b>					
Batch: 21K1008									
Arsenic	ND	5.00	10.0	ug/L	10	12/01/21 18:27	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	12/01/21 18:27	EPA 6020B (Diss)	R-04	
Iron	ND	250	500	ug/L	10	12/01/21 18:27	EPA 6020B (Diss)	R-04	
Molybdenum	ND	5.00	10.0	ug/L	10	12/01/21 18:27	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F3-01 (A1K0784-01)</b>				<b>Matrix: W</b>					
Batch: 21K1122									
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 18:48	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 18:48	EPA 6020B (Diss)	R-04	
<b>Iron</b>	<b>452</b>	250	500	ug/L	10	11/30/21 18:48	EPA 6020B (Diss)	<b>J, R-04</b>	
Molybdenum	ND	5.00	10.0	ug/L	10	11/30/21 18:48	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F3-02 (A1K0784-02)</b>				<b>Matrix: W</b>					
Batch: 21K1122									
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 19:08	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 19:08	EPA 6020B (Diss)	R-04	
<b>Iron</b>	<b>970</b>	250	500	ug/L	10	11/30/21 19:08	EPA 6020B (Diss)	<b>J, R-04</b>	
Molybdenum	ND	5.00	10.0	ug/L	10	11/30/21 19:08	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F3-03 (A1K0784-03)</b>				<b>Matrix: W</b>					
Batch: 21K1122									
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 19:18	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 19:18	EPA 6020B (Diss)	R-04	
<b>Iron</b>	<b>498</b>	250	500	ug/L	10	11/30/21 19:18	EPA 6020B (Diss)	<b>J, R-04</b>	
Molybdenum	ND	5.00	10.0	ug/L	10	11/30/21 19:18	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F3-04 (A1K0784-04)</b>				<b>Matrix: W</b>					
Batch: 21K1122									
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 19:23	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 19:23	EPA 6020B (Diss)	R-04	
<b>Iron</b>	<b>1880</b>	250	500	ug/L	10	11/30/21 19:23	EPA 6020B (Diss)	<b>J, R-04</b>	
Molybdenum	ND	5.00	10.0	ug/L	10	11/30/21 19:23	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F3-05 (A1K0784-05)</b>				<b>Matrix: W</b>					

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
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503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road Treatability</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A1K0955 - 01 31 22 0437</b>
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**ANALYTICAL SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
<b>GR-SSE-F3-05 (A1K0784-05)</b>				<b>Matrix: W</b>					
Batch: 21K1122									
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 19:28	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 19:28	EPA 6020B (Diss)	R-04	
<b>Iron</b>	<b>454</b>	250	500	ug/L	10	11/30/21 19:28	EPA 6020B (Diss)	<b>J, R-04</b>	
Molybdenum	ND	5.00	10.0	ug/L	10	11/30/21 19:28	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F3-06 (A1K0784-06)</b>				<b>Matrix: W</b>					
Batch: 21K1122									
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 19:33	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 19:33	EPA 6020B (Diss)	R-04	
<b>Iron</b>	<b>518</b>	250	500	ug/L	10	11/30/21 19:33	EPA 6020B (Diss)		
Molybdenum	ND	5.00	10.0	ug/L	10	11/30/21 19:33	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F3-07 (A1K0784-07)</b>				<b>Matrix: W</b>					
Batch: 21K1122									
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 19:38	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 19:38	EPA 6020B (Diss)	R-04	
<b>Iron</b>	<b>1690</b>	250	500	ug/L	10	11/30/21 19:38	EPA 6020B (Diss)		
Molybdenum	ND	5.00	10.0	ug/L	10	11/30/21 19:38	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F3-08 (A1K0784-08)</b>				<b>Matrix: W</b>					
Batch: 21K1122									
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 19:44	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 19:44	EPA 6020B (Diss)	R-04	
Iron	ND	250	500	ug/L	10	11/30/21 19:44	EPA 6020B (Diss)	R-04	
Molybdenum	ND	5.00	10.0	ug/L	10	11/30/21 19:44	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F4-01 (A1K0784-09)</b>				<b>Matrix: W</b>					
Batch: 21K1122									
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 19:49	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 19:49	EPA 6020B (Diss)	R-04	
<b>Iron</b>	<b>335</b>	250	500	ug/L	10	11/30/21 19:49	EPA 6020B (Diss)	<b>R-04, J</b>	
Molybdenum	ND	5.00	10.0	ug/L	10	11/30/21 19:49	EPA 6020B (Diss)	R-04	
<b>GR-SSE-F4-02 (A1K0784-10)</b>				<b>Matrix: W</b>					

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

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<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road Treatability</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A1K0955 - 01 31 22 0437</b>
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**ANALYTICAL SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GR-SSE-F4-02 (A1K0784-10) Matrix: W</b>								
Batch: 21K1122								
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 19:54	EPA 6020B (Diss)	R-04
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 19:54	EPA 6020B (Diss)	R-04
<b>Iron</b>	<b>668</b>	250	500	ug/L	10	11/30/21 19:54	EPA 6020B (Diss)	
<b>Molybdenum</b>	<b>7.57</b>	5.00	10.0	ug/L	10	11/30/21 19:54	EPA 6020B (Diss)	<b>R-04, J</b>
<b>GR-SSE-F4-03 (A1K0784-11) Matrix: W</b>								
Batch: 21K1122								
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 20:09	EPA 6020B (Diss)	R-04
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 20:09	EPA 6020B (Diss)	R-04
<b>Iron</b>	<b>420</b>	250	500	ug/L	10	11/30/21 20:09	EPA 6020B (Diss)	<b>R-04, J</b>
<b>Molybdenum</b>	<b>10.4</b>	5.00	10.0	ug/L	10	11/30/21 20:09	EPA 6020B (Diss)	
<b>GR-SSE-F4-04 (A1K0784-12) Matrix: W</b>								
Batch: 21K1122								
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 20:14	EPA 6020B (Diss)	R-04
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 20:14	EPA 6020B (Diss)	R-04
<b>Iron</b>	<b>1830</b>	250	500	ug/L	10	11/30/21 20:14	EPA 6020B (Diss)	
<b>Molybdenum</b>	<b>17.3</b>	5.00	10.0	ug/L	10	11/30/21 20:14	EPA 6020B (Diss)	
<b>GR-SSE-F4-05 (A1K0784-13) Matrix: W</b>								
Batch: 21K1122								
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 20:19	EPA 6020B (Diss)	R-04
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 20:19	EPA 6020B (Diss)	R-04
<b>Iron</b>	<b>657</b>	250	500	ug/L	10	11/30/21 20:19	EPA 6020B (Diss)	
Molybdenum	ND	5.00	10.0	ug/L	10	11/30/21 20:19	EPA 6020B (Diss)	R-04
<b>GR-SSE-F4-06 (A1K0784-14) Matrix: W</b>								
Batch: 21K1122								
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 20:24	EPA 6020B (Diss)	R-04
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 20:24	EPA 6020B (Diss)	R-04
<b>Iron</b>	<b>802</b>	250	500	ug/L	10	11/30/21 20:24	EPA 6020B (Diss)	
<b>Molybdenum</b>	<b>5.49</b>	5.00	10.0	ug/L	10	11/30/21 20:24	EPA 6020B (Diss)	<b>R-04, J</b>
<b>GR-SSE-F4-07 (A1K0784-15) Matrix: W</b>								

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<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road Treatability</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A1K0955 - 01 31 22 0437</b>
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**ANALYTICAL SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
<b>GR-SSE-F4-07 (A1K0784-15)</b>				<b>Matrix: W</b>					
Batch: 21K1122									
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 20:29	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 20:29	EPA 6020B (Diss)	R-04	
<b>Iron</b>	<b>1950</b>	250	500	ug/L	10	11/30/21 20:29	EPA 6020B (Diss)		
<b>Molybdenum</b>	<b>15.8</b>	5.00	10.0	ug/L	10	11/30/21 20:29	EPA 6020B (Diss)		
<b>GR-SSE-F4-08 (A1K0784-16)</b>				<b>Matrix: W</b>					
Batch: 21K1122									
Arsenic	ND	5.00	10.0	ug/L	10	11/30/21 20:34	EPA 6020B (Diss)	R-04	
Cobalt	ND	5.00	10.0	ug/L	10	11/30/21 20:34	EPA 6020B (Diss)	R-04	
Iron	ND	250	500	ug/L	10	11/30/21 20:34	EPA 6020B (Diss)	R-04	
Molybdenum	ND	5.00	10.0	ug/L	10	11/30/21 20:34	EPA 6020B (Diss)	R-04	

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Total Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 21L0252 - EPA 3051A</b>						<b>Solid</b>						
<b>Blank (21L0252-BLK1)</b>			Prepared: 12/07/21 12:03 Analyzed: 12/07/21 23:37									
<u>EPA 6020B</u>												
Arsenic	ND	0.500	1.00	mg/kg	10	---	---	---	---	---	---	
Cobalt	ND	0.500	1.00	mg/kg	10	---	---	---	---	---	---	
Iron	ND	25.0	50.0	mg/kg	10	---	---	---	---	---	---	
Molybdenum	<b>0.504</b>	0.500	1.00	mg/kg	10	---	---	---	---	---	---	J
<b>LCS (21L0252-BS1)</b>						Prepared: 12/07/21 12:03 Analyzed: 12/07/21 23:43						
<u>EPA 6020B</u>												
Arsenic	56.6	0.500	1.00	mg/kg	10	50.0	---	113	80-120%	---	---	
Cobalt	57.8	0.500	1.00	mg/kg	10	50.0	---	116	80-120%	---	---	
Iron	2990	25.0	50.0	mg/kg	10	2500	---	120	80-120%	---	---	
Molybdenum	29.3	0.500	1.00	mg/kg	10	25.0	---	117	80-120%	---	---	
<b>Duplicate (21L0252-DUP1)</b>						Prepared: 12/07/21 12:03 Analyzed: 12/08/21 00:55						
<u>QC Source Sample: Non-SDG (A1K1193-01)</u>												
Arsenic	<b>11.0</b>	1.04	2.08	mg/kg	20	---	11.7	---	---	6	20%	
Cobalt	<b>2.50</b>	1.04	2.08	mg/kg	20	---	2.38	---	---	5	20%	
Iron	<b>57500</b>	52.0	104	mg/kg	20	---	56400	---	---	2	20%	
Molybdenum	<b>1.36</b>	1.04	2.08	mg/kg	20	---	1.25	---	---	8	20%	J
<b>Matrix Spike (21L0252-MS1)</b>						Prepared: 12/07/21 12:03 Analyzed: 12/08/21 01:00						
<u>QC Source Sample: Non-SDG (A1K1193-01)</u>												
<u>EPA 6020B</u>												
Arsenic	77.5	1.06	2.12	mg/kg	20	53.1	11.7	124	75-125%	---	---	
Cobalt	71.1	1.06	2.12	mg/kg	20	53.1	2.38	<b>129</b>	<b>75-125%</b>	---	---	Q-04
Iron	65300	53.1	106	mg/kg	20	2650	56400	<b>332</b>	<b>75-125%</b>	---	---	Q-03
Molybdenum	34.9	1.06	2.12	mg/kg	20	26.5	1.25	<b>127</b>	<b>75-125%</b>	---	---	Q-04

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 21K1008 - Matrix Matched Direct Inject</b>						<b>Water</b>						
<b>Blank (21K1008-BLK1)</b>						Prepared: 11/23/21 12:39 Analyzed: 12/01/21 16:02						
<u>EPA 6020B (Diss)</u>												
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Cobalt	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Molybdenum	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
<b>LCS (21K1008-BS1)</b>						Prepared: 11/23/21 12:39 Analyzed: 12/01/21 16:07						
<u>EPA 6020B (Diss)</u>												
Arsenic	59.6	0.500	1.00	ug/L	1	55.6	---	107	80-120%	---	---	
Cobalt	55.8	0.500	1.00	ug/L	1	55.6	---	100	80-120%	---	---	
Iron	2870	25.0	50.0	ug/L	1	2780	---	103	80-120%	---	---	
Molybdenum	28.0	0.500	1.00	ug/L	1	27.8	---	101	80-120%	---	---	
<b>Duplicate (21K1008-DUP1)</b>						Prepared: 11/23/21 12:39 Analyzed: 12/01/21 18:22						
<u>QC Source Sample: GR-SSE-F2-07 (A1K0704-15)</u>												
<u>EPA 6020B (Diss)</u>												
Arsenic	<b>8.74</b>	5.00	10.0	ug/L	10	---	8.59	---	---	2	20%	R-04, J
Cobalt	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	20%	
Iron	ND	250	500	ug/L	10	---	ND	---	---	---	20%	R-04
Molybdenum	<b>15.4</b>	5.00	10.0	ug/L	10	---	15.2	---	---	1	20%	
<b>Matrix Spike (21K1008-MS1)</b>						Prepared: 11/23/21 12:39 Analyzed: 12/01/21 18:32						
<u>QC Source Sample: GR-SSE-F2-08 (A1K0704-16)</u>												
<u>EPA 6020B (Diss)</u>												
Arsenic	60.8	5.00	10.0	ug/L	10	55.6	ND	109	75-125%	---	---	
Cobalt	55.6	5.00	10.0	ug/L	10	55.6	ND	100	75-125%	---	---	
Iron	2680	250	500	ug/L	10	2780	ND	97	75-125%	---	---	
Molybdenum	29.2	5.00	10.0	ug/L	10	27.8	ND	105	75-125%	---	---	

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 21K1122 - Matrix Matched Direct Inject</b>						<b>Water</b>						
<b>Blank (21K1122-BLK1)</b>						Prepared: 11/29/21 11:13 Analyzed: 11/30/21 18:39						
<u>EPA 6020B (Diss)</u>												
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Cobalt	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Molybdenum	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
<b>LCS (21K1122-BS1)</b>						Prepared: 11/29/21 11:13 Analyzed: 11/30/21 18:44						
<u>EPA 6020B (Diss)</u>												
Arsenic	56.8	0.500	1.00	ug/L	1	55.6	---	102	80-120%	---	---	
Cobalt	55.0	0.500	1.00	ug/L	1	55.6	---	99	80-120%	---	---	
Iron	2750	25.0	50.0	ug/L	1	2780	---	99	80-120%	---	---	
Molybdenum	28.2	0.500	1.00	ug/L	1	27.8	---	101	80-120%	---	---	
<b>Duplicate (21K1122-DUP1)</b>						Prepared: 11/29/21 11:13 Analyzed: 11/30/21 18:53						
<u>QC Source Sample: GR-SSE-F3-01 (A1K0784-01)</u>												
<u>EPA 6020B (Diss)</u>												
Arsenic	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	20%	
Cobalt	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	20%	
Iron	459	250	500	ug/L	10	---	452	---	---	2	20%	
Molybdenum	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	20%	
<b>Matrix Spike (21K1122-MS1)</b>						Prepared: 11/29/21 11:13 Analyzed: 11/30/21 19:13						
<u>QC Source Sample: GR-SSE-F3-02 (A1K0784-02)</u>												
<u>EPA 6020B (Diss)</u>												
Arsenic	58.2	5.00	10.0	ug/L	10	55.6	ND	105	75-125%	---	---	
Cobalt	57.7	5.00	10.0	ug/L	10	55.6	ND	104	75-125%	---	---	
Iron	3930	250	500	ug/L	10	2780	970	107	75-125%	---	---	
Molybdenum	28.5	5.00	10.0	ug/L	10	27.8	ND	103	75-125%	---	---	
<b>Matrix Spike Dup (21K1122-MSD1)</b>						Prepared: 11/29/21 11:13 Analyzed: 11/30/21 20:39						
<u>QC Source Sample: GR-SSE-F3-02 (A1K0784-02)</u>												
<u>EPA 6020B (Diss)</u>												
Cobalt	54.9	25.0	50.0	ug/L	50	55.6	ND	99	75-125%	5	20%	

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**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 21K1122 - Matrix Matched Direct Inject</b>							<b>Water</b>					

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**SAMPLE PREPARATION INFORMATION**

**Total Metals by EPA 6020B (ICPMS)**

Prep: EPA 3051A						Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
<u>Batch: 21L0252</u>								
A1K0955-01	SO	EPA 6020B	11/15/21 15:30	12/07/21 12:03	0.458g/50mL	0.5g/50mL	1.09	
A1K0955-02	SO	EPA 6020B	11/15/21 15:35	12/07/21 12:03	0.477g/50mL	0.5g/50mL	1.05	
A1K0955-03	SO	EPA 6020B	11/15/21 15:40	12/07/21 12:03	0.477g/50mL	0.5g/50mL	1.05	
A1K0955-04	SO	EPA 6020B	11/15/21 15:45	12/07/21 12:03	0.454g/50mL	0.5g/50mL	1.10	
A1K0955-05	SO	EPA 6020B	11/15/21 15:50	12/07/21 12:03	0.498g/50mL	0.5g/50mL	1.00	
A1K0955-06	SO	EPA 6020B	11/15/21 15:55	12/07/21 12:03	0.503g/50mL	0.5g/50mL	0.99	
A1K0955-07	SO	EPA 6020B	11/15/21 16:00	12/07/21 12:03	0.479g/50mL	0.5g/50mL	1.04	

**Dissolved Metals by EPA 6020B (ICPMS)**

Prep: Matrix Matched Direct Inject						Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
<u>Batch: 21K1008</u>								
A1K0704-01	W	EPA 6020B (Diss)	11/09/21 12:30	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-02	W	EPA 6020B (Diss)	11/09/21 12:35	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-03	W	EPA 6020B (Diss)	11/09/21 12:40	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-04	W	EPA 6020B (Diss)	11/09/21 12:45	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-05	W	EPA 6020B (Diss)	11/09/21 12:50	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-06	W	EPA 6020B (Diss)	11/09/21 12:55	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-07	W	EPA 6020B (Diss)	11/09/21 13:00	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-08	W	EPA 6020B (Diss)	11/09/21 13:05	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-09	W	EPA 6020B (Diss)	11/10/21 09:00	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-10	W	EPA 6020B (Diss)	11/10/21 09:05	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-11	W	EPA 6020B (Diss)	11/10/21 09:10	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-12	W	EPA 6020B (Diss)	11/10/21 09:15	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-13	W	EPA 6020B (Diss)	11/10/21 09:20	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-14	W	EPA 6020B (Diss)	11/10/21 09:25	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-15	W	EPA 6020B (Diss)	11/10/21 09:30	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
A1K0704-16	W	EPA 6020B (Diss)	11/10/21 09:35	11/23/21 12:39	45mL/50mL	45mL/50mL	1.00	
<u>Batch: 21K1122</u>								
A1K0784-01	W	EPA 6020B (Diss)	11/12/21 09:00	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00	
A1K0784-02	W	EPA 6020B (Diss)	11/12/21 09:05	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00	
A1K0784-03	W	EPA 6020B (Diss)	11/12/21 09:10	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00	
A1K0784-04	W	EPA 6020B (Diss)	11/12/21 09:15	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00	
A1K0784-05	W	EPA 6020B (Diss)	11/12/21 09:20	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00	
A1K0784-06	W	EPA 6020B (Diss)	11/12/21 09:25	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00	

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503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road Treatability</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A1K0955 - 01 31 22 0437</b>
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**SAMPLE PREPARATION INFORMATION**

Dissolved Metals by EPA 6020B (ICPMS)

Prep: Matrix Matched Direct Inject

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A1K0784-07	W	EPA 6020B (Diss)	11/12/21 09:30	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00
A1K0784-08	W	EPA 6020B (Diss)	11/12/21 09:35	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00
A1K0784-09	W	EPA 6020B (Diss)	11/15/21 14:30	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00
A1K0784-10	W	EPA 6020B (Diss)	11/15/21 14:35	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00
A1K0784-11	W	EPA 6020B (Diss)	11/15/21 14:40	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00
A1K0784-12	W	EPA 6020B (Diss)	11/15/21 14:45	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00
A1K0784-13	W	EPA 6020B (Diss)	11/15/21 14:50	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00
A1K0784-14	W	EPA 6020B (Diss)	11/15/21 14:55	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00
A1K0784-15	W	EPA 6020B (Diss)	11/15/21 15:00	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00
A1K0784-16	W	EPA 6020B (Diss)	11/15/21 15:05	11/29/21 11:13	45mL/50mL	45mL/50mL	1.00

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Darwin Thomas, Business Development Director





**ANALYTICAL REPORT**

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**QUALIFIER DEFINITIONS**

**Client Sample and Quality Control (QC) Sample Qualifier Definitions:**

**Apex Laboratories**

- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-03** Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- R-04** Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.

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**REPORTING NOTES AND CONVENTIONS:**

**Abbreviations:**

- DET Analyte DETECTED at or above the detection or reporting limit.
- ND Analyte NOT DETECTED at or above the detection or reporting limit.
- NR Result Not Reported
- RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).  
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting Conventions:**

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.  
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.
- " dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")  
See Percent Solids section for details of dry weight analysis.
- " wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.  
  
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

- " --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
- " \*\*\* " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).  
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.  
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.  
For further details, please request a copy of this document.

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**REPORTING NOTES AND CONVENTIONS (Cont.):**

**Blanks (Cont.):**

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Table with 3 columns: Client (Anchor QEA, LLC), Project (Grumman Road Treatability), and Report ID (A1K0955 - 01 31 22 0437).

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Table with 6 columns: Matrix, Analysis, TNI\_ID, Analyte, TNI\_ID, Accreditation. Content: All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation. Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Signature of Darwin Thomas

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**APEX LABS**

**CHAIN OF CUSTODY**

<b>Client:</b> Anchor QEA, LLC	<b>Project:</b> Grumman Rd Treatability	<b>Report ID:</b> A1K0955	<b>Date:</b> 11/14/2011	<b>Analyst:</b> Jessica Goin	<b>Phone:</b> 503-718-2323	<b>Email:</b> jgoin@apexlabs.com
<b>CHAIN OF CUSTODY</b>						
<b>Sample ID:</b> GR-11-01-01	<b>Sample Description:</b> 100 mg of soil	<b>Sample Location:</b> 100 mg of soil	<b>Sample Date:</b> 11/14/2011	<b>Sample Time:</b> 11:00 AM	<b>Sample By:</b> Jessica Goin	<b>Sample For:</b> 100 mg of soil
<b>Sample ID:</b> GR-11-01-02	<b>Sample Description:</b> 100 mg of soil	<b>Sample Location:</b> 100 mg of soil	<b>Sample Date:</b> 11/14/2011	<b>Sample Time:</b> 11:00 AM	<b>Sample By:</b> Jessica Goin	<b>Sample For:</b> 100 mg of soil
<b>Sample ID:</b> GR-11-01-03	<b>Sample Description:</b> 100 mg of soil	<b>Sample Location:</b> 100 mg of soil	<b>Sample Date:</b> 11/14/2011	<b>Sample Time:</b> 11:00 AM	<b>Sample By:</b> Jessica Goin	<b>Sample For:</b> 100 mg of soil
<b>Sample ID:</b> GR-11-01-04	<b>Sample Description:</b> 100 mg of soil	<b>Sample Location:</b> 100 mg of soil	<b>Sample Date:</b> 11/14/2011	<b>Sample Time:</b> 11:00 AM	<b>Sample By:</b> Jessica Goin	<b>Sample For:</b> 100 mg of soil
<b>Sample ID:</b> GR-11-01-05	<b>Sample Description:</b> 100 mg of soil	<b>Sample Location:</b> 100 mg of soil	<b>Sample Date:</b> 11/14/2011	<b>Sample Time:</b> 11:00 AM	<b>Sample By:</b> Jessica Goin	<b>Sample For:</b> 100 mg of soil
<b>Sample ID:</b> GR-11-01-06	<b>Sample Description:</b> 100 mg of soil	<b>Sample Location:</b> 100 mg of soil	<b>Sample Date:</b> 11/14/2011	<b>Sample Time:</b> 11:00 AM	<b>Sample By:</b> Jessica Goin	<b>Sample For:</b> 100 mg of soil
<b>Sample ID:</b> GR-11-01-07	<b>Sample Description:</b> 100 mg of soil	<b>Sample Location:</b> 100 mg of soil	<b>Sample Date:</b> 11/14/2011	<b>Sample Time:</b> 11:00 AM	<b>Sample By:</b> Jessica Goin	<b>Sample For:</b> 100 mg of soil
<b>Sample ID:</b> GR-11-01-08	<b>Sample Description:</b> 100 mg of soil	<b>Sample Location:</b> 100 mg of soil	<b>Sample Date:</b> 11/14/2011	<b>Sample Time:</b> 11:00 AM	<b>Sample By:</b> Jessica Goin	<b>Sample For:</b> 100 mg of soil
<b>Sample ID:</b> GR-11-01-09	<b>Sample Description:</b> 100 mg of soil	<b>Sample Location:</b> 100 mg of soil	<b>Sample Date:</b> 11/14/2011	<b>Sample Time:</b> 11:00 AM	<b>Sample By:</b> Jessica Goin	<b>Sample For:</b> 100 mg of soil
<b>Sample ID:</b> GR-11-01-10	<b>Sample Description:</b> 100 mg of soil	<b>Sample Location:</b> 100 mg of soil	<b>Sample Date:</b> 11/14/2011	<b>Sample Time:</b> 11:00 AM	<b>Sample By:</b> Jessica Goin	<b>Sample For:</b> 100 mg of soil
<b>Signature of Analyst</b>						
Signature: <i>Jessica Goin</i> Date: 11/14/2011 Title: Analyst						
<b>Signature of Client</b>						
Signature: <i>Anchor QEA</i> Date: 11/14/2011 Title: Project Manager						

Apex Laboratories

*Darwin Thomas*

---

Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

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**APEX LABS**

**CHAIN OF CUSTODY**

Apex Laboratories, LLC  
 6700 SW Sandburg Street, Tigard, OR 97223  
 Phone: 503-718-2323  
 Fax: 503-718-2324  
 Email: info@apexlabs.com

Project Name: Grumman Road Treatability  
 Project #: 201114-05.01  
 Test Method(s): *Asst. Analytical*

Sample ID	Date	Time	Location	Collector	Analyst	Method	Notes
GA-001-1142	11/02/07	1400				Asst. Analytical	
GA-001-1143	11/02/07	1400				Asst. Analytical	
GA-001-1144	11/02/07	1400				Asst. Analytical	
GA-001-1145	11/02/07	1400				Asst. Analytical	
GA-001-1146	11/02/07	1400				Asst. Analytical	
GA-001-1147	11/02/07	1400				Asst. Analytical	
GA-001-1148	11/02/07	1400				Asst. Analytical	
GA-001-1149	11/02/07	1400				Asst. Analytical	
GA-001-1150	11/02/07	1400				Asst. Analytical	
GA-001-1151	11/02/07	1400				Asst. Analytical	
GA-001-1152	11/02/07	1400				Asst. Analytical	
GA-001-1153	11/02/07	1400				Asst. Analytical	
GA-001-1154	11/02/07	1400				Asst. Analytical	
GA-001-1155	11/02/07	1400				Asst. Analytical	
GA-001-1156	11/02/07	1400				Asst. Analytical	
GA-001-1157	11/02/07	1400				Asst. Analytical	
GA-001-1158	11/02/07	1400				Asst. Analytical	
GA-001-1159	11/02/07	1400				Asst. Analytical	
GA-001-1160	11/02/07	1400				Asst. Analytical	

All samples are to be analyzed in accordance with the chain of custody document. Please contact Anchor QEA if a copy of the chain of custody document is necessary.

APEX LABS  
 6700 SW Sandburg Street, Tigard, OR 97223  
 Phone: 503-718-2323  
 Fax: 503-718-2324  
 Email: info@apexlabs.com

Anchor QEA, LLC  
 6720 SW Macadam Ave. Suite 125  
 Portland, OR 97219  
 Phone: 503-251-1207  
 Fax: 503-251-1208  
 Email: info@anchorqea.com

Project Name: Grumman Road Treatability  
 Project #: 201114-05.01  
 Test Method(s): *Asst. Analytical*

APEX LABS: *[Signature]* Date: *11/15/07*

Anchor QEA: *[Signature]* Date: *11/15/07*

Client: *[Signature]* Date: *11/15/07*

Apex Laboratories

*[Signature]*

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**APEX LABS**

1700 SE Sandburg Blvd, Tigard, OR 97223, Ph: 503-718-2323

**CHAIN OF CUSTODY**

Project Name: **Grumman Road Treatability**      Project #: **201114-05.01**

Project Address: **6720 SW Macadam Ave, Suite 125**      Project #: **6720 SW Macadam Ave, Suite 125**

Project #: **201114-05.01**      Project #: **201114-05.01**

Date of Report: **01/31/22**

Sample ID	Sample Description	Sample Location	Sample Date	Sample Time	Sample Type	Sample Volume	Sample Container	Sample Status	Sample Notes
GR100-14-05	1530								
GR100-14-05	1535								
GR100-14-05	1540								
GR100-14-05	1545								
GR100-14-05	1550								
GR100-14-05	1555								
GR100-14-05	1600								

Please contact Jessica Goin if it is necessary to re-analyze any samples.

**CHAIN OF CUSTODY**

Project Name: **Grumman Road Treatability**

Project Address: **6720 SW Macadam Ave, Suite 125**

Project #: **201114-05.01**

Date of Report: **01/31/22**

Signature: *[Handwritten Signature]*

Name: **Sarah Maxwell**

Title: **Anchor QEA**

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*[Handwritten Signature]*

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**CHAIN OF CUSTODY**

**APEX LABS**

2022 Sandburg Blvd, Tigard, OR 97223, Ph: 503-718-2323  
 Customer: Anchor QEA  
 Address: 6720 SW Macadam Ave., Suite 125  
 Property: S. Sandburg  
 Project Name: Grumman Road  
 Project ID: 201114-05.01  
 Date: 11/22/20

Sample ID	Sample Description	Sample Type	Sample Location	Sample Date	Sample Time	Sample Status	Sample Notes	Sample ID	Sample Description	Sample Type	Sample Location	Sample Date	Sample Time	Sample Status	Sample Notes
GR-100-47-01	11/22/20	Water	Grumman Road	11/22/20	15:07	OK		GR-100-47-01	11/22/20	Water	Grumman Road	11/22/20	15:07	OK	
GR-100-47-02	11/22/20	Water	Grumman Road	11/22/20	15:08	OK		GR-100-47-02	11/22/20	Water	Grumman Road	11/22/20	15:08	OK	
GR-100-47-03	11/22/20	Water	Grumman Road	11/22/20	15:09	OK		GR-100-47-03	11/22/20	Water	Grumman Road	11/22/20	15:09	OK	
GR-100-47-04	11/22/20	Water	Grumman Road	11/22/20	15:10	OK		GR-100-47-04	11/22/20	Water	Grumman Road	11/22/20	15:10	OK	
GR-100-47-05	11/22/20	Water	Grumman Road	11/22/20	15:11	OK		GR-100-47-05	11/22/20	Water	Grumman Road	11/22/20	15:11	OK	
GR-100-47-06	11/22/20	Water	Grumman Road	11/22/20	15:12	OK		GR-100-47-06	11/22/20	Water	Grumman Road	11/22/20	15:12	OK	
GR-100-47-07	11/22/20	Water	Grumman Road	11/22/20	15:13	OK		GR-100-47-07	11/22/20	Water	Grumman Road	11/22/20	15:13	OK	
GR-100-47-08	11/22/20	Water	Grumman Road	11/22/20	15:14	OK		GR-100-47-08	11/22/20	Water	Grumman Road	11/22/20	15:14	OK	

Signature: *[Signature]* Date: 11/22/20  
 Signature: *[Signature]* Date: 11/22/20  
 Signature: *[Signature]* Date: 11/22/20

Apex Laboratories  
*[Signature]*

Darwin Thomas, Business Development Director

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**APEX LABS COOLER RECEIPT FORM**

Client: Anchor QEA Element WOF: A1 K0955  
 Project/Project #: Grumman Rd. Treatability 201114-05.01

**Delivery Info:**  
 Date/time received: 11/13/21 @ 12:28 By: JS  
 Delivered by: Apex  Client  ESS  FedEx  UPS  Swift  Seaway  SDS  Other

**Cooler Inspection** Date/time inspected: 11/13/21 @ 12:29 By: JS  
 Chain of Custody included? Yes  No  Custody seals? Yes  No   
 Signed/dated by client? Yes  No   
 Signed/dated by Apex? Yes  No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.1</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. Marked? (Y/N)	<u>Y</u>						
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition:	<u>good</u>						

Cooler out of temp? (Y/N) Possible reason why: Green dots applied to out of temperature samples - Yes/No  
 Out of temperature samples form initiated? Yes  No   
**Sample Inspection:** Date/time inspected: 11/13/21 @ 12:45 By: JS  
 All samples intact? Yes  No  Comments: \_\_\_\_\_  
 Bottle labels/COCs agree? Yes  No  Comments: \_\_\_\_\_  
 COC/container discrepancies form initiated? Yes  No   
 Containers/volumes received appropriate for analysis? Yes  No  Comments: \_\_\_\_\_  
 Do VDA vials have visible headspace? Yes  No  NA   
 Comments: \_\_\_\_\_  
 Water samples: pH checked: Yes  No  NA  pH appropriate? Yes  No  NA   
 Comments: \_\_\_\_\_  
 Additional information: \_\_\_\_\_  
 Labeled by: JS Witness: [Signature] Cooler Inspected by: [Signature]

Apex Laboratories

*Darwin Thomas*

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Darwin Thomas, Business Development Director

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**APEX LABS COOLER RECEIPT FORM**

Client: Anchor QEA Element W/O#: AI W0204  
 Project/Project #: Grumman R.D. Treatability / 20114-05.01

**Delivery Info:**  
 Date/time received: 11/12 @ 1507 By: E. Rubin  
 Delivered by: Apex  Client  ESS  FedEx  UPS  Swift  Seaway  SDS  Other

**Cooler Inspection** Date/time inspected: 11/12 @ 1507 By: E. Rubin  
 Chain of Custody included? Yes  No  Custody sealed? Yes  No   
 Signed/dated by client? Yes  No   
 Signed/dated by Apex? Yes  No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.7</u>						
Received on ice? (Y/N)	<u>yes</u>						
Temp. blank? (Y/N)	<u>no</u>						
Ice type: (Gel/Real/Other)	<u>real</u>						
Condition:	<u>good</u>						

Cooler out of temp? (Y/N)  Possible reason why: \_\_\_\_\_  
 Green dots applied to out of temperature samples? Yes   
 Out of temperature samples form initiated? Yes

**Sample Inspection:** Date/time inspected: 11/12 @ 1519 By: AS  
 All samples intact? Yes  No  Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 Bottle labels/COCs agree? Yes  No  Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 COC/container discrepancies form initiated? Yes  No   
 Containers/volumes received appropriate for analysis? Yes  No  Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 Do VOA vials have visible headspace? Yes  No  NA   
 Comments: \_\_\_\_\_  
 Water samples: pH checked: Yes  No  NA  pH appropriate? Yes  No  NA   
 Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 Additional information: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Labeled by: AS Witness: MAS Cooler Inspected by: AS

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road Treatability</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A1K0955 - 01 31 22 0437</b>
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**APEX LABS COOLER RECEIPT FORM**

Client: Anchor QEA Element WOC: A1 K0954

Project/Project #: Grumman Rd. Treatability 201114-05.01

**Deliveries Info:**  
 Date/time received: 11/15/14 @ 1:10 By: JS  
 Delivered by: Apex  Client  ESS  FedEx  UPS  Swift  Seaway  SDS  Other

**Cooler Inspection** Date/time inspected: 11/15/14 @ 1:15 By: JS

Chain of Custody included? Yes  No  Custody seals? Yes  No

Signed/dated by client? Yes  No

Signed/dated by Apex? Yes  No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.6</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>N</u>						
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition:	<u>good</u>						

Cooler out of temp? (Y/N) Possible reason why: \_\_\_\_\_  
 Green dots applied to out of temperature samples? Yes  
 Out of temperature samples form initiated? Yes  
**Sample Inspection:** Date/time inspected: 11/15/14 @ 1:41 By: KS  
 All samples intact? Yes  No  Comments: \_\_\_\_\_

Bottle labels/COCs agree? Yes  No  Comments: Missing sampling dates on 2nd page, Lents read 11/15/14

COC/container discrepancies form initiated? Yes  No

Containers/volumes received appropriate for analysis? Yes  No  Comments: \_\_\_\_\_

Do VOA vials have visible headspace? Yes  No  NA

Comments: \_\_\_\_\_

Water samples: pH checked? Yes  No  NA  pH appropriate? Yes  No  NA

Comments: \_\_\_\_\_

Additional information: \_\_\_\_\_

Labeled by: KS Witness:  Cooler Inspected by: JS AM/ST

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ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

Monday, January 31, 2022

Jessica Goin, PhD  
Anchor QEA, LLC  
6720 SW Macadam Ave. Suite 125  
Portland, OR 97219

RE: A2A0414 - Grumman Road - 201114-05.01

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2A0414, which was received by the laboratory on 1/11/2022 at 10:55:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: [dthomas@apex-labs.com](mailto:dthomas@apex-labs.com), or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

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Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	1.2 degC
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This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

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Darwin Thomas, Business Development Director



**ANALYTICAL REPORT**

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road</b> Project Number: 201114-05.01 Project Manager: Jessica Goin, PhD	<b>Report ID:</b> A2A0414 - 01 31 22 0517
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**ANALYTICAL REPORT FOR SAMPLES**

**SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GR-MNA-AAO-01	A2A0414-01	Water	01/10/22 14:10	01/11/22 10:55
GR-MNA-AAO-02	A2A0414-02	Water	01/10/22 14:15	01/11/22 10:55
GR-MNA-AAO-03	A2A0414-03	Water	01/10/22 14:20	01/11/22 10:55
GR-MNA-AAO-04	A2A0414-04	Water	01/10/22 14:25	01/11/22 10:55
GR-MNA-AAO-05	A2A0414-05	Water	01/10/22 14:30	01/11/22 10:55
GR-MNA-AAO-06	A2A0414-06	Water	01/10/22 14:35	01/11/22 10:55
GR-MNA-AAO-07	A2A0414-07	Water	01/10/22 14:40	01/11/22 10:55
GR-MNA-AAO-08	A2A0414-08	Water	01/10/22 14:45	01/11/22 10:55
GR-MNA-AAO-09	A2A0414-09	Water	01/10/22 14:50	01/11/22 10:55
GR-MNA-AAO-10	A2A0414-10	Water	01/10/22 14:55	01/11/22 10:55

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A2A0414 - 01 31 22 0517</b>
--	--	---

**ANALYTICAL SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GR-MNA-AAO-01 (A2A0414-01) Matrix: Water</b>								
Batch: 22A0741								
Aluminum	136000	250	500	ug/L	10	01/21/22 23:22	EPA 6020B (Diss)	
Iron	8360	250	500	ug/L	10	01/21/22 23:22	EPA 6020B (Diss)	
<b>GR-MNA-AAO-02 (A2A0414-02) Matrix: Water</b>								
Batch: 22A0741								
Aluminum	8240	25.0	50.0	ug/L	1	01/21/22 23:27	EPA 6020B (Diss)	
Iron	4170	25.0	50.0	ug/L	1	01/21/22 23:27	EPA 6020B (Diss)	
<b>GR-MNA-AAO-03 (A2A0414-03) Matrix: Water</b>								
Batch: 22A0741								
Aluminum	13100	25.0	50.0	ug/L	1	01/21/22 23:41	EPA 6020B (Diss)	
Iron	1370	25.0	50.0	ug/L	1	01/21/22 23:41	EPA 6020B (Diss)	
<b>GR-MNA-AAO-04 (A2A0414-04) Matrix: Water</b>								
Batch: 22A0741								
Iron	12500	25.0	50.0	ug/L	1	01/21/22 23:46	EPA 6020B (Diss)	
<b>GR-MNA-AAO-04 (A2A0414-04RE1) Matrix: Water</b>								
Batch: 22A0741								
Aluminum	9130	250	500	ug/L	10	01/24/22 14:30	EPA 6020B (Diss)	
<b>GR-MNA-AAO-05 (A2A0414-05) Matrix: Water</b>								
Batch: 22A0741								
Aluminum	51700	25.0	50.0	ug/L	1	01/21/22 23:51	EPA 6020B (Diss)	
Iron	1370	25.0	50.0	ug/L	1	01/21/22 23:51	EPA 6020B (Diss)	
<b>GR-MNA-AAO-06 (A2A0414-06) Matrix: Water</b>								
Batch: 22A0741								
Iron	8130	25.0	50.0	ug/L	1	01/21/22 23:55	EPA 6020B (Diss)	
<b>GR-MNA-AAO-06 (A2A0414-06RE1) Matrix: Water</b>								
Batch: 22A0741								
Aluminum	11600	250	500	ug/L	10	01/24/22 14:49	EPA 6020B (Diss)	
<b>GR-MNA-AAO-07 (A2A0414-07) Matrix: Water</b>								

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
 Tigard, OR 97223  
 503-718-2323  
 ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A2A0414 - 01 31 22 0517</b>
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**ANALYTICAL SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GR-MNA-AAO-07 (A2A0414-07)</b>				<b>Matrix: Water</b>				
Batch: 22A0741								
Aluminum	<b>105000</b>	250	500	ug/L	10	01/22/22 00:00	EPA 6020B (Diss)	
Iron	<b>1030</b>	250	500	ug/L	10	01/22/22 00:00	EPA 6020B (Diss)	
<b>GR-MNA-AAO-08 (A2A0414-08)</b>				<b>Matrix: Water</b>				
Batch: 22A0741								
Iron	<b>15100</b>	25.0	50.0	ug/L	1	01/22/22 00:05	EPA 6020B (Diss)	
<b>GR-MNA-AAO-08 (A2A0414-08RE1)</b>				<b>Matrix: Water</b>				
Batch: 22A0741								
Aluminum	<b>10000</b>	250	500	ug/L	10	01/24/22 14:54	EPA 6020B (Diss)	
<b>GR-MNA-AAO-09 (A2A0414-09)</b>				<b>Matrix: Water</b>				
Batch: 22A0741								
Iron	<b>14500</b>	25.0	50.0	ug/L	1	01/22/22 00:10	EPA 6020B (Diss)	
<b>GR-MNA-AAO-09 (A2A0414-09RE1)</b>				<b>Matrix: Water</b>				
Batch: 22A0741								
Aluminum	<b>10200</b>	250	500	ug/L	10	01/24/22 15:01	EPA 6020B (Diss)	
<b>GR-MNA-AAO-10 (A2A0414-10)</b>				<b>Matrix: Water</b>				
Batch: 22A0741								
Aluminum	ND	25.0	50.0	ug/L	1	01/22/22 00:14	EPA 6020B (Diss)	
Iron	<b>59.8</b>	25.0	50.0	ug/L	1	01/22/22 00:14	EPA 6020B (Diss)	

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--	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22A0741 - Matrix Matched Direct Inject</b>						<b>Water</b>						
<b>Blank (22A0741-BLK1)</b>			Prepared: 01/20/22 14:30 Analyzed: 01/21/22 22:44									
<u>EPA 6020B (Diss)</u>												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
<b>LCS (22A0741-BS1)</b>			Prepared: 01/20/22 14:30 Analyzed: 01/21/22 22:49									
<u>EPA 6020B (Diss)</u>												
Aluminum	2770	25.0	50.0	ug/L	1	2780	---	100	80-120%	---	---	
Iron	2700	25.0	50.0	ug/L	1	2780	---	97	80-120%	---	---	
<b>Duplicate (22A0741-DUP1)</b>			Prepared: 01/20/22 14:30 Analyzed: 01/21/22 22:58									
<u>QC Source Sample: Non-SDG (A2A0399-01)</u>												
Aluminum	<b>41.9</b>	25.0	50.0	ug/L	1	---	41.0	---	---	2	20%	J
Iron	<b>6150</b>	25.0	50.0	ug/L	1	---	6220	---	---	1	20%	
<b>Matrix Spike (22A0741-MS1)</b>			Prepared: 01/20/22 14:30 Analyzed: 01/21/22 23:03									
<u>QC Source Sample: Non-SDG (A2A0399-01)</u>												
<u>EPA 6020B (Diss)</u>												
Aluminum	2700	25.0	50.0	ug/L	1	2780	41.0	96	75-125%	---	---	
Iron	8920	25.0	50.0	ug/L	1	2780	6220	97	75-125%	---	---	

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Darwin Thomas, Business Development Director



**ANALYTICAL REPORT**

**Apex Laboratories, LLC**

6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A2A0414 - 01 31 22 0517</b>
--	--	---

**SAMPLE PREPARATION INFORMATION**

**Dissolved Metals by EPA 6020B (ICPMS)**

Prep: Matrix Matched Direct Inject

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 22A0741</u>							
A2A0414-01	Water	EPA 6020B (Diss)	01/10/22 14:10	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0414-02	Water	EPA 6020B (Diss)	01/10/22 14:15	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0414-03	Water	EPA 6020B (Diss)	01/10/22 14:20	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0414-04	Water	EPA 6020B (Diss)	01/10/22 14:25	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0414-04RE1	Water	EPA 6020B (Diss)	01/10/22 14:25	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0414-05	Water	EPA 6020B (Diss)	01/10/22 14:30	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0414-06	Water	EPA 6020B (Diss)	01/10/22 14:35	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0414-06RE1	Water	EPA 6020B (Diss)	01/10/22 14:35	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0414-07	Water	EPA 6020B (Diss)	01/10/22 14:40	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0414-08	Water	EPA 6020B (Diss)	01/10/22 14:45	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0414-08RE1	Water	EPA 6020B (Diss)	01/10/22 14:45	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0414-09	Water	EPA 6020B (Diss)	01/10/22 14:50	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0414-09RE1	Water	EPA 6020B (Diss)	01/10/22 14:50	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0414-10	Water	EPA 6020B (Diss)	01/10/22 14:55	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00

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Darwin Thomas, Business Development Director



**ANALYTICAL REPORT**

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6700 S.W. Sandburg Street  
Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b><u>Anchor QEA, LLC</u></b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b><u>Grumman Road</u></b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b><u>Report ID:</u></b> <b>A2A0414 - 01 31 22 0517</b>
---	---	--

**QUALIFIER DEFINITIONS**

**Client Sample and Quality Control (QC) Sample Qualifier Definitions:**

**Apex Laboratories**

**J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.

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Darwin Thomas, Business Development Director



**ANALYTICAL REPORT**

**Apex Laboratories, LLC**

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503-718-2323  
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<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A2A0414 - 01 31 22 0517</b>
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**REPORTING NOTES AND CONVENTIONS:**

**Abbreviations:**

- DET Analyte DETECTED at or above the detection or reporting limit.
- ND Analyte NOT DETECTED at or above the detection or reporting limit.
- NR Result Not Reported
- RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).  
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting Conventions:**

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.  
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.
- " dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")  
See Percent Solids section for details of dry weight analysis.
- " wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.  
  
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

- " --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
- " \*\*\* " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).  
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.  
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.  
For further details, please request a copy of this document.

Apex Laboratories

Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Table with 3 columns: Client (Anchor QEA, LLC), Project (Grumman Road), and Report ID (A2A0414 - 01 31 22 0517)

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Signature of Darwin Thomas

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ANALYTICAL REPORT

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Table with 3 columns: Client (Anchor QEA, LLC), Project (Grumman Road), and Report ID (A2A0414 - 01 31 22 0517).

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Table with 6 columns: Matrix, Analysis, TNI\_ID, Analyte, TNI\_ID, Accreditation. Content: All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation. Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Signature of Darwin Thomas

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503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A2A0414 - 01 31 22 0517</b>
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**APEX LABS**      **CHAIN OF CUSTODY**      Lab: **A2A0414**      Doc: **1 of 1**

Client: **Anchor QEA**      Project: **Grumman Rd**      Project: **201114-05.01**

Address: **6700 S.W. Sandburg Street**      City: **Tigard, OR**      State: **OR**      Zip: **97223**

Sample ID: **Grumman Rd**

Sample ID	Location	Matrix	Method	1 Day	2 Day	3 Day	4 Day	5 Day	Other
GR-MNH-110-01	Grumman Rd	Soil	MUS						
GR-MNH-110-02	Grumman Rd	Soil	MUS						
GR-MNH-110-03	Grumman Rd	Soil	MUS						
GR-MNH-110-04	Grumman Rd	Soil	MUS						
GR-MNH-110-05	Grumman Rd	Soil	MUS						
GR-MNH-110-06	Grumman Rd	Soil	MUS						
GR-MNH-110-07	Grumman Rd	Soil	MUS						
GR-MNH-110-08	Grumman Rd	Soil	MUS						
GR-MNH-110-09	Grumman Rd	Soil	MUS						
GR-MNH-110-10	Grumman Rd	Soil	MUS						

Special Instructions: **0.45-um retained**

Analyst: **[Signature]**      Supervisor: **[Signature]**      Date: **1/5/22**

Client: **Anchor QEA**      Date: **1/5/22**

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*Darwin Thomas*

Darwin Thomas, Business Development Director

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<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A2A0414 - 01 31 22 0517</b>
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**APEX LABS COOLER RECEIPT FORM**

Client: Anchor QEA Element WOE: A2A0414

Project/Project #: Grumman Rd. MNA 201114-05.01

**Delivery Info:**  
 Date/time received: 1/18/22 1055 by JS  
 Delivered by: Apex  Client  FedEx  UPS  Swift  Seaway  SDS  Other

**Cooler Inspection** Date/time inspected: 1/18/22 058 by JS

Chain of Custody included? Yes  No  Custody seals? Yes  No

Serialized by client? Yes  No

Serialized by Apex? Yes  No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>1.2</u>						
Received on ice? (Y/N)	<u>N</u>						
Temp. Maska? (Y/N)	<u>N</u>						
Ice type: (Cold/Real/Other)	<u>Real</u>						
Condition:	<u>Good</u>						

Cooler out of temp? (Y/N) Possible reason why: Green dots applied to all of temperature samples? Yes

Out of temperature samples form initiated? Yes  No

Sample Inspection: Date/time inspected: 1/17/22 @ 11:35 by: JAM

All samples intact? Yes  No  Comments: \_\_\_\_\_

Bottle labels/COCs agree? Yes  No  Comments: \_\_\_\_\_

COC/container discrepancies form initiated? Yes  No

Containers/volumes received appropriate for analysis? Yes  No  Comments: \_\_\_\_\_

Do VOA vials have visible headspace? Yes  No  NA

Comments: \_\_\_\_\_

Water samples: pH checked: Yes  No  NA  pH appropriate? Yes  No  NA

Comments: Lowest volume

Additional information: \_\_\_\_\_

Labeled by: JAM Witness: JS Cooler Inspected by: JAM

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Darwin Thomas, Business Development Director





ANALYTICAL REPORT

**Apex Laboratories, LLC**

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503-718-2323  
ORELAP ID: OR100062

Monday, January 31, 2022

Jessica Goin, PhD  
Anchor QEA, LLC  
6720 SW Macadam Ave. Suite 125  
Portland, OR 97219

RE: A2A0418 - Grumman Road - 201114-05.01

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2A0418, which was received by the laboratory on 1/11/2022 at 10:55:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: [dthomas@apex-labs.com](mailto:dthomas@apex-labs.com), or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

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Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	1.2 degC
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This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

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<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road</b> Project Number: 201114-05.01 Project Manager: Jessica Goin, PhD	<b>Report ID:</b> A2A0418 - 01 31 22 0458
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**ANALYTICAL REPORT FOR SAMPLES**

**SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GR-MNA-CEC-01	A2A0418-01	Water	01/11/22 09:00	01/11/22 10:55
GR-MNA-CEC-02	A2A0418-02	Water	01/11/22 09:05	01/11/22 10:55
GR-MNA-CEC-03	A2A0418-03	Water	01/11/22 09:10	01/11/22 10:55
GR-MNA-CEC-04	A2A0418-04	Water	01/11/22 09:15	01/11/22 10:55
GR-MNA-CEC-05	A2A0418-05	Water	01/11/22 09:20	01/11/22 10:55
GR-MNA-CEC-06	A2A0418-06	Water	01/11/22 09:25	01/11/22 10:55
GR-MNA-CEC-07	A2A0418-07	Water	01/11/22 09:30	01/11/22 10:55
GR-MNA-CEC-08	A2A0418-08	Water	01/11/22 09:35	01/11/22 10:55
GR-MNA-CEC-09	A2A0418-09	Water	01/11/22 09:40	01/11/22 10:55
GR-MNA-CEC-10	A2A0418-10	Water	01/11/22 09:45	01/11/22 10:55

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**ANALYTICAL SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GR-MNA-CEC-01 (A2A0418-01) <span style="float: right;">Matrix: Water</span></b>								
Batch: 22A0741								
Calcium	8020	300	600	ug/L	1	01/22/22 00:19	EPA 6020B (Diss)	
Magnesium	1500	75.0	150	ug/L	1	01/22/22 00:19	EPA 6020B (Diss)	
Potassium	5170	50.0	100	ug/L	1	01/22/22 00:19	EPA 6020B (Diss)	
Sodium	737	50.0	100	ug/L	1	01/22/22 00:19	EPA 6020B (Diss)	
<b>GR-MNA-CEC-02 (A2A0418-02) <span style="float: right;">Matrix: Water</span></b>								
Batch: 22A0741								
Calcium	14000	300	600	ug/L	1	01/22/22 00:24	EPA 6020B (Diss)	
Magnesium	3990	75.0	150	ug/L	1	01/22/22 00:24	EPA 6020B (Diss)	
Potassium	5980	50.0	100	ug/L	1	01/22/22 00:24	EPA 6020B (Diss)	
Sodium	2480	50.0	100	ug/L	1	01/22/22 00:24	EPA 6020B (Diss)	
<b>GR-MNA-CEC-03 (A2A0418-03) <span style="float: right;">Matrix: Water</span></b>								
Batch: 22A0741								
Calcium	14300	300	600	ug/L	1	01/22/22 00:38	EPA 6020B (Diss)	
Magnesium	3390	75.0	150	ug/L	1	01/22/22 00:38	EPA 6020B (Diss)	
Potassium	4700	50.0	100	ug/L	1	01/22/22 00:38	EPA 6020B (Diss)	
Sodium	2930	50.0	100	ug/L	1	01/22/22 00:38	EPA 6020B (Diss)	
<b>GR-MNA-CEC-04 (A2A0418-04) <span style="float: right;">Matrix: Water</span></b>								
Batch: 22A0741								
Calcium	24800	300	600	ug/L	1	01/22/22 00:43	EPA 6020B (Diss)	
Magnesium	5920	75.0	150	ug/L	1	01/22/22 00:43	EPA 6020B (Diss)	
Potassium	4940	50.0	100	ug/L	1	01/22/22 00:43	EPA 6020B (Diss)	
Sodium	967	50.0	100	ug/L	1	01/22/22 00:43	EPA 6020B (Diss)	
<b>GR-MNA-CEC-05 (A2A0418-05) <span style="float: right;">Matrix: Water</span></b>								
Batch: 22A0741								
Calcium	36600	300	600	ug/L	1	01/22/22 00:48	EPA 6020B (Diss)	
Magnesium	4360	75.0	150	ug/L	1	01/22/22 00:48	EPA 6020B (Diss)	
Potassium	5240	50.0	100	ug/L	1	01/22/22 00:48	EPA 6020B (Diss)	
Sodium	545	50.0	100	ug/L	1	01/22/22 00:48	EPA 6020B (Diss)	
<b>GR-MNA-CEC-06 (A2A0418-06) <span style="float: right;">Matrix: Water</span></b>								

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

**Apex Laboratories, LLC**

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Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A2A0418 - 01 31 22 0458</b>
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**ANALYTICAL SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GR-MNA-CEC-06 (A2A0418-06)</b>				<b>Matrix: Water</b>				
Batch: 22A0741								
Calcium	34200	300	600	ug/L	1	01/22/22 00:53	EPA 6020B (Diss)	
Magnesium	10400	75.0	150	ug/L	1	01/22/22 00:53	EPA 6020B (Diss)	
Potassium	6270	50.0	100	ug/L	1	01/22/22 00:53	EPA 6020B (Diss)	
Sodium	1440	50.0	100	ug/L	1	01/22/22 00:53	EPA 6020B (Diss)	
<b>GR-MNA-CEC-07 (A2A0418-07)</b>				<b>Matrix: Water</b>				
Batch: 22A0787								
Calcium	10100	3000	6000	ug/L	10	01/24/22 15:17	EPA 6020B (Diss)	
Magnesium	1940	750	1500	ug/L	10	01/24/22 15:17	EPA 6020B (Diss)	
Potassium	5690	500	1000	ug/L	10	01/24/22 15:17	EPA 6020B (Diss)	
Sodium	879	500	1000	ug/L	10	01/24/22 15:17	EPA 6020B (Diss)	J
<b>GR-MNA-CEC-08 (A2A0418-08)</b>				<b>Matrix: Water</b>				
Batch: 22A0787								
Calcium	46400	3000	6000	ug/L	10	01/24/22 15:31	EPA 6020B (Diss)	
Magnesium	11400	750	1500	ug/L	10	01/24/22 15:31	EPA 6020B (Diss)	
Potassium	8300	500	1000	ug/L	10	01/24/22 15:31	EPA 6020B (Diss)	
Sodium	1540	500	1000	ug/L	10	01/24/22 15:31	EPA 6020B (Diss)	
<b>GR-MNA-CEC-09 (A2A0418-09)</b>				<b>Matrix: Water</b>				
Batch: 22A0787								
Calcium	45500	3000	6000	ug/L	10	01/24/22 15:36	EPA 6020B (Diss)	
Magnesium	11400	750	1500	ug/L	10	01/24/22 15:36	EPA 6020B (Diss)	
Potassium	8260	500	1000	ug/L	10	01/24/22 15:36	EPA 6020B (Diss)	
Sodium	1570	500	1000	ug/L	10	01/24/22 15:36	EPA 6020B (Diss)	
<b>GR-MNA-CEC-10 (A2A0418-10)</b>				<b>Matrix: Water</b>				
Batch: 22A0787								
Calcium	ND	3000	6000	ug/L	10	01/24/22 15:50	EPA 6020B (Diss)	
<b>GR-MNA-CEC-10 (A2A0418-10RE1)</b>				<b>Matrix: Water</b>				
Batch: 22A0787								
Magnesium	ND	75.0	150	ug/L	1	01/24/22 22:12	EPA 6020B (Diss)	
Potassium	68.9	50.0	100	ug/L	1	01/24/22 22:12	EPA 6020B (Diss)	J

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--	--	---

**ANALYTICAL SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GR-MNA-CEC-10 (A2A0418-10RE1)</b>				<b>Matrix: Water</b>				
<b>Sodium</b>	<b>145</b>	50.0	100	ug/L	1	01/24/22 22:12	EPA 6020B (Diss)	

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Darwin Thomas, Business Development Director



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--	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22A0741 - Matrix Matched Direct Inject</b>						<b>Water</b>						
<b>Blank (22A0741-BLK1)</b>						Prepared: 01/20/22 14:30 Analyzed: 01/21/22 22:44						
<u>EPA 6020B (Diss)</u>												
Calcium	ND	300	600	ug/L	1	---	---	---	---	---	---	
Magnesium	ND	75.0	150	ug/L	1	---	---	---	---	---	---	
Potassium	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Sodium	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
<b>LCS (22A0741-BS1)</b>						Prepared: 01/20/22 14:30 Analyzed: 01/21/22 22:49						
<u>EPA 6020B (Diss)</u>												
Calcium	2710	300	600	ug/L	1	2780	---	98	80-120%	---	---	
Magnesium	2780	75.0	150	ug/L	1	2780	---	100	80-120%	---	---	
Potassium	2810	50.0	100	ug/L	1	2780	---	101	80-120%	---	---	
Sodium	2820	50.0	100	ug/L	1	2780	---	101	80-120%	---	---	
<b>Duplicate (22A0741-DUP1)</b>						Prepared: 01/20/22 14:30 Analyzed: 01/21/22 22:58						
<u>QC Source Sample: Non-SDG (A2A0399-01)</u>												
Calcium	<b>18600</b>	300	600	ug/L	1	---	18800	---	---	0.9	20%	
Magnesium	<b>7810</b>	75.0	150	ug/L	1	---	7760	---	---	0.5	20%	
Potassium	<b>442</b>	50.0	100	ug/L	1	---	429	---	---	3	20%	
Sodium	<b>4320</b>	50.0	100	ug/L	1	---	4290	---	---	0.8	20%	
<b>Matrix Spike (22A0741-MS1)</b>						Prepared: 01/20/22 14:30 Analyzed: 01/21/22 23:03						
<u>QC Source Sample: Non-SDG (A2A0399-01)</u>												
<u>EPA 6020B (Diss)</u>												
Calcium	21100	300	600	ug/L	1	2780	18800	82	75-125%	---	---	
Magnesium	10500	75.0	150	ug/L	1	2780	7760	100	75-125%	---	---	
Potassium	3170	50.0	100	ug/L	1	2780	429	99	75-125%	---	---	
Sodium	7040	50.0	100	ug/L	1	2780	4290	99	75-125%	---	---	
<b>Batch 22A0787 - Matrix Matched Direct Inject</b>						<b>Water</b>						
<b>Blank (22A0787-BLK1)</b>						Prepared: 01/21/22 13:37 Analyzed: 01/24/22 15:07						
<u>EPA 6020B (Diss)</u>												
Calcium	ND	300	600	ug/L	1	---	---	---	---	---	---	
Magnesium	ND	75.0	150	ug/L	1	---	---	---	---	---	---	

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--	--	---

**QUALITY CONTROL (QC) SAMPLE RESULTS**

**Dissolved Metals by EPA 6020B (ICPMS)**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<b>Batch 22A0787 - Matrix Matched Direct Inject</b>						<b>Water</b>						
<b>Blank (22A0787-BLK1)</b>						Prepared: 01/21/22 13:37 Analyzed: 01/24/22 15:07						
Potassium	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Sodium	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
<b>LCS (22A0787-BS1)</b>						Prepared: 01/21/22 13:37 Analyzed: 01/24/22 15:12						
<u>EPA 6020B (Diss)</u>												
Calcium	2690	300	600	ug/L	1	2780	---	97	80-120%	---	---	
Magnesium	2670	75.0	150	ug/L	1	2780	---	96	80-120%	---	---	
Potassium	2690	50.0	100	ug/L	1	2780	---	97	80-120%	---	---	
Sodium	2710	50.0	100	ug/L	1	2780	---	97	80-120%	---	---	
<b>Duplicate (22A0787-DUP1)</b>						Prepared: 01/21/22 13:37 Analyzed: 01/24/22 15:21						
<u>QC Source Sample: GR-MNA-CEC-07 (A2A0418-07)</u>												
<u>EPA 6020B (Diss)</u>												
Calcium	<b>10400</b>	3000	6000	ug/L	10	---	10100	---	---	3	20%	
Magnesium	<b>2010</b>	750	1500	ug/L	10	---	1940	---	---	4	20%	
Potassium	<b>5830</b>	500	1000	ug/L	10	---	5690	---	---	2	20%	
Sodium	<b>901</b>	500	1000	ug/L	10	---	879	---	---	2	20%	J
<b>Matrix Spike (22A0787-MS1)</b>						Prepared: 01/21/22 13:37 Analyzed: 01/24/22 15:26						
<u>QC Source Sample: GR-MNA-CEC-07 (A2A0418-07)</u>												
<u>EPA 6020B (Diss)</u>												
Calcium	13000	3000	6000	ug/L	10	2780	10100	105	75-125%	---	---	
Magnesium	4560	750	1500	ug/L	10	2780	1940	94	75-125%	---	---	
Potassium	8270	500	1000	ug/L	10	2780	5690	93	75-125%	---	---	
Sodium	3490	500	1000	ug/L	10	2780	879	94	75-125%	---	---	

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**ANALYTICAL REPORT**

**Apex Laboratories, LLC**

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Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062

<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road</b> Project Number: <b>201114-05.01</b> Project Manager: <b>Jessica Goin, PhD</b>	<b>Report ID:</b> <b>A2A0418 - 01 31 22 0458</b>
--	--	---

**SAMPLE PREPARATION INFORMATION**

**Dissolved Metals by EPA 6020B (ICPMS)**

Prep: Matrix Matched Direct Inject

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 22A0741</u>							
A2A0418-01	Water	EPA 6020B (Diss)	01/11/22 09:00	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0418-02	Water	EPA 6020B (Diss)	01/11/22 09:05	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0418-03	Water	EPA 6020B (Diss)	01/11/22 09:10	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0418-04	Water	EPA 6020B (Diss)	01/11/22 09:15	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0418-05	Water	EPA 6020B (Diss)	01/11/22 09:20	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
A2A0418-06	Water	EPA 6020B (Diss)	01/11/22 09:25	01/20/22 14:30	45mL/50mL	45mL/50mL	1.00
<u>Batch: 22A0787</u>							
A2A0418-07	Water	EPA 6020B (Diss)	01/11/22 09:30	01/21/22 13:37	45mL/50mL	45mL/50mL	1.00
A2A0418-08	Water	EPA 6020B (Diss)	01/11/22 09:35	01/21/22 13:37	45mL/50mL	45mL/50mL	1.00
A2A0418-09	Water	EPA 6020B (Diss)	01/11/22 09:40	01/21/22 13:37	45mL/50mL	45mL/50mL	1.00
A2A0418-10	Water	EPA 6020B (Diss)	01/11/22 09:45	01/21/22 13:37	45mL/50mL	45mL/50mL	1.00
A2A0418-10RE1	Water	EPA 6020B (Diss)	01/11/22 09:45	01/21/22 13:37	45mL/50mL	45mL/50mL	1.00

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**QUALIFIER DEFINITIONS**

**Client Sample and Quality Control (QC) Sample Qualifier Definitions:**

**Apex Laboratories**

**J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.

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**REPORTING NOTES AND CONVENTIONS:**

**Abbreviations:**

- DET Analyte DETECTED at or above the detection or reporting limit.
- ND Analyte NOT DETECTED at or above the detection or reporting limit.
- NR Result Not Reported
- RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).  
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting Conventions:**

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.  
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.
- " dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")  
See Percent Solids section for details of dry weight analysis.
- " wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.  
  
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

- " --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
- " \*\*\* " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to 1/2 the Reporting Limit (RL).  
-For Blank hits falling between 1/2 the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.  
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.  
For further details, please request a copy of this document.

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**REPORTING NOTES AND CONVENTIONS (Cont.):**

**Blanks (Cont.):**

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Table with 3 columns: Client (Anchor QEA, LLC), Project (Grumman Road), and Report ID (A2A0418 - 01 31 22 0458).

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Table with 6 columns: Matrix, Analysis, TNI\_ID, Analyte, TNI\_ID, Accreditation. Content: All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation. Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Signature of Darwin Thomas

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**APEX LABS**

12210 E. Center Place, Tigard, OR 97223, Ph: 503-718-2323 Fax: 503-718-4899

**CHAIN OF CUSTODY**

Lab: A2A0418      Req. L.A.I.

Client: Anchor QEA      Project: Grumman Road      Report: 201114-05.01

Address: 6720 SW Macadam Ave      Lab: 5037182323

Sample ID: Grumman Road

Sample ID	Matrix	Method	Unit	Result	Notes
GR-MWA-SEC-01	Water	Grumman	mg/L		
GR-MWA-SEC-02	Water	Grumman	mg/L		
GR-MWA-SEC-03	Water	Grumman	mg/L		
GR-MWA-SEC-04	Water	Grumman	mg/L		
GR-MWA-SEC-05	Water	Grumman	mg/L		
GR-MWA-SEC-06	Water	Grumman	mg/L		
GR-MWA-SEC-07	Water	Grumman	mg/L		
GR-MWA-SEC-08	Water	Grumman	mg/L		
GR-MWA-SEC-09	Water	Grumman	mg/L		
GR-MWA-SEC-10	Water	Grumman	mg/L		

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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**APEX LABS**      **CHAIN OF CUSTODY**      **670114-05.01**

Customer: **Anchor QEA**      Project: **Grumman Road**      Date: **2011-11-01**

Sample ID: **Grumman Road**      Location: **Grumman Road**      Analyst: **Jessica Goin**

Sample ID	Location	Matrix	Method	Unit	Result	Notes
Grumman SEC-01	Grumman Rd	Soil	SW-846	mg/kg		
Grumman SEC-02	Grumman Rd	Soil	SW-846	mg/kg		
Grumman SEC-03	Grumman Rd	Soil	SW-846	mg/kg		
Grumman SEC-04	Grumman Rd	Soil	SW-846	mg/kg		
Grumman SEC-05	Grumman Rd	Soil	SW-846	mg/kg		
Grumman SEC-06	Grumman Rd	Soil	SW-846	mg/kg		
Grumman SEC-07	Grumman Rd	Soil	SW-846	mg/kg		
Grumman SEC-08	Grumman Rd	Soil	SW-846	mg/kg		
Grumman SEC-09	Grumman Rd	Soil	SW-846	mg/kg		
Grumman SEC-10	Grumman Rd	Soil	SW-846	mg/kg		

Signature: *[Handwritten Signature]*      Date: **11/01/11**

Apex Laboratories

*[Handwritten Signature]*

Darwin Thomas, Business Development Director

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<b>Anchor QEA, LLC</b> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <b>Grumman Road</b> Project Number: 201114-05.01 Project Manager: Jessica Goin, PhD	<b>Report ID:</b> A2A0418 - 01 31 22 0458
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**APEX LABS COOLER RECEIPT FORM**

Client: Anchor QEA Element WOF: A2 A L W H S

Project/Project #: Grumman Rd MNA

**Delivery Info:**  
 Date/time received: 1/10/22 @ 10:55 by JS  
 Delivered by: Apex  Client  USS  FedEx  UPS  Swift  Survey  SEKS  Other

**Cooler Inspection** Date/time inspected: 1/10/22 @ 10:58 by JS

Chain of Custody included? Yes  No  Custody sealed? Yes  No

Signed/dated by client? Yes  No

Signed/dated by Apex? Yes  No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>1.2</u>						
Received on ice? (Y/N)	<u>N</u>						
Temp. Marker? (Y/N)	<u>N</u>						
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition:	<u>Good</u>						

Cooler out of temp? (Y/N) Possible reason why: \_\_\_\_\_  
 Green dots applied to all of temperature samples? Yes  No   
 Out of temperature samples form initiated? Yes  No

**Sample Inspection:** Date/time inspected: 1/10/22 @ 11:58 by JGM

All samples intact? Yes  No  Comments: \_\_\_\_\_  
24m 4122

Bottle labels/COCs agree? Yes  No  Comments: Container G-R-MNA-COC-06 reads 1000.00 09:20 and Container G-R-MNA-COC-07 reads 1000.00 09:25.

COC/container discrepancies form initiated? Yes  No

Containers/volumes received appropriate for analysis? Yes  No  Comments: \_\_\_\_\_

Do VOA vials have visible headspace? Yes  No  NA

Comments: \_\_\_\_\_

Water samples: pH checked? Yes  No  NA  pH appropriate? Yes  No  NA

Comments: pH at receipt <sup>1000.00</sup> 7. No Change after preserved.

Additional information: \_\_\_\_\_

\_\_\_\_\_

Labelled by: JGM Witness: JS Cooler inspected by: JGM

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## **APPENDIX D**

### **Statistical Analyses**

**Grumman Road Private Industrial Landfill  
Chatham County, Georgia  
2022 Annual Groundwater Monitoring and Corrective Action Report**



## APPENDIX D

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*Statistical Analysis Report  
September 2021 Monitoring Event*

## GROUNDWATER STATS CONSULTING

February 28, 2022

Southern Company Services  
Attn: Ms. Kristen Jurinko  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308



Re: Plant Kraft's Grumman Road Landfill  
Statistical Analysis – September 2021 Sample Event

Dear Ms. Jurinko,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the groundwater statistical analysis of the September 2021 sample event for Georgia Power Company's Plant Kraft's Grumman Road Landfill. The analysis complies with the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10 and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began for the Coal Combustion Residuals (CCR) program in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. Semi-annual sampling of the majority of Appendix IV constituents has been performed at most wells for several years in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** GWA-7 and GWA-8
- **Downgradient wells:** GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-2, GWC-9, GWC-11, GWC-12, GWC-13, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20, GWC-21, and GWC-22
- **Delineation wells:** MW-23D, MW-24D, MW-25D, MW-26D, and MW-27D

Delineation wells were installed in late 2020 and were first sampled in early 2021 for all constituents except mercury, which was not detected during the August 2020 Scan event. Mercury was first sampled for the delineation wells during the September 2021 sample event. These delineation wells currently have a maximum of 2 samples and will be evaluated with confidence intervals once they have at least 4 samples.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The program monitors the constituents listed below. Georgia EPD Appendix II and CCR Appendix IV constituents overlap with the exception of vanadium and zinc, which are required for Georgia EPD. The terms “parameters” and “constituents” are used interchangeably throughout.

- **Georgia EPD Appendix I** (Detection Monitoring) – antimony, arsenic, barium, chromium, lead, selenium, vanadium, and zinc
- **CCR Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Georgia EPD Appendix II/CCR Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, vanadium, and zinc

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of well/constituent pairs containing 100% non-detects follows this letter. Additionally, when Appendix IV constituents are not detected during a scheduled Scan event, no statistical analyses are required during the semi-annual sample event. During the annual Scan event conducted in August 2020, mercury was not detected; therefore, it was not required to be sampled during the September 2020 and March 2021 events. All constituents, however, were sampled during this analysis.

Time series plots for all parameters at each well are provided for the purpose of screening data at these wells (Figure A). Additionally, time series plots of all parameters at upgradient wells are included to more easily display concentrations upgradient of the facility (Figure A). A separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have

been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

Due to varying detection limits in background data sets as a result of improved laboratory practices, a substitution of the most recent reporting limit is used for all non-detects. Of particular note is the reporting limits for metals at upgradient well GWA-7. Due to higher dilutions needed for some metal analyses for this well, the reporting limits may vary between sampling events and are sometimes considerably higher than corresponding reporting limits for other wells. On the other hand, some detected observations are recorded at extremely low concentrations, below the MCL of 0.005 mg/L for arsenic, as an example. Therefore, the same reporting limit substitution is used for this well as for all other wells.

Data at all wells were originally evaluated during 2019 for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. However, interwell methods are currently implemented in accordance with the Georgia EPD regulations and are used to evaluate compliance samples in downgradient wells. Power curves were provided along with the previous screening and demonstrated that the selected statistical methods comply with the USEPA Unified Guidance. The EPA suggests that the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

## **Summary of Statistical Methods – Detection Monitoring**

### **Georgia EPD Appendix I Constituents:**

Semi-Annual Sampling

Interwell Prediction Limits with 1 of 2 resample plan

# Constituents Downgradient: 8

# Downgradient wells: 16

### **CCR Appendix III Constituents:**

Semi-Annual Sampling

Interwell Prediction Limits with 1 of 2 resample plan (boron, calcium, chloride, fluoride, pH, sulfate and TDS)

# Constituents Downgradient: 7

# Downgradient wells: 16

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual rate of 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits, along with the following methodology for handling non-detects:

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In some cases, an earlier portion of data may require deselection prior to construction of limits to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

## **Summary of Background Screening – Georgia EPD Appendix I Constituents – Conducted in August 2019**

### Outlier Testing

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells and parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey's box plot method, several outliers were identified. A summary of those findings was submitted with the August 2019 report. As a general rule, when the most recent values are identified as outliers, values are not flagged in the database (except in cases where they would cause background limits to be elevated) as they may represent a possible trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory's Practical Quantitation Limit. However, these values are observed trace values (i.e. measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

Additionally, values that were not identified by Tukey's test but that are much higher than the remaining measurements were flagged as appropriate in order to obtain conservative prediction limits that are capable of detecting future changes. A summary of flagged values follows this letter (Figure C). As mentioned above, when any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well.

### Seasonality

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

## Trend Testing

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test, which tests for statistically significant increasing or decreasing trends, was used to evaluate data at all upgradient wells and downgradient wells with detections.

In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different from current reported concentrations and will be deselected as necessary. This step would apply to upgradient wells GWA-7 and GWA-8 only since pooled data from these wells are used to construct interwell prediction limits. While this was not required, when any records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits. A summary of the trend analyses was submitted with the screening report.

## Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells for constituents detected in downgradient wells. The ANOVA assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells are not representative of the current background data population; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified significant differences among upgradient well data for all constituents which would suggest intrawell methods as the most appropriate statistical method. However, interwell methods are currently constructed in accordance with the Georgia EPD regulations and are used to evaluate compliance samples in downgradient wells.

## Summary of Background Screening – CCR Appendix III and IV Parameters – Conducted in March 2019

### Outlier and Trend Testing

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey box plot method, several outliers were identified. A summary of those findings was included with the screening report. When the most recent values are identified as outliers, values were not flagged in the database at this time (except in cases where they would cause background limits to be elevated) as they may represent a possible trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory's Practical Quantitation Limit. However, these values are observed trace values (i.e. measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

Of the outliers identified by Tukey's method, several values were flagged in the database, and the remaining values were similar to other measurements within a given well or neighboring wells or were reported non-detects. A summary of all flagged values follows this report (Figure C).

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

The results of the Sen's Slope/Mann Kendall trend analyses showed a number of statistically significant increasing and decreasing trends for the Appendix III parameters. Most of the statistically significant trends identified, particularly those in upgradient wells GWA-7 and GWA-8 from which data are used in construction of the interwell prediction limits, were relatively low in magnitude when compared to average concentrations. Also, the background period was short in 2019, making it difficult to determine whether an



apparent trend represents a long-term change or simply normal year-to-year variation; therefore, no adjustments were made to the data sets.

### Appendix III – Determination of Spatial Variation

The ANOVA identified no variation among upgradient well data for fluoride, making interwell analyses the most appropriate statistical method for this constituent. Variation was noted for boron, calcium, chloride, pH, sulfate, and TDS which suggests the use of intrawell methods as the most appropriate statistical method. However, interwell methods are currently constructed in accordance with the Georgia EPD regulations and are used to evaluate compliance samples in downgradient wells.

### **Statistical Analysis of Georgia EPD Appendix I Constituents – September 2021**

All Appendix I parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. No new values were flagged as shown in the outlier summary following this report (Figure C).

### Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed from carefully screened pooled upgradient well data through September 2021 for arsenic, barium, chromium, selenium, vanadium, and zinc (Figure D). The September 2021 sample at each downgradient well is compared to these background limits.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result, and therefore, no further action is necessary. If no resample is collected, the initial exceedance is automatically confirmed. A summary table and complete graphical results of the interwell prediction limits follow this letter and include a list of exceedances. Exceedances were identified for the following well/constituent pairs:

- Arsenic: GWC-15, GWC-16, and GWC-20
- Barium: GWC-16 and GWC-20

## Trend Tests – Appendix I Exceedances

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient well data are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. When trends are present in upgradient wells it is an indication of natural variability in groundwater quality unrelated to practices at the site. Statistically significant trends were noted for the following well/constituent pairs:

### Increasing Trends:

- Arsenic: GWC-15
- Barium: GWC-16 and GWC-20

### Decreasing Trends:

- Arsenic: GWA-7, GWA-8 (both upgradient), and GWC-16
- Barium: GWA-8 (upgradient)

Note that while the trend test identified a statistically significant decreasing trend for arsenic in upgradient well GWA-8, the slope is displayed as zero which represents the median slope of all the possible pairwise slopes. The zero median slope results from the large number of non-detects in the record, and the negative test statistic results from a few trace values being recorded in the latter part of the record. Both a summary and complete graphical presentation of the trend test results follow this letter.

## **Statistical Analysis of CCR Appendix III Parameters – September 2021**

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. No new values were flagged as shown in the outlier summary following this report (Figure C).

### Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using pooled upgradient well data through September 2021 to develop background limits for boron, calcium, chloride, fluoride, pH, sulfate and TDS (Figure F). In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is

identified and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no further action is necessary. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs). Summary tables of the prediction limits follow this letter. Exceedances were identified for the following well/constituent pairs:

- Calcium:       GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, GWC-12, GWC-14, GWC-15, GWC-16, GWC-17, and GWC-20
- Chloride:       GWC-17
- Fluoride:       GWC-17
- pH:             GWC-12 (lower limit) and GWC-15 (upper limit)
- Sulfate:        GWB-4R, GWB-5R, GWB-6R, GWC-11, GWC-12, GWC-14, GWC-16, GWC-17, and GWC-20

#### Trend Tests – Appendix III Exceedances

Data from downgradient well/constituent pairs found to exceed their respective prediction limit were further evaluated using the Sen's Slope/Mann Kendall trend test along with upgradient wells for the same constituents (Figure G). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Such patterns are an indication of natural variability in groundwater unrelated to practices at the site. Statistically significant trends were noted for the following well/constituent pairs:

#### Increasing trends:

- Calcium:       GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, and GWC-16
- Sulfate:        GWB-6R, GWC-11, and GWC-16

#### Decreasing trends:

- Calcium:       GWA-7 (upgradient) and GWC-12
- Chloride:       GWA-7 (upgradient)
- pH:             GWA-7 (upgradient)
- Sulfate:        GWA-7 (upgradient) and GWC-12

## **Statistical Analysis of Georgia EPD Appendix II and CCR Appendix IV - September 2021**

For Appendix II and IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs containing 100% non-detects do not require analysis. Data from upgradient wells for Appendix II and IV parameters are reassessed for outliers during each analysis. No new values were flagged and a summary of previously flagged outliers follows this report (Figure C).

### Interwell Upper Tolerance Limits

Interwell upper tolerance limits (UTLs) are calculated using Sanitas software, from all historical pooled upgradient well data for Appendix II and IV constituents (Figure H). The UTLs serve as site-specific background limits for each constituent. Parametric tolerance limits are used when data follow a normal or transformed-normal distribution, i.e. fluoride. When data contain greater than 50% non-detects or do not follow a normal or transformed-normal distribution, non-parametric tolerance limits are used.

### Groundwater Protection Standards

The background limits are then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). As described in 40 CFR §257.95(h) (1-3), the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title;
- The background level where an MCL has not been established for a constituent (i.e. cobalt, lead, lithium, and molybdenum); and
- The respective background level for a constituent when the background level is higher than the MCL.

For the current analysis and evaluation of the September 2021 sampling data, GWPS were established following the above Georgia EPD Rule requirements (Figure I).

## Confidence Intervals

To complete the statistical comparison of current sampling data to GWPS, confidence intervals were constructed using Sanitas software using data from 2016 through the present for each of the Appendix II and IV constituents in each downgradient well (Figure J). As mentioned above, mercury and any well/constituent pairs containing 100% non-detects since 2016 were not required for statistical analyses. The confidence intervals were then compared to the State GWPS (Georgia EPD rules). Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. The confidence intervals and graphical comparisons to State GWPS are presented in Figure J, with summary tables of exceedances. The following confidence interval exceedances were noted:

- Arsenic: GWC-15, GWC-16, and GWC-20
- Molybdenum: GWB-4R, GWC-1, GWC-15, GWC-16, GWC-20, and GWC-21

## Trend Test Evaluation – Appendix IV

Data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure K). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient trends, it is an indication of natural variability in groundwater quality unrelated to practices at the site. A summary of the Appendix IV trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing trends:

- Arsenic: GWC-15
- Molybdenum: GWC-16

Decreasing trends:

- Molybdenum: GWC-1

## SUMMARY

Based on the statistical analyses described in this letter, the following statistical exceedances were noted:

### **Prediction Limits (Detection Monitoring Parameters)**

#### **Georgia EPD Appendix I:**

- Arsenic: GWC-15, GWC-16, and GWC-20
- Barium: GWC-16 and GWC-20

#### **CCR Appendix III:**

- Calcium: GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, GWC-12, GWC-14, GWC-15, GWC-16, GWC-17, and GWC-20
- Chloride: GWC-17
- Fluoride: GWC-17
- pH: GWC-12 (lower limit) and GWC-15 (upper limit)
- Sulfate: GWB-4R, GWB-5R, GWB-6R, GWC-11, GWC-12, GWC-14, GWC-16, GWC-17, and GWC-20

### **Confidence Intervals (Assessment Monitoring Parameters)**

#### **Georgia EPD Appendix II and CCR Appendix IV:**

- Arsenic: GWC-15, GWC-16, and GWC-20
- Molybdenum: GWB-4R, GWC-1, GWC-15, GWC-16, GWC-20, and GWC-21

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Kraft's Grumman Road Landfill. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Kristina L. Rayner  
Groundwater Statistician



Andrew T. Collins  
Project Manager

# Appendix I Interwell Prediction Limit - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 10:17 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Arsenic (mg/L)	GWC-15	0.0287	n/a	9/23/2021	0.21	Yes	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-16	0.0287	n/a	9/22/2021	0.081	Yes	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-20	0.0287	n/a	9/22/2021	0.23	Yes	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Barium (mg/L)	GWC-16	0.22	n/a	9/22/2021	0.26	Yes	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-20	0.22	n/a	9/22/2021	0.42	Yes	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2

# Appendix I Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 10:17 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Antimony (mg/L)	GWB-4R	0.003	n/a	9/21/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWB-5R	0.003	n/a	9/21/2021	0.0013J	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWB-6R	0.003	n/a	9/21/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-1	0.003	n/a	9/23/2021	0.0016J	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-11	0.003	n/a	9/21/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-12	0.003	n/a	9/21/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-13	0.003	n/a	9/21/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-14	0.003	n/a	9/22/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-15	0.003	n/a	9/23/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-16	0.003	n/a	9/22/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-17	0.003	n/a	9/22/2021	0.0014J	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-2	0.003	n/a	9/22/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-20	0.003	n/a	9/22/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-21	0.003	n/a	9/22/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-22	0.003	n/a	9/21/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-9	0.003	n/a	9/22/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-4R	0.0287	n/a	9/21/2021	0.0027J	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-5R	0.0287	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-6R	0.0287	n/a	9/21/2021	0.0054	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-1	0.0287	n/a	9/23/2021	0.0048J	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-12	0.0287	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-13	0.0287	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-14	0.0287	n/a	9/22/2021	0.0014J	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.0287</b>	<b>n/a</b>	<b>9/23/2021</b>	<b>0.21</b>	<b>Yes</b>	<b>123</b>	<b>n/a</b>	<b>n/a</b>	<b>77.24</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001289 NP Inter (NDs) 1 of 2</b>
<b>Arsenic (mg/L)</b>	<b>GWC-16</b>	<b>0.0287</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>0.081</b>	<b>Yes</b>	<b>123</b>	<b>n/a</b>	<b>n/a</b>	<b>77.24</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001289 NP Inter (NDs) 1 of 2</b>
Arsenic (mg/L)	GWC-17	0.0287	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-2	0.0287	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
<b>Arsenic (mg/L)</b>	<b>GWC-20</b>	<b>0.0287</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>0.23</b>	<b>Yes</b>	<b>123</b>	<b>n/a</b>	<b>n/a</b>	<b>77.24</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001289 NP Inter (NDs) 1 of 2</b>
Arsenic (mg/L)	GWC-21	0.0287	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-22	0.0287	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-9	0.0287	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Barium (mg/L)	GWB-4R	0.22	n/a	9/21/2021	0.098	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWB-5R	0.22	n/a	9/21/2021	0.076	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWB-6R	0.22	n/a	9/21/2021	0.077	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-1	0.22	n/a	9/23/2021	0.062	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-11	0.22	n/a	9/21/2021	0.12	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-12	0.22	n/a	9/21/2021	0.023	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-13	0.22	n/a	9/21/2021	0.037	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-14	0.22	n/a	9/22/2021	0.11	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-15	0.22	n/a	9/23/2021	0.062	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
<b>Barium (mg/L)</b>	<b>GWC-16</b>	<b>0.22</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>0.26</b>	<b>Yes</b>	<b>121</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001324 NP Inter (normality) 1 of 2</b>
Barium (mg/L)	GWC-17	0.22	n/a	9/22/2021	0.058	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-2	0.22	n/a	9/22/2021	0.047	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
<b>Barium (mg/L)</b>	<b>GWC-20</b>	<b>0.22</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>0.42</b>	<b>Yes</b>	<b>121</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001324 NP Inter (normality) 1 of 2</b>
Barium (mg/L)	GWC-21	0.22	n/a	9/22/2021	0.046	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-22	0.22	n/a	9/21/2021	0.036	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-9	0.22	n/a	9/22/2021	0.15	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Chromium (mg/L)	GWB-4R	0.068	n/a	9/21/2021	0.0018J	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWB-5R	0.068	n/a	9/21/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWB-6R	0.068	n/a	9/21/2021	0.0035J	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2



# Appendix I Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 10:17 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Chromium (mg/L)	GWC-1	0.068	n/a	9/23/2021	0.0023J	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-11	0.068	n/a	9/21/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-12	0.068	n/a	9/21/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-13	0.068	n/a	9/21/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-14	0.068	n/a	9/22/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-15	0.068	n/a	9/23/2021	0.0013J	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-16	0.068	n/a	9/22/2021	0.0018J	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-17	0.068	n/a	9/22/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-2	0.068	n/a	9/22/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-20	0.068	n/a	9/22/2021	0.0013J	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-21	0.068	n/a	9/22/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-22	0.068	n/a	9/21/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-9	0.068	n/a	9/22/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-4R	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-5R	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-6R	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-1	0.013	n/a	9/23/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-11	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-12	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-13	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-14	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-15	0.013	n/a	9/23/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-16	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-17	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-2	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-20	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-21	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-22	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-9	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-4R	0.0438	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-5R	0.0438	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-6R	0.0438	n/a	9/21/2021	0.0016J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-1	0.0438	n/a	9/23/2021	0.0018J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-11	0.0438	n/a	9/21/2021	0.0038J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-12	0.0438	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-14	0.0438	n/a	9/22/2021	0.0034J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-15	0.0438	n/a	9/23/2021	0.0016J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-16	0.0438	n/a	9/22/2021	0.0031J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-17	0.0438	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-2	0.0438	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-20	0.0438	n/a	9/22/2021	0.0024J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-21	0.0438	n/a	9/22/2021	0.0027J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-22	0.0438	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-9	0.0438	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-4R	0.425	n/a	9/21/2021	0.0027J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427 NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-5R	0.425	n/a	9/21/2021	0.0039J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427 NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-6R	0.425	n/a	9/21/2021	0.015	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427 NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-1	0.425	n/a	9/23/2021	0.0042J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427 NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-11	0.425	n/a	9/21/2021	0.002J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427 NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-12	0.425	n/a	9/21/2021	0.0051J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427 NP Inter (NDs) 1 of 2

# Appendix I Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 10:17 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method	
Vanadium (mg/L)	GWC-13	0.425	n/a	9/21/2021	0.01ND	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-14	0.425	n/a	9/22/2021	0.0052J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-15	0.425	n/a	9/23/2021	0.0022J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-16	0.425	n/a	9/22/2021	0.0025J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-17	0.425	n/a	9/22/2021	0.01ND	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-2	0.425	n/a	9/22/2021	0.01ND	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-20	0.425	n/a	9/22/2021	0.0033J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-21	0.425	n/a	9/22/2021	0.01ND	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-22	0.425	n/a	9/21/2021	0.01ND	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-9	0.425	n/a	9/22/2021	0.01ND	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Zinc (mg/L)	GWB-4R	0.16	n/a	9/21/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWB-5R	0.16	n/a	9/21/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWB-6R	0.16	n/a	9/21/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-1	0.16	n/a	9/23/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-11	0.16	n/a	9/21/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-12	0.16	n/a	9/21/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-13	0.16	n/a	9/21/2021	0.036	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-14	0.16	n/a	9/22/2021	0.01	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-15	0.16	n/a	9/23/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-16	0.16	n/a	9/22/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-17	0.16	n/a	9/22/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-2	0.16	n/a	9/22/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-20	0.16	n/a	9/22/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-21	0.16	n/a	9/22/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-22	0.16	n/a	9/21/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-9	0.16	n/a	9/22/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2

# Appendix I Trend Tests - Prediction Limit Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 10:21 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWA-7 (bg)	-0.0004641	-4.064	-2.58	Yes	51	56.86	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	-3.001	-2.58	Yes	72	91.67	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-15	0.004498	8.092	2.58	Yes	52	48.08	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-16	-0.001191	-2.985	-2.58	Yes	71	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWA-8 (bg)	-0.002925	-8.747	-2.58	Yes	71	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWC-16	0.001438	3.347	2.58	Yes	68	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWC-20	0.01269	279	152	Yes	31	0	n/a	n/a	0.01	NP

# Appendix I Trend Tests - Prediction Limit Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 10:21 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Arsenic (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-0.0004641</b>	<b>-4.064</b>	<b>-2.58</b>	<b>Yes</b>	<b>51</b>	<b>56.86</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>GWA-8 (bg)</b>	<b>0</b>	<b>-3.001</b>	<b>-2.58</b>	<b>Yes</b>	<b>72</b>	<b>91.67</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.004498</b>	<b>8.092</b>	<b>2.58</b>	<b>Yes</b>	<b>52</b>	<b>48.08</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>GWC-16</b>	<b>-0.001191</b>	<b>-2.985</b>	<b>-2.58</b>	<b>Yes</b>	<b>71</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Arsenic (mg/L)	GWC-20	0.0104	102	152	No	31	3.226	n/a	n/a	0.01	NP
Barium (mg/L)	GWA-7 (bg)	-0.0005382	-0.6705	-2.58	No	50	0	n/a	n/a	0.01	NP
<b>Barium (mg/L)</b>	<b>GWA-8 (bg)</b>	<b>-0.002925</b>	<b>-8.747</b>	<b>-2.58</b>	<b>Yes</b>	<b>71</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Barium (mg/L)</b>	<b>GWC-16</b>	<b>0.001438</b>	<b>3.347</b>	<b>2.58</b>	<b>Yes</b>	<b>68</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Barium (mg/L)</b>	<b>GWC-20</b>	<b>0.01269</b>	<b>279</b>	<b>152</b>	<b>Yes</b>	<b>31</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

# Appendix III Interwell Prediction Limit - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:34 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Calcium (mg/L)	GWB-4R	35.8	n/a	9/21/2021	67.5	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-5R	35.8	n/a	9/21/2021	140	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-6R	35.8	n/a	9/21/2021	110	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1	35.8	n/a	9/23/2021	69.1	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-11	35.8	n/a	9/21/2021	87	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-12	35.8	n/a	9/21/2021	63.4	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-14	35.8	n/a	9/22/2021	185	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-15	35.8	n/a	9/23/2021	146	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-16	35.8	n/a	9/22/2021	267	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-17	35.8	n/a	9/22/2021	94.6	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-20	35.8	n/a	9/22/2021	266	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-17	260	n/a	9/22/2021	517	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWC-17	0.4672	n/a	9/22/2021	0.79	Yes	34	-2.29	0.6855	23.53	Kaplan-Meier ln(x)	0.0004702	Param Inter 1 of 2
pH (SU)	GWC-12	6.43	4.23	9/21/2021	4.05	Yes	32	n/a	n/a	0	n/a	n/a	0.003244 NP Inter (normality) 1 of 2
pH (SU)	GWC-15	6.43	4.23	9/23/2021	6.48	Yes	32	n/a	n/a	0	n/a	n/a	0.003244 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-4R	160	n/a	9/21/2021	232	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-5R	160	n/a	9/21/2021	829	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-6R	160	n/a	9/21/2021	645	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-11	160	n/a	9/21/2021	433	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-12	160	n/a	9/21/2021	315	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-14	160	n/a	9/22/2021	444	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-16	160	n/a	9/22/2021	1040	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-17	160	n/a	9/22/2021	394	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-20	160	n/a	9/22/2021	905	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2

# Appendix III Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWB-4R	21.8	n/a	9/21/2021	6.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-5R	21.8	n/a	9/21/2021	4.1	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-6R	21.8	n/a	9/21/2021	4.2	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-1	21.8	n/a	9/23/2021	0.59	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-11	21.8	n/a	9/21/2021	0.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-12	21.8	n/a	9/21/2021	5.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-13	21.8	n/a	9/21/2021	0.38	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-14	21.8	n/a	9/22/2021	0.052	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-15	21.8	n/a	9/23/2021	0.72	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-16	21.8	n/a	9/22/2021	11.5	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-17	21.8	n/a	9/22/2021	1.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-2	21.8	n/a	9/22/2021	0.017J	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-20	21.8	n/a	9/22/2021	11.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-21	21.8	n/a	9/22/2021	0.095	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-22	21.8	n/a	9/21/2021	0.19	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-9	21.8	n/a	9/22/2021	0.015J	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWB-4R</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>67.5</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWB-5R</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>140</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWB-6R</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>110</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-1</b>	<b>35.8</b>	<b>n/a</b>	<b>9/23/2021</b>	<b>69.1</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-11</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>87</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-12</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>63.4</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-13	35.8	n/a	9/21/2021	3.6	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-14</b>	<b>35.8</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>185</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-15</b>	<b>35.8</b>	<b>n/a</b>	<b>9/23/2021</b>	<b>146</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-16</b>	<b>35.8</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>267</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-17</b>	<b>35.8</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>94.6</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-2	35.8	n/a	9/22/2021	0.19J	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-20</b>	<b>35.8</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>266</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-21	35.8	n/a	9/22/2021	5.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-22	35.8	n/a	9/21/2021	15.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-9	35.8	n/a	9/22/2021	5	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-4R	260	n/a	9/21/2021	13.9	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-5R	260	n/a	9/21/2021	38.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-6R	260	n/a	9/21/2021	53.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-1	260	n/a	9/23/2021	8.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-11	260	n/a	9/21/2021	103	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-12	260	n/a	9/21/2021	63.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-13	260	n/a	9/21/2021	7.9	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-14	260	n/a	9/22/2021	28	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-15	260	n/a	9/23/2021	7.1	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-16	260	n/a	9/22/2021	55.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Chloride (mg/L)</b>	<b>GWC-17</b>	<b>260</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>517</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	GWC-2	260	n/a	9/22/2021	7.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-20	260	n/a	9/22/2021	38.9	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-21	260	n/a	9/22/2021	6	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-22	260	n/a	9/21/2021	9.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-9	260	n/a	9/22/2021	19.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWB-4R	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWB-5R	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2

# Appendix III Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsv.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	GWB-6R	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-1	0.4672	n/a	9/23/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-11	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-12	0.4672	n/a	9/21/2021	0.31	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-13	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-14	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-15	0.4672	n/a	9/23/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-16	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
<b>Fluoride (mg/L)</b>	<b>GWC-17</b>	<b>0.4672</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>0.79</b>	<b>Yes</b>	<b>34</b>	<b>-2.29</b>	<b>0.6855</b>	<b>23.53</b>	<b>Kaplan-Meier</b>	<b>ln(x)</b>	<b>0.0004702</b>	<b>Param Inter 1 of 2</b>
Fluoride (mg/L)	GWC-2	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-20	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-21	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-22	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-9	0.4672	n/a	9/22/2021	0.13	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
pH (SU)	GWB-4R	6.43	4.23	9/21/2021	5.78	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWB-5R	6.43	4.23	9/21/2021	4.68	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWB-6R	6.43	4.23	9/21/2021	5.4	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-1	6.43	4.23	9/23/2021	6.06	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-11	6.43	4.23	9/21/2021	4.92	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GWC-12</b>	<b>6.43</b>	<b>4.23</b>	<b>9/21/2021</b>	<b>4.05</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.003244</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GWC-13	6.43	4.23	9/21/2021	4.83	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-14	6.43	4.23	9/22/2021	5.76	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GWC-15</b>	<b>6.43</b>	<b>4.23</b>	<b>9/23/2021</b>	<b>6.48</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.003244</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GWC-16	6.43	4.23	9/22/2021	5.57	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-17	6.43	4.23	9/22/2021	4.63	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-2	6.43	4.23	9/22/2021	4.71	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-20	6.43	4.23	9/22/2021	6	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-21	6.43	4.23	9/22/2021	5.39	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-22	6.43	4.23	9/21/2021	4.72	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-9	6.43	4.23	9/22/2021	4.7	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWB-4R</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>232</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWB-5R</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>829</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWB-6R</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>645</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-1	160	n/a	9/23/2021	37.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-11</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>433</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWC-12</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>315</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-13	160	n/a	9/21/2021	36.6	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-14</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>444</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-15	160	n/a	9/23/2021	124	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-16</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>1040</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWC-17</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>394</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-2	160	n/a	9/22/2021	10.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-20</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>905</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-21	160	n/a	9/22/2021	14.6	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-22	160	n/a	9/21/2021	52.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-9	160	n/a	9/22/2021	42.7	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-4R	3660	n/a	9/21/2021	476	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-5R	3660	n/a	9/21/2021	1240	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-6R	3660	n/a	9/21/2021	985	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-1	3660	n/a	9/23/2021	360	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2

# Appendix III Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Total Dissolved Solids (mg/L)	GWC-11	3660	n/a	9/21/2021	842	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-12	3660	n/a	9/21/2021	558	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-13	3660	n/a	9/21/2021	83	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-14	3660	n/a	9/22/2021	864	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-15	3660	n/a	9/23/2021	556	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-16	3660	n/a	9/22/2021	1680	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-17	3660	n/a	9/22/2021	1530	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-2	3660	n/a	9/22/2021	33	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-20	3660	n/a	9/22/2021	1430	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-21	3660	n/a	9/22/2021	51	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-22	3660	n/a	9/21/2021	87	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-9	3660	n/a	9/22/2021	94	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2



# Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:41 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	GWA-7 (bg)	-0.7636	-82	-53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-4R	13.04	61	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-5R	10.1	66	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-6R	2.358	56	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-1	8.001	69	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-11	18.7	75	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-12	-13.59	-89	-53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-16	28.1	64	53	Yes	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-7 (bg)	-23.14	-62	-53	Yes	15	0	n/a	n/a	0.01	NP
pH (SU)	GWA-7 (bg)	-0.07621	-65	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-7 (bg)	-5.236	-55	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-6R	57.03	69	53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-11	92.22	65	53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-12	-165.3	-81	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-16	108.2	59	53	Yes	15	0	n/a	n/a	0.01	NP

# Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:41 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Calcium (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-0.7636</b>	<b>-82</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GWA-8 (bg)	0.8051	18	53	No	15	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GWB-4R</b>	<b>13.04</b>	<b>61</b>	<b>53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GWB-5R	10.1	66	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-6R	2.358	56	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-1	8.001	69	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-11	18.7	75	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-12	-13.59	-89	-53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-14	-5.733	-13	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-15	0	-1	-53	No	15	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GWC-16</b>	<b>28.1</b>	<b>64</b>	<b>53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GWC-17	-6.554	-25	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-20	33.76	45	53	No	15	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-23.14</b>	<b>-62</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	GWA-8 (bg)	0.178	14	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWC-17	-89.93	-40	-53	No	15	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-7 (bg)	0	-3	-63	No	17	29.41	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-8 (bg)	-0.01375	-60	-63	No	17	17.65	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWC-17	-0.1378	-50	-63	No	17	5.882	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>GWA-7 (bg)</b>	<b>-0.07621</b>	<b>-65</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH (SU)	GWA-8 (bg)	0.01642	18	58	No	16	0	n/a	n/a	0.01	NP
pH (SU)	GWC-12	-0.00126	-2	-63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	GWC-15	0.05848	30	58	No	16	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-5.236</b>	<b>-55</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWA-8 (bg)	-8.833	-45	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-4R	-6.377	-13	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-5R	47.47	51	53	No	15	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWB-6R</b>	<b>57.03</b>	<b>69</b>	<b>53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>GWC-11</b>	<b>92.22</b>	<b>65</b>	<b>53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>GWC-12</b>	<b>-165.3</b>	<b>-81</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWC-14	-71.81	-41	-53	No	15	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWC-16</b>	<b>108.2</b>	<b>59</b>	<b>53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWC-17	-19.71	-18	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-20	129.5	25	53	No	15	0	n/a	n/a	0.01	NP

# Upper Tolerance Limits Summary Table

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/24/2021, 2:17 PM

Constituent	Upper Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	123	n/a	n/a	95.12	n/a	n/a	0.00182	NP Inter(NDs)
Arsenic (mg/L)	0.0287	123	n/a	n/a	77.24	n/a	n/a	0.00182	NP Inter(NDs)
Barium (mg/L)	0.22	121	n/a	n/a	0	n/a	n/a	0.002016	NP Inter(normality)
Beryllium (mg/L)	0.0025	43	n/a	n/a	51.16	n/a	n/a	0.1102	NP Inter(normality)
Cadmium (mg/L)	0.0007	41	n/a	n/a	95.12	n/a	n/a	0.1221	NP Inter(NDs)
Chromium (mg/L)	0.068	122	n/a	n/a	62.3	n/a	n/a	0.001915	NP Inter(normality)
Cobalt (mg/L)	0.0102	42	n/a	n/a	52.38	n/a	n/a	0.116	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	32.08	30	1.458	0.9054	0	None	ln(x)	0.05	Inter
Fluoride (mg/L)	0.4502	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.05	Inter
Lead (mg/L)	0.013	119	n/a	n/a	75.63	n/a	n/a	0.002234	NP Inter(NDs)
Lithium (mg/L)	0.03	30	n/a	n/a	73.33	n/a	n/a	0.2146	NP Inter(normality)
Mercury (mg/L)	0.0002	24	n/a	n/a	79.17	n/a	n/a	0.292	NP Inter(NDs)
Molybdenum (mg/L)	0.01	30	n/a	n/a	90	n/a	n/a	0.2146	NP Inter(NDs)
Selenium (mg/L)	0.0438	123	n/a	n/a	83.74	n/a	n/a	0.00182	NP Inter(NDs)
Thallium (mg/L)	0.001	62	n/a	n/a	93.55	n/a	n/a	0.04158	NP Inter(NDs)
Vanadium (mg/L)	0.425	117	n/a	n/a	63.25	n/a	n/a	0.002475	NP Inter(normality)
Zinc (mg/L)	0.16	115	n/a	n/a	26.96	n/a	n/a	0.002743	NP Inter(normality)

<b>GRUMMAN ROAD LANDFILL GWPS</b>			
<b>Constituent Name</b>	<b>MCL</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006	0.003	0.006
Arsenic, Total (mg/L)	0.01	0.029	0.029
Barium, Total (mg/L)	2	0.22	2
Beryllium, Total (mg/L)	0.004	0.0025	0.004
Cadmium, Total (mg/L)	0.005	0.0007	0.005
Chromium, Total (mg/L)	0.1	0.068	0.1
Cobalt, Total (mg/L)	n/a	0.01	0.01
Combined Radium, Total (pCi/L)	5	32.08	32.08
Fluoride, Total (mg/L)	4	0.45	4
Lead, Total (mg/L)	n/a	0.013	0.013
Lithium, Total (mg/L)	n/a	0.03	0.03
Mercury, Total (mg/L)	0.002	0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.01	0.01
Selenium, Total (mg/L)	0.05	0.044	0.05
Thallium, Total (mg/L)	0.002	0.001	0.002
Vanadium, Total (mg/L)	n/a	0.43	0.43
Zinc, Total (mg/L)	n/a	0.16	0.16

*\*Highlighted cells indicated Background is higher than MCLs*

*\*MCL = Maximum Contaminant Level*

*\*GWPS = Groundwater Protection Standard*

# Confidence Intervals - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	GWC-15	0.1637	0.07185	0.029	Yes	19	0.1178	0.07842	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-16	0.08029	0.061	0.029	Yes	20	0.07065	0.01699	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-20	0.356	0.2756	0.029	Yes	19	0.3158	0.06866	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWB-4R	0.13	0.0237	0.01	Yes	15	0.07218	0.05409	0	None	No	0.01	NP (normality)
Molybdenum (mg/L)	GWC-1	0.1579	0.06845	0.01	Yes	15	0.1132	0.06604	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-15	0.1119	0.09163	0.01	Yes	15	0.1017	0.01493	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-16	0.214	0.1235	0.01	Yes	15	0.1688	0.06681	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-20	0.3095	0.1197	0.01	Yes	15	0.226	0.1527	0	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GWC-21	0.05906	0.01743	0.01	Yes	15	0.03825	0.03071	0	None	No	0.01	Param.

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GWB-4R	0.003	0.0003	0.006	No	19	0.002858	0.0006194	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWB-5R	0.003	0.0013	0.006	No	19	0.002639	0.0008742	84.21	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWB-6R	0.003	0.00059	0.006	No	19	0.002731	0.0008087	89.47	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-1	0.003	0.0016	0.006	No	19	0.002539	0.0009428	78.95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-11	0.003	0.00051	0.006	No	19	0.00174	0.001234	47.37	None	No	0.01	NP (normality)
Antimony (mg/L)	GWC-12	0.003	0.0003	0.006	No	19	0.002858	0.0006194	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-13	0.003	0.0006	0.006	No	19	0.002874	0.0005506	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-14	0.003	0.003	0.006	No	20	0.003	0	100	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-15	0.003	0.0018	0.006	No	19	0.002937	0.0002753	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-16	0.003	0.003	0.006	No	20	0.003	0	100	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-17	0.003	0.0014	0.006	No	19	0.002778	0.0006847	89.47	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-2	0.003	0.0016	0.006	No	19	0.002837	0.0004913	89.47	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-20	0.003	0.0019	0.006	No	19	0.002818	0.0005824	89.47	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-21	0.003	0.00033	0.006	No	19	0.002859	0.0006125	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-22	0.003	0.0016	0.006	No	19	0.002481	0.0009731	73.68	None	No	0.01	NP (normality)
Antimony (mg/L)	GWC-9	0.003	0.0016	0.006	No	19	0.002786	0.0006757	89.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWB-4R	0.003063	0.001864	0.029	No	19	0.002529	0.001085	10.53	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	GWB-5R	0.005	0.001	0.029	No	19	0.002516	0.001817	26.32	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWB-6R	0.005	0.0014	0.029	No	19	0.003202	0.001749	26.32	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-1	0.005182	0.002158	0.029	No	18	0.004661	0.005815	0	None	ln(x)	0.01	Param.
Arsenic (mg/L)	GWC-12	0.005	0.0009	0.029	No	19	0.004332	0.001587	84.21	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-13	0.005	0.0006	0.029	No	19	0.004536	0.00139	89.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-14	0.002822	0.001785	0.029	No	20	0.002446	0.001175	15	None	ln(x)	0.01	Param.
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.1637</b>	<b>0.07185</b>	<b>0.029</b>	<b>Yes</b>	<b>19</b>	<b>0.1178</b>	<b>0.07842</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>GWC-16</b>	<b>0.08029</b>	<b>0.061</b>	<b>0.029</b>	<b>Yes</b>	<b>20</b>	<b>0.07065</b>	<b>0.01699</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GWC-17	0.005	0.0011	0.029	No	19	0.002627	0.001879	36.84	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-2	0.005	0.00094	0.029	No	19	0.004312	0.001635	84.21	None	No	0.01	NP (NDs)
<b>Arsenic (mg/L)</b>	<b>GWC-20</b>	<b>0.356</b>	<b>0.2756</b>	<b>0.029</b>	<b>Yes</b>	<b>19</b>	<b>0.3158</b>	<b>0.06866</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GWC-21	0.004545	0.002687	0.029	No	19	0.004453	0.001822	36.84	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	GWC-22	0.005	0.0011	0.029	No	19	0.003188	0.002025	52.63	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-9	0.005	0.00084	0.029	No	19	0.004781	0.0009544	94.74	None	No	0.01	NP (NDs)
Barium (mg/L)	GWB-4R	0.09302	0.07854	2	No	19	0.08605	0.01279	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWB-5R	0.1489	0.09276	2	No	19	0.1249	0.05511	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	GWB-6R	0.107	0.014	2	No	19	0.07173	0.04152	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-1	0.05725	0.05085	2	No	19	0.05405	0.005465	0	None	No	0.01	Param.
Barium (mg/L)	GWC-11	0.1175	0.06851	2	No	19	0.09299	0.04181	0	None	No	0.01	Param.
Barium (mg/L)	GWC-12	0.0197	0.017	2	No	19	0.01916	0.004257	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-13	0.02726	0.02086	2	No	19	0.02406	0.005463	0	None	No	0.01	Param.
Barium (mg/L)	GWC-14	0.038	0.025	2	No	20	0.03986	0.02416	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-15	0.04873	0.03897	2	No	19	0.04385	0.008331	0	None	No	0.01	Param.
Barium (mg/L)	GWC-16	0.146	0.06573	2	No	18	0.1121	0.07648	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWC-17	0.107	0.04768	2	No	19	0.08256	0.05661	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWC-2	0.054	0.049	2	No	18	0.05311	0.007646	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-20	0.34	0.0788	2	No	19	0.163	0.1172	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-21	0.0954	0.0509	2	No	19	0.08036	0.04847	0	None	ln(x)	0.01	Param.
Barium (mg/L)	GWC-22	0.09382	0.05954	2	No	19	0.07668	0.02927	0	None	No	0.01	Param.
Barium (mg/L)	GWC-9	0.2544	0.1839	2	No	19	0.2192	0.06021	0	None	No	0.01	Param.
Beryllium (mg/L)	GWB-4R	0.0005	0.0001	0.004	No	15	0.00036	0.000192	60	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWB-5R	0.0001724	0.00007737	0.004	No	15	0.0002335	0.0001598	20	Kaplan-Meier	sqrt(x)	0.01	Param.
Beryllium (mg/L)	GWB-6R	0.0005	0.00005	0.004	No	15	0.0004397	0.000159	86.67	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-11	0.0005	0.000047	0.004	No	15	0.0004698	0.000117	93.33	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-12	0.0007761	0.0005017	0.004	No	15	0.0006567	0.0002292	0	None	ln(x)	0.01	Param.
Beryllium (mg/L)	GWC-13	0.0005	0.000058	0.004	No	15	0.0004705	0.0001141	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-14	0.0005	0.0001	0.004	No	15	0.0004168	0.0001724	80	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-16	0.0005	0.000068	0.004	No	15	0.0002223	0.0002036	33.33	None	No	0.01	NP (normality)

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	GWC-17	0.0034	0.0014	0.004	No	15	0.002167	0.0009123	0	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-2	0.0005	0.000075	0.004	No	16	0.0003548	0.0002009	62.5	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-22	0.0005	0.00009	0.004	No	15	0.0003224	0.0001999	53.33	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-9	0.0003	0.00019	0.004	No	15	0.0002413	0.00005153	0	None	No	0.01	NP (normality)
Cadmium (mg/L)	GWB-4R	0.0005	0.0002	0.005	No	15	0.0004053	0.0001651	73.33	None	No	0.01	NP (normality)
Cadmium (mg/L)	GWC-1	0.0005	0.0001	0.005	No	15	0.0004447	0.0001461	86.67	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-11	0.0005824	0.0002696	0.005	No	15	0.000426	0.0002307	6.667	None	No	0.01	Param.
Cadmium (mg/L)	GWC-14	0.0005	0.00017	0.005	No	15	0.000346	0.0001727	53.33	None	No	0.01	NP (normality)
Cadmium (mg/L)	GWC-20	0.0005	0.00018	0.005	No	15	0.000454	0.0001218	86.67	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-22	0.0005	0.0001	0.005	No	15	0.0003033	0.0001794	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	GWB-4R	0.0106	0.0022	0.1	No	19	0.006516	0.00453	0	None	No	0.01	NP (normality)
Chromium (mg/L)	GWB-5R	0.0055	0.0011	0.1	No	19	0.007084	0.01598	26.32	None	No	0.01	NP (normality)
Chromium (mg/L)	GWB-6R	0.006091	0.002106	0.1	No	19	0.005358	0.005239	0	None	ln(x)	0.01	Param.
Chromium (mg/L)	GWC-1	0.0024	0.0016	0.1	No	19	0.002347	0.001215	5.263	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-11	0.005	0.00091	0.1	No	19	0.002893	0.002607	36.84	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-12	0.0028	0.00091	0.1	No	19	0.001992	0.001654	21.05	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-13	0.005	0.00077	0.1	No	19	0.003067	0.002112	52.63	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-14	0.005	0.0008	0.1	No	20	0.002533	0.002077	40	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-15	0.005	0.0013	0.1	No	19	0.002611	0.001729	31.58	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-16	0.005	0.00099	0.1	No	20	0.002883	0.002545	35	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-17	0.005	0.0009	0.1	No	19	0.002532	0.002004	31.58	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-2	0.005	0.00069	0.1	No	19	0.003217	0.002151	57.89	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-20	0.005	0.0009	0.1	No	19	0.002499	0.001969	36.84	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-21	0.005	0.00065	0.1	No	19	0.003013	0.00272	42.11	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-22	0.005	0.00057	0.1	No	19	0.002915	0.002259	52.63	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-9	0.005	0.0011	0.1	No	19	0.002657	0.001871	36.84	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-4R	0.0024	0.00072	0.01	No	15	0.001567	0.001462	13.33	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-5R	0.0057	0.00056	0.01	No	15	0.004619	0.004413	46.67	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-6R	0.005	0.0049	0.01	No	15	0.004685	0.001191	86.67	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-11	0.005	0.00055	0.01	No	15	0.003805	0.002054	73.33	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWC-12	0.001299	0.000794	0.01	No	15	0.001047	0.0003729	0	None	No	0.01	Param.
Cobalt (mg/L)	GWC-14	0.005	0.0003	0.01	No	15	0.004687	0.001214	93.33	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-17	0.007	0.0023	0.01	No	15	0.0044	0.002202	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWC-2	0.005	0.00032	0.01	No	16	0.003586	0.002173	68.75	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWC-22	0.005	0.0007	0.01	No	15	0.003296	0.002164	60	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWC-9	0.0017	0.00096	0.01	No	15	0.00137	0.0004019	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWB-4R	5	2.32	32.08	No	15	3.347	1.201	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWB-5R	3.969	2.219	32.08	No	15	3.159	1.448	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWB-6R	4.896	2.672	32.08	No	15	3.784	1.641	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-1	2.242	1.575	32.08	No	15	1.909	0.4917	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-11	6.613	3.152	32.08	No	15	4.882	2.553	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-12	2.873	1.74	32.08	No	15	2.306	0.8361	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-13	1.437	0.8095	32.08	No	15	1.123	0.4631	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-14	1.332	0.6666	32.08	No	15	0.9992	0.4909	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-15	1.798	1.078	32.08	No	15	1.438	0.5313	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-16	2.73	1.711	32.08	No	15	2.292	0.8809	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-17	4.006	2.724	32.08	No	15	3.365	0.9459	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-2	0.9857	0.6494	32.08	No	15	0.8175	0.2481	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-20	4.69	1.992	32.08	No	15	3.341	1.991	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-21	2.419	1.167	32.08	No	15	1.793	0.9233	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-22	6.641	3.426	32.08	No	15	5.17	2.244	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-9	3.31	2.08	32.08	No	15	3.119	1.557	0	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWB-4R	0.17	0.08	4	No	17	0.175	0.2746	58.82	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWB-5R	0.11	0.05	4	No	17	0.09018	0.04055	52.94	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWB-6R	0.13	0.09	4	No	17	0.1194	0.06228	47.06	None	No	0.01	NP (normality)

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	GWC-1	0.18	0.051	4	No	17	0.1054	0.04055	76.47	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-12	0.769	0.267	4	No	17	0.518	0.4006	5.882	None	No	0.01	Param.
Fluoride (mg/L)	GWC-13	0.55	0.09	4	No	17	0.1231	0.1106	82.35	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-14	0.25	0.1	4	No	17	0.1753	0.1291	64.71	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-15	0.13	0.06	4	No	17	0.1329	0.1003	70.59	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-16	0.2	0.1	4	No	17	0.1894	0.2129	58.82	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-17	1.295	0.5764	4	No	17	0.9359	0.5738	5.882	None	No	0.01	Param.
Fluoride (mg/L)	GWC-2	0.17	0.08	4	No	17	0.1261	0.1296	58.82	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-20	0.14	0.043	4	No	17	0.09076	0.02894	76.47	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-21	0.1	0.071	4	No	17	0.09829	0.007034	94.12	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-22	0.12	0.1	4	No	17	0.09235	0.02488	64.71	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-9	0.2566	0.09976	4	No	17	0.2195	0.2288	5.882	None	ln(x)	0.01	Param.
Lead (mg/L)	GWB-4R	0.003133	0.0006645	0.013	No	18	0.003221	0.00299	16.67	Kaplan-Meier	ln(x)	0.01	Param.
Lead (mg/L)	GWB-5R	0.0011	0.0002	0.013	No	19	0.0007701	0.0006197	36.84	None	No	0.01	NP (normality)
Lead (mg/L)	GWB-6R	0.001	0.00014	0.013	No	19	0.000604	0.0004143	42.11	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-1	0.001	0.00012	0.013	No	19	0.0008086	0.0003811	78.95	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-11	0.00042	0.0002	0.013	No	19	0.0003795	0.0002877	15.79	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-12	0.001	0.000068	0.013	No	19	0.0005737	0.0008023	31.58	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-13	0.001	0.00013	0.013	No	19	0.0006095	0.0004401	31.58	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-14	0.001	0.00051	0.013	No	20	0.0008395	0.0003396	80	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-15	0.001	0.00009	0.013	No	19	0.000554	0.0004405	47.37	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-16	0.001	0.0001	0.013	No	20	0.0004832	0.000435	40	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-17	0.001	0.00014	0.013	No	19	0.0006697	0.0004345	57.89	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-2	0.001	0.0002	0.013	No	19	0.0007308	0.0004106	68.42	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-20	0.001	0.00018	0.013	No	19	0.0007692	0.0003979	73.68	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-21	0.001	0.0001	0.013	No	19	0.0006323	0.0004452	57.89	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-22	0.0008128	0.0003366	0.013	No	19	0.0006984	0.0006477	10.53	None	ln(x)	0.01	Param.
Lead (mg/L)	GWC-9	0.001	0.000096	0.013	No	19	0.0006113	0.0004423	52.63	None	No	0.01	NP (normality)
Lithium (mg/L)	GWB-4R	0.014	0.0041	0.03	No	15	0.00902	0.004665	0	None	No	0.01	NP (normality)
Lithium (mg/L)	GWB-5R	0.03	0.0031	0.03	No	15	0.01777	0.01355	53.33	None	No	0.01	NP (normality)
Lithium (mg/L)	GWC-12	0.03	0.00091	0.03	No	15	0.01259	0.01472	40	None	No	0.01	NP (normality)
Lithium (mg/L)	GWC-13	0.03	0.00087	0.03	No	15	0.02806	0.007521	93.33	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-17	0.006795	0.004938	0.03	No	15	0.005867	0.00137	0	None	No	0.01	Param.
Lithium (mg/L)	GWC-9	0.002074	0.001769	0.03	No	14	0.001921	0.0002155	0	None	No	0.01	Param.
Mercury (mg/L)	GWB-4R	0.0002	0.0001	0.002	No	12	0.0001791	0.00005005	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWB-5R	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWB-6R	0.0002	0.0001	0.002	No	12	0.0001786	0.00005147	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-1	0.0002	0.0001	0.002	No	12	0.0001783	0.00005219	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-11	0.0002	0.0001	0.002	No	12	0.0001917	0.00002887	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-12	0.0002	0.0001	0.002	No	12	0.0001917	0.00002887	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-13	0.0002	0.00013	0.002	No	12	0.0001858	0.0000337	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-14	0.0002	0.00011	0.002	No	12	0.0001925	0.00002598	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-15	0.0002	0.0001	0.002	No	12	0.0001917	0.00002887	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-16	0.0002	0.0001	0.002	No	12	0.0001917	0.00002887	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-17	0.0002	0.00011	0.002	No	12	0.0001925	0.00002598	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-2	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-20	0.0002	0.00011	0.002	No	12	0.0001925	0.00002598	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-21	0.0002	0.00011	0.002	No	12	0.0001925	0.00002598	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-22	0.0002	0.0001	0.002	No	12	0.0001917	0.00002887	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-9	0.0002	0.00011	0.002	No	12	0.00018	0.00004843	83.33	None	No	0.01	NP (NDs)
<b>Molybdenum (mg/L)</b>	<b>GWB-4R</b>	<b>0.13</b>	<b>0.0237</b>	<b>0.01</b>	<b>Yes</b>	<b>15</b>	<b>0.07218</b>	<b>0.05409</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Molybdenum (mg/L)	GWB-5R	0.01	0.0012	0.01	No	15	0.009413	0.002272	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWB-6R	0.01	0.0013	0.01	No	15	0.007725	0.003922	73.33	None	No	0.01	NP (normality)
<b>Molybdenum (mg/L)</b>	<b>GWC-1</b>	<b>0.1579</b>	<b>0.06845</b>	<b>0.01</b>	<b>Yes</b>	<b>15</b>	<b>0.1132</b>	<b>0.06604</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Molybdenum (mg/L)	GWC-11	0.01	0.0018	0.01	No	15	0.008838	0.003073	86.67	None	No	0.01	NP (NDs)



# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Molybdenum (mg/L)	GWC-13	0.01	0.0056	0.01	No	15	0.009707	0.001136	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-14	0.01276	0.00333	0.01	No	15	0.01026	0.01011	0	None	ln(x)	0.01	Param.
<b>Molybdenum (mg/L)</b>	<b>GWC-15</b>	<b>0.1119</b>	<b>0.09163</b>	<b>0.01</b>	<b>Yes</b>	<b>15</b>	<b>0.1017</b>	<b>0.01493</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Molybdenum (mg/L)</b>	<b>GWC-16</b>	<b>0.214</b>	<b>0.1235</b>	<b>0.01</b>	<b>Yes</b>	<b>15</b>	<b>0.1688</b>	<b>0.06681</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Molybdenum (mg/L)	GWC-17	0.01	0.0036	0.01	No	15	0.006941	0.003507	53.33	None	No	0.01	NP (normality)
<b>Molybdenum (mg/L)</b>	<b>GWC-20</b>	<b>0.3095</b>	<b>0.1197</b>	<b>0.01</b>	<b>Yes</b>	<b>15</b>	<b>0.226</b>	<b>0.1527</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.01</b>	<b>Param.</b>
<b>Molybdenum (mg/L)</b>	<b>GWC-21</b>	<b>0.05906</b>	<b>0.01743</b>	<b>0.01</b>	<b>Yes</b>	<b>15</b>	<b>0.03825</b>	<b>0.03071</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Selenium (mg/L)	GWB-4R	0.003986	0.002596	0.05	No	19	0.004163	0.001269	42.11	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	GWB-5R	0.006	0.0033	0.05	No	19	0.004916	0.001035	78.95	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWB-6R	0.005	0.0023	0.05	No	19	0.006584	0.0106	63.16	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-1	0.005	0.0018	0.05	No	19	0.003611	0.004842	10.53	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-11	0.007249	0.003213	0.05	No	19	0.006784	0.00553	21.05	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	GWC-12	0.005	0.003	0.05	No	19	0.004442	0.001129	78.95	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-14	0.004438	0.00297	0.05	No	20	0.003704	0.001293	5	None	No	0.01	Param.
Selenium (mg/L)	GWC-15	0.005174	0.002026	0.05	No	19	0.005374	0.00293	47.37	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	GWC-16	0.005553	0.003634	0.05	No	20	0.004593	0.00169	5	None	No	0.01	Param.
Selenium (mg/L)	GWC-17	0.005	0.0013	0.05	No	19	0.003474	0.001772	52.63	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-2	0.005	0.0035	0.05	No	19	0.004763	0.0007522	89.47	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-20	0.005	0.0014	0.05	No	19	0.003911	0.001662	68.42	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-21	0.02088	0.01127	0.05	No	19	0.01607	0.0082	0	None	No	0.01	Param.
Selenium (mg/L)	GWC-22	0.005	0.0023	0.05	No	19	0.004311	0.001396	78.95	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-9	0.005	0.005	0.05	No	19	0.005	0	100	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWB-4R	0.001	0.00007	0.002	No	15	0.000876	0.0003272	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWB-5R	0.001	0.00031	0.002	No	15	0.0008911	0.0002912	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-1	0.001	0.000054	0.002	No	15	0.0008105	0.0003922	80	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-11	0.001	0.000098	0.002	No	15	0.0005412	0.0004466	46.67	None	No	0.01	NP (normality)
Thallium (mg/L)	GWC-12	0.001	0.00014	0.002	No	15	0.0005653	0.000423	46.67	None	No	0.01	NP (normality)
Thallium (mg/L)	GWC-14	0.001	0.00007	0.002	No	15	0.0008753	0.000329	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-16	0.001	0.00006	0.002	No	15	0.000874	0.0003325	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-17	0.001	0.000076	0.002	No	15	0.0006332	0.0004652	60	None	No	0.01	NP (normality)
Thallium (mg/L)	GWC-2	0.001	0.00011	0.002	No	16	0.0009444	0.0002225	93.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-21	0.001	0.00005	0.002	No	15	0.0009367	0.0002453	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-22	0.001	0.000086	0.002	No	15	0.0006987	0.0004416	66.67	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWB-4R	0.0388	0.0037	0.43	No	14	0.02031	0.01738	7.143	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWB-5R	0.01026	0.004007	0.43	No	14	0.00825	0.007889	7.143	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWB-6R	0.03356	0.007419	0.43	No	14	0.02379	0.02645	0	None	x^(1/3)	0.01	Param.
Vanadium (mg/L)	GWC-1	0.007246	0.004083	0.43	No	14	0.005664	0.002232	14.29	None	No	0.01	Param.
Vanadium (mg/L)	GWC-11	0.01	0.002	0.43	No	14	0.003957	0.003283	21.43	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-12	0.007037	0.003634	0.43	No	14	0.005336	0.002402	14.29	None	No	0.01	Param.
Vanadium (mg/L)	GWC-13	0.01	0.0019	0.43	No	14	0.007657	0.003813	64.29	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-14	0.01713	0.007529	0.43	No	17	0.01317	0.007256	17.65	Kaplan-Meier	No	0.01	Param.
Vanadium (mg/L)	GWC-15	0.01	0.0021	0.43	No	16	0.005225	0.00385	37.5	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-16	0.01	0.0026	0.43	No	17	0.004651	0.003092	23.53	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-17	0.01	0.0026	0.43	No	14	0.006414	0.003742	50	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-2	0.01	0.0024	0.43	No	14	0.009457	0.002031	92.86	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-20	0.01	0.0025	0.43	No	16	0.005075	0.003449	31.25	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-21	0.01	0.0022	0.43	No	14	0.005064	0.003322	28.57	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-22	0.01	0.0016	0.43	No	14	0.006707	0.004052	57.14	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-9	0.01	0.0015	0.43	No	14	0.008771	0.003123	85.71	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWB-4R	0.008882	0.004471	0.16	No	14	0.00775	0.003091	21.43	Kaplan-Meier	No	0.01	Param.
Zinc (mg/L)	GWB-5R	0.01	0.0023	0.16	No	14	0.00815	0.003375	71.43	None	No	0.01	NP (normality)
Zinc (mg/L)	GWB-6R	0.016	0.0032	0.16	No	14	0.008086	0.003986	57.14	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-1	0.01	0.0057	0.16	No	14	0.008457	0.003066	71.43	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-11	0.01	0.0031	0.16	No	14	0.007707	0.003315	64.29	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-12	0.01	0.0023	0.16	No	14	0.004864	0.00313	21.43	None	No	0.01	NP (normality)

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:04 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Zinc (mg/L)	GWC-13	0.039	0.0021	0.16	No	14	0.01883	0.01885	0	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-14	0.01	0.0052	0.16	No	17	0.0088	0.002745	76.47	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-15	0.032	0.0051	0.16	No	16	0.01107	0.005714	87.5	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-16	0.01	0.0025	0.16	No	17	0.007459	0.003613	58.82	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-17	0.01304	0.007776	0.16	No	14	0.01041	0.003714	14.29	None	No	0.01	Param.
Zinc (mg/L)	GWC-2	0.056	0.0018	0.16	No	14	0.01089	0.01346	57.14	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-20	0.031	0.0049	0.16	No	16	0.01058	0.005803	81.25	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-21	0.01	0.002	0.16	No	14	0.007986	0.003493	64.29	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-22	0.0086	0.003171	0.16	No	14	0.007964	0.003345	42.86	Kaplan-Meier	x^2	0.01	Param.
Zinc (mg/L)	GWC-9	0.006076	0.002475	0.16	No	14	0.006536	0.00606	21.43	Kaplan-Meier	ln(x)	0.01	Param.

# Appendix I & IV Trend Tests - Confidence Interval Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:08 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.0341</b>	<b>141</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Molybdenum (mg/L)</b>	<b>GWC-1</b>	<b>-0.03266</b>	<b>-76</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Molybdenum (mg/L)</b>	<b>GWC-16</b>	<b>0.03158</b>	<b>56</b>	<b>53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

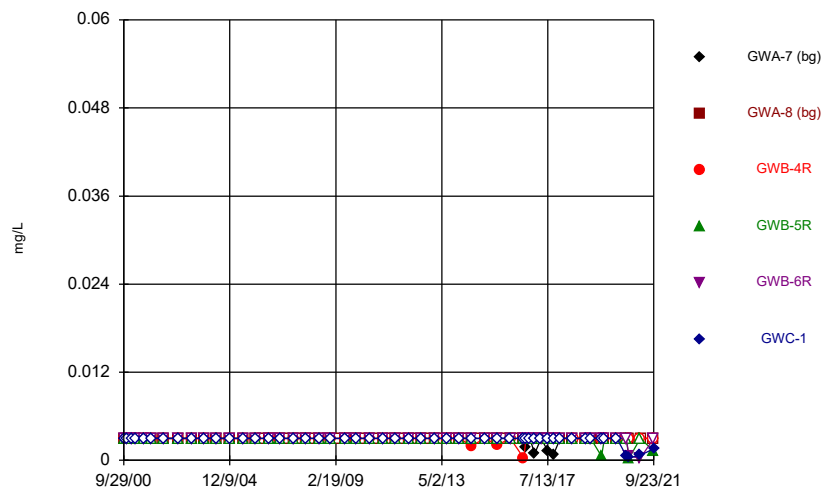
# Appendix I & IV Trend Tests - Confidence Interval Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:08 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWA-7 (bg)	-0.0006257	-21	-74	No	19	26.32	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	16	81	No	20	70	n/a	n/a	0.01	NP
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.0341</b>	<b>141</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Arsenic (mg/L)	GWC-16	0.001946	24	81	No	20	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-20	0.003529	17	74	No	19	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWA-7 (bg)	0	22	53	No	15	80	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWA-8 (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWB-4R	0.02482	45	53	No	15	0	n/a	n/a	0.01	NP
<b>Molybdenum (mg/L)</b>	<b>GWC-1</b>	<b>-0.03266</b>	<b>-76</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Molybdenum (mg/L)	GWC-15	-0.004337	-33	-53	No	15	0	n/a	n/a	0.01	NP
<b>Molybdenum (mg/L)</b>	<b>GWC-16</b>	<b>0.03158</b>	<b>56</b>	<b>53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Molybdenum (mg/L)	GWC-20	-0.01481	-17	-53	No	15	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWC-21	-0.0003021	-1	-53	No	15	0	n/a	n/a	0.01	NP

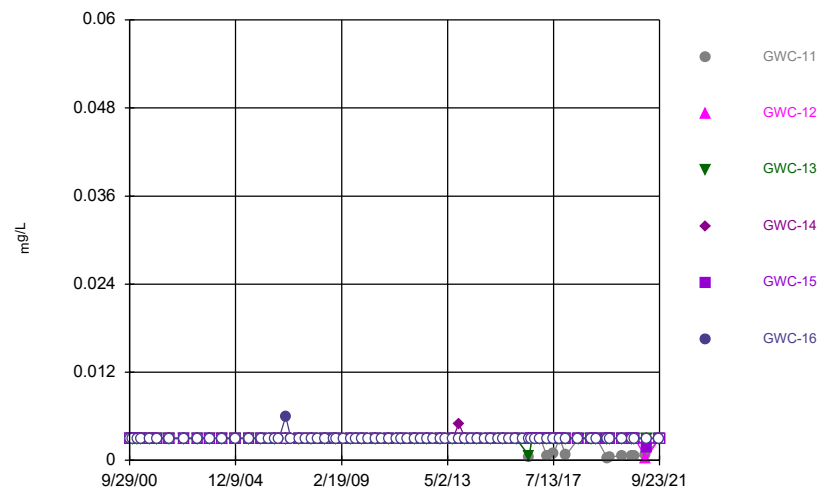
FIGURE A.

### Time Series



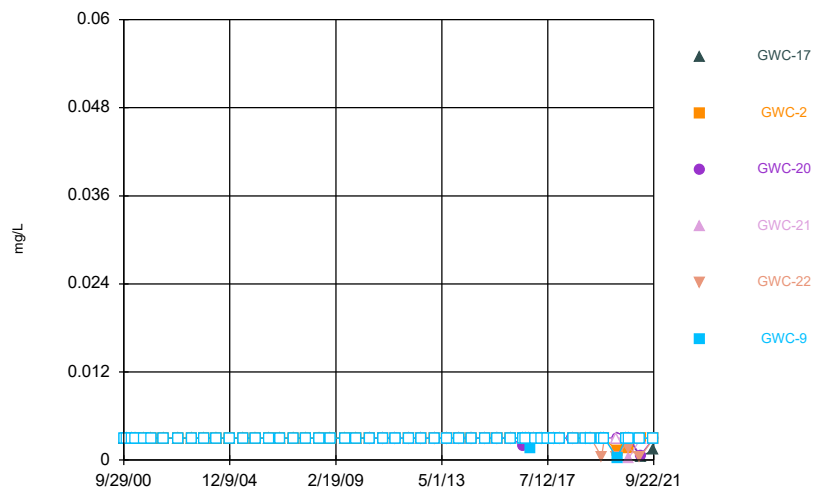
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



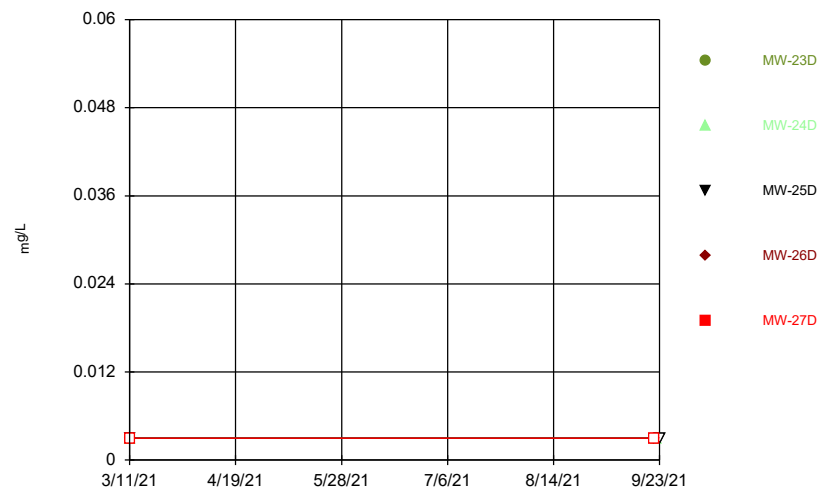
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



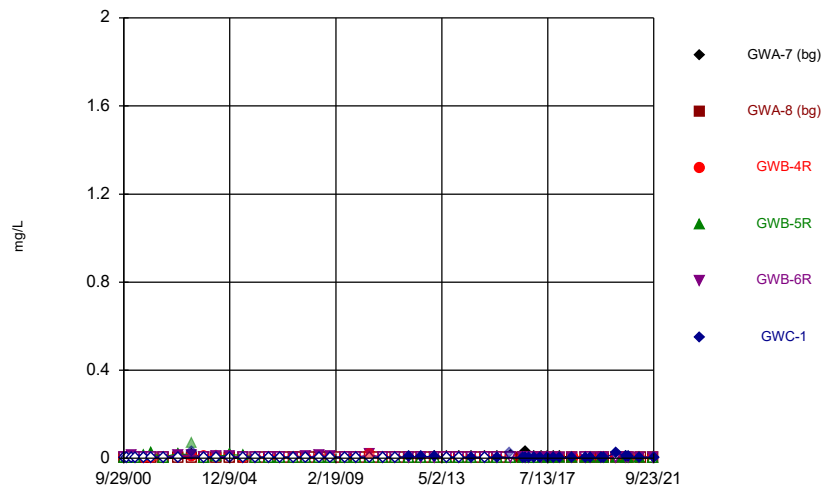
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



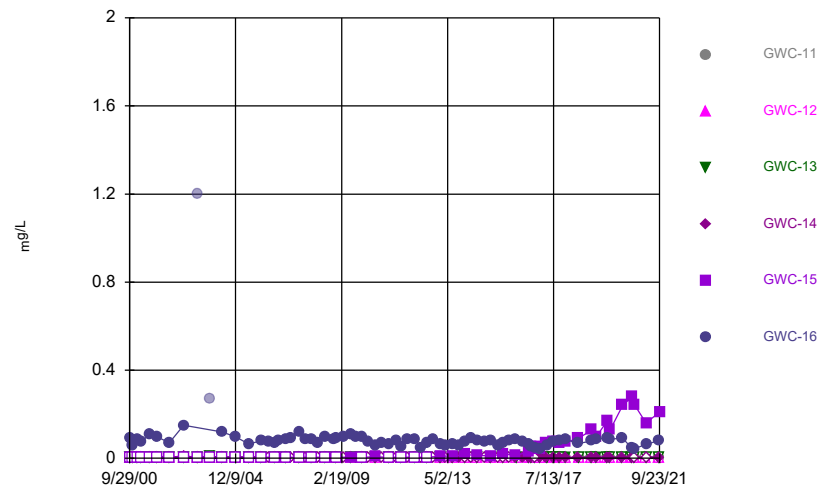
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### Time Series



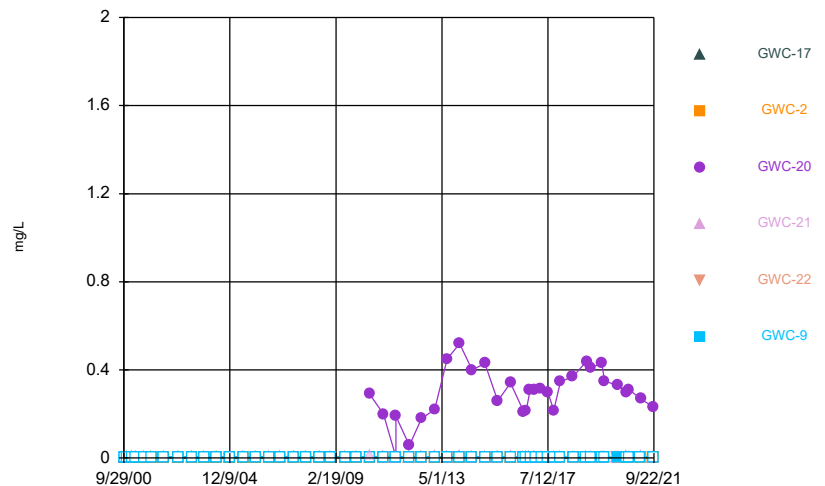
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



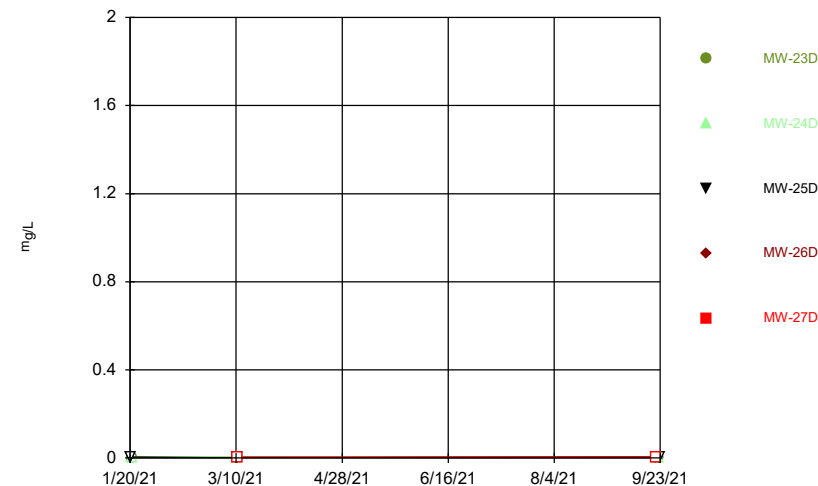
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### Time Series



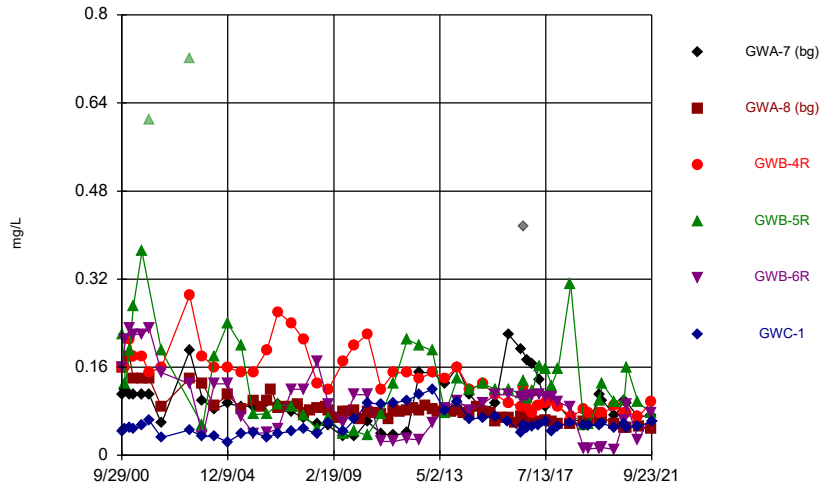
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

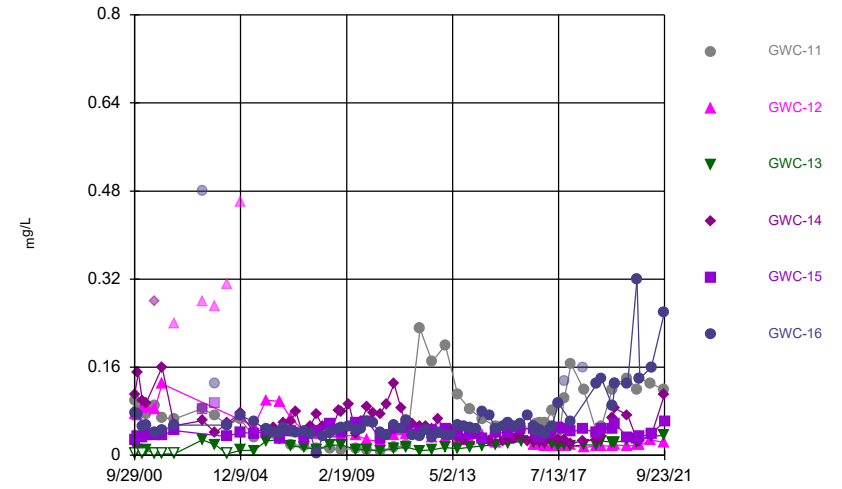
### Time Series



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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

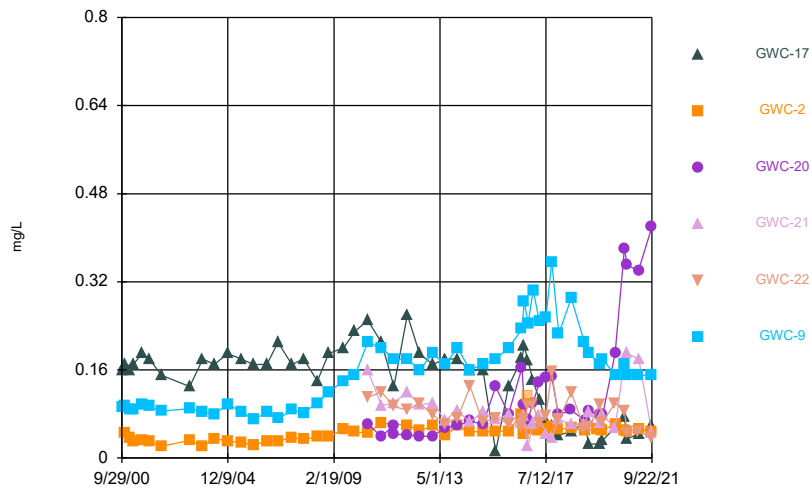
Hollow symbols indicate censored values.

### Time Series



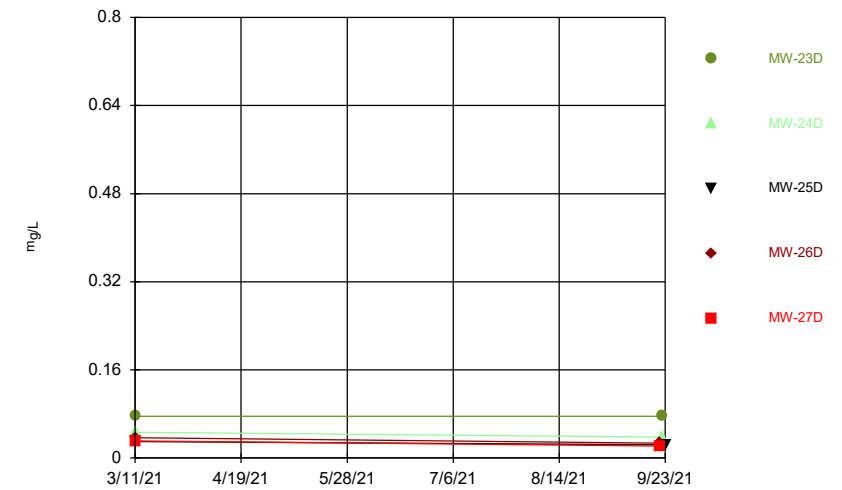
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



Constituent: Barium Analysis Run 11/21/2021 9:32 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

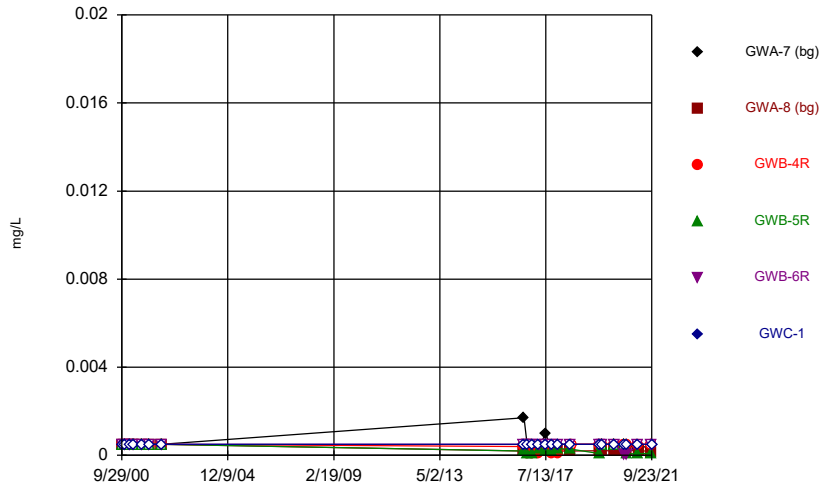
### Time Series



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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

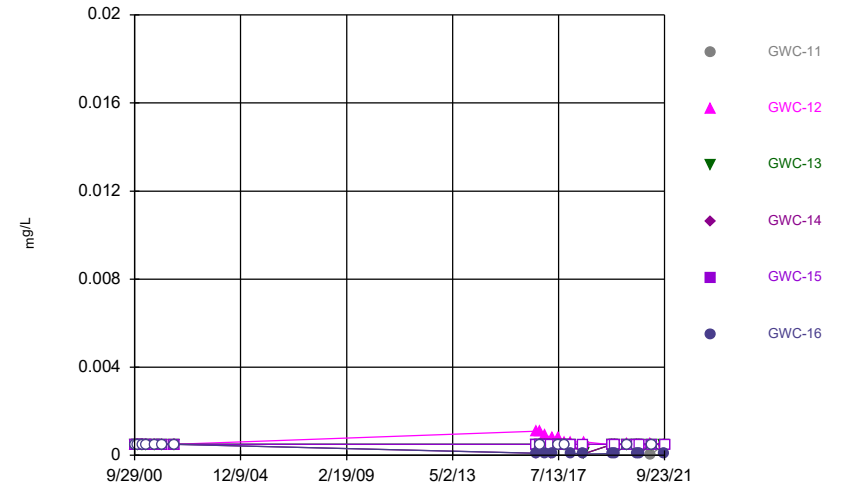


Time Series



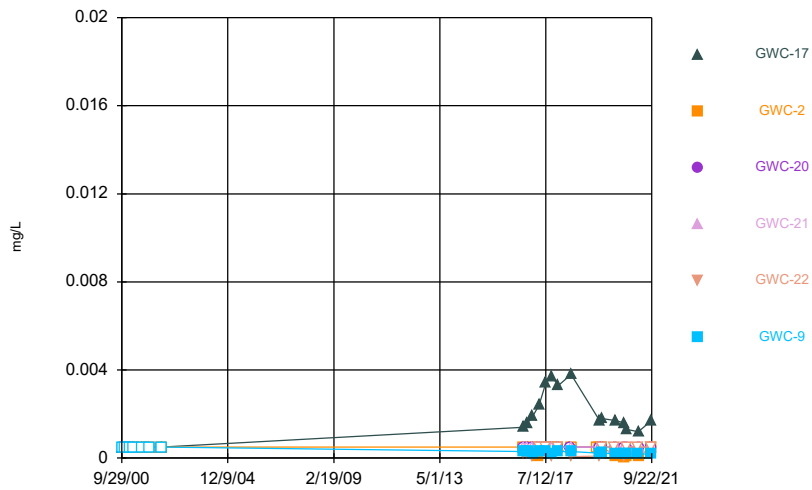
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Time Series



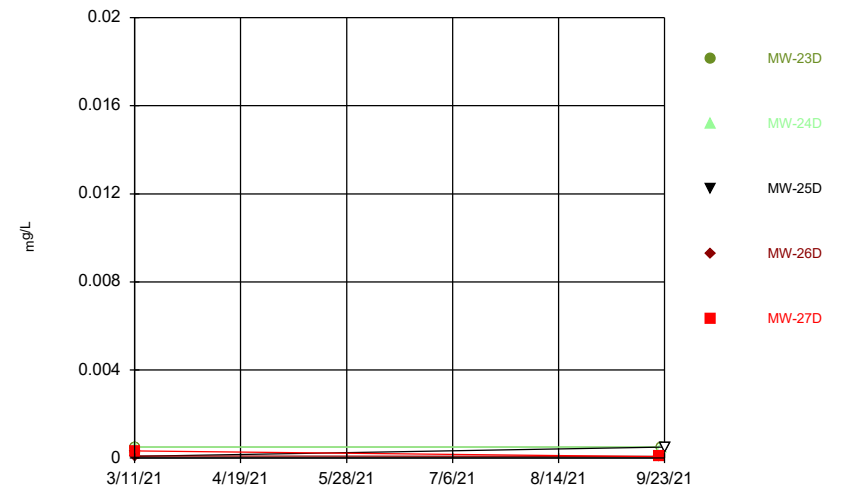
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Time Series



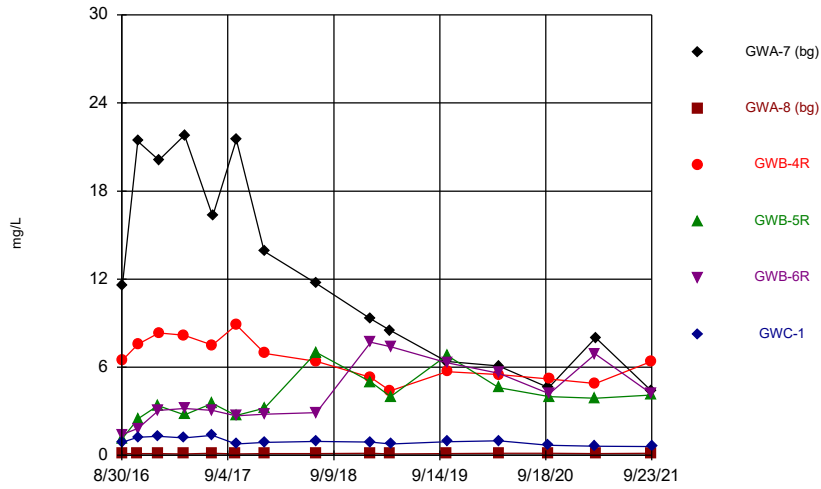
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



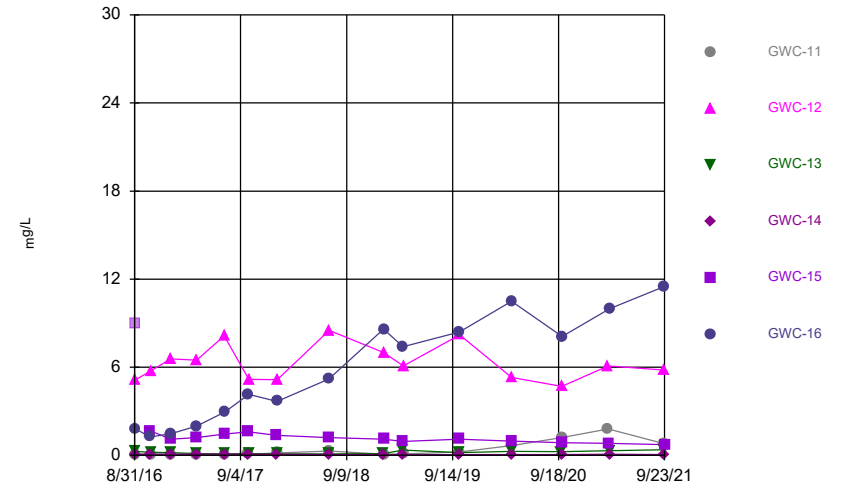
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



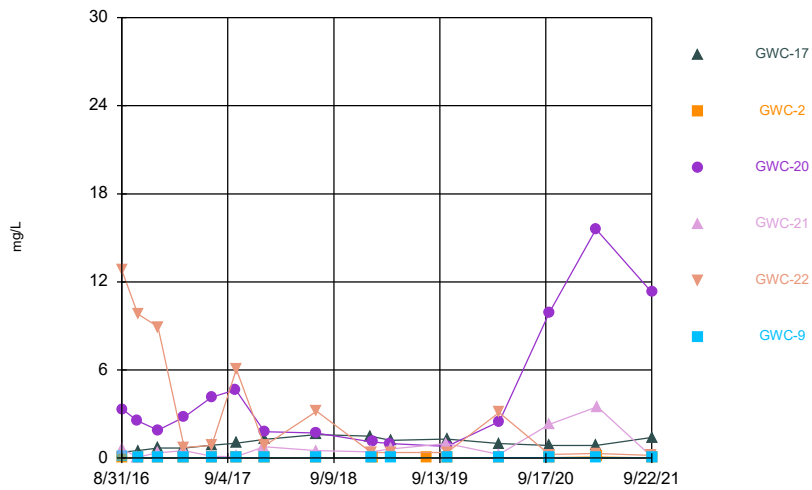
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Time Series



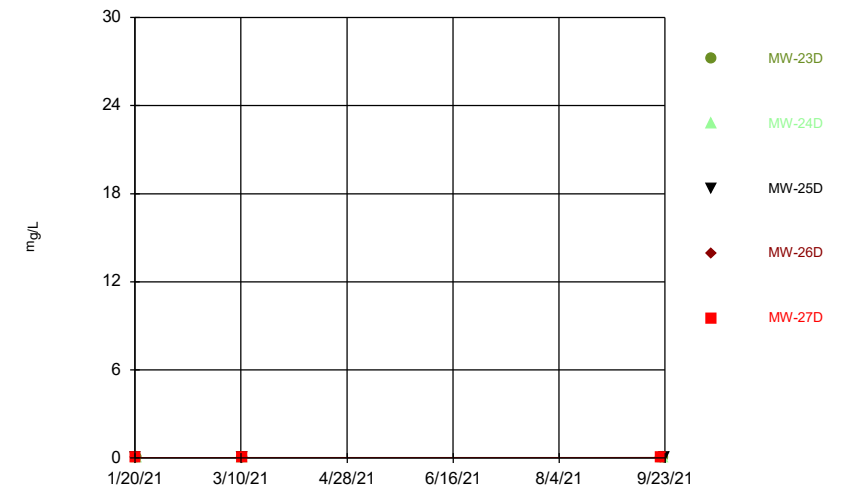
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



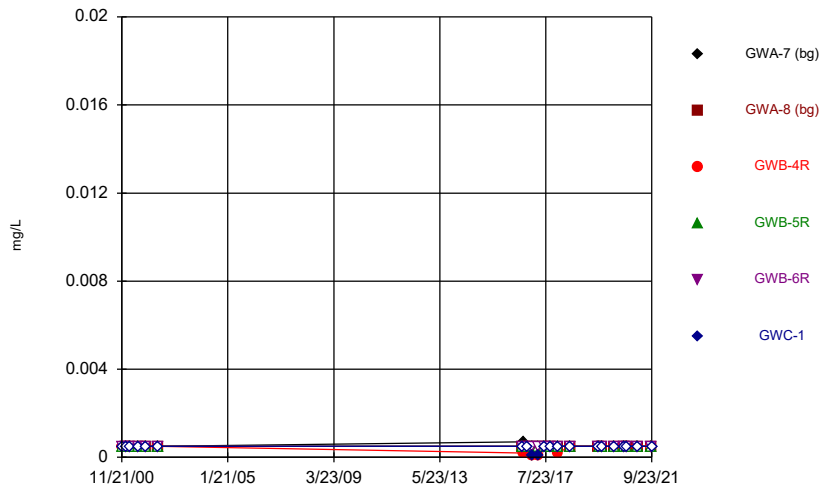
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



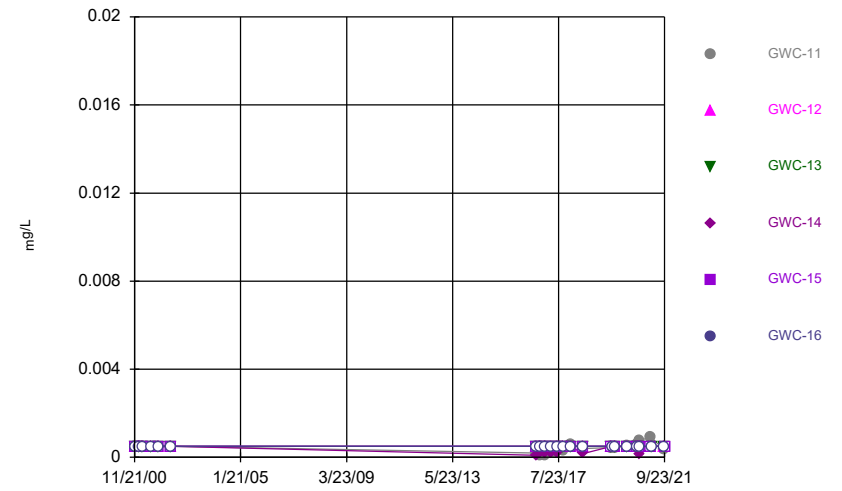
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



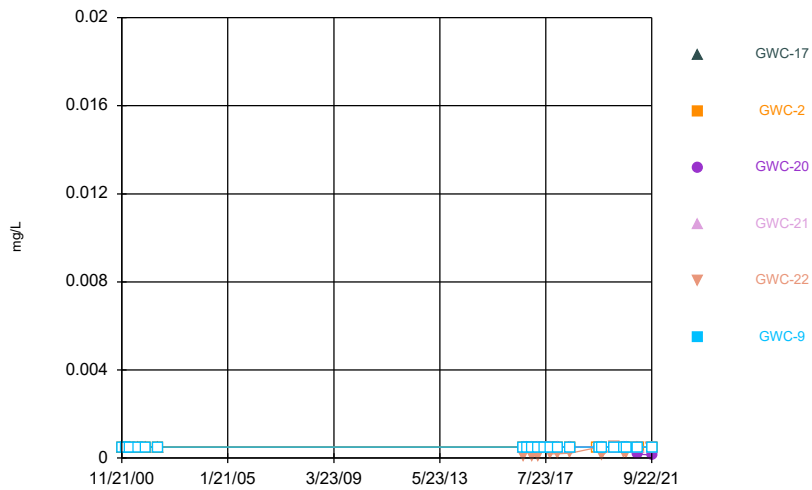
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



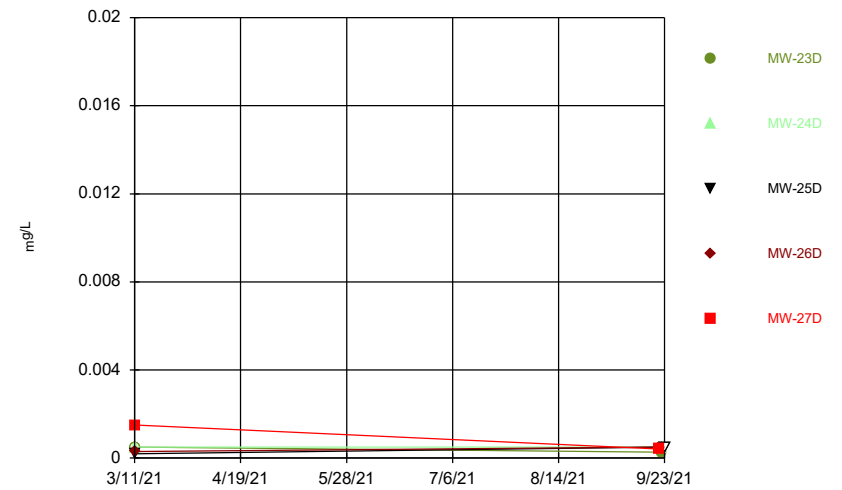
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



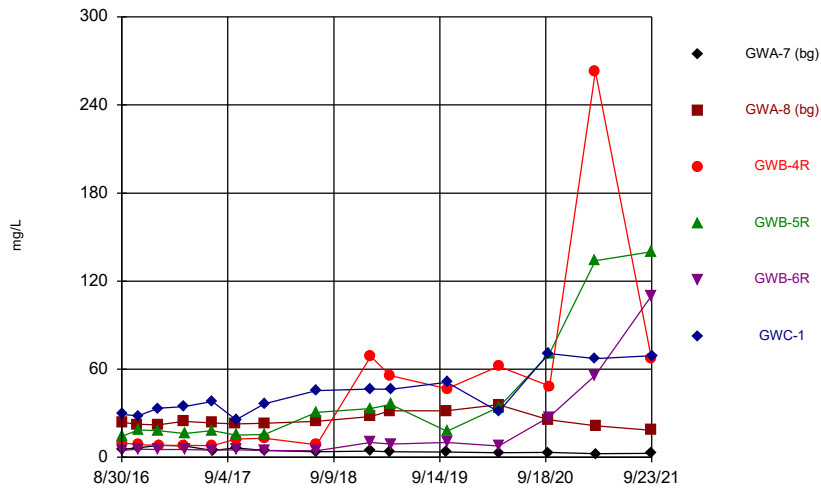
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



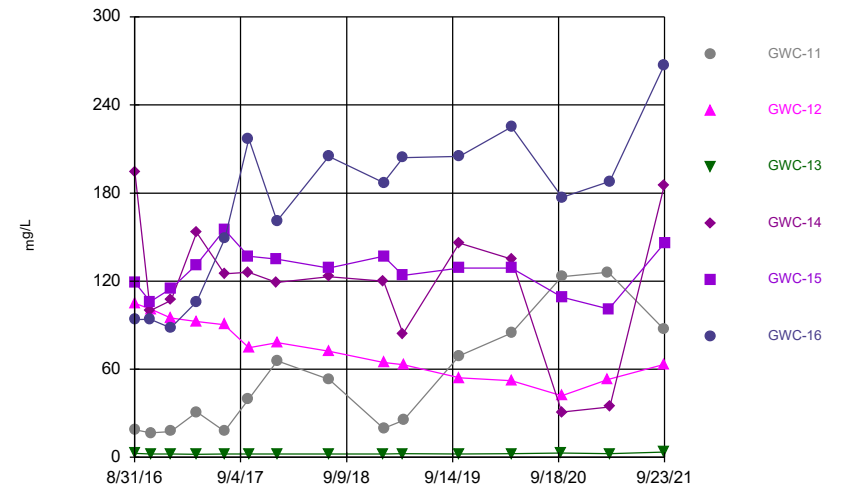
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



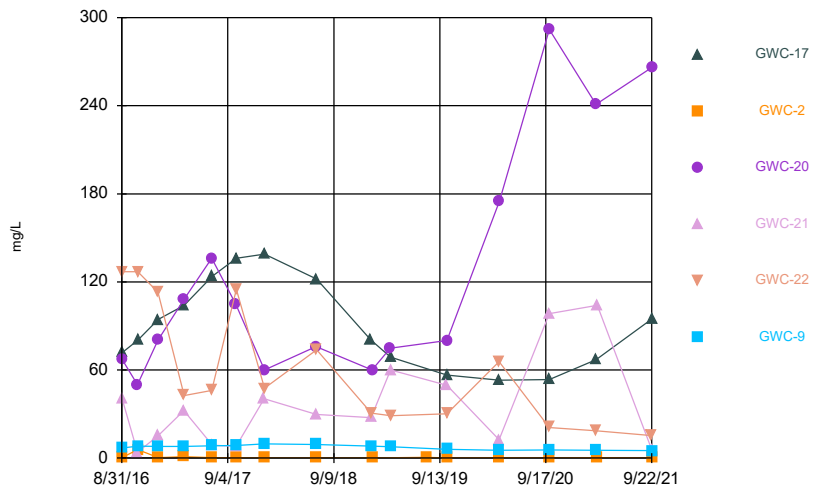
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



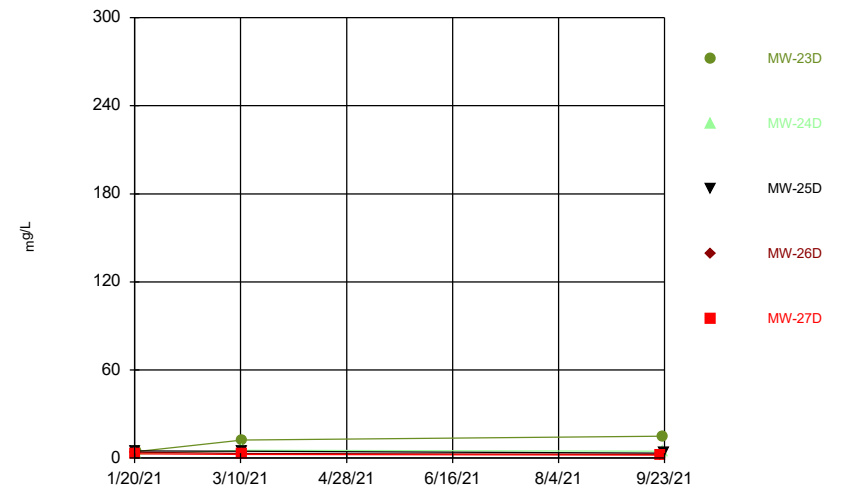
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Time Series



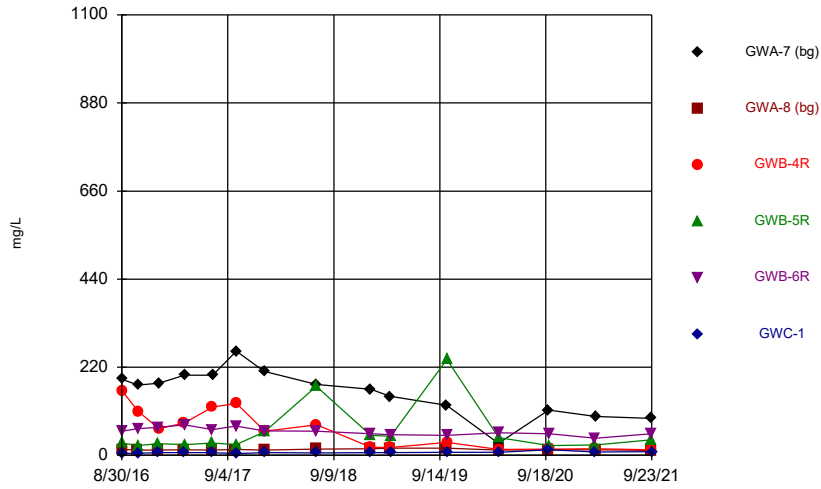
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Time Series



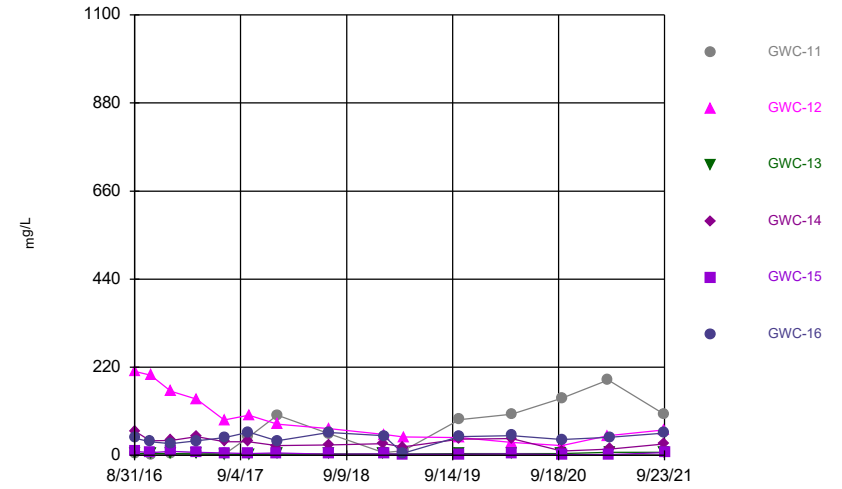
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Time Series



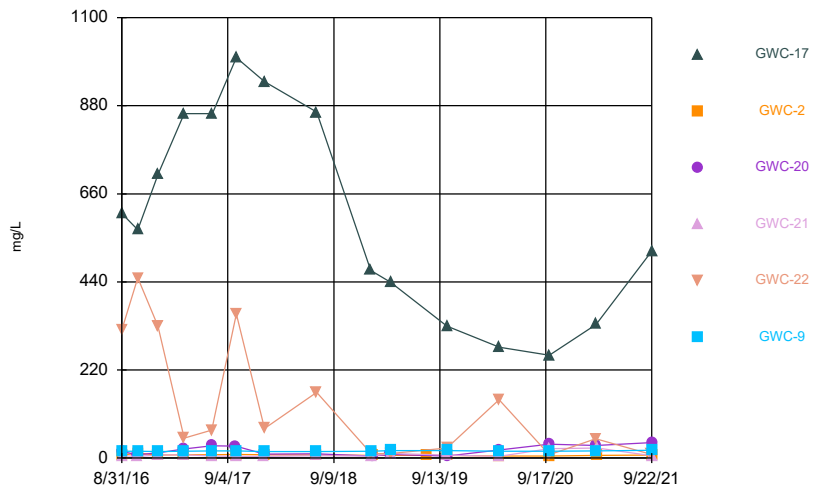
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Time Series



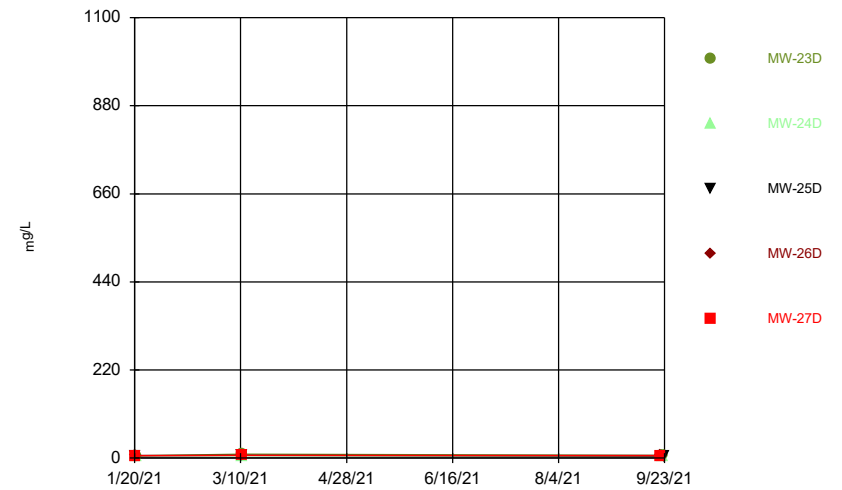
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



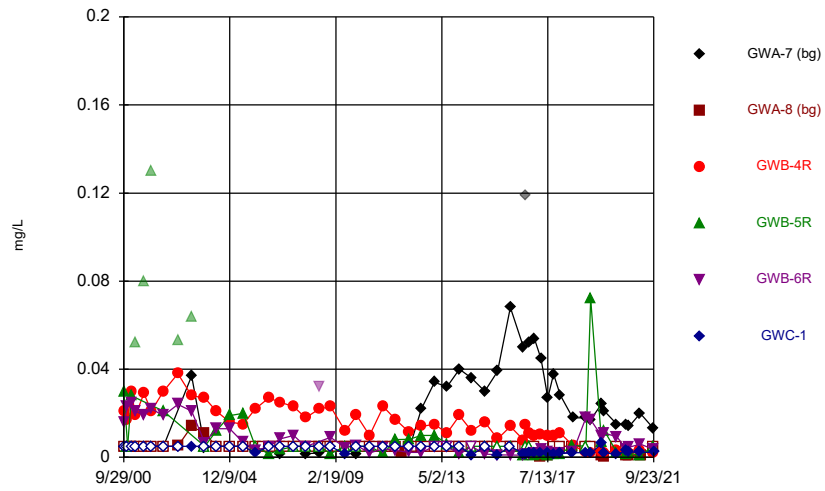
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



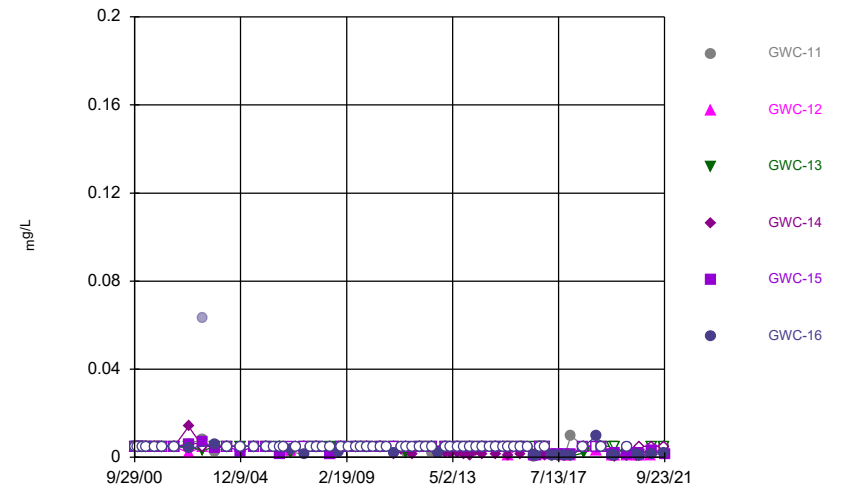
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



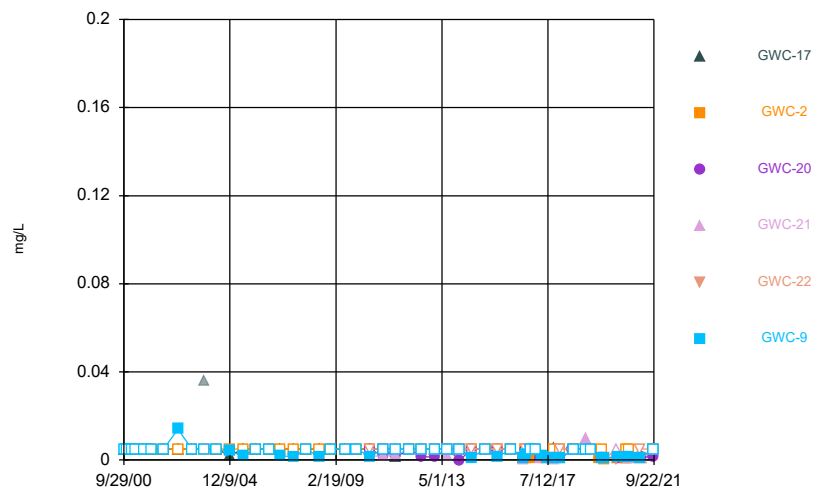
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



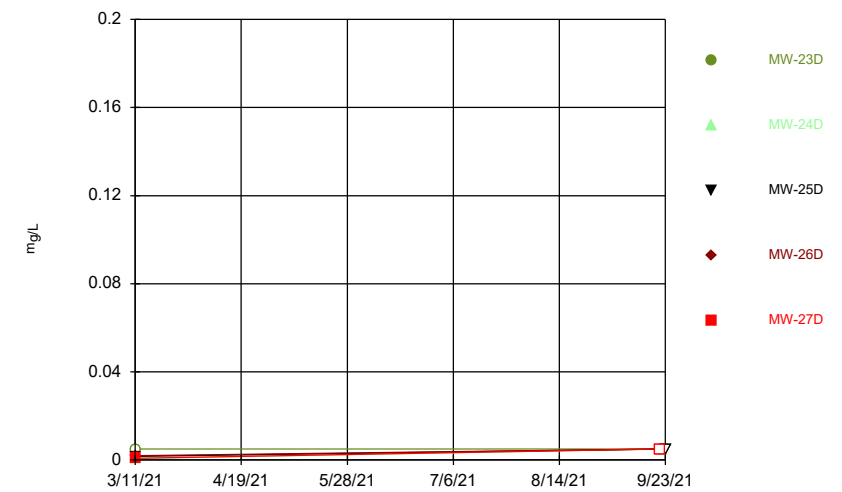
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



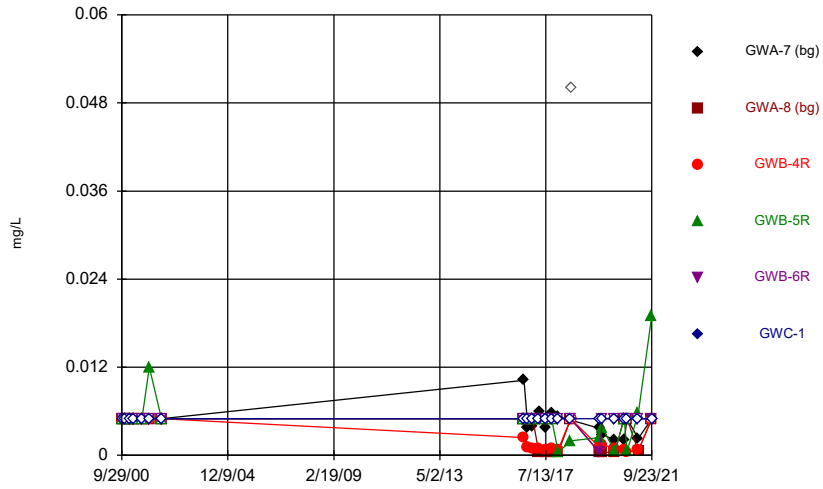
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Time Series



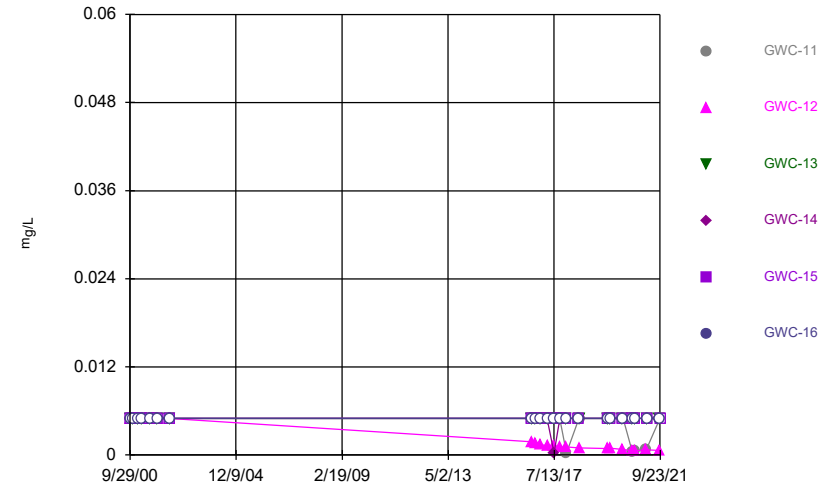
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



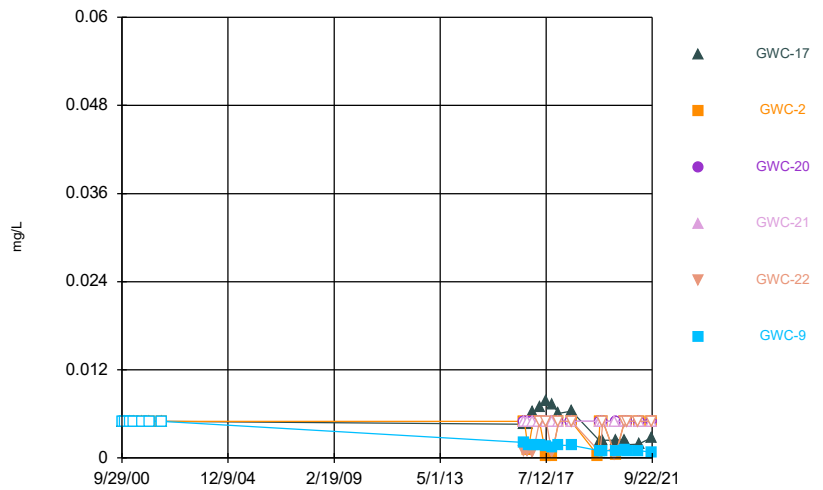
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Time Series



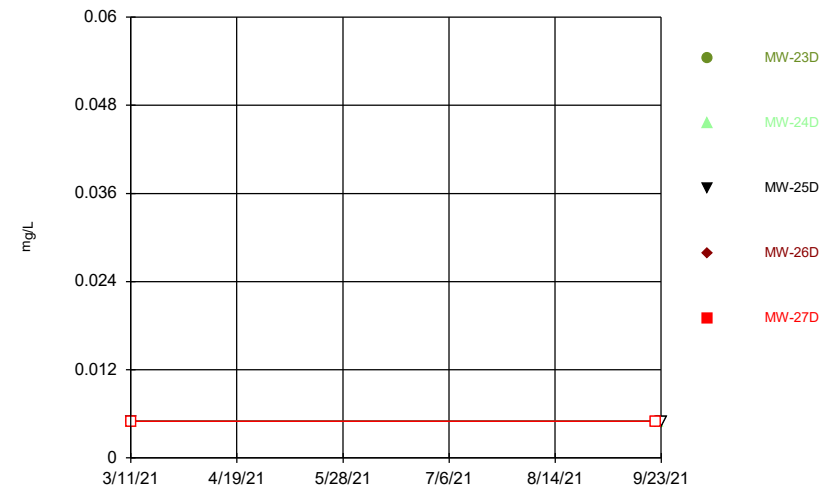
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Time Series



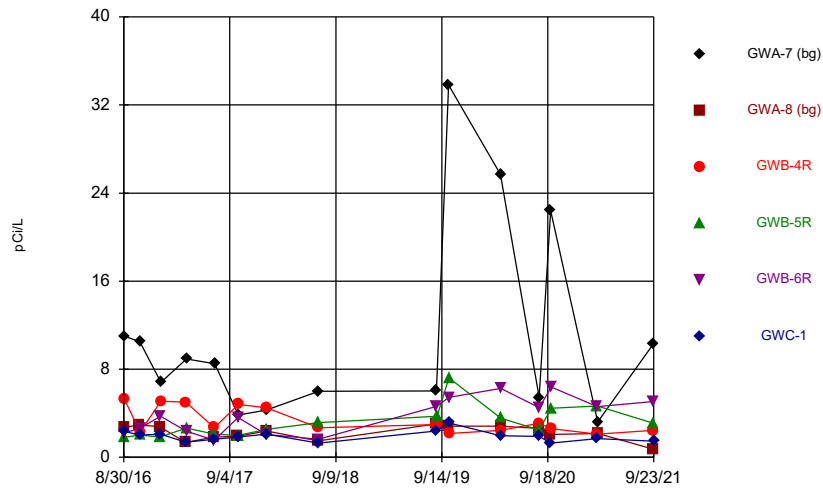
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Time Series



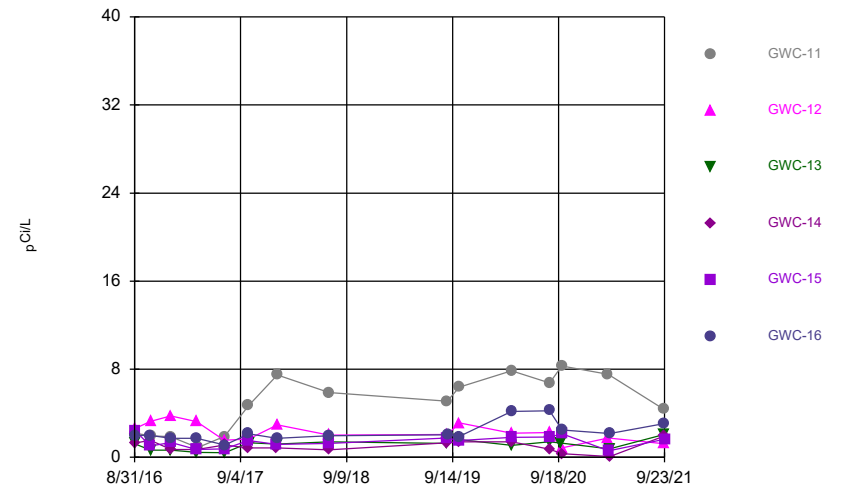
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Time Series



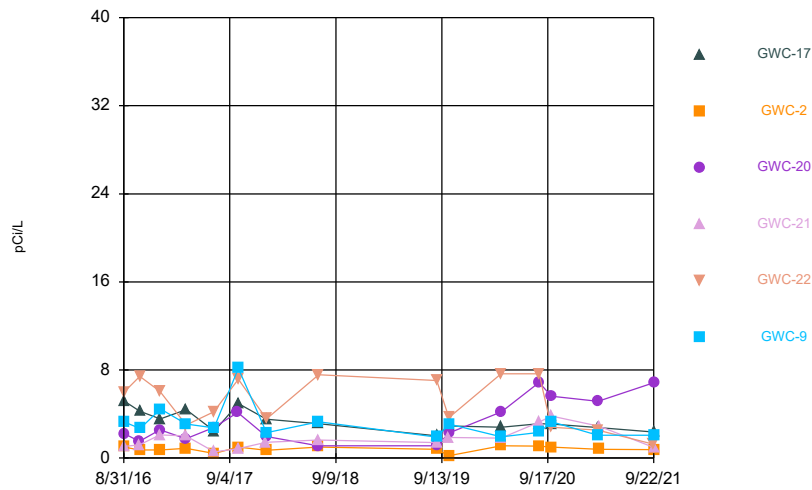
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Time Series



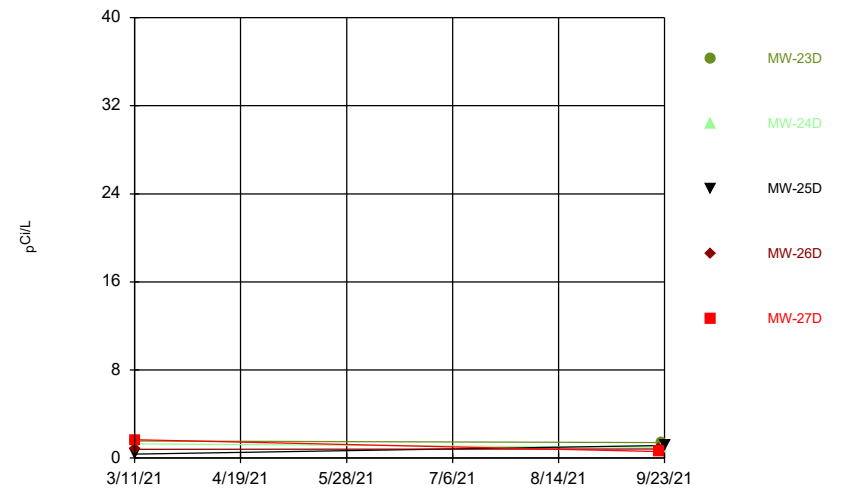
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 11/21/2021 9:32 AM View: Descriptive  
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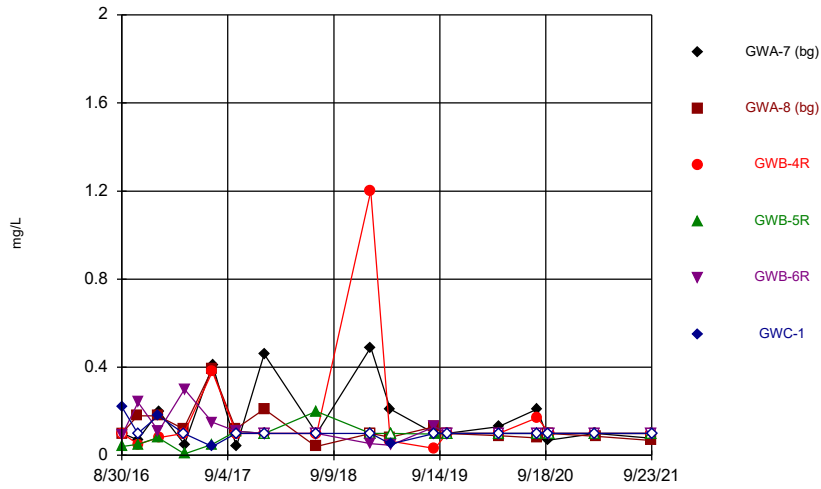
Time Series



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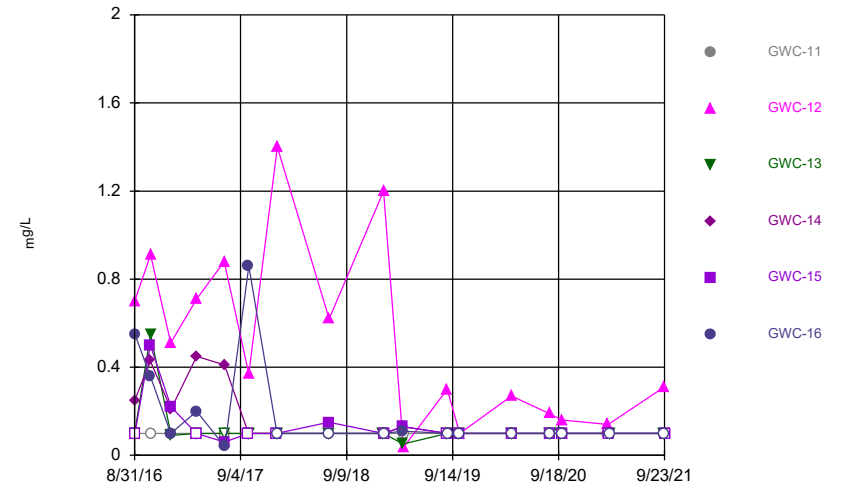


Time Series



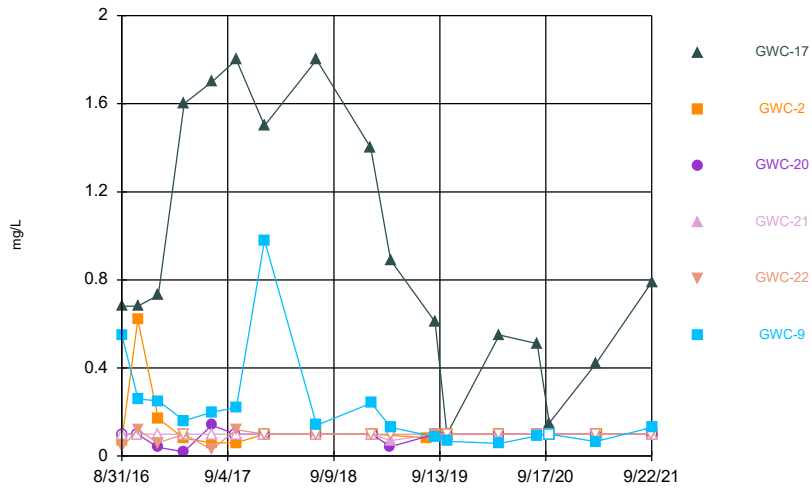
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Time Series



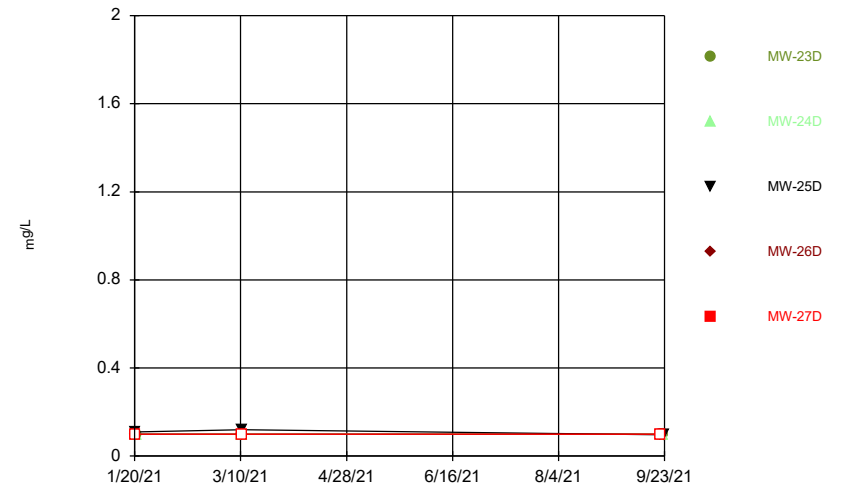
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Time Series



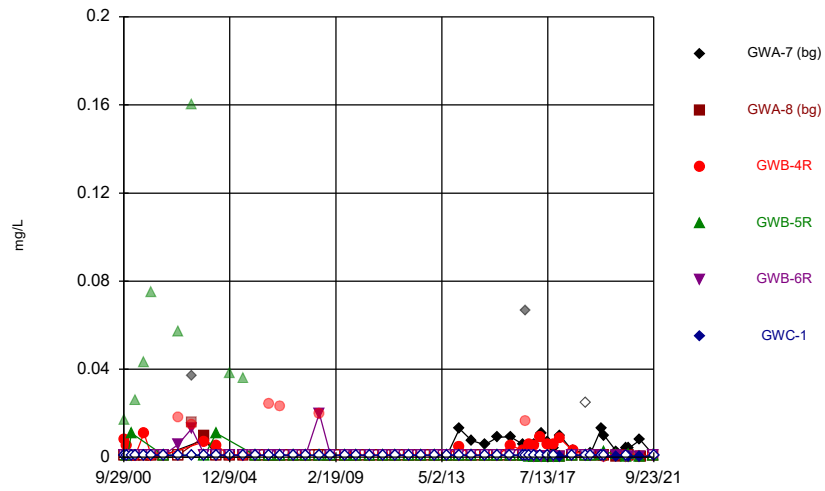
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Time Series



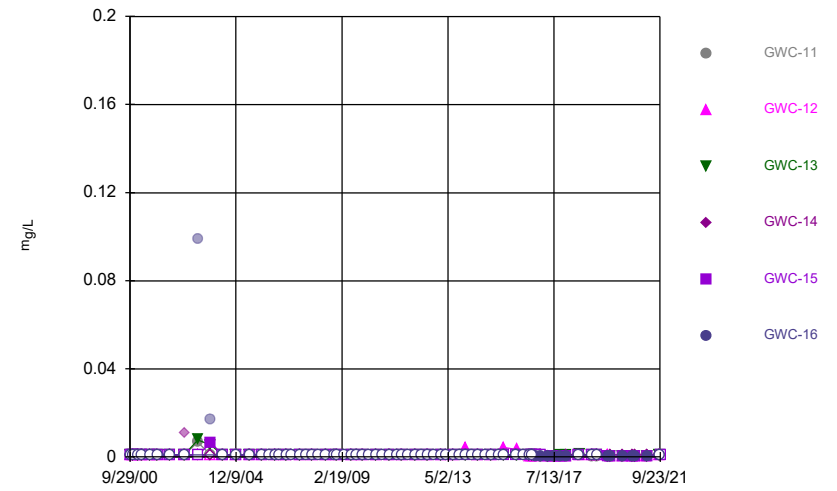
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Time Series



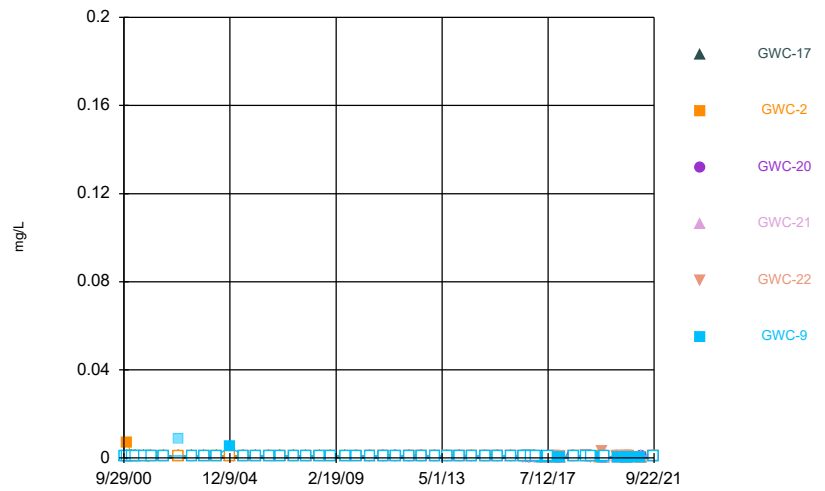
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Time Series



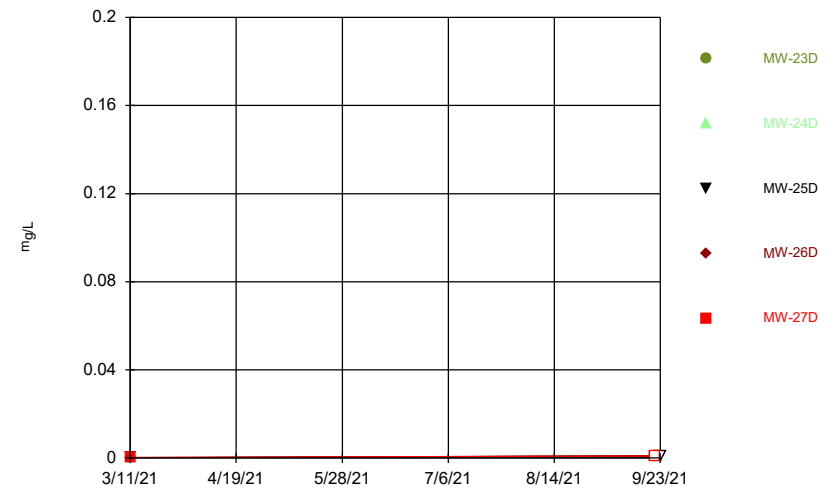
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Time Series



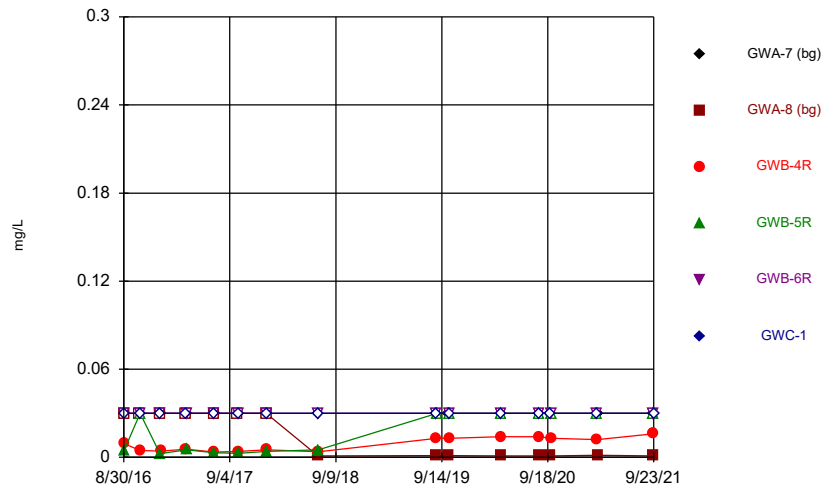
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Time Series



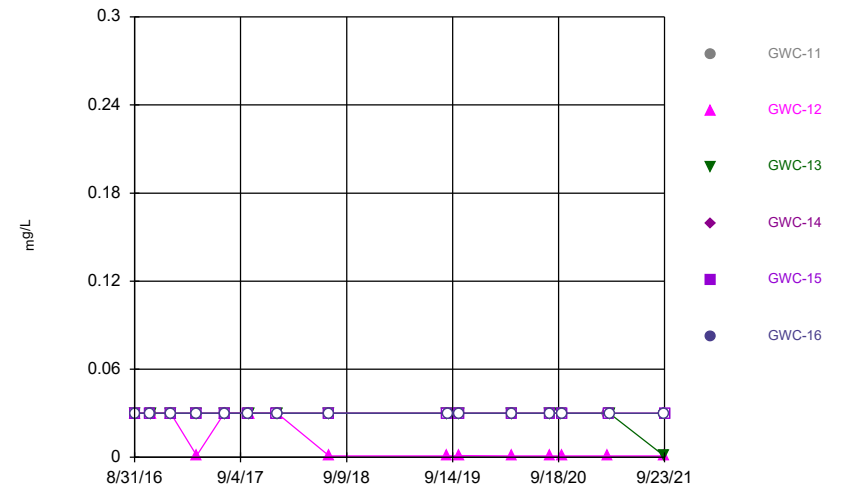
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



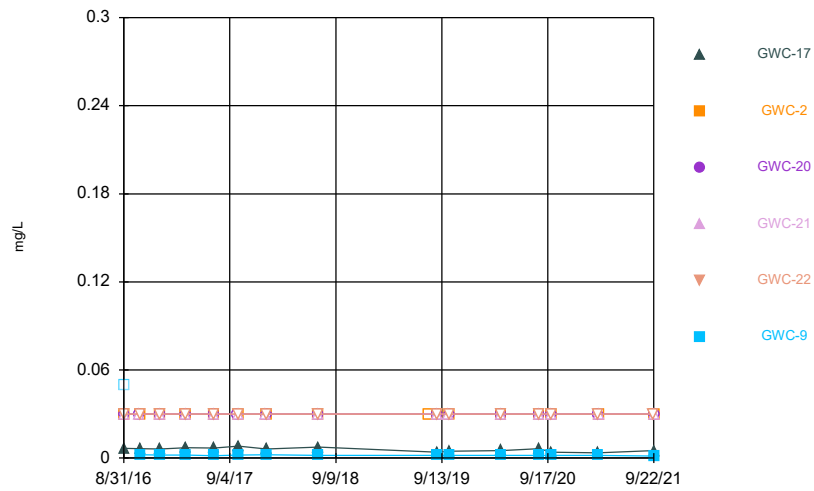
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



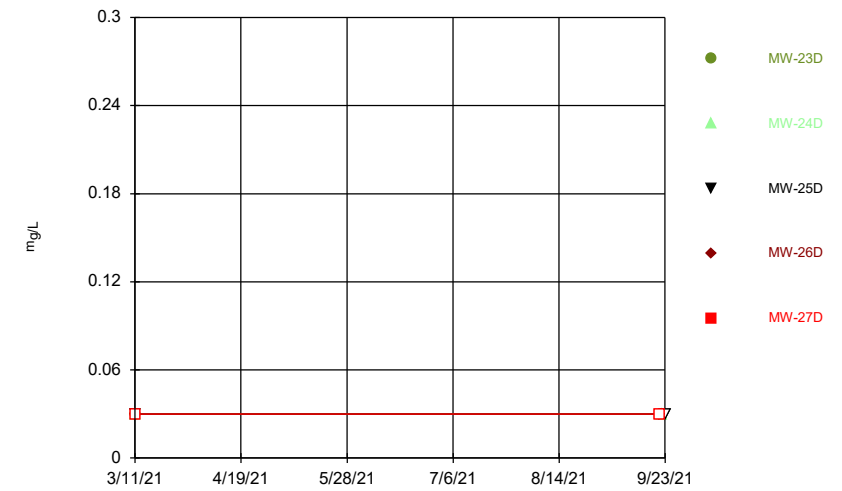
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



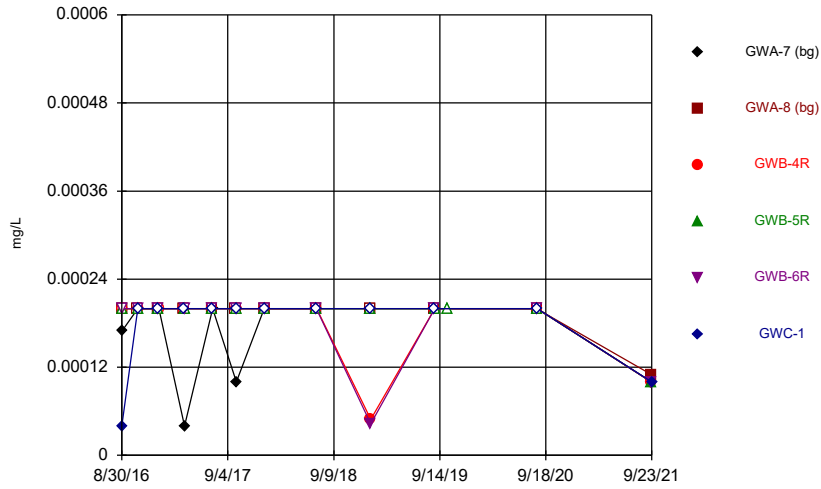
Constituent: Lithium Analysis Run 11/21/2021 9:33 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



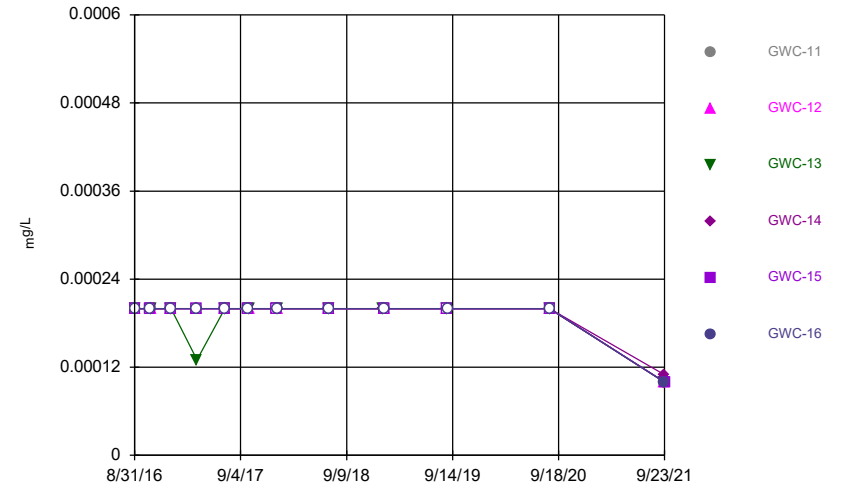
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



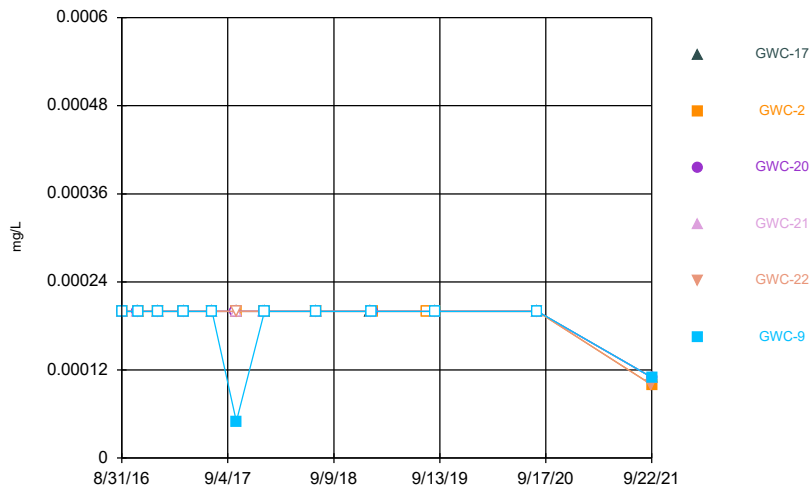
Constituent: Mercury Analysis Run 11/21/2021 9:33 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



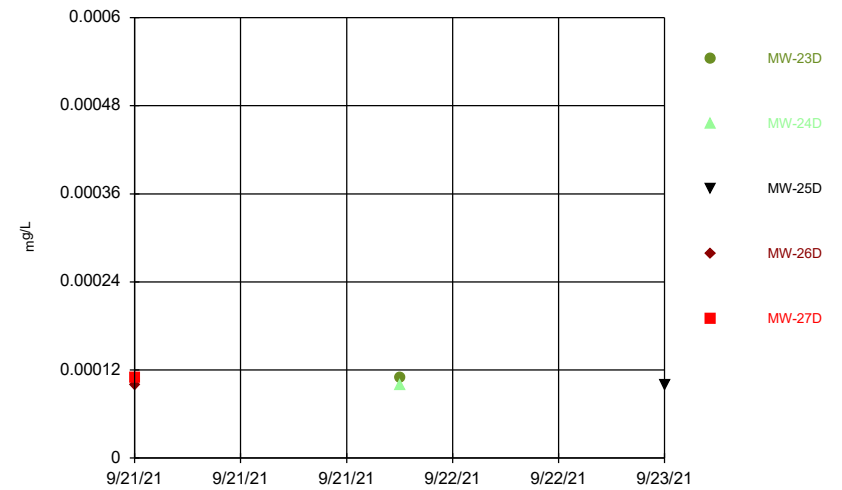
Constituent: Mercury Analysis Run 11/21/2021 9:33 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



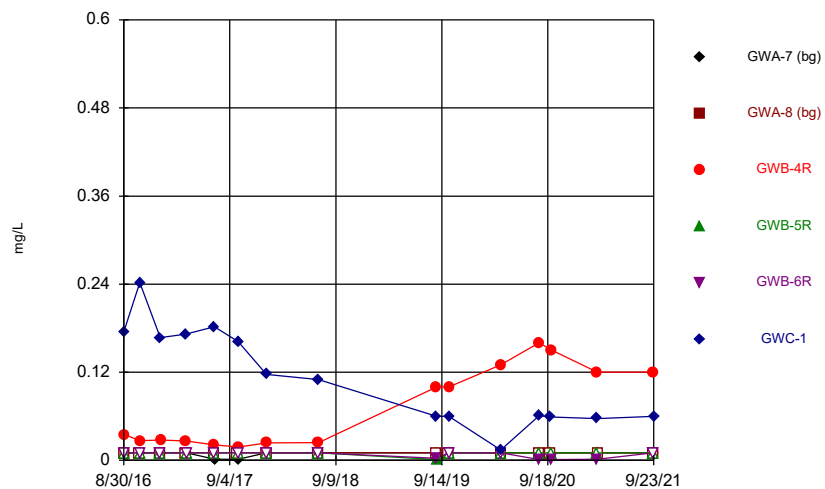
Constituent: Mercury Analysis Run 11/21/2021 9:33 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



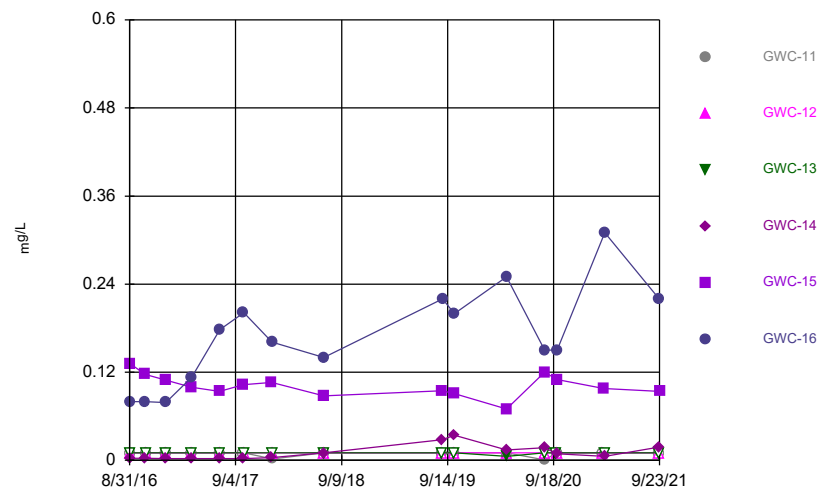
Constituent: Mercury Analysis Run 11/21/2021 9:33 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



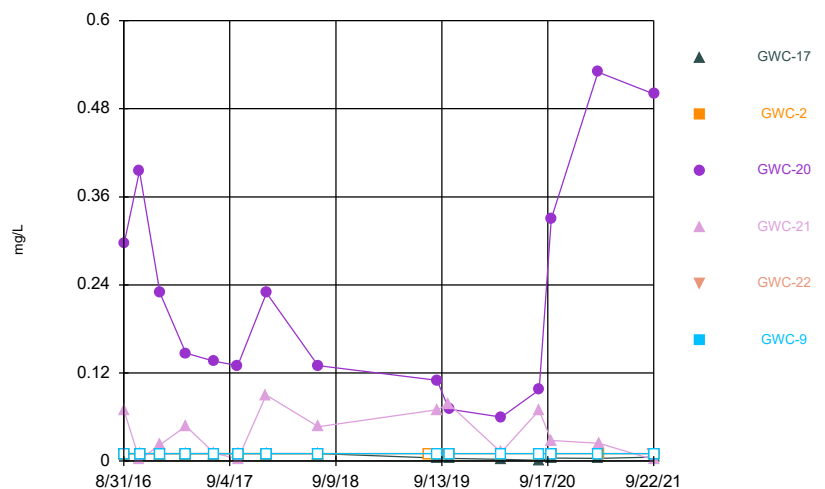
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



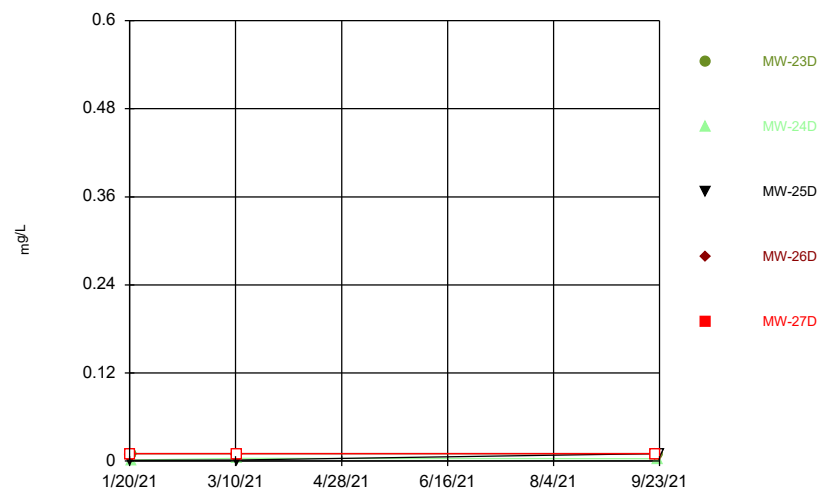
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



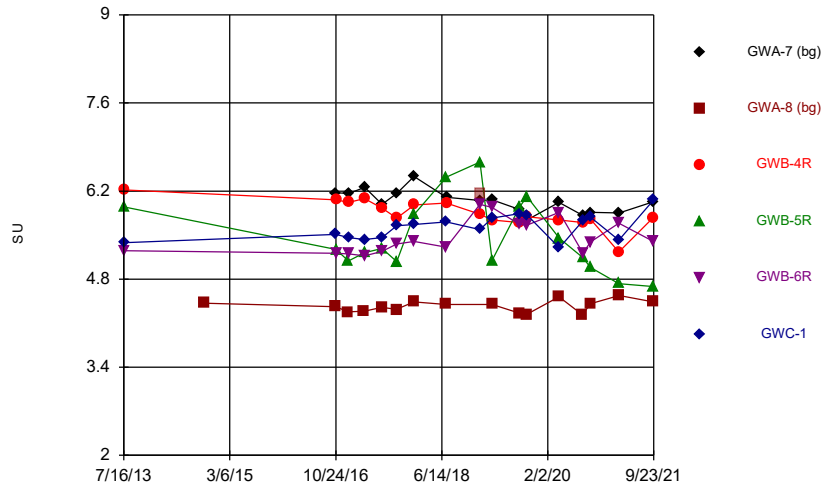
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



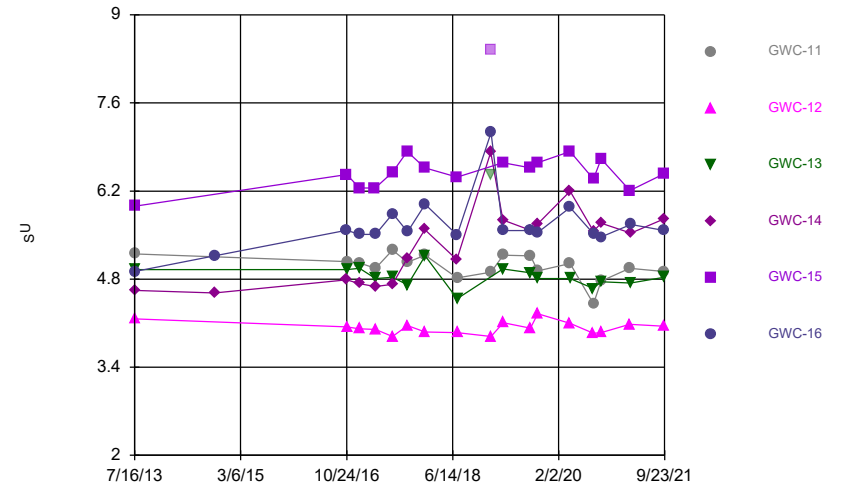
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



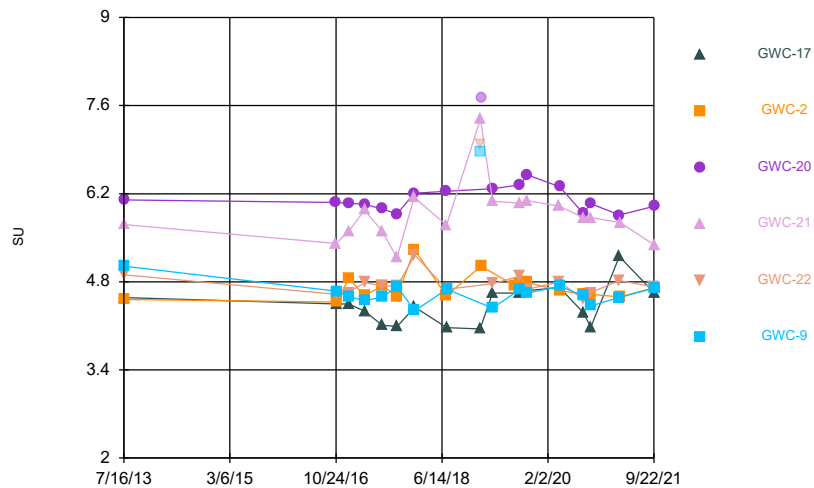
Constituent: pH Analysis Run 11/21/2021 9:33 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



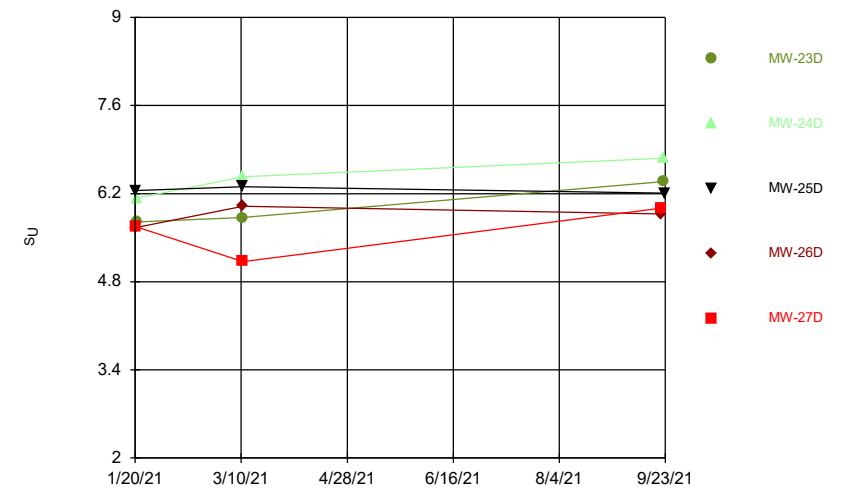
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



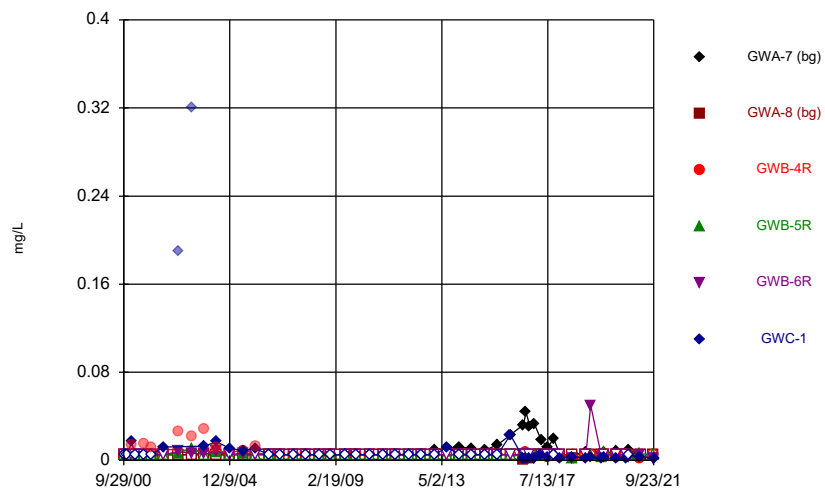
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



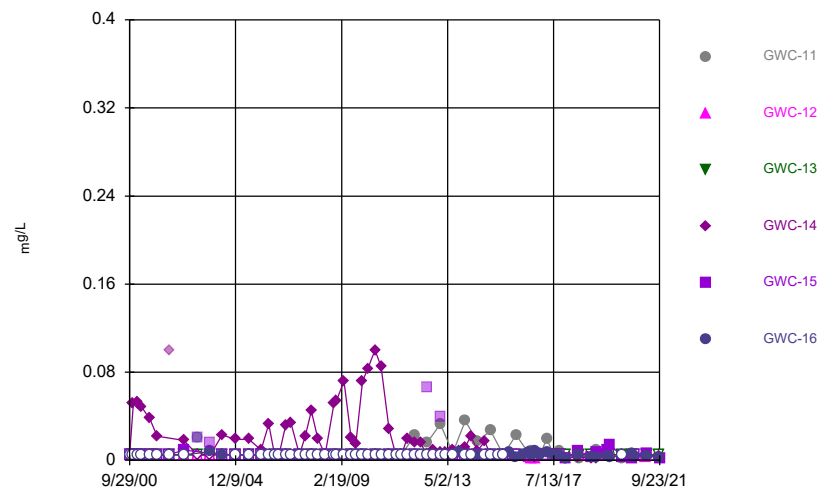
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



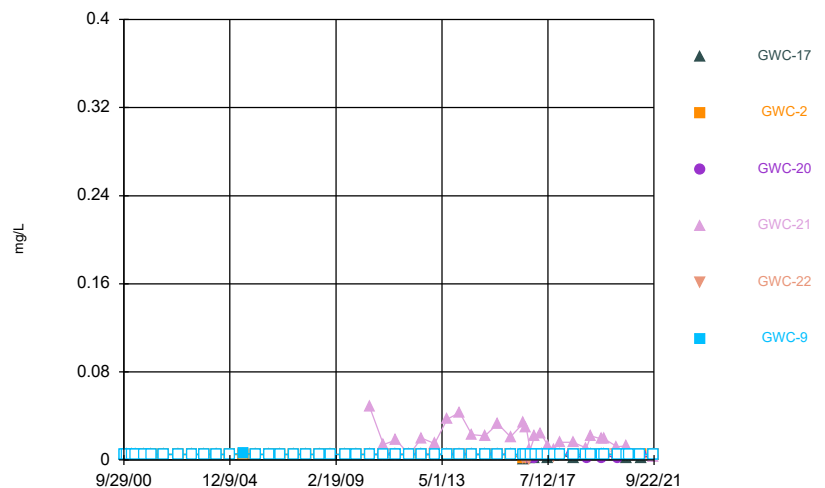
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



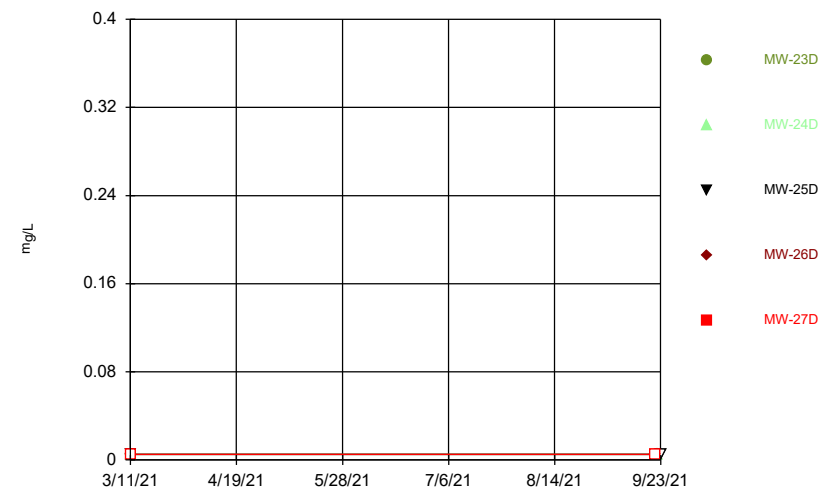
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



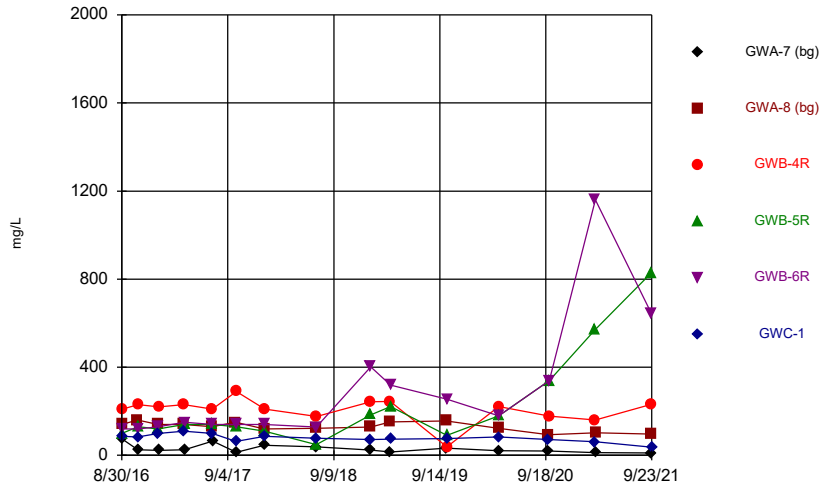
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



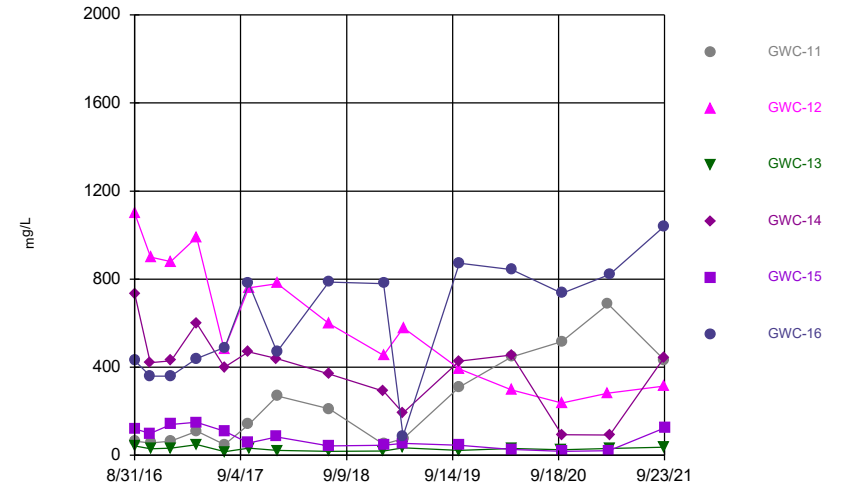
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



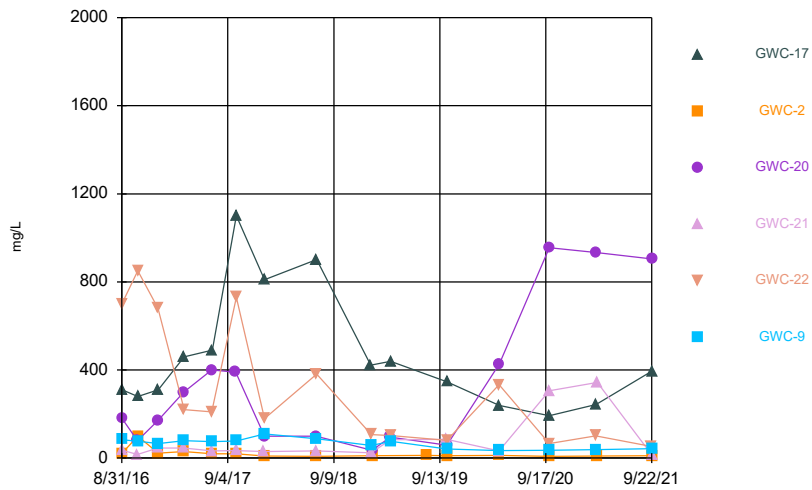
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



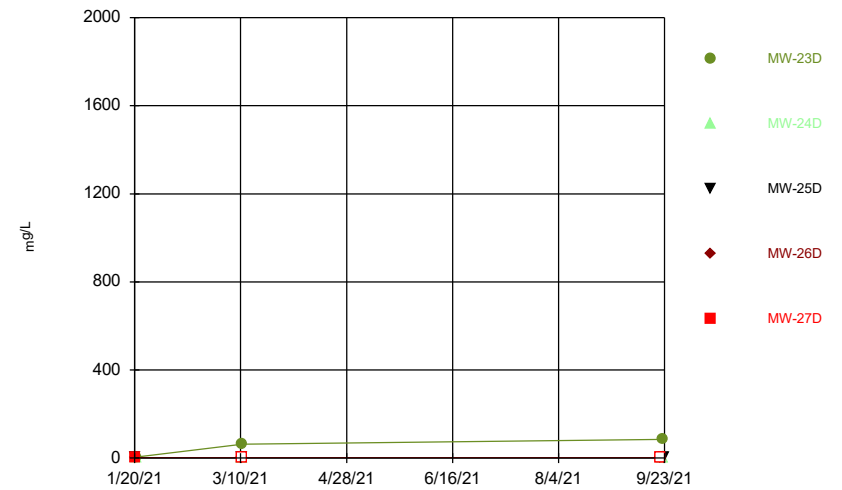
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



Constituent: Sulfate Analysis Run 11/21/2021 9:33 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

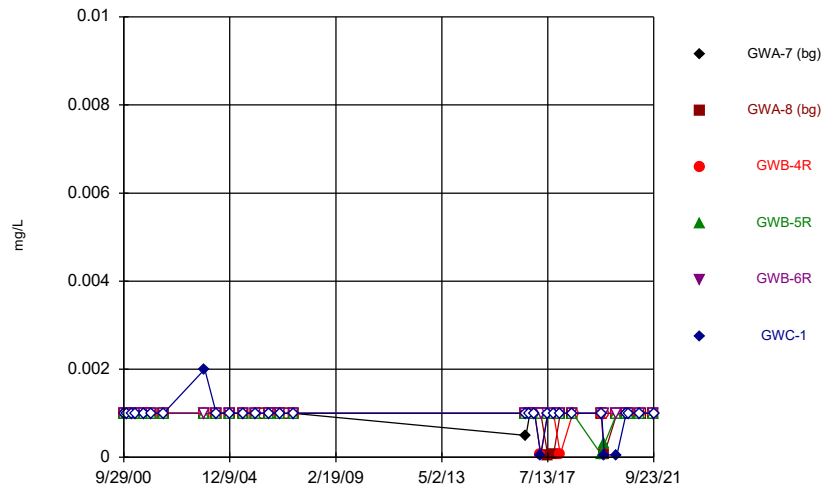
Time Series



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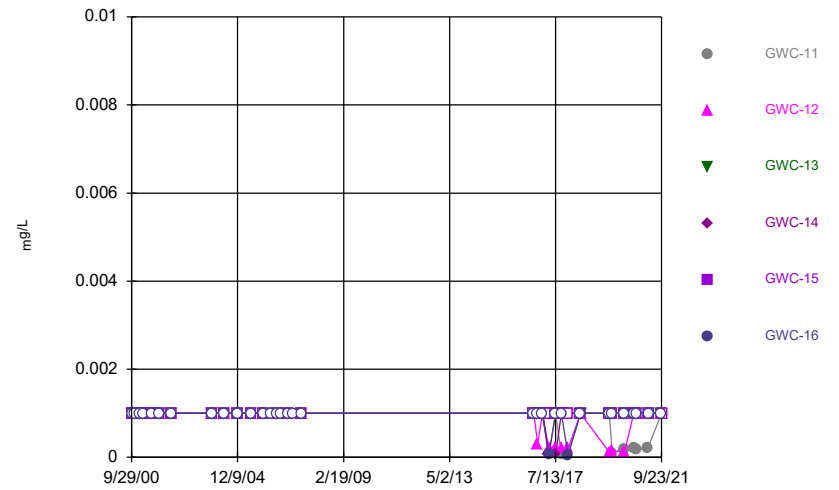


Time Series



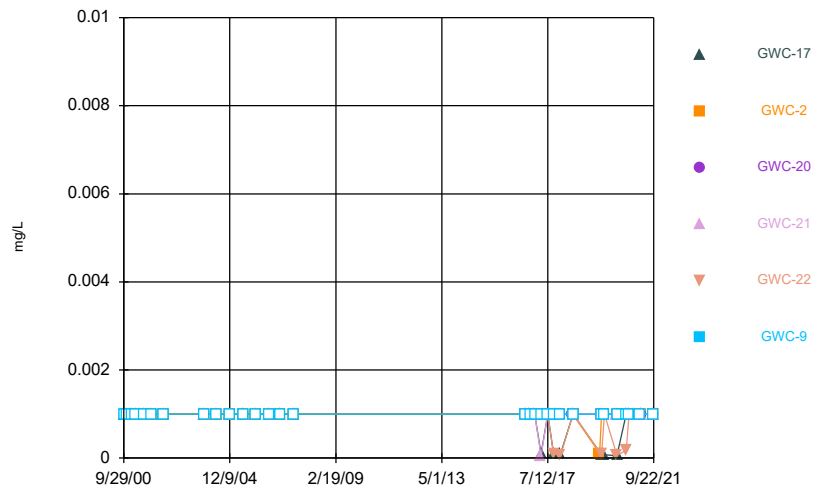
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



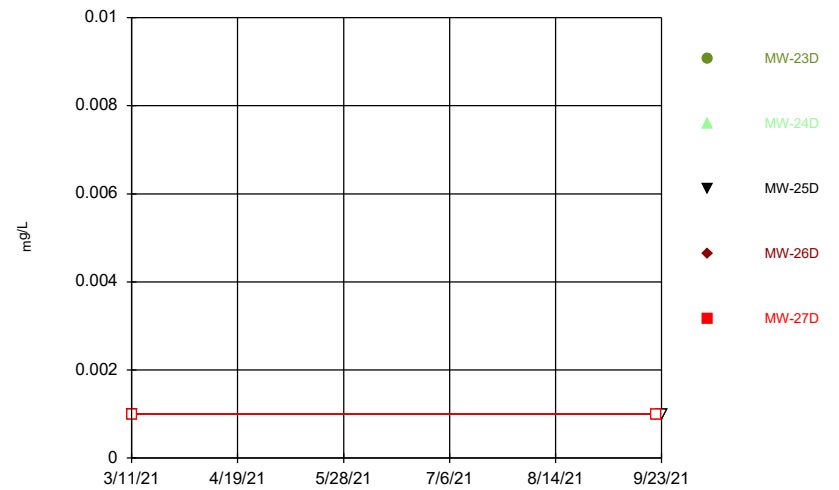
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



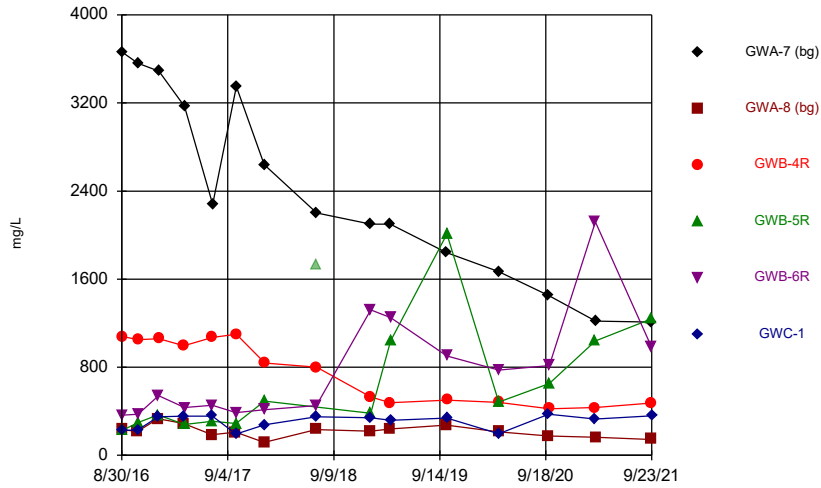
Constituent: Thallium Analysis Run 11/21/2021 9:33 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



Constituent: Thallium Analysis Run 11/21/2021 9:33 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

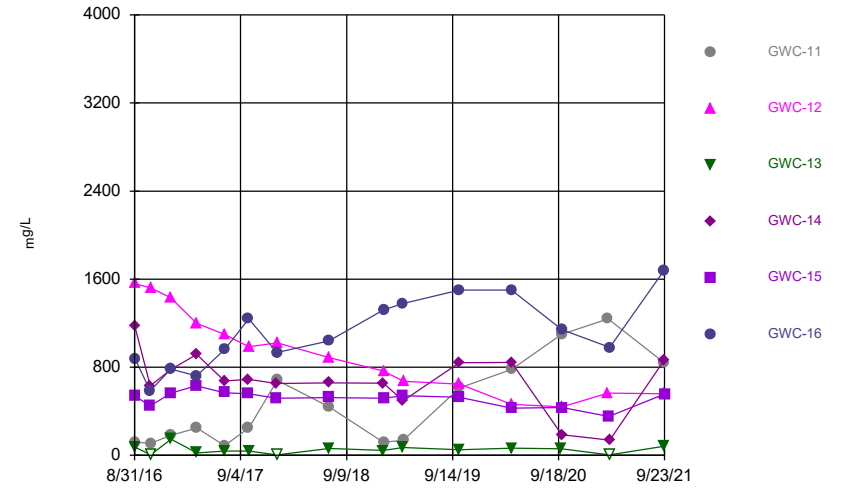
Time Series



Constituent: Total Dissolved Solids Analysis Run 11/21/2021 9:33 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Hollow symbols indicate censored values.

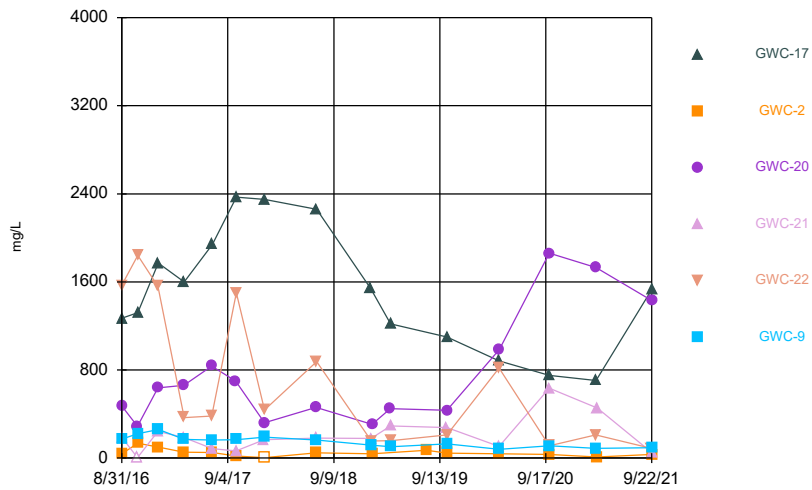
Time Series



Constituent: Total Dissolved Solids Analysis Run 11/21/2021 9:33 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

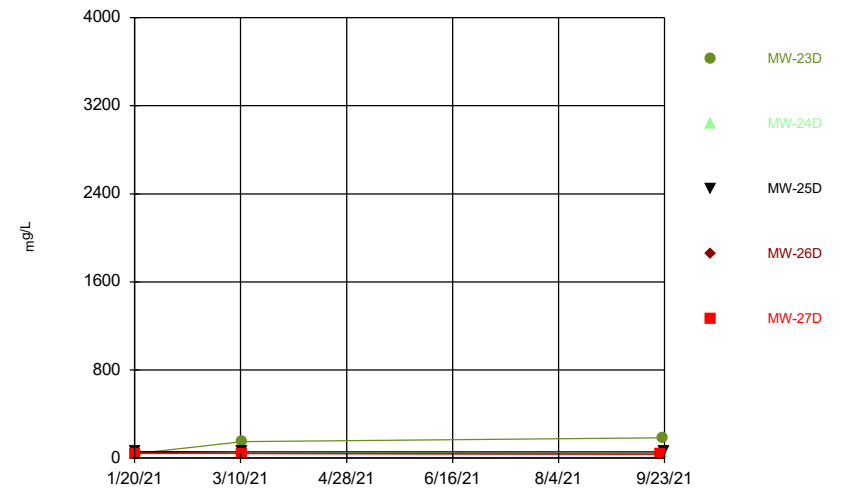
Hollow symbols indicate censored values.

Time Series



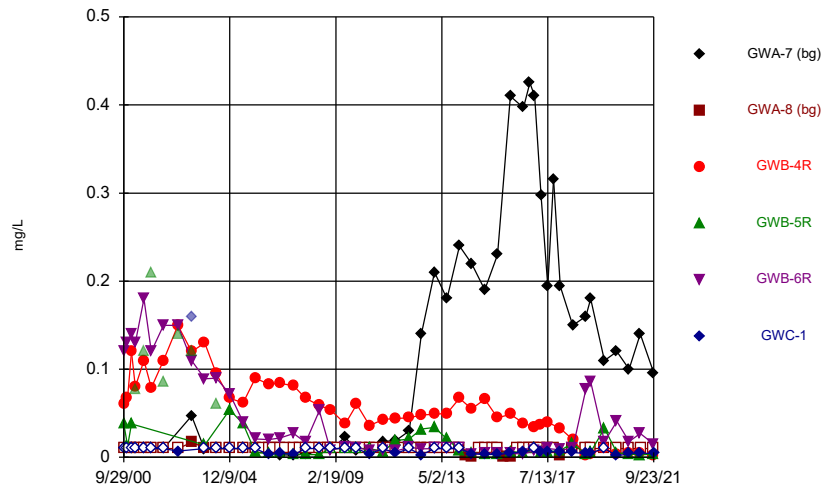
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



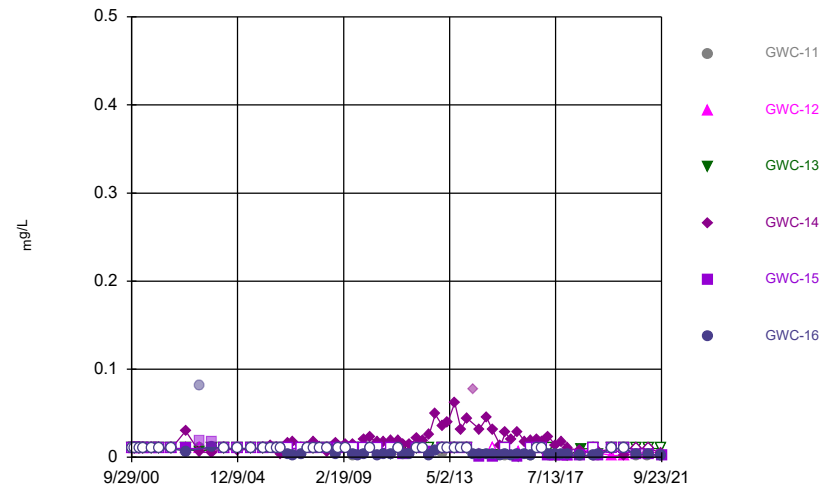
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



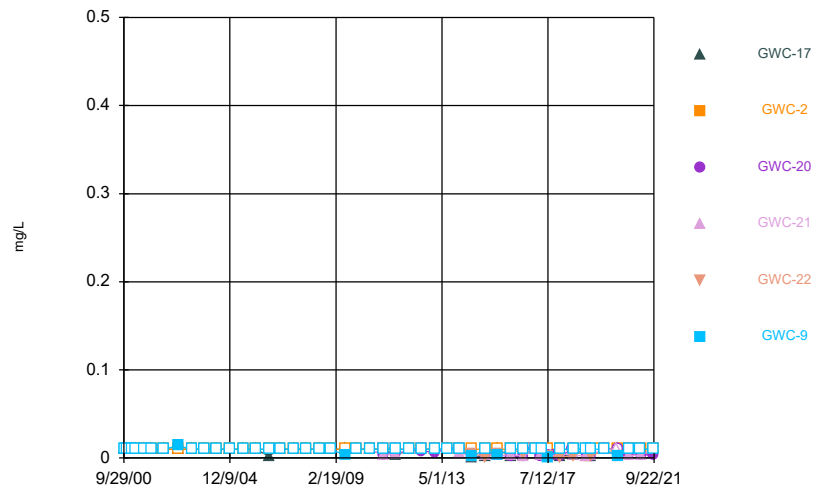
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



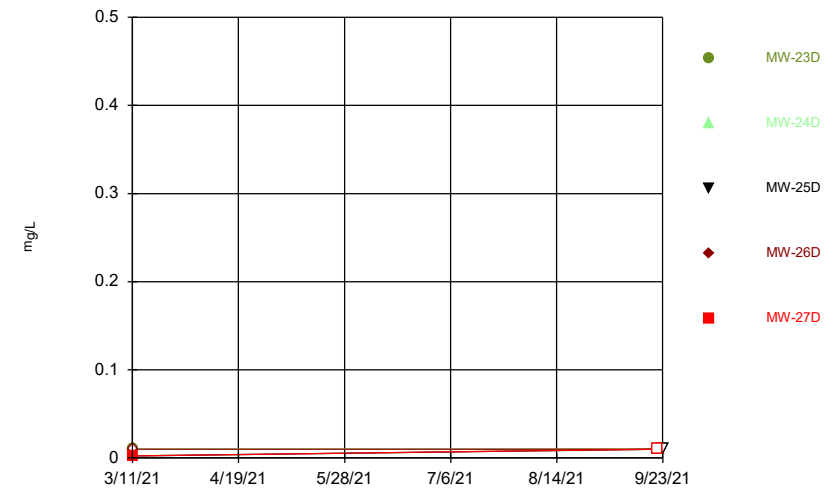
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



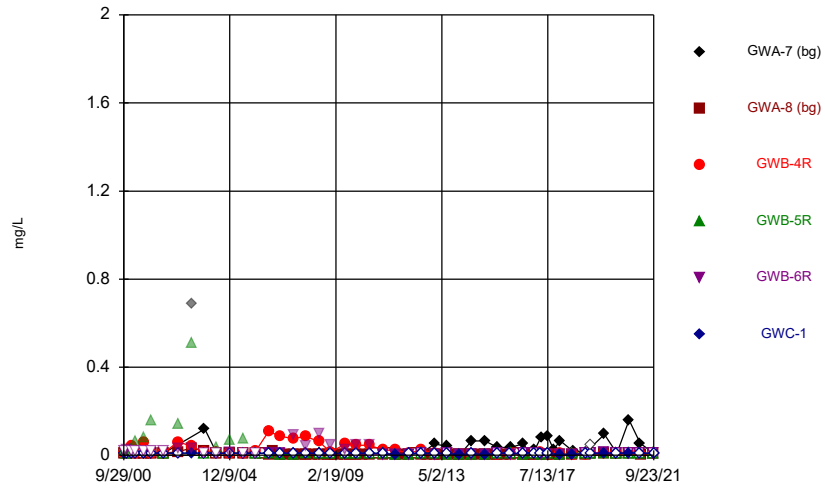
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



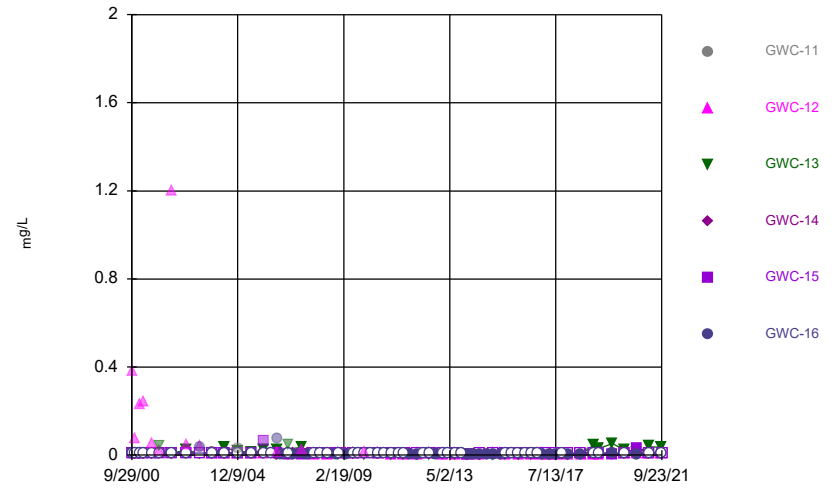
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



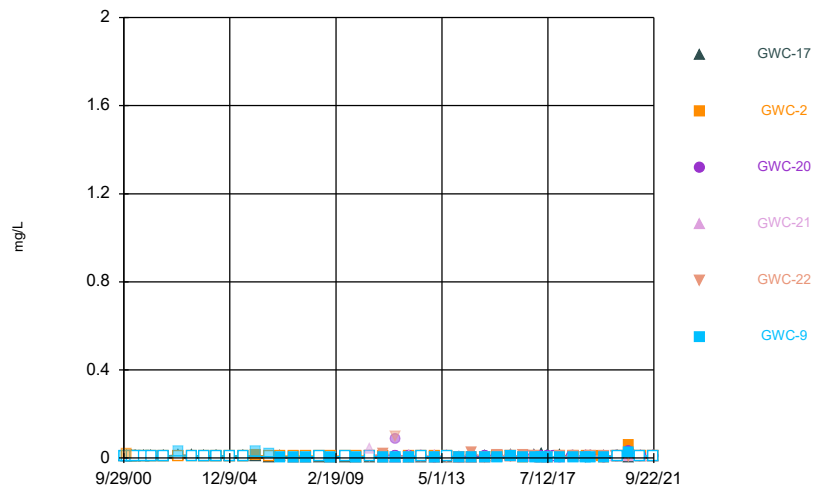
Constituent: Zinc Analysis Run 11/21/2021 9:33 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



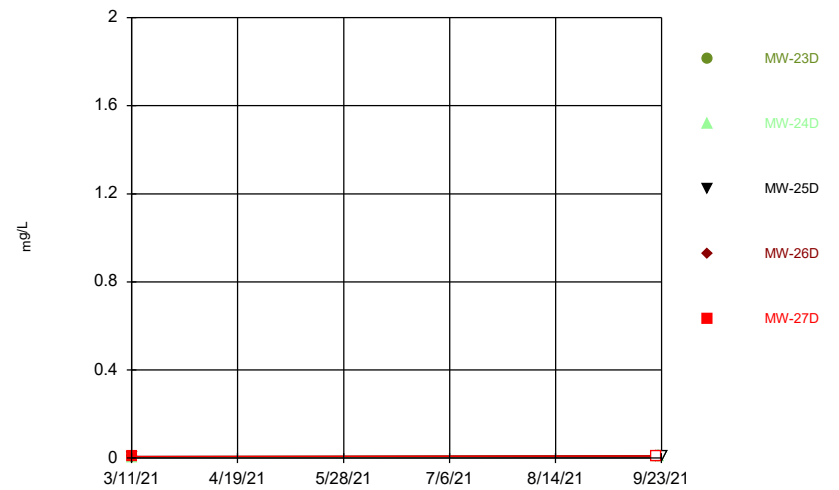
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



Constituent: Zinc Analysis Run 11/21/2021 9:33 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

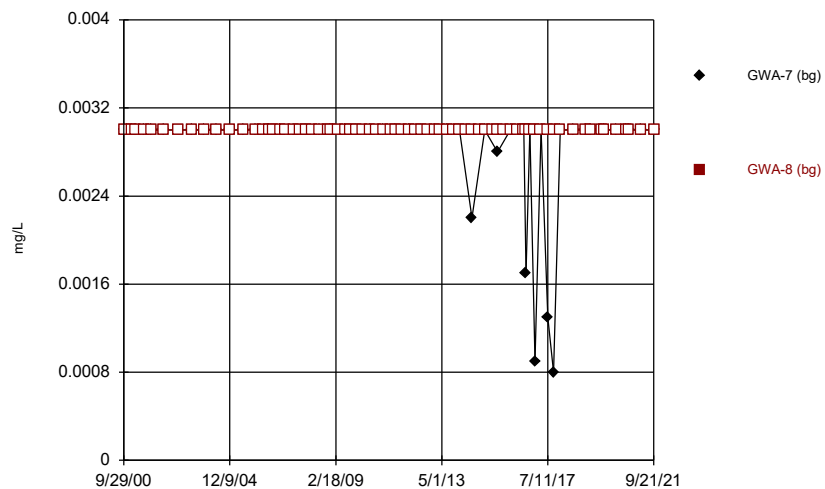
Time Series



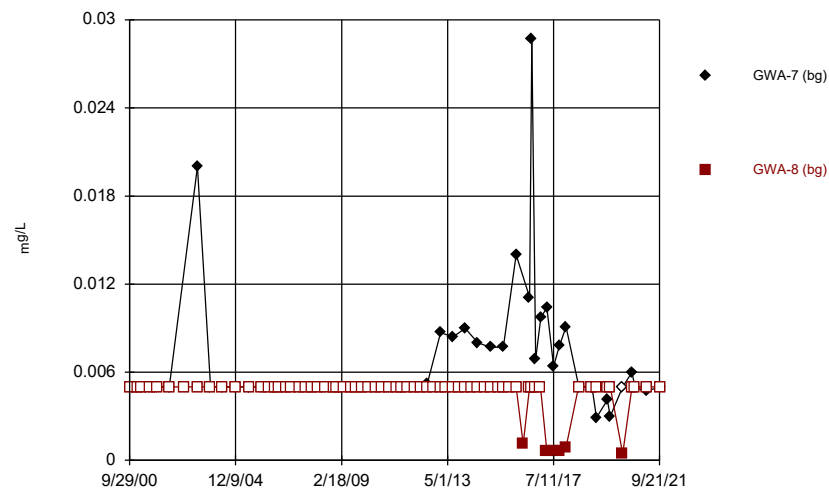
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

# UPGRADIENT WELLS

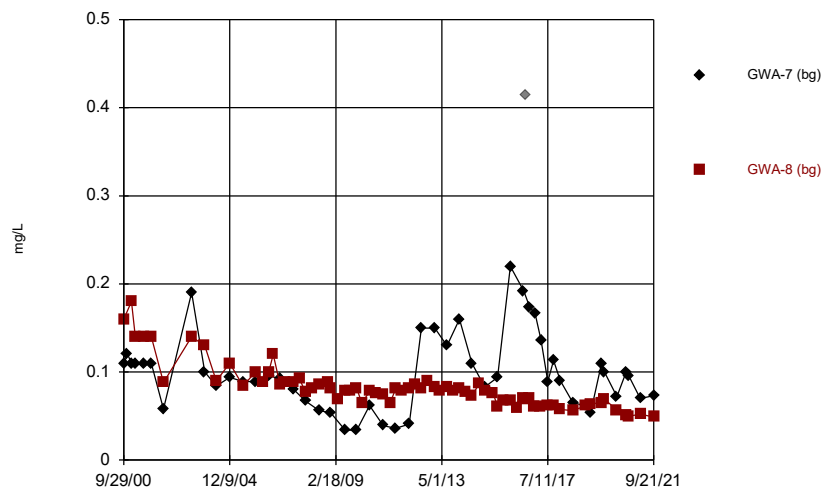
### Time Series



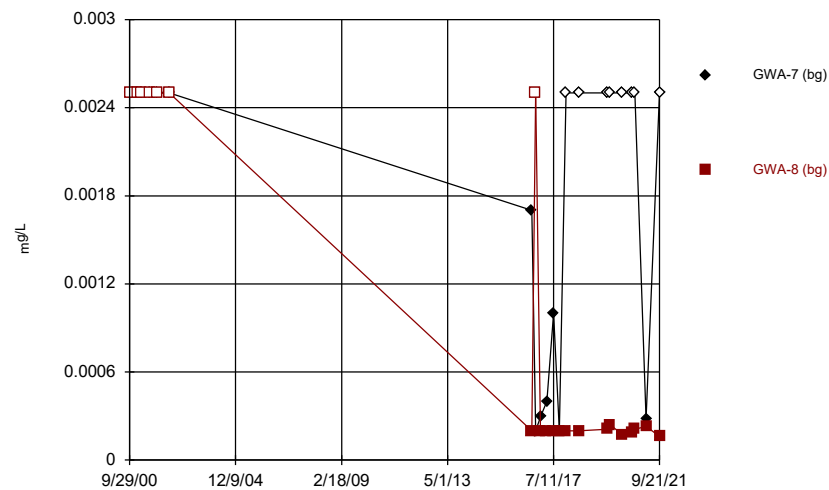
### Time Series



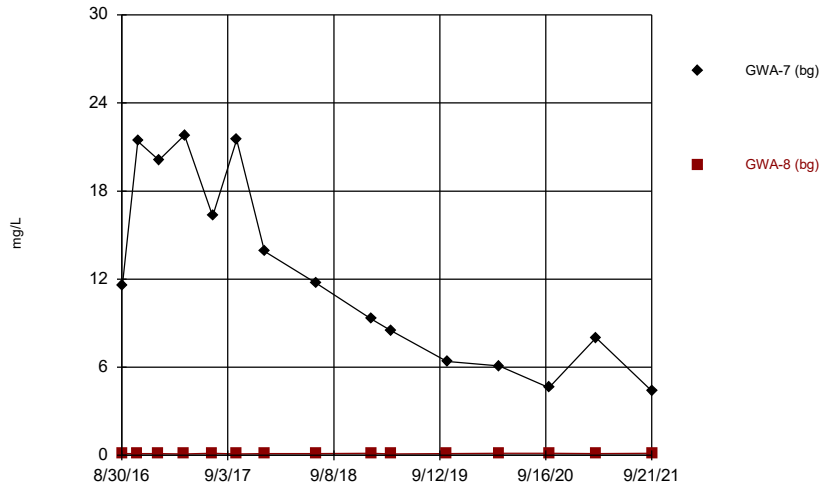
### Time Series



### Time Series

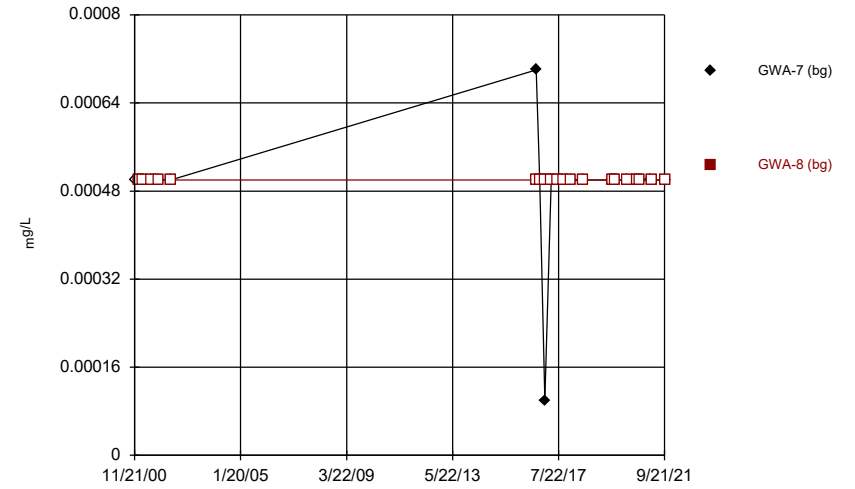


Time Series



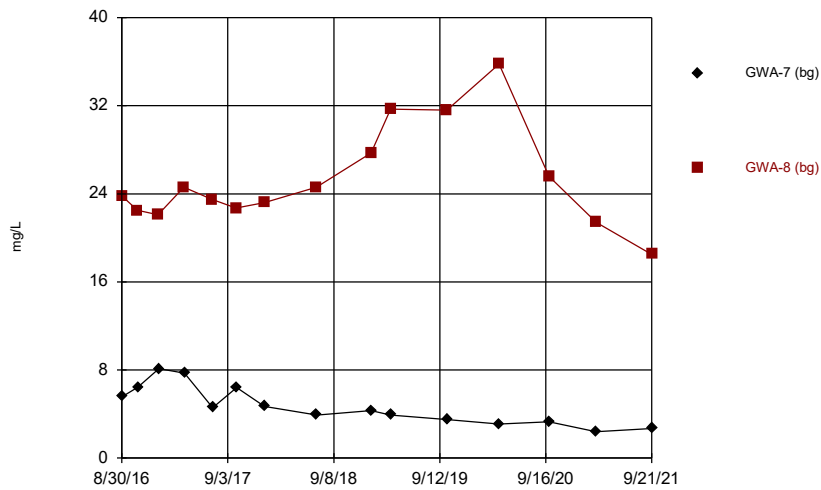
Constituent: Boron Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



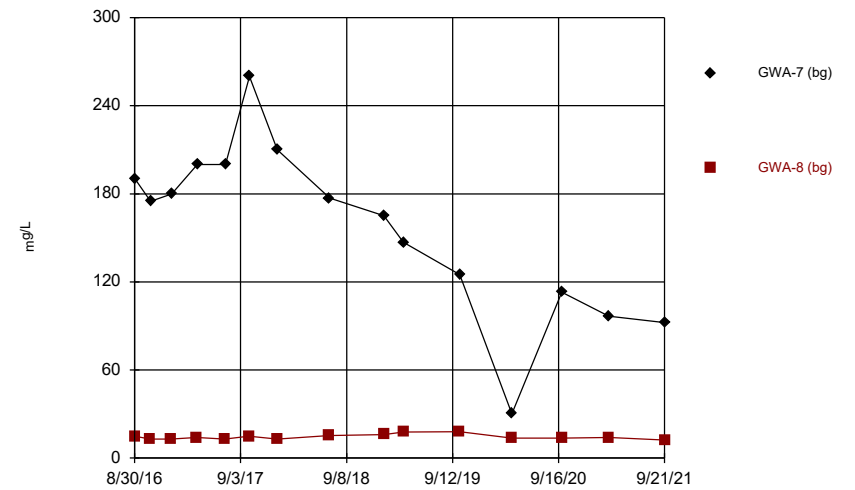
Constituent: Cadmium Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



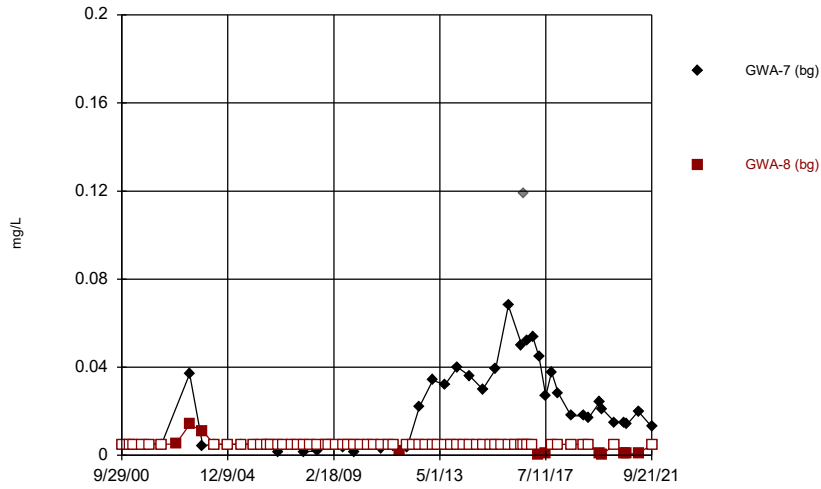
Constituent: Calcium Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



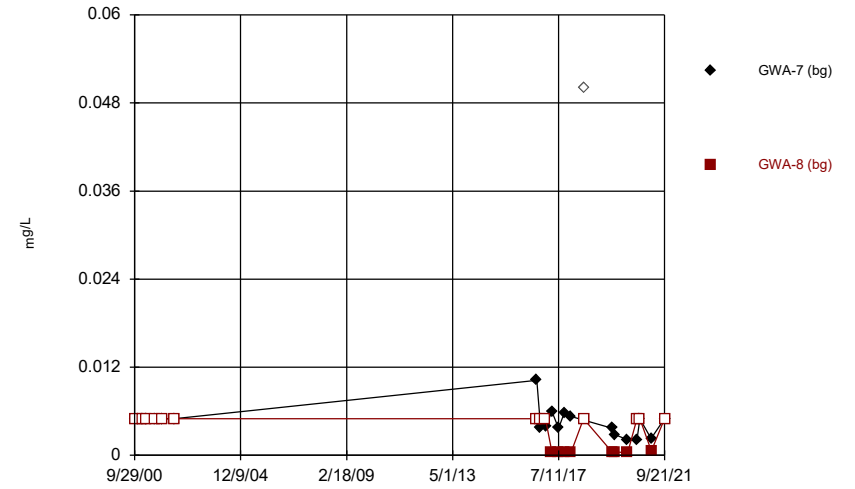
Constituent: Chloride Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



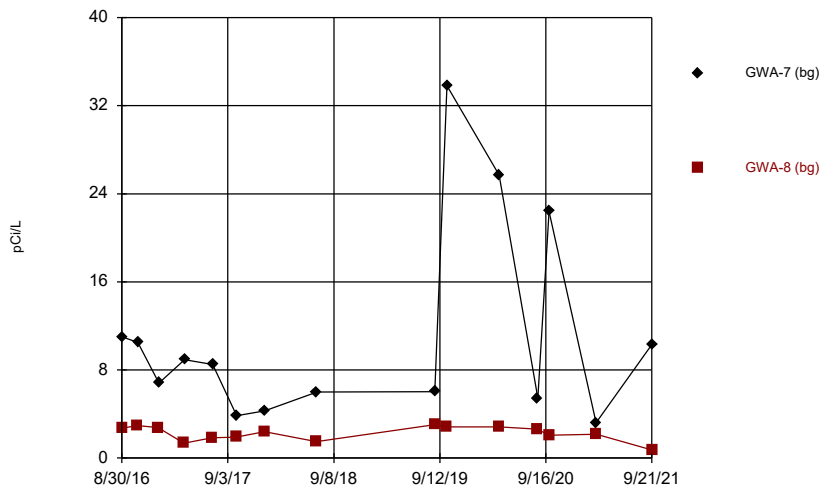
Constituent: Chromium Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



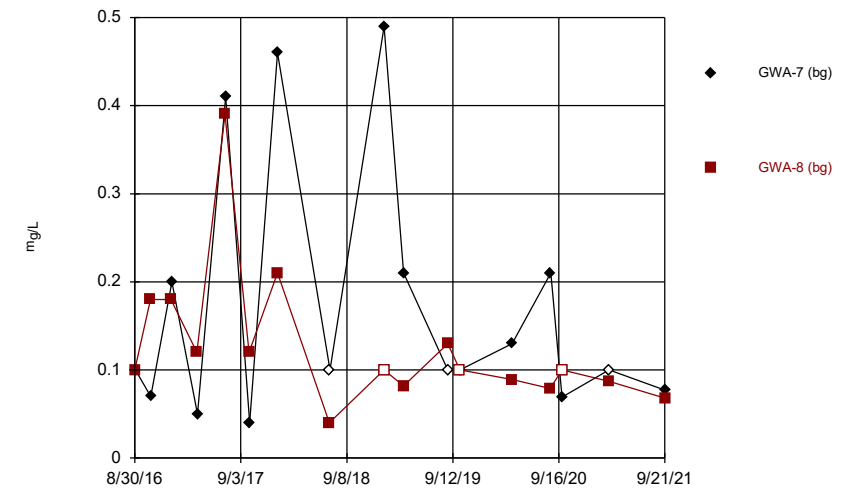
Constituent: Cobalt Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgra  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

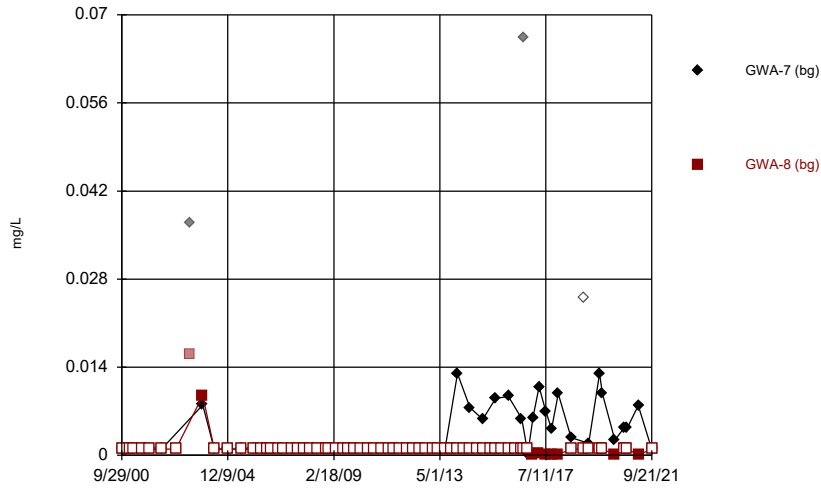
Time Series



Constituent: Fluoride Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

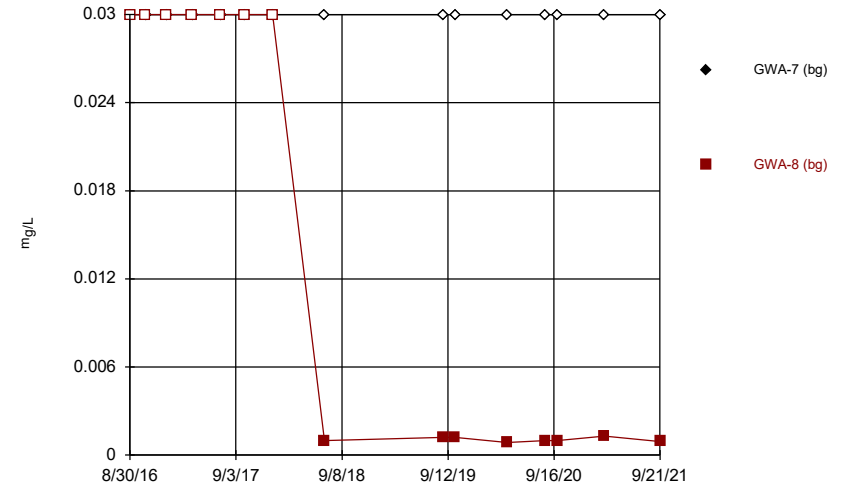


Time Series



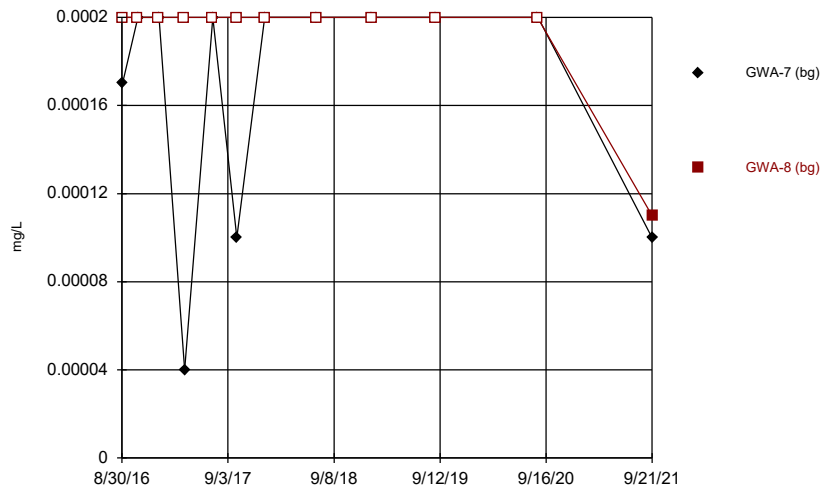
Constituent: Lead Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



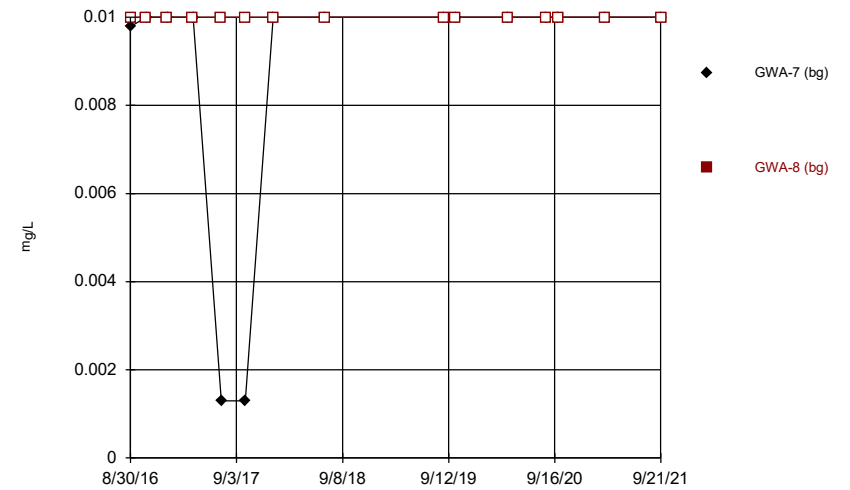
Constituent: Lithium Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



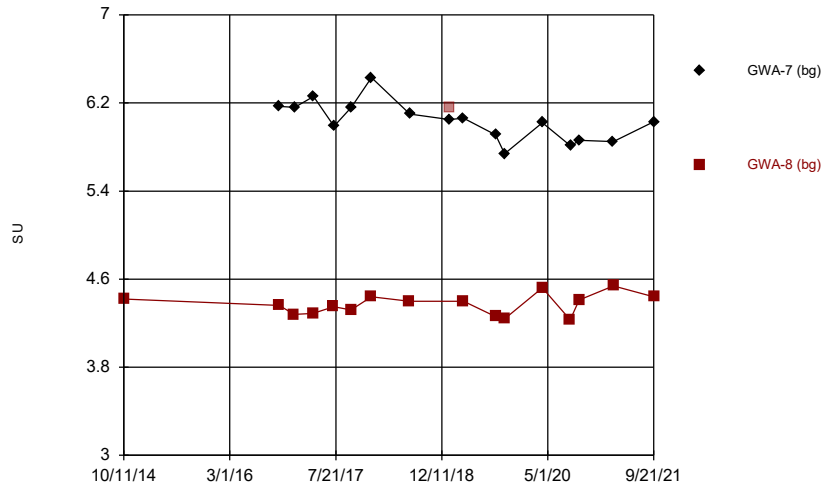
Constituent: Mercury Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



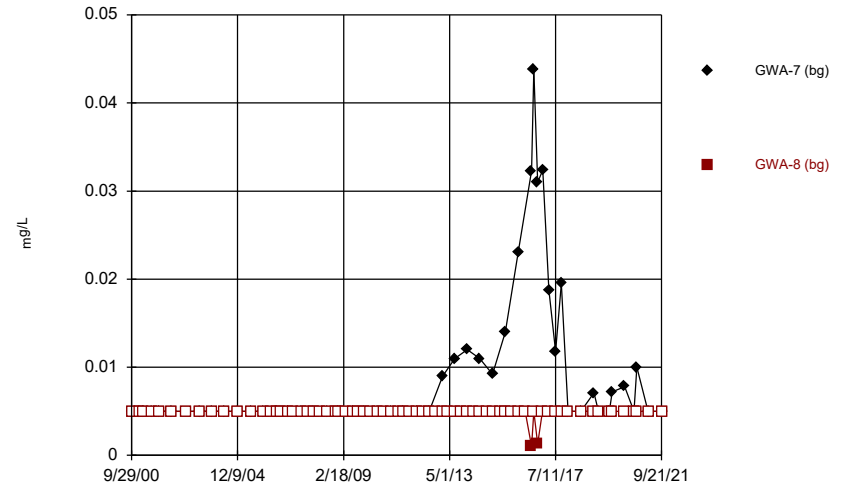
Constituent: Molybdenum Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



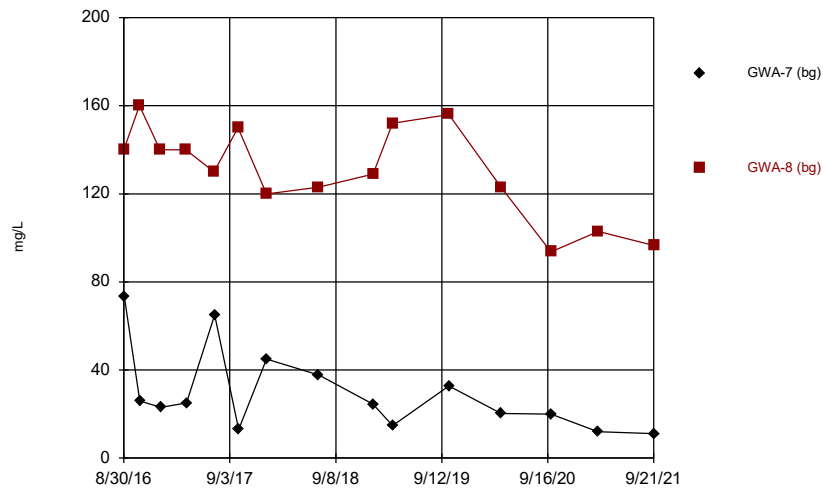
Constituent: pH Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



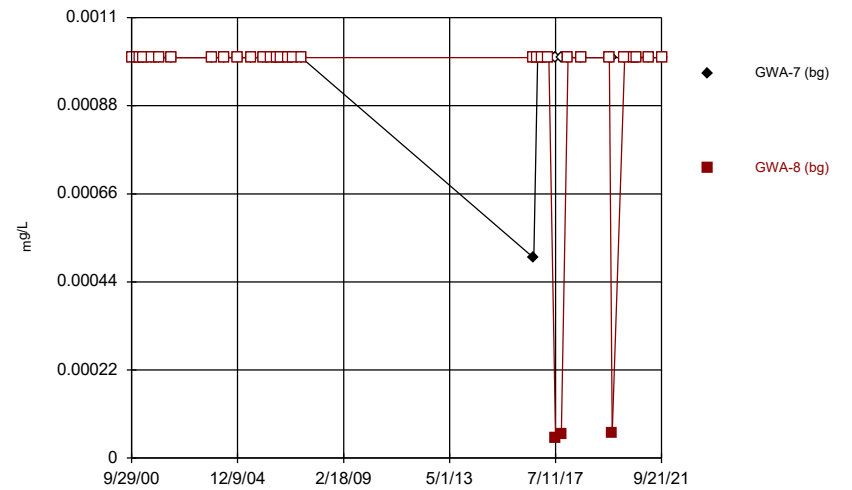
Constituent: Selenium Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



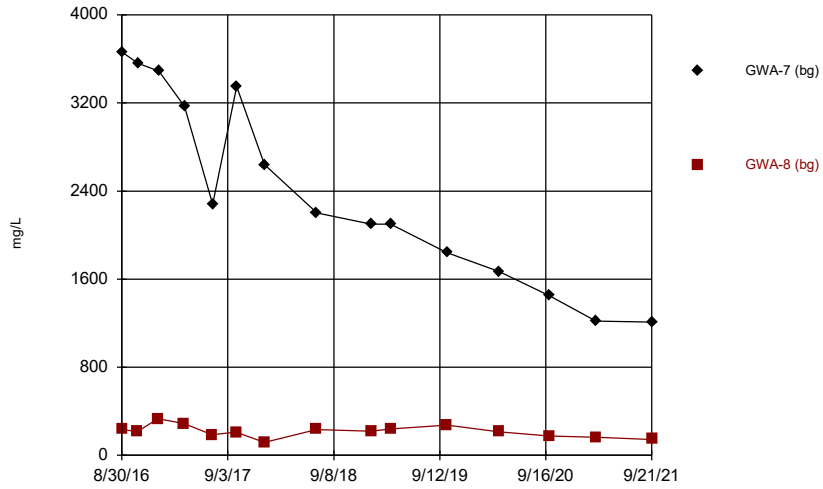
Constituent: Sulfate Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



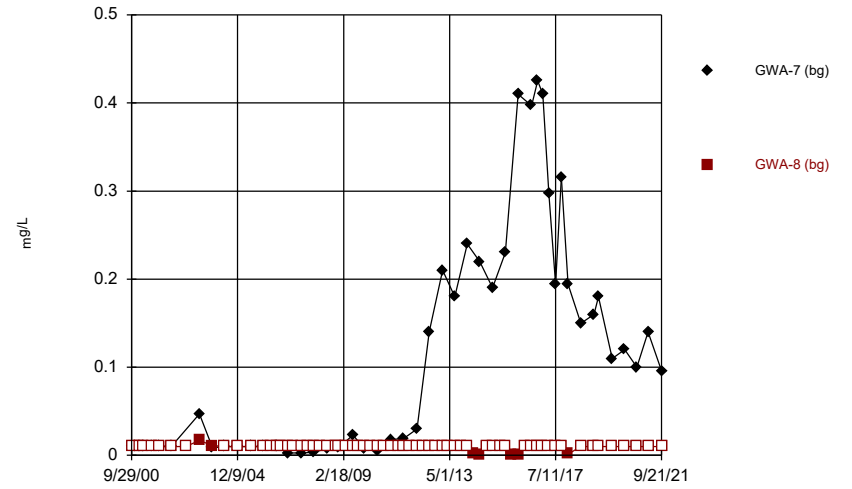
Constituent: Thallium Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



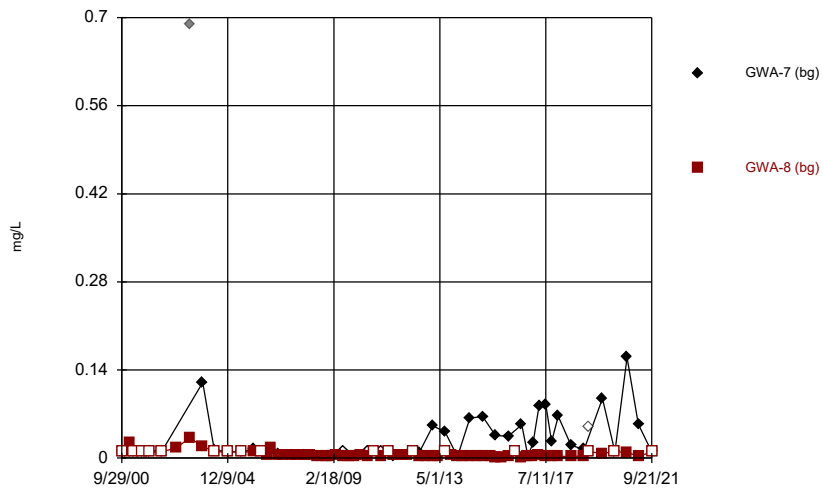
Constituent: Total Dissolved Solids Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient W  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



Constituent: Vanadium Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



Constituent: Zinc Analysis Run 11/21/2021 11:13 AM View: Time Series - Upgradient Wells  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
9/29/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/21/2000	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/20/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/14/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
7/16/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/1/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/25/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/20/2002		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/6/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
5/26/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/7/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/21/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/4/2006		<0.003							
6/27/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/30/2006		<0.003							
12/4/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
2/15/2007		<0.003							
6/23/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/11/2007		<0.003							
12/11/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/11/2008		<0.003							
6/23/2008	<0.003	<0.003					<0.003	<0.003	<0.003
6/24/2008			<0.003	<0.003	<0.003	<0.003			
11/3/2008		<0.003							
12/4/2008	<0.003	<0.003					<0.003	<0.003	<0.003
12/5/2008			<0.003	<0.003	<0.003	<0.003			
3/25/2009		<0.003							
7/7/2009	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
7/8/2009							<0.003	<0.003	<0.003
9/14/2009		<0.003							
12/20/2009	<0.003	<0.003				<0.003			
12/21/2009			<0.003	<0.003	<0.003		<0.003	<0.003	<0.003
3/4/2010		<0.003							
6/20/2010	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/21/2010			<0.003						
9/14/2010		<0.003							
1/6/2011				<0.003		<0.003	<0.003		<0.003
1/7/2011	<0.003	<0.003	<0.003		<0.003			<0.003	
4/15/2011		<0.003							
7/7/2011	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
7/8/2011			<0.003						
9/25/2011		<0.003							
1/17/2012	<0.003	<0.003		<0.003		<0.003	<0.003	<0.003	<0.003
1/18/2012			<0.003		<0.003				
4/4/2012		<0.003							
7/9/2012	<0.003			<0.003		<0.003	<0.003	<0.003	<0.003
7/10/2012		<0.003	<0.003		<0.003				
10/9/2012		<0.003							
1/17/2013				<0.003		<0.003	<0.003	<0.003	<0.003
1/18/2013	<0.003	<0.003	<0.003		<0.003				

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
4/5/2013		<0.003							
7/16/2013				<0.003		<0.003	<0.003	<0.003	<0.003
7/17/2013	<0.003	<0.003	<0.003		<0.003				
10/11/2013		<0.003							
1/13/2014	<0.003			<0.003		<0.003	<0.003	<0.003	<0.003
1/14/2014		<0.003	<0.003		<0.003				
4/3/2014		<0.003							
7/8/2014							<0.003	<0.003	<0.003
7/9/2014	0.0022 (J)	<0.003	0.002 (J)	<0.003	<0.003	<0.003			
10/24/2014		<0.003							
1/12/2015			<0.003						
1/13/2015	<0.003			<0.003		<0.003	<0.003	<0.003	<0.003
1/14/2015		<0.003			<0.003				
5/10/2015		<0.003							
7/16/2015	0.0028 (J)		0.0021 (J)	<0.003		<0.003	<0.003	<0.003	<0.003
7/17/2015		<0.003			<0.003				
10/6/2015		<0.003							
1/17/2016						<0.003			
1/18/2016	<0.003	<0.003	<0.003	<0.003	<0.003			<0.003	<0.003
1/19/2016							<0.003		
4/26/2016		<0.003							
7/26/2016							0.0005 (J)		0.0006 (J)
7/27/2016	<0.003			<0.003		<0.003		<0.003	
7/28/2016		<0.003			<0.003				
7/29/2016			0.0003 (J)						
8/30/2016		<0.003		<0.003	<0.003	<0.003			
8/31/2016							<0.003	<0.003	<0.003
9/1/2016	0.0017 (J)		<0.003						
10/24/2016		<0.003							
10/25/2016	<0.003					<0.003			
10/26/2016			<0.003	<0.003	<0.003		<0.003	<0.003	<0.003
1/3/2017		<0.003		<0.003					
1/4/2017						<0.003	<0.003	<0.003	
1/5/2017					<0.003				<0.003
1/6/2017	0.0009 (J)		<0.003						
4/3/2017		<0.003							
4/4/2017			<0.003			<0.003			
4/5/2017								<0.003	
4/6/2017	<0.003			<0.003	<0.003		0.0006 (J)		<0.003
7/10/2017								<0.003	
7/11/2017		<0.003					0.0009 (J)		
7/12/2017			<0.003	<0.003	<0.003	<0.003			<0.003
7/13/2017	0.0013 (J)								
10/2/2017		<0.003							
10/3/2017				<0.003	<0.003	<0.003	<0.003		
10/4/2017	0.0008 (J)		<0.003					<0.003	<0.003
1/9/2018	<0.003	<0.003			<0.003				
1/10/2018				<0.003		<0.003			<0.003
1/11/2018			<0.003				0.0007 (J)	<0.003	
7/9/2018		<0.003							
7/10/2018				<0.003	<0.003	<0.003			
7/11/2018	<0.003		<0.003				<0.003	<0.003	<0.003

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
1/16/2019	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			<0.003
1/17/2019							<0.003	<0.003	
3/25/2019	<0.003	<0.003	<0.003						
3/26/2019				<0.003	<0.003	<0.003			<0.003
3/27/2019							<0.003	<0.003	
8/26/2019	<0.003	<0.003							
8/27/2019			<0.003		<0.003	<0.003	0.00033 (J)	<0.003	<0.003
8/28/2019				0.00054 (J)					
10/7/2019		<0.003							
10/8/2019	<0.003						0.00046 (J)		<0.003
10/9/2019			<0.003	<0.003	<0.003	<0.003		<0.003	
4/6/2020	<0.003	<0.003							
4/7/2020			<0.003	<0.003	<0.003	<0.003	0.00066 (J)	<0.003	
4/8/2020									<0.003
8/17/2020		<0.003						<0.003	<0.003
8/18/2020							0.00064 (J)		
8/19/2020	<0.003		<0.003	<0.003	<0.003	0.00061 (J)			
9/28/2020	<0.003	<0.003				0.00035 (J)			<0.003
9/29/2020							0.00051 (J)	<0.003	
9/30/2020				0.0003 (J)	0.00059 (J)				
10/1/2020			<0.003						
3/10/2021			<0.003	<0.003	0.00029 (J)	0.00069 (J)	0.00076 (J)	0.0003 (J)	
3/11/2021	<0.003								
3/12/2021		<0.003							
3/15/2021									<0.003
9/21/2021	<0.003	<0.003	<0.003	0.0013 (J)	<0.003		<0.003	<0.003	<0.003
9/23/2021						0.0016 (J)			

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.003	<0.003	<0.003	<0.003					<0.003
11/21/2000	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
1/20/2001	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
3/14/2001	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
7/16/2001	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
11/1/2001	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
4/25/2002	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
11/20/2002	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
6/6/2003	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
12/12/2003	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
5/26/2004	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
12/7/2004	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
6/21/2005	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
12/12/2005	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
4/4/2006	<0.003		<0.003						
6/27/2006	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
8/30/2006	<0.003		<0.003						
12/4/2006	<0.003	<0.003	0.006	<0.003	<0.003				<0.003
2/15/2007	<0.003		<0.003						
6/23/2007	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
9/11/2007	<0.003		<0.003						
12/11/2007	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
3/11/2008	<0.003		<0.003						
6/23/2008									<0.003
6/24/2008	<0.003	<0.003	<0.003	<0.003	<0.003				
11/3/2008	<0.003		<0.003						
12/4/2008	<0.003				<0.003				<0.003
12/5/2008		<0.003	<0.003	<0.003					
3/25/2009	<0.003		<0.003						
7/8/2009	<0.003	<0.003	<0.003	<0.003	<0.003				<0.003
9/14/2009	<0.003		<0.003						
12/20/2009	<0.003	<0.003	<0.003		<0.003				
12/21/2009				<0.003					<0.003
3/4/2010	<0.003		<0.003						
6/20/2010	<0.003	<0.003			<0.003				<0.003
6/21/2010			<0.003	<0.003		<0.003	<0.003	<0.003	
9/14/2010	<0.003		<0.003						
1/6/2011					<0.003				
1/7/2011	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003
4/15/2011	<0.003		<0.003						
7/7/2011	<0.003	<0.003	<0.003			<0.003			
7/8/2011				<0.003		<0.003	<0.003	<0.003	<0.003
9/25/2011	<0.003		<0.003						
1/17/2012	<0.003	<0.003			<0.003				
1/18/2012			<0.003	<0.003		<0.003	<0.003	<0.003	<0.003
4/4/2012	<0.003		<0.003						
7/9/2012	<0.003	<0.003			<0.003				
7/10/2012			<0.003	<0.003		<0.003	<0.003	<0.003	<0.003
10/9/2012	<0.003		<0.003						
1/17/2013					<0.003				
1/18/2013	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003
4/5/2013	<0.003		<0.003						

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/17/2013	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
10/11/2013	0.005		<0.003						
1/13/2014		<0.003			<0.003				
1/14/2014	<0.003		<0.003	<0.003		<0.003	<0.003	<0.003	<0.003
4/3/2014	<0.003		<0.003						
7/9/2014	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003		<0.003
7/10/2014						<0.003		<0.003	
10/24/2014	<0.003		<0.003						
1/12/2015						<0.003			
1/13/2015		<0.003			<0.003				
1/14/2015	<0.003		<0.003	<0.003			<0.003	<0.003	<0.003
5/10/2015	<0.003								
5/11/2015			<0.003						
7/16/2015		<0.003	<0.003		<0.003				
7/17/2015	<0.003						<0.003		<0.003
7/18/2015				<0.003		<0.003		<0.003	
10/6/2015	<0.003		<0.003						
1/17/2016	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003		
1/18/2016				<0.003				<0.003	<0.003
4/26/2016	<0.003		<0.003						
7/27/2016	<0.003	<0.003			<0.003				
7/28/2016			<0.003			0.0019 (J)	<0.003		<0.003
7/29/2016				<0.003				<0.003	
8/31/2016					<0.003			<0.003	<0.003
9/1/2016	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003		
10/25/2016	<0.003	<0.003	<0.003			<0.003	<0.003		
10/26/2016				<0.003	<0.003			<0.003	
10/27/2016									0.0016 (J)
1/4/2017			<0.003			<0.003	<0.003	<0.003	
1/5/2017	<0.003	<0.003		<0.003	<0.003				
1/6/2017									<0.003
4/3/2017		<0.003							
4/4/2017	<0.003				<0.003	<0.003	<0.003		
4/5/2017			<0.003	<0.003					
4/6/2017								<0.003	<0.003
7/11/2017	<0.003	<0.003				<0.003		<0.003	
7/12/2017			<0.003						<0.003
7/13/2017				<0.003	<0.003		<0.003		
10/2/2017	<0.003	<0.003				<0.003			
10/3/2017			<0.003		<0.003		<0.003		
10/4/2017				<0.003				<0.003	<0.003
1/9/2018	<0.003	<0.003					<0.003		
1/10/2018			<0.003		<0.003	<0.003			
1/11/2018				<0.003				<0.003	<0.003
7/9/2018	<0.003					<0.003			
7/10/2018		<0.003	<0.003		<0.003		<0.003		
7/11/2018				<0.003				<0.003	<0.003
1/16/2019	<0.003			<0.003					
1/17/2019		<0.003	<0.003				<0.003		
1/18/2019								<0.003	<0.003
1/21/2019					<0.003	<0.003			
3/25/2019						<0.003			



# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
3/26/2019	<0.003	<0.003	<0.003	<0.003			<0.003		
3/27/2019								<0.003	<0.003
7/30/2019					<0.003				
8/27/2019	<0.003	<0.003			<0.003			0.00045 (J)	
8/28/2019			<0.003	<0.003		<0.003	<0.003		<0.003
10/8/2019	<0.003	<0.003	<0.003				<0.003		
10/9/2019				<0.003	<0.003	<0.003		<0.003	<0.003
4/7/2020	<0.003	<0.003	<0.003				<0.003	0.00049 (J)	
4/8/2020				<0.003	0.0013 (J)	<0.003			0.00033 (J)
8/18/2020	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.0022 (J)	
8/19/2020									<0.003
9/29/2020	<0.003				0.0016 (J)				
9/30/2020		<0.003	<0.003	<0.003		<0.003	0.00033 (J)	0.0016 (J)	
10/1/2020									<0.003
3/10/2021								0.0004 (J)	<0.003
3/11/2021				0.00039 (J)					
3/12/2021		0.0018 (J)				0.00065 (J)			
3/15/2021					<0.003				
3/16/2021	<0.003		<0.003				<0.003		
9/21/2021								<0.003	
9/22/2021	<0.003		<0.003	0.0014 (J)	<0.003	<0.003	<0.003		<0.003
9/23/2021		<0.003							

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.003	<0.003	<0.003	<0.003	<0.003
9/21/2021				<0.003	<0.003
9/22/2021	<0.003	<0.003			
9/23/2021			<0.003		

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	0.01	<0.005	0.014	<0.005	<0.005	<0.005	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	<0.005	<0.005	0.014	<0.005	<0.005	<0.005	<0.005	<0.005
11/1/2001	<0.005	<0.005	<0.005	0.023	<0.005	<0.005	<0.005	<0.005	<0.005
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/20/2002		<0.005	0.0096	0.022	0.014	<0.005	<0.005	<0.005	<0.005
6/6/2003	0.02	<0.005	0.0076	0.07 (O)	0.014	0.03 (O)	<0.005	<0.005	<0.005
12/12/2003	<0.005	<0.005	0.0058	<0.005	<0.005	<0.005	<0.005	<0.005	0.0064
5/26/2004	<0.005	<0.005	0.0068	0.0074	0.0082	<0.005	<0.005	<0.005	<0.005
12/7/2004	<0.005	<0.005	0.0066	0.017	0.0062	<0.005	<0.005	<0.005	<0.005
6/21/2005	<0.005	<0.005	<0.005	0.013	<0.005	<0.005	<0.005	<0.005	<0.005
12/12/2005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/4/2006		<0.005							
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006		<0.005							
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/15/2007		<0.005							
6/23/2007	<0.005	<0.005	<0.005	<0.005	0.0053	<0.005	<0.005	<0.005	<0.005
9/11/2007		<0.005							
12/11/2007	<0.005	<0.005	<0.005	<0.005	0.0057	<0.005	<0.005	<0.005	<0.005
3/11/2008		<0.005							
6/23/2008	<0.005	<0.005					<0.005	<0.005	<0.005
6/24/2008			0.005	<0.005	0.012	<0.005			
11/3/2008		<0.005							
12/4/2008	<0.005	<0.005					<0.005	<0.005	<0.005
12/5/2008			<0.005	<0.005	0.0064	<0.005			
3/25/2009		<0.005							
7/7/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
7/8/2009							<0.005	<0.005	<0.005
9/14/2009		<0.005							
12/20/2009	<0.005	<0.005				<0.005			
12/21/2009			<0.005	<0.005	<0.005		<0.005	<0.005	<0.005
3/4/2010		<0.005							
6/20/2010	<0.005	<0.005		<0.005	0.017	<0.005	<0.005	<0.005	<0.005
6/21/2010			0.018 (O)						
9/14/2010		<0.005							
1/6/2011				<0.005		<0.005	<0.005		<0.005
1/7/2011	<0.005	<0.005	<0.005		<0.005			<0.005	
4/15/2011		<0.005							
7/7/2011	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/8/2011			<0.005						
9/25/2011		<0.005							
1/17/2012	<0.005	<0.005		<0.005		0.0071	<0.005	<0.005	<0.005
1/18/2012			<0.005		<0.005				
4/4/2012		<0.005							
7/9/2012	0.0052			<0.005		0.0076	<0.005	<0.005	<0.005
7/10/2012		<0.005	0.0052		<0.005				
10/9/2012		<0.005							
1/17/2013				<0.005		0.0086	<0.005	<0.005	<0.005
1/18/2013	0.0087	<0.005	<0.005		<0.005				

# Time Series

Constituent: Arsenic (mg/L)    Analysis Run 11/21/2021 9:36 AM    View: Descriptive  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
4/5/2013		<0.005							
7/16/2013				<0.005		<0.005	<0.005	<0.005	<0.005
7/17/2013	0.0084	<0.005	<0.005		<0.005				
10/11/2013		<0.005							
1/13/2014	0.009			<0.005		<0.005	<0.005	<0.005	<0.005
1/14/2014		<0.005	<0.005		<0.005				
4/3/2014		<0.005							
7/8/2014							<0.005	<0.005	<0.005
7/9/2014	0.008	<0.005	0.0023 (J)	<0.005	<0.005	0.0022 (J)			
10/24/2014		<0.005							
1/12/2015			0.0028 (J)						
1/13/2015	0.0077			<0.005		<0.005	<0.005	<0.005	<0.005
1/14/2015		<0.005			<0.005				
5/10/2015		<0.005							
7/16/2015	0.0077		<0.005	<0.005		0.0037 (J)	<0.005	<0.005	<0.005
7/17/2015		<0.005			<0.005				
10/6/2015		<0.005							
1/17/2016						0.024 (O)			
1/18/2016	0.014	<0.005	<0.005	<0.005	<0.005			<0.005	<0.005
1/19/2016							<0.005		
4/26/2016		0.0011 (J)							
7/26/2016							<0.005		<0.005
7/27/2016	0.0111			0.0008 (J)		0.0046 (J)		<0.005	
7/28/2016		<0.005			0.0009 (J)				
7/29/2016			0.0014 (J)						
8/30/2016		<0.005		<0.005	<0.005	0.0023 (J)			
8/31/2016							<0.005	<0.005	<0.005
9/1/2016	0.0287		0.0033 (J)						
10/24/2016		<0.005							
10/25/2016	0.0069					0.0035 (J)			
10/26/2016			0.0016 (J)	<0.005	<0.005		<0.005	<0.005	<0.005
1/3/2017		<0.005		<0.005					
1/4/2017						0.0018 (J)	<0.005	<0.005	
1/5/2017					0.0021 (J)				<0.005
1/6/2017	0.0097		<0.005						
4/3/2017		0.0006 (J)							
4/4/2017			0.0021 (J)			0.0015 (J)			
4/5/2017								0.0006 (J)	
4/6/2017	0.0104			0.0006 (J)	0.0011 (J)		<0.005		<0.005
7/10/2017								0.0008 (J)	
7/11/2017		0.0006 (J)					<0.005		
7/12/2017			0.0015 (J)	0.0009 (J)	0.0014 (J)	0.0015 (J)			<0.005
7/13/2017	0.0064								
10/2/2017		0.0006 (J)							
10/3/2017				0.001 (J)	0.0014 (J)	0.0013 (J)	<0.005		
10/4/2017	0.0078		0.0018 (J)					0.0009 (J)	<0.005
1/9/2018	0.0091 (J)	0.0009 (J)			0.0017 (J)				
1/10/2018				0.0012 (J)		0.0023 (J)			0.0006 (J)
1/11/2018			0.0015 (J)				<0.005	<0.005	
7/9/2018		<0.005							
7/10/2018				0.0016 (J)	0.00063 (J)	0.0031 (J)			
7/11/2018	<0.005		0.00095 (J)				<0.005	<0.005	<0.005

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
1/16/2019	<0.005	<0.005	0.0024 (J)	0.0011 (J)	<0.005	0.0023 (J)			<0.005
1/17/2019							<0.005	<0.005	
3/25/2019	0.0029 (J)	<0.005	0.0029 (J)						
3/26/2019				0.0014 (J)	0.0029 (J)	0.0032 (J)			0.00058 (J)
3/27/2019							<0.005	<0.005	
8/26/2019	0.0041 (J)	<0.005							
8/27/2019			0.0023 (J)		0.0035 (J)	0.0022 (J)	<0.005	<0.005	<0.005
8/28/2019				0.0023 (J)					
10/7/2019		<0.005							
10/8/2019	0.003 (J)						<0.005		<0.005
10/9/2019			0.0024 (J)	0.0053 (J)	0.0018 (J)	0.0042 (J)		<0.005	
4/6/2020	<0.005	0.00045 (J)							
4/7/2020			0.0027 (J)	0.0011 (J)	<0.005	0.027	<0.005	<0.005	
4/8/2020									<0.005
8/17/2020		<0.005						<0.005	<0.005
8/18/2020							<0.005		
8/19/2020	0.006 (J)		0.0033 (J)	0.0019 (J)	0.0036 (J)	0.007			
9/28/2020	<0.005	<0.005				0.0058			<0.005
9/29/2020							<0.005	<0.005	
9/30/2020				0.0017 (J)	0.004 (J)				
10/1/2020			0.0027 (J)						
3/10/2021			0.0025 (J)	0.0019 (J)	0.0054	0.0055	<0.005	<0.005	
3/11/2021	0.0047 (J)								
3/12/2021		<0.005							
3/15/2021									<0.005
9/21/2021	<0.005	<0.005	0.0027 (J)	<0.005	0.0054		<0.005	<0.005	<0.005
9/23/2021						0.0048 (J)			

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.005	<0.005	0.094	<0.005					<0.005
11/21/2000	<0.005	<0.005	0.059	<0.005	<0.005				<0.005
1/20/2001	<0.005	<0.005	0.087	<0.005	<0.005				<0.005
3/14/2001	<0.005	<0.005	0.075	<0.005	<0.005				<0.005
7/16/2001	<0.005	<0.005	0.11	<0.005	<0.005				<0.005
11/1/2001	<0.005	<0.005	0.098	<0.005	<0.005				<0.005
4/25/2002	<0.005	<0.005	0.071	<0.005	<0.005				<0.005
11/20/2002	0.011	<0.005	0.15	<0.005	<0.005				<0.005
6/6/2003	<0.005	<0.005	1.2 (O)	<0.005	<0.005				<0.005
12/12/2003	<0.005	<0.005	0.27 (O)	<0.005	<0.005				<0.005
5/26/2004	<0.005	<0.005	0.12	<0.005	<0.005				<0.005
12/7/2004	<0.005	<0.005	0.098	<0.005	<0.005				<0.005
6/21/2005	<0.005	<0.005	0.065	<0.005	<0.005				<0.005
12/12/2005	<0.005	<0.005	0.081	<0.005	<0.005				<0.005
4/4/2006	<0.005		0.077						
6/27/2006	<0.005	<0.005	0.071	<0.005	<0.005				<0.005
8/30/2006	<0.005		0.08						
12/4/2006	<0.005	<0.005	0.085	<0.005	<0.005				<0.005
2/15/2007	<0.005		0.09						
6/23/2007	<0.005	<0.005	0.12	<0.005	<0.005				<0.005
9/11/2007	<0.005		0.088						
12/11/2007	<0.005	<0.005	0.088	<0.005	<0.005				<0.005
3/11/2008	<0.005		0.071						
6/23/2008									<0.005
6/24/2008	<0.005	<0.005	0.097	<0.005	<0.005				
11/3/2008	<0.005		0.089						
12/4/2008	<0.005				<0.005				<0.005
12/5/2008		<0.005	0.092	<0.005					
3/25/2009	<0.005		0.095						
7/8/2009	<0.005	0.0052	0.11	<0.005	<0.005				<0.005
9/14/2009	<0.005		0.099						
12/20/2009	<0.005	<0.005	0.1		<0.005				
12/21/2009				<0.005					<0.005
3/4/2010	<0.005		0.074						
6/20/2010	<0.005	0.0068			<0.005				<0.005
6/21/2010			0.056	<0.005		0.29	0.013 (O)	<0.005	
9/14/2010	<0.005		0.067						
1/6/2011					<0.005				
1/7/2011	<0.005	<0.005	0.066	<0.005		0.2	<0.005	<0.005	<0.005
4/15/2011	<0.005		0.08						
7/7/2011	<0.005	<0.005	0.054			<0.005			
7/8/2011				<0.005		0.19	<0.005	<0.005	<0.005
9/25/2011	<0.005		0.085						
1/17/2012	<0.005	<0.005			<0.005				
1/18/2012			0.089	<0.005		0.058	<0.005	<0.005	<0.005
4/4/2012	<0.005		0.0473						
7/9/2012	<0.005	<0.005			<0.005				
7/10/2012			0.07	<0.005		0.18	<0.005	<0.005	<0.005
10/9/2012	<0.005		0.088						
1/17/2013					<0.005				
1/18/2013	<0.005	0.0089	0.063	<0.005		0.22	0.0061	<0.005	<0.005
4/5/2013	<0.005		0.06						

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/17/2013	<0.005	0.011	0.063	<0.005	<0.005	0.45	<0.005	<0.005	<0.005
10/11/2013	0.005		0.059						
1/13/2014		0.017			<0.005				
1/14/2014	<0.005		0.077	<0.005		0.52	0.006	<0.005	<0.005
4/3/2014	<0.005		0.091						
7/9/2014	<0.005	0.014	0.08	<0.005	<0.005		<0.005		<0.005
7/10/2014						0.4		0.0027 (J)	
10/24/2014	<0.005		0.073						
1/12/2015						0.43			
1/13/2015		0.011			<0.005				
1/14/2015	<0.005		0.079	<0.005			<0.005	<0.005	<0.005
5/10/2015	<0.005								
5/11/2015			0.058						
7/16/2015		0.02	0.068		<0.005				
7/17/2015	<0.005						<0.005		<0.005
7/18/2015				<0.005		0.26		<0.005	
10/6/2015	<0.005		0.078						
1/17/2016	0.002 (J)	0.014	0.089		<0.005	0.34	0.0065		
1/18/2016				<0.005				<0.005	<0.005
4/26/2016	0.00183 (J)		0.0731						
7/27/2016	0.0021 (J)	0.0303			<0.005				
7/28/2016			0.0627			0.209	<0.005		<0.005
7/29/2016				0.0009 (J)				0.002 (J)	
8/31/2016					<0.005			0.0017 (J)	<0.005
9/1/2016	0.0024 (J)	0.0533	0.0551	<0.005		0.215	0.0039 (J)		
10/25/2016	<0.005	0.0551	0.0466			0.307	<0.005		
10/26/2016				<0.005	<0.005			<0.005	
10/27/2016									<0.005
1/4/2017			0.0444			0.311	<0.005	<0.005	
1/5/2017	0.0024 (J)	0.0437		<0.005	<0.005				
1/6/2017									<0.005
4/3/2017		0.0713							
4/4/2017	0.003 (J)				<0.005	0.317	0.0031 (J)		
4/5/2017			0.0591	0.0011 (J)					
4/6/2017								0.0006 (J)	<0.005
7/11/2017	0.0019 (J)	0.0745				0.299		0.0012 (J)	
7/12/2017			0.0776						<0.005
7/13/2017				0.0016 (J)	<0.005		<0.005		
10/2/2017	0.0026 (J)	0.0723				0.216			
10/3/2017			0.0813		<0.005		<0.005		
10/4/2017				0.0019 (J)				0.0025 (J)	<0.005
1/9/2018	0.0021 (J)	0.0731					0.0033 (J)		
1/10/2018			0.085		0.0006 (J)	0.347			
1/11/2018				0.0015 (J)				0.0006 (J)	<0.005
7/9/2018	0.0019 (J)					0.37			
7/10/2018		0.09	0.067		<0.005		0.0027 (J)		
7/11/2018				0.00082 (J)				0.0011 (J)	<0.005
1/16/2019	0.0016 (J)			<0.005					
1/17/2019		0.13	0.079				0.0022 (J)		
1/18/2019								<0.005	<0.005
1/21/2019					<0.005	0.44			
3/25/2019						0.41			

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
3/26/2019	0.0023 (J)	0.1	0.089	0.0015 (J)			0.0045 (J)		
3/27/2019								<0.005	<0.005
7/30/2019					0.00039 (J)				
8/27/2019	0.0017 (J)	0.17			<0.005			0.00044 (J)	
8/28/2019			0.091	0.0011 (J)		0.43	0.002 (J)		<0.005
10/8/2019	0.0017 (J)	0.13	0.088				0.0028 (J)		
10/9/2019				0.0011 (J)	<0.005	0.35		<0.005	<0.005
4/7/2020	0.0018 (J)	0.24	0.091				<0.005	0.00043 (J)	
4/8/2020				0.0013 (J)	0.00094 (J)	0.33			0.00084 (J)
8/18/2020	0.0012 (J)	0.28	0.045	<0.005	<0.005	0.3	0.0059	<0.005	
8/19/2020									<0.005
9/29/2020	<0.005				<0.005				
9/30/2020		0.24	0.044	0.0012 (J)		0.31	0.0029 (J)	<0.005	
10/1/2020									<0.005
3/10/2021								<0.005	<0.005
3/11/2021				0.0009 (J)					
3/12/2021		0.16				0.27			
3/15/2021					<0.005				
3/16/2021	<0.005		0.064				0.0098		
9/21/2021								<0.005	
9/22/2021	0.0014 (J)		0.081	<0.005	<0.005	0.23	<0.005		<0.005
9/23/2021		0.21							



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			<0.005		
1/21/2021	<0.005	<0.005			
3/11/2021	<0.005	<0.005	0.00092 (J)	0.001 (J)	<0.005
9/21/2021				<0.005	<0.005
9/22/2021	<0.005	<0.005			
9/23/2021			<0.005		

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
9/29/2000	0.11	0.16	0.16	0.22	0.16	0.044	0.1	0.075	<0.005
11/21/2000	0.12		0.16	0.13	0.21	0.047	0.082	0.072	0.01
1/20/2001	0.11	0.18	0.21	0.19	0.23	0.051	0.083	0.086	<0.005
3/14/2001	0.11	0.14	0.18	0.27	0.22	0.048	0.075	0.088	0.01
7/16/2001	0.11	0.14	0.18	0.37	0.22	0.054	0.091	0.084	<0.005
11/1/2001	0.11	0.14	0.15	0.61 (O)	0.23	0.063	0.068	0.13	<0.005
4/25/2002	0.058	0.088	0.16	0.19	0.15	0.032	0.066	0.24 (O)	<0.005
6/6/2003	0.19	0.14	0.29	0.72 (O)	0.13	0.046	0.085	0.28 (O)	0.028
12/12/2003	0.1	0.13	0.18	0.054	0.034	0.034	0.072	0.27 (O)	0.019
5/26/2004	0.084	0.09	0.16	0.18	0.13	0.035	0.055	0.31 (O)	<0.005
12/7/2004	0.094	0.11	0.16	0.24	0.13	0.024	0.066	0.46 (O)	0.009
6/21/2005	0.089	0.084	0.15	0.2	0.07	0.039	0.033	0.053	0.0089
12/12/2005	0.089	0.1	0.15	0.074	0.04	0.042	0.034	0.1	0.026
4/4/2006		0.089							
6/27/2006	0.096	0.1	0.19	0.075	0.041	0.033	0.029	0.098	0.029
8/30/2006		0.12							
12/4/2006	0.092	0.086	0.26	0.092	0.048	0.04	0.02	0.068	0.017
2/15/2007		0.088							
6/23/2007	0.08	0.089	0.24	0.089	0.12	0.044	0.017	0.042	0.014
9/11/2007		0.092							
12/11/2007	0.067	0.077	0.21	0.072	0.12	0.049	0.013	0.04	0.011
3/11/2008		0.082							
6/23/2008	0.056	0.086					0.012	0.041	0.018
6/24/2008			0.13	0.049	0.17	0.038			
11/3/2008		0.088							
12/4/2008	0.054	0.081					0.011	0.035	0.019
12/5/2008			0.12	0.067	0.093	0.06			
3/25/2009		0.069							
7/7/2009	0.034	0.078	0.17	0.04	0.06	0.043			
7/8/2009							0.012	0.036	0.011
9/14/2009		0.079							
12/20/2009	0.034	0.081				0.065			
12/21/2009			0.2	0.044	0.11		0.011	0.028	0.01
3/4/2010		0.065							
6/20/2010	0.062	0.078		0.036	0.11	0.095	0.0089	0.025	0.0081
6/21/2010			0.22						
9/14/2010		0.076							
1/6/2011				0.075		0.093	0.014		0.012
1/7/2011	0.039	0.074	0.12		0.025			0.037	
4/15/2011		0.065							
7/7/2011	0.036	0.081		0.13	0.025	0.095	0.018	0.039	0.015
7/8/2011			0.15						
9/25/2011		0.078							
1/17/2012	0.041	0.082		0.21		0.1	0.23	0.045	0.0086
1/18/2012			0.15		0.03				
4/4/2012		0.0861							
7/9/2012	0.15			0.2		0.11	0.17	0.032	0.01
7/10/2012		0.082	0.14		0.028				
10/9/2012		0.09							
1/17/2013				0.19		0.12	0.2	0.033	0.014
1/18/2013	0.15	0.083	0.15		0.058				
4/5/2013		0.078							

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
7/16/2013				0.076		0.081	0.11	0.027	0.012
7/17/2013	0.13	0.083	0.14		0.086				
10/11/2013		0.078							
1/13/2014	0.16			0.14		0.096	0.083	0.027	0.015
1/14/2014		0.081	0.16		0.1				
4/3/2014		0.077							
7/8/2014							0.066	0.037	0.017
7/9/2014	0.11	0.073	0.12	0.12	0.082	0.066			
10/24/2014		0.087							
1/12/2015			0.13						
1/13/2015	0.083			0.13		0.068	0.053	0.023	0.019
1/14/2015		0.079			0.094				
5/10/2015		0.076							
7/16/2015	0.094		0.11	0.12		0.07	0.052	0.03	0.022
7/17/2015		0.061			0.11				
10/6/2015		0.067							
1/17/2016						0.062			
1/18/2016	0.22	0.068	0.095	0.12	0.11			0.032	0.026
1/19/2016							0.048		
4/26/2016		0.0596							
7/26/2016							0.051		0.0236
7/27/2016	0.192			0.112		0.0417		0.0191	
7/28/2016		0.0701			0.105				
7/29/2016			0.0883						
8/30/2016		0.0687		0.135	0.106	0.0545			
8/31/2016							0.0565	0.019	0.0273
9/1/2016	0.415 (O)		0.123						
10/24/2016		0.07							
10/25/2016	0.173					0.0504			
10/26/2016			0.0863	0.103	0.107		0.0591	0.0197	0.0238
1/3/2017		0.061		0.118					
1/4/2017									
1/5/2017									
1/6/2017	0.167								
4/3/2017		0.0612							
4/4/2017			0.091			0.0549			
4/5/2017								0.0174	
4/6/2017	0.136			0.162	0.111		0.0813		0.0204
7/10/2017								0.0172	
7/11/2017		0.0624					0.0302		
7/12/2017			0.0941	0.157	0.106	0.0614			0.0161
7/13/2017	0.0891								
10/2/2017		0.0618							
10/3/2017				0.127	0.105	0.0436	0.103		
10/4/2017	0.113		0.0994					0.0162	0.0185
1/9/2018	0.0901	0.0574			0.0969				
1/10/2018				0.158		0.053			0.0166
1/11/2018			0.088				0.166	0.018	
7/9/2018		0.056							
7/10/2018				0.31	0.087	0.059			
7/11/2018	0.065		0.071				0.12	0.014	0.019
1/16/2019	0.062	0.062	0.083	0.054	0.013 (J)	0.054			0.019

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
1/17/2019							0.039	0.017	
3/25/2019	0.054	0.064	0.077						
3/26/2019				0.057	0.012 (J)	0.055			0.026
3/27/2019							0.053	0.017	
8/26/2019	0.11	0.065							
8/27/2019			0.076		0.013	0.054	0.12	0.017	0.024
8/28/2019				0.1					
10/7/2019		0.069							
10/8/2019	0.1						0.13		0.024
10/9/2019			0.076	0.13	0.014 (J)	0.058		0.019	
4/6/2020	0.072	0.057							
4/7/2020			0.09	0.098	0.01 (J)	0.05	0.14	0.017	
4/8/2020									0.027
8/17/2020		0.051						0.018	0.024
8/18/2020							0.12		
8/19/2020	0.1		0.076	0.1	0.064	0.057			
9/28/2020	0.095	0.05				0.051			0.029
9/29/2020							0.14	0.018	
9/30/2020				0.16	0.092				
10/1/2020			0.077						
3/10/2021			0.07	0.096	0.027	0.052	0.13	0.028	
3/11/2021	0.07								
3/12/2021		0.052							
3/15/2021									0.034
9/21/2021	0.073	0.049	0.098	0.076	0.077		0.12	0.023	0.037
9/23/2021						0.062			

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	0.11	0.028	0.076	0.16					0.093
11/21/2000	0.15	0.035	0.075	0.17	0.046				0.095
1/20/2001	0.1	0.032	0.053	0.16	0.036				0.089
3/14/2001	0.095	0.036	0.055	0.17	0.03				0.088
7/16/2001	0.28 (O)	0.036	0.041	0.19	0.032				0.096
11/1/2001	0.16	0.036	0.045	0.18	0.029				0.094
4/25/2002	0.054	0.045	0.055	0.15	0.021				0.085
6/6/2003	0.063	0.083 (O)	0.48 (O)	0.13	0.032				0.09
12/12/2003	0.041	0.094 (O)	0.13 (O)	0.18	0.021				0.084
5/26/2004	0.059	0.034	0.055	0.17	0.035				0.08
12/7/2004	0.076	0.042	0.072	0.19	0.031				0.098
6/21/2005	0.042	0.039	0.061	0.18	0.028				0.084
12/12/2005	0.048	0.043	0.047	0.17	0.024				0.07
4/4/2006	0.05		0.042						
6/27/2006	0.036	0.031	0.042	0.17	0.03				0.083
8/30/2006	0.059		0.05						
12/4/2006	0.062	0.043	0.044	0.21	0.031				0.072
2/15/2007	0.079		0.041						
6/23/2007	0.03	0.031	0.044	0.17	0.037				0.087
9/11/2007	0.053		0.04						
12/11/2007	0.075	0.044	0.0035	0.18	0.034				0.082
3/11/2008	0.052		0.034						
6/23/2008									0.1
6/24/2008	0.039	0.057	0.042	0.14	0.038				
11/3/2008	0.082		0.049						
12/4/2008	0.079				0.038				0.12
12/5/2008		0.041	0.05	0.19					
3/25/2009	0.093		0.052						
7/8/2009	0.039	0.058	0.046	0.2	0.053				0.14
9/14/2009	0.061		0.048						
12/20/2009	0.088	0.062	0.062		0.047				
12/21/2009				0.23					0.15
3/4/2010	0.077		0.058						
6/20/2010	0.075	0.03			0.046				0.21
6/21/2010			0.041	0.25		0.062	0.16	0.11	
9/14/2010	0.093		0.036						
1/6/2011					0.063				
1/7/2011	0.13	0.049	0.054	0.21		0.039	0.095	0.12	0.2
4/15/2011	0.086		0.049						
7/7/2011	0.051	0.05	0.063			0.06			
7/8/2011				0.13		0.043	0.1	0.094	0.18
9/25/2011	0.056		0.037						
1/17/2012	0.052	0.044			0.06				
1/18/2012			0.034	0.26		0.042	0.12	0.087	0.18
4/4/2012	0.0519		0.0446						
7/9/2012	0.048	0.045			0.05				
7/10/2012			0.033	0.19		0.039	0.097	0.1	0.16
10/9/2012	0.065		0.041						
1/17/2013					0.058				
1/18/2013	0.045	0.049	0.036	0.17		0.04	0.1	0.078	0.19
4/5/2013	0.047		0.036						
7/17/2013	0.032	0.039	0.054	0.18	0.041	0.055	0.069	0.062	0.17

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
10/11/2013	0.028		0.052						
1/13/2014		0.038			0.058				
1/14/2014	0.036		0.051	0.18		0.059	0.086	0.073	0.2
4/3/2014	0.038		0.047						
7/9/2014	0.03	0.031	0.08	0.16	0.048		0.065		0.16
7/10/2014						0.067		0.13	
10/24/2014	0.025		0.072						
1/12/2015						0.061			
1/13/2015		0.041			0.048				
1/14/2015	0.04		0.047	0.16			0.084	0.065	0.17
5/10/2015	0.026								
5/11/2015			0.053						
7/16/2015		0.041	0.059		0.048				
7/17/2015	0.029						0.071		0.18
7/18/2015				0.012		0.13		0.073	
10/6/2015	0.03		0.053						
1/17/2016	0.038	0.048	0.056		0.049	0.08	0.079		
1/18/2016				0.13				0.062	0.2
4/26/2016	0.025		0.0721						
7/27/2016	0.0248	0.0487			0.0796				
7/28/2016			0.0534			0.164	0.0626		0.234
7/29/2016				0.181				0.0575	
8/31/2016					0.0429			0.0693	0.284
9/1/2016	0.0346	0.0403	0.0445	0.203		0.0976	0.077		
10/25/2016	0.0248	0.0329	0.0464			0.0702	0.0217		
10/26/2016				0.177	0.113 (O)			0.0966	
10/27/2016									0.244
1/4/2017			0.0379			0.0999	0.0617	0.0975	
1/5/2017	0.0245	0.0392		0.142	0.0526				
1/6/2017									0.305
4/3/2017		0.0439							
4/4/2017	0.0342				0.0503	0.136	0.0761		
4/5/2017			0.0534	0.106					
4/6/2017								0.064	0.249
7/11/2017	0.0276	0.051				0.145		0.0778	
7/12/2017			0.0944						0.256
7/13/2017				0.0686	0.0529		0.0428		
10/2/2017	0.0274	0.047				0.148			
10/3/2017			0.135 (O)		0.057		0.0376		
10/4/2017				0.0589				0.156	0.356
1/9/2018	0.0222	0.0431					0.0704		
1/10/2018			0.0603		0.0527	0.0788			
1/11/2018				0.0412				0.0702	0.226
7/9/2018	0.026					0.087			
7/10/2018		0.047	0.16 (O)		0.054		0.061		
7/11/2018				0.049				0.12	0.29
1/16/2019	0.028			0.063					
1/17/2019		0.042	0.13				0.061		
1/18/2019								0.052	0.21
1/21/2019					0.05	0.069			
3/25/2019						0.085			
3/26/2019	0.034	0.047	0.14	0.025			0.084		

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
3/27/2019								0.057	0.19
7/30/2019					0.052				
8/27/2019	0.067	0.049			0.053			0.097	
8/28/2019			0.09	0.026		0.078	0.063		0.17
10/8/2019	0.085	0.057	0.13				0.079		
10/9/2019				0.032	0.05	0.078		0.065	0.18
4/7/2020	0.073	0.033	0.13				0.054	0.1	
4/8/2020				0.055	0.061	0.19			0.15
8/18/2020	0.028	0.03	0.32	0.074	0.05	0.38	0.18	0.085	
8/19/2020									0.17
9/29/2020	0.026				0.049				
9/30/2020		0.034	0.14	0.035		0.35	0.19	0.045	
10/1/2020									0.15
3/10/2021								0.049	0.15
3/11/2021				0.044					
3/12/2021		0.038				0.34			
3/15/2021					0.053				
3/16/2021	0.037		0.16				0.18		
9/21/2021								0.036	
9/22/2021	0.11		0.26	0.058	0.047	0.42	0.046		0.15
9/23/2021		0.062							

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	0.076	0.047	0.03	0.037	0.031
9/21/2021				0.027	0.022
9/22/2021	0.076	0.038			
9/23/2021			0.024		





# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
3/12/2021		0.00023 (J)							
3/15/2021									<0.0005
9/21/2021	<0.0005	0.00016 (J)	<0.0005	9.9E-05 (J)	<0.0005		<0.0005	0.00047 (J)	<0.0005
9/23/2021						<0.0005			

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.0005	<0.0005	<0.0005	<0.0005					<0.0005
11/21/2000	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
1/20/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
3/14/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
7/16/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
11/1/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
4/25/2002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
8/31/2016					<0.0005			0.0002 (J)	0.0003 (J)
9/1/2016	0.0001 (J)	<0.0005	0.0001 (J)	0.0014 (J)		<0.0005	<0.0005		
10/25/2016	<0.0005	<0.0005	<0.0005			<0.0005	<0.0005		
10/26/2016				0.0016 (J)	0.0003 (J)			0.0002 (J)	
10/27/2016									0.0003 (J)
1/4/2017			9E-05 (J)			<0.0005	<0.0005	0.0001 (J)	
1/5/2017	<0.0005	<0.0005		0.0019 (J)	<0.0005				
1/6/2017									0.0002 (J)
4/3/2017		<0.0005							
4/4/2017	9E-05 (J)				9E-05 (J)	<0.0005	<0.0005		
4/5/2017			9E-05 (J)	0.0024 (J)					
4/6/2017								<0.0005	0.0003 (J)
7/11/2017	<0.0005	<0.0005				<0.0005		<0.0005	
7/12/2017			<0.0005						0.0003 (J)
7/13/2017				0.0034	<0.0005		<0.0005		
10/2/2017	<0.0005	<0.0005				<0.0005			
10/3/2017			<0.0005		<0.0005		<0.0005		
10/4/2017				0.0037				0.0001 (J)	0.0002 (J)
1/9/2018	<0.0005	<0.0005					<0.0005		
1/10/2018			0.0001 (J)		<0.0005	<0.0005			
1/11/2018				0.0033				<0.0005	0.0003 (J)
7/9/2018	6.2E-05 (J)					<0.0005			
7/10/2018		<0.0005	6E-05 (J)		<0.0005		<0.0005		
7/11/2018				0.0038				7E-05 (J)	0.0003 (J)
7/30/2019					<0.0005				
8/27/2019	<0.0005	<0.0005			<0.0005			9E-05 (J)	
8/28/2019			8E-05 (J)	0.0017 (J)		<0.0005	<0.0005		0.00022 (J)
10/8/2019	<0.0005	<0.0005	9.8E-05 (J)				<0.0005		
10/9/2019				0.0018 (J)	<0.0005	<0.0005		<0.0005	0.00023 (J)
4/7/2020	<0.0005	<0.0005	<0.0005				<0.0005	<0.0005	
4/8/2020				0.0017 (J)	8.8E-05 (J)	<0.0005			0.00019 (J)
8/18/2020	<0.0005	<0.0005	6.8E-05 (J)	0.0016 (J)	5.1E-05 (J)	<0.0005	<0.0005	7.6E-05 (J)	
8/19/2020									0.00022 (J)
9/29/2020	<0.0005				7.5E-05 (J)				
9/30/2020		<0.0005	8.9E-05 (J)	0.0013 (J)		<0.0005	<0.0005	<0.0005	
10/1/2020									0.0002 (J)
3/10/2021								<0.0005	0.00019 (J)
3/11/2021				0.0012					
3/12/2021		<0.0005				<0.0005			
3/15/2021					7.3E-05 (J)				
3/16/2021	<0.0005		<0.0005				<0.0005		
9/21/2021								<0.0005	
9/22/2021	<0.0005		6E-05 (J)	0.0017	<0.0005	<0.0005	<0.0005		0.00017 (J)
9/23/2021		<0.0005							

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.0005	<0.0005	8.4E-05 (J)	0.0001 (J)	0.00032 (J)
9/21/2021				7.3E-05 (J)	6.6E-05 (J)
9/22/2021	<0.0005	<0.0005			
9/23/2021			<0.0005		

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
8/30/2016		0.117		1.09	1.41	0.875			
8/31/2016							0.0688 (J)	5.1	0.261
9/1/2016	11.6		6.48						
10/24/2016		0.126				1.22			
10/25/2016	21.4								
10/26/2016			7.57	2.5	1.83		0.083 (J)	5.74	0.211
1/3/2017		0.124		3.39					
1/4/2017						1.3	0.0738	6.56	
1/5/2017					3.07				0.179
1/6/2017	20.1		8.34						
4/3/2017		0.105							
4/4/2017			8.18			1.19			
4/5/2017								6.49	
4/6/2017	21.8			2.76	3.19		0.0754		0.112
7/10/2017								8.13	
7/11/2017		0.136					0.0614		
7/12/2017			7.51	3.55	3.06	1.37			0.0882
7/13/2017	16.3								
10/2/2017		0.107							
10/3/2017				2.72	2.69	0.765	0.0838		
10/4/2017	21.5		8.88					5.18	0.116
1/9/2018	13.9	0.123			2.81				
1/10/2018				3.21		0.876			0.101
1/11/2018			6.95				0.169	5.16	
7/9/2018		0.11							
7/10/2018				7	2.9	0.94			
7/11/2018	11.7		6.4				0.3	8.5	0.098
1/16/2019	9.3	0.13	5.3	5	7.7	0.91			0.11
1/17/2019							0.065	7	
3/25/2019	8.5	0.098	4.4						
3/26/2019				4	7.4	0.77			0.35
3/27/2019							0.089	6.1	
10/7/2019		0.12							
10/8/2019	6.4						0.22		0.18
10/9/2019			5.7	6.8	6.3	0.93		8.2	
4/6/2020	6.1	0.14							
4/7/2020			5.5	4.6	5.6	1	0.67	5.3	
4/8/2020									0.28
9/28/2020	4.6	0.15				0.69			0.24
9/29/2020							1.2	4.7	
9/30/2020				4	4.2				
10/1/2020			5.2						
3/10/2021			4.9	3.9	6.9	0.63	1.8	6.1	
3/11/2021	8								
3/12/2021		0.11							
3/15/2021									0.31
9/21/2021	4.4	0.13	6.4	4.1	4.2		0.8	5.8	0.38
9/23/2021						0.59			

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016					0.0196 (J)			12.8	0.096 (JO)
9/1/2016	0.071 (J)	9.01 (O)	1.82	0.408		3.34	0.62		
10/25/2016	0.0819 (J)	1.66	1.26			2.54	0.0658 (J)		
10/26/2016				0.5	0.05 (J)			9.81	
10/27/2016									0.0281 (J)
1/4/2017			1.46			1.91	0.36	8.94	
1/5/2017	0.0813	1.1		0.676	0.0162 (J)				
1/6/2017									0.0189 (J)
4/3/2017		1.21							
4/4/2017	0.0723				0.019 (J)	2.77	0.509		
4/5/2017			2	0.69					
4/6/2017								0.733	0.0181 (J)
7/11/2017	0.0734	1.44				4.14		0.852	
7/12/2017			2.95						0.0211 (J)
7/13/2017				0.888	0.023 (J)		0.126		
10/2/2017	0.0748	1.59				4.65			
10/3/2017			4.15		0.0266 (J)		0.1		
10/4/2017				1.02				6.05	0.0254 (J)
1/9/2018	0.0679	1.35					0.783		
1/10/2018			3.68		0.0203 (J)	1.79			
1/11/2018				1.28				0.838	0.018 (J)
7/9/2018	0.061					1.7			
7/10/2018		1.2	5.2		0.026 (J)		0.5		
7/11/2018				1.6				3.2	0.02 (J)
1/16/2019	0.046			1.5					
1/17/2019		1.1	8.6				0.43		
1/18/2019								0.37	0.018 (J)
1/21/2019					0.018 (J)	1.1			
3/25/2019						1			
3/26/2019	0.037 (J)	0.95	7.4	1.2			0.61		
3/27/2019								0.37	0.016 (J)
7/30/2019					0.02 (J)				
10/8/2019	0.048	1.1	8.4				1		
10/9/2019				1.3	0.024 (J)	0.79		0.39	0.019 (J)
4/7/2020	0.061 (J)	0.96	10.5				0.24	3.1	
4/8/2020				0.99	0.031 (J)	2.5			0.023 (J)
9/29/2020	0.053				0.024 (J)				
9/30/2020		0.86	8.1	0.86		9.9	2.3	0.25	
10/1/2020									0.028 (J)
3/10/2021								0.32	0.022 (J)
3/11/2021				0.85					
3/12/2021		0.81				15.6			
3/15/2021					0.084				
3/16/2021	0.08		10				3.5		
9/21/2021								0.19	
9/22/2021	0.052		11.5	1.4	0.017 (J)	11.3	0.095		0.015 (J)
9/23/2021		0.72							

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			0.013 (J)	0.013 (J)	0.011 (J)
1/21/2021	0.018 (J)	0.014 (J)			
3/11/2021	0.03 (J)	0.019 (J)	0.017 (J)	0.015 (J)	0.014 (J)
9/21/2021				0.025 (J)	0.012 (J)
9/22/2021	0.033 (J)	0.014 (J)			
9/23/2021			0.012 (J)		

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
11/21/2000	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/20/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/14/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
7/16/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/1/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4/25/2002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/30/2016		<0.0005		<0.0005	<0.0005	<0.0005			
8/31/2016							0.0002 (J)	<0.0005	<0.0005
9/1/2016	0.0007 (J)		0.0002 (J)						
10/24/2016		<0.0005							
10/25/2016	<0.0005					<0.0005			
10/26/2016			<0.0005	<0.0005	<0.0005		0.0001 (J)	<0.0005	<0.0005
1/3/2017		<0.0005		<0.0005					
1/4/2017						0.0001 (J)	0.0001 (J)	<0.0005	
1/5/2017					<0.0005				<0.0005
1/6/2017	0.0001 (J)		9E-05 (J)						
4/3/2017		<0.0005							
4/4/2017			9E-05 (J)			7E-05 (J)			
4/5/2017								<0.0005	
4/6/2017	<0.0005			<0.0005	<0.0005		0.0002 (J)		<0.0005
7/10/2017								<0.0005	
7/11/2017		<0.0005					<0.0005		
7/12/2017			<0.0005	<0.0005	<0.0005	<0.0005			<0.0005
7/13/2017	<0.0005								
10/2/2017		<0.0005							
10/3/2017				<0.0005	<0.0005	<0.0005	0.0003 (J)		
10/4/2017	<0.0005		<0.0005					<0.0005	<0.0005
1/9/2018	<0.0005	<0.0005			<0.0005				
1/10/2018				<0.0005		<0.0005			<0.0005
1/11/2018			0.0002 (J)				0.0006 (J)	<0.0005	
7/9/2018		<0.0005							
7/10/2018				<0.0005	<0.0005	<0.0005			
7/11/2018	<0.0005		<0.0005				0.0004 (J)	<0.0005	<0.0005
8/26/2019	<0.0005	<0.0005							
8/27/2019			<0.0005		<0.0005	<0.0005	0.00044 (J)	<0.0005	<0.0005
8/28/2019				<0.0005					
10/7/2019		<0.0005							
10/8/2019	<0.0005						0.00043 (J)		<0.0005
10/9/2019			<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	
4/6/2020	<0.0005	<0.0005							
4/7/2020			<0.0005	<0.0005	<0.0005	<0.0005	0.00051 (J)	<0.0005	
4/8/2020									<0.0005
8/17/2020		<0.0005						<0.0005	<0.0005
8/18/2020							0.00058 (J)		
8/19/2020	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005			
9/28/2020	<0.0005	<0.0005				<0.0005			<0.0005
9/29/2020							0.00077 (J)	<0.0005	
9/30/2020				<0.0005	<0.0005				
10/1/2020			<0.0005						
3/10/2021			<0.0005	<0.0005	<0.0005	<0.0005	0.0009	<0.0005	
3/11/2021	<0.0005								
3/12/2021		<0.0005							



# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
3/15/2021									<0.0005
9/21/2021	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		0.00036 (J)	<0.0005	<0.0005
9/23/2021						<0.0005			

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
11/21/2000	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
1/20/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
3/14/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
7/16/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
11/1/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
4/25/2002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				<0.0005
8/31/2016					<0.0005			8E-05 (J)	<0.0005
9/1/2016	0.0001 (J)	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005		
10/25/2016	0.0002 (J)	<0.0005	<0.0005			<0.0005	<0.0005		
10/26/2016				<0.0005	<0.0005			<0.0005	
10/27/2016									<0.0005
1/4/2017			<0.0005			<0.0005	<0.0005	0.0001 (J)	
1/5/2017	0.0002 (J)	<0.0005		<0.0005	<0.0005				
1/6/2017									<0.0005
4/3/2017		<0.0005							
4/4/2017	0.0002 (J)				<0.0005	<0.0005	<0.0005		
4/5/2017			<0.0005	<0.0005					
4/6/2017								0.0001 (J)	<0.0005
7/11/2017	0.0002 (J)	<0.0005				<0.0005		<0.0005	
7/12/2017			<0.0005						<0.0005
7/13/2017				<0.0005	<0.0005		<0.0005		
10/2/2017	<0.0005	<0.0005				<0.0005			
10/3/2017			<0.0005		<0.0005		<0.0005		
10/4/2017				<0.0005				0.0002 (J)	<0.0005
1/9/2018	<0.0005	<0.0005					<0.0005		
1/10/2018			<0.0005		<0.0005	<0.0005			
1/11/2018				<0.0005				0.0002 (J)	<0.0005
7/9/2018	0.00017 (J)					<0.0005			
7/10/2018		<0.0005	<0.0005		<0.0005		<0.0005		
7/11/2018				<0.0005				0.00023 (J)	<0.0005
7/30/2019					<0.0005				
8/27/2019	<0.0005	<0.0005			<0.0005			<0.0005	
8/28/2019			<0.0005	<0.0005		<0.0005	<0.0005		<0.0005
10/8/2019	<0.0005	<0.0005	<0.0005				<0.0005		
10/9/2019				<0.0005	<0.0005	<0.0005		0.00012 (J)	<0.0005
4/7/2020	<0.0005	<0.0005	<0.0005				<0.0005	0.00054 (J)	
4/8/2020				<0.0005	<0.0005	<0.0005			<0.0005
8/18/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00024 (J)	
8/19/2020									<0.0005
9/29/2020	0.00012 (J)				<0.0005				
9/30/2020		<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	0.00024 (J)	
10/1/2020									<0.0005
3/10/2021								<0.0005	<0.0005
3/11/2021				<0.0005					
3/12/2021		<0.0005				0.00018 (J)			
3/15/2021					<0.0005				
3/16/2021	<0.0005		<0.0005				<0.0005		
9/21/2021								<0.0005	
9/22/2021	<0.0005		<0.0005	<0.0005	<0.0005	0.00013 (J)	<0.0005		<0.0005
9/23/2021		<0.0005							

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.0005	<0.0005	0.00019 (J)	0.00029 (J)	0.0015
9/21/2021				<0.0005	0.00042 (J)
9/22/2021	0.00027 (J)	<0.0005			
9/23/2021			<0.0005		

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
8/30/2016		23.8		14.3	4.68	29.4			
8/31/2016							18.8	105	2.77
9/1/2016	5.59		9.91						
10/24/2016		22.5				28.3			
10/25/2016	6.43								
10/26/2016			8.56	18.6	5.45		16.6	101	2.25
1/3/2017		22.1		18.1					
1/4/2017						33.4	17.6	94.9	
1/5/2017					5.35				2.27
1/6/2017	8.13		8.18						
4/3/2017		24.6 (J)							
4/4/2017			8.12			34.6			
4/5/2017								92.5	
4/6/2017	7.72			16.2	5.41		30.9		2.04
7/10/2017								90.3	
7/11/2017		23.5					17.7		
7/12/2017			8	18.1	4.81	38			2.25
7/13/2017	4.57								
10/2/2017		22.7							
10/3/2017				15.2	5.17	25.5	39.8		
10/4/2017	6.41		12.5					74.6	2.19
1/9/2018	4.68	23.2			4.73				
1/10/2018				15.5		36.5			2.28
1/11/2018			12.9				65.6	78.1	
7/9/2018		24.6 (J)							
7/10/2018				30.6	4.5	45.5			
7/11/2018	3.9		8.6				53	72.2	2.3
1/16/2019	4.3	27.7	68.8	33.3	10.1	46.5			2.3
1/17/2019							19.8 (J)	64.7	
3/25/2019	3.9	31.7	55.6						
3/26/2019				36.1	9	46.3			2.4
3/27/2019							25.1	63.1	
10/7/2019		31.6							
10/8/2019	3.5						69.2		2.3
10/9/2019			46.7	17.7	10.1	51.2		54.2	
4/6/2020	3.1	35.8							
4/7/2020			62.1	34.1	7.8	31.1	84.7	52.1	
4/8/2020									2.5
9/28/2020	3.3	25.6				70.7			2.9
9/29/2020							123	42	
9/30/2020				70.4	27.5				
10/1/2020			48.4						
3/10/2021			263	134	55.9	67.2	126	53.1	
3/11/2021	2.4								
3/12/2021		21.4							
3/15/2021									2.4
9/21/2021	2.7	18.5	67.5	140	110		87	63.4	3.6
9/23/2021						69.1			

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016					0.371 (J)			127	6.9
9/1/2016	194	119	93.8	71.9		67.2	40.5		
10/25/2016	100	106	94.1			50.1	3.91		
10/26/2016				80.3	5.84			127	
10/27/2016									8.2
1/4/2017			88.2			80.4	15.2	113	
1/5/2017	107	115		94.4	0.379 (J)				
1/6/2017									7.97
4/3/2017		131							
4/4/2017	153				0.993	108	32.3		
4/5/2017			106	104					
4/6/2017								42.7	7.95
7/11/2017	125	155				136		46	
7/12/2017			149						8.37
7/13/2017				124	0.388 (J)		8.92		
10/2/2017	126	137				105			
10/3/2017			217		0.251 (J)		7.88		
10/4/2017				136				115	8.57
1/9/2018	119	135					40.5		
1/10/2018			161		0.177 (J)	60.1			
1/11/2018				139				47.6	9.78
7/9/2018	123					75.9			
7/10/2018		129	205		0.17 (J)		29.8		
7/11/2018				122				73.7	9.2
1/16/2019	120			80.5					
1/17/2019		137	187				27.6		
1/18/2019								30.6	8.1
1/21/2019					0.19 (J)	60			
3/25/2019						74.8			
3/26/2019	84.2	124	204	68.8			60.1		
3/27/2019								28.8	7.7
7/30/2019					0.43				
10/8/2019	146	129	205				49.5		
10/9/2019				56.6	0.18	80.1		30.1	6
4/7/2020	135	129	225				12.5	65.7	
4/8/2020				53.1	0.24 (J)	175			5.3
9/29/2020	30.8				0.18 (J)				
9/30/2020		109	177	53.5		292	98.4	20.9	
10/1/2020									5.5
3/10/2021								18.7	5.3
3/11/2021				67					
3/12/2021		101				241			
3/15/2021					0.22 (J)				
3/16/2021	34.4		188				104		
9/21/2021								15.3	
9/22/2021	185		267	94.6	0.19 (J)	266	5.8		5
9/23/2021		146							

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			4.9	4.1	3
1/21/2021	4.4	2.8			
3/11/2021	12.4	5.4	4.7	3.1	2.6
9/21/2021				2.5	2.1
9/22/2021	14.9	4.7			
9/23/2021			3.4		

# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
8/30/2016		15		31	60	5.5			
8/31/2016							3.5	210	4.3
9/1/2016	190		160						
10/24/2016		13							
10/25/2016	175 (D)					5.1			
10/26/2016			110	24	67		2.5	200	4.9
1/3/2017		13		29					
1/4/2017						6.9	3.8	160	
1/5/2017					70				4.1
1/6/2017	180		67						
4/3/2017		14							
4/4/2017			80			6.5			
4/5/2017								140	
4/6/2017	200			27	76		7.1		3.7
7/10/2017								88	
7/11/2017		13					3.1		
7/12/2017			120	31	64	6.5			2.6
7/13/2017	200								
10/2/2017		15							
10/3/2017				27	73	4.5	46		
10/4/2017	260		130					100	3
1/9/2018	210	13			61				
1/10/2018				59		6.9			3.4
1/11/2018			60				100	78	
7/9/2018		15.4							
7/10/2018				172	60.2	6.2			
7/11/2018	177		75.9				53.7	66.9	3.2
1/16/2019	165	16	20.2	49.7	54.1	6.6			3.8
1/17/2019							6.6	52	
3/25/2019	147	17.7	19.7						
3/26/2019				47.9	51.8	7			3.2
3/27/2019							11.9	45.6	
10/7/2019		18							
10/8/2019	125						89		4
10/9/2019			32.1	239	49.7	7.2		44.1	
4/6/2020	30.2	13.5							
4/7/2020			14.5	44.3	56.4	7.7	103	32.5	
4/8/2020									4.5
9/28/2020	113	13.7				13.8			4.3
9/29/2020							143	24.3	
9/30/2020				24.1	53.9				
10/1/2020			15.7						
3/10/2021			16	25.7	42.4	8.5	188	48.7	
3/11/2021	96.7								
3/12/2021		14.1							
3/15/2021									7.6
9/21/2021	92.2	12.2	13.9	38.8	53.8		103	63.8	7.9
9/23/2021						8.8			

# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016					7.8			320	17
9/1/2016	60	10	43	610		16	5.9		
10/25/2016	36	6.5	34			8.1	4.4		
10/26/2016				570	12			450	
10/27/2016									17
1/4/2017			29			13	7.7	330	
1/5/2017	37	10		710	7.4				
1/6/2017									16
4/3/2017		7.3							
4/4/2017	47				8.7	23	8		
4/5/2017			36	860					
4/6/2017								50	17
7/11/2017	34	5.7				31		70	
7/12/2017			44						18
7/13/2017				860	8.3		5.4		
10/2/2017	34	4.4				30			
10/3/2017			58		9		4.4		
10/4/2017				1000				360	18
1/9/2018	24	5.7					4.4		
1/10/2018			36		8.2	9.7			
1/11/2018				940				74	16
7/9/2018	25.9					10.8			
7/10/2018		3.1	57		7.3		6.3		
7/11/2018				864				164	16.2
1/16/2019	29.2			469					
1/17/2019		3.2	48.9				5.4		
1/18/2019								11	17.5
1/21/2019					6.9	5.1			
3/25/2019						9.4			
3/26/2019	21.1	3	5.1	439			11.9		
3/27/2019								11.5	18.9
7/30/2019					7.1				
10/8/2019	40.2	2.9	46.4				7.8		
10/9/2019				330	7	5.4		25.3	19
4/7/2020	41.6	3.4	49.3				4.7	146	
4/8/2020				277	5.2	20.2			16.9
9/29/2020	10.6				5.4				
9/30/2020		1.7	39.6	257		34.9	23.7	8.5	
10/1/2020									16.8
3/10/2021								48.2	18.3
3/11/2021				334					
3/12/2021		2.3				31.9			
3/15/2021					6.4				
3/16/2021	15.8		44.9				25.3		
9/21/2021								9.4	
9/22/2021	28		55.8	517	7.4	38.9	6		19.3
9/23/2021		7.1							



# Time Series

Constituent: Chloride (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			6.1	6.9	6.1
1/21/2021	6.1	6.1			
3/11/2021	9.9	6	6.4	7	6.5
9/21/2021				6.7	6.1
9/22/2021	7.1	4.9			
9/23/2021			5.5		

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
9/29/2000	<0.005	<0.005	0.021	0.03	0.016	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005		0.017	<0.005	0.023	<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	0.03	0.028	0.025	<0.005	<0.005	<0.005	<0.005
3/14/2001	<0.005	<0.005	0.019	0.052 (O)	0.021	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	<0.005	0.029	0.08 (O)	0.019	<0.005	<0.005	<0.005	<0.005
11/1/2001	<0.005	<0.005	0.021	0.13 (O)	0.022	<0.005	<0.005	<0.005	<0.005
4/25/2002	<0.005	<0.005	0.03	0.021	0.019	<0.005	<0.005	<0.005	<0.005
11/20/2002		0.0051	0.038	0.053 (O)	0.024	<0.005	0.006	0.002	<0.005
6/6/2003	0.037	0.014	0.028	0.064 (O)	0.021	0.005	0.0082	<0.005	0.003
12/12/2003	0.0044	0.011	0.027	<0.005	0.0066	<0.005	0.0023	<0.005	<0.005
5/26/2004	<0.005	<0.005	0.021	0.012	0.013	<0.005	<0.005	<0.005	<0.005
12/7/2004	<0.005	<0.005	0.016	0.019	0.013	<0.005	<0.005	<0.005	<0.005
6/21/2005	<0.005	<0.005	0.015	0.02	0.0067	<0.005	<0.005	<0.005	<0.005
12/12/2005	<0.005	<0.005	0.022	<0.005	0.0033	0.002	<0.005	<0.005	<0.005
4/4/2006		<0.005							
6/27/2006	<0.005	<0.005	0.027	0.0015	0.0047	<0.005	<0.005	<0.005	<0.005
8/30/2006		<0.005							
12/4/2006	0.0015	<0.005	0.025	0.0034	0.0084	<0.005	0.0021	0.0032	0.0017
2/15/2007		<0.005							
6/23/2007	<0.005	<0.005	0.023	<0.005	0.01	<0.005	0.0017	<0.005	<0.005
9/11/2007		<0.005							
12/11/2007	0.0016	<0.005	0.018	<0.005	0.0049	<0.005	<0.005	<0.005	<0.005
3/11/2008		<0.005							
6/23/2008	0.0019	<0.005					<0.005	0.0016	<0.005
6/24/2008			0.022	<0.005	0.032 (O)	<0.005			
11/3/2008		<0.005							
12/4/2008	<0.005	<0.005					<0.005	<0.005	<0.005
12/5/2008			0.023	0.0016	0.009	<0.005			
3/25/2009		<0.005							
7/7/2009	0.0037	<0.005	0.012	<0.005	0.0044	0.0013			
7/8/2009							<0.005	<0.005	<0.005
9/14/2009		<0.005							
12/20/2009	0.0016	<0.005				<0.005			
12/21/2009			0.019	<0.005	0.0055		<0.005	<0.005	<0.005
3/4/2010		<0.005							
6/20/2010	<0.005	<0.005		<0.005	0.002	<0.005	<0.005	<0.005	<0.005
6/21/2010			0.01						
9/14/2010		<0.005							
1/6/2011				0.0017		<0.005	<0.005		<0.005
1/7/2011	0.0033	<0.005	0.023		0.0039			<0.005	
4/15/2011		<0.005							
7/7/2011	0.0044	<0.005		0.008	0.0031	<0.005	0.0023	<0.005	0.0019
7/8/2011			0.017						
9/25/2011		0.0021							
1/17/2012	0.0038	<0.005		0.0082		<0.005	<0.005	<0.005	<0.005
1/18/2012			0.0114		0.0023				
4/4/2012		<0.005							
7/9/2012	0.022			0.01		<0.005	0.0017	<0.005	<0.005
7/10/2012		<0.005	0.014		0.0022				
10/9/2012		<0.005							
1/17/2013				0.01		<0.005	<0.005	<0.005	<0.005
1/18/2013	0.034	<0.005	0.015		<0.005				

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
4/5/2013		<0.005							
7/16/2013				0.0061		<0.005	<0.005	<0.005	<0.005
7/17/2013	0.032	<0.005	0.011		<0.005				
10/11/2013		<0.005							
1/13/2014	0.04			0.002		<0.005	<0.005	<0.005	<0.005
1/14/2014		<0.005	0.019		0.0013				
4/3/2014		<0.005							
7/8/2014							<0.005	<0.005	<0.005
7/9/2014	0.036	<0.005	0.012	<0.005	<0.005	0.0011 (J)			
10/24/2014		<0.005							
1/12/2015			0.016						
1/13/2015	0.03			<0.005		<0.005	<0.005	<0.005	<0.005
1/14/2015		<0.005			0.0015				
5/10/2015		<0.005							
7/16/2015	0.039		0.0084	<0.005		0.0011 (J)	<0.005	0.001 (J)	<0.005
7/17/2015		<0.005			0.0011 (J)				
10/6/2015		<0.005							
1/17/2016						<0.005			
1/18/2016	0.068	<0.005	0.014	<0.005	0.0011 (J)			<0.005	<0.005
1/19/2016							<0.005		
4/26/2016		<0.005							
7/26/2016							0.0005 (J)		<0.005
7/27/2016	0.05			0.0006 (J)		0.0016 (J)		0.0014 (J)	
7/28/2016		<0.005			0.001 (J)				
7/29/2016			0.0077 (J)						
8/30/2016		<0.005		<0.005	0.0013 (J)	0.0015 (J)			
8/31/2016							0.001 (J)	0.0012 (J)	0.0011 (J)
9/1/2016	0.119 (O)		0.015						
10/24/2016		<0.005							
10/25/2016	0.0519					0.0018 (J)			
10/26/2016			0.0106	<0.005	0.0014 (J)		<0.005	0.0012 (J)	<0.005
1/3/2017		<0.005		0.001 (J)					
1/4/2017						0.0021 (J)	<0.005	0.0012 (J)	
1/5/2017					0.002 (J)				<0.005
1/6/2017	0.0536		0.0098 (J)						
4/3/2017		0.0004 (J)							
4/4/2017			0.0101			0.002 (J)			
4/5/2017								0.0013 (J)	
4/6/2017	0.0447 (J)			0.0013 (J)	0.0034 (J)		0.0007 (J)		0.0011 (J)
7/10/2017								0.0014 (J)	
7/11/2017		0.0006 (J)					0.0006 (J)		
7/12/2017			0.0096 (J)	0.0011 (J)	0.0024 (J)	0.0021 (J)			0.0007 (J)
7/13/2017	0.0269								
10/2/2017		<0.005							
10/3/2017				0.0012 (J)	0.0022 (J)	0.0014 (J)	0.0007 (J)		
10/4/2017	0.0378		0.0097 (J)					0.0011 (J)	0.0008 (J)
1/9/2018	0.0283 (J)	<0.005			0.0019 (J)				
1/10/2018				0.0016 (J)		0.0017 (J)			0.0007 (J)
1/11/2018			0.0109				0.0098 (J)	0.001 (J)	
7/9/2018		<0.005							
7/10/2018				0.0055 (J)	0.0023 (J)	0.0021 (J)			
7/11/2018	0.018 (J)		0.0055 (J)				<0.005	<0.005	0.0019 (J)

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
1/16/2019	0.018 (J)	<0.005	0.0024 (J)	<0.005	0.018 (J)	0.0021 (J)			<0.005
1/17/2019							<0.005	0.0028 (J)	
3/25/2019	0.017 (J)	<0.005	0.002 (J)						
3/26/2019				0.072	0.017 (J)	0.0018 (J)			<0.005
3/27/2019							<0.005	<0.005	
8/26/2019	0.024 (J)	0.001 (J)							
8/27/2019			0.0027 (J)		0.0097 (J)	0.0062 (J)	0.00092 (J)	0.00085 (J)	<0.005
8/28/2019				0.0071 (J)					
10/7/2019		0.00052 (J)							
10/8/2019	0.021 (J)						0.00091 (J)		<0.005
10/9/2019			0.002 (J)	0.012 (J)	0.011 (J)	0.0019 (J)		0.00081 (J)	
4/6/2020	0.015 (J)	<0.005							
4/7/2020			0.0028 (J)	0.0022 (J)	0.0094 (J)	0.0015 (J)	0.00094 (J)	0.00082 (J)	
4/8/2020									0.00058 (J)
8/17/2020		0.00082 (J)						0.001 (J)	0.00077 (J)
8/18/2020							0.0015 (J)		
8/19/2020	0.015 (J)		0.0022 (J)	0.0012 (J)	0.0037 (J)	0.0028 (J)			
9/28/2020	0.014 (J)	0.00071 (J)				0.0024 (J)			0.00062 (J)
9/29/2020							0.0011 (J)	0.00085 (J)	
9/30/2020				0.0018 (J)	0.0045 (J)				
10/1/2020			0.002 (J)						
3/10/2021			0.003 (J)	0.001 (J)	0.006	0.0023 (J)	0.0013 (J)	0.00091 (J)	
3/11/2021	0.02 (J)								
3/12/2021		0.00074 (J)							
3/15/2021									<0.005
9/21/2021	0.013 (J)	<0.005	0.0018 (J)	<0.005	0.0035 (J)		<0.005	<0.005	<0.005
9/23/2021						0.0023 (J)			

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.005	<0.005	<0.005	<0.005					<0.005
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
1/20/2001	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
7/16/2001	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
11/1/2001	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
11/20/2002	0.014	0.0058	0.0041	<0.005	<0.005				0.014
6/6/2003	<0.005	0.0068	0.063 (O)	<0.005	<0.005				<0.005
12/12/2003	<0.005	0.0041	0.0059	0.036 (O)	<0.005				<0.005
5/26/2004	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
12/7/2004	<0.005	0.0026	<0.005	0.0021	<0.005				0.0039
6/21/2005	<0.005	<0.005	<0.005	<0.005	<0.005				0.002
12/12/2005	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
4/4/2006	<0.005		<0.005						
6/27/2006	<0.005	0.0013	<0.005	<0.005	<0.005				<0.005
8/30/2006	<0.005		<0.005						
12/4/2006	0.0042	<0.005	0.0036	<0.005	<0.005				0.0019
2/15/2007	<0.005		<0.005						
6/23/2007	<0.005	<0.005	0.0016	<0.005	<0.005				0.0015
9/11/2007	<0.005		<0.005						
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
3/11/2008	<0.005		<0.005						
6/23/2008									0.0015
6/24/2008	<0.005	0.0014	<0.005	<0.005	<0.005				
11/3/2008	<0.005		0.0025						
12/4/2008	<0.005				<0.005				<0.005
12/5/2008		<0.005	<0.005	<0.005					
3/25/2009	<0.005		<0.005						
7/8/2009	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
9/14/2009	<0.005		<0.005						
12/20/2009	<0.005	<0.005	<0.005		<0.005				
12/21/2009				<0.005					<0.005
3/4/2010	<0.005		<0.005						
6/20/2010	<0.005	<0.005			<0.005				0.0015
6/21/2010			<0.005	<0.005		<0.005	0.0019	<0.005	
9/14/2010	<0.005		<0.005						
1/6/2011					<0.005				
1/7/2011	0.0016	<0.005	0.0018	<0.005		0.0018	0.0017	<0.005	<0.005
4/15/2011	0.0034		<0.005						
7/7/2011	<0.005	<0.005	<0.005			<0.005			
7/8/2011				0.0013		0.0019	0.0023	<0.005	<0.005
9/25/2011	0.0013		<0.005						
1/17/2012	<0.005	<0.005			<0.005				
1/18/2012			<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
4/4/2012	<0.005		<0.005						
7/9/2012	<0.005	<0.005			<0.005				
7/10/2012			<0.005	<0.005		0.0013	<0.005	<0.005	<0.005
10/9/2012	0.0019		0.0018						
1/17/2013					<0.005				
1/18/2013	0.0017	<0.005	<0.005	<0.005		0.0015	<0.005	<0.005	<0.005
4/5/2013	0.0019		<0.005						

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/17/2013	0.0017	<0.005	<0.005	<0.005	<0.005	<0.005	0.0019	<0.005	<0.005
10/11/2013	0.0013		<0.005						
1/13/2014		<0.005			<0.005				
1/14/2014	0.001		<0.005	<0.005		0	<0.005	<0.005	<0.005
4/3/2014	0.0031		<0.005						
7/9/2014	0.0012 (J)	<0.005	<0.005	<0.005	<0.005		<0.005		0.0011 (J)
7/10/2014						<0.005		<0.005	
10/24/2014	<0.005		<0.005						
1/12/2015						<0.005			
1/13/2015		<0.005			<0.005				
1/14/2015	0.0013		<0.005	<0.005			<0.005	<0.005	<0.005
5/10/2015	<0.005								
5/11/2015			<0.005						
7/16/2015		<0.005	<0.005		<0.005				
7/17/2015	0.001 (J)						<0.005		0.0013
7/18/2015				<0.005		<0.005		<0.005	
10/6/2015	<0.005		<0.005						
1/17/2016	0.0012 (J)	<0.005	<0.005		<0.005	<0.005	<0.005		
1/18/2016				<0.005				<0.005	<0.005
4/26/2016	<0.005		<0.005						
7/27/2016	0.0008 (J)	0.0007 (J)			0.0008 (J)				
7/28/2016			0.0006 (J)			0.0007 (J)	0.0005 (J)		0.0011 (J)
7/29/2016				0.0009 (J)				0.0007 (J)	
8/31/2016					<0.005			<0.005	0.0024 (J)
9/1/2016	0.0015 (J)	0.0011 (J)	0.0011 (J)	0.0011 (J)		<0.005	<0.005		
10/25/2016	<0.005	<0.005	<0.005			<0.005	<0.005		
10/26/2016				<0.005	0.001 (J)			<0.005	
10/27/2016									<0.005
1/4/2017			<0.005			<0.005	<0.005	<0.005	
1/5/2017	0.001 (J)	<0.005		0.0012 (J)	<0.005				
1/6/2017									<0.005
4/3/2017		0.0015 (J)							
4/4/2017	0.001 (J)				0.0008 (J)	0.0011 (J)	0.0008 (J)		
4/5/2017			0.001 (J)	0.0015 (J)					
4/6/2017								0.0006 (J)	0.0019 (J)
7/11/2017	0.0008 (J)	0.0013 (J)				0.0009 (J)		0.0005 (J)	
7/12/2017			0.0011 (J)						0.0011 (J)
7/13/2017				0.0012 (J)	0.0006 (J)		0.0006 (J)		
10/2/2017	0.0009 (J)	0.0013 (J)				0.0009 (J)			
10/3/2017			0.0009 (J)		<0.005		0.0005 (J)		
10/4/2017				0.0055 (J)				0.0006 (J)	0.0011 (J)
1/9/2018	0.0006 (J)	0.0012 (J)					0.0007 (J)		
1/10/2018			0.0007 (J)		<0.005	0.0008 (J)			
1/11/2018				0.0009 (J)				<0.005	0.001 (J)
7/9/2018	<0.005					<0.005			
7/10/2018		<0.005	<0.005		<0.005		<0.005		
7/11/2018				<0.005				<0.005	<0.005
1/16/2019	<0.005			<0.005					
1/17/2019		<0.005	0.01 (J)				0.01		
1/18/2019								<0.005	<0.005
1/21/2019					<0.005	<0.005			
3/25/2019						<0.005			

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
3/26/2019	<0.005	<0.005	<0.005	<0.005			<0.005		
3/27/2019								<0.005	<0.005
7/30/2019					0.00065 (J)				
8/27/2019	0.001 (J)	0.0016 (J)			<0.005			0.00057 (J)	
8/28/2019			0.0011 (J)	0.0013 (J)		0.00089 (J)	0.00087 (J)		0.00089 (J)
10/8/2019	0.00053 (J)	0.0017 (J)	0.00099 (J)				0.00065 (J)		
10/9/2019				0.00081 (J)	0.00049 (J)	0.0011 (J)		0.00072 (J)	0.0009 (J)
4/7/2020	0.00074 (J)	0.0014 (J)	<0.005				<0.005	0.00049 (J)	
4/8/2020				0.00073 (J)	0.00069 (J)	0.001 (J)			0.0015 (J)
8/18/2020	0.00059 (J)	0.0018 (J)	0.0012 (J)	0.0011 (J)	<0.005	0.0011 (J)	0.0012 (J)	0.00056 (J)	
8/19/2020									0.0013 (J)
9/29/2020	<0.005				<0.005				
9/30/2020		0.0016 (J)	0.00098 (J)	0.00096 (J)		0.0013 (J)	0.00067 (J)	0.00064 (J)	
10/1/2020									0.0012 (J)
3/10/2021								<0.005	0.0011 (J)
3/11/2021				0.0009 (J)					
3/12/2021		0.0031 (J)				0.0014 (J)			
3/15/2021					0.0011 (J)				
3/16/2021	<0.005		0.0012 (J)				0.00075 (J)		
9/21/2021								<0.005	
9/22/2021	<0.005		0.0018 (J)	<0.005	<0.005	0.0013 (J)	<0.005		<0.005
9/23/2021		0.0013 (J)							

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.005	0.00069 (J)	0.0016 (J)	0.002 (J)	0.00073 (J)
9/21/2021				<0.005	<0.005
9/22/2021	<0.005	<0.005			
9/23/2021			<0.005		





# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
3/12/2021		0.00058 (J)							
3/15/2021									<0.005
9/21/2021	<0.005	<0.005	<0.005	0.019	0.0049 (J)		<0.005	0.00065 (J)	<0.005
9/23/2021						<0.005			

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.005	<0.005	<0.005	<0.005					<0.005
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
1/20/2001	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
7/16/2001	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
11/1/2001	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
8/31/2016					<0.005			0.001 (J)	0.0021 (J)
9/1/2016	<0.005	<0.005	<0.005	0.0046 (J)		<0.005	<0.005		
10/25/2016	<0.005	<0.005	<0.005			<0.005	<0.005		
10/26/2016				0.0046 (J)	0.0011 (J)			0.0009 (J)	
10/27/2016									0.0017 (J)
1/4/2017			<0.005			<0.005	<0.005	0.0007 (J)	
1/5/2017	<0.005	<0.005		0.0062 (J)	<0.005				
1/6/2017									0.0017 (J)
4/3/2017		<0.005							
4/4/2017	<0.005				<0.005	<0.005	<0.005		
4/5/2017			<0.005	0.007 (J)					
4/6/2017								<0.005	0.0017 (J)
7/11/2017	0.0003 (J)	<0.005				<0.005		<0.005	
7/12/2017			<0.005						0.0016 (J)
7/13/2017				0.0077 (J)	0.0003 (J)		<0.005		
10/2/2017	<0.005	<0.005				<0.005			
10/3/2017			<0.005		0.0003 (J)		<0.005		
10/4/2017				0.0073 (J)				0.0007 (J)	0.0015 (J)
1/9/2018	<0.005	<0.005					<0.005		
1/10/2018			<0.005		<0.005	<0.005			
1/11/2018				0.0061 (J)				<0.005	0.0017 (J)
7/9/2018	<0.005					<0.005			
7/10/2018		<0.005	<0.005		<0.005		<0.005		
7/11/2018				0.0064 (J)				<0.005	0.0017 (J)
7/30/2019					0.00032 (J)				
8/27/2019	<0.005	<0.005			<0.005			0.00077 (J)	
8/28/2019			<0.005	0.0023 (J)		<0.005	<0.005		0.00099 (J)
10/8/2019	<0.005	<0.005	<0.005				<0.005		
10/9/2019				0.0024 (J)	<0.005	<0.005		<0.005	0.00099 (J)
4/7/2020	<0.005	<0.005	<0.005				<0.005	0.00037 (J)	
4/8/2020				0.0024 (J)	0.00036 (J)	<0.005			0.001 (J)
8/18/2020	<0.005	<0.005	<0.005	0.0025 (J)	<0.005	<0.005	<0.005	<0.005	
8/19/2020									0.0011 (J)
9/29/2020	<0.005				<0.005				
9/30/2020		<0.005	<0.005	0.0018 (J)		<0.005	<0.005	<0.005	
10/1/2020									0.00099 (J)
3/10/2021								<0.005	0.00096 (J)
3/11/2021				0.0019 (J)					
3/12/2021		<0.005				<0.005			
3/15/2021					<0.005				
3/16/2021	<0.005		<0.005				<0.005		
9/21/2021								<0.005	
9/22/2021	<0.005		<0.005	0.0028 (J)	<0.005	<0.005	<0.005		0.00082 (J)
9/23/2021		<0.005							

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.005	<0.005	<0.005	<0.005	<0.005
9/21/2021				<0.005	<0.005
9/22/2021	<0.005	<0.005			
9/23/2021			<0.005		

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
8/30/2016		2.72		1.81	2.19	2.36			
8/31/2016							2.2	2.61	1.23
9/1/2016	11		5.27						
10/24/2016		2.96							
10/25/2016	10.5					2.02			
10/26/2016			2.32	2.03	2.67		1.96	3.28	0.641 (U)
1/3/2017		2.76		1.85					
1/4/2017						2.1	1.88	3.77	
1/5/2017					3.74				0.657 (U)
1/6/2017	6.81		5.1						
4/3/2017		1.36							
4/4/2017			5			1.39 (U)			
4/5/2017								3.25	
4/6/2017	8.93			2.66	2.36				0.439 (U)
4/8/2017							0.893 (U)		
7/10/2017								1.55	
7/11/2017		1.85					1.89		
7/12/2017			2.69	2.1	1.54	1.63			0.414 (U)
7/13/2017	8.51								
10/2/2017		1.9							
10/3/2017				2	3.63	1.84	4.73		
10/4/2017	3.85		4.82					1.68	1.33
1/9/2018	4.28	2.39			2.07				
1/10/2018				2.55		2.11			1.21
1/11/2018			4.48				7.49	2.94	
7/9/2018		1.49							
7/10/2018				3.14	1.63	1.29			
7/11/2018	5.99		2.69				5.88	2.03	1.4 (U)
8/26/2019	6.03	3.03							
8/27/2019			2.97		4.63	2.41	5.09	2.09	1.27
8/28/2019				3.74					
10/7/2019		2.83							
10/8/2019	33.8						6.39		1.62
10/9/2019			2.17	7.23	5.45	3.13		3.11	
4/6/2020	25.7	2.83							
4/7/2020			2.44	3.57	6.25	1.97	7.87	2.18	
4/8/2020									1.08 (U)
8/17/2020		2.63						2.25	1.42
8/18/2020							6.76		
8/19/2020	5.45		3.1	2.49	4.53	1.91			
9/28/2020	22.4	2.08				1.29			1.28
9/29/2020							8.3	0.845 (U)	
9/30/2020				4.45	6.39				
10/1/2020			2.6						
3/10/2021			2.11	4.67	4.61	1.7	7.55	1.77	
3/11/2021	3.22								
3/12/2021		2.17							
3/15/2021									0.769 (U)
9/21/2021	10.3	0.73 (U)	2.45	3.1	5.07		4.35	1.24 (U)	2.09
9/23/2021						1.48			

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016					1.01			5.96	3.3
9/1/2016	1.28	2.45	1.99	5.19		2.21	1.05		
10/25/2016	1.54	1.04 (U)	1.98			1.51 (U)	1.2		
10/26/2016				4.25	0.725 (U)			7.42	
10/27/2016									2.7
1/4/2017			1.72			2.56	2.11	6.07	
1/5/2017	0.715 (U)	1.36		3.55	0.735 (U)				
1/6/2017									4.45
4/3/2017		0.697 (U)							
4/4/2017	0.699 (U)				0.87 (U)	1.77	2.02		
4/5/2017			1.72	4.39					
4/6/2017								3	3.1
7/11/2017	1.12	0.754 (U)				2.76		4.2	
7/12/2017			1.11						2.73
7/13/2017				2.44	0.42 (U)		0.576 (U)		
10/2/2017	0.855 (U)	1.52				4.15			
10/3/2017			2.13		0.995 (U)		0.86		
10/4/2017				4.95				7.16	8.16
1/9/2018	0.861 (U)	1.17					1.43		
1/10/2018			1.74		0.698 (U)	1.96			
1/11/2018				3.53				3.57	2.31
7/9/2018	0.693 (U)					1.11			
7/10/2018		1.26	1.97		1.01		1.63		
7/11/2018				3.13				7.57	3.31
8/27/2019	1.32	1.75			0.787 (U)			7.04	
8/28/2019			2.04	2.01		1.13 (U)	1.4 (U)		1.91
10/8/2019	1.41	1.52	1.89				1.88		
10/9/2019				2.91	0.22 (U)	2.28		3.68	3.09
4/7/2020	1.41	1.82	4.17				1.8	7.66	
4/8/2020				2.79	1.13 (U)	4.19			1.92
8/18/2020	0.731 (U)	1.84	4.24	3.11	1.09 (U)	6.86	3.27	7.65	
8/19/2020									2.34
9/29/2020	0.331 (U)				1 (U)				
9/30/2020		2.14	2.47	3.09		5.62	3.83	2.79	
10/1/2020									3.3
3/10/2021								2.53	2.08
3/11/2021				2.77					
3/12/2021		0.607 (U)				5.17			
3/15/2021					0.804 (U)				
3/16/2021	0.0831 (U)		2.15				2.88		
9/21/2021								1.25 (U)	
9/22/2021	1.94 (U)		3.06	2.36	0.769 (U)	6.84	0.959 (U)		2.08
9/23/2021		1.64							

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	1.55	1.29	0.353 (U)	0.783 (U)	1.67
9/21/2021				0.815 (U)	0.593 (U)
9/22/2021	1.4	0.982 (U)			
9/23/2021			1.15		





# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
9/21/2021	0.077 (J)	0.068 (J)	<0.1	<0.1	<0.1		<0.1	0.31	<0.1
9/23/2021						<0.1			

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016					0.07 (J)			0.04 (J)	0.55
9/1/2016	0.25 (J)	<0.1	0.55	0.68		<0.1	<0.1		
10/25/2016	0.43	0.5	0.36			<0.1	<0.1		
10/26/2016				0.68	0.62			0.12 (J)	
10/27/2016									0.26 (J)
1/4/2017			0.1 (J)			0.04 (J)	<0.1	0.06 (J)	
1/5/2017	0.21 (J)	0.22 (J)		0.73	0.17 (J)				
1/6/2017									0.25 (J)
4/3/2017		<0.1							
4/4/2017	0.45				0.08 (J)	0.02 (J)	<0.1		
4/5/2017			0.2 (J)	1.6					
4/6/2017								<0.1	0.16 (J)
7/11/2017	0.41	0.06 (J)				0.14 (J)		0.03 (J)	
7/12/2017			0.04 (J)						0.2 (J)
7/13/2017				1.7	0.06 (J)		<0.1		
10/2/2017	<0.1	<0.1				<0.1			
10/3/2017			0.86		0.06 (J)		<0.1		
10/4/2017				1.8				0.12 (J)	0.22 (J)
1/9/2018	<0.1	<0.1					<0.1		
1/10/2018			<0.1		<0.1	<0.1			
1/11/2018				1.5				<0.1	0.98
7/9/2018	<0.1					<0.1			
7/10/2018		0.15 (J)	<0.1		<0.1		<0.1		
7/11/2018				1.8				<0.1	0.14 (J)
1/16/2019	<0.1			1.4					
1/17/2019		<0.1	<0.1				<0.1		
1/18/2019								<0.1	0.24 (J)
1/21/2019					<0.1	<0.1			
3/25/2019						0.043 (J)			
3/26/2019	0.13 (J)	0.13 (J)	0.11 (J)	0.89			0.071 (J)		
3/27/2019								<0.1	0.13 (J)
7/30/2019					0.083 (J)				
8/27/2019	<0.1	<0.1			<0.1			0.1	
8/28/2019			<0.1	0.61		<0.1	<0.1		0.088 (J)
10/8/2019	<0.1	<0.1	<0.1				<0.1		
10/9/2019				<0.1	<0.1	<0.1		<0.1	0.068 (J)
4/7/2020	<0.1	<0.1	<0.1				<0.1	<0.1	
4/8/2020				0.55	<0.1	<0.1			0.058 (J)
8/18/2020	<0.1	<0.1	<0.1	0.51	<0.1	<0.1	<0.1	<0.1	
8/19/2020									0.092 (J)
9/29/2020	<0.1				<0.1				
9/30/2020		<0.1	<0.1	0.15		<0.1	<0.1	<0.1	
10/1/2020									<0.1
3/10/2021								<0.1	0.066 (J)
3/11/2021				0.42					
3/12/2021		<0.1				<0.1			
3/15/2021					<0.1				
3/16/2021	<0.1		<0.1				<0.1		
9/21/2021								<0.1	
9/22/2021	<0.1		<0.1	0.79	<0.1	<0.1	<0.1		0.13
9/23/2021		<0.1							

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			0.11	<0.1	<0.1
1/21/2021	<0.1	<0.1			
3/11/2021	<0.1	<0.1	0.12	<0.1	<0.1
9/21/2021				<0.1	<0.1
9/22/2021	<0.1	<0.1			
9/23/2021			0.096 (J)		

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
9/29/2000	<0.001	<0.001	0.0083	0.017 (O)	<0.001	<0.001	<0.001	<0.001	<0.001
11/21/2000	<0.001		0.0052	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/20/2001	<0.001	<0.001	<0.001	0.011	<0.001	<0.001	<0.001	<0.001	<0.001
3/14/2001	<0.001	<0.001	<0.001	0.026 (O)	<0.001	<0.001	<0.001	<0.001	<0.001
7/16/2001	<0.001	<0.001	0.011	0.043 (O)	<0.001	<0.001	<0.001	<0.001	<0.001
11/1/2001	<0.001	<0.001	<0.001	0.075 (O)	<0.001	<0.001	<0.001	<0.001	<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/20/2002		<0.001	0.018 (O)	0.057 (O)	0.0057 (J)	<0.001	<0.001	<0.001	<0.001
6/6/2003	0.037 (O)	0.016 (O)	0.015 (O)	0.16 (O)	0.013	<0.001	0.0068	<0.001	0.0078
12/12/2003	0.008	0.0095	0.0072	<0.001	<0.001	<0.001	<0.001	<0.001	0.0055
5/26/2004	<0.001	<0.001	0.0055	0.011	<0.001	<0.001	<0.001	<0.001	<0.001
12/7/2004	<0.001	<0.001	<0.001	0.038 (O)	<0.001	<0.001	<0.001	<0.001	<0.001
6/21/2005	<0.001	<0.001	<0.001	0.036 (O)	<0.001	<0.001	<0.001	<0.001	<0.001
12/12/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/4/2006		<0.001							
6/27/2006	<0.001	<0.001	0.024 (O)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/30/2006		<0.001							
12/4/2006	<0.001	<0.001	0.023 (O)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2/15/2007		<0.001							
6/23/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9/11/2007		<0.001							
12/11/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/11/2008		<0.001							
6/23/2008	<0.001	<0.001					<0.001	<0.001	<0.001
6/24/2008			0.02 (O)	<0.001	0.02	<0.001			
11/3/2008		<0.001							
12/4/2008	<0.001	<0.001					<0.001	<0.001	<0.001
12/5/2008			<0.001	<0.001	<0.001	<0.001			
3/25/2009		<0.001							
7/7/2009	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
7/8/2009							<0.001	<0.001	<0.001
9/14/2009		<0.001							
12/20/2009	<0.001	<0.001				<0.001			
12/21/2009			<0.001	<0.001	<0.001		<0.001	<0.001	<0.001
3/4/2010		<0.001							
6/20/2010	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
6/21/2010			<0.001						
9/14/2010		<0.001							
1/6/2011				<0.001		<0.001	<0.001		<0.001
1/7/2011	<0.001	<0.001	<0.001		<0.001			<0.001	
4/15/2011		<0.001							
7/7/2011	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/8/2011			<0.001						
9/25/2011		<0.001							
1/17/2012	<0.001	<0.001		<0.001		<0.001	<0.001	<0.001	<0.001
1/18/2012			<0.001		<0.001				
4/4/2012		<0.001							
7/9/2012	<0.001			<0.001		<0.001	<0.001	<0.001	<0.001
7/10/2012		<0.001	<0.001		<0.001				
10/9/2012		<0.001							
1/17/2013				<0.001		<0.001	<0.001	<0.001	<0.001
1/18/2013	<0.001	<0.001	<0.001		<0.001				

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
4/5/2013		<0.001							
7/16/2013				<0.001		<0.001	<0.001	<0.001	<0.001
7/17/2013	<0.001	<0.001	<0.001		<0.001				
10/11/2013		<0.001							
1/13/2014	0.013			<0.001		<0.001	<0.001	0.004	<0.001
1/14/2014		<0.001	0.005		<0.001				
4/3/2014		<0.001							
7/8/2014							<0.001	<0.001	<0.001
7/9/2014	0.0076 (J)	<0.001	<0.001	<0.001	<0.001	<0.001			
10/24/2014		<0.001							
1/12/2015			<0.001						
1/13/2015	0.0057 (J)			<0.001		<0.001	<0.001	<0.001	<0.001
1/14/2015		<0.001			<0.001				
5/10/2015		<0.001							
7/16/2015	0.009 (J)		<0.001	<0.001		<0.001	<0.001	0.0044 (J)	<0.001
7/17/2015		<0.001			<0.001				
10/6/2015		<0.001							
1/17/2016						<0.001			
1/18/2016	0.0094 (J)	<0.001	0.0055 (J)	<0.001	<0.001			0.0034 (J)	<0.001
1/19/2016							<0.001		
4/26/2016		<0.001							
7/26/2016							0.0001 (J)		<0.001
7/27/2016	0.0058			<0.001		<0.001		0.0001 (J)	
7/28/2016		<0.001			<0.001				
7/29/2016			0.003 (J)						
8/30/2016		<0.001		<0.001	<0.001	<0.001			
8/31/2016							0.0002 (J)	0.0001 (J)	<0.001
9/1/2016	0.0663 (O)		0.0166 (O)						
10/24/2016		<0.001							
10/25/2016	0.0003 (J)					<0.001			
10/26/2016			0.0057	0.0002 (J)	<0.001		0.0001 (J)	0.0001 (J)	<0.001
1/3/2017		0.0001 (J)		0.0001 (J)					
1/4/2017						<0.001	0.0002 (J)	<0.001	
1/5/2017					0.0003 (J)				0.0002 (J)
1/6/2017	0.006		0.0053						
4/3/2017		0.0002 (J)							
4/4/2017			0.0092			<0.001			
4/5/2017								0.0003 (J)	
4/6/2017	0.0109			0.0003 (J)	0.0002 (J)		0.0003 (J)		0.0005 (J)
7/10/2017								0.0003 (J)	
7/11/2017		0.0001 (J)					0.0002 (J)		
7/12/2017			0.006	0.0002 (J)	0.0002 (J)	<0.001			0.0005 (J)
7/13/2017	0.007								
10/2/2017		0.0001 (J)							
10/3/2017				0.0002 (J)	0.0001 (J)	<0.001	0.0003 (J)		
10/4/2017	0.0042 (J)		0.0057					0.0001 (J)	0.0007 (J)
1/9/2018	0.0098	0.0001 (J)			0.0003 (J)				
1/10/2018				0.0003 (J)		0.0001 (J)			0.0009 (J)
1/11/2018			0.0085				0.0003 (J)	0.0002 (J)	
7/9/2018		<0.001							
7/10/2018				<0.001	<0.001	<0.001			
7/11/2018	0.0028 (J)		0.0029 (J)				<0.001	<0.001	0.0015 (J)

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
1/16/2019	<0.025 (O)	<0.001	<0.001	<0.001	<0.001	<0.001			0.00061 (J)
1/17/2019							0.00028 (J)	<0.001	
3/25/2019	0.0019 (J)	<0.001	<0.001						
3/26/2019				<0.001	<0.001	<0.001			<0.001
3/27/2019							0.00029 (J)	<0.001	
8/26/2019	0.013 (J)	<0.001							
8/27/2019			0.001 (J)		0.0011 (J)	<0.001	0.00021 (J)	<0.001	0.0001 (J)
8/28/2019				0.0011 (J)					
10/7/2019		<0.001							
10/8/2019	0.0098 (J)						0.00028 (J)		0.00013 (J)
10/9/2019			0.00041 (J)	0.0025 (J)	0.00033 (J)	<0.001		6.6E-05 (J)	
4/6/2020	0.0024 (J)	0.0001 (J)							
4/7/2020			0.00073 (J)	0.0014 (J)	0.00063 (J)	0.00012 (J)	0.00036 (J)	8.1E-05 (J)	
4/8/2020									0.00017 (J)
8/17/2020		<0.001						4.9E-05 (J)	7.6E-05 (J)
8/18/2020							0.00035 (J)		
8/19/2020	0.0044 (J)		0.00048 (J)	7.9E-05 (J)	0.00014 (J)	<0.001			
9/28/2020	0.0043 (J)	<0.001				4.3E-05 (J)			6.4E-05 (J)
9/29/2020							0.00032 (J)	3.7E-05 (J)	
9/30/2020				0.0012 (J)	8E-05 (J)				
10/1/2020			0.00026 (J)						
3/10/2021			0.0003 (J)	5.2E-05 (J)	9.6E-05 (J)	0.0001 (J)	0.00042 (J)	6.8E-05 (J)	
3/11/2021	0.0079								
3/12/2021		9.3E-05 (J)							
3/15/2021									0.00013 (J)
9/21/2021	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001
9/23/2021						<0.001			

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.001	<0.001	<0.001	<0.001					<0.001
11/21/2000	<0.001	<0.001	<0.001	<0.001	0.0069				<0.001
1/20/2001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
3/14/2001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
7/16/2001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
11/1/2001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
11/20/2002	0.011 (O)	<0.001	<0.001	<0.001	<0.001				0.0086 (O)
6/6/2003	<0.001	<0.001	0.099 (O)	<0.001	<0.001				<0.001
12/12/2003	<0.001	0.0065	0.017 (O)	<0.001	<0.001				<0.001
5/26/2004	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
12/7/2004	<0.001	<0.001	<0.001	<0.001	<0.001				0.0051
6/21/2005	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
12/12/2005	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
4/4/2006	<0.001		<0.001						
6/27/2006	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
8/30/2006	<0.001		<0.001						
12/4/2006	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
2/15/2007	<0.001		<0.001						
6/23/2007	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
9/11/2007	<0.001		<0.001						
12/11/2007	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
3/11/2008	<0.001		<0.001						
6/23/2008									<0.001
6/24/2008	<0.001	<0.001	<0.001	<0.001	<0.001				
11/3/2008	<0.001		<0.001						
12/4/2008	<0.001				<0.001				<0.001
12/5/2008		<0.001	<0.001	<0.001					
3/25/2009	<0.001		<0.001						
7/8/2009	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
9/14/2009	<0.001		<0.001						
12/20/2009	<0.001	<0.001	<0.001		<0.001				
12/21/2009				<0.001					<0.001
3/4/2010	<0.001		<0.001						
6/20/2010	<0.001	<0.001			<0.001				<0.001
6/21/2010			<0.001	<0.001		<0.001	<0.001	<0.001	
9/14/2010	<0.001		<0.001						
1/6/2011					<0.001				
1/7/2011	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
4/15/2011	<0.001		<0.001						
7/7/2011	<0.001	<0.001	<0.001			<0.001			
7/8/2011				<0.001		<0.001	<0.001	<0.001	<0.001
9/25/2011	<0.001		<0.001						
1/17/2012	<0.001	<0.001			<0.001				
1/18/2012			<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
4/4/2012	<0.001		<0.001						
7/9/2012	<0.001	<0.001			<0.001				
7/10/2012			<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
10/9/2012	<0.001		<0.001						
1/17/2013					<0.001				
1/18/2013	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
4/5/2013	<0.001		<0.001						

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/17/2013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10/11/2013	<0.001		<0.001						
1/13/2014		<0.001			<0.001				
1/14/2014	<0.001		<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
4/3/2014	<0.001		<0.001						
7/9/2014	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		<0.001
7/10/2014						<0.001		<0.001	
10/24/2014	<0.001		<0.001						
1/12/2015						<0.001			
1/13/2015		<0.001			<0.001				
1/14/2015	<0.001		<0.001	<0.001			<0.001	<0.001	<0.001
5/10/2015	<0.001								
5/11/2015			<0.001						
7/16/2015		<0.001	<0.001		<0.001				
7/17/2015	<0.001						<0.001		<0.001
7/18/2015				<0.001		<0.001		<0.001	
1/17/2016	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001		
1/18/2016				<0.001				<0.001	<0.001
4/26/2016	<0.001		<0.001						
7/27/2016	<0.001	<0.001			<0.001				
7/28/2016			<0.001			<0.001	<0.001		<0.001
7/29/2016				<0.001				0.0004 (J)	
8/31/2016					<0.001			0.0003 (J)	0.0007 (J)
9/1/2016	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001		
10/25/2016	<0.001	<0.001	0.0002 (J)			0.0001 (J)	<0.001		
10/26/2016				<0.001	<0.001			0.0003 (J)	
10/27/2016									<0.001
1/4/2017			0.0001 (J)			<0.001	<0.001	0.0003 (J)	
1/5/2017	<0.001	<0.001		<0.001	<0.001				
1/6/2017									<0.001
4/3/2017		0.0003 (J)							
4/4/2017	0.0001 (J)				0.0002 (J)	7E-05 (J)	9E-05 (J)		
4/5/2017			0.0002 (J)	0.0009 (J)					
4/6/2017								0.0003 (J)	0.0001 (J)
7/11/2017	8E-05 (J)	0.0001 (J)				<0.001		0.0002 (J)	
7/12/2017			0.0001 (J)						<0.001
7/13/2017				<0.001	0.0003 (J)		7E-05 (J)		
10/2/2017	0.0001 (J)	0.0002 (J)				<0.001			
10/3/2017			0.0001 (J)		<0.001		0.0001 (J)		
10/4/2017				0.0001 (J)				0.0008 (J)	9E-05 (J)
1/9/2018	<0.001	0.0002 (J)					9E-05 (J)		
1/10/2018			0.0002 (J)		8E-05 (J)	0.0002 (J)			
1/11/2018				0.0001 (J)				0.0009 (J)	0.0002 (J)
7/9/2018	<0.001					<0.001			
7/10/2018		<0.001	<0.001		<0.001		<0.001		
7/11/2018				<0.001				0.001 (J)	<0.001
1/16/2019	<0.001			<0.001					
1/17/2019		<0.001	<0.001				<0.001		
1/18/2019								0.0012 (J)	<0.001
1/21/2019					<0.001	<0.001			
3/25/2019						<0.001			
3/26/2019	<0.001	<0.001	<0.001	<0.001			<0.001		



# Time Series

Constituent: Lead (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
3/27/2019								0.00047 (J)	<0.001
7/30/2019					0.0002 (J)				
8/27/2019	0.00051 (J)	0.00033 (J)			<0.001			0.003 (J)	
8/28/2019			0.0001 (J)	<0.001		6.5E-05 (J)	0.00018 (J)		6.1E-05 (J)
10/8/2019	<0.001	0.00012 (J)	0.0001 (J)				0.00016 (J)		
10/9/2019				0.00015 (J)	6.4E-05 (J)	0.00018 (J)		0.00032 (J)	<0.001
4/7/2020	<0.001	8.6E-05 (J)	0.00023 (J)				<0.001	0.00067 (J)	
4/8/2020				8.4E-05 (J)	<0.001	<0.001			0.00021 (J)
8/18/2020	<0.001	9E-05 (J)	0.00017 (J)	0.00014 (J)	<0.001	<0.001	0.00027 (J)	0.00072 (J)	
8/19/2020									9.6E-05 (J)
9/29/2020	<0.001				<0.001				
9/30/2020		4.7E-05 (J)	9.1E-05 (J)	6E-05 (J)		<0.001	5.4E-05 (J)	0.00023 (J)	
10/1/2020									3.8E-05 (J)
3/10/2021								0.00016 (J)	0.00012 (J)
3/11/2021				0.00019 (J)					
3/12/2021		5.3E-05 (J)				<0.001			
3/15/2021					4.1E-05 (J)				
3/16/2021	<0.001		7.3E-05 (J)				<0.001		
9/21/2021								<0.001	
9/22/2021	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
9/23/2021		<0.001							

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	5.7E-05 (J)	9.4E-05 (J)	9.5E-05 (J)	0.00015 (J)	0.00022 (J)
9/21/2021				<0.001	<0.001
9/22/2021	<0.001	<0.001			
9/23/2021			<0.001		

# Time Series

Constituent: Lithium (mg/L)    Analysis Run 11/21/2021 9:36 AM    View: Descriptive  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
8/30/2016		<0.03		0.0042 (J)	<0.03	<0.03			
8/31/2016							<0.03	<0.03	<0.03
9/1/2016	<0.03		0.0092 (J)						
10/24/2016		<0.03							
10/25/2016	<0.03					<0.03			
10/26/2016			0.0046 (J)	<0.03	<0.03		<0.03	<0.03	<0.03
1/3/2017		<0.03		0.0024 (J)					
1/4/2017						<0.03	<0.03	<0.03	
1/5/2017					<0.03				<0.03
1/6/2017	<0.03		0.0042 (J)						
4/3/2017		<0.03							
4/4/2017			0.0056 (J)			<0.03			
4/5/2017								0.0012 (J)	
4/6/2017	<0.03			0.0051 (J)	<0.03		<0.03		<0.03
7/10/2017								<0.03	
7/11/2017		<0.03					<0.03		
7/12/2017			0.0035 (J)	0.0031 (J)	<0.03	<0.03			<0.03
7/13/2017	<0.03								
10/2/2017		<0.03							
10/3/2017				0.0027 (J)	<0.03	<0.03	<0.03		
10/4/2017	<0.03		0.0041 (J)					<0.03	<0.03
1/9/2018	<0.03	<0.03				<0.03			
1/10/2018				0.0041 (J)		<0.03			<0.03
1/11/2018			0.0052 (J)				<0.03	<0.03	
7/9/2018		0.001 (J)							
7/10/2018				0.005 (J)	<0.03	<0.03			
7/11/2018	<0.03		0.0039 (J)				<0.03	0.00098 (J)	<0.03
8/26/2019	<0.03	0.0012 (J)							
8/27/2019			0.013 (J)		<0.03	<0.03	<0.03	0.00094 (J)	<0.03
8/28/2019				<0.03					
10/7/2019		0.0012 (J)							
10/8/2019	<0.03						<0.03		<0.03
10/9/2019			0.013 (J)	<0.03	<0.03	<0.03		0.0011 (J)	
4/6/2020	<0.03	0.00086 (J)							
4/7/2020			0.014 (J)	<0.03	<0.03	<0.03	<0.03	0.00094 (J)	
4/8/2020									<0.03
8/17/2020		0.001 (J)						0.00091 (J)	<0.03
8/18/2020							<0.03		
8/19/2020	<0.03		0.014 (J)	<0.03	<0.03	<0.03			
9/28/2020	<0.03	0.001 (J)				<0.03			<0.03
9/29/2020							<0.03	0.00086 (J)	
9/30/2020				<0.03	<0.03				
10/1/2020			0.013 (J)						
3/10/2021			0.012 (J)	<0.03	<0.03	<0.03	<0.03	0.00095 (J)	
3/11/2021	<0.03								
3/12/2021		0.0013 (J)							
3/15/2021									<0.03
9/21/2021	<0.03	0.00092 (J)	0.016 (J)	<0.03	<0.03		<0.03	0.00091 (J)	0.00087 (J)
9/23/2021						<0.03			

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016					<0.03			<0.03	<0.05 (O)
9/1/2016	<0.03	<0.03	<0.03	0.0066 (J)		<0.03	<0.03		
10/25/2016	<0.03	<0.03	<0.03			<0.03	<0.03		
10/26/2016				0.0065 (J)	<0.03			<0.03	
10/27/2016									0.0023 (J)
1/4/2017			<0.03			<0.03	<0.03	<0.03	
1/5/2017	<0.03	<0.03		0.0062 (J)	<0.03				
1/6/2017									0.0021 (J)
4/3/2017		<0.03							
4/4/2017	<0.03				<0.03	<0.03	<0.03		
4/5/2017			<0.03	0.007 (J)					
4/6/2017								<0.03	0.0021 (J)
7/11/2017	<0.03	<0.03				<0.03		<0.03	
7/12/2017			<0.03						0.0017 (J)
7/13/2017				0.0069 (J)	<0.03		<0.03		
10/2/2017	<0.03	<0.03				<0.03			
10/3/2017			<0.03		<0.03		<0.03		
10/4/2017				0.0082 (J)				<0.03	0.0021 (J)
1/9/2018	<0.03	<0.03					<0.03		
1/10/2018			<0.03		<0.03	<0.03			
1/11/2018				0.0061 (J)				<0.03	0.0022 (J)
7/9/2018	<0.03					<0.03			
7/10/2018		<0.03	<0.03		<0.03		<0.03		
7/11/2018				0.0075 (J)				<0.03	0.0019 (J)
7/30/2019					<0.03				
8/27/2019	<0.03	<0.03			<0.03			<0.03	
8/28/2019			<0.03	0.0041 (J)		<0.03	<0.03		0.0018 (J)
10/8/2019	<0.03	<0.03	<0.03				<0.03		
10/9/2019				0.0046 (J)	<0.03	<0.03		<0.03	0.0018 (J)
4/7/2020	<0.03	<0.03	<0.03				<0.03	<0.03	
4/8/2020				0.0051 (J)	<0.03	<0.03			0.0018 (J)
8/18/2020	<0.03	<0.03	<0.03	0.0065 (J)	<0.03	<0.03	<0.03	<0.03	
8/19/2020									0.0019 (J)
9/29/2020	<0.03				<0.03				
9/30/2020		<0.03	<0.03	0.0041 (J)		<0.03	<0.03	<0.03	
10/1/2020									0.0019 (J)
3/10/2021								<0.03	0.0018 (J)
3/11/2021				0.0036 (J)					
3/12/2021		<0.03				<0.03			
3/15/2021					<0.03				
3/16/2021	<0.03		<0.03				<0.03		
9/21/2021								<0.03	
9/22/2021	<0.03		<0.03	0.005 (J)	<0.03	<0.03	<0.03		0.0015 (J)
9/23/2021		<0.03							

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.03	<0.03	<0.03	<0.03	<0.03
9/21/2021				<0.03	<0.03
9/22/2021	<0.03	<0.03			
9/23/2021			<0.03		

# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
8/30/2016		<0.0002		<0.0002	<0.0002	4E-05 (J)			
8/31/2016							<0.0002	<0.0002	<0.0002
9/1/2016	0.00017 (J)		<0.0002						
10/24/2016		<0.0002							
10/25/2016	<0.0002					<0.0002			
10/26/2016			<0.0002	<0.0002	<0.0002		<0.0002	<0.0002	<0.0002
1/3/2017		<0.0002		<0.0002					
1/4/2017						<0.0002	<0.0002	<0.0002	
1/5/2017					<0.0002				<0.0002
1/6/2017	<0.0002		<0.0002						
4/3/2017		<0.0002							
4/4/2017			<0.0002			<0.0002			
4/5/2017								<0.0002	
4/6/2017	4E-05 (J)			<0.0002	<0.0002		<0.0002		0.00013 (J)
7/10/2017								<0.0002	
7/11/2017		<0.0002					<0.0002		
7/12/2017			<0.0002	<0.0002	<0.0002	<0.0002			<0.0002
7/13/2017	<0.0002								
10/2/2017		<0.0002							
10/3/2017				<0.0002	<0.0002	<0.0002	<0.0002		
10/4/2017	0.0001 (J)		<0.0002					<0.0002	<0.0002
1/9/2018	<0.0002	<0.0002			<0.0002				
1/10/2018				<0.0002		<0.0002			<0.0002
1/11/2018			<0.0002			<0.0002	<0.0002	<0.0002	
7/9/2018		<0.0002							
7/10/2018				<0.0002	<0.0002	<0.0002			
7/11/2018	<0.0002		<0.0002				<0.0002	<0.0002	<0.0002
1/16/2019	<0.0002	<0.0002	4.9E-05 (J)	<0.0002	4.3E-05 (J)	<0.0002			<0.0002
1/17/2019							<0.0002	<0.0002	
8/26/2019	<0.0002	<0.0002							
8/27/2019			<0.0002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/28/2019				<0.0002					
10/9/2019				<0.0002					
8/17/2020		<0.0002						<0.0002	<0.0002
8/18/2020							<0.0002		
8/19/2020	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002			
9/21/2021	0.0001 (J)	0.00011 (J)	0.0001 (J)	0.0001 (J)	0.0001 (J)		0.0001 (J)	0.0001 (J)	0.0001 (J)
9/23/2021						0.0001 (J)			

# Time Series

Constituent: Mercury (mg/L)    Analysis Run 11/21/2021 9:36 AM    View: Descriptive  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016					<0.0002			<0.0002	<0.0002
9/1/2016	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002		
10/25/2016	<0.0002	<0.0002	<0.0002			<0.0002	<0.0002		
10/26/2016				<0.0002	<0.0002			<0.0002	
10/27/2016									<0.0002
1/4/2017			<0.0002			<0.0002	<0.0002	<0.0002	
1/5/2017	<0.0002	<0.0002		<0.0002	<0.0002				
1/6/2017									<0.0002
4/3/2017		<0.0002							
4/4/2017	<0.0002				<0.0002	<0.0002	<0.0002		
4/5/2017			<0.0002	<0.0002					
4/6/2017								<0.0002	<0.0002
7/11/2017	<0.0002	<0.0002				<0.0002		<0.0002	
7/12/2017			<0.0002						<0.0002
7/13/2017				<0.0002	<0.0002		<0.0002		
10/2/2017	<0.0002	<0.0002				<0.0002			
10/3/2017			<0.0002		<0.0002		<0.0002		
10/4/2017				<0.0002				<0.0002	5E-05 (J)
1/9/2018	<0.0002	<0.0002					<0.0002		
1/10/2018			<0.0002		<0.0002	<0.0002			
1/11/2018				<0.0002				<0.0002	<0.0002
7/9/2018	<0.0002					<0.0002			
7/10/2018		<0.0002	<0.0002		<0.0002		<0.0002		
7/11/2018				<0.0002				<0.0002	<0.0002
1/16/2019	<0.0002			<0.0002					
1/17/2019		<0.0002	<0.0002				<0.0002		
1/18/2019								<0.0002	<0.0002
1/21/2019					<0.0002	<0.0002			
7/30/2019					<0.0002				
8/27/2019	<0.0002	<0.0002			<0.0002			<0.0002	
8/28/2019			<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		<0.0002
8/18/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
8/19/2020									<0.0002
9/21/2021								0.0001 (J)	
9/22/2021	0.00011 (J)		0.0001 (J)	0.00011 (J)	0.0001 (J)	0.00011 (J)	0.00011 (J)		0.00011 (J)
9/23/2021		0.0001 (J)							

# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
9/21/2021				0.0001 (J)	0.00011 (J)
9/22/2021	0.00011 (J)	0.0001 (J)			
9/23/2021			0.0001 (J)		



# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
8/30/2016		<0.01		<0.01	<0.01	0.175			
8/31/2016							<0.01	<0.01	<0.01
9/1/2016	0.0098 (J)		0.035						
10/24/2016		<0.01							
10/25/2016	<0.01					0.242			
10/26/2016			0.0267	<0.01	<0.01		<0.01	<0.01	<0.01
1/3/2017		<0.01		<0.01					
1/4/2017						0.167	<0.01	<0.01	
1/5/2017					<0.01				<0.01
1/6/2017	<0.01		0.0278						
4/3/2017		<0.01							
4/4/2017			0.0265			0.172			
4/5/2017								<0.01	
4/6/2017	<0.01			<0.01	<0.01		<0.01		<0.01
7/10/2017								<0.01	
7/11/2017		<0.01					<0.01		
7/12/2017			0.0209	<0.01	<0.01	0.182			<0.01
7/13/2017	0.0013 (J)								
10/2/2017		<0.01							
10/3/2017				<0.01	<0.01	0.162	<0.01		
10/4/2017	0.0013 (J)		0.0181					<0.01	<0.01
1/9/2018	<0.01	<0.01			<0.01				
1/10/2018				<0.01		0.117			<0.01
1/11/2018			0.0237				0.0018 (J)	<0.01	
7/9/2018		<0.01							
7/10/2018				<0.01	<0.01	0.11			
7/11/2018	<0.01		0.024				<0.01	<0.01	<0.01
8/26/2019	<0.01	<0.01							
8/27/2019			0.1		0.0026 (J)	0.06	<0.01	<0.01	<0.01
8/28/2019				0.0012 (J)					
10/7/2019		<0.01							
10/8/2019	<0.01						<0.01		<0.01
10/9/2019			0.1	<0.01	<0.01	0.06		<0.01	
4/6/2020	<0.01	<0.01							
4/7/2020			0.13	<0.01	<0.01	0.014	<0.01	<0.01	
4/8/2020									0.0056 (J)
8/17/2020		<0.01						<0.01	<0.01
8/18/2020							0.00077 (J)		
8/19/2020	<0.01		0.16	<0.01	0.001 (J)	0.061			
9/28/2020	<0.01	<0.01				0.059			<0.01
9/29/2020							<0.01	<0.01	
9/30/2020				<0.01	0.00097 (J)				
10/1/2020			0.15						
3/10/2021			0.12	<0.01	0.0013 (J)	0.057	<0.01	<0.01	
3/11/2021	<0.01								
3/12/2021		<0.01							
3/15/2021									<0.01
9/21/2021	<0.01	<0.01	0.12	<0.01	<0.01		<0.01	<0.01	<0.01
9/23/2021						0.06			

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016					<0.01			<0.01	<0.01
9/1/2016	0.0027 (J)	0.132	0.08	<0.01		0.296	0.0686		
10/25/2016	0.0028 (J)	0.117	0.08			0.395	0.0018 (J)		
10/26/2016				<0.01	<0.01			<0.01	
10/27/2016									<0.01
1/4/2017			0.0786			0.229	0.0222	<0.01	
1/5/2017	0.0022 (J)	0.109		<0.01	<0.01				
1/6/2017									<0.01
4/3/2017		0.0994							
4/4/2017	0.0022 (J)				<0.01	0.147	0.0476		
4/5/2017			0.113	<0.01					
4/6/2017								<0.01	<0.01
7/11/2017	0.0024 (J)	0.0938				0.136		<0.01	
7/12/2017			0.178						<0.01
7/13/2017				<0.01	<0.01		0.0105		
10/2/2017	0.0025 (J)	0.103				0.13			
10/3/2017			0.201		<0.01		0.0031 (J)		
10/4/2017				<0.01				<0.01	<0.01
1/9/2018	0.0038 (J)	0.106					0.09		
1/10/2018			0.161		<0.01	0.229			
1/11/2018				<0.01				<0.01	<0.01
7/9/2018	0.01					0.13			
7/10/2018		0.088	0.14		<0.01		0.047		
7/11/2018				<0.01				<0.01	<0.01
7/30/2019					<0.01				
8/27/2019	0.028	0.095			<0.01			<0.01	
8/28/2019			0.22	0.004 (J)		0.11	0.07		<0.01
10/8/2019	0.034	0.091	0.2				0.078		
10/9/2019				0.0036 (J)	<0.01	0.071		<0.01	<0.01
4/7/2020	0.014	0.07	0.25				0.012	<0.01	
4/8/2020				0.0024 (J)	<0.01	0.06			<0.01
8/18/2020	0.017	0.12	0.15	0.00092 (J)	<0.01	0.097	0.069	<0.01	
8/19/2020									<0.01
9/29/2020	0.0089 (J)				<0.01				
9/30/2020		0.11	0.15	0.0041 (J)		0.33	0.028	<0.01	
10/1/2020									<0.01
3/10/2021								<0.01	<0.01
3/11/2021				0.0038 (J)					
3/12/2021		0.098				0.53			
3/15/2021					<0.01				
3/16/2021	0.0054 (J)		0.31				0.024		
9/21/2021								<0.01	
9/22/2021	0.018		0.22	0.0053 (J)	<0.01	0.5	0.0019 (J)		<0.01
9/23/2021		0.094							

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			0.0011 (J)	<0.01	<0.01
1/21/2021	<0.01	0.0014 (J)			
3/11/2021	<0.01	0.0035 (J)	0.0015 (J)	<0.01	<0.01
9/21/2021				<0.01	<0.01
9/22/2021	<0.01	0.0032 (J)			
9/23/2021			<0.01		

# Time Series

Constituent: pH (SU) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
7/16/2013			6.22	5.95	5.25	5.38	5.2	4.17	4.95
10/11/2014		4.42							
10/24/2016		4.36							
10/25/2016	6.17					5.51			
10/26/2016			6.06	5.27	5.21		5.08	4.04	4.95
1/3/2017		4.28		5.09					
1/4/2017						5.46	5.06	4.01	
1/5/2017					5.2				4.97
1/6/2017	6.16		6.02						
4/3/2017		4.29							
4/4/2017			6.08			5.43			
4/5/2017								4	4.81
4/6/2017	6.26			5.22	5.17		4.97		
7/10/2017								3.89	
7/11/2017		4.35					5.26		
7/12/2017			5.93	5.29	5.24	5.46			4.83
7/13/2017	5.99								
10/2/2017		4.32							
10/3/2017				5.08	5.36	5.65	5.07		
10/4/2017	6.16		5.77					4.06	4.71
1/9/2018	6.43	4.44			5.4				
1/10/2018				5.83		5.67			5.17
1/11/2018			5.98				5.18	3.96	
7/9/2018		4.4							
7/10/2018				6.42	5.31	5.71			
7/11/2018	6.1		6.01				4.82	3.95	4.49
1/16/2019	6.05	6.16 (O)	5.83	6.66	5.99	5.59			6.45 (O)
1/17/2019							4.91	3.89	
3/25/2019	6.06	4.4	5.74						
3/26/2019				5.1	5.94	5.77			4.96
3/27/2019							5.18	4.11	
8/26/2019	5.91	4.26							
8/27/2019			5.7		5.67	5.84	5.17	4.02	4.9
8/28/2019				5.95					
10/7/2019		4.24							
10/8/2019	5.74						4.93		4.81
10/9/2019			5.79	6.11	5.66	5.82		4.25	
4/6/2020	6.02	4.52							
4/7/2020			5.74	5.45	5.86	5.3	5.05	4.1	
4/8/2020									4.81
8/17/2020		4.23						3.94	4.65
8/18/2020							4.41		
8/19/2020	5.81 (D)		5.7	5.14 (D)	5.21	5.73			
9/28/2020	5.86	4.41				5.79			4.76
9/29/2020							4.77	3.95	
9/30/2020				4.99	5.39				
10/1/2020			5.75						
3/10/2021			5.23	4.73	5.69	5.42	4.97	4.08	
3/11/2021	5.85								
3/12/2021		4.54							
3/15/2021									4.74
9/21/2021	6.03	4.44	5.78	4.68	5.4		4.92	4.05	4.83

# Time Series

Constituent: pH (SU) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
9/23/2021						6.06			

# Time Series

Constituent: pH (SU) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/16/2013	4.62	5.96	4.92	4.55	4.52	6.1	5.71	4.91	5.05
10/11/2014	4.58		5.17						
10/25/2016	4.79	6.46	5.58			6.06	5.41		
10/26/2016				4.45	4.48			4.6	
10/27/2016									4.65
1/4/2017			5.51			6.05	5.6	4.63	
1/5/2017	4.73	6.25		4.45	4.85				
1/6/2017									4.56
4/3/2017		6.25							
4/4/2017	4.68				4.58	6.03	5.94		
4/5/2017			5.51	4.33					
4/6/2017								4.79	4.5
7/11/2017	4.72	6.5				5.96		4.73	
7/12/2017			5.84						4.56
7/13/2017				4.11	4.74		5.6		
10/2/2017	5.13	6.83				5.88			
10/3/2017			5.55		4.57		5.18		
10/4/2017				4.09				4.74	4.72
1/9/2018	5.59	6.57					6.14		
1/10/2018			5.99		5.31	6.21			
1/11/2018				4.4				5.22	4.34
7/9/2018	5.11					6.24			
7/10/2018		6.42	5.5		4.58		5.7		
7/11/2018				4.07				4.68	4.68
1/16/2019	6.82			4.05					
1/17/2019		8.44 (O)	7.13				7.39		
1/18/2019								6.98 (O)	6.87 (O)
1/21/2019					5.05	7.73 (O)			
3/25/2019						6.28			
3/26/2019	5.74	6.65	5.57	4.62			6.08		
3/27/2019								4.77	4.38
7/30/2019					4.74				
8/27/2019	5.58	6.57			4.77			4.89	
8/28/2019			5.57	4.62		6.34	6.05		4.68
10/8/2019	5.68	6.65	5.54				6.09		
10/9/2019				4.66	4.79	6.5		4.68	4.62
4/7/2020	6.2	6.83	5.94				6	4.8	
4/8/2020				4.71	4.66	6.31			4.73
8/18/2020	5.56	6.39	5.52	4.31	4.6	5.89	5.82	4.52	
8/19/2020									4.58
9/29/2020	5.69				4.6				
9/30/2020		6.71	5.47	4.08		6.04	5.82	4.63	
10/1/2020									4.42
3/10/2021								4.82	4.55
3/11/2021				5.2					
3/12/2021		6.21				5.86			
3/15/2021					4.56				
3/16/2021	5.53		5.67				5.74		
9/21/2021								4.72	
9/22/2021	5.76		5.57	4.63	4.71	6	5.39		4.7
9/23/2021		6.48							

# Time Series

Constituent: pH (SU) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			6.25	5.66	5.68
1/21/2021	5.75	6.13			
3/11/2021	5.82	6.47	6.31	6	5.12
9/21/2021				5.88	5.97
9/22/2021	6.39	6.76			
9/23/2021			6.21		

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	0.014 (O)	<0.005	<0.005	0.017	<0.005	<0.005	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	<0.005	0.015 (O)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/1/2001	<0.005	<0.005	0.012 (O)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/25/2002	<0.005	<0.005	0.01	<0.005	<0.005	0.012	<0.005	<0.005	<0.005
11/20/2002		<0.005	0.026 (O)	0.0064	0.008	0.19 (O)	<0.005	<0.005	<0.005
6/6/2003	<0.005	<0.005	0.022 (O)	0.011	0.0066	0.32 (O)	<0.005	<0.005	<0.005
12/12/2003	<0.005	<0.005	0.028 (O)	<0.005	0.0056	0.013	<0.005	<0.005	<0.005
5/26/2004	<0.005	<0.005	0.012 (O)	0.007	0.0084	0.017	<0.005	<0.005	<0.005
12/7/2004	<0.005	<0.005	0.0073	<0.005	<0.005	0.011	<0.005	<0.005	<0.005
6/21/2005	<0.005	<0.005	0.0087	0.0063	0.0062	0.0088	<0.005	<0.005	<0.005
12/12/2005	<0.005	<0.005	0.013 (O)	<0.005	<0.005	0.011	<0.005	<0.005	<0.005
4/4/2006		<0.005							
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006		<0.005							
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/15/2007		<0.005							
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/11/2007		<0.005							
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/11/2008		<0.005							
6/23/2008	<0.005	<0.005					<0.005	<0.005	<0.005
6/24/2008			<0.005	<0.005	<0.005	<0.005			
11/3/2008		<0.005							
12/4/2008	<0.005	<0.005					<0.005	<0.005	<0.005
12/5/2008			<0.005	<0.005	<0.005	<0.005			
3/25/2009		<0.005							
7/7/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
7/8/2009							<0.005	<0.005	<0.005
9/14/2009		<0.005							
12/20/2009	<0.005	<0.005				<0.005			
12/21/2009			<0.005	<0.005	<0.005		<0.005	<0.005	<0.005
3/4/2010		<0.005							
6/20/2010	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
6/21/2010			<0.005						
9/14/2010		<0.005							
1/6/2011				<0.005		<0.005	<0.005		<0.005
1/7/2011	<0.005	<0.005	<0.005		<0.005			<0.005	
4/15/2011		<0.005							
7/7/2011	<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/8/2011			<0.005						
9/25/2011		<0.005							
1/17/2012	<0.005	<0.005		<0.005		<0.005	0.023	<0.005	<0.005
1/18/2012			<0.005		<0.005				
4/4/2012		<0.005							
7/9/2012	<0.005			<0.005		<0.005	0.016	<0.005	<0.005
7/10/2012		<0.005	<0.005		<0.005				
10/9/2012		<0.005							
1/17/2013				<0.005		<0.005	0.033	<0.005	<0.005
1/18/2013	0.009	<0.005	<0.005		<0.005				



# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
4/5/2013		<0.005							
7/16/2013				<0.005		0.012	0.0068	<0.005	<0.005
7/17/2013	0.011	<0.005	<0.005		<0.005				
10/11/2013		<0.005							
1/13/2014	0.012			<0.005		<0.005	0.036	<0.005	<0.005
1/14/2014		<0.005	<0.005		<0.005				
4/3/2014		<0.005							
7/8/2014							0.017	<0.005	<0.005
7/9/2014	0.011	<0.005	<0.005	<0.005	<0.005	<0.005			
10/24/2014		<0.005							
1/12/2015			<0.005						
1/13/2015	0.0092			<0.005		<0.005	0.027	<0.005	<0.005
1/14/2015		<0.005			<0.005				
5/10/2015		<0.005							
7/16/2015	0.014		<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
7/17/2015		<0.005			<0.005				
10/6/2015		<0.005							
1/17/2016						0.023			
1/18/2016	0.023	<0.005	<0.005	<0.005	<0.005			<0.005	<0.005
1/19/2016							0.023		
4/26/2016		<0.005							
7/26/2016							0.0056 (J)		<0.005
7/27/2016	0.0323			<0.005		0.002 (J)		0.0025 (J)	
7/28/2016		0.001 (J)			<0.005				
7/29/2016			0.0036 (J)						
8/30/2016		<0.005		<0.005	<0.005	0.002 (J)			
8/31/2016							0.0084 (J)	0.0019 (J)	<0.005
9/1/2016	0.0438		0.0067 (J)						
10/24/2016		0.0013 (J)							
10/25/2016	0.031					0.0022 (J)			
10/26/2016			0.0042 (J)	<0.005	<0.005		0.0052 (J)	0.002 (J)	<0.005
1/3/2017		<0.005		<0.005					
1/4/2017						0.0016 (J)	0.0062 (J)	<0.005	
1/5/2017					0.0014 (J)				<0.005
1/6/2017	0.0324		0.0042 (J)						
4/3/2017		<0.005							
4/4/2017			0.0043 (J)			0.0052 (J)			
4/5/2017								<0.005	
4/6/2017	0.0188 (J)			<0.005	<0.005		0.0195		<0.005
7/10/2017								<0.005	
7/11/2017		<0.005					<0.005		
7/12/2017			0.0033 (J)	<0.005	<0.005	0.0024 (J)			<0.005
7/13/2017	0.0118								
10/2/2017		<0.005							
10/3/2017				<0.005	<0.005	<0.005	0.0079 (J)		
10/4/2017	0.0195		0.0038 (J)					<0.005	<0.005
1/9/2018	<0.005	<0.005			<0.005				
1/10/2018				<0.005		0.0018 (J)			<0.005
1/11/2018			0.0029 (J)				0.0054 (J)	<0.005	
7/9/2018		<0.005							
7/10/2018				0.0018 (J)	0.0016 (J)	0.0026 (J)			
7/11/2018	<0.005		0.0015 (J)				0.0022 (J)	<0.005	<0.005

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
1/16/2019	0.0071 (J)	<0.005	<0.005	<0.005	<0.005	0.0018 (J)			<0.005
1/17/2019							<0.005	<0.005	
3/25/2019	<0.005	<0.005	<0.005						
3/26/2019				<0.005	0.05 (J)	0.0023 (J)			<0.005
3/27/2019							0.01 (J)	<0.005	
8/26/2019	<0.005	<0.005							
8/27/2019			<0.005		0.0033 (J)	0.0016 (J)	<0.005	<0.005	<0.005
8/28/2019				0.0033 (J)					
10/7/2019		<0.005							
10/8/2019	0.0072 (J)						<0.005		<0.005
10/9/2019			<0.005	0.0073 (J)	<0.005	0.0024 (J)		<0.005	
4/6/2020	0.0078 (J)	<0.005							
4/7/2020			0.0025 (J)	<0.005	<0.005	0.0013 (J)	0.0021 (J)	<0.005	
4/8/2020									<0.005
8/17/2020		<0.005						<0.005	<0.005
8/18/2020							0.0028 (J)		
8/19/2020	<0.005		<0.005	<0.005	<0.005	0.002 (J)			
9/28/2020	0.01 (J)	<0.005				<0.005			<0.005
9/29/2020							0.0024 (J)	<0.005	
9/30/2020				<0.005	0.0023 (J)				
10/1/2020			<0.005						
3/10/2021			0.0021 (J)	0.006	0.0049 (J)	0.0026 (J)	0.0044 (J)	0.003 (J)	
3/11/2021	<0.005								
3/12/2021		<0.005							
3/15/2021									<0.005
9/21/2021	<0.005	<0.005	<0.005	<0.005	0.0016 (J)		0.0038 (J)	<0.005	<0.005
9/23/2021						0.0018 (J)			

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.005	<0.005	<0.005	<0.005					<0.005
11/21/2000	0.052	<0.005	<0.005	<0.005	<0.005				<0.005
1/20/2001	0.053	<0.005	<0.005	<0.005	<0.005				<0.005
3/14/2001	0.049	<0.005	<0.005	<0.005	<0.005				<0.005
7/16/2001	0.038	<0.005	<0.005	<0.005	<0.005				<0.005
11/1/2001	0.022	<0.005	<0.005	<0.005	<0.005				<0.005
4/25/2002	0.1 (O)	<0.005	<0.005	<0.005	<0.005				<0.005
11/20/2002	0.018	0.0094	<0.005	<0.005	<0.005				<0.005
6/6/2003	<0.005	0.021 (O)	0.021 (O)	<0.005	<0.005				<0.005
12/12/2003	<0.005	0.016 (O)	0.0078	<0.005	<0.005				<0.005
5/26/2004	0.023	<0.005	0.0053	<0.005	0.005				<0.005
12/7/2004	0.019	<0.005	<0.005	<0.005	<0.005				<0.005
6/21/2005	0.019	<0.005	<0.005	<0.005	<0.005				0.0062
12/12/2005	0.0095	<0.005	<0.005	<0.005	<0.005				<0.005
4/4/2006	0.033		<0.005						
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
8/30/2006	<0.005		<0.005						
12/4/2006	0.032	<0.005	<0.005	<0.005	<0.005				<0.005
2/15/2007	0.034		<0.005						
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
9/11/2007	0.022		<0.005						
12/11/2007	0.045	<0.005	<0.005	<0.005	<0.005				<0.005
3/11/2008	0.02		<0.005						
6/23/2008									<0.005
6/24/2008	<0.005	<0.005	<0.005	<0.005	<0.005				
11/3/2008	0.052		<0.005						
12/4/2008	0.054				<0.005				<0.005
12/5/2008		<0.005	<0.005	<0.005					
3/25/2009	0.072		<0.005						
7/8/2009	0.021	<0.005	<0.005	<0.005	<0.005				<0.005
9/14/2009	0.015		<0.005						
12/20/2009	0.072	<0.005	<0.005		<0.005				
12/21/2009				<0.005					<0.005
3/4/2010	0.083		<0.005						
6/20/2010	0.1	<0.005			<0.005				<0.005
6/21/2010			<0.005	<0.005		<0.005	0.048	<0.005	
9/14/2010	0.085		<0.005						
1/6/2011					<0.005				
1/7/2011	0.028	<0.005	<0.005	<0.005		<0.005	0.014	<0.005	<0.005
4/15/2011	<0.005		<0.005						
7/7/2011	<0.005	<0.005	<0.005			<0.005			
7/8/2011				<0.005		<0.005	0.018	<0.005	<0.005
9/25/2011	0.02		<0.005						
1/17/2012	0.016	<0.005			<0.005				
1/18/2012			<0.005	<0.005		<0.005	<0.005	<0.005	<0.005
4/4/2012	0.0156		<0.005						
7/9/2012	<0.005	0.066 (O)			<0.005				
7/10/2012			<0.005	<0.005		<0.005	0.02	<0.005	<0.005
10/9/2012	0.0094		<0.005						
1/17/2013					<0.005				
1/18/2013	0.0067	0.04 (O)	<0.005	<0.005		0.005	0.015	<0.005	<0.005
4/5/2013	0.0077		<0.005						

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/17/2013	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	0.037	<0.005	<0.005
10/11/2013	0.0087		0.0069						
1/13/2014		<0.005			<0.005				
1/14/2014	0.012		<0.005	<0.005		<0.005	0.043	<0.005	<0.005
4/3/2014	0.022		<0.005						
7/9/2014	0.0089	<0.005	0.005	<0.005	<0.005		0.023		<0.005
7/10/2014						<0.005		<0.005	
10/24/2014	0.017		<0.005						
1/12/2015						<0.005			
1/13/2015		<0.005			<0.005				
1/14/2015	<0.005		<0.005	<0.005			0.022	<0.005	<0.005
5/10/2015	<0.005								
5/11/2015			<0.005						
7/16/2015		<0.005	<0.005		<0.005				
7/17/2015	<0.005						0.033		<0.005
7/18/2015				<0.005		<0.005		<0.005	
10/6/2015	<0.005		0.0073						
1/17/2016	<0.005	<0.005	0.0031 (J)		<0.005	<0.005	0.021		
1/18/2016				<0.005				<0.005	<0.005
4/26/2016	0.00428 (J)		0.00497 (J)						
7/27/2016	0.0038 (J)	<0.005			0.002 (J)				
7/28/2016			0.0076 (J)			<0.005	0.0341		<0.005
7/29/2016				0.0011 (J)				0.0022 (J)	
8/31/2016					<0.005			0.0014 (J)	<0.005
9/1/2016	0.0056 (J)	<0.005	0.0052 (J)	0.0012 (J)		<0.005	0.0297		
10/25/2016	0.0023 (J)	<0.005	0.0085 (J)			0.0014 (J)	0.0095 (J)		
10/26/2016				0.0013 (J)	0.0035 (J)			0.001 (J)	
10/27/2016									<0.005
1/4/2017			0.0048 (J)			0.0014 (J)	0.022	<0.005	
1/5/2017	0.0038 (J)	<0.005		0.0012 (J)	<0.005				
1/6/2017									<0.005
4/3/2017		<0.005							
4/4/2017	0.0064 (J)				<0.005	<0.005	0.0236		
4/5/2017			0.0068 (J)	<0.005					
4/6/2017								<0.005	<0.005
7/11/2017	0.0044 (J)	<0.005				<0.005		<0.005	
7/12/2017			0.0048 (J)						<0.005
7/13/2017				0.0018 (J)	<0.005		0.013		
10/2/2017	0.004 (J)	<0.005				<0.005			
10/3/2017			0.0051 (J)		<0.005		0.01 (J)		
10/4/2017				0.0042 (J)				0.0023 (J)	<0.005
1/9/2018	0.0019 (J)	0.0019 (J)					0.0162		
1/10/2018			0.0018 (J)		<0.005	<0.005			
1/11/2018				<0.005				<0.005	<0.005
7/9/2018	0.0029 (J)					<0.005			
7/10/2018		0.0086 (J)	0.0045 (J)		<0.005		0.016		
7/11/2018				0.0016 (J)				<0.005	<0.005
1/16/2019	0.0016 (J)			<0.005					
1/17/2019		0.0029 (J)	0.0031 (J)				0.011		
1/18/2019								<0.005	<0.005
1/21/2019					<0.005	0.0014 (J)			
3/25/2019						<0.005			

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
3/26/2019	0.0022 (J)	0.0074 (J)	0.0033 (J)	<0.005			0.022		
3/27/2019								<0.005	<0.005
7/30/2019					<0.005				
8/27/2019	0.0035 (J)	0.0092 (J)			<0.005			<0.005	
8/28/2019			0.004 (J)	<0.005		0.0014 (J)	0.019		<0.005
10/8/2019	0.0026 (J)	0.014	0.0023 (J)				0.019		
10/9/2019				<0.005	<0.005	<0.005		<0.005	<0.005
4/7/2020	0.005 (J)	0.0029 (J)	<0.005				0.012	<0.005	
4/8/2020				<0.005	<0.005	0.0013 (J)			<0.005
8/18/2020	0.0029 (J)	0.0022 (J)	0.0058 (J)	0.002 (J)	<0.005	<0.005	0.013	<0.005	
8/19/2020									<0.005
9/29/2020	0.0051 (J)				<0.005				
9/30/2020		<0.005	0.0037 (J)	<0.005		<0.005	0.0061 (J)	<0.005	
10/1/2020									<0.005
3/10/2021								<0.005	<0.005
3/11/2021				0.0016 (J)					
3/12/2021		0.0064				<0.005			
3/15/2021					<0.005				
3/16/2021	0.0034 (J)		0.0044 (J)				0.0055		
9/21/2021								<0.005	
9/22/2021	0.0034 (J)		0.0031 (J)	<0.005	<0.005	0.0024 (J)	0.0027 (J)		<0.005
9/23/2021		0.0016 (J)							

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.005	<0.005	<0.005	<0.005	<0.005
9/21/2021				<0.005	<0.005
9/22/2021	<0.005	<0.005			
9/23/2021			<0.005		

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
8/30/2016		140		100	120	87			
8/31/2016							64	1100	43
9/1/2016	73		210						
10/24/2016		160							
10/25/2016	26					83			
10/26/2016			230	130	120		56	900	29
1/3/2017		140		120					
1/4/2017						99	65	880	
1/5/2017					130				32
1/6/2017	23		220						
4/3/2017		140							
4/4/2017			230			110			
4/5/2017								990	
4/6/2017	25			140	150		110		49
7/10/2017								480	
7/11/2017		130					49		
7/12/2017			210	140	140	100			16
7/13/2017	65								
10/2/2017		150							
10/3/2017				130	140	63	140		
10/4/2017	13		290					760	33
1/9/2018	45	120			140				
1/10/2018				110		86			22
1/11/2018			210				270	780	
7/9/2018		123							
7/10/2018				48.1	128	77.7			
7/11/2018	37.7		177				211	598	17.8
1/16/2019	24.5	129	244	184	402	71.2			20.2
1/17/2019							50.3	454	
3/25/2019	14.7	152	245						
3/26/2019				222	319	73.8			33.6
3/27/2019							76.8	579	
10/7/2019		156							
10/8/2019	32.8						310		22
10/9/2019			38.5	90.8	255	76.3		392	
4/6/2020	20.3	123							
4/7/2020			221	180	180	83	446	297	
4/8/2020									30.7
9/28/2020	20	93.6				71.6			25.6
9/29/2020							516	237	
9/30/2020				339	339				
10/1/2020			178						
3/10/2021			160	572	1160	61.2	687	282	
3/11/2021	12								
3/12/2021		103							
3/15/2021									30.6
9/21/2021	11.1	96.5	232	829	645		433	315	36.6
9/23/2021						37.3			

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016					21			700	84
9/1/2016	730	120	430	310		180	36		
10/25/2016	420	100	360			79	16		
10/26/2016				280	100			850	
10/27/2016									76
1/4/2017			360			170	45	680	
1/5/2017	430	140		310	22				
1/6/2017									66
4/3/2017		150							
4/4/2017	600				29	300	46		
4/5/2017			440	460					
4/6/2017								220	79
7/11/2017	400	110				400		210	
7/12/2017			490						75
7/13/2017				490	20		33		
10/2/2017	470	56				390			
10/3/2017			780		20		34		
10/4/2017				1100				730	78
1/9/2018	440	84					29		
1/10/2018			470		9.5	99			
1/11/2018				810				180	110
7/9/2018	369					99.2			
7/10/2018		43	787		8.5		33.2		
7/11/2018				902				381	87.4
1/16/2019	291			422					
1/17/2019		45.2	780				24.1		
1/18/2019								107	56.9
1/21/2019					10.2	35.5			
3/25/2019						95.6			
3/26/2019	192	54	87.9	439			83.9		
3/27/2019								103	76.2
7/30/2019					12.3				
10/8/2019	428	45.8	872				85.6		
10/9/2019				346	10.1	58.5		80.2	41.1
4/7/2020	456	26.9	844				33.2	333	
4/8/2020				239	12.9	428			34.2
9/29/2020	93.5				8.6				
9/30/2020		18.5	736	193		956	306	65.5	
10/1/2020									35
3/10/2021								101	38.7
3/11/2021				244					
3/12/2021		21.1				933			
3/15/2021					10				
3/16/2021	92		821				343		
9/21/2021								52.4	
9/22/2021	444		1040	394	10.3	905	14.6		42.7
9/23/2021		124							



# Time Series

Constituent: Sulfate (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			1.6	1	0.88 (J)
1/21/2021	5	0.79 (J)			
3/11/2021	62.4	<1	0.52 (J)	<1	<1
9/21/2021				<1	<1
9/22/2021	84.6	<1			
9/23/2021			0.7 (J)		

# Time Series

Constituent: Thallium (mg/L)    Analysis Run 11/21/2021 9:36 AM    View: Descriptive  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
9/29/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/21/2000	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/20/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/14/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/16/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/1/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/12/2003	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001
5/26/2004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/7/2004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
6/21/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/12/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/4/2006		<0.001							
6/27/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/30/2006		<0.001							
12/4/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2/15/2007		<0.001							
6/23/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/30/2016		<0.001		<0.001	<0.001	<0.001			
8/31/2016							<0.001	<0.001	<0.001
9/1/2016	0.0005 (J)		<0.001						
10/24/2016		<0.001							
10/25/2016	<0.001					<0.001			
10/26/2016			<0.001	<0.001	<0.001		<0.001	0.0003 (J)	<0.001
1/3/2017		<0.001		<0.001					
1/4/2017						<0.001	<0.001	<0.001	
1/5/2017					<0.001				<0.001
1/6/2017	<0.001		<0.001						
4/3/2017		<0.001							
4/4/2017			7E-05 (J)			5E-05 (J)			
4/5/2017								0.0002 (J)	
4/6/2017	<0.001			<0.001	<0.001		6E-05 (J)		<0.001
7/10/2017								0.0002 (J)	
7/11/2017		5E-05 (J)					<0.001		
7/12/2017			<0.001	<0.001	<0.001	<0.001			<0.001
7/13/2017	<0.001								
10/2/2017		6E-05 (J)							
10/3/2017				<0.001	<0.001	<0.001	7E-05 (J)		
10/4/2017	<0.001		<0.001					0.0002 (J)	<0.001
1/9/2018	<0.001	<0.001			<0.001				
1/10/2018				<0.001		<0.001			<0.001
1/11/2018			7E-05 (J)				0.0001 (J)	0.0002 (J)	
7/9/2018		<0.001							
7/10/2018				<0.001	<0.001	<0.001			
7/11/2018	<0.001		<0.001				<0.001	<0.001	<0.001
8/26/2019	<0.001	<0.001							
8/27/2019			<0.001		<0.001	<0.001	<0.001	0.00011 (J)	<0.001
8/28/2019				5.7E-05 (J)					
10/7/2019		6.2E-05 (J)							
10/8/2019	<0.001						9.8E-05 (J)		<0.001
10/9/2019			<0.001	0.00031 (J)	<0.001	5.4E-05 (J)		0.00014 (J)	
4/6/2020	<0.001	<0.001							

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
4/7/2020			<0.001	<0.001	<0.001	5.4E-05 (J)	0.00019 (J)	0.00013 (J)	
4/8/2020									<0.001
8/17/2020		<0.001						<0.001	<0.001
8/18/2020							0.00021 (J)		
8/19/2020	<0.001		<0.001	<0.001	<0.001	<0.001			
9/28/2020	<0.001	<0.001				<0.001			<0.001
9/29/2020							0.00017 (J)	<0.001	
9/30/2020				<0.001	<0.001				
10/1/2020			<0.001						
3/10/2021			<0.001	<0.001	<0.001	<0.001	0.00022 (J)	<0.001	
3/11/2021	<0.001								
3/12/2021		<0.001							
3/15/2021									<0.001
9/21/2021	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001
9/23/2021						<0.001			

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.001	<0.001	<0.001	<0.001					<0.001
11/21/2000	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
1/20/2001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
3/14/2001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
7/16/2001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
11/1/2001	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
12/12/2003	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
5/26/2004	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
12/7/2004	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
6/21/2005	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
12/12/2005	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
4/4/2006	<0.001		<0.001						
6/27/2006	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
8/30/2006	<0.001		<0.001						
12/4/2006	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
2/15/2007	<0.001		<0.001						
6/23/2007	<0.001	<0.001	<0.001	<0.001	<0.001				<0.001
8/31/2016					<0.001			<0.001	<0.001
9/1/2016	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001		
10/25/2016	<0.001	<0.001	<0.001			<0.001	<0.001		
10/26/2016				<0.001	<0.001			<0.001	
10/27/2016									<0.001
1/4/2017			<0.001			<0.001	<0.001	<0.001	
1/5/2017	<0.001	<0.001		<0.001	<0.001				
1/6/2017									<0.001
4/3/2017		<0.001							
4/4/2017	7E-05 (J)				<0.001	<0.001	5E-05 (J)		
4/5/2017			6E-05 (J)	0.0001 (J)					
4/6/2017								<0.001	<0.001
7/11/2017	6E-05 (J)	<0.001				<0.001		<0.001	
7/12/2017			<0.001						<0.001
7/13/2017				<0.001	<0.001		<0.001		
10/2/2017	<0.001	<0.001				<0.001			
10/3/2017			<0.001		<0.001		<0.001		
10/4/2017				0.0001 (J)				0.0001 (J)	<0.001
1/9/2018	<0.001	<0.001					<0.001		
1/10/2018			5E-05 (J)		<0.001	<0.001			
1/11/2018				0.0001 (J)				6E-05 (J)	<0.001
7/9/2018	<0.001					<0.001			
7/10/2018		<0.001	<0.001		<0.001		<0.001		
7/11/2018				<0.001				<0.001	<0.001
7/30/2019					0.00011 (J)				
8/27/2019	<0.001	<0.001			<0.001			8.6E-05 (J)	
8/28/2019			<0.001	6.6E-05 (J)		<0.001	<0.001		<0.001
10/8/2019	<0.001	<0.001	<0.001				<0.001		
10/9/2019				7.6E-05 (J)	<0.001	<0.001		<0.001	<0.001
4/7/2020	<0.001	<0.001	<0.001				<0.001	6.5E-05 (J)	
4/8/2020				5.6E-05 (J)	<0.001	<0.001			<0.001
8/18/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00017 (J)	
8/19/2020									<0.001
9/29/2020	<0.001				<0.001				

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/30/2020		<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	
10/1/2020									<0.001
3/10/2021								<0.001	<0.001
3/11/2021				<0.001					
3/12/2021		<0.001				<0.001			
3/15/2021					<0.001				
3/16/2021	<0.001		<0.001				<0.001		
9/21/2021								<0.001	
9/22/2021	<0.001		<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
9/23/2021		<0.001							

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.001	<0.001	<0.001	<0.001	<0.001
9/21/2021				<0.001	<0.001
9/22/2021	<0.001	<0.001			
9/23/2021			<0.001		

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
8/30/2016		234		224	365	225			
8/31/2016							119	1560	77
9/1/2016	3660		1080						
10/24/2016		216							
10/25/2016	3560					230			
10/26/2016			1050	297	373		108	1520	<10
1/3/2017		333		366					
1/4/2017						349	182	1430	
1/5/2017					543				146
1/6/2017	3490		1060						
4/3/2017		288							
4/4/2017			994			356			
4/5/2017								1200	
4/6/2017	3170			279	434		248		23 (J)
7/10/2017								1100	
7/11/2017		188					88		
7/12/2017			1070	308	454	357			39
7/13/2017	2280								
10/2/2017		210							
10/3/2017				288	389	192	248		
10/4/2017	3350		1100					986	38
1/9/2018	2640	118			415				
1/10/2018				493		277			<10
1/11/2018			838				681	1020	
7/9/2018		235							
7/10/2018				1730 (O)	453	349			
7/11/2018	2200		799				440	888	63
1/16/2019	2100	219	530	382	1320	341			44
1/17/2019							118	765	
3/25/2019	2100	240	479						
3/26/2019				1040	1250	317			72
3/27/2019							138	673	
10/7/2019		275							
10/8/2019	1840						613		51
10/9/2019			502	2010	903	338		647	
4/6/2020	1670	214							
4/7/2020			482	483	775	195	780	464	
4/8/2020									65
9/28/2020	1450	175				373			60
9/29/2020							1100	440	
9/30/2020				652	816				
10/1/2020			424						
3/10/2021			434	1040	2120	329	1240	566	
3/11/2021	1220								
3/12/2021		163							
3/15/2021									<10
9/21/2021	1210	145	476	1240	985		842	558	83
9/23/2021						360			

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016					39			1570	173
9/1/2016	1170	539	878	1270		470	184		
10/25/2016	633	449	585			289	<10		
10/26/2016				1320	135			1840	
10/27/2016									221
1/4/2017			783			639	242	1560	
1/5/2017	781	565		1770	99				
1/6/2017									259
4/3/2017		632							
4/4/2017	916				54	660	187		
4/5/2017			722	1600					
4/6/2017								368	169
7/11/2017	675	569				836		383	
7/12/2017			962						163
7/13/2017				1940	50		86		
10/2/2017	689	559				698			
10/3/2017			1240		18 (J)		66		
10/4/2017				2370				1500	168
1/9/2018	653	520					167		
1/10/2018			935		<10	322			
1/11/2018				2350				438	190
7/9/2018	659					461			
7/10/2018		524	1040		49		180		
7/11/2018				2260				876	165
1/16/2019	656			1540					
1/17/2019		518 (D)	1320				178		
1/18/2019								154	118
1/21/2019					39	307			
3/25/2019						449			
3/26/2019	496	541	1380	1220			292		
3/27/2019								158	104
7/30/2019					70				
10/8/2019	841	526	1500				278		
10/9/2019				1100	46	434		211	128
4/7/2020	843	428	1500				106	819	
4/8/2020				881	38	986			80
9/29/2020	187				33				
9/30/2020		434	1140	752		1860	634	113	
10/1/2020									111
3/10/2021								210	89
3/11/2021				705					
3/12/2021		353				1730			
3/15/2021					11				
3/16/2021	137		980				454		
9/21/2021								87	
9/22/2021	864		1680	1530	33	1430	51		94
9/23/2021		556							



# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			58	54	43
1/21/2021	41	50			
3/11/2021	149	53	57	41	43
9/21/2021				37	37
9/22/2021	184	53			
9/23/2021			56		

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/21/2021 9:36 AM View: Descriptive

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
9/29/2000	<0.01	<0.01	0.06	0.038	0.12	<0.01	<0.01	<0.01	<0.01
11/21/2000	<0.01		0.068	0.013	0.13	<0.01	<0.01	<0.01	<0.01
1/20/2001	<0.01	<0.01	0.12	0.038	0.14	<0.01	<0.01	<0.01	<0.01
3/14/2001	<0.01	<0.01	0.08	0.077 (O)	0.13	<0.01	<0.01	<0.01	<0.01
7/16/2001	<0.01	<0.01	0.11	0.12 (O)	0.18	<0.01	<0.01	<0.01	<0.01
11/1/2001	<0.01	<0.01	0.079	0.21 (O)	0.12	<0.01	<0.01	<0.01	<0.01
4/25/2002	<0.01	<0.01	0.11	0.086 (O)	0.15	<0.01	<0.01	<0.01	<0.01
11/20/2002		<0.01	0.15	0.14 (O)	0.15	0.0069	0.0071	<0.01	<0.01
6/6/2003	0.047	0.017	0.12	0.12 (O)	0.11	0.16 (O)	0.0098	<0.01	0.0063
12/12/2003	0.0086	0.011	0.13	0.014	0.089	<0.01	0.0074	<0.01	<0.01
5/26/2004	<0.01	<0.01	0.095	0.06 (O)	0.09	<0.01	<0.01	<0.01	<0.01
12/7/2004	<0.01	<0.01	0.067	0.054	0.072	<0.01	<0.01	<0.01	<0.01
6/21/2005	<0.01	<0.01	0.062	0.038	0.04	<0.01	<0.01	<0.01	<0.01
12/12/2005	<0.01	<0.01	0.09	0.0056	0.021	<0.01	<0.01	<0.01	<0.01
4/4/2006		<0.01							
6/27/2006	<0.01	<0.01	0.083	0.0043	0.02	0.0029	<0.01	<0.01	<0.01
8/30/2006		<0.01							
12/4/2006	0.0027	<0.01	0.084	0.0044	0.022	0.0047	<0.01	<0.01	<0.01
2/15/2007		<0.01							
6/23/2007	0.0027	<0.01	0.081	0.0039	0.027	0.0029	0.0036	<0.01	<0.01
9/11/2007		<0.01							
12/11/2007	0.0033	<0.01	0.067	0.0029	0.017	<0.01	<0.01	<0.01	<0.01
3/11/2008		<0.01							
6/23/2008	0.0074	<0.01					<0.01	<0.01	<0.01
6/24/2008			0.059	0.003	0.053	<0.01			
11/3/2008		<0.01							
12/4/2008	0.0084	<0.01					<0.01	<0.01	<0.01
12/5/2008			0.054	<0.01	0.0078	<0.01			
3/25/2009		<0.01							
7/7/2009	0.023	<0.01	0.038	<0.01	0.012	<0.01			
7/8/2009							0.0026	<0.01	<0.01
9/14/2009		<0.01							
12/20/2009	0.007	<0.01				<0.01			
12/21/2009			0.06	<0.01	0.011		<0.01	<0.01	<0.01
3/4/2010		<0.01							
6/20/2010	0.0047	<0.01		<0.01	0.0083	0.0037	<0.01	<0.01	<0.01
6/21/2010			0.036						
9/14/2010		<0.01							
1/6/2011				0.0067		<0.01	0.003		0.0028
1/7/2011	0.018	<0.01	0.043		0.0079			<0.01	
4/15/2011		<0.01							
7/7/2011	0.019	<0.01		0.019	0.007	0.0045	0.004	<0.01	<0.01
7/8/2011			0.044						
9/25/2011		<0.01							
1/17/2012	0.0298	<0.01		0.021		<0.01	<0.01	<0.01	<0.01
1/18/2012			0.045		0.0116				
4/4/2012		<0.01							
7/9/2012	0.14	<0.01		0.032		0.0026	0.005	<0.01	<0.01
7/10/2012		<0.01	0.048		0.0096				
10/9/2012		<0.01							
1/17/2013				0.034		<0.01	0.005	<0.01	<0.01
1/18/2013	0.21	<0.01	0.049		<0.01				

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/21/2021 9:37 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
4/5/2013		<0.01							
7/16/2013				0.021		<0.01	<0.01	<0.01	<0.01
7/17/2013	0.18	<0.01	0.05		<0.01				
10/11/2013		<0.01							
1/13/2014	0.24			0.008		<0.01	<0.01	<0.01	<0.01
1/14/2014		<0.01	0.067		<0.01				
4/3/2014		0.0015 (J)							
7/8/2014							0.0024 (J)	0.0034 (J)	0.002 (J)
7/9/2014	0.22	0.0012 (J)	0.055	0.0052	0.0039 (J)	0.0041 (J)			
10/24/2014		<0.01							
1/12/2015			0.066						
1/13/2015	0.19			0.0036 (J)		0.0029 (J)	0.0023 (J)	<0.01	0.0015 (J)
1/14/2015		<0.01			0.005				
5/10/2015		<0.01							
7/16/2015	0.23		0.045	0.004 (J)		0.0034 (J)	0.002 (J)	0.0049 (J)	<0.01
7/17/2015		<0.01			0.0045 (J)				
10/6/2015		0.0012 (J)							
1/17/2016						0.0046 (J)			
1/18/2016	0.41	0.00079 (J)	0.049	0.0069	0.0044 (J)			0.0058	0.0011 (J)
1/19/2016							0.0025 (J)		
4/26/2016		<0.01							
7/26/2016							0.0027 (J)		<0.01
7/27/2016	0.397			0.0046 (J)		0.0064 (J)		0.0058 (J)	
7/28/2016		<0.01			0.0038 (J)				
7/29/2016			0.0388						
10/24/2016		<0.01							
10/25/2016	0.425								
1/3/2017		<0.01		<0.01					
1/4/2017						<0.01	<0.01	<0.01	
1/5/2017					0.0077 (J)				<0.01
1/6/2017	0.41		0.0341						
4/3/2017		<0.01							
4/4/2017			0.0371			0.0061 (J)			
4/5/2017								0.0039 (J)	
4/6/2017	0.297			0.0063 (J)	0.0069 (J)		0.0025 (J)		<0.01
7/10/2017								0.0062 (J)	
7/11/2017		<0.01					0.0027 (J)		
7/12/2017			0.0399	0.0064 (J)	0.0098 (J)	0.0067 (J)			0.0016 (J)
7/13/2017	0.194								
10/2/2017		<0.01							
10/4/2017	0.316								
1/9/2018	0.194	0.0014 (J)			0.0086 (J)				
1/10/2018				0.0077 (J)		0.0056 (J)			0.0019 (J)
1/11/2018			0.0327				0.0019 (J)	0.0025 (J)	
7/9/2018		<0.01							
7/10/2018				0.016	0.0098 (J)	0.0056 (J)			
7/11/2018	0.15		0.02				0.0021 (J)	0.0059 (J)	0.0097 (J)
1/16/2019	0.16	<0.01	0.0022 (J)	0.0033 (J)	0.077	0.0043 (J)			<0.01
1/17/2019							0.0021 (J)	<0.01	
3/25/2019	0.18	<0.01	0.004 (J)						
3/26/2019				0.0058 (J)	0.086	0.0051 (J)			0.0029 (J)
3/27/2019							0.0023 (J)	0.0049 (J)	

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/21/2021 9:37 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
10/7/2019		<0.01							
10/8/2019	0.11						<0.01		<0.01
10/9/2019			<0.01	0.033 (J)	0.018 (J)	<0.01		0.0021 (J)	
4/6/2020	0.12	<0.01							
4/7/2020			0.0037 (J)	0.0053 (J)	0.041 (J)	0.0015 (J)	<0.01	0.0024 (J)	
4/8/2020									<0.01
9/28/2020	0.1	<0.01				0.0042 (J)			<0.01
9/29/2020							0.0023 (J)	0.0046 (J)	
9/30/2020				0.0037 (J)	0.018				
10/1/2020			0.0047 (J)						
3/10/2021			0.0054 (J)	0.0026 (J)	0.027	0.005 (J)	0.0023 (J)	0.0055 (J)	
3/11/2021	0.14								
3/12/2021		<0.01							
3/15/2021									<0.01
9/21/2021	0.096	<0.01	0.0027 (J)	0.0039 (J)	0.015		0.002 (J)	0.0051 (J)	<0.01
9/23/2021						0.0042 (J)			

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/21/2021 9:37 AM View: Descriptive

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.01	<0.01	<0.01	<0.01					<0.01
11/21/2000	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
1/20/2001	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
3/14/2001	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
7/16/2001	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
11/1/2001	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
4/25/2002	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
11/20/2002	0.03	0.0099	0.0069	<0.01	<0.01				0.014
6/6/2003	0.0065	0.019 (O)	0.082 (O)	<0.01	<0.01				<0.01
12/12/2003	0.0052	0.018 (O)	0.012	<0.01	<0.01				<0.01
5/26/2004	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
12/7/2004	0.0074	<0.01	<0.01	<0.01	<0.01				<0.01
6/21/2005	0.01	<0.01	<0.01	<0.01	<0.01				<0.01
12/12/2005	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
4/4/2006	0.013		<0.01						
6/27/2006	<0.01	<0.01	<0.01	0.0025	<0.01				<0.01
8/30/2006	0.0039		<0.01						
12/4/2006	0.016	<0.01	0.0031	<0.01	<0.01				<0.01
2/15/2007	0.017		0.0025						
6/23/2007	0.0076	<0.01	0.0032	<0.01	<0.01				<0.01
9/11/2007	0.012		<0.01						
12/11/2007	0.017	<0.01	<0.01	<0.01	<0.01				<0.01
3/11/2008	0.012		<0.01						
6/23/2008									<0.01
6/24/2008	0.0069	<0.01	<0.01	<0.01	<0.01				
11/3/2008	0.016		0.0032						
12/4/2008	0.013				<0.01				<0.01
12/5/2008		<0.01	<0.01	<0.01					
3/25/2009	0.014		<0.01						
7/8/2009	0.014	<0.01	0.0036	<0.01	<0.01				0.0029
9/14/2009	0.0072		0.0026						
12/20/2009	0.02	<0.01	0.0031		<0.01				
12/21/2009				<0.01					<0.01
3/4/2010	0.023		<0.01						
6/20/2010	0.017	<0.01			<0.01				<0.01
6/21/2010			0.0025	<0.01		<0.01	<0.01	<0.01	
9/14/2010	0.018		0.0035						
1/6/2011					<0.01				
1/7/2011	0.019	<0.01	0.0036	<0.01		0.0029	0.0031	<0.01	<0.01
4/15/2011	0.019		<0.01						
7/7/2011	0.014	0.0036	0.003			<0.01			
7/8/2011				0.0031		0.0046	0.0048	<0.01	<0.01
9/25/2011	0.015		0.0037						
1/17/2012	0.021	<0.01			<0.01				
1/18/2012			<0.01	<0.01		<0.01	<0.01	<0.01	<0.01
4/4/2012	0.0191		<0.01						
7/9/2012	0.026	0.0059			<0.01				
7/10/2012			0.0026	<0.01		0.0081	<0.01	<0.01	<0.01
10/9/2012	0.049		0.007						
1/17/2013					<0.01				
1/18/2013	0.036	<0.01	<0.01	<0.01		0.0063	<0.01	<0.01	<0.01
4/5/2013	0.04		<0.01						

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/21/2021 9:37 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/17/2013	0.062	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
10/11/2013	0.032		<0.01						
1/13/2014		<0.01			<0.01				
1/14/2014	0.044		<0.01	<0.01		<0.01	0.006	<0.01	<0.01
4/3/2014	0.077 (O)		0.0032 (J)						
7/9/2014	0.032	0.0012 (J)	0.0031 (J)	0.0012 (J)	<0.01		0.0019 (J)		0.0016 (J)
7/10/2014						0.0026 (J)		0.0053	
10/24/2014	0.045		0.0028 (J)						
1/12/2015						0.0031 (J)			
1/13/2015		0.0013 (J)			<0.01				
1/14/2015	0.031		0.0034 (J)	0.002 (J)			0.0037 (J)	0.0013 (J)	<0.01
5/10/2015	0.013								
5/11/2015			0.0026 (J)						
7/16/2015		<0.01	0.0028 (J)		<0.01				
7/17/2015	0.028						0.0028 (J)		0.0029 (J)
7/18/2015				<0.01		0.003 (J)		0.0043 (J)	
10/6/2015	0.02		0.0016 (J)						
1/17/2016	0.028	0.0013 (J)	0.0029 (J)		<0.01	0.0025 (J)	0.0039 (J)		
1/18/2016				0.0019 (J)				<0.01	<0.01
4/26/2016	0.0181		0.00296 (J)						
7/27/2016	0.0189	<0.01			<0.01				
7/28/2016			0.0026 (J)			0.0024 (J)	0.0022 (J)		<0.01
7/29/2016				0.0031 (J)				0.0052 (J)	
10/25/2016	0.0206	<0.01	<0.01			<0.01			
1/4/2017			<0.01			<0.01	<0.01	<0.01	
1/5/2017	0.0172	<0.01		<0.01	<0.01				
1/6/2017									<0.01
4/3/2017		0.002 (J)							
4/4/2017	0.0235				<0.01	0.0024 (J)	0.003 (J)		
4/5/2017			0.0033 (J)	0.0029 (J)					
4/6/2017								<0.01	<0.01
7/11/2017	0.0136	0.0022 (J)				0.003 (J)		0.0016 (J)	
7/12/2017			0.0037 (J)						0.0013 (J)
7/13/2017				0.0037 (J)	<0.01		0.0019 (J)		
10/2/2017	0.0175	0.0022 (J)				0.0028 (J)			
10/3/2017			0.0036 (J)						
1/9/2018	0.0103	0.0021 (J)					0.0046 (J)		
1/10/2018			0.0029 (J)		<0.01	0.0026 (J)			
1/11/2018				0.0026 (J)				0.0012 (J)	<0.01
7/9/2018	0.0078 (J)					<0.01			
7/10/2018		0.0025 (J)	0.0025 (J)		<0.01		0.0031 (J)		
7/11/2018				0.0032 (J)				0.0025 (J)	<0.01
1/16/2019	0.0043 (J)			<0.01					
1/17/2019		<0.01	0.0021 (J)				0.0022 (J)		
1/18/2019								<0.01	<0.01
1/21/2019					0.0024 (J)	0.0031 (J)			
3/25/2019						0.0024 (J)			
3/26/2019	0.0063 (J)	0.0026 (J)	0.0038 (J)	0.0024 (J)			0.0041 (J)		
3/27/2019								0.002 (J)	<0.01
7/30/2019					<0.01				
10/8/2019	<0.01	<0.01	<0.01				<0.01		
10/9/2019				<0.01	<0.01	<0.01		<0.01	<0.01

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/21/2021 9:37 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
4/7/2020	0.0026 (J)	<0.01	<0.01				<0.01	0.0014 (J)	
4/8/2020				<0.01	<0.01	<0.01			0.0015 (J)
9/29/2020	<0.01				<0.01				
9/30/2020		0.0028 (J)	0.0028 (J)	<0.01		0.0029 (J)	0.0029 (J)	<0.01	
10/1/2020									<0.01
3/10/2021								<0.01	<0.01
3/11/2021				<0.01					
3/12/2021		0.0037 (J)				0.0038 (J)			
3/15/2021					<0.01				
3/16/2021	<0.01		0.0034 (J)				0.003 (J)		
9/21/2021								<0.01	
9/22/2021	0.0052 (J)		0.0025 (J)	<0.01	<0.01	0.0033 (J)	<0.01		<0.01
9/23/2021		0.0022 (J)							

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 11/21/2021 9:37 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.01	<0.01	0.0024 (J)	<0.01	0.0024 (J)
9/21/2021				<0.01	<0.01
9/22/2021	<0.01	<0.01			
9/23/2021			<0.01		



# Time Series

Constituent: Zinc (mg/L) Analysis Run 11/21/2021 9:37 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
9/29/2000	<0.01	<0.01	<0.01	0.026 (O)	<0.02 (O)	<0.01	<0.01	0.38 (O)	<0.01
11/21/2000	<0.01		<0.01	<0.01	0.024 (O)	<0.01	<0.01	0.077 (O)	<0.01
1/20/2001	<0.01	0.025	0.041	0.031 (O)	<0.02 (O)	<0.01	<0.01	0.23 (O)	<0.01
3/14/2001	<0.01	<0.01	<0.01	0.063 (O)	<0.02 (O)	<0.01	<0.01	0.24 (O)	<0.01
7/16/2001	<0.01	<0.01	0.059	0.08 (O)	<0.02 (O)	<0.01	<0.01	0.053 (O)	<0.01
11/1/2001	<0.01	<0.01	<0.01	0.16 (O)	<0.02 (O)	<0.01	<0.01	0.022 (O)	0.044 (O)
4/25/2002	<0.01	<0.01	<0.01	<0.01	<0.02 (O)	<0.01	<0.01	1.2 (O)	<0.01
11/20/2002		0.016	0.061	0.14 (O)	0.028 (O)	<0.01	<0.01	0.045 (O)	0.023
6/6/2003	0.69 (O)	0.032	0.041	0.51 (O)	0.032 (O)	0.011	<0.01	0.042 (O)	<0.01
12/12/2003	0.12	0.019	0.012	<0.01	<0.01 (O)	<0.01	0.013	<0.01	<0.01
5/26/2004	0.013	<0.01	0.016	0.036 (O)	<0.01 (O)	<0.01	<0.01	<0.01	0.035
12/7/2004	<0.01	<0.01	<0.01	0.069 (O)	0.012 (O)	<0.01	0.028 (O)	<0.01	0.018
6/21/2005	<0.01	<0.01	<0.01	0.076 (O)	<0.01 (O)	<0.01	<0.01	<0.01	0.014
12/12/2005	0.014	0.01	0.017	<0.01	<0.01 (O)	<0.01	<0.01	<0.01	0.023
4/4/2006		<0.01							
6/27/2006	0.01	0.0043	0.11	0.01	0.0071	<0.01	0.0028	0.012 (O)	0.023
8/30/2006		0.017							
12/4/2006	0.0065	0.0053	0.086	0.0035	0.0096	<0.01	0.0028	0.0067	0.046 (O)
2/15/2007		0.0045							
6/23/2007	0.0049	0.0043	0.076	0.0032	0.094 (O)	<0.01	0.0063	0.025 (O)	0.036
9/11/2007		0.004							
12/11/2007	0.0043	0.0048	0.087	0.0079	0.042 (O)	<0.01	<0.01	0.0038	0.011
3/11/2008		0.0043							
6/23/2008	0.0025	0.0037					<0.01	0.0051	0.0091
6/24/2008			0.062	<0.01	0.098 (O)	<0.01			
11/3/2008		0.0032							
12/4/2008	0.0025	0.0029					<0.01	<0.01	0.0038
12/5/2008			0.014	<0.01	0.047 (O)	<0.01			
3/25/2009		0.0055							
7/7/2009	<0.01	0.0028	0.052	<0.01	0.024 (O)	<0.01			
7/8/2009							<0.01	<0.01	<0.01
9/14/2009		0.0027							
12/20/2009	0.0031	0.0029				<0.01			
12/21/2009			0.046	<0.01	0.049 (O)		<0.01	0.013 (O)	0.0032
3/4/2010		0.0042							
6/20/2010	<0.01	0.0027		<0.01	0.045 (O)	<0.01	<0.01	<0.01	<0.01
6/21/2010			0.045						
9/14/2010		<0.01							
1/6/2011				<0.01		<0.01	<0.01		0.004
1/7/2011	<0.01	0.0032	0.024		0.0044			0.004	
4/15/2011		<0.01							
7/7/2011	0.0031	0.005		0.0027	0.003	0.0025	<0.01	0.0028	0.0037
7/8/2011			0.023						
9/25/2011		0.0041							
1/17/2012	0.004	0.0043		0.0039		<0.01	0.0043	0.0043	0.0031
1/18/2012			0.011		0.0048				
4/4/2012		<0.01							
7/9/2012	0.0096			<0.01		<0.01	<0.01	<0.01	0.003
7/10/2012		0.0028	0.024		<0.01				
10/9/2012		0.0033							
1/17/2013				<0.01		<0.01	0.0025	0.0033	<0.01
1/18/2013	0.051	0.0038	0.011		0.0028				

# Time Series

Constituent: Zinc (mg/L) Analysis Run 11/21/2021 9:37 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
4/5/2013		0.0026							
7/16/2013				0.0032		<0.01	<0.01	0.0028	0.0029
7/17/2013	0.042	<0.01	0.0029		<0.01				
10/11/2013		0.0046							
1/13/2014	0.0025			0.0025		0.0025	0.0025	0.0025	0.0025
1/14/2014		0.0025	0.0025		0.0025				
4/3/2014		0.0029							
7/8/2014							0.0011 (J)	0.002 (J)	0.0018 (J)
7/9/2014	0.064	0.002 (J)	0.0051	0.00076 (J)	0.00093 (J)	<0.01			
10/24/2014		0.0031							
1/12/2015			0.0023 (J)						
1/13/2015	0.066			0.0036		0.0025	0.0021 (J)	0.0079	0.0028
1/14/2015		0.003			0.0023 (J)				
5/10/2015		0.0028							
7/16/2015	0.036		0.0021 (J)	<0.01		<0.01	<0.01	0.0026	0.0018 (J)
7/17/2015		0.0018 (J)			<0.01				
10/6/2015		0.0018 (J)							
1/17/2016						<0.01			
1/18/2016	0.035	0.0028	0.0092	<0.01	0.0029			0.0025	0.0017 (J)
1/19/2016							0.0029		
4/26/2016		<0.01							
7/26/2016							<0.01		0.0028 (J)
7/27/2016	0.0529			0.0015 (J)		<0.01		0.0021 (J)	
7/28/2016		0.0018 (J)			<0.01				
7/29/2016			0.003 (J)						
10/24/2016		0.0024 (J)							
10/25/2016	0.0035 (J)								
1/3/2017		0.0035 (J)		<0.01					
1/4/2017						<0.01	<0.01	0.0025 (J)	
1/5/2017					<0.01				0.0021 (J)
1/6/2017	0.0235		0.0104						
4/3/2017		0.0041 (J)							
4/4/2017			0.0132			<0.01			
4/5/2017								0.0026 (J)	
4/6/2017	0.0829			0.0023 (J)	0.0032 (J)		0.004 (J)		0.0027 (J)
7/10/2017								0.0023 (J)	
7/11/2017		0.0029 (J)					<0.01		
7/12/2017			0.0046 (J)	<0.01	0.002 (J)	<0.01			0.0043 (J)
7/13/2017	0.0853								
10/2/2017		0.0026 (J)							
10/4/2017	0.0263								
1/9/2018	0.0665	0.0035 (J)			0.0036 (J)				
1/10/2018				0.0022 (J)		0.0014 (J)			0.0021 (J)
1/11/2018			0.0095 (J)				0.0018 (J)	0.0031 (J)	
7/9/2018		0.0022 (J)							
7/10/2018				<0.01	0.0055 (J)	0.0021 (J)			
7/11/2018	0.02 (J)		0.0028 (J)				<0.01	0.0036 (J)	0.0039 (J)
1/16/2019	0.014 (J)	0.0037 (J)	0.0052 (J)	<0.01	<0.01	<0.01			0.047
1/17/2019							<0.01	0.0032 (J)	
3/25/2019	<0.05 (O)	<0.01	0.0078 (J)						
3/26/2019				<0.01	<0.01	<0.01			0.03
3/27/2019							<0.01	0.0031 (J)	

# Time Series

Constituent: Zinc (mg/L) Analysis Run 11/21/2021 9:37 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
10/7/2019		0.0077 (J)							
10/8/2019	0.095						0.0061 (J)		0.053
10/9/2019			0.0064 (J)	0.0081 (J)	0.016 (J)	0.0057 (J)		0.0057 (J)	
4/6/2020	<0.01	<0.01							
4/7/2020			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
4/8/2020									0.023
9/28/2020	0.16	0.0092 (J)				0.0092 (J)			0.016
9/29/2020							0.0031 (J)	0.0074 (J)	
9/30/2020				<0.01	<0.01				
10/1/2020			0.0064 (J)						
3/10/2021			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
3/11/2021	0.054								
3/12/2021		0.0028 (J)							
3/15/2021									0.039
9/21/2021	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	0.036
9/23/2021						<0.01			

# Time Series

Constituent: Zinc (mg/L) Analysis Run 11/21/2021 9:37 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.01	<0.01	<0.01	<0.01					<0.01
11/21/2000	<0.01	<0.01	<0.01	<0.01	0.021 (O)				<0.01
1/20/2001	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
3/14/2001	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
7/16/2001	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
11/1/2001	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
4/25/2002	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
11/20/2002	<0.01	<0.01	<0.01	0.014	<0.01				0.033 (O)
6/6/2003	<0.01	<0.01	0.035 (O)	0.012	<0.01				<0.01
12/12/2003	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
5/26/2004	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
12/7/2004	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
6/21/2005	<0.01	<0.01	<0.01	<0.01	<0.01				<0.01
12/12/2005	0.011	0.064 (O)	<0.01	<0.01	0.012				0.032 (O)
4/4/2006	<0.01		<0.01						
6/27/2006	0.0045	0.011	0.077 (O)	0.0046	<0.01				0.018 (O)
8/30/2006	<0.01		0.0027						
12/4/2006	<0.01	0.0033	<0.01	0.0071	<0.01				0.0044
2/15/2007	<0.01		0.0032						
6/23/2007	<0.01	0.0029	0.0058	0.005	<0.01				0.0041
9/11/2007	<0.01		0.0033						
12/11/2007	<0.01	<0.01	<0.01	0.0033	<0.01				0.0039
3/11/2008	<0.01		<0.01						
6/23/2008									<0.01
6/24/2008	<0.01	<0.01	<0.01	0.0037	<0.01				
11/3/2008	<0.01		0.0025						
12/4/2008	<0.01				<0.01				0.0039
12/5/2008		<0.01	<0.01	0.0027					
3/25/2009	<0.01		0.0025						
7/8/2009	<0.01	<0.01	<0.01	0.0048	<0.01				<0.01
9/14/2009	<0.01		<0.01						
12/20/2009	<0.01	<0.01	<0.01		<0.01				
12/21/2009				0.0032					0.004
3/4/2010	<0.01		<0.01						
6/20/2010	<0.01	<0.01			<0.01				<0.01
6/21/2010			<0.01	0.0028		<0.01	0.04 (O)	<0.01	
9/14/2010	<0.01		<0.01						
1/6/2011					<0.01				
1/7/2011	<0.01	<0.01	<0.01	0.003		<0.01	<0.01	0.019	0.0032
4/15/2011	<0.01		<0.01						
7/7/2011	<0.01	<0.01	<0.01			<0.01			
7/8/2011				0.0034		0.086 (JO)	0.0044	0.1 (O)	0.0025
9/25/2011	<0.01		0.0028						
1/17/2012	<0.01	<0.01			<0.01				
1/18/2012			0.0029	0.0049		<0.01	<0.01	0.0051	0.0045
4/4/2012	<0.01		<0.01						
7/9/2012	<0.01	<0.01			<0.01				
7/10/2012			<0.01	0.0039		<0.01	<0.01	0.01	<0.01
10/9/2012	<0.01		0.0027						
1/17/2013					<0.01				
1/18/2013	<0.01	<0.01	<0.01	0.0043		0.0032	<0.01	0.0036	0.0029
4/5/2013	<0.01		<0.01						

# Time Series

Constituent: Zinc (mg/L) Analysis Run 11/21/2021 9:37 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/17/2013	<0.01	<0.01	<0.01	0.0035	<0.01	<0.01	<0.01	0.0025	<0.01
10/11/2013	<0.01		<0.01						
1/13/2014		0.0025			0.0025				
1/14/2014	0.0025		0.0025	0.0025		0.0025	0.0025	0.0025	0.0025
4/3/2014	0.0014 (J)		0.0015 (J)						
7/9/2014	0.00086 (J)	<0.01	0.0012 (J)	0.0033	0.00058 (J)		0.00084 (J)		0.0016 (J)
7/10/2014						<0.01		0.024	
10/24/2014	0.00083 (J)		0.0013 (J)						
1/12/2015						<0.01			
1/13/2015		<0.01			0.0024 (J)				
1/14/2015	<0.01		0.0017 (J)	0.0067			0.0018 (J)	0.0016 (J)	0.0024 (J)
5/10/2015	<0.01								
5/11/2015			0.0015 (J)						
7/16/2015		<0.01	<0.01		<0.01				
7/17/2015	<0.01						<0.01		0.0031
7/18/2015				<0.01		<0.01		0.014	
10/6/2015	<0.01		<0.01						
1/17/2016	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01		
1/18/2016				0.012				<0.01	0.0059
4/26/2016	<0.01		<0.01						
7/27/2016	<0.01	<0.01			0.0018 (J)				
7/28/2016			<0.01			<0.01	<0.01		0.0019 (J)
7/29/2016				0.0086 (J)				0.0129	
10/25/2016	<0.01	<0.01	<0.01			<0.01			
1/4/2017			0.0025 (J)			<0.01	<0.01	0.006 (J)	
1/5/2017	<0.01	<0.01		0.016	<0.01				
1/6/2017									0.0026 (J)
4/3/2017		<0.01							
4/4/2017	<0.01				0.0015 (J)	<0.01	0.0015 (J)		
4/5/2017			0.0025 (J)	0.0175					
4/6/2017								0.0031 (J)	0.0047 (J)
7/11/2017	<0.01	<0.01				<0.01		0.0029 (J)	
7/12/2017			0.002 (J)						0.003 (J)
7/13/2017				0.0126	0.0014 (J)		0.002 (J)		
10/2/2017	0.0026 (J)	<0.01				<0.01			
10/3/2017			<0.01						
1/9/2018	0.0018 (J)	<0.01					0.0016 (J)		
1/10/2018			0.0016 (J)		<0.01	0.0034 (J)			
1/11/2018				0.012				0.0106	0.0046 (J)
7/9/2018	<0.01					<0.01			
7/10/2018		<0.01	0.0031 (J)		<0.01		<0.01		
7/11/2018				0.011				0.0057 (J)	0.0033 (J)
1/16/2019	<0.01			0.0094 (J)					
1/17/2019		<0.01	<0.01				<0.01		
1/18/2019								0.0024 (J)	0.0025 (J)
1/21/2019					<0.01	<0.01			
3/25/2019						<0.01			
3/26/2019	<0.01	<0.01	<0.01	0.0057 (J)			<0.01		
3/27/2019								<0.01	0.0026 (J)
7/30/2019					0.0067 (J)				
10/8/2019	0.0052 (J)	0.0051 (J)	0.01				0.0071 (J)		
10/9/2019				0.011	0.005 (J)	0.0049 (J)		0.0079 (J)	0.0054 (J)

# Time Series

Constituent: Zinc (mg/L) Analysis Run 11/21/2021 9:37 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
4/7/2020	<0.01	<0.01	<0.01				<0.01	<0.01	
4/8/2020				<0.01	<0.01	<0.01			<0.01
9/29/2020	<0.01				0.056				
9/30/2020		0.032	0.0051 (J)	0.0043 (J)		0.031	0.0096 (J)	<0.01	
10/1/2020									0.025
3/10/2021								<0.01	<0.01
3/11/2021				0.0056 (J)					
3/12/2021		<0.01				<0.01			
3/15/2021					<0.01				
3/16/2021	<0.01		<0.01				<0.01		
9/21/2021								<0.01	
9/22/2021	0.01		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01
9/23/2021		<0.01							

# Time Series

Constituent: Zinc (mg/L) Analysis Run 11/21/2021 9:37 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

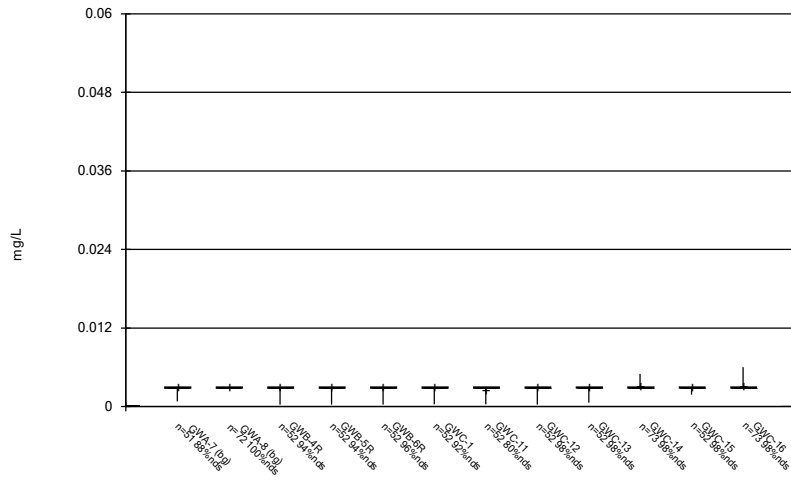
---

	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	0.0067 (J)	0.0025 (J)	0.0054 (J)	0.008 (J)	0.0066 (J)
9/21/2021				<0.01	<0.01
9/22/2021	<0.01	<0.01			
9/23/2021			<0.01		

FIGURE B.

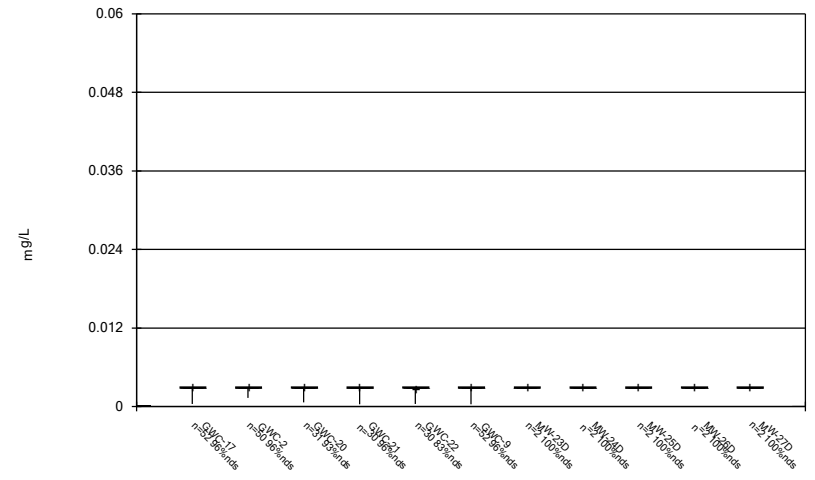


Box & Whiskers Plot



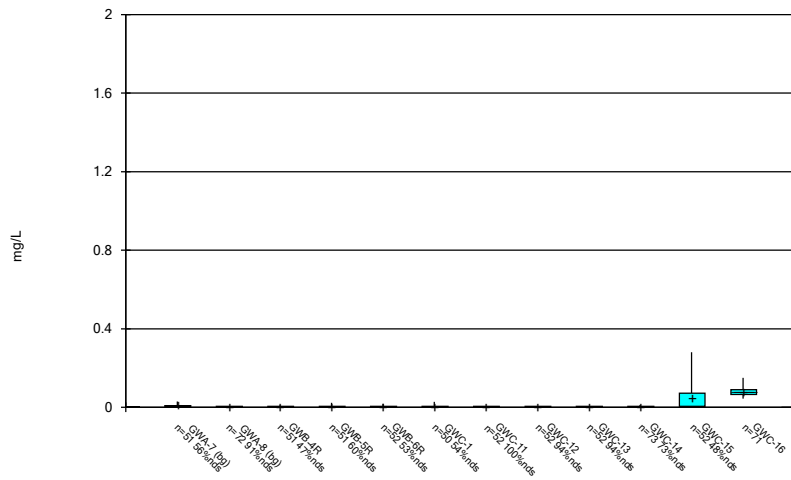
Constituent: Antimony Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



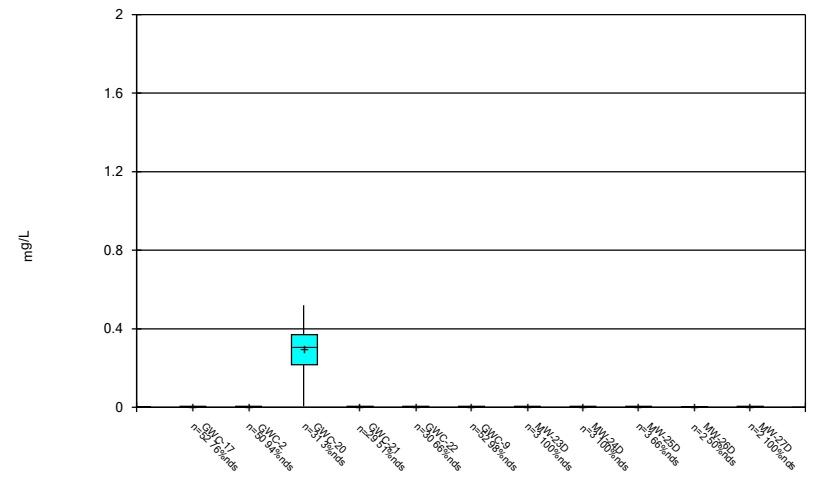
Constituent: Antimony Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



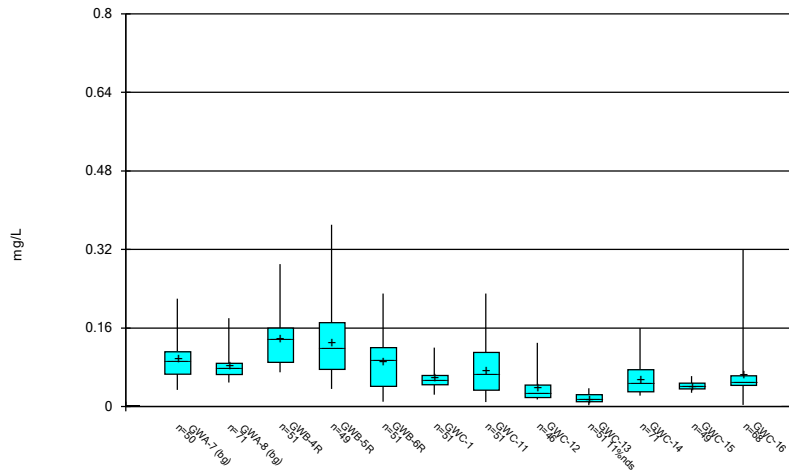
Constituent: Arsenic Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



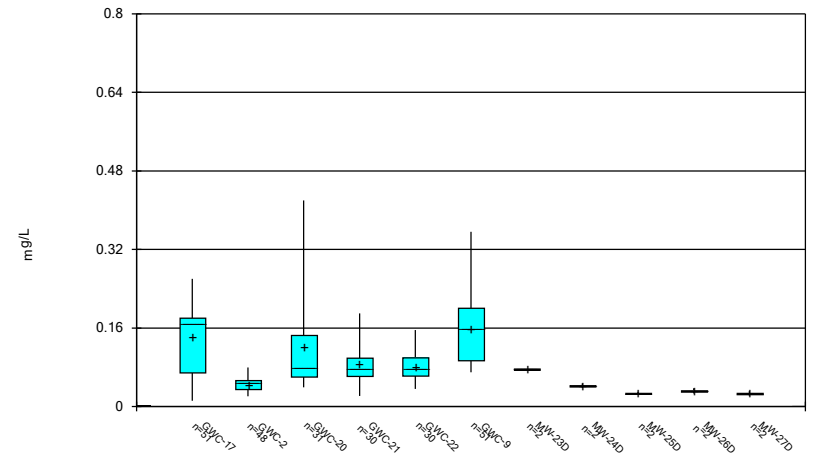
Constituent: Arsenic Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



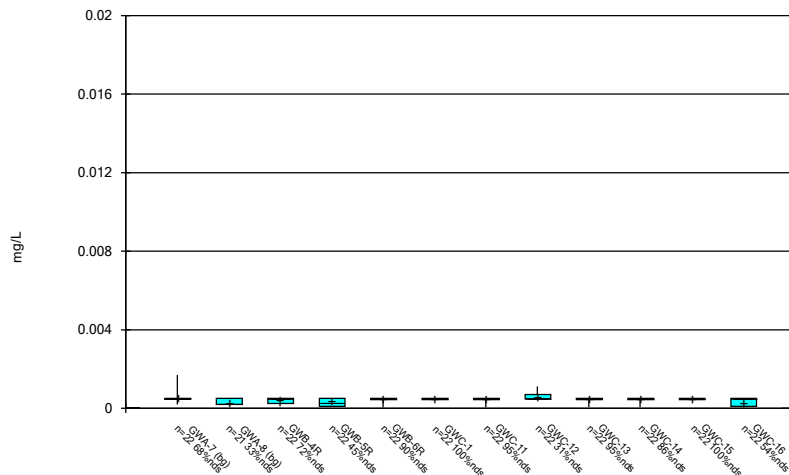
Constituent: Barium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



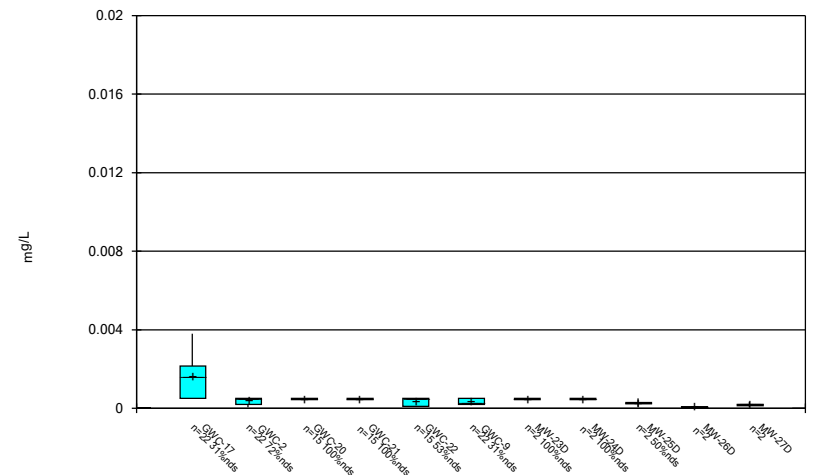
Constituent: Barium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



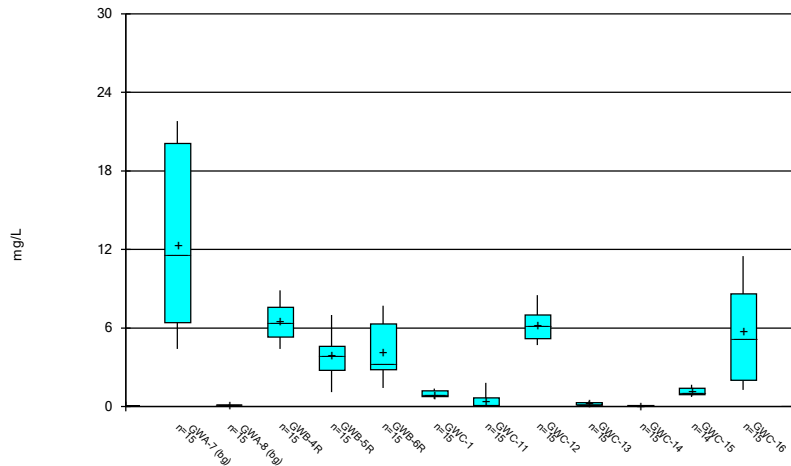
Constituent: Beryllium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



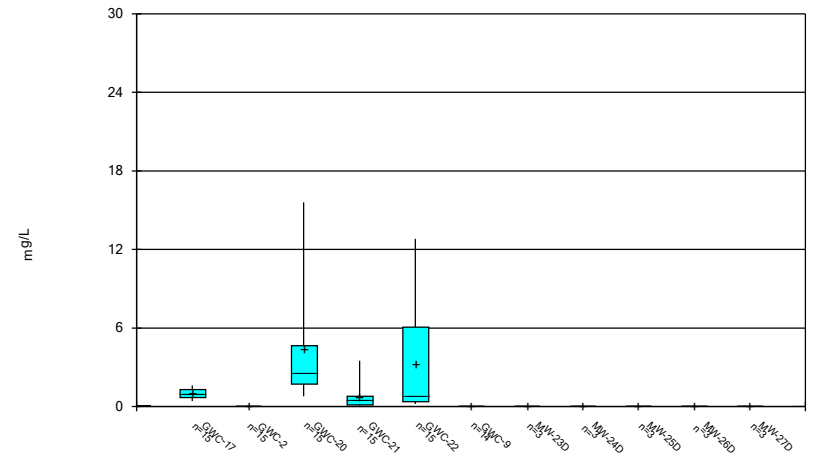
Constituent: Beryllium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



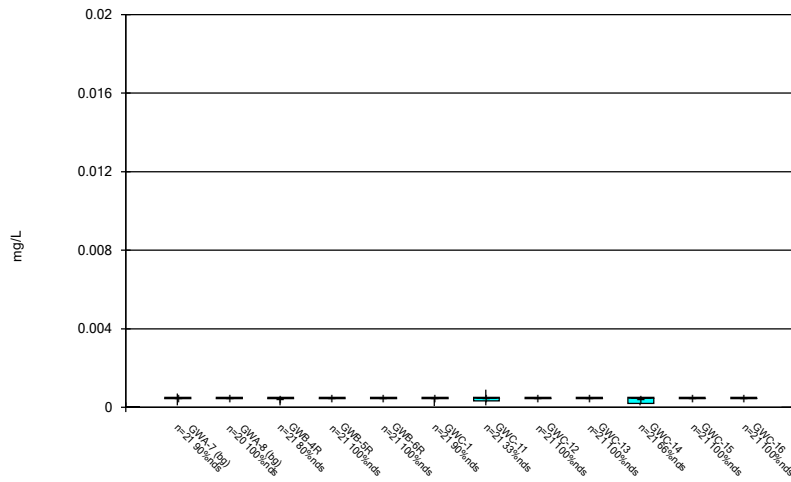
Constituent: Boron Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



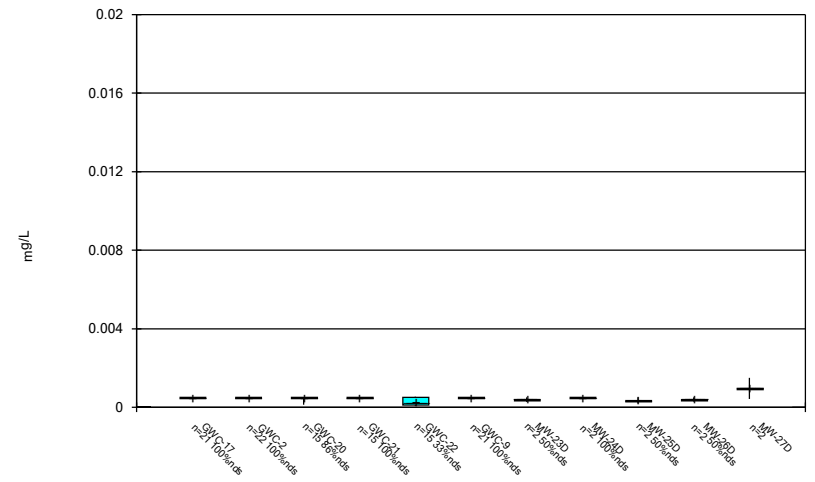
Constituent: Boron Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



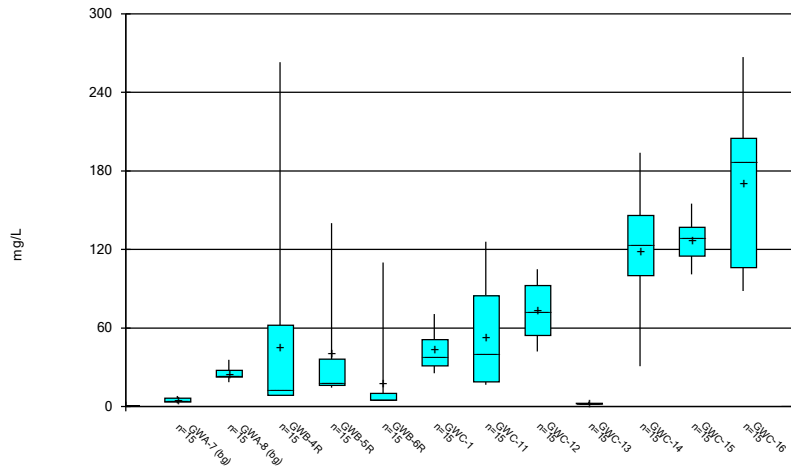
Constituent: Cadmium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



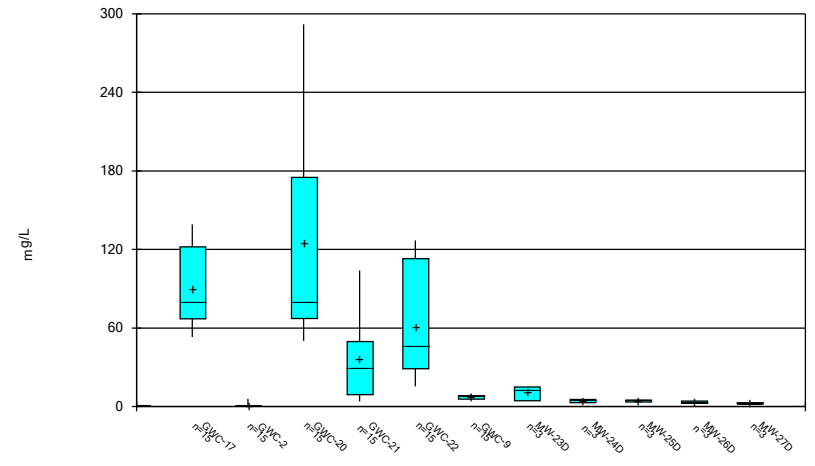
Constituent: Cadmium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



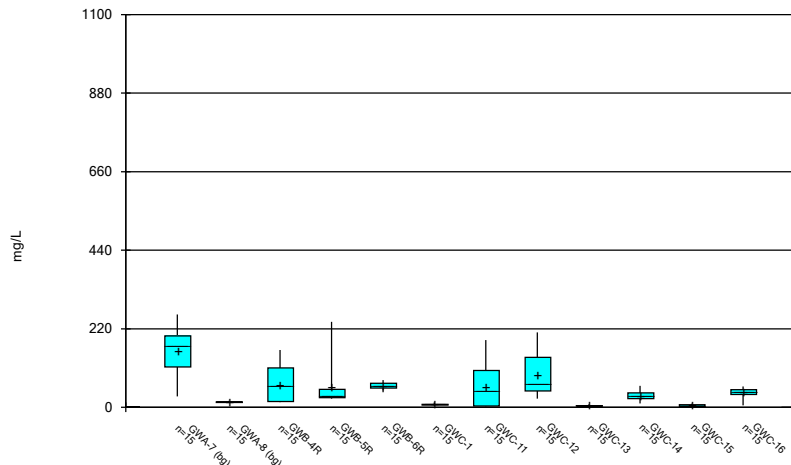
Constituent: Calcium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



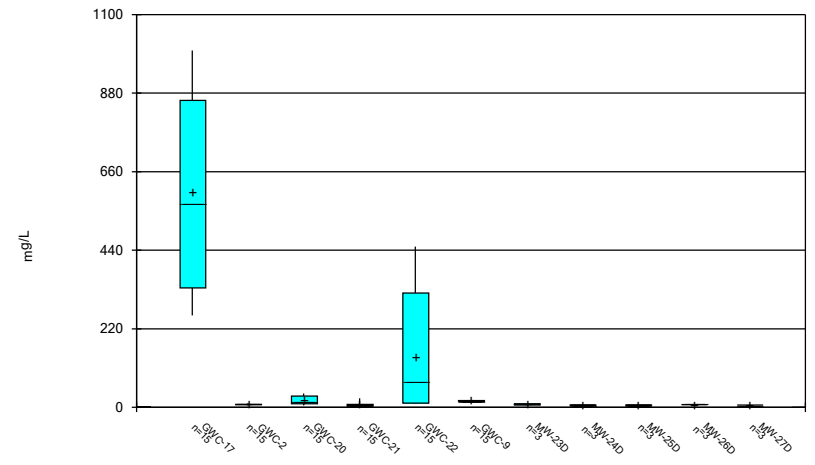
Constituent: Calcium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



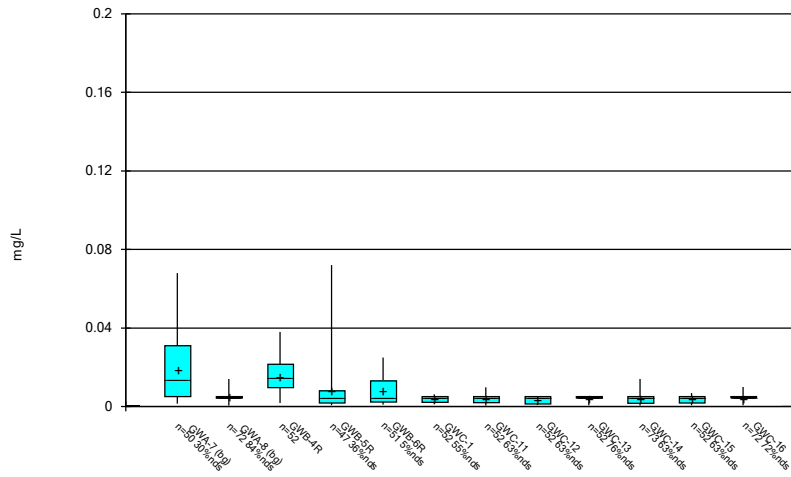
Constituent: Chloride Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



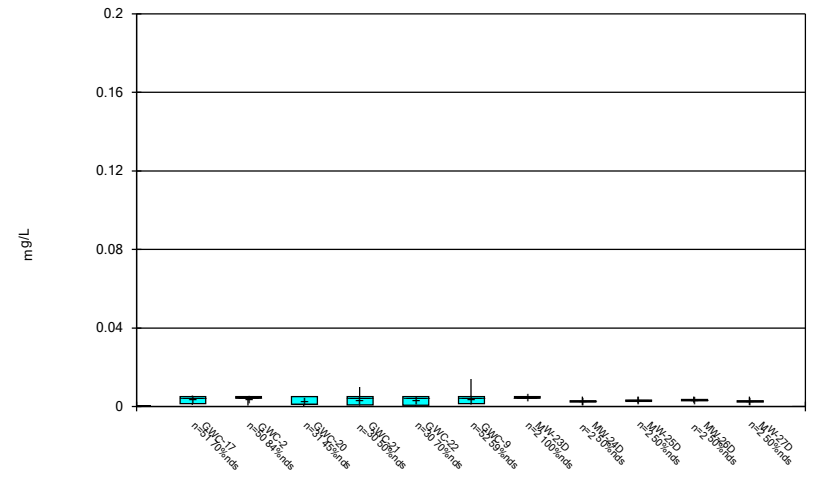
Constituent: Chloride Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



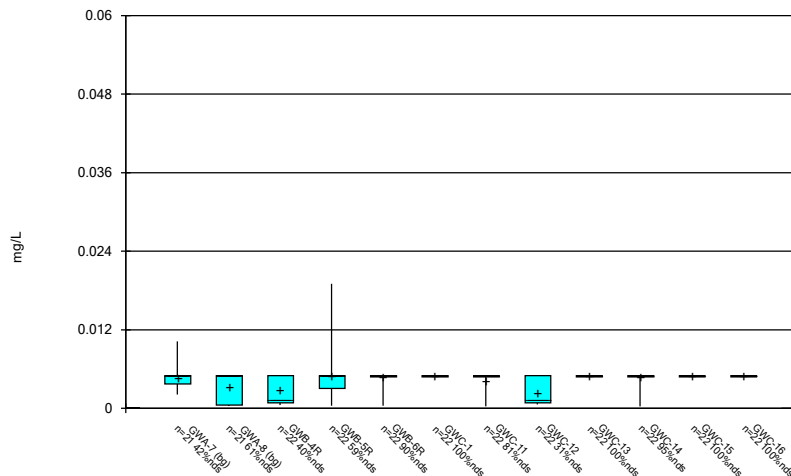
Constituent: Chromium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



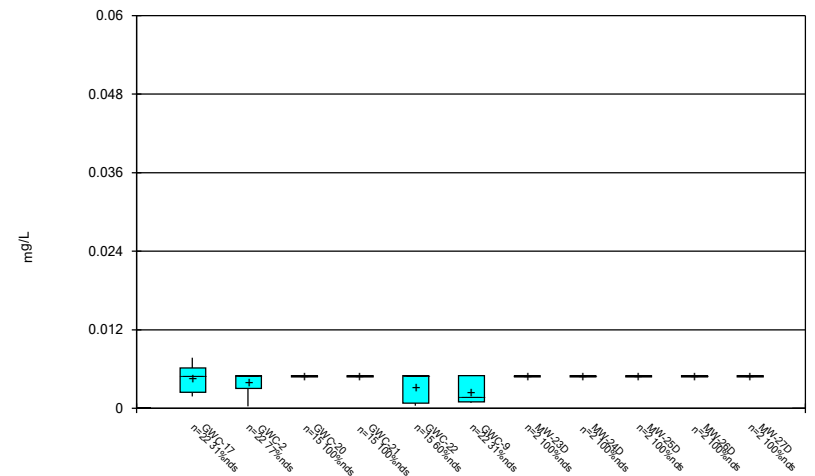
Constituent: Chromium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



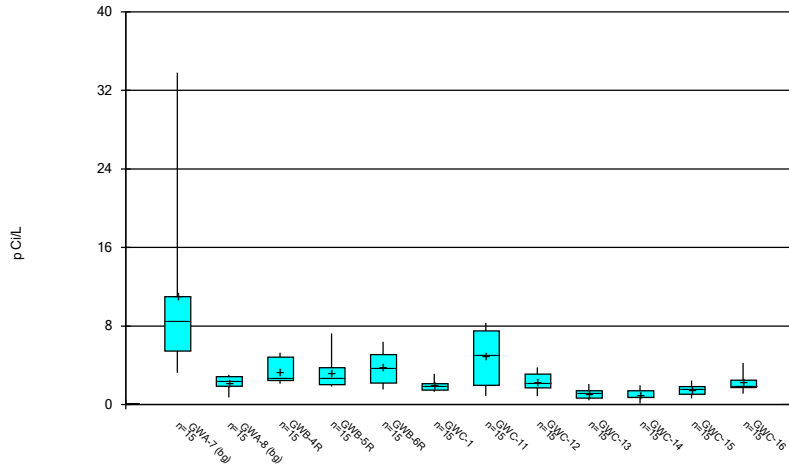
Constituent: Cobalt Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



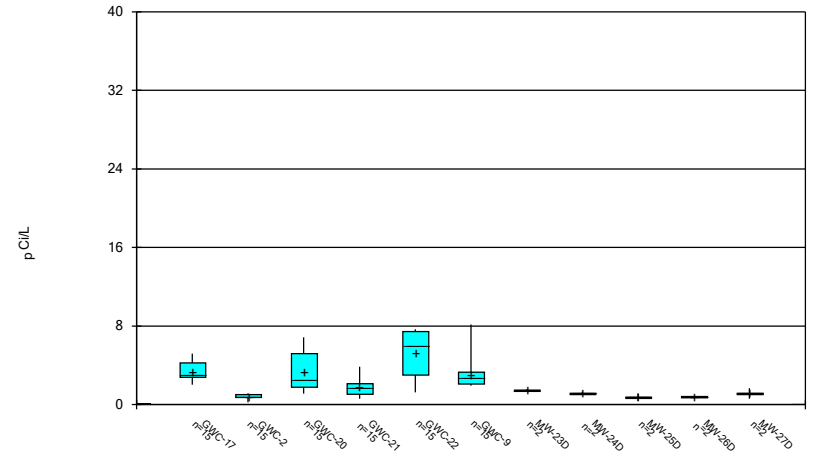
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



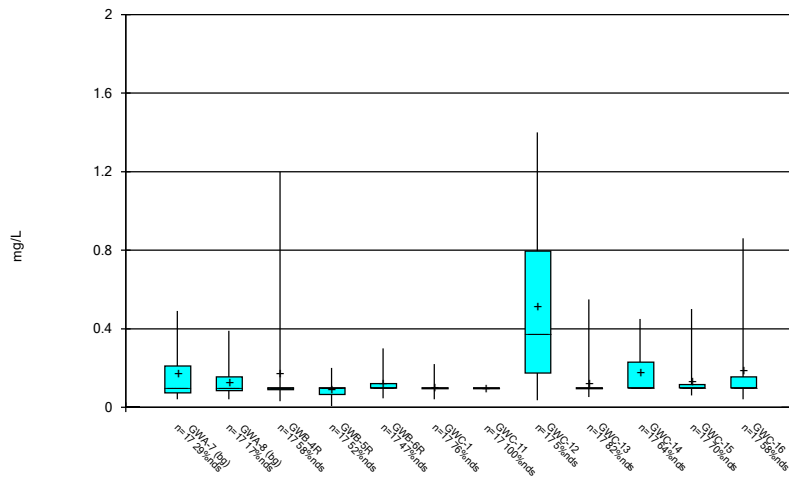
Constituent: Combined Radium 226 + 228 Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



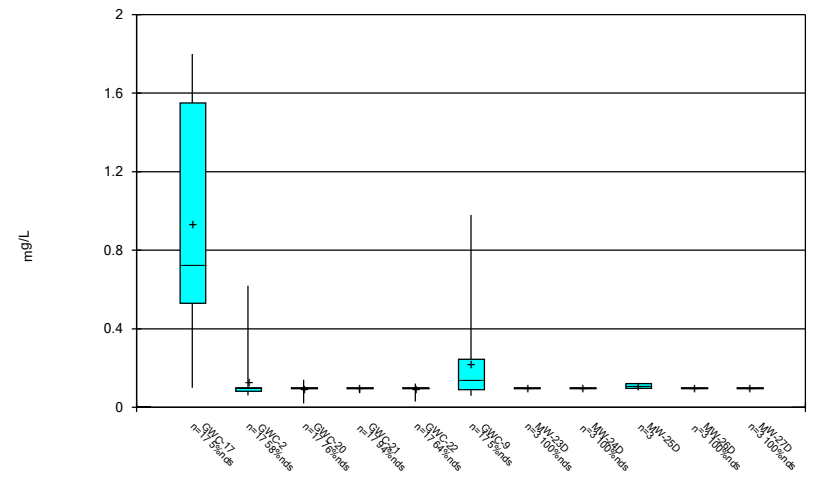
Constituent: Combined Radium 226 + 228 Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



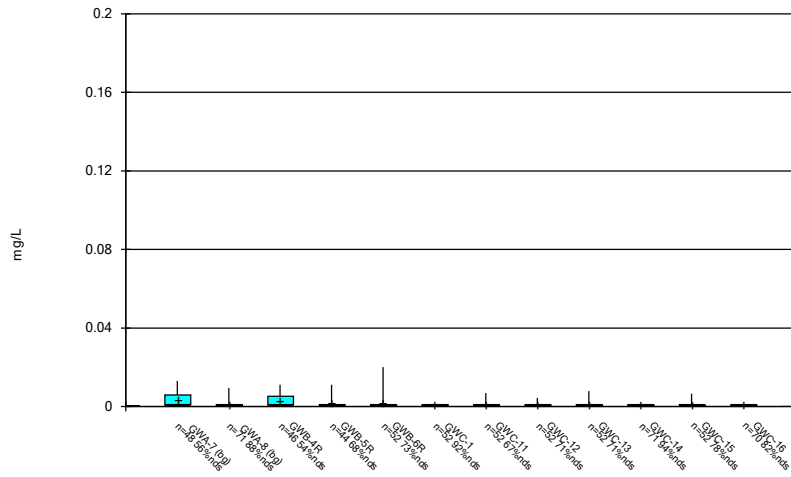
Constituent: Fluoride Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



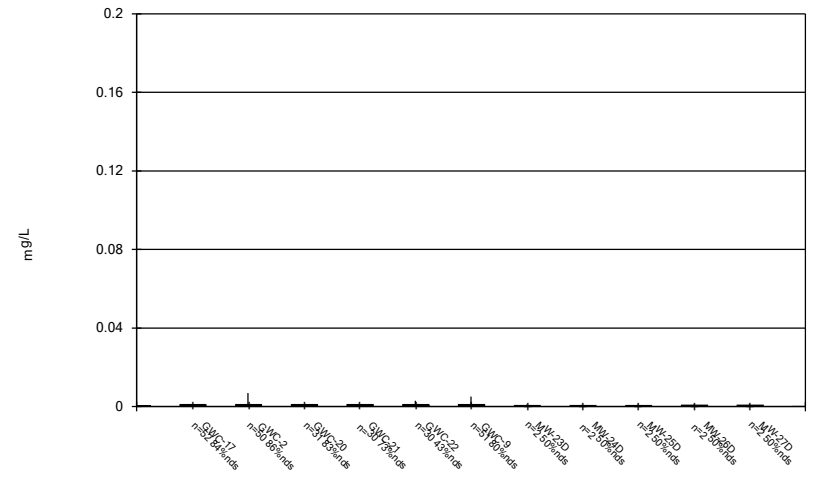
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



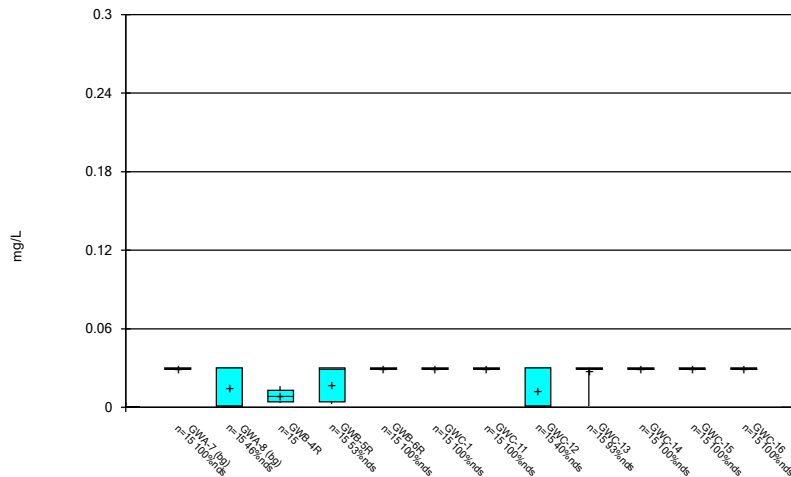
Constituent: Lead Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



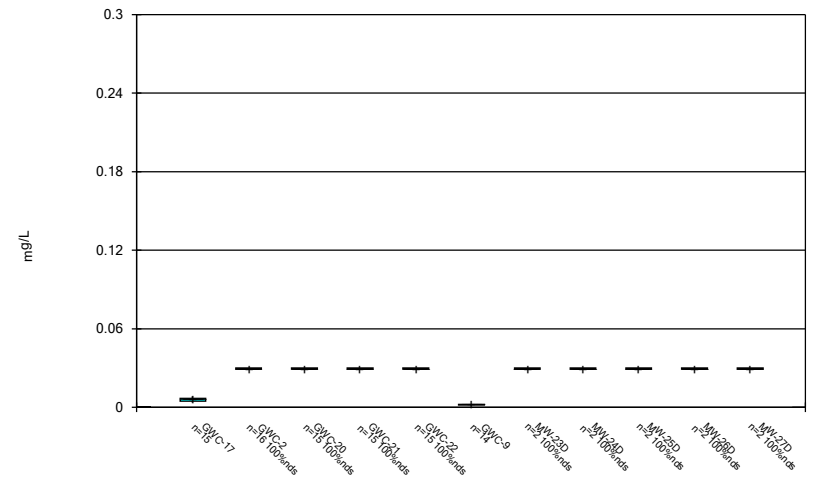
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



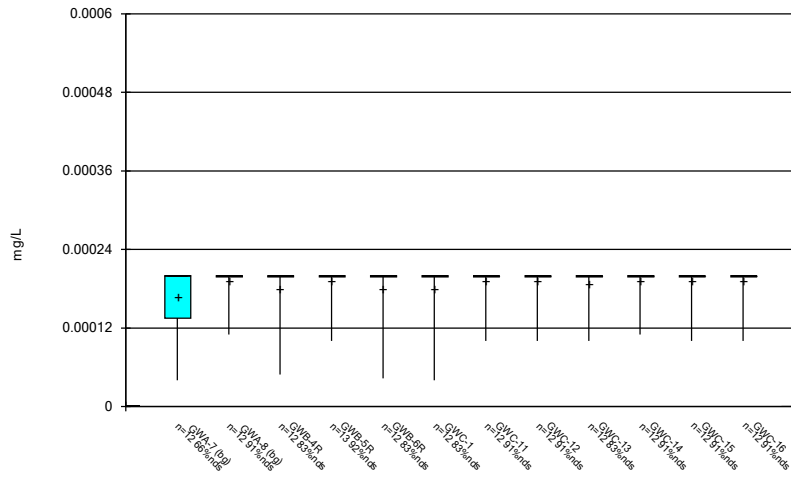
Constituent: Lithium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



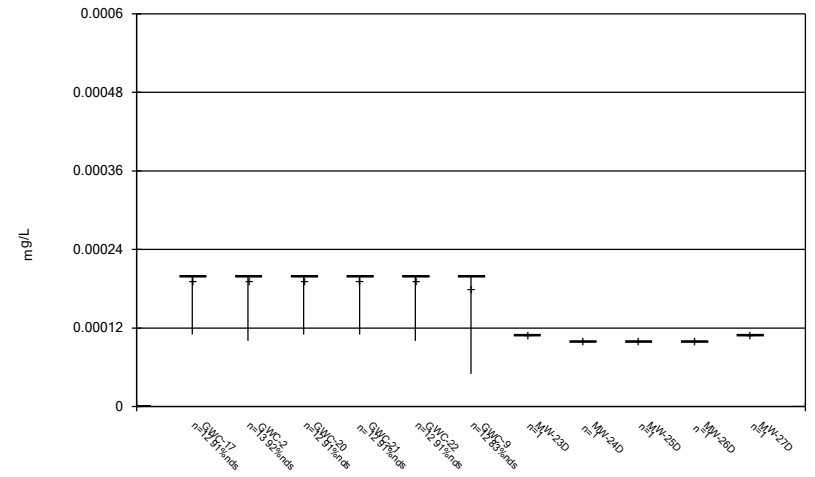
Constituent: Lithium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



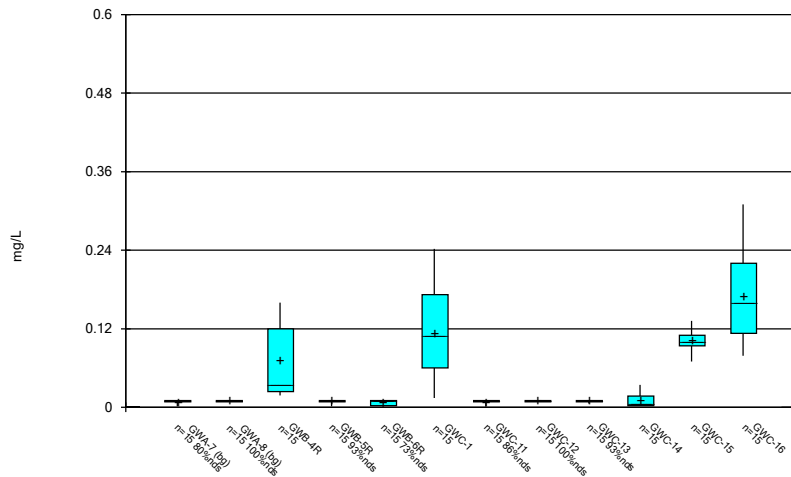
Constituent: Mercury Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



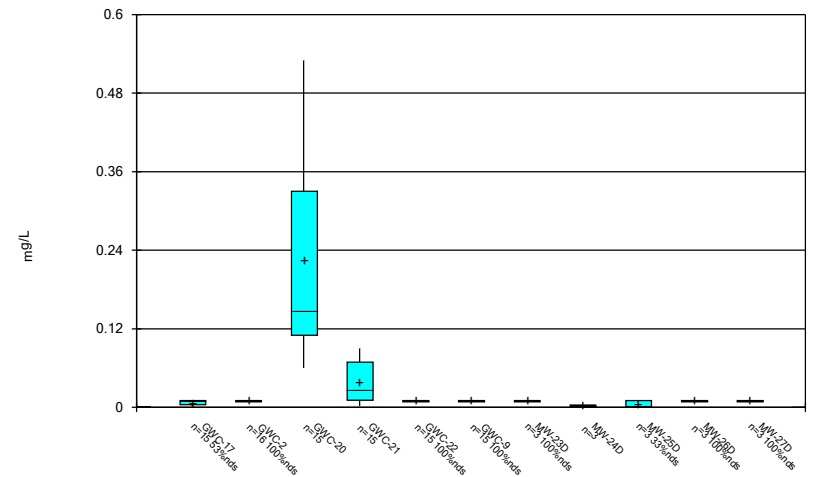
Constituent: Mercury Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

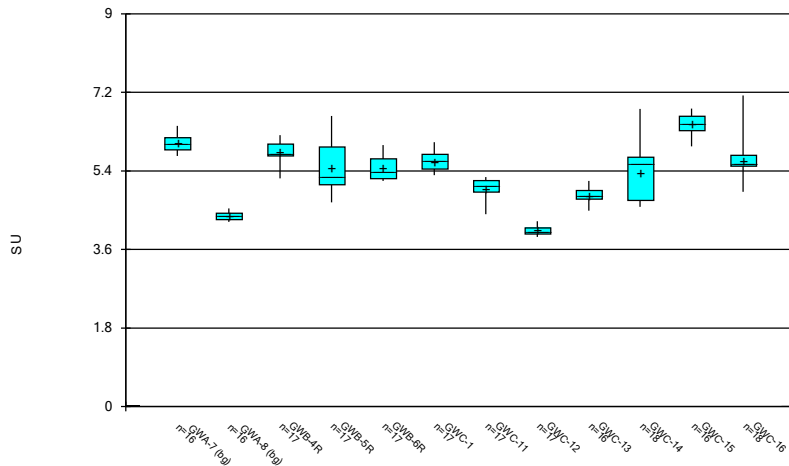
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

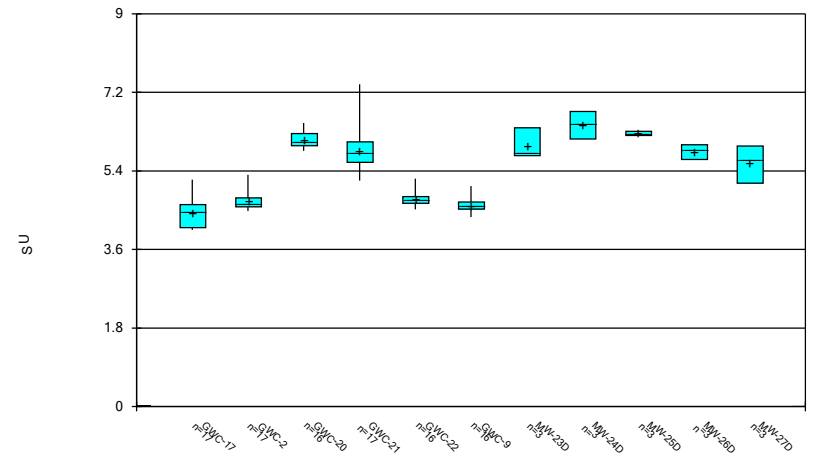


### Box & Whiskers Plot



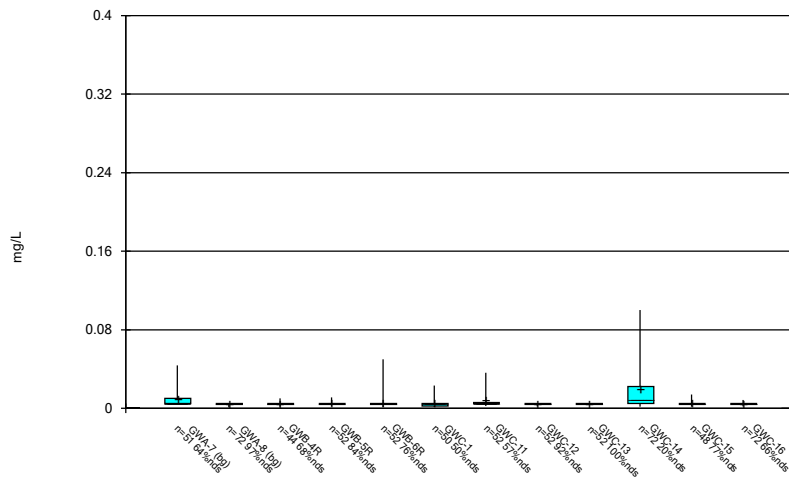
Constituent: pH Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



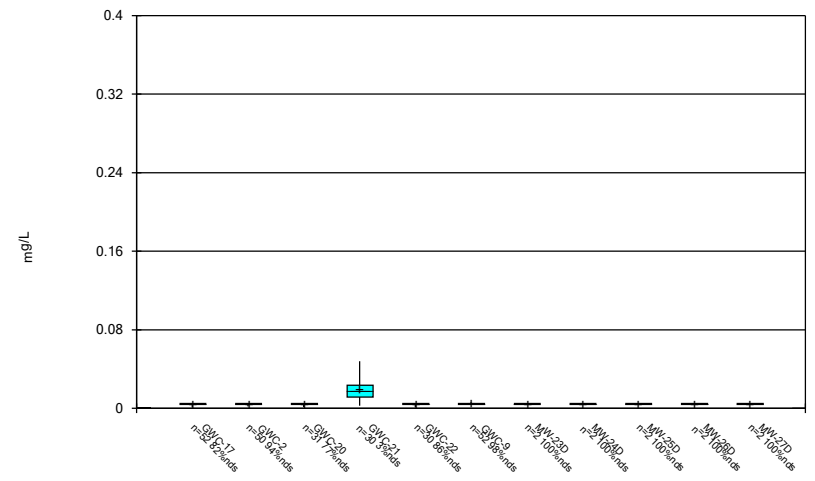
Constituent: pH Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



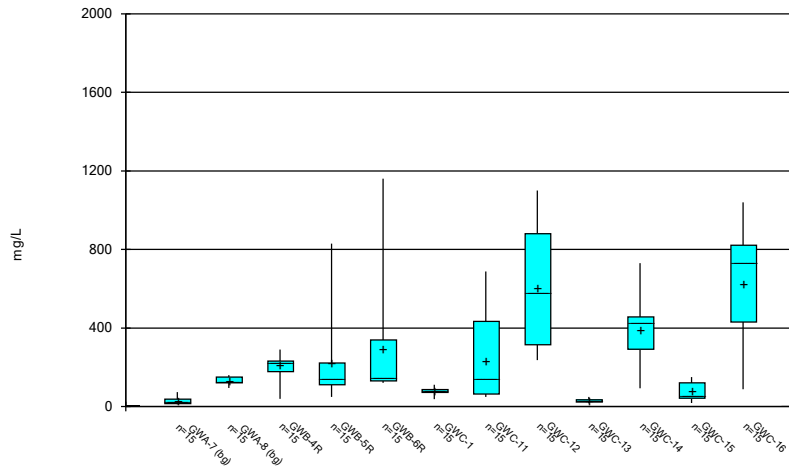
Constituent: Selenium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



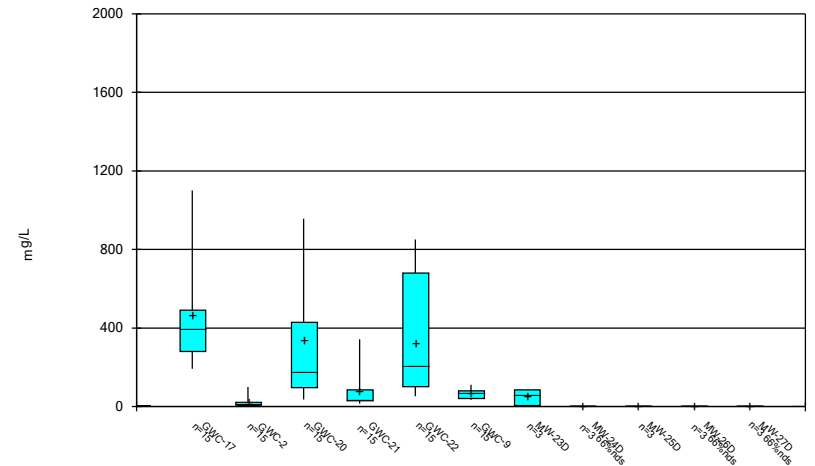
Constituent: Selenium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



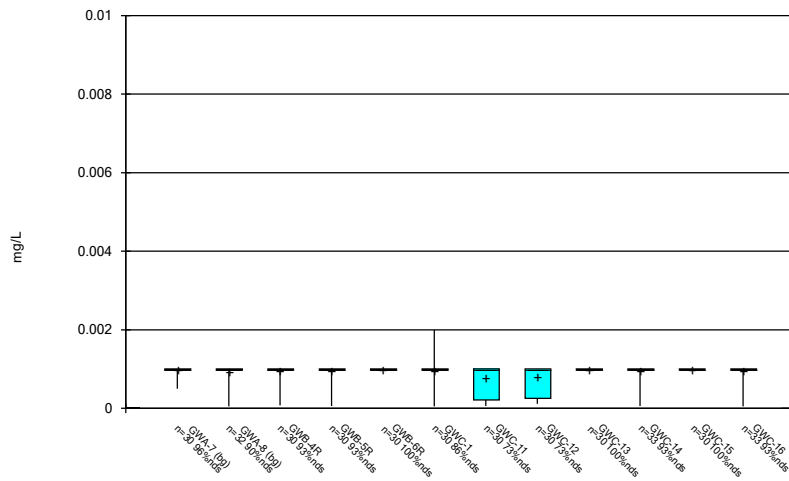
Constituent: Sulfate Analysis Run 11/21/2021 9:38 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



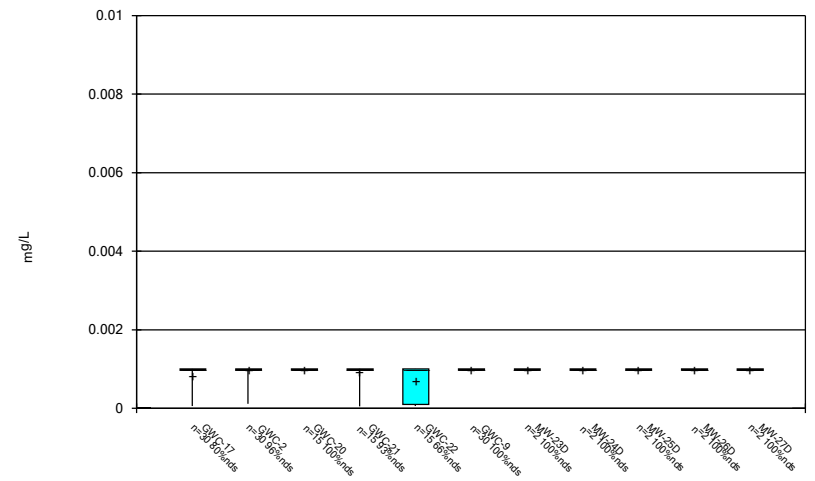
Constituent: Sulfate Analysis Run 11/21/2021 9:38 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



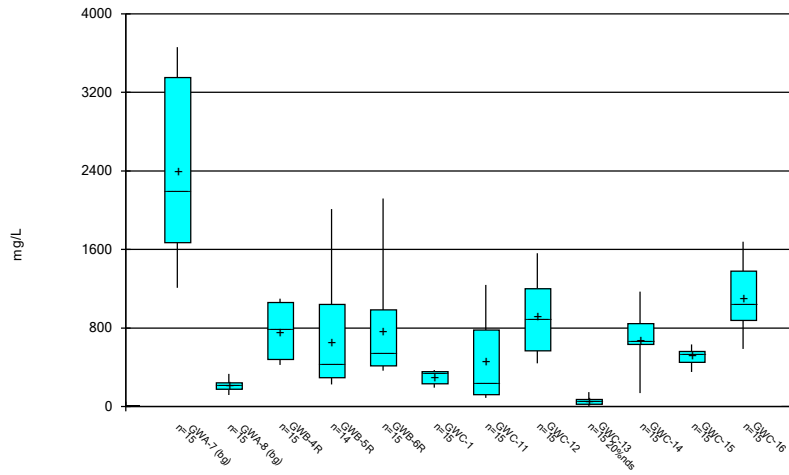
Constituent: Thallium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



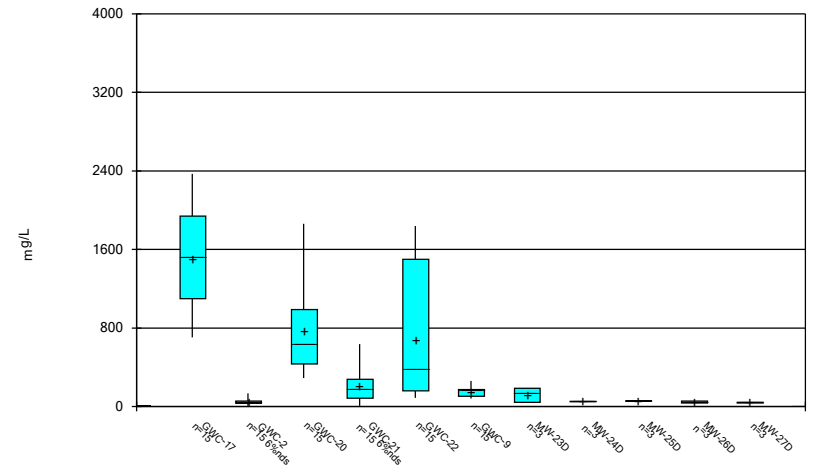
Constituent: Thallium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



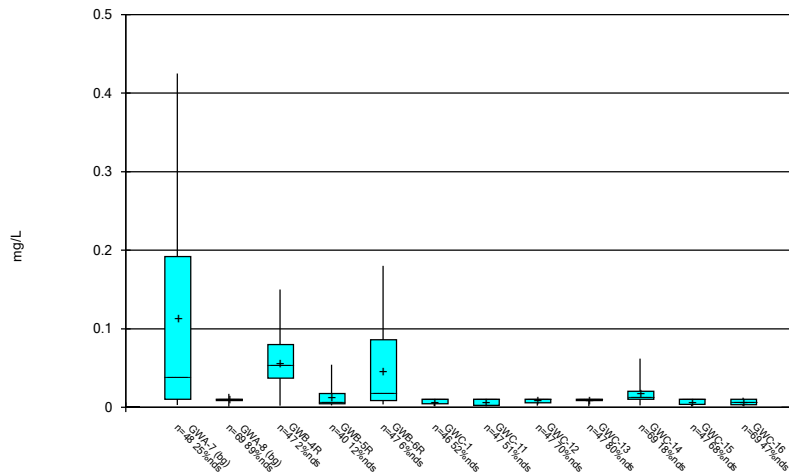
Constituent: Total Dissolved Solids Analysis Run 11/21/2021 9:38 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



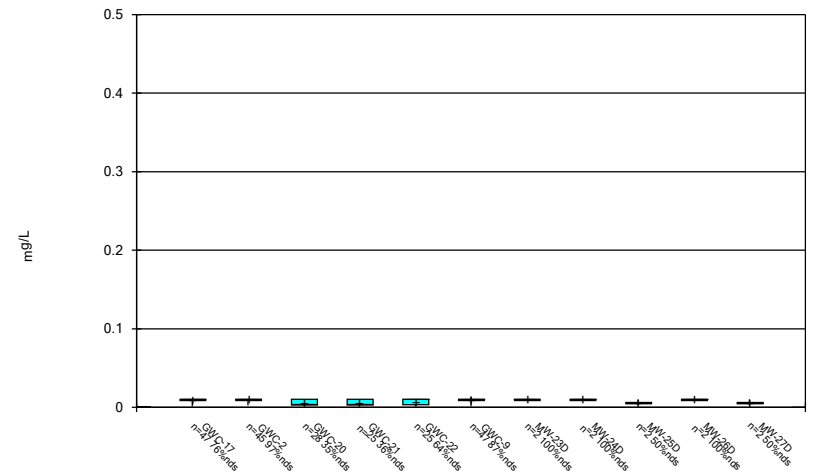
Constituent: Total Dissolved Solids Analysis Run 11/21/2021 9:38 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



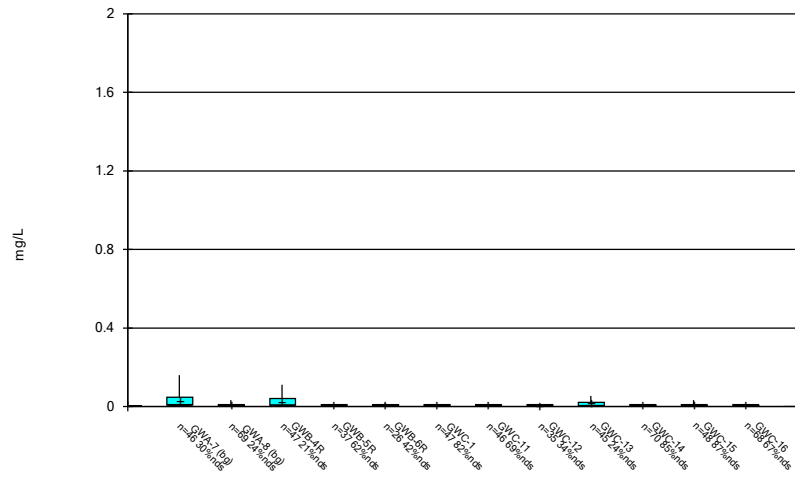
Constituent: Vanadium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



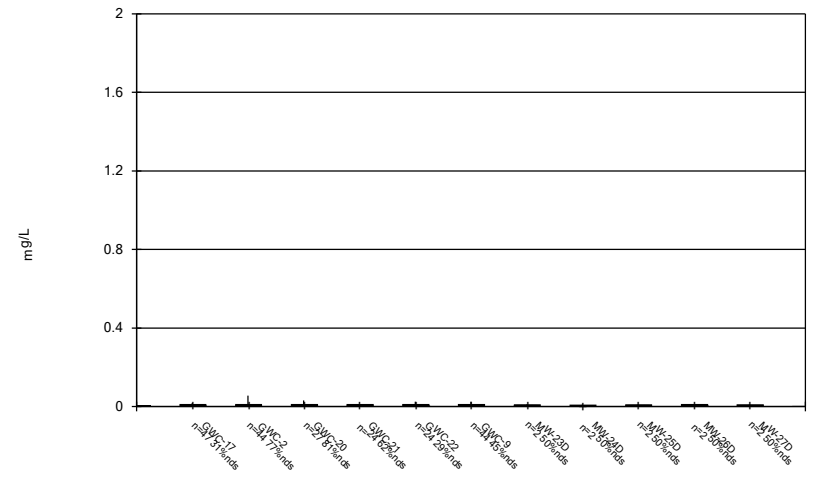
Constituent: Vanadium Analysis Run 11/21/2021 9:38 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



Constituent: Zinc Analysis Run 11/21/2021 9:39 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Box & Whiskers Plot



Constituent: Zinc Analysis Run 11/21/2021 9:39 AM View: Descriptive  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

FIGURE C.











# Outlier Summary

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 9:45 AM

Date	GWB5R Vanadium (mg/L)	GWC-1 Vanadium (mg/L)	GWC-14 Vanadium (mg/L)	GWC-15 Vanadium (mg/L)	GWC-16 Vanadium (mg/L)	GWA-7 Zinc (mg/L)	GWB-5R Zinc (mg/L)	GWB-6R Zinc (mg/L)	GWC-11 Zinc (mg/L)	GWC-12 Zinc (mg/L)
9/29/2000							0.026 (O)	<0.01 (O)		0.38 (O)
11/21/2000								0.024 (O)		0.077 (O)
1/20/2001							0.031 (O)	<0.01 (O)		0.23 (O)
3/14/2001	0.077 (O)						0.063 (O)	<0.01 (O)		0.24 (O)
7/16/2001	0.12 (O)						0.08 (O)	<0.01 (O)		0.053 (O)
11/1/2001	0.21 (O)						0.16 (O)	<0.01 (O)		0.022 (O)
4/25/2002	0.086 (O)							<0.01 (O)		1.2 (O)
11/20/2002	0.14 (O)						0.14 (O)	0.028 (O)		0.045 (O)
6/6/2003	0.12 (O)	0.16 (O)		0.019 (O)	0.082 (O)	0.69 (O)	0.51 (O)	0.032 (O)		0.042 (O)
12/12/2003				0.018 (O)				<0.01 (O)		
5/26/2004	0.06 (O)						0.036 (O)	<0.01 (O)		
12/7/2004							0.069 (O)	0.012 (O)	0.028 (O)	
6/21/2005							0.076 (O)	<0.01 (O)		
12/12/2005								<0.01 (O)		
6/27/2006										0.012 (O)
12/4/2006										
6/23/2007								0.094 (O)		0.025 (O)
12/11/2007								0.042 (O)		
6/24/2008								0.098 (O)		
12/5/2008								0.047 (O)		
7/7/2009								0.024 (O)		
12/21/2009								0.049 (O)		0.013 (O)
6/20/2010								0.045 (O)		
6/21/2010										
7/8/2011										
7/9/2012										
1/18/2013										
4/3/2014		0.077 (O)								
1/17/2016										
8/31/2016										
9/1/2016										
10/26/2016										
10/3/2017										
7/10/2018										
7/11/2018										
1/16/2019										
1/17/2019										
1/18/2019										
1/21/2019										
3/25/2019							<0.05 (O)			



FIGURE D.

# Appendix I Interwell Prediction Limit - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 10:17 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Arsenic (mg/L)	GWC-15	0.0287	n/a	9/23/2021	0.21	Yes	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-16	0.0287	n/a	9/22/2021	0.081	Yes	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-20	0.0287	n/a	9/22/2021	0.23	Yes	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Barium (mg/L)	GWC-16	0.22	n/a	9/22/2021	0.26	Yes	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-20	0.22	n/a	9/22/2021	0.42	Yes	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2

# Appendix I Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 10:17 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Antimony (mg/L)	GWB-4R	0.003	n/a	9/21/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWB-5R	0.003	n/a	9/21/2021	0.0013J	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWB-6R	0.003	n/a	9/21/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-1	0.003	n/a	9/23/2021	0.0016J	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-11	0.003	n/a	9/21/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-12	0.003	n/a	9/21/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-13	0.003	n/a	9/21/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-14	0.003	n/a	9/22/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-15	0.003	n/a	9/23/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-16	0.003	n/a	9/22/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-17	0.003	n/a	9/22/2021	0.0014J	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-2	0.003	n/a	9/22/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-20	0.003	n/a	9/22/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-21	0.003	n/a	9/22/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-22	0.003	n/a	9/21/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-9	0.003	n/a	9/22/2021	0.003ND	No	123	n/a	n/a	95.12	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-4R	0.0287	n/a	9/21/2021	0.0027J	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-5R	0.0287	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-6R	0.0287	n/a	9/21/2021	0.0054	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-1	0.0287	n/a	9/23/2021	0.0048J	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-12	0.0287	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-13	0.0287	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-14	0.0287	n/a	9/22/2021	0.0014J	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.0287</b>	<b>n/a</b>	<b>9/23/2021</b>	<b>0.21</b>	<b>Yes</b>	<b>123</b>	<b>n/a</b>	<b>n/a</b>	<b>77.24</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001289 NP Inter (NDs) 1 of 2</b>
<b>Arsenic (mg/L)</b>	<b>GWC-16</b>	<b>0.0287</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>0.081</b>	<b>Yes</b>	<b>123</b>	<b>n/a</b>	<b>n/a</b>	<b>77.24</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001289 NP Inter (NDs) 1 of 2</b>
Arsenic (mg/L)	GWC-17	0.0287	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-2	0.0287	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
<b>Arsenic (mg/L)</b>	<b>GWC-20</b>	<b>0.0287</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>0.23</b>	<b>Yes</b>	<b>123</b>	<b>n/a</b>	<b>n/a</b>	<b>77.24</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001289 NP Inter (NDs) 1 of 2</b>
Arsenic (mg/L)	GWC-21	0.0287	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-22	0.0287	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-9	0.0287	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	77.24	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Barium (mg/L)	GWB-4R	0.22	n/a	9/21/2021	0.098	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWB-5R	0.22	n/a	9/21/2021	0.076	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWB-6R	0.22	n/a	9/21/2021	0.077	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-1	0.22	n/a	9/23/2021	0.062	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-11	0.22	n/a	9/21/2021	0.12	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-12	0.22	n/a	9/21/2021	0.023	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-13	0.22	n/a	9/21/2021	0.037	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-14	0.22	n/a	9/22/2021	0.11	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-15	0.22	n/a	9/23/2021	0.062	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
<b>Barium (mg/L)</b>	<b>GWC-16</b>	<b>0.22</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>0.26</b>	<b>Yes</b>	<b>121</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001324 NP Inter (normality) 1 of 2</b>
Barium (mg/L)	GWC-17	0.22	n/a	9/22/2021	0.058	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-2	0.22	n/a	9/22/2021	0.047	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
<b>Barium (mg/L)</b>	<b>GWC-20</b>	<b>0.22</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>0.42</b>	<b>Yes</b>	<b>121</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001324 NP Inter (normality) 1 of 2</b>
Barium (mg/L)	GWC-21	0.22	n/a	9/22/2021	0.046	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-22	0.22	n/a	9/21/2021	0.036	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-9	0.22	n/a	9/22/2021	0.15	No	121	n/a	n/a	0	n/a	n/a	0.0001324 NP Inter (normality) 1 of 2
Chromium (mg/L)	GWB-4R	0.068	n/a	9/21/2021	0.0018J	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWB-5R	0.068	n/a	9/21/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWB-6R	0.068	n/a	9/21/2021	0.0035J	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2

# Appendix I Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 10:17 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Chromium (mg/L)	GWC-1	0.068	n/a	9/23/2021	0.0023J	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-11	0.068	n/a	9/21/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-12	0.068	n/a	9/21/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-13	0.068	n/a	9/21/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-14	0.068	n/a	9/22/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-15	0.068	n/a	9/23/2021	0.0013J	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-16	0.068	n/a	9/22/2021	0.0018J	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-17	0.068	n/a	9/22/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-2	0.068	n/a	9/22/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-20	0.068	n/a	9/22/2021	0.0013J	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-21	0.068	n/a	9/22/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-22	0.068	n/a	9/21/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-9	0.068	n/a	9/22/2021	0.005ND	No	122	n/a	n/a	62.3	n/a	n/a	0.0001306 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-4R	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-5R	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-6R	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-1	0.013	n/a	9/23/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-11	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-12	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-13	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-14	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-15	0.013	n/a	9/23/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-16	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-17	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-2	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-20	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-21	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-22	0.013	n/a	9/21/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-9	0.013	n/a	9/22/2021	0.001ND	No	119	n/a	n/a	75.63	n/a	n/a	0.000137 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-4R	0.0438	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-5R	0.0438	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-6R	0.0438	n/a	9/21/2021	0.0016J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-1	0.0438	n/a	9/23/2021	0.0018J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-11	0.0438	n/a	9/21/2021	0.0038J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-12	0.0438	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-14	0.0438	n/a	9/22/2021	0.0034J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-15	0.0438	n/a	9/23/2021	0.0016J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-16	0.0438	n/a	9/22/2021	0.0031J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-17	0.0438	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-2	0.0438	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-20	0.0438	n/a	9/22/2021	0.0024J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-21	0.0438	n/a	9/22/2021	0.0027J	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-22	0.0438	n/a	9/21/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-9	0.0438	n/a	9/22/2021	0.005ND	No	123	n/a	n/a	83.74	n/a	n/a	0.0001289 NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-4R	0.425	n/a	9/21/2021	0.0027J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427 NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-5R	0.425	n/a	9/21/2021	0.0039J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427 NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-6R	0.425	n/a	9/21/2021	0.015	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427 NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-1	0.425	n/a	9/23/2021	0.0042J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427 NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-11	0.425	n/a	9/21/2021	0.002J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427 NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-12	0.425	n/a	9/21/2021	0.0051J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427 NP Inter (NDs) 1 of 2

# Appendix I Interwell Prediction Limit - All Results

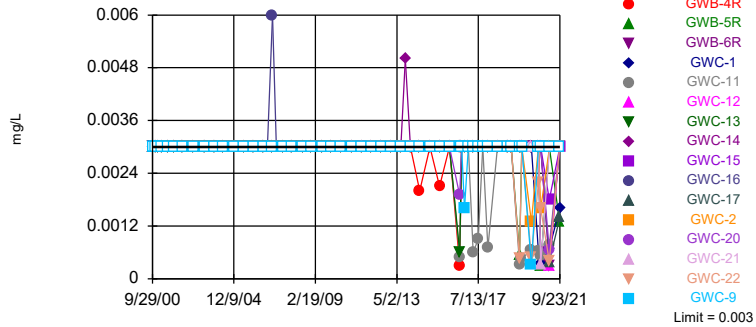
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 10:17 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method	
Vanadium (mg/L)	GWC-13	0.425	n/a	9/21/2021	0.01ND	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-14	0.425	n/a	9/22/2021	0.0052J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-15	0.425	n/a	9/23/2021	0.0022J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-16	0.425	n/a	9/22/2021	0.0025J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-17	0.425	n/a	9/22/2021	0.01ND	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-2	0.425	n/a	9/22/2021	0.01ND	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-20	0.425	n/a	9/22/2021	0.0033J	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-21	0.425	n/a	9/22/2021	0.01ND	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-22	0.425	n/a	9/21/2021	0.01ND	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-9	0.425	n/a	9/22/2021	0.01ND	No	117	n/a	n/a	63.25	n/a	n/a	0.0001427	NP Inter (NDs) 1 of 2
Zinc (mg/L)	GWB-4R	0.16	n/a	9/21/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWB-5R	0.16	n/a	9/21/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWB-6R	0.16	n/a	9/21/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-1	0.16	n/a	9/23/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-11	0.16	n/a	9/21/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-12	0.16	n/a	9/21/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-13	0.16	n/a	9/21/2021	0.036	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-14	0.16	n/a	9/22/2021	0.01	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-15	0.16	n/a	9/23/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-16	0.16	n/a	9/22/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-17	0.16	n/a	9/22/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-2	0.16	n/a	9/22/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-20	0.16	n/a	9/22/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-21	0.16	n/a	9/22/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-22	0.16	n/a	9/21/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-9	0.16	n/a	9/22/2021	0.01ND	No	115	n/a	n/a	26.96	n/a	n/a	0.0001484	NP Inter (normality) 1 of 2



Within Limit

Prediction Limit  
Interwell Non-parametric

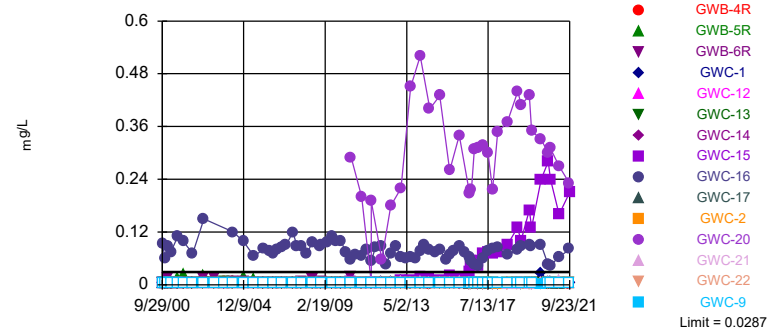


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 123 background values. 95.12% NDs. Annual per-constituent alpha = 0.004116. Individual comparison alpha = 0.0001289 (1 of 2). Comparing 16 points to limit.

Constituent: Antimony Analysis Run 11/21/2021 10:04 AM View: App I PLS  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWC-15, GWC-16, GWC-20

Prediction Limit  
Interwell Non-parametric

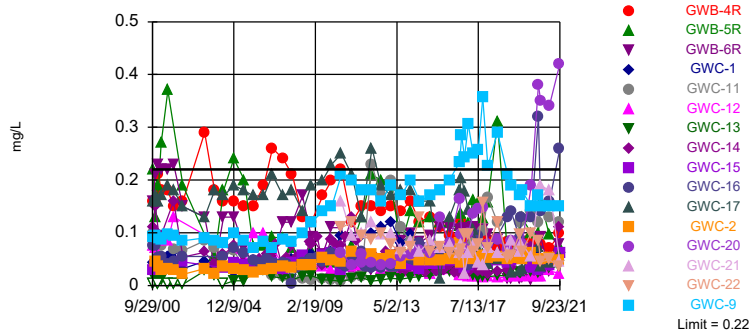


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 123 background values. 77.24% NDs. Annual per-constituent alpha = 0.004116. Individual comparison alpha = 0.0001289 (1 of 2). Comparing 15 points to limit. Assumes 1 future value.

Constituent: Arsenic Analysis Run 11/21/2021 10:04 AM View: App I PLS  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWC-16, GWC-20

Prediction Limit  
Interwell Non-parametric

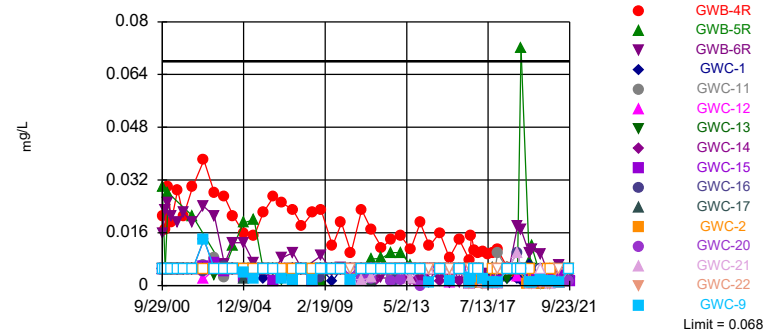


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 121 background values. Annual per-constituent alpha = 0.004228. Individual comparison alpha = 0.0001324 (1 of 2). Comparing 16 points to limit.

Constituent: Barium Analysis Run 11/21/2021 10:04 AM View: App I PLS  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit  
Interwell Non-parametric

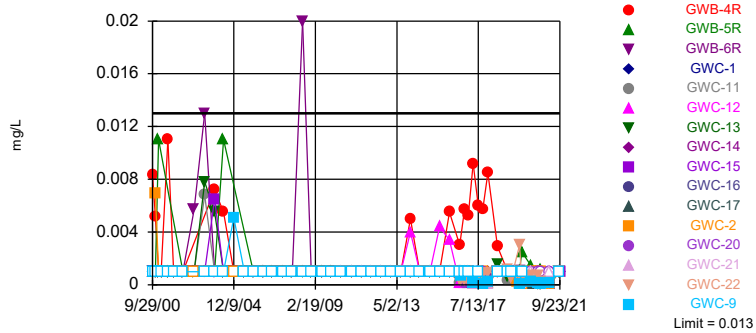


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 122 background values. 62.3% NDs. Annual per-constituent alpha = 0.004172. Individual comparison alpha = 0.0001306 (1 of 2). Comparing 16 points to limit.

Constituent: Chromium Analysis Run 11/21/2021 10:04 AM View: App I PLS  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit  
Interwell Non-parametric

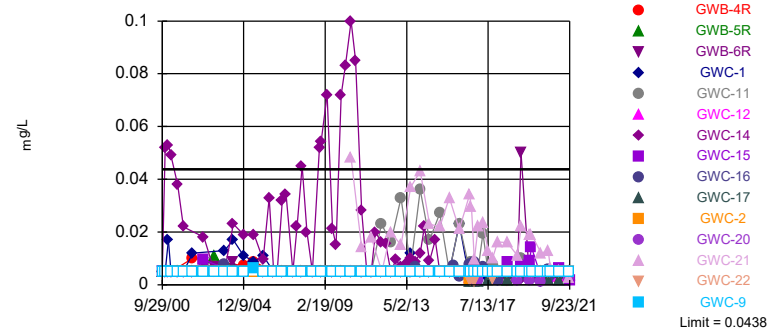


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 119 background values. 75.63% NDs. Annual per-constituent alpha = 0.004375. Individual comparison alpha = 0.000137 (1 of 2). Comparing 16 points to limit.

Constituent: Lead Analysis Run 11/21/2021 10:04 AM View: App I PLs  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit  
Interwell Non-parametric

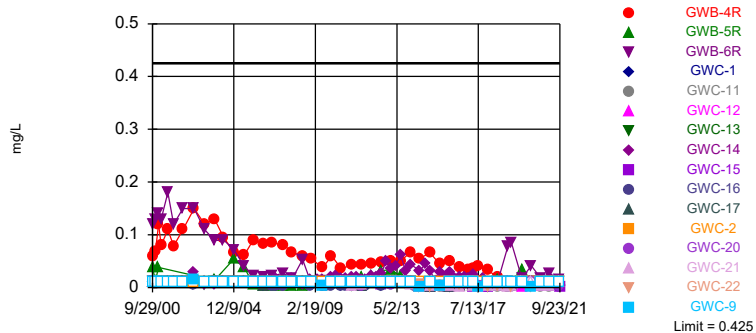


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 123 background values. 83.74% NDs. Annual per-constituent alpha = 0.004116. Individual comparison alpha = 0.0001289 (1 of 2). Comparing 15 points to limit. Assumes 1 future value.

Constituent: Selenium Analysis Run 11/21/2021 10:04 AM View: App I PLs  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit  
Interwell Non-parametric

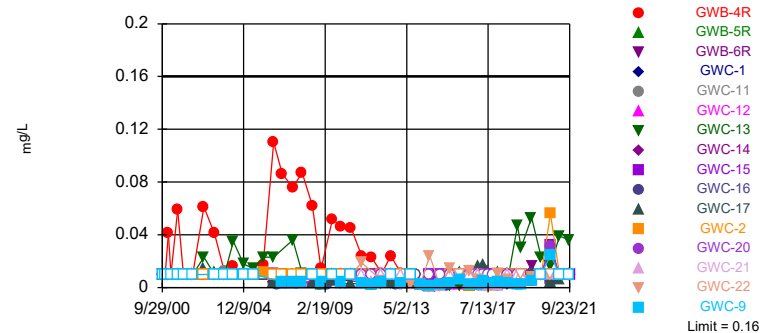


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 117 background values. 63.25% NDs. Annual per-constituent alpha = 0.004557. Individual comparison alpha = 0.0001427 (1 of 2). Comparing 16 points to limit.

Constituent: Vanadium Analysis Run 11/21/2021 10:04 AM View: App I PLs  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 115 background values. 26.96% NDs. Annual per-constituent alpha = 0.004739. Individual comparison alpha = 0.0001484 (1 of 2). Comparing 16 points to limit.

Constituent: Zinc Analysis Run 11/21/2021 10:04 AM View: App I PLs  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-13	GWC-15	GWB-5R	GWA-8 (bg)	GWC-14	GWC-17	GWC-1	GWC-12
9/29/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/21/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/20/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/14/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
7/16/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/1/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/25/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/20/2002		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/6/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
5/26/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/7/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/21/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/4/2006					<0.003	<0.003			
6/27/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/30/2006					<0.003	<0.003			
12/4/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
2/15/2007					<0.003	<0.003			
6/23/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/11/2007					<0.003	<0.003			
12/11/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/11/2008					<0.003	<0.003			
6/23/2008	<0.003	<0.003			<0.003				<0.003
6/24/2008			<0.003	<0.003		<0.003	<0.003	<0.003	
11/3/2008					<0.003	<0.003			
12/4/2008	<0.003	<0.003			<0.003	<0.003			<0.003
12/5/2008			<0.003	<0.003			<0.003	<0.003	
3/25/2009					<0.003	<0.003			
7/7/2009	<0.003			<0.003	<0.003			<0.003	
7/8/2009		<0.003	<0.003			<0.003	<0.003		<0.003
9/14/2009					<0.003	<0.003			
12/20/2009	<0.003		<0.003		<0.003	<0.003		<0.003	
12/21/2009		<0.003		<0.003			<0.003		<0.003
3/4/2010					<0.003	<0.003			
6/20/2010	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003
6/21/2010							<0.003		
9/14/2010					<0.003	<0.003			
1/6/2011		<0.003		<0.003				<0.003	
1/7/2011	<0.003		<0.003		<0.003	<0.003	<0.003		<0.003
4/15/2011					<0.003	<0.003			
7/7/2011	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003
7/8/2011							<0.003		
9/25/2011					<0.003	<0.003			
1/17/2012	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003
1/18/2012							<0.003		
4/4/2012					<0.003	<0.003			
7/9/2012	<0.003	<0.003	<0.003	<0.003		<0.003		<0.003	<0.003
7/10/2012					<0.003	<0.003	<0.003		
10/9/2012					<0.003	<0.003			
1/17/2013		<0.003		<0.003				<0.003	<0.003
1/18/2013	<0.003		<0.003		<0.003	<0.003	<0.003		

# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-13	GWC-15	GWB-5R	GWA-8 (bg)	GWC-14	GWC-17	GWC-1	GWC-12
4/5/2013					<0.003	<0.003			
7/16/2013		<0.003		<0.003				<0.003	<0.003
7/17/2013	<0.003		<0.003		<0.003	<0.003	<0.003		
10/11/2013					<0.003	0.005			
1/13/2014	<0.003	<0.003	<0.003	<0.003				<0.003	<0.003
1/14/2014					<0.003	<0.003	<0.003		
4/3/2014					<0.003	<0.003			
7/8/2014		<0.003							<0.003
7/9/2014	0.0022 (J)		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
7/10/2014									
10/24/2014					<0.003	<0.003			
1/12/2015									
1/13/2015	<0.003	<0.003	<0.003	<0.003				<0.003	<0.003
1/14/2015					<0.003	<0.003	<0.003		
5/10/2015					<0.003	<0.003			
5/11/2015									
7/16/2015	0.0028 (J)	<0.003	<0.003	<0.003				<0.003	<0.003
7/17/2015					<0.003	<0.003			
7/18/2015							<0.003		
10/6/2015					<0.003	<0.003			
1/17/2016			<0.003			<0.003		<0.003	
1/18/2016	<0.003	<0.003		<0.003	<0.003		<0.003		<0.003
1/19/2016									
4/26/2016					<0.003	<0.003			
7/26/2016		0.0006 (J)							
7/27/2016	<0.003		<0.003	<0.003		<0.003		<0.003	<0.003
7/28/2016					<0.003				
7/29/2016							<0.003		
8/30/2016				<0.003	<0.003			<0.003	
8/31/2016		<0.003							<0.003
9/1/2016	0.0017 (J)		<0.003			<0.003	<0.003		
10/24/2016					<0.003				
10/25/2016	<0.003		<0.003			<0.003		<0.003	
10/26/2016		<0.003		<0.003			<0.003		<0.003
10/27/2016									
1/3/2017				<0.003	<0.003				
1/4/2017								<0.003	<0.003
1/5/2017		<0.003	<0.003			<0.003	<0.003		
1/6/2017	0.0009 (J)								
4/3/2017			<0.003		<0.003				
4/4/2017						<0.003		<0.003	
4/5/2017							<0.003		<0.003
4/6/2017	<0.003	<0.003		<0.003					
7/10/2017									<0.003
7/11/2017			<0.003		<0.003	<0.003			
7/12/2017		<0.003		<0.003				<0.003	
7/13/2017	0.0013 (J)						<0.003		
10/2/2017			<0.003		<0.003	<0.003			
10/3/2017				<0.003				<0.003	
10/4/2017	0.0008 (J)	<0.003					<0.003		<0.003
1/9/2018	<0.003		<0.003		<0.003	<0.003			
1/10/2018		<0.003		<0.003				<0.003	

# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-13	GWC-15	GWB-5R	GWA-8 (bg)	GWC-14	GWC-17	GWC-1	GWC-12
1/11/2018							<0.003		<0.003
7/9/2018					<0.003	<0.003			
7/10/2018			<0.003	<0.003				<0.003	
7/11/2018	<0.003	<0.003					<0.003		<0.003
1/16/2019	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	
1/17/2019			<0.003						<0.003
1/18/2019									
1/21/2019									
3/25/2019	<0.003				<0.003				
3/26/2019		<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	
3/27/2019									<0.003
7/30/2019									
8/26/2019	<0.003				<0.003				
8/27/2019		<0.003	<0.003			<0.003		<0.003	<0.003
8/28/2019				0.00054 (J)			<0.003		
10/7/2019					<0.003				
10/8/2019	<0.003	<0.003	<0.003			<0.003			
10/9/2019				<0.003			<0.003	<0.003	<0.003
4/6/2020	<0.003				<0.003				
4/7/2020			<0.003	<0.003		<0.003		<0.003	<0.003
4/8/2020		<0.003					<0.003		
8/17/2020		<0.003				<0.003			<0.003
8/18/2020			<0.003			<0.003	<0.003		
8/19/2020	<0.003			<0.003				0.00061 (J)	
9/28/2020	<0.003	<0.003			<0.003			0.00035 (J)	
9/29/2020						<0.003			<0.003
9/30/2020			<0.003	0.0003 (J)			<0.003		
10/1/2020									
3/10/2021				<0.003				0.00069 (J)	0.0003 (J)
3/11/2021	<0.003						0.00039 (J)		
3/12/2021			0.0018 (J)		<0.003				
3/15/2021		<0.003							
3/16/2021						<0.003			
9/21/2021	<0.003	<0.003		0.0013 (J)	<0.003				<0.003
9/22/2021						<0.003	0.0014 (J)		
9/23/2021			<0.003					0.0016 (J)	

# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-11	GWC-9	GWB-6R	GWB-4R	GWC-2	GWC-22	GWC-20	GWC-21
9/29/2000	<0.003	<0.003	<0.003	<0.003	<0.003				
11/21/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
1/20/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
3/14/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
7/16/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
11/1/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
4/25/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
11/20/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
6/6/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
12/12/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
5/26/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
12/7/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
6/21/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
12/12/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
4/4/2006	<0.003								
6/27/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
8/30/2006	<0.003								
12/4/2006	0.006	<0.003	<0.003	<0.003	<0.003	<0.003			
2/15/2007	<0.003								
6/23/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
9/11/2007	<0.003								
12/11/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
3/11/2008	<0.003								
6/23/2008		<0.003	<0.003						
6/24/2008	<0.003			<0.003	<0.003	<0.003			
11/3/2008	<0.003								
12/4/2008		<0.003	<0.003				<0.003		
12/5/2008	<0.003			<0.003	<0.003				
3/25/2009	<0.003								
7/7/2009				<0.003	<0.003				
7/8/2009	<0.003	<0.003	<0.003					<0.003	
9/14/2009	<0.003								
12/20/2009	<0.003						<0.003		
12/21/2009		<0.003	<0.003	<0.003	<0.003				
3/4/2010	<0.003								
6/20/2010		<0.003	<0.003	<0.003			<0.003		
6/21/2010	<0.003				<0.003		<0.003	<0.003	<0.003
9/14/2010	<0.003								
1/6/2011		<0.003				<0.003			
1/7/2011	<0.003		<0.003	<0.003	<0.003		<0.003	<0.003	<0.003
4/15/2011	<0.003								
7/7/2011	<0.003	<0.003		<0.003				<0.003	
7/8/2011			<0.003		<0.003		<0.003	<0.003	<0.003
9/25/2011	<0.003								
1/17/2012		<0.003				<0.003			
1/18/2012	<0.003		<0.003	<0.003	<0.003		<0.003	<0.003	<0.003
4/4/2012	<0.003								
7/9/2012		<0.003				<0.003			
7/10/2012	<0.003		<0.003	<0.003	<0.003		<0.003	<0.003	<0.003
10/9/2012	<0.003								
1/17/2013		<0.003				<0.003			
1/18/2013	<0.003		<0.003	<0.003	<0.003		<0.003	<0.003	<0.003

# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-11	GWC-9	GWB-6R	GWB-4R	GWC-2	GWC-22	GWC-20	GWC-21
4/5/2013	<0.003								
7/16/2013		<0.003							
7/17/2013	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
10/11/2013	<0.003								
1/13/2014		<0.003				<0.003			
1/14/2014	<0.003		<0.003	<0.003	<0.003		<0.003	<0.003	<0.003
4/3/2014	<0.003								
7/8/2014		<0.003							
7/9/2014	<0.003		<0.003	<0.003	0.002 (J)	<0.003			<0.003
7/10/2014							<0.003	<0.003	
10/24/2014	<0.003								
1/12/2015					<0.003			<0.003	
1/13/2015		<0.003				<0.003			
1/14/2015	<0.003		<0.003	<0.003			<0.003		<0.003
5/10/2015									
5/11/2015	<0.003								
7/16/2015	<0.003	<0.003			0.0021 (J)	<0.003			
7/17/2015			<0.003	<0.003					<0.003
7/18/2015							<0.003	<0.003	
10/6/2015	<0.003								
1/17/2016	<0.003					<0.003		<0.003	<0.003
1/18/2016			<0.003	<0.003	<0.003		<0.003		
1/19/2016		<0.003							
4/26/2016	<0.003								
7/26/2016		0.0005 (J)							
7/27/2016						<0.003			
7/28/2016	<0.003		<0.003	<0.003				0.0019 (J)	<0.003
7/29/2016					0.0003 (J)		<0.003		
8/30/2016				<0.003					
8/31/2016		<0.003	<0.003			<0.003	<0.003		
9/1/2016	<0.003				<0.003			<0.003	<0.003
10/24/2016									
10/25/2016	<0.003							<0.003	<0.003
10/26/2016		<0.003		<0.003	<0.003	<0.003	<0.003		
10/27/2016			0.0016 (J)						
1/3/2017									
1/4/2017	<0.003	<0.003					<0.003	<0.003	<0.003
1/5/2017				<0.003		<0.003			
1/6/2017			<0.003		<0.003				
4/3/2017									
4/4/2017					<0.003	<0.003		<0.003	<0.003
4/5/2017	<0.003								
4/6/2017		0.0006 (J)	<0.003	<0.003			<0.003		
7/10/2017									
7/11/2017		0.0009 (J)					<0.003	<0.003	
7/12/2017	<0.003		<0.003	<0.003	<0.003				
7/13/2017						<0.003			<0.003
10/2/2017								<0.003	
10/3/2017	<0.003	<0.003		<0.003		<0.003			<0.003
10/4/2017			<0.003		<0.003		<0.003		
1/9/2018				<0.003					<0.003
1/10/2018	<0.003					<0.003		<0.003	





# Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-1	GWC-12	GWC-13	GWC-14	GWC-15
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	0.014	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	0.014	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/1/2001	<0.005	0.023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/20/2002		0.022	0.014	<0.005	<0.005	<0.005	<0.005	0.011	<0.005
6/6/2003	0.02	0.07 (O)	0.014	<0.005	0.03 (O)	<0.005	<0.005	<0.005	<0.005
12/12/2003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0064	<0.005	<0.005
5/26/2004	<0.005	0.0074	0.0082	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
12/7/2004	<0.005	0.017	0.0062	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
6/21/2005	<0.005	0.013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
12/12/2005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/4/2006				<0.005				<0.005	
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006				<0.005				<0.005	
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/15/2007				<0.005				<0.005	
6/23/2007	<0.005	<0.005	0.0053	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/11/2007				<0.005				<0.005	
12/11/2007	<0.005	<0.005	0.0057	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/11/2008				<0.005				<0.005	
6/23/2008	<0.005			<0.005		<0.005	<0.005		
6/24/2008		<0.005	0.012		<0.005			<0.005	<0.005
11/3/2008				<0.005				<0.005	
12/4/2008	<0.005			<0.005		<0.005	<0.005	<0.005	
12/5/2008		<0.005	0.0064		<0.005				<0.005
3/25/2009				<0.005				<0.005	
7/7/2009	<0.005	<0.005	<0.005	<0.005	<0.005				
7/8/2009						<0.005	<0.005	<0.005	0.0052
9/14/2009				<0.005				<0.005	
12/20/2009	<0.005			<0.005	<0.005			<0.005	<0.005
12/21/2009		<0.005	<0.005			<0.005	<0.005		
3/4/2010				<0.005				<0.005	
6/20/2010	<0.005	<0.005	0.017	<0.005	<0.005	<0.005	<0.005	<0.005	0.0068
6/21/2010									
9/14/2010				<0.005				<0.005	
1/6/2011		<0.005			<0.005		<0.005		
1/7/2011	<0.005		<0.005	<0.005		<0.005		<0.005	<0.005
4/15/2011				<0.005				<0.005	
7/7/2011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/8/2011									
9/25/2011				<0.005				<0.005	
1/17/2012	<0.005	<0.005		<0.005	0.0071	<0.005	<0.005	<0.005	<0.005
1/18/2012			<0.005						
4/4/2012				<0.005				<0.005	
7/9/2012	0.0052	<0.005			0.0076	<0.005	<0.005	<0.005	<0.005
7/10/2012			<0.005	<0.005					
10/9/2012				<0.005				<0.005	
1/17/2013		<0.005			0.0086	<0.005	<0.005		
1/18/2013	0.0087		<0.005	<0.005				<0.005	0.0089

# Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-1	GWC-12	GWC-13	GWC-14	GWC-15
4/5/2013				<0.005				<0.005	
7/16/2013		<0.005			<0.005	<0.005	<0.005		
7/17/2013	0.0084		<0.005	<0.005				<0.005	0.011
10/11/2013				<0.005				0.005	
1/13/2014	0.009	<0.005			<0.005	<0.005	<0.005		0.017
1/14/2014			<0.005	<0.005				<0.005	
4/3/2014				<0.005				<0.005	
7/8/2014						<0.005	<0.005		
7/9/2014	0.008	<0.005	<0.005	<0.005	0.0022 (J)			<0.005	0.014
7/10/2014									
10/24/2014				<0.005				<0.005	
1/12/2015									
1/13/2015	0.0077	<0.005			<0.005	<0.005	<0.005		0.011
1/14/2015			<0.005	<0.005				<0.005	
5/10/2015				<0.005				<0.005	
5/11/2015									
7/16/2015	0.0077	<0.005			0.0037 (J)	<0.005	<0.005		0.02
7/17/2015			<0.005	<0.005				<0.005	
7/18/2015									
10/6/2015				<0.005				<0.005	
1/17/2016					0.024 (O)			0.002 (J)	0.014
1/18/2016	0.014	<0.005	<0.005	<0.005		<0.005	<0.005		
4/26/2016				0.0011 (J)				0.00183 (J)	
7/26/2016							<0.005		
7/27/2016	0.0111	0.0008 (J)			0.0046 (J)	<0.005		0.0021 (J)	0.0303
7/28/2016			0.0009 (J)	<0.005					
7/29/2016									
8/30/2016		<0.005	<0.005	<0.005	0.0023 (J)				
8/31/2016						<0.005	<0.005		
9/1/2016	0.0287							0.0024 (J)	0.0533
10/24/2016				<0.005					
10/25/2016	0.0069				0.0035 (J)			<0.005	0.0551
10/26/2016		<0.005	<0.005			<0.005	<0.005		
10/27/2016									
1/3/2017		<0.005		<0.005					
1/4/2017					0.0018 (J)	<0.005			
1/5/2017			0.0021 (J)				<0.005	0.0024 (J)	0.0437
1/6/2017	0.0097								
4/3/2017				0.0006 (J)					0.0713
4/4/2017					0.0015 (J)			0.003 (J)	
4/5/2017						0.0006 (J)			
4/6/2017	0.0104	0.0006 (J)	0.0011 (J)				<0.005		
7/10/2017						0.0008 (J)			
7/11/2017				0.0006 (J)				0.0019 (J)	0.0745
7/12/2017		0.0009 (J)	0.0014 (J)		0.0015 (J)		<0.005		
7/13/2017	0.0064								
10/2/2017				0.0006 (J)				0.0026 (J)	0.0723
10/3/2017		0.001 (J)	0.0014 (J)		0.0013 (J)				
10/4/2017	0.0078					0.0009 (J)	<0.005		
1/9/2018	0.0091 (J)		0.0017 (J)	0.0009 (J)				0.0021 (J)	0.0731
1/10/2018		0.0012 (J)			0.0023 (J)		0.0006 (J)		
1/11/2018						<0.005			

# Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-1	GWC-12	GWC-13	GWC-14	GWC-15
7/9/2018				<0.005				0.0019 (J)	
7/10/2018		0.0016 (J)	0.00063 (J)		0.0031 (J)				0.09
7/11/2018	<0.005					<0.005	<0.005		
1/16/2019	<0.005	0.0011 (J)	<0.005	<0.005	0.0023 (J)		<0.005	0.0016 (J)	
1/17/2019						<0.005			0.13
1/18/2019									
1/21/2019									
3/25/2019	0.0029 (J)			<0.005					
3/26/2019		0.0014 (J)	0.0029 (J)		0.0032 (J)		0.00058 (J)	0.0023 (J)	0.1
3/27/2019						<0.005			
7/30/2019									
8/26/2019	0.0041 (J)			<0.005					
8/27/2019			0.0035 (J)		0.0022 (J)	<0.005	<0.005	0.0017 (J)	0.17
8/28/2019		0.0023 (J)							
10/7/2019				<0.005					
10/8/2019	0.003 (J)						<0.005	0.0017 (J)	0.13
10/9/2019		0.0053 (J)	0.0018 (J)		0.0042 (J)	<0.005			
4/6/2020	<0.005			0.00045 (J)					
4/7/2020		0.0011 (J)	<0.005		0.027	<0.005		0.0018 (J)	0.24
4/8/2020							<0.005		
8/17/2020				<0.005		<0.005	<0.005		
8/18/2020								0.0012 (J)	0.28
8/19/2020	0.006 (J)	0.0019 (J)	0.0036 (J)		0.007				
9/28/2020	<0.005			<0.005	0.0058		<0.005		
9/29/2020						<0.005	<0.005		
9/30/2020		0.0017 (J)	0.004 (J)						0.24
10/1/2020									
3/10/2021		0.0019 (J)	0.0054		0.0055	<0.005			
3/11/2021	0.0047 (J)								
3/12/2021				<0.005					0.16
3/15/2021							<0.005		
3/16/2021								<0.005	
9/21/2021	<0.005	<0.005	0.0054	<0.005		<0.005	<0.005		
9/22/2021								0.0014 (J)	
9/23/2021					0.0048 (J)				0.21

# Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWB-4R	GWC-9	GWC-2	GWC-20	GWC-22	GWC-21
9/29/2000	0.094	<0.005	<0.005	<0.005				
11/21/2000	0.059	<0.005	<0.005	<0.005	<0.005			
1/20/2001	0.087	<0.005	0.01	<0.005	<0.005			
3/14/2001	0.075	<0.005	<0.005	<0.005	<0.005			
7/16/2001	0.11	<0.005	<0.005	<0.005	<0.005			
11/1/2001	0.098	<0.005	<0.005	<0.005	<0.005			
4/25/2002	0.071	<0.005	<0.005	<0.005	<0.005			
11/20/2002	0.15	<0.005	0.0096	<0.005	<0.005			
6/6/2003	1.2 (O)	<0.005	0.0076	<0.005	<0.005			
12/12/2003	0.27 (O)	<0.005	0.0058	<0.005	<0.005			
5/26/2004	0.12	<0.005	0.0068	<0.005	<0.005			
12/7/2004	0.098	<0.005	0.0066	<0.005	<0.005			
6/21/2005	0.065	<0.005	<0.005	<0.005	<0.005			
12/12/2005	0.081	<0.005	<0.005	<0.005	<0.005			
4/4/2006	0.077							
6/27/2006	0.071	<0.005	<0.005	<0.005	<0.005			
8/30/2006	0.08							
12/4/2006	0.085	<0.005	<0.005	<0.005	<0.005			
2/15/2007	0.09							
6/23/2007	0.12	<0.005	<0.005	<0.005	<0.005			
9/11/2007	0.088							
12/11/2007	0.088	<0.005	<0.005	<0.005	<0.005			
3/11/2008	0.071							
6/23/2008				<0.005				
6/24/2008	0.097	<0.005	0.005		<0.005			
11/3/2008	0.089							
12/4/2008				<0.005	<0.005			
12/5/2008	0.092	<0.005	<0.005					
3/25/2009	0.095							
7/7/2009			<0.005					
7/8/2009	0.11	<0.005		<0.005	<0.005			
9/14/2009	0.099							
12/20/2009	0.1				<0.005			
12/21/2009		<0.005	<0.005	<0.005				
3/4/2010	0.074							
6/20/2010				<0.005	<0.005			
6/21/2010	0.056	<0.005	0.018 (O)			0.29	<0.005	0.013 (O)
9/14/2010	0.067							
1/6/2011					<0.005			
1/7/2011	0.066	<0.005	<0.005	<0.005		0.2	<0.005	<0.005
4/15/2011	0.08							
7/7/2011	0.054					<0.005		
7/8/2011		<0.005	<0.005	<0.005		0.19	<0.005	<0.005
9/25/2011	0.085							
1/17/2012					<0.005			
1/18/2012	0.089	<0.005	<0.005	<0.005		0.058	<0.005	<0.005
4/4/2012	0.0473							
7/9/2012					<0.005			
7/10/2012	0.07	<0.005	0.0052	<0.005		0.18	<0.005	<0.005
10/9/2012	0.088							
1/17/2013					<0.005			
1/18/2013	0.063	<0.005	<0.005	<0.005		0.22	<0.005	0.0061

# Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWB-4R	GWC-9	GWC-2	GWC-20	GWC-22	GWC-21
4/5/2013	0.06							
7/16/2013								
7/17/2013	0.063	<0.005	<0.005	<0.005	<0.005	0.45	<0.005	<0.005
10/11/2013	0.059							
1/13/2014					<0.005			
1/14/2014	0.077	<0.005	<0.005	<0.005		0.52	<0.005	0.006
4/3/2014	0.091							
7/8/2014								
7/9/2014	0.08	<0.005	0.0023 (J)	<0.005	<0.005			<0.005
7/10/2014						0.4	0.0027 (J)	
10/24/2014	0.073							
1/12/2015			0.0028 (J)			0.43		
1/13/2015					<0.005			
1/14/2015	0.079	<0.005		<0.005			<0.005	<0.005
5/10/2015								
5/11/2015	0.058							
7/16/2015	0.068		<0.005		<0.005			
7/17/2015				<0.005				<0.005
7/18/2015		<0.005				0.26	<0.005	
10/6/2015	0.078							
1/17/2016	0.089				<0.005	0.34		0.0065
1/18/2016		<0.005	<0.005	<0.005			<0.005	
4/26/2016	0.0731							
7/26/2016								
7/27/2016					<0.005			
7/28/2016	0.0627			<0.005		0.209		<0.005
7/29/2016		0.0009 (J)	0.0014 (J)				0.002 (J)	
8/30/2016								
8/31/2016				<0.005	<0.005		0.0017 (J)	
9/1/2016	0.0551	<0.005	0.0033 (J)			0.215		0.0039 (J)
10/24/2016								
10/25/2016	0.0466					0.307		<0.005
10/26/2016		<0.005	0.0016 (J)		<0.005		<0.005	
10/27/2016				<0.005				
1/3/2017								
1/4/2017	0.0444					0.311	<0.005	<0.005
1/5/2017		<0.005			<0.005			
1/6/2017			<0.005	<0.005				
4/3/2017								
4/4/2017			0.0021 (J)		<0.005	0.317		0.0031 (J)
4/5/2017	0.0591	0.0011 (J)						
4/6/2017				<0.005			0.0006 (J)	
7/10/2017								
7/11/2017						0.299	0.0012 (J)	
7/12/2017	0.0776		0.0015 (J)	<0.005				
7/13/2017		0.0016 (J)			<0.005			<0.005
10/2/2017						0.216		
10/3/2017	0.0813				<0.005			<0.005
10/4/2017		0.0019 (J)	0.0018 (J)	<0.005			0.0025 (J)	
1/9/2018								0.0033 (J)
1/10/2018	0.085				0.0006 (J)	0.347		
1/11/2018		0.0015 (J)	0.0015 (J)	<0.005			0.0006 (J)	



# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-16	GWC-12	GWB-4R	GWC-13	GWC-11	GWC-15
9/29/2000	0.11	0.22	0.16	0.076	0.075	0.16	<0.005	0.1	0.028
11/21/2000	0.12	0.13	0.21	0.075	0.072	0.16	0.01	0.082	0.035
1/20/2001	0.11	0.19	0.23	0.053	0.086	0.21	<0.005	0.083	0.032
3/14/2001	0.11	0.27	0.22	0.055	0.088	0.18	0.01	0.075	0.036
7/16/2001	0.11	0.37	0.22	0.041	0.084	0.18	<0.005	0.091	0.036
11/1/2001	0.11	0.61 (O)	0.23	0.045	0.13	0.15	<0.005	0.068	0.036
4/25/2002	0.058	0.19	0.15	0.055	0.24 (O)	0.16	<0.005	0.066	0.045
6/6/2003	0.19	0.72 (O)	0.13	0.48 (O)	0.28 (O)	0.29	0.028	0.085	0.083 (O)
12/12/2003	0.1	0.054	0.034	0.13 (O)	0.27 (O)	0.18	0.019	0.072	0.094 (O)
5/26/2004	0.084	0.18	0.13	0.055	0.31 (O)	0.16	<0.005	0.055	0.034
12/7/2004	0.094	0.24	0.13	0.072	0.46 (O)	0.16	0.009	0.066	0.042
6/21/2005	0.089	0.2	0.07	0.061	0.053	0.15	0.0089	0.033	0.039
12/12/2005	0.089	0.074	0.04	0.047	0.1	0.15	0.026	0.034	0.043
4/4/2006				0.042					
6/27/2006	0.096	0.075	0.041	0.042	0.098	0.19	0.029	0.029	0.031
8/30/2006				0.05					
12/4/2006	0.092	0.092	0.048	0.044	0.068	0.26	0.017	0.02	0.043
2/15/2007				0.041					
6/23/2007	0.08	0.089	0.12	0.044	0.042	0.24	0.014	0.017	0.031
9/11/2007				0.04					
12/11/2007	0.067	0.072	0.12	0.0035	0.04	0.21	0.011	0.013	0.044
3/11/2008				0.034					
6/23/2008	0.056				0.041		0.018	0.012	
6/24/2008		0.049	0.17	0.042		0.13			0.057
11/3/2008				0.049					
12/4/2008	0.054				0.035		0.019	0.011	
12/5/2008		0.067	0.093	0.05		0.12			0.041
3/25/2009				0.052					
7/7/2009	0.034	0.04	0.06			0.17			
7/8/2009				0.046	0.036		0.011	0.012	0.058
9/14/2009				0.048					
12/20/2009	0.034			0.062					0.062
12/21/2009		0.044	0.11		0.028	0.2	0.01	0.011	
3/4/2010				0.058					
6/20/2010	0.062	0.036	0.11		0.025		0.0081	0.0089	0.03
6/21/2010				0.041		0.22			
9/14/2010				0.036					
1/6/2011		0.075					0.012	0.014	
1/7/2011	0.039		0.025	0.054	0.037	0.12			0.049
4/15/2011				0.049					
7/7/2011	0.036	0.13	0.025	0.063	0.039		0.015	0.018	0.05
7/8/2011						0.15			
9/25/2011				0.037					
1/17/2012	0.041	0.21			0.045		0.0086	0.23	0.044
1/18/2012			0.03	0.034		0.15			
4/4/2012				0.0446					
7/9/2012	0.15	0.2			0.032		0.01	0.17	0.045
7/10/2012			0.028	0.033		0.14			
10/9/2012				0.041					
1/17/2013		0.19			0.033		0.014	0.2	
1/18/2013	0.15		0.058	0.036		0.15			0.049
4/5/2013				0.036					

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-16	GWC-12	GWB-4R	GWC-13	GWC-11	GWC-15
7/16/2013		0.076			0.027		0.012	0.11	
7/17/2013	0.13		0.086	0.054		0.14			0.039
10/11/2013				0.052					
1/13/2014	0.16	0.14			0.027		0.015	0.083	0.038
1/14/2014			0.1	0.051		0.16			
4/3/2014				0.047					
7/8/2014					0.037		0.017	0.066	
7/9/2014	0.11	0.12	0.082	0.08		0.12			0.031
7/10/2014									
10/24/2014				0.072					
1/12/2015						0.13			
1/13/2015	0.083	0.13			0.023		0.019	0.053	0.041
1/14/2015			0.094	0.047					
5/10/2015									
5/11/2015				0.053					
7/16/2015	0.094	0.12		0.059	0.03	0.11	0.022	0.052	0.041
7/17/2015			0.11						
7/18/2015									
10/6/2015				0.053					
1/17/2016				0.056					0.048
1/18/2016	0.22	0.12	0.11		0.032	0.095	0.026		
1/19/2016								0.048	
4/26/2016				0.0721					
7/26/2016							0.0236	0.051	
7/27/2016	0.192	0.112			0.0191				0.0487
7/28/2016			0.105	0.0534					
7/29/2016						0.0883			
8/30/2016		0.135	0.106						
8/31/2016					0.019		0.0273	0.0565	
9/1/2016	0.415 (O)			0.0445		0.123			0.0403
10/24/2016									
10/25/2016	0.173			0.0464					0.0329
10/26/2016		0.103	0.107		0.0197	0.0863	0.0238	0.0591	
10/27/2016									
1/3/2017		0.118							
1/4/2017				0.0379	0.0174			0.0598	
1/5/2017			0.107				0.0218		0.0392
1/6/2017	0.167					0.0758			
4/3/2017									0.0439
4/4/2017						0.091			
4/5/2017				0.0534	0.0174				
4/6/2017	0.136	0.162	0.111				0.0204	0.0813	
7/10/2017					0.0172				
7/11/2017								0.0302	0.051
7/12/2017		0.157	0.106	0.0944		0.0941	0.0161		
7/13/2017	0.0891								
10/2/2017									0.047
10/3/2017		0.127	0.105	0.135 (O)				0.103	
10/4/2017	0.113				0.0162	0.0994	0.0185		
1/9/2018	0.0901		0.0969						0.0431
1/10/2018		0.158		0.0603			0.0166		
1/11/2018					0.018	0.088		0.166	





# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWA-8 (bg)	GWC-17	GWC-1	GWC-9	GWC-2	GWC-20	GWC-21	GWC-22
9/29/2000	0.11	0.16	0.16	0.044	0.093				
11/21/2000	0.15		0.17	0.047	0.095	0.046			
1/20/2001	0.1	0.18	0.16	0.051	0.089	0.036			
3/14/2001	0.095	0.14	0.17	0.048	0.088	0.03			
7/16/2001	0.28 (C)	0.14	0.19	0.054	0.096	0.032			
11/1/2001	0.16	0.14	0.18	0.063	0.094	0.029			
4/25/2002	0.054	0.088	0.15	0.032	0.085	0.021			
6/6/2003	0.063	0.14	0.13	0.046	0.09	0.032			
12/12/2003	0.041	0.13	0.18	0.034	0.084	0.021			
5/26/2004	0.059	0.09	0.17	0.035	0.08	0.035			
12/7/2004	0.076	0.11	0.19	0.024	0.098	0.031			
6/21/2005	0.042	0.084	0.18	0.039	0.084	0.028			
12/12/2005	0.048	0.1	0.17	0.042	0.07	0.024			
4/4/2006	0.05	0.089							
6/27/2006	0.036	0.1	0.17	0.033	0.083	0.03			
8/30/2006	0.059	0.12							
12/4/2006	0.062	0.086	0.21	0.04	0.072	0.031			
2/15/2007	0.079	0.088							
6/23/2007	0.03	0.089	0.17	0.044	0.087	0.037			
9/11/2007	0.053	0.092							
12/11/2007	0.075	0.077	0.18	0.049	0.082	0.034			
3/11/2008	0.052	0.082							
6/23/2008		0.086			0.1				
6/24/2008	0.039		0.14	0.038		0.038			
11/3/2008	0.082	0.088							
12/4/2008	0.079	0.081			0.12	0.038			
12/5/2008			0.19	0.06					
3/25/2009	0.093	0.069							
7/7/2009		0.078		0.043					
7/8/2009	0.039		0.2		0.14	0.053			
9/14/2009	0.061	0.079							
12/20/2009	0.088	0.081		0.065		0.047			
12/21/2009			0.23		0.15				
3/4/2010	0.077	0.065							
6/20/2010	0.075	0.078		0.095	0.21	0.046			
6/21/2010			0.25				0.062	0.16	0.11
9/14/2010	0.093	0.076							
1/6/2011				0.093		0.063			
1/7/2011	0.13	0.074	0.21		0.2		0.039	0.095	0.12
4/15/2011	0.086	0.065							
7/7/2011	0.051	0.081		0.095		0.06			
7/8/2011			0.13		0.18	0.043	0.1	0.094	
9/25/2011	0.056	0.078							
1/17/2012	0.052	0.082		0.1		0.06			
1/18/2012			0.26		0.18		0.042	0.12	0.087
4/4/2012	0.0519	0.0861							
7/9/2012	0.048			0.11		0.05			
7/10/2012		0.082	0.19		0.16		0.039	0.097	0.1
10/9/2012	0.065	0.09							
1/17/2013				0.12		0.058			
1/18/2013	0.045	0.083	0.17		0.19		0.04	0.1	0.078
4/5/2013	0.047	0.078							

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWA-8 (bg)	GWC-17	GWC-1	GWC-9	GWC-2	GWC-20	GWC-21	GWC-22
7/16/2013				0.081					
7/17/2013	0.032	0.083	0.18		0.17	0.041	0.055	0.069	0.062
10/11/2013	0.028	0.078							
1/13/2014				0.096		0.058			
1/14/2014	0.036	0.081	0.18		0.2		0.059	0.086	0.073
4/3/2014	0.038	0.077							
7/8/2014									
7/9/2014	0.03	0.073	0.16	0.066	0.16	0.048		0.065	
7/10/2014							0.067		0.13
10/24/2014	0.025	0.087							
1/12/2015							0.061		
1/13/2015				0.068		0.048			
1/14/2015	0.04	0.079	0.16		0.17			0.084	0.065
5/10/2015	0.026	0.076							
5/11/2015									
7/16/2015				0.07		0.048			
7/17/2015	0.029	0.061			0.18			0.071	
7/18/2015			0.012				0.13		0.073
10/6/2015	0.03	0.067							
1/17/2016	0.038			0.062		0.049	0.08	0.079	
1/18/2016		0.068	0.13		0.2				0.062
1/19/2016									
4/26/2016	0.025	0.0596							
7/26/2016									
7/27/2016	0.0248			0.0417		0.0796			
7/28/2016		0.0701			0.234		0.164	0.0626	
7/29/2016			0.181						0.0575
8/30/2016		0.0687		0.0545					
8/31/2016					0.284	0.0429			0.0693
9/1/2016	0.0346		0.203				0.0976	0.077	
10/24/2016		0.07							
10/25/2016	0.0248			0.0504			0.0702	0.0217	
10/26/2016			0.177			0.113 (O)			0.0966
10/27/2016					0.244				
1/3/2017		0.061							
1/4/2017				0.0534			0.0999	0.0617	0.0975
1/5/2017	0.0245		0.142			0.0526			
1/6/2017					0.305				
4/3/2017		0.0612							
4/4/2017	0.0342			0.0549		0.0503	0.136	0.0761	
4/5/2017			0.106						
4/6/2017					0.249				0.064
7/10/2017									
7/11/2017	0.0276	0.0624					0.145		0.0778
7/12/2017				0.0614	0.256				
7/13/2017			0.0686			0.0529		0.0428	
10/2/2017	0.0274	0.0618					0.148		
10/3/2017				0.0436		0.057		0.0376	
10/4/2017			0.0589		0.356				0.156
1/9/2018	0.0222	0.0574						0.0704	
1/10/2018				0.053		0.0527	0.0788		
1/11/2018			0.0412		0.226				0.0702

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWA-8 (bg)	GWC-17	GWC-1	GWC-9	GWC-2	GWC-20	GWC-21	GWC-22
7/9/2018	0.026	0.056					0.087		
7/10/2018				0.059		0.054		0.061	
7/11/2018			0.049		0.29				0.12
1/16/2019	0.028	0.062	0.063	0.054					
1/17/2019								0.061	
1/18/2019					0.21				0.052
1/21/2019						0.05	0.069		
3/25/2019		0.064					0.085		
3/26/2019	0.034		0.025	0.055				0.084	
3/27/2019					0.19				0.057
7/30/2019						0.052			
8/26/2019		0.065							
8/27/2019	0.067			0.054		0.053			0.097
8/28/2019			0.026		0.17		0.078	0.063	
10/7/2019		0.069							
10/8/2019	0.085							0.079	
10/9/2019			0.032	0.058	0.18	0.05	0.078		0.065
4/6/2020		0.057							
4/7/2020	0.073			0.05				0.054	0.1
4/8/2020			0.055		0.15	0.061	0.19		
8/17/2020		0.051							
8/18/2020	0.028		0.074			0.05	0.38	0.18	0.085
8/19/2020				0.057	0.17				
9/28/2020		0.05		0.051					
9/29/2020	0.026					0.049			
9/30/2020			0.035				0.35	0.19	0.045
10/1/2020					0.15				
3/10/2021				0.052	0.15				0.049
3/11/2021			0.044						
3/12/2021		0.052					0.34		
3/15/2021						0.053			
3/16/2021	0.037							0.18	
9/21/2021		0.049							0.036
9/22/2021	0.11		0.058		0.15	0.047	0.42	0.046	
9/23/2021				0.062					

# Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-12	GWC-11	GWA-8 (bg)	GWC-13	GWC-1	GWC-17	GWC-16	GWC-14
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/1/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/20/2002		0.002	0.006	0.0051	<0.005	<0.005	<0.005	0.0041	0.014
6/6/2003	0.037	<0.005	0.0082	0.014	0.003	0.005	<0.005	0.063 (O)	<0.005
12/12/2003	0.0044	<0.005	0.0023	0.011	<0.005	<0.005	0.036 (O)	0.0059	<0.005
5/26/2004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
12/7/2004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0021	<0.005	<0.005
6/21/2005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
12/12/2005	<0.005	<0.005	<0.005	<0.005	<0.005	0.002	<0.005	<0.005	<0.005
4/4/2006				<0.005				<0.005	<0.005
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006				<0.005				<0.005	<0.005
12/4/2006	0.0015	0.0032	0.0021	<0.005	0.0017	<0.005	<0.005	0.0036	0.0042
2/15/2007				<0.005				<0.005	<0.005
6/23/2007	<0.005	<0.005	0.0017	<0.005	<0.005	<0.005	<0.005	0.0016	<0.005
9/11/2007				<0.005				<0.005	<0.005
12/11/2007	0.0016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/11/2008				<0.005				<0.005	<0.005
6/23/2008	0.0019	0.0016	<0.005	<0.005	<0.005				
6/24/2008						<0.005	<0.005	<0.005	<0.005
11/3/2008				<0.005				0.0025	<0.005
12/4/2008	<0.005	<0.005	<0.005	<0.005	<0.005				<0.005
12/5/2008						<0.005	<0.005	<0.005	
3/25/2009				<0.005				<0.005	<0.005
7/7/2009	0.0037			<0.005		0.0013			
7/8/2009		<0.005	<0.005		<0.005		<0.005	<0.005	<0.005
9/14/2009				<0.005				<0.005	<0.005
12/20/2009	0.0016			<0.005		<0.005		<0.005	<0.005
12/21/2009		<0.005	<0.005		<0.005		<0.005		
3/4/2010				<0.005				<0.005	<0.005
6/20/2010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			<0.005
6/21/2010							<0.005	<0.005	
9/14/2010				<0.005				<0.005	<0.005
1/6/2011			<0.005		<0.005	<0.005			
1/7/2011	0.0033	<0.005		<0.005			<0.005	0.0018	0.0016
4/15/2011				<0.005				<0.005	0.0034
7/7/2011	0.0044	<0.005	0.0023	<0.005	0.0019	<0.005		<0.005	<0.005
7/8/2011							0.0013		
9/25/2011				0.0021				<0.005	0.0013
1/17/2012	0.0038	<0.005	<0.005	<0.005	<0.005	<0.005			<0.005
1/18/2012							<0.005	<0.005	
4/4/2012				<0.005				<0.005	<0.005
7/9/2012	0.022	<0.005	0.0017		<0.005	<0.005			<0.005
7/10/2012				<0.005			<0.005	<0.005	
10/9/2012				<0.005				0.0018	0.0019
1/17/2013		<0.005	<0.005		<0.005	<0.005			
1/18/2013	0.034			<0.005			<0.005	<0.005	0.0017

# Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App 1 PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-12	GWC-11	GWA-8 (bg)	GWC-13	GWC-1	GWC-17	GWC-16	GWC-14
4/5/2013				<0.005				<0.005	0.0019
7/16/2013		<0.005	<0.005		<0.005	<0.005			
7/17/2013	0.032			<0.005			<0.005	<0.005	0.0017
10/11/2013				<0.005				<0.005	0.0013
1/13/2014	0.04	<0.005	<0.005		<0.005	<0.005			
1/14/2014				<0.005			<0.005	<0.005	0.001
4/3/2014				<0.005				<0.005	0.0031
7/8/2014		<0.005	<0.005		<0.005				
7/9/2014	0.036			<0.005		0.0011 (J)	<0.005	<0.005	0.0012 (J)
7/10/2014									
10/24/2014				<0.005				<0.005	<0.005
1/12/2015									
1/13/2015	0.03	<0.005	<0.005		<0.005	<0.005			
1/14/2015				<0.005			<0.005	<0.005	0.0013
5/10/2015				<0.005					<0.005
5/11/2015								<0.005	
7/16/2015	0.039	0.001 (J)	<0.005		<0.005	0.0011 (J)		<0.005	
7/17/2015				<0.005					0.001 (J)
7/18/2015							<0.005		
10/6/2015				<0.005				<0.005	<0.005
1/17/2016						<0.005		<0.005	0.0012 (J)
1/18/2016	0.068	<0.005		<0.005	<0.005		<0.005		
1/19/2016			<0.005						
4/26/2016				<0.005				<0.005	<0.005
7/26/2016			0.0005 (J)		<0.005				
7/27/2016	0.05	0.0014 (J)				0.0016 (J)			0.0008 (J)
7/28/2016				<0.005				0.0006 (J)	
7/29/2016							0.0009 (J)		
8/30/2016				<0.005		0.0015 (J)			
8/31/2016		0.0012 (J)	0.001 (J)		0.0011 (J)				
9/1/2016	0.119 (O)						0.0011 (J)	0.0011 (J)	0.0015 (J)
10/24/2016				<0.005					
10/25/2016	0.0519					0.0018 (J)		<0.005	<0.005
10/26/2016		0.0012 (J)	<0.005		<0.005		<0.005		
10/27/2016									
1/3/2017				<0.005					
1/4/2017		0.0012 (J)	<0.005			0.0021 (J)		<0.005	
1/5/2017					<0.005		0.0012 (J)		0.001 (J)
1/6/2017	0.0536								
4/3/2017				0.0004 (J)					
4/4/2017						0.002 (J)			0.001 (J)
4/5/2017		0.0013 (J)					0.0015 (J)	0.001 (J)	
4/6/2017	0.0447 (J)		0.0007 (J)		0.0011 (J)				
7/10/2017		0.0014 (J)							
7/11/2017			0.0006 (J)	0.0006 (J)					0.0008 (J)
7/12/2017					0.0007 (J)	0.0021 (J)		0.0011 (J)	
7/13/2017	0.0269						0.0012 (J)		
10/2/2017				<0.005					0.0009 (J)
10/3/2017			0.0007 (J)			0.0014 (J)		0.0009 (J)	
10/4/2017	0.0378	0.0011 (J)			0.0008 (J)		0.0055 (J)		
1/9/2018	0.0283 (J)			<0.005					0.0006 (J)
1/10/2018					0.0007 (J)	0.0017 (J)		0.0007 (J)	

# Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App 1 PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-12	GWC-11	GWA-8 (bg)	GWC-13	GWC-1	GWC-17	GWC-16	GWC-14
1/11/2018		0.001 (J)	0.0098 (J)				0.0009 (J)		
7/9/2018				<0.005					<0.005
7/10/2018						0.0021 (J)		<0.005	
7/11/2018	0.018 (J)	<0.005	<0.005		0.0019 (J)		<0.005		
1/16/2019	0.018 (J)			<0.005	<0.005	0.0021 (J)	<0.005		<0.005
1/17/2019		0.0028 (J)	<0.005					0.01 (J)	
1/18/2019									
1/21/2019									
3/25/2019	0.017 (J)			<0.005					
3/26/2019					<0.005	0.0018 (J)	<0.005	<0.005	<0.005
3/27/2019		<0.005	<0.005						
7/30/2019									
8/26/2019	0.024 (J)			0.001 (J)					
8/27/2019		0.00085 (J)	0.00092 (J)		<0.005	0.0062 (J)			0.001 (J)
8/28/2019							0.0013 (J)	0.0011 (J)	
10/7/2019				0.00052 (J)					
10/8/2019	0.021 (J)		0.00091 (J)		<0.005			0.00099 (J)	0.00053 (J)
10/9/2019		0.00081 (J)				0.0019 (J)	0.00081 (J)		
4/6/2020	0.015 (J)			<0.005					
4/7/2020		0.00082 (J)	0.00094 (J)			0.0015 (J)		<0.005	0.00074 (J)
4/8/2020					0.00058 (J)		0.00073 (J)		
8/17/2020		0.001 (J)		0.00082 (J)	0.00077 (J)				
8/18/2020			0.0015 (J)				0.0011 (J)	0.0012 (J)	0.00059 (J)
8/19/2020	0.015 (J)					0.0028 (J)			
9/28/2020	0.014 (J)			0.00071 (J)	0.00062 (J)	0.0024 (J)			
9/29/2020		0.00085 (J)	0.0011 (J)						<0.005
9/30/2020							0.00096 (J)	0.00098 (J)	
10/1/2020									
3/10/2021		0.00091 (J)	0.0013 (J)			0.0023 (J)			
3/11/2021	0.02 (J)						0.0009 (J)		
3/12/2021				0.00074 (J)					
3/15/2021					<0.005				
3/16/2021								0.0012 (J)	<0.005
9/21/2021	0.013 (J)	<0.005	<0.005	<0.005	<0.005				
9/22/2021							<0.005	0.0018 (J)	<0.005
9/23/2021						0.0023 (J)			

# Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App 1 PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWB-4R	GWC-15	GWC-9	GWC-2	GWC-21	GWC-22	GWC-20
9/29/2000	0.03	0.016	0.021	<0.005	<0.005				
11/21/2000	<0.005	0.023	0.017	<0.005	<0.005	<0.005			
1/20/2001	0.028	0.025	0.03	<0.005	<0.005	<0.005			
3/14/2001	0.052 (O)	0.021	0.019	<0.005	<0.005	<0.005			
7/16/2001	0.08 (O)	0.019	0.029	<0.005	<0.005	<0.005			
11/1/2001	0.13 (O)	0.022	0.021	<0.005	<0.005	<0.005			
4/25/2002	0.021	0.019	0.03	<0.005	<0.005	<0.005			
11/20/2002	0.053 (O)	0.024	0.038	0.0058	0.014	<0.005			
6/6/2003	0.064 (O)	0.021	0.028	0.0068	<0.005	<0.005			
12/12/2003	<0.005	0.0066	0.027	0.0041	<0.005	<0.005			
5/26/2004	0.012	0.013	0.021	<0.005	<0.005	<0.005			
12/7/2004	0.019	0.013	0.016	0.0026	0.0039	<0.005			
6/21/2005	0.02	0.0067	0.015	<0.005	0.002	<0.005			
12/12/2005	<0.005	0.0033	0.022	<0.005	<0.005	<0.005			
4/4/2006									
6/27/2006	0.0015	0.0047	0.027	0.0013	<0.005	<0.005			
8/30/2006									
12/4/2006	0.0034	0.0084	0.025	<0.005	0.0019	<0.005			
2/15/2007									
6/23/2007	<0.005	0.01	0.023	<0.005	0.0015	<0.005			
9/11/2007									
12/11/2007	<0.005	0.0049	0.018	<0.005	<0.005	<0.005			
3/11/2008									
6/23/2008					0.0015				
6/24/2008	<0.005	0.032 (O)	0.022	0.0014		<0.005			
11/3/2008									
12/4/2008					<0.005	<0.005			
12/5/2008	0.0016	0.009	0.023	<0.005					
3/25/2009									
7/7/2009	<0.005	0.0044	0.012						
7/8/2009				<0.005	<0.005	<0.005			
9/14/2009									
12/20/2009				<0.005		<0.005			
12/21/2009	<0.005	0.0055	0.019		<0.005				
3/4/2010									
6/20/2010	<0.005	0.002		<0.005	0.0015	<0.005			
6/21/2010			0.01				0.0019	<0.005	<0.005
9/14/2010									
1/6/2011	0.0017					<0.005			
1/7/2011		0.0039	0.023	<0.005	<0.005		0.0017	<0.005	0.0018
4/15/2011									
7/7/2011	0.008	0.0031		<0.005					<0.005
7/8/2011			0.017		<0.005		0.0023	<0.005	0.0019
9/25/2011									
1/17/2012	0.0082			<0.005		<0.005			
1/18/2012		0.0023	0.0114		<0.005		<0.005	<0.005	<0.005
4/4/2012									
7/9/2012	0.01			<0.005		<0.005			
7/10/2012		0.0022	0.014		<0.005		<0.005	<0.005	0.0013
10/9/2012									
1/17/2013	0.01					<0.005			
1/18/2013		<0.005	0.015	<0.005	<0.005		<0.005	<0.005	0.0015



# Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App 1 PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWB-4R	GWC-15	GWC-9	GWC-2	GWC-21	GWC-22	GWC-20
4/5/2013									
7/16/2013	0.0061								
7/17/2013		<0.005	0.011	<0.005	<0.005	<0.005	0.0019	<0.005	<0.005
10/11/2013									
1/13/2014	0.002			<0.005		<0.005			
1/14/2014		0.0013	0.019		<0.005		<0.005	<0.005	0
4/3/2014									
7/8/2014									
7/9/2014	<0.005	<0.005	0.012	<0.005	0.0011 (J)	<0.005	<0.005		
7/10/2014								<0.005	<0.005
10/24/2014									
1/12/2015			0.016						<0.005
1/13/2015	<0.005			<0.005		<0.005			
1/14/2015		0.0015			<0.005		<0.005	<0.005	
5/10/2015									
5/11/2015									
7/16/2015	<0.005		0.0084	<0.005		<0.005			
7/17/2015		0.0011 (J)			0.0013		<0.005		
7/18/2015								<0.005	<0.005
10/6/2015									
1/17/2016				<0.005		<0.005	<0.005		<0.005
1/18/2016	<0.005	0.0011 (J)	0.014		<0.005			<0.005	
1/19/2016									
4/26/2016									
7/26/2016									
7/27/2016	0.0006 (J)			0.0007 (J)		0.0008 (J)			
7/28/2016		0.001 (J)			0.0011 (J)		0.0005 (J)		0.0007 (J)
7/29/2016			0.0077 (J)					0.0007 (J)	
8/30/2016	<0.005	0.0013 (J)							
8/31/2016					0.0024 (J)	<0.005		<0.005	
9/1/2016			0.015	0.0011 (J)			<0.005		<0.005
10/24/2016									
10/25/2016				<0.005			<0.005		<0.005
10/26/2016	<0.005	0.0014 (J)	0.0106			0.001 (J)		<0.005	
10/27/2016					<0.005				
1/3/2017	0.001 (J)								
1/4/2017							<0.005	<0.005	<0.005
1/5/2017		0.002 (J)		<0.005		<0.005			
1/6/2017			0.0098 (J)		<0.005				
4/3/2017				0.0015 (J)					
4/4/2017			0.0101			0.0008 (J)	0.0008 (J)		0.0011 (J)
4/5/2017									
4/6/2017	0.0013 (J)	0.0034 (J)			0.0019 (J)			0.0006 (J)	
7/10/2017									
7/11/2017				0.0013 (J)				0.0005 (J)	0.0009 (J)
7/12/2017	0.0011 (J)	0.0024 (J)	0.0096 (J)		0.0011 (J)				
7/13/2017						0.0006 (J)	0.0006 (J)		
10/2/2017				0.0013 (J)					0.0009 (J)
10/3/2017	0.0012 (J)	0.0022 (J)				<0.005	0.0005 (J)		
10/4/2017			0.0097 (J)		0.0011 (J)			0.0006 (J)	
1/9/2018		0.0019 (J)		0.0012 (J)			0.0007 (J)		
1/10/2018	0.0016 (J)					<0.005			0.0008 (J)

# Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App 1 PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWB-4R	GWC-15	GWC-9	GWC-2	GWC-21	GWC-22	GWC-20
1/11/2018			0.0109		0.001 (J)			<0.005	
7/9/2018									<0.005
7/10/2018	0.0055 (J)	0.0023 (J)		<0.005		<0.005	<0.005		
7/11/2018			0.0055 (J)		<0.005			<0.005	
1/16/2019	<0.005	0.018 (J)	0.0024 (J)						
1/17/2019				<0.005			0.01		
1/18/2019					<0.005			<0.005	
1/21/2019						<0.005			<0.005
3/25/2019			0.002 (J)						<0.005
3/26/2019	0.072	0.017 (J)		<0.005			<0.005		
3/27/2019					<0.005			<0.005	
7/30/2019						0.00065 (J)			
8/26/2019									
8/27/2019		0.0097 (J)	0.0027 (J)	0.0016 (J)		<0.005		0.00057 (J)	
8/28/2019	0.0071 (J)				0.00089 (J)		0.00087 (J)		0.00089 (J)
10/7/2019									
10/8/2019				0.0017 (J)			0.00065 (J)		
10/9/2019	0.012 (J)	0.011 (J)	0.002 (J)		0.0009 (J)	0.00049 (J)		0.00072 (J)	0.0011 (J)
4/6/2020									
4/7/2020	0.0022 (J)	0.0094 (J)	0.0028 (J)	0.0014 (J)			<0.005	0.00049 (J)	
4/8/2020					0.0015 (J)	0.00069 (J)			0.001 (J)
8/17/2020									
8/18/2020				0.0018 (J)		<0.005	0.0012 (J)	0.00056 (J)	0.0011 (J)
8/19/2020	0.0012 (J)	0.0037 (J)	0.0022 (J)		0.0013 (J)				
9/28/2020									
9/29/2020						<0.005			
9/30/2020	0.0018 (J)	0.0045 (J)		0.0016 (J)			0.00067 (J)	0.00064 (J)	0.0013 (J)
10/1/2020			0.002 (J)		0.0012 (J)				
3/10/2021	0.001 (J)	0.006	0.003 (J)		0.0011 (J)			<0.005	
3/11/2021									
3/12/2021				0.0031 (J)					0.0014 (J)
3/15/2021						0.0011 (J)			
3/16/2021							0.00075 (J)		
9/21/2021	<0.005	0.0035 (J)	0.0018 (J)					<0.005	
9/22/2021					<0.005	<0.005	<0.005		0.0013 (J)
9/23/2021				0.0013 (J)					

# Prediction Limit

Constituent: Lead (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-6R	GWC-11	GWC-12	GWC-9	GWC-13	GWB-4R	GWC-17	GWC-14
9/29/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0083	<0.001	<0.001
11/21/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0052	<0.001	<0.001
1/20/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/14/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/16/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.011	<0.001	<0.001
11/1/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/20/2002		0.0057 (J)	<0.001	<0.001	0.0086 (O)	<0.001	0.018 (O)	<0.001	0.011 (O)
6/6/2003	0.037 (O)	0.013	0.0068	<0.001	<0.001	0.0078	0.015 (O)	<0.001	<0.001
12/12/2003	0.008	<0.001	<0.001	<0.001	<0.001	0.0055	0.0072	<0.001	<0.001
5/26/2004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0055	<0.001	<0.001
12/7/2004	<0.001	<0.001	<0.001	<0.001	0.0051	<0.001	<0.001	<0.001	<0.001
6/21/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/12/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/4/2006									<0.001
6/27/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.024 (O)	<0.001	<0.001
8/30/2006									<0.001
12/4/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.023 (O)	<0.001	<0.001
2/15/2007									<0.001
6/23/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9/11/2007									<0.001
12/11/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/11/2008									<0.001
6/23/2008	<0.001		<0.001	<0.001	<0.001	<0.001			<0.001
6/24/2008		0.02					0.02 (O)	<0.001	<0.001
11/3/2008									<0.001
12/4/2008	<0.001		<0.001	<0.001	<0.001	<0.001			<0.001
12/5/2008		<0.001					<0.001	<0.001	
3/25/2009									<0.001
7/7/2009	<0.001	<0.001					<0.001		
7/8/2009			<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
9/14/2009									<0.001
12/20/2009	<0.001								<0.001
12/21/2009		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
3/4/2010									<0.001
6/20/2010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001
6/21/2010							<0.001	<0.001	
9/14/2010									<0.001
1/6/2011			<0.001			<0.001			
1/7/2011	<0.001	<0.001		<0.001	<0.001		<0.001	<0.001	<0.001
4/15/2011									<0.001
7/7/2011	<0.001	<0.001	<0.001	<0.001		<0.001			<0.001
7/8/2011					<0.001		<0.001	<0.001	
9/25/2011									<0.001
1/17/2012	<0.001		<0.001	<0.001		<0.001			<0.001
1/18/2012		<0.001			<0.001		<0.001	<0.001	
4/4/2012									<0.001
7/9/2012	<0.001		<0.001	<0.001		<0.001			<0.001
7/10/2012		<0.001			<0.001		<0.001	<0.001	
10/9/2012									<0.001
1/17/2013			<0.001	<0.001		<0.001			
1/18/2013	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001

# Prediction Limit

Constituent: Lead (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-6R	GWC-11	GWC-12	GWC-9	GWC-13	GWB-4R	GWC-17	GWC-14
4/5/2013									<0.001
7/16/2013			<0.001	<0.001		<0.001			
7/17/2013	<0.001	<0.001			<0.001		<0.001	<0.001	<0.001
10/11/2013									<0.001
1/13/2014	0.013		<0.001	0.004		<0.001			
1/14/2014		<0.001			<0.001		0.005	<0.001	<0.001
4/3/2014									<0.001
7/8/2014			<0.001	<0.001		<0.001			
7/9/2014	0.0076 (J)	<0.001			<0.001		<0.001	<0.001	<0.001
7/10/2014									
10/24/2014									<0.001
1/12/2015							<0.001		
1/13/2015	0.0057 (J)		<0.001	<0.001		<0.001			
1/14/2015		<0.001			<0.001			<0.001	<0.001
5/10/2015									<0.001
5/11/2015									
7/16/2015	0.009 (J)		<0.001	0.0044 (J)		<0.001	<0.001		
7/17/2015		<0.001			<0.001				<0.001
7/18/2015								<0.001	
10/6/2015									
1/17/2016									<0.001
1/18/2016	0.0094 (J)	<0.001		0.0034 (J)	<0.001	<0.001	0.0055 (J)	<0.001	
1/19/2016			<0.001						
4/26/2016									<0.001
7/26/2016			0.0001 (J)			<0.001			
7/27/2016	0.0058			0.0001 (J)					<0.001
7/28/2016		<0.001			<0.001				
7/29/2016							0.003 (J)	<0.001	
8/30/2016		<0.001							
8/31/2016			0.0002 (J)	0.0001 (J)	0.0007 (J)	<0.001			
9/1/2016	0.0663 (O)						0.0166 (O)	<0.001	<0.001
10/24/2016									
10/25/2016	0.0003 (J)								<0.001
10/26/2016		<0.001	0.0001 (J)	0.0001 (J)		<0.001	0.0057	<0.001	
10/27/2016					<0.001				
1/3/2017									
1/4/2017			0.0002 (J)	<0.001					
1/5/2017		0.0003 (J)				0.0002 (J)		<0.001	<0.001
1/6/2017	0.006				<0.001		0.0053		
4/3/2017									
4/4/2017							0.0092		0.0001 (J)
4/5/2017				0.0003 (J)				0.0009 (J)	
4/6/2017	0.0109	0.0002 (J)	0.0003 (J)		0.0001 (J)	0.0005 (J)			
7/10/2017				0.0003 (J)					
7/11/2017			0.0002 (J)						8E-05 (J)
7/12/2017		0.0002 (J)			<0.001	0.0005 (J)	0.006		
7/13/2017	0.007							<0.001	
10/2/2017									0.0001 (J)
10/3/2017		0.0001 (J)	0.0003 (J)						
10/4/2017	0.0042 (J)			0.0001 (J)	9E-05 (J)	0.0007 (J)	0.0057	0.0001 (J)	
1/9/2018	0.0098	0.0003 (J)							<0.001
1/10/2018						0.0009 (J)			



# Prediction Limit

Constituent: Lead (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-8 (bg)	GWC-15	GWC-16	GWC-1	GWC-2	GWB-5R	GWC-22	GWC-21	GWC-20
9/29/2000	<0.001	<0.001	<0.001	<0.001		0.017 (O)			
11/21/2000		<0.001	<0.001	<0.001	0.0069	<0.001			
1/20/2001	<0.001	<0.001	<0.001	<0.001	<0.001	0.011			
3/14/2001	<0.001	<0.001	<0.001	<0.001	<0.001	0.026 (O)			
7/16/2001	<0.001	<0.001	<0.001	<0.001	<0.001	0.043 (O)			
11/1/2001	<0.001	<0.001	<0.001	<0.001	<0.001	0.075 (O)			
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
11/20/2002	<0.001	<0.001	<0.001	<0.001	<0.001	0.057 (O)			
6/6/2003	0.016 (O)	<0.001	0.099 (O)	<0.001	<0.001	0.16 (O)			
12/12/2003	0.0095	0.0065	0.017 (O)	<0.001	<0.001	<0.001			
5/26/2004	<0.001	<0.001	<0.001	<0.001	<0.001	0.011			
12/7/2004	<0.001	<0.001	<0.001	<0.001	<0.001	0.038 (O)			
6/21/2005	<0.001	<0.001	<0.001	<0.001	<0.001	0.036 (O)			
12/12/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
4/4/2006	<0.001		<0.001						
6/27/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
8/30/2006	<0.001		<0.001						
12/4/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
2/15/2007	<0.001		<0.001						
6/23/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
9/11/2007	<0.001		<0.001						
12/11/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
3/11/2008	<0.001		<0.001						
6/23/2008	<0.001								
6/24/2008		<0.001	<0.001	<0.001	<0.001	<0.001			
11/3/2008	<0.001		<0.001						
12/4/2008	<0.001				<0.001				
12/5/2008		<0.001	<0.001	<0.001		<0.001			
3/25/2009	<0.001		<0.001						
7/7/2009	<0.001			<0.001		<0.001			
7/8/2009		<0.001	<0.001		<0.001				
9/14/2009	<0.001		<0.001						
12/20/2009	<0.001	<0.001	<0.001	<0.001	<0.001				
12/21/2009						<0.001			
3/4/2010	<0.001		<0.001						
6/20/2010	<0.001	<0.001		<0.001	<0.001	<0.001			
6/21/2010			<0.001				<0.001	<0.001	<0.001
9/14/2010	<0.001		<0.001						
1/6/2011				<0.001	<0.001	<0.001			
1/7/2011	<0.001	<0.001	<0.001				<0.001	<0.001	<0.001
4/15/2011	<0.001		<0.001						
7/7/2011	<0.001	<0.001	<0.001	<0.001		<0.001			<0.001
7/8/2011							<0.001	<0.001	<0.001
9/25/2011	<0.001		<0.001						
1/17/2012	<0.001	<0.001		<0.001	<0.001	<0.001			
1/18/2012			<0.001				<0.001	<0.001	<0.001
4/4/2012	<0.001		<0.001						
7/9/2012		<0.001		<0.001	<0.001	<0.001			
7/10/2012	<0.001		<0.001				<0.001	<0.001	<0.001
10/9/2012	<0.001		<0.001						
1/17/2013				<0.001	<0.001	<0.001			
1/18/2013	<0.001	<0.001	<0.001				<0.001	<0.001	<0.001

# Prediction Limit

Constituent: Lead (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-8 (bg)	GWC-15	GWC-16	GWC-1	GWC-2	GWB-5R	GWC-22	GWC-21	GWC-20
4/5/2013	<0.001		<0.001						
7/16/2013				<0.001		<0.001			
7/17/2013	<0.001	<0.001	<0.001		<0.001		<0.001	<0.001	<0.001
10/11/2013	<0.001		<0.001						
1/13/2014		<0.001		<0.001	<0.001	<0.001			
1/14/2014	<0.001		<0.001				<0.001	<0.001	<0.001
4/3/2014	<0.001		<0.001						
7/8/2014									
7/9/2014	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	
7/10/2014							<0.001		<0.001
10/24/2014	<0.001		<0.001						
1/12/2015									<0.001
1/13/2015		<0.001		<0.001	<0.001	<0.001			
1/14/2015	<0.001		<0.001				<0.001	<0.001	
5/10/2015	<0.001								
5/11/2015			<0.001						
7/16/2015		<0.001	<0.001	<0.001	<0.001	<0.001			
7/17/2015	<0.001							<0.001	
7/18/2015							<0.001		<0.001
10/6/2015	<0.001								
1/17/2016		<0.001	<0.001	<0.001	<0.001			<0.001	<0.001
1/18/2016	<0.001					<0.001	<0.001		
1/19/2016									
4/26/2016	<0.001		<0.001						
7/26/2016									
7/27/2016		<0.001		<0.001	<0.001	<0.001			
7/28/2016	<0.001		<0.001					<0.001	<0.001
7/29/2016							0.0004 (J)		
8/30/2016	<0.001			<0.001		<0.001			
8/31/2016					<0.001		0.0003 (J)		
9/1/2016		<0.001	<0.001					<0.001	<0.001
10/24/2016	<0.001								
10/25/2016		<0.001	0.0002 (J)	<0.001				<0.001	0.0001 (J)
10/26/2016					<0.001	0.0002 (J)	0.0003 (J)		
10/27/2016									
1/3/2017	0.0001 (J)					0.0001 (J)			
1/4/2017			0.0001 (J)	<0.001			0.0003 (J)	<0.001	<0.001
1/5/2017		<0.001			<0.001				
1/6/2017									
4/3/2017	0.0002 (J)	0.0003 (J)							
4/4/2017				<0.001	0.0002 (J)			9E-05 (J)	7E-05 (J)
4/5/2017			0.0002 (J)						
4/6/2017						0.0003 (J)	0.0003 (J)		
7/10/2017									
7/11/2017	0.0001 (J)	0.0001 (J)					0.0002 (J)		<0.001
7/12/2017			0.0001 (J)	<0.001		0.0002 (J)			
7/13/2017					0.0003 (J)			7E-05 (J)	
10/2/2017	0.0001 (J)	0.0002 (J)							<0.001
10/3/2017			0.0001 (J)	<0.001	<0.001	0.0002 (J)		0.0001 (J)	
10/4/2017							0.0008 (J)		
1/9/2018	0.0001 (J)	0.0002 (J)						9E-05 (J)	
1/10/2018			0.0002 (J)	0.0001 (J)	8E-05 (J)	0.0003 (J)			0.0002 (J)

# Prediction Limit

Constituent: Lead (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-8 (bg)	GWC-15	GWC-16	GWC-1	GWC-2	GWB-5R	GWC-22	GWC-21	GWC-20
1/11/2018							0.0009 (J)		
7/9/2018	<0.001								<0.001
7/10/2018		<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	
7/11/2018							0.001 (J)		
1/16/2019	<0.001			<0.001		<0.001			
1/17/2019		<0.001	<0.001					<0.001	
1/18/2019							0.0012 (J)		
1/21/2019					<0.001				<0.001
3/25/2019	<0.001								<0.001
3/26/2019		<0.001	<0.001	<0.001		<0.001		<0.001	
3/27/2019							0.00047 (J)		
7/30/2019					0.0002 (J)				
8/26/2019	<0.001								
8/27/2019		0.00033 (J)		<0.001	<0.001		0.003 (J)		
8/28/2019			0.0001 (J)			0.0011 (J)		0.00018 (J)	6.5E-05 (J)
10/7/2019	<0.001								
10/8/2019		0.00012 (J)	0.0001 (J)					0.00016 (J)	
10/9/2019				<0.001	6.4E-05 (J)	0.0025 (J)	0.00032 (J)		0.00018 (J)
4/6/2020	0.0001 (J)								
4/7/2020		8.6E-05 (J)	0.00023 (J)	0.00012 (J)		0.0014 (J)	0.00067 (J)	<0.001	
4/8/2020					<0.001				<0.001
8/17/2020	<0.001								
8/18/2020		9E-05 (J)	0.00017 (J)		<0.001		0.00072 (J)	0.00027 (J)	<0.001
8/19/2020				<0.001		7.9E-05 (J)			
9/28/2020	<0.001			4.3E-05 (J)					
9/29/2020					<0.001				
9/30/2020		4.7E-05 (J)	9.1E-05 (J)			0.0012 (J)	0.00023 (J)	5.4E-05 (J)	<0.001
10/1/2020									
3/10/2021				0.0001 (J)		5.2E-05 (J)	0.00016 (J)		
3/11/2021									
3/12/2021	9.3E-05 (J)	5.3E-05 (J)							<0.001
3/15/2021					4.1E-05 (J)				
3/16/2021			7.3E-05 (J)					<0.001	
9/21/2021	<0.001					<0.001	<0.001		
9/22/2021			<0.001		<0.001			<0.001	<0.001
9/23/2021		<0.001		<0.001					



# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-1	GWA-8 (bg)	GWC-11	GWC-12	GWC-14	GWC-15
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.052	<0.005
1/20/2001	<0.005	<0.005	<0.005	0.017	<0.005	<0.005	<0.005	0.053	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.049	<0.005
7/16/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.038	<0.005
11/1/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.022	<0.005
4/25/2002	<0.005	<0.005	<0.005	0.012	<0.005	<0.005	<0.005	0.1 (O)	<0.005
11/20/2002		0.0064	0.008	0.19 (O)	<0.005	<0.005	<0.005	0.018	0.0094
6/6/2003	<0.005	0.011	0.0066	0.32 (O)	<0.005	<0.005	<0.005	<0.005	0.021 (O)
12/12/2003	<0.005	<0.005	0.0056	0.013	<0.005	<0.005	<0.005	<0.005	0.016 (O)
5/26/2004	<0.005	0.007	0.0084	0.017	<0.005	<0.005	<0.005	0.023	<0.005
12/7/2004	<0.005	<0.005	<0.005	0.011	<0.005	<0.005	<0.005	0.019	<0.005
6/21/2005	<0.005	0.0063	0.0062	0.0088	<0.005	<0.005	<0.005	0.019	<0.005
12/12/2005	<0.005	<0.005	<0.005	0.011	<0.005	<0.005	<0.005	0.0095	<0.005
4/4/2006					<0.005			0.033	
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006					<0.005			<0.005	
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.032	<0.005
2/15/2007					<0.005			0.034	
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/11/2007					<0.005			0.022	
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.045	<0.005
3/11/2008					<0.005			0.02	
6/23/2008	<0.005				<0.005	<0.005	<0.005		
6/24/2008		<0.005	<0.005	<0.005				<0.005	<0.005
11/3/2008					<0.005			0.052	
12/4/2008	<0.005				<0.005	<0.005	<0.005	0.054	
12/5/2008		<0.005	<0.005	<0.005					<0.005
3/25/2009					<0.005			0.072	
7/7/2009	<0.005	<0.005	<0.005	<0.005	<0.005				
7/8/2009						<0.005	<0.005	0.021	<0.005
9/14/2009					<0.005			0.015	
12/20/2009	<0.005			<0.005	<0.005			0.072	<0.005
12/21/2009		<0.005	<0.005			<0.005	<0.005		
3/4/2010					<0.005			0.083	
6/20/2010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.1	<0.005
6/21/2010									
9/14/2010					<0.005			0.085	
1/6/2011		<0.005		<0.005		<0.005			
1/7/2011	<0.005		<0.005		<0.005		<0.005	0.028	<0.005
4/15/2011					<0.005			<0.005	
7/7/2011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/8/2011									
9/25/2011					<0.005			0.02	
1/17/2012	<0.005	<0.005		<0.005	<0.005	0.023	<0.005	0.016	<0.005
1/18/2012			<0.005						
4/4/2012					<0.005			0.0156	
7/9/2012	<0.005	<0.005		<0.005		0.016	<0.005	<0.005	0.066 (O)
7/10/2012			<0.005		<0.005				
10/9/2012					<0.005			0.0094	
1/17/2013		<0.005		<0.005		0.033	<0.005		
1/18/2013	0.009		<0.005		<0.005			0.0067	0.04 (O)

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-1	GWA-8 (bg)	GWC-11	GWC-12	GWC-14	GWC-15
4/5/2013					<0.005			0.0077	
7/16/2013		<0.005		0.012		0.0068	<0.005		
7/17/2013	0.011		<0.005		<0.005			0.01	<0.005
10/11/2013					<0.005			0.0087	
1/13/2014	0.012	<0.005		<0.005		0.036	<0.005		<0.005
1/14/2014			<0.005		<0.005			0.012	
4/3/2014					<0.005			0.022	
7/8/2014						0.017	<0.005		
7/9/2014	0.011	<0.005	<0.005	<0.005	<0.005			0.0089	<0.005
7/10/2014									
10/24/2014					<0.005			0.017	
1/12/2015									
1/13/2015	0.0092	<0.005		<0.005		0.027	<0.005		<0.005
1/14/2015			<0.005		<0.005			<0.005	
5/10/2015					<0.005			<0.005	
5/11/2015									
7/16/2015	0.014	<0.005		<0.005		<0.005	<0.005		<0.005
7/17/2015			<0.005		<0.005			<0.005	
7/18/2015									
10/6/2015					<0.005			<0.005	
1/17/2016				0.023				<0.005	<0.005
1/18/2016	0.023	<0.005	<0.005		<0.005		<0.005		
1/19/2016						0.023			
4/26/2016					<0.005			0.00428 (J)	
7/26/2016						0.0056 (J)			
7/27/2016	0.0323	<0.005		0.002 (J)			0.0025 (J)	0.0038 (J)	<0.005
7/28/2016			<0.005		0.001 (J)				
7/29/2016									
8/30/2016		<0.005	<0.005	0.002 (J)	<0.005				
8/31/2016						0.0084 (J)	0.0019 (J)		
9/1/2016	0.0438							0.0056 (J)	<0.005
10/24/2016					0.0013 (J)				
10/25/2016	0.031			0.0022 (J)				0.0023 (J)	<0.005
10/26/2016		<0.005	<0.005			0.0052 (J)	0.002 (J)		
10/27/2016									
1/3/2017		<0.005			<0.005				
1/4/2017				0.0016 (J)		0.0062 (J)	<0.005		
1/5/2017			0.0014 (J)					0.0038 (J)	<0.005
1/6/2017	0.0324								
4/3/2017					<0.005				<0.005
4/4/2017				0.0052 (J)				0.0064 (J)	
4/5/2017							<0.005		
4/6/2017	0.0188 (J)	<0.005	<0.005			0.0195			
7/10/2017							<0.005		
7/11/2017					<0.005	<0.005		0.0044 (J)	<0.005
7/12/2017		<0.005	<0.005	0.0024 (J)					
7/13/2017	0.0118								
10/2/2017					<0.005			0.004 (J)	<0.005
10/3/2017		<0.005	<0.005	<0.005		0.0079 (J)			
10/4/2017	0.0195						<0.005		
1/9/2018	<0.005		<0.005		<0.005			0.0019 (J)	0.0019 (J)
1/10/2018		<0.005		0.0018 (J)					

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-1	GWA-8 (bg)	GWC-11	GWC-12	GWC-14	GWC-15
1/11/2018						0.0054 (J)	<0.005		
7/9/2018					<0.005			0.0029 (J)	
7/10/2018		0.0018 (J)	0.0016 (J)	0.0026 (J)					0.0086 (J)
7/11/2018	<0.005					0.0022 (J)	<0.005		
1/16/2019	0.0071 (J)	<0.005	<0.005	0.0018 (J)	<0.005			0.0016 (J)	
1/17/2019						<0.005	<0.005		0.0029 (J)
1/18/2019									
1/21/2019									
3/25/2019	<0.005				<0.005				
3/26/2019		<0.005	0.05 (J)	0.0023 (J)				0.0022 (J)	0.0074 (J)
3/27/2019						0.01 (J)	<0.005		
7/30/2019									
8/26/2019	<0.005				<0.005				
8/27/2019			0.0033 (J)	0.0016 (J)		<0.005	<0.005	0.0035 (J)	0.0092 (J)
8/28/2019		0.0033 (J)							
10/7/2019					<0.005				
10/8/2019	0.0072 (J)					<0.005		0.0026 (J)	0.014
10/9/2019		0.0073 (J)	<0.005	0.0024 (J)			<0.005		
4/6/2020	0.0078 (J)				<0.005				
4/7/2020		<0.005	<0.005	0.0013 (J)		0.0021 (J)	<0.005	0.005 (J)	0.0029 (J)
4/8/2020									
8/17/2020					<0.005		<0.005		
8/18/2020						0.0028 (J)		0.0029 (J)	0.0022 (J)
8/19/2020	<0.005	<0.005	<0.005	0.002 (J)					
9/28/2020	0.01 (J)			<0.005	<0.005				
9/29/2020						0.0024 (J)	<0.005	0.0051 (J)	
9/30/2020		<0.005	0.0023 (J)						<0.005
10/1/2020									
3/10/2021		0.006	0.0049 (J)	0.0026 (J)		0.0044 (J)	0.003 (J)		
3/11/2021	<0.005								
3/12/2021					<0.005				0.0064
3/15/2021									
3/16/2021								0.0034 (J)	
9/21/2021	<0.005	<0.005	0.0016 (J)		<0.005	0.0038 (J)	<0.005		
9/22/2021								0.0034 (J)	
9/23/2021				0.0018 (J)					0.0016 (J)

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWB-4R	GWC-9	GWC-2	GWC-21	GWC-22	GWC-20
9/29/2000	<0.005	<0.005	<0.005	<0.005				
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005			
1/20/2001	<0.005	<0.005	0.014 (O)	<0.005	<0.005			
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005			
7/16/2001	<0.005	<0.005	0.015 (O)	<0.005	<0.005			
11/1/2001	<0.005	<0.005	0.012 (O)	<0.005	<0.005			
4/25/2002	<0.005	<0.005	0.01	<0.005	<0.005			
11/20/2002	<0.005	<0.005	0.026 (O)	<0.005	<0.005			
6/6/2003	0.021 (O)	<0.005	0.022 (O)	<0.005	<0.005			
12/12/2003	0.0078	<0.005	0.028 (O)	<0.005	<0.005			
5/26/2004	0.0053	<0.005	0.012 (O)	<0.005	0.005			
12/7/2004	<0.005	<0.005	0.0073	<0.005	<0.005			
6/21/2005	<0.005	<0.005	0.0087	0.0062	<0.005			
12/12/2005	<0.005	<0.005	0.013 (O)	<0.005	<0.005			
4/4/2006	<0.005							
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005			
8/30/2006	<0.005							
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005			
2/15/2007	<0.005							
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005			
9/11/2007	<0.005							
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005			
3/11/2008	<0.005							
6/23/2008				<0.005				
6/24/2008	<0.005	<0.005	<0.005		<0.005			
11/3/2008	<0.005							
12/4/2008				<0.005	<0.005			
12/5/2008	<0.005	<0.005	<0.005					
3/25/2009	<0.005							
7/7/2009			<0.005					
7/8/2009	<0.005	<0.005		<0.005	<0.005			
9/14/2009	<0.005							
12/20/2009	<0.005				<0.005			
12/21/2009		<0.005	<0.005	<0.005				
3/4/2010	<0.005							
6/20/2010				<0.005	<0.005			
6/21/2010	<0.005	<0.005	<0.005			0.048	<0.005	<0.005
9/14/2010	<0.005							
1/6/2011					<0.005			
1/7/2011	<0.005	<0.005	<0.005	<0.005		0.014	<0.005	<0.005
4/15/2011	<0.005							
7/7/2011	<0.005							<0.005
7/8/2011		<0.005	<0.005	<0.005		0.018	<0.005	<0.005
9/25/2011	<0.005							
1/17/2012					<0.005			
1/18/2012	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005
4/4/2012	<0.005							
7/9/2012					<0.005			
7/10/2012	<0.005	<0.005	<0.005	<0.005		0.02	<0.005	<0.005
10/9/2012	<0.005							
1/17/2013					<0.005			
1/18/2013	<0.005	<0.005	<0.005	<0.005		0.015	<0.005	0.005

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWB-4R	GWC-9	GWC-2	GWC-21	GWC-22	GWC-20
4/5/2013	<0.005							
7/16/2013								
7/17/2013	<0.005	<0.005	<0.005	<0.005	<0.005	0.037	<0.005	<0.005
10/11/2013	0.0069							
1/13/2014					<0.005			
1/14/2014	<0.005	<0.005	<0.005	<0.005		0.043	<0.005	<0.005
4/3/2014	<0.005							
7/8/2014								
7/9/2014	0.005	<0.005	<0.005	<0.005	<0.005	0.023		
7/10/2014							<0.005	<0.005
10/24/2014	<0.005							
1/12/2015			<0.005					<0.005
1/13/2015					<0.005			
1/14/2015	<0.005	<0.005		<0.005		0.022	<0.005	
5/10/2015								
5/11/2015	<0.005							
7/16/2015	<0.005		<0.005		<0.005			
7/17/2015				<0.005		0.033		
7/18/2015		<0.005					<0.005	<0.005
10/6/2015	0.0073							
1/17/2016	0.0031 (J)				<0.005	0.021		<0.005
1/18/2016		<0.005	<0.005	<0.005			<0.005	
1/19/2016								
4/26/2016	0.00497 (J)							
7/26/2016								
7/27/2016					0.002 (J)			
7/28/2016	0.0076 (J)			<0.005		0.0341		<0.005
7/29/2016		0.0011 (J)	0.0036 (J)				0.0022 (J)	
8/30/2016								
8/31/2016				<0.005	<0.005		0.0014 (J)	
9/1/2016	0.0052 (J)	0.0012 (J)	0.0067 (J)			0.0297		<0.005
10/24/2016								
10/25/2016	0.0085 (J)					0.0095 (J)		0.0014 (J)
10/26/2016		0.0013 (J)	0.0042 (J)		0.0035 (J)		0.001 (J)	
10/27/2016				<0.005				
1/3/2017								
1/4/2017	0.0048 (J)					0.022	<0.005	0.0014 (J)
1/5/2017		0.0012 (J)			<0.005			
1/6/2017			0.0042 (J)	<0.005				
4/3/2017								
4/4/2017			0.0043 (J)		<0.005	0.0236		<0.005
4/5/2017	0.0068 (J)	<0.005						
4/6/2017				<0.005			<0.005	
7/10/2017								
7/11/2017							<0.005	<0.005
7/12/2017	0.0048 (J)		0.0033 (J)	<0.005				
7/13/2017		0.0018 (J)			<0.005	0.013		
10/2/2017								<0.005
10/3/2017	0.0051 (J)				<0.005	0.01 (J)		
10/4/2017		0.0042 (J)	0.0038 (J)	<0.005			0.0023 (J)	
1/9/2018						0.0162		
1/10/2018	0.0018 (J)				<0.005			<0.005



# Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App 1 PLs

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-9	GWC-16	GWC-12	GWC-11	GWB-4R	GWC-13	GWA-8 (bg)	GWC-17
9/29/2000	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	<0.01	<0.01	<0.01
11/21/2000	<0.01	<0.01	<0.01	<0.01	<0.01	0.068	<0.01	<0.01	<0.01
1/20/2001	<0.01	<0.01	<0.01	<0.01	<0.01	0.12	<0.01	<0.01	<0.01
3/14/2001	<0.01	<0.01	<0.01	<0.01	<0.01	0.08	<0.01	<0.01	<0.01
7/16/2001	<0.01	<0.01	<0.01	<0.01	<0.01	0.11	<0.01	<0.01	<0.01
11/1/2001	<0.01	<0.01	<0.01	<0.01	<0.01	0.079	<0.01	<0.01	<0.01
4/25/2002	<0.01	<0.01	<0.01	<0.01	<0.01	0.11	<0.01	<0.01	<0.01
11/20/2002		0.014	0.0069	<0.01	0.0071	0.15	<0.01	<0.01	<0.01
6/6/2003	0.047	<0.01	0.082 (O)	<0.01	0.0098	0.12	0.0063	0.017	<0.01
12/12/2003	0.0086	<0.01	0.012	<0.01	0.0074	0.13	<0.01	0.011	<0.01
5/26/2004	<0.01	<0.01	<0.01	<0.01	<0.01	0.095	<0.01	<0.01	<0.01
12/7/2004	<0.01	<0.01	<0.01	<0.01	<0.01	0.067	<0.01	<0.01	<0.01
6/21/2005	<0.01	<0.01	<0.01	<0.01	<0.01	0.062	<0.01	<0.01	<0.01
12/12/2005	<0.01	<0.01	<0.01	<0.01	<0.01	0.09	<0.01	<0.01	<0.01
4/4/2006			<0.01					<0.01	
6/27/2006	<0.01	<0.01	<0.01	<0.01	<0.01	0.083	<0.01	<0.01	0.0025
8/30/2006			<0.01					<0.01	
12/4/2006	0.0027	<0.01	0.0031	<0.01	<0.01	0.084	<0.01	<0.01	<0.01
2/15/2007			0.0025					<0.01	
6/23/2007	0.0027	<0.01	0.0032	<0.01	0.0036	0.081	<0.01	<0.01	<0.01
9/11/2007			<0.01					<0.01	
12/11/2007	0.0033	<0.01	<0.01	<0.01	<0.01	0.067	<0.01	<0.01	<0.01
3/11/2008			<0.01					<0.01	
6/23/2008	0.0074	<0.01		<0.01	<0.01		<0.01	<0.01	
6/24/2008			<0.01			0.059			<0.01
11/3/2008			0.0032					<0.01	
12/4/2008	0.0084	<0.01		<0.01	<0.01		<0.01	<0.01	
12/5/2008			<0.01			0.054			<0.01
3/25/2009			<0.01					<0.01	
7/7/2009	0.023					0.038		<0.01	
7/8/2009		0.0029	0.0036	<0.01	0.0026		<0.01		<0.01
9/14/2009			0.0026					<0.01	
12/20/2009	0.007		0.0031					<0.01	
12/21/2009		<0.01		<0.01	<0.01	0.06	<0.01		<0.01
3/4/2010			<0.01					<0.01	
6/20/2010	0.0047	<0.01		<0.01	<0.01		<0.01	<0.01	
6/21/2010			0.0025			0.036			<0.01
9/14/2010			0.0035					<0.01	
1/6/2011					0.003		0.0028		
1/7/2011	0.018	<0.01	0.0036	<0.01		0.043		<0.01	<0.01
4/15/2011			<0.01					<0.01	
7/7/2011	0.019		0.003	<0.01	0.004		<0.01	<0.01	
7/8/2011		<0.01				0.044			0.0031
9/25/2011			0.0037					<0.01	
1/17/2012	0.0298			<0.01	<0.01		<0.01	<0.01	
1/18/2012		<0.01	<0.01			0.045			<0.01
4/4/2012			<0.01					<0.01	
7/9/2012	0.14			<0.01	0.005		<0.01		
7/10/2012		<0.01	0.0026			0.048		<0.01	<0.01
10/9/2012			0.007					<0.01	
1/17/2013				<0.01	0.005		<0.01		
1/18/2013	0.21	<0.01	<0.01			0.049		<0.01	<0.01

# Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App 1 PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-9	GWC-16	GWC-12	GWC-11	GWB-4R	GWC-13	GWA-8 (bg)	GWC-17
4/5/2013			<0.01					<0.01	
7/16/2013				<0.01	<0.01		<0.01		
7/17/2013	0.18	<0.01	<0.01			0.05		<0.01	<0.01
10/11/2013			<0.01					<0.01	
1/13/2014	0.24			<0.01	<0.01		<0.01		
1/14/2014		<0.01	<0.01			0.067		<0.01	<0.01
4/3/2014			0.0032 (J)					0.0015 (J)	
7/8/2014				0.0034 (J)	0.0024 (J)		0.002 (J)		
7/9/2014	0.22	0.0016 (J)	0.0031 (J)			0.055		0.0012 (J)	0.0012 (J)
7/10/2014									
10/24/2014			0.0028 (J)					<0.01	
1/12/2015						0.066			
1/13/2015	0.19			<0.01	0.0023 (J)		0.0015 (J)		
1/14/2015		<0.01	0.0034 (J)					<0.01	0.002 (J)
5/10/2015								<0.01	
5/11/2015			0.0026 (J)						
7/16/2015	0.23		0.0028 (J)	0.0049 (J)	0.002 (J)	0.045	<0.01		
7/17/2015		0.0029 (J)						<0.01	
7/18/2015									<0.01
10/6/2015			0.0016 (J)					0.0012 (J)	
1/17/2016			0.0029 (J)						
1/18/2016	0.41	<0.01		0.0058		0.049	0.0011 (J)	0.00079 (J)	0.0019 (J)
1/19/2016					0.0025 (J)				
4/26/2016			0.00296 (J)					<0.01	
7/26/2016					0.0027 (J)		<0.01		
7/27/2016	0.397			0.0058 (J)					
7/28/2016		<0.01	0.0026 (J)					<0.01	
7/29/2016						0.0388			0.0031 (J)
10/24/2016								<0.01	
10/25/2016	0.425		<0.01						
1/3/2017								<0.01	
1/4/2017			<0.01	<0.01	<0.01				
1/5/2017							<0.01		<0.01
1/6/2017	0.41	<0.01				0.0341			
4/3/2017								<0.01	
4/4/2017						0.0371			
4/5/2017			0.0033 (J)	0.0039 (J)					0.0029 (J)
4/6/2017	0.297	<0.01			0.0025 (J)		<0.01		
7/10/2017				0.0062 (J)					
7/11/2017					0.0027 (J)			<0.01	
7/12/2017		0.0013 (J)	0.0037 (J)			0.0399	0.0016 (J)		
7/13/2017	0.194								0.0037 (J)
10/2/2017								<0.01	
10/3/2017			0.0036 (J)						
10/4/2017	0.316								
1/9/2018	0.194							0.0014 (J)	
1/10/2018			0.0029 (J)				0.0019 (J)		
1/11/2018		<0.01		0.0025 (J)	0.0019 (J)	0.0327			0.0026 (J)
7/9/2018								<0.01	
7/10/2018			0.0025 (J)						
7/11/2018	0.15	<0.01		0.0059 (J)	0.0021 (J)	0.02	0.0097 (J)		0.0032 (J)
1/16/2019	0.16					0.0022 (J)	<0.01	<0.01	<0.01





# Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App 1 PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-15	GWC-14	GWB-6R	GWC-1	GWB-5R	GWC-2	GWC-21	GWC-22	GWC-20
9/29/2000	<0.01	<0.01	0.12	<0.01	0.038				
11/21/2000	<0.01	<0.01	0.13	<0.01	0.013	<0.01			
1/20/2001	<0.01	<0.01	0.14	<0.01	0.038	<0.01			
3/14/2001	<0.01	<0.01	0.13	<0.01	0.077 (O)	<0.01			
7/16/2001	<0.01	<0.01	0.18	<0.01	0.12 (O)	<0.01			
11/1/2001	<0.01	<0.01	0.12	<0.01	0.21 (O)	<0.01			
4/25/2002	<0.01	<0.01	0.15	<0.01	0.086 (O)	<0.01			
11/20/2002	0.0099	0.03	0.15	0.0069	0.14 (O)	<0.01			
6/6/2003	0.019 (O)	0.0065	0.11	0.16 (O)	0.12 (O)	<0.01			
12/12/2003	0.018 (O)	0.0052	0.089	<0.01	0.014	<0.01			
5/26/2004	<0.01	<0.01	0.09	<0.01	0.06 (O)	<0.01			
12/7/2004	<0.01	0.0074	0.072	<0.01	0.054	<0.01			
6/21/2005	<0.01	0.01	0.04	<0.01	0.038	<0.01			
12/12/2005	<0.01	<0.01	0.021	<0.01	0.0056	<0.01			
4/4/2006		0.013							
6/27/2006	<0.01	<0.01	0.02	0.0029	0.0043	<0.01			
8/30/2006		0.0039							
12/4/2006	<0.01	0.016	0.022	0.0047	0.0044	<0.01			
2/15/2007		0.017							
6/23/2007	<0.01	0.0076	0.027	0.0029	0.0039	<0.01			
9/11/2007		0.012							
12/11/2007	<0.01	0.017	0.017	<0.01	0.0029	<0.01			
3/11/2008		0.012							
6/23/2008									
6/24/2008	<0.01	0.0069	0.053	<0.01	0.003	<0.01			
11/3/2008		0.016							
12/4/2008		0.013				<0.01			
12/5/2008	<0.01		0.0078	<0.01	<0.01				
3/25/2009		0.014							
7/7/2009			0.012	<0.01	<0.01				
7/8/2009	<0.01	0.014				<0.01			
9/14/2009		0.0072							
12/20/2009	<0.01	0.02		<0.01		<0.01			
12/21/2009			0.011		<0.01				
3/4/2010		0.023							
6/20/2010	<0.01	0.017	0.0083	0.0037	<0.01	<0.01			
6/21/2010							<0.01	<0.01	<0.01
9/14/2010		0.018							
1/6/2011				<0.01	0.0067	<0.01			
1/7/2011	<0.01	0.019	0.0079				0.0031	<0.01	0.0029
4/15/2011		0.019							
7/7/2011	0.0036	0.014	0.007	0.0045	0.019				<0.01
7/8/2011							0.0048	<0.01	0.0046
9/25/2011		0.015							
1/17/2012	<0.01	0.021		<0.01	0.021	<0.01			
1/18/2012			0.0116				<0.01	<0.01	<0.01
4/4/2012		0.0191							
7/9/2012	0.0059	0.026		0.0026	0.032	<0.01			
7/10/2012			0.0096				<0.01	<0.01	0.0081
10/9/2012		0.049							
1/17/2013				<0.01	0.034	<0.01			
1/18/2013	<0.01	0.036	<0.01				<0.01	<0.01	0.0063

# Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App 1 PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-15	GWC-14	GWB-6R	GWC-1	GWB-5R	GWC-2	GWC-21	GWC-22	GWC-20
4/5/2013		0.04							
7/16/2013				<0.01	0.021				
7/17/2013	<0.01	0.062	<0.01			<0.01	<0.01	<0.01	<0.01
10/11/2013		0.032							
1/13/2014	<0.01			<0.01	0.008	<0.01			
1/14/2014		0.044	<0.01				0.006	<0.01	<0.01
4/3/2014		0.077 (O)							
7/8/2014									
7/9/2014	0.0012 (J)	0.032	0.0039 (J)	0.0041 (J)	0.0052	<0.01	0.0019 (J)		
7/10/2014								0.0053	0.0026 (J)
10/24/2014		0.045							
1/12/2015									0.0031 (J)
1/13/2015	0.0013 (J)			0.0029 (J)	0.0036 (J)	<0.01			
1/14/2015		0.031	0.005				0.0037 (J)	0.0013 (J)	
5/10/2015		0.013							
5/11/2015									
7/16/2015	<0.01			0.0034 (J)	0.004 (J)	<0.01			
7/17/2015		0.028	0.0045 (J)				0.0028 (J)		
7/18/2015								0.0043 (J)	0.003 (J)
10/6/2015		0.02							
1/17/2016	0.0013 (J)	0.028		0.0046 (J)		<0.01	0.0039 (J)		0.0025 (J)
1/18/2016			0.0044 (J)		0.0069			<0.01	
1/19/2016									
4/26/2016		0.0181							
7/26/2016									
7/27/2016	<0.01	0.0189		0.0064 (J)	0.0046 (J)	<0.01			
7/28/2016			0.0038 (J)				0.0022 (J)		0.0024 (J)
7/29/2016								0.0052 (J)	
10/24/2016									
10/25/2016	<0.01	0.0206							<0.01
1/3/2017					<0.01				
1/4/2017				<0.01			<0.01	<0.01	<0.01
1/5/2017	<0.01	0.0172	0.0077 (J)			<0.01			
1/6/2017									
4/3/2017	0.002 (J)								
4/4/2017		0.0235		0.0061 (J)		<0.01	0.003 (J)		0.0024 (J)
4/5/2017									
4/6/2017			0.0069 (J)		0.0063 (J)			<0.01	
7/10/2017									
7/11/2017	0.0022 (J)	0.0136						0.0016 (J)	0.003 (J)
7/12/2017			0.0098 (J)	0.0067 (J)	0.0064 (J)				
7/13/2017						<0.01	0.0019 (J)		
10/2/2017	0.0022 (J)	0.0175							0.0028 (J)
10/3/2017									
10/4/2017									
1/9/2018	0.0021 (J)	0.0103	0.0086 (J)				0.0046 (J)		
1/10/2018				0.0056 (J)	0.0077 (J)	<0.01			0.0026 (J)
1/11/2018								0.0012 (J)	
7/9/2018		0.0078 (J)							<0.01
7/10/2018	0.0025 (J)		0.0098 (J)	0.0056 (J)	0.016	<0.01	0.0031 (J)		
7/11/2018								0.0025 (J)	
1/16/2019		0.0043 (J)	0.077	0.0043 (J)	0.0033 (J)				

# Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 11/21/2021 10:17 AM View: App 1 PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-15	GWC-14	GWB-6R	GWC-1	GWB-5R	GWC-2	GWC-21	GWC-22	GWC-20
1/17/2019	<0.01						0.0022 (J)		
1/18/2019								<0.01	
1/21/2019						0.0024 (J)			0.0031 (J)
3/25/2019									0.0024 (J)
3/26/2019	0.0026 (J)	0.0063 (J)	0.086	0.0051 (J)	0.0058 (J)		0.0041 (J)		
3/27/2019								0.002 (J)	
7/30/2019						<0.01			
10/7/2019									
10/8/2019	<0.01	<0.01					<0.01		
10/9/2019			0.018 (J)	<0.01	0.033 (J)	<0.01		<0.01	<0.01
4/6/2020									
4/7/2020	<0.01	0.0026 (J)	0.041 (J)	0.0015 (J)	0.0053 (J)		<0.01	0.0014 (J)	
4/8/2020						<0.01			<0.01
9/28/2020				0.0042 (J)					
9/29/2020		<0.01				<0.01			
9/30/2020	0.0028 (J)		0.018		0.0037 (J)		0.0029 (J)	<0.01	0.0029 (J)
10/1/2020									
3/10/2021			0.027	0.005 (J)	0.0026 (J)			<0.01	
3/11/2021									
3/12/2021	0.0037 (J)								0.0038 (J)
3/15/2021						<0.01			
3/16/2021		<0.01					0.003 (J)		
9/21/2021			0.015		0.0039 (J)			<0.01	
9/22/2021		0.0052 (J)				<0.01	<0.01		0.0033 (J)
9/23/2021	0.0022 (J)			0.0042 (J)					

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-14	GWC-11	GWC-1	GWC-15	GWC-16	GWC-17	GWB-4R	GWA-8 (bg)
9/29/2000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
11/21/2000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1/20/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.041	0.025
3/14/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7/16/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.059	<0.01
11/1/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4/25/2002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
11/20/2002		<0.01	<0.01	<0.01	<0.01	<0.01	0.014	0.061	0.016
6/6/2003	0.69 (O)	<0.01	<0.01	0.011	<0.01	0.035 (O)	0.012	0.041	0.032
12/12/2003	0.12	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	0.012	0.019
5/26/2004	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.016	<0.01
12/7/2004	<0.01	<0.01	0.028 (O)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
6/21/2005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
12/12/2005	0.014	0.011	<0.01	<0.01	0.064 (O)	<0.01	<0.01	0.017	0.01
4/4/2006		<0.01				<0.01			<0.01
6/27/2006	0.01	0.0045	0.0028	<0.01	0.011	0.077 (O)	0.0046	0.11	0.0043
8/30/2006		<0.01				0.0027			0.017
12/4/2006	0.0065	<0.01	0.0028	<0.01	0.0033	<0.01	0.0071	0.086	0.0053
2/15/2007		<0.01				0.0032			0.0045
6/23/2007	0.0049	<0.01	0.0063	<0.01	0.0029	0.0058	0.005	0.076	0.0043
9/11/2007		<0.01				0.0033			0.004
12/11/2007	0.0043	<0.01	<0.01	<0.01	<0.01	<0.01	0.0033	0.087	0.0048
3/11/2008		<0.01				<0.01			0.0043
6/23/2008	0.0025		<0.01						0.0037
6/24/2008		<0.01		<0.01	<0.01	<0.01	0.0037	0.062	
11/3/2008		<0.01				0.0025			0.0032
12/4/2008	0.0025	<0.01	<0.01						0.0029
12/5/2008				<0.01	<0.01	<0.01	0.0027	0.014	
3/25/2009		<0.01				0.0025			0.0055
7/7/2009	<0.01			<0.01				0.052	0.0028
7/8/2009		<0.01	<0.01		<0.01	<0.01	0.0048		
9/14/2009		<0.01				<0.01			0.0027
12/20/2009	0.0031	<0.01		<0.01	<0.01	<0.01			0.0029
12/21/2009			<0.01				0.0032	0.046	
3/4/2010		<0.01				<0.01			0.0042
6/20/2010	<0.01	<0.01	<0.01	<0.01	<0.01				0.0027
6/21/2010						<0.01	0.0028	0.045	
9/14/2010		<0.01				<0.01			<0.01
1/6/2011			<0.01	<0.01					
1/7/2011	<0.01	<0.01			<0.01	<0.01	0.003	0.024	0.0032
4/15/2011		<0.01				<0.01			<0.01
7/7/2011	0.0031	<0.01	<0.01	0.0025	<0.01	<0.01			0.005
7/8/2011							0.0034	0.023	
9/25/2011		<0.01				0.0028			0.0041
1/17/2012	0.004	<0.01	0.0043	<0.01	<0.01				0.0043
1/18/2012						0.0029	0.0049	0.011	
4/4/2012		<0.01				<0.01			<0.01
7/9/2012	0.0096	<0.01	<0.01	<0.01	<0.01				
7/10/2012						<0.01	0.0039	0.024	0.0028
10/9/2012		<0.01				0.0027			0.0033
1/17/2013			0.0025	<0.01					
1/18/2013	0.051	<0.01			<0.01	<0.01	0.0043	0.011	0.0038

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-14	GWC-11	GWC-1	GWC-15	GWC-16	GWC-17	GWB-4R	GWA-8 (bg)
4/5/2013		<0.01				<0.01			0.0026
7/16/2013			<0.01	<0.01					
7/17/2013	0.042	<0.01			<0.01	<0.01	0.0035	0.0029	<0.01
10/11/2013		<0.01				<0.01			0.0046
1/13/2014	0.0025		0.0025	0.0025	0.0025				
1/14/2014		0.0025				0.0025	0.0025	0.0025	0.0025
4/3/2014		0.0014 (J)				0.0015 (J)			0.0029
7/8/2014			0.0011 (J)						
7/9/2014	0.064	0.00086 (J)		<0.01	<0.01	0.0012 (J)	0.0033	0.0051	0.002 (J)
7/10/2014									
10/24/2014		0.00083 (J)				0.0013 (J)			0.0031
1/12/2015								0.0023 (J)	
1/13/2015	0.066		0.0021 (J)	0.0025	<0.01				
1/14/2015		<0.01				0.0017 (J)	0.0067		0.003
5/10/2015		<0.01							0.0028
5/11/2015						0.0015 (J)			
7/16/2015	0.036		<0.01	<0.01	<0.01	<0.01		0.0021 (J)	
7/17/2015		<0.01							0.0018 (J)
7/18/2015							<0.01		
10/6/2015		<0.01				<0.01			0.0018 (J)
1/17/2016		<0.01		<0.01	<0.01	<0.01			
1/18/2016	0.035						0.012	0.0092	0.0028
1/19/2016			0.0029						
4/26/2016		<0.01				<0.01			<0.01
7/26/2016			<0.01						
7/27/2016	0.0529	<0.01		<0.01	<0.01				
7/28/2016						<0.01			0.0018 (J)
7/29/2016							0.0086 (J)	0.003 (J)	
10/24/2016									0.0024 (J)
10/25/2016	0.0035 (J)	<0.01			<0.01	<0.01			
1/3/2017									0.0035 (J)
1/4/2017			<0.01	<0.01		0.0025 (J)			
1/5/2017		<0.01			<0.01		0.016		
1/6/2017	0.0235							0.0104	
4/3/2017					<0.01				0.0041 (J)
4/4/2017		<0.01		<0.01				0.0132	
4/5/2017						0.0025 (J)	0.0175		
4/6/2017	0.0829		0.004 (J)						
7/10/2017									
7/11/2017		<0.01	<0.01		<0.01				0.0029 (J)
7/12/2017				<0.01		0.002 (J)		0.0046 (J)	
7/13/2017	0.0853						0.0126		
10/2/2017		0.0026 (J)			<0.01				0.0026 (J)
10/3/2017						<0.01			
10/4/2017	0.0263								
1/9/2018	0.0665	0.0018 (J)			<0.01				0.0035 (J)
1/10/2018				0.0014 (J)		0.0016 (J)			
1/11/2018			0.0018 (J)				0.012	0.0095 (J)	
7/9/2018		<0.01							0.0022 (J)
7/10/2018				0.0021 (J)	<0.01	0.0031 (J)			
7/11/2018	0.02 (J)		<0.01				0.011	0.0028 (J)	
1/16/2019	0.014 (J)	<0.01		<0.01			0.0094 (J)	0.0052 (J)	0.0037 (J)

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-14	GWC-11	GWC-1	GWC-15	GWC-16	GWC-17	GWB-4R	GWA-8 (bg)
1/17/2019			<0.01		<0.01	<0.01			
1/18/2019									
1/21/2019									
3/25/2019	<0.05 (O)							0.0078 (J)	<0.01
3/26/2019		<0.01		<0.01	<0.01	<0.01	0.0057 (J)		
3/27/2019			<0.01						
7/30/2019									
10/7/2019									0.0077 (J)
10/8/2019	0.095	0.0052 (J)	0.0061 (J)		0.0051 (J)	0.01			
10/9/2019				0.0057 (J)			0.011	0.0064 (J)	
4/6/2020	<0.01								<0.01
4/7/2020		<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	
4/8/2020							<0.01		
9/28/2020	0.16			0.0092 (J)					0.0092 (J)
9/29/2020		<0.01	0.0031 (J)						
9/30/2020					0.032	0.0051 (J)	0.0043 (J)		
10/1/2020								0.0064 (J)	
3/10/2021			<0.01	<0.01				<0.01	
3/11/2021	0.054						0.0056 (J)		
3/12/2021					<0.01				0.0028 (J)
3/15/2021									
3/16/2021		<0.01				<0.01			
9/21/2021	<0.01		<0.01					<0.01	<0.01
9/22/2021		0.01				<0.01	<0.01		
9/23/2021				<0.01	<0.01				

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWC-13	GWB-5R	GWC-2	GWC-12	GWB-6R	GWC-22	GWC-20	GWC-21
9/29/2000	<0.01	<0.01	0.026 (O)		0.38 (O)	<0.02 (O)			
11/21/2000	<0.01	<0.01	<0.01	0.021 (O)	0.077 (O)	0.024 (O)			
1/20/2001	<0.01	<0.01	0.031 (O)	<0.01	0.23 (O)	<0.02 (O)			
3/14/2001	<0.01	<0.01	0.063 (O)	<0.01	0.24 (O)	<0.02 (O)			
7/16/2001	<0.01	<0.01	0.08 (O)	<0.01	0.053 (O)	<0.02 (O)			
11/1/2001	<0.01	0.044 (O)	0.16 (O)	<0.01	0.022 (O)	<0.02 (O)			
4/25/2002	<0.01	<0.01	<0.01	<0.01	1.2 (O)	<0.02 (O)			
11/20/2002	0.033 (O)	0.023	0.14 (O)	<0.01	0.045 (O)	0.028 (O)			
6/6/2003	<0.01	<0.01	0.51 (O)	<0.01	0.042 (O)	0.032 (O)			
12/12/2003	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01 (O)			
5/26/2004	<0.01	0.035	0.036 (O)	<0.01	<0.01	<0.01 (O)			
12/7/2004	<0.01	0.018	0.069 (O)	<0.01	<0.01	0.012 (O)			
6/21/2005	<0.01	0.014	0.076 (O)	<0.01	<0.01	<0.01 (O)			
12/12/2005	0.032 (O)	0.023	<0.01	0.012	<0.01	<0.01 (O)			
4/4/2006									
6/27/2006	0.018 (O)	0.023	0.01	<0.01	0.012 (O)	0.0071			
8/30/2006									
12/4/2006	0.0044	0.046 (O)	0.0035	<0.01	0.0067	0.0096			
2/15/2007									
6/23/2007	0.0041	0.036	0.0032	<0.01	0.025 (O)	0.094 (O)			
9/11/2007									
12/11/2007	0.0039	0.011	0.0079	<0.01	0.0038	0.042 (O)			
3/11/2008									
6/23/2008	<0.01	0.0091			0.0051				
6/24/2008			<0.01	<0.01		0.098 (O)			
11/3/2008									
12/4/2008	0.0039	0.0038		<0.01	<0.01				
12/5/2008			<0.01			0.047 (O)			
3/25/2009									
7/7/2009			<0.01			0.024 (O)			
7/8/2009	<0.01	<0.01		<0.01	<0.01				
9/14/2009									
12/20/2009				<0.01					
12/21/2009	0.004	0.0032	<0.01		0.013 (O)	0.049 (O)			
3/4/2010									
6/20/2010	<0.01	<0.01	<0.01	<0.01	<0.01	0.045 (O)			
6/21/2010							<0.01	<0.01	0.04 (O)
9/14/2010									
1/6/2011		0.004	<0.01	<0.01					
1/7/2011	0.0032				0.004	0.0044	0.019	<0.01	<0.01
4/15/2011									
7/7/2011		0.0037	0.0027		0.0028	0.003		<0.01	
7/8/2011	0.0025						0.1 (O)	0.086 (JO)	0.0044
9/25/2011									
1/17/2012		0.0031	0.0039	<0.01	0.0043				
1/18/2012	0.0045					0.0048	0.0051	<0.01	<0.01
4/4/2012									
7/9/2012		0.003	<0.01	<0.01	<0.01				
7/10/2012	<0.01					<0.01	0.01	<0.01	<0.01
10/9/2012									
1/17/2013		<0.01	<0.01	<0.01	0.0033				
1/18/2013	0.0029					0.0028	0.0036	0.0032	<0.01



# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 11/21/2021 10:17 AM View: App I PLs  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWC-13	GWB-5R	GWC-2	GWC-12	GWB-6R	GWC-22	GWC-20	GWC-21
4/5/2013									
7/16/2013		0.0029	0.0032		0.0028				
7/17/2013	<0.01			<0.01		<0.01	0.0025	<0.01	<0.01
10/11/2013									
1/13/2014		0.0025	0.0025	0.0025	0.0025				
1/14/2014	0.0025					0.0025	0.0025	0.0025	0.0025
4/3/2014									
7/8/2014		0.0018 (J)			0.002 (J)				
7/9/2014	0.0016 (J)		0.00076 (J)	0.00058 (J)		0.00093 (J)			0.00084 (J)
7/10/2014							0.024	<0.01	
10/24/2014									
1/12/2015								<0.01	
1/13/2015		0.0028	0.0036	0.0024 (J)	0.0079				
1/14/2015	0.0024 (J)					0.0023 (J)	0.0016 (J)		0.0018 (J)
5/10/2015									
5/11/2015									
7/16/2015		0.0018 (J)	<0.01	<0.01	0.0026				
7/17/2015	0.0031					<0.01			<0.01
7/18/2015							0.014	<0.01	
10/6/2015									
1/17/2016				<0.01				<0.01	<0.01
1/18/2016	0.0059	0.0017 (J)	<0.01		0.0025	0.0029	<0.01		
1/19/2016									
4/26/2016									
7/26/2016		0.0028 (J)							
7/27/2016			0.0015 (J)	0.0018 (J)	0.0021 (J)				
7/28/2016	0.0019 (J)					<0.01		<0.01	<0.01
7/29/2016							0.0129		
10/24/2016									
10/25/2016								<0.01	
1/3/2017			<0.01						
1/4/2017					0.0025 (J)		0.006 (J)	<0.01	<0.01
1/5/2017		0.0021 (J)		<0.01		<0.01			
1/6/2017	0.0026 (J)								
4/3/2017									
4/4/2017				0.0015 (J)				<0.01	0.0015 (J)
4/5/2017					0.0026 (J)				
4/6/2017	0.0047 (J)	0.0027 (J)	0.0023 (J)			0.0032 (J)	0.0031 (J)		
7/10/2017					0.0023 (J)				
7/11/2017							0.0029 (J)	<0.01	
7/12/2017	0.003 (J)	0.0043 (J)	<0.01			0.002 (J)			
7/13/2017				0.0014 (J)					0.002 (J)
10/2/2017								<0.01	
10/3/2017									
10/4/2017									
1/9/2018						0.0036 (J)			0.0016 (J)
1/10/2018		0.0021 (J)	0.0022 (J)	<0.01				0.0034 (J)	
1/11/2018	0.0046 (J)				0.0031 (J)		0.0106		
7/9/2018								<0.01	
7/10/2018			<0.01	<0.01		0.0055 (J)			<0.01
7/11/2018	0.0033 (J)	0.0039 (J)			0.0036 (J)		0.0057 (J)		
1/16/2019		0.047	<0.01			<0.01			



FIGURE E.

# Appendix I Trend Tests - Prediction Limit Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 10:21 AM

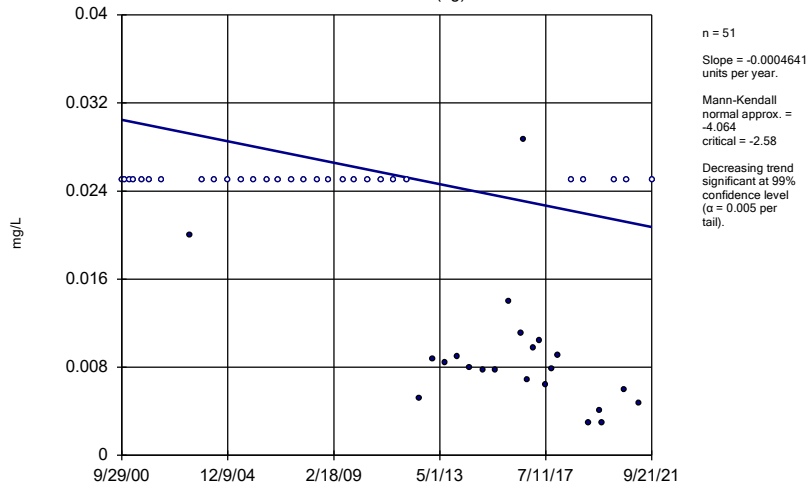
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWA-7 (bg)	-0.0004641	-4.064	-2.58	Yes	51	56.86	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	-3.001	-2.58	Yes	72	91.67	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-15	0.004498	8.092	2.58	Yes	52	48.08	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-16	-0.001191	-2.985	-2.58	Yes	71	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWA-8 (bg)	-0.002925	-8.747	-2.58	Yes	71	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWC-16	0.001438	3.347	2.58	Yes	68	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWC-20	0.01269	279	152	Yes	31	0	n/a	n/a	0.01	NP

# Appendix I Trend Tests - Prediction Limit Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 10:21 AM

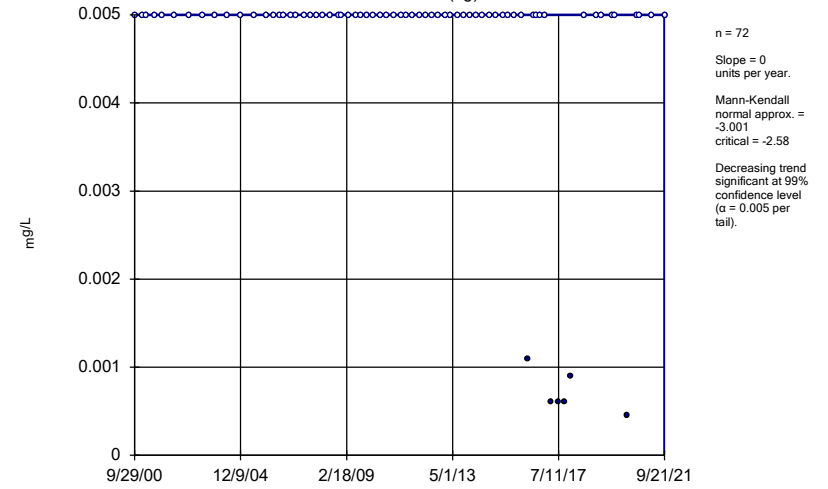
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Arsenic (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-0.0004641</b>	<b>-4.064</b>	<b>-2.58</b>	<b>Yes</b>	<b>51</b>	<b>56.86</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>GWA-8 (bg)</b>	<b>0</b>	<b>-3.001</b>	<b>-2.58</b>	<b>Yes</b>	<b>72</b>	<b>91.67</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.004498</b>	<b>8.092</b>	<b>2.58</b>	<b>Yes</b>	<b>52</b>	<b>48.08</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>GWC-16</b>	<b>-0.001191</b>	<b>-2.985</b>	<b>-2.58</b>	<b>Yes</b>	<b>71</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Arsenic (mg/L)	GWC-20	0.0104	102	152	No	31	3.226	n/a	n/a	0.01	NP
Barium (mg/L)	GWA-7 (bg)	-0.0005382	-0.6705	-2.58	No	50	0	n/a	n/a	0.01	NP
<b>Barium (mg/L)</b>	<b>GWA-8 (bg)</b>	<b>-0.002925</b>	<b>-8.747</b>	<b>-2.58</b>	<b>Yes</b>	<b>71</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Barium (mg/L)</b>	<b>GWC-16</b>	<b>0.001438</b>	<b>3.347</b>	<b>2.58</b>	<b>Yes</b>	<b>68</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Barium (mg/L)</b>	<b>GWC-20</b>	<b>0.01269</b>	<b>279</b>	<b>152</b>	<b>Yes</b>	<b>31</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

### Sen's Slope Estimator GWA-7 (bg)



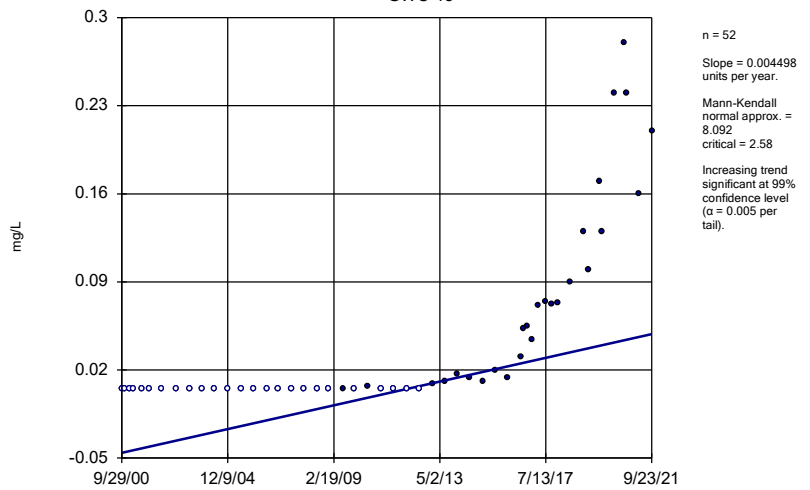
Constituent: Arsenic Analysis Run 11/21/2021 10:19 AM View: Trend Tests - App I PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWA-8 (bg)



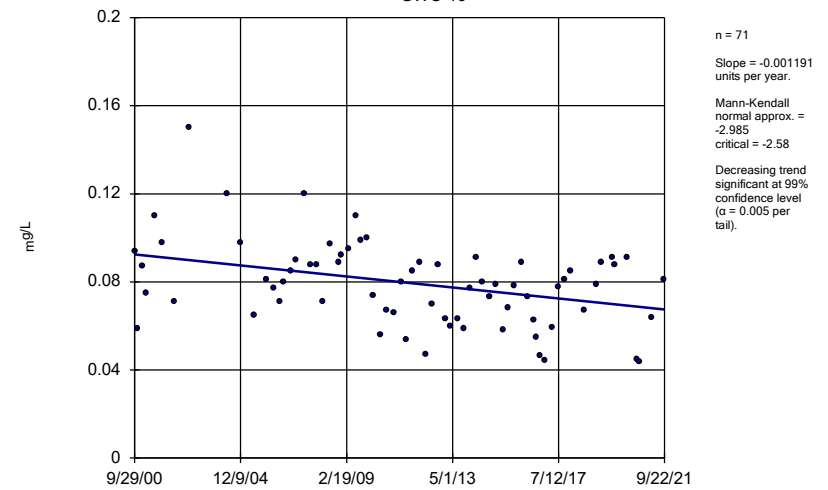
Constituent: Arsenic Analysis Run 11/21/2021 10:19 AM View: Trend Tests - App I PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-15



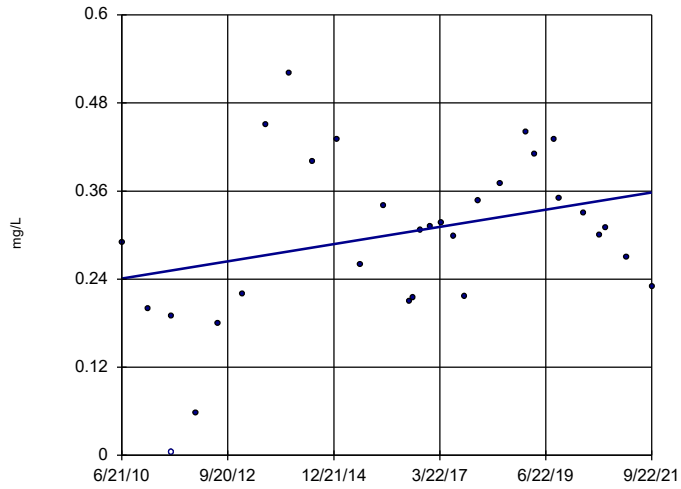
Constituent: Arsenic Analysis Run 11/21/2021 10:19 AM View: Trend Tests - App I PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-16



Constituent: Arsenic Analysis Run 11/21/2021 10:19 AM View: Trend Tests - App I PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

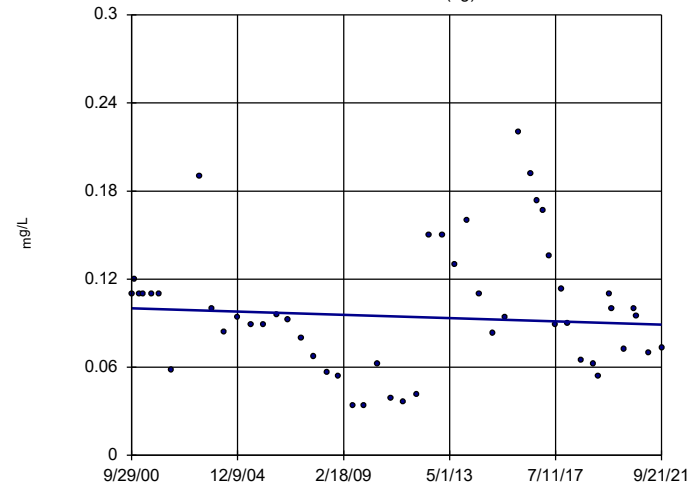
### Sen's Slope Estimator GWC-20



n = 31  
Slope = 0.0104  
units per year.  
Mann-Kendall  
statistic = 102  
critical = 152  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Arsenic Analysis Run 11/21/2021 10:19 AM View: Trend Tests - App I PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

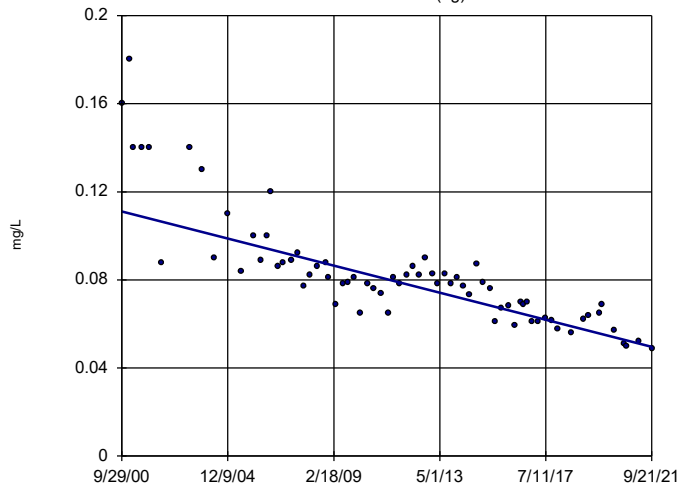
### Sen's Slope Estimator GWA-7 (bg)



n = 50  
Slope = -0.0005382  
units per year.  
Mann-Kendall  
normal approx. =  
-0.6705  
critical = -2.58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Barium Analysis Run 11/21/2021 10:19 AM View: Trend Tests - App I PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

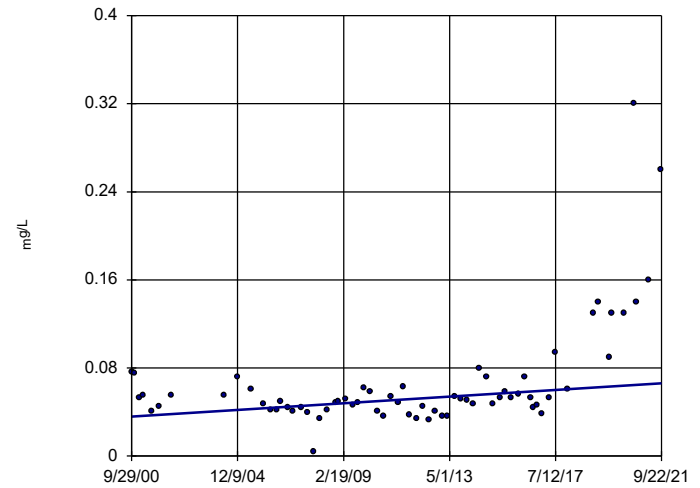
### Sen's Slope Estimator GWA-8 (bg)



n = 71  
Slope = -0.002925  
units per year.  
Mann-Kendall  
normal approx. =  
-8.747  
critical = -2.58  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Barium Analysis Run 11/21/2021 10:19 AM View: Trend Tests - App I PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-16

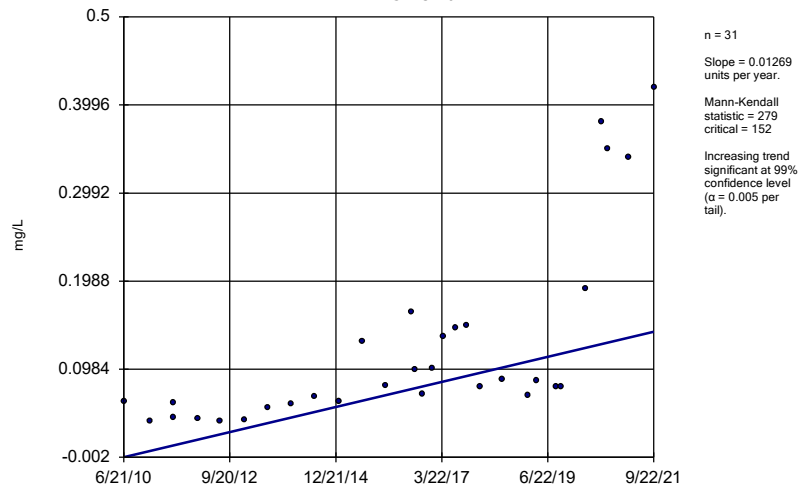


n = 68  
Slope = 0.001438  
units per year.  
Mann-Kendall  
normal approx. =  
3.347  
critical = 2.58  
Increasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Barium Analysis Run 11/21/2021 10:19 AM View: Trend Tests - App I PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWC-20



Constituent: Barium    Analysis Run 11/21/2021 10:19 AM    View: Trend Tests - App I PL Exceedances  
Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill



FIGURE F.

# Appendix III Interwell Prediction Limit - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:34 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Calcium (mg/L)	GWB-4R	35.8	n/a	9/21/2021	67.5	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-5R	35.8	n/a	9/21/2021	140	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-6R	35.8	n/a	9/21/2021	110	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1	35.8	n/a	9/23/2021	69.1	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-11	35.8	n/a	9/21/2021	87	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-12	35.8	n/a	9/21/2021	63.4	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-14	35.8	n/a	9/22/2021	185	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-15	35.8	n/a	9/23/2021	146	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-16	35.8	n/a	9/22/2021	267	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-17	35.8	n/a	9/22/2021	94.6	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-20	35.8	n/a	9/22/2021	266	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-17	260	n/a	9/22/2021	517	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWC-17	0.4672	n/a	9/22/2021	0.79	Yes	34	-2.29	0.6855	23.53	Kaplan-Meier ln(x)	0.0004702	Param Inter 1 of 2
pH (SU)	GWC-12	6.43	4.23	9/21/2021	4.05	Yes	32	n/a	n/a	0	n/a	n/a	0.003244 NP Inter (normality) 1 of 2
pH (SU)	GWC-15	6.43	4.23	9/23/2021	6.48	Yes	32	n/a	n/a	0	n/a	n/a	0.003244 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-4R	160	n/a	9/21/2021	232	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-5R	160	n/a	9/21/2021	829	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-6R	160	n/a	9/21/2021	645	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-11	160	n/a	9/21/2021	433	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-12	160	n/a	9/21/2021	315	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-14	160	n/a	9/22/2021	444	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-16	160	n/a	9/22/2021	1040	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-17	160	n/a	9/22/2021	394	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-20	160	n/a	9/22/2021	905	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2

# Appendix III Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWB-4R	21.8	n/a	9/21/2021	6.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-5R	21.8	n/a	9/21/2021	4.1	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-6R	21.8	n/a	9/21/2021	4.2	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-1	21.8	n/a	9/23/2021	0.59	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-11	21.8	n/a	9/21/2021	0.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-12	21.8	n/a	9/21/2021	5.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-13	21.8	n/a	9/21/2021	0.38	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-14	21.8	n/a	9/22/2021	0.052	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-15	21.8	n/a	9/23/2021	0.72	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-16	21.8	n/a	9/22/2021	11.5	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-17	21.8	n/a	9/22/2021	1.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-2	21.8	n/a	9/22/2021	0.017J	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-20	21.8	n/a	9/22/2021	11.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-21	21.8	n/a	9/22/2021	0.095	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-22	21.8	n/a	9/21/2021	0.19	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-9	21.8	n/a	9/22/2021	0.015J	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWB-4R</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>67.5</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWB-5R</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>140</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWB-6R</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>110</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-1</b>	<b>35.8</b>	<b>n/a</b>	<b>9/23/2021</b>	<b>69.1</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-11</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>87</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-12</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>63.4</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-13	35.8	n/a	9/21/2021	3.6	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-14</b>	<b>35.8</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>185</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-15</b>	<b>35.8</b>	<b>n/a</b>	<b>9/23/2021</b>	<b>146</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-16</b>	<b>35.8</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>267</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-17</b>	<b>35.8</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>94.6</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-2	35.8	n/a	9/22/2021	0.19J	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-20</b>	<b>35.8</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>266</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-21	35.8	n/a	9/22/2021	5.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-22	35.8	n/a	9/21/2021	15.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-9	35.8	n/a	9/22/2021	5	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-4R	260	n/a	9/21/2021	13.9	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-5R	260	n/a	9/21/2021	38.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-6R	260	n/a	9/21/2021	53.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-1	260	n/a	9/23/2021	8.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-11	260	n/a	9/21/2021	103	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-12	260	n/a	9/21/2021	63.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-13	260	n/a	9/21/2021	7.9	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-14	260	n/a	9/22/2021	28	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-15	260	n/a	9/23/2021	7.1	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-16	260	n/a	9/22/2021	55.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Chloride (mg/L)</b>	<b>GWC-17</b>	<b>260</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>517</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	GWC-2	260	n/a	9/22/2021	7.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-20	260	n/a	9/22/2021	38.9	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-21	260	n/a	9/22/2021	6	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-22	260	n/a	9/21/2021	9.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-9	260	n/a	9/22/2021	19.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWB-4R	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWB-5R	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2

# Appendix III Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	GWB-6R	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-1	0.4672	n/a	9/23/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-11	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-12	0.4672	n/a	9/21/2021	0.31	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-13	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-14	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-15	0.4672	n/a	9/23/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-16	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
<b>Fluoride (mg/L)</b>	<b>GWC-17</b>	<b>0.4672</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>0.79</b>	<b>Yes</b>	<b>34</b>	<b>-2.29</b>	<b>0.6855</b>	<b>23.53</b>	<b>Kaplan-Meier</b>	<b>ln(x)</b>	<b>0.0004702</b>	<b>Param Inter 1 of 2</b>
Fluoride (mg/L)	GWC-2	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-20	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-21	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-22	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-9	0.4672	n/a	9/22/2021	0.13	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
pH (SU)	GWB-4R	6.43	4.23	9/21/2021	5.78	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWB-5R	6.43	4.23	9/21/2021	4.68	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWB-6R	6.43	4.23	9/21/2021	5.4	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-1	6.43	4.23	9/23/2021	6.06	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-11	6.43	4.23	9/21/2021	4.92	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GWC-12</b>	<b>6.43</b>	<b>4.23</b>	<b>9/21/2021</b>	<b>4.05</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.003244</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GWC-13	6.43	4.23	9/21/2021	4.83	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-14	6.43	4.23	9/22/2021	5.76	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GWC-15</b>	<b>6.43</b>	<b>4.23</b>	<b>9/23/2021</b>	<b>6.48</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.003244</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GWC-16	6.43	4.23	9/22/2021	5.57	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-17	6.43	4.23	9/22/2021	4.63	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-2	6.43	4.23	9/22/2021	4.71	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-20	6.43	4.23	9/22/2021	6	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-21	6.43	4.23	9/22/2021	5.39	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-22	6.43	4.23	9/21/2021	4.72	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-9	6.43	4.23	9/22/2021	4.7	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWB-4R</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>232</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWB-5R</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>829</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWB-6R</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>645</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-1	160	n/a	9/23/2021	37.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-11</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>433</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWC-12</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>315</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-13	160	n/a	9/21/2021	36.6	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-14</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>444</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-15	160	n/a	9/23/2021	124	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-16</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>1040</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWC-17</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>394</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-2	160	n/a	9/22/2021	10.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-20</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>905</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-21	160	n/a	9/22/2021	14.6	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-22	160	n/a	9/21/2021	52.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-9	160	n/a	9/22/2021	42.7	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-4R	3660	n/a	9/21/2021	476	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-5R	3660	n/a	9/21/2021	1240	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-6R	3660	n/a	9/21/2021	985	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-1	3660	n/a	9/23/2021	360	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2

# Appendix III Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Total Dissolved Solids (mg/L)	GWC-11	3660	n/a	9/21/2021	842	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-12	3660	n/a	9/21/2021	558	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-13	3660	n/a	9/21/2021	83	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-14	3660	n/a	9/22/2021	864	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-15	3660	n/a	9/23/2021	556	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-16	3660	n/a	9/22/2021	1680	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-17	3660	n/a	9/22/2021	1530	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-2	3660	n/a	9/22/2021	33	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-20	3660	n/a	9/22/2021	1430	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-21	3660	n/a	9/22/2021	51	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-22	3660	n/a	9/21/2021	87	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-9	3660	n/a	9/22/2021	94	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2

# Appendix III Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWB-4R	21.8	n/a	9/21/2021	6.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-5R	21.8	n/a	9/21/2021	4.1	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-6R	21.8	n/a	9/21/2021	4.2	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-1	21.8	n/a	9/23/2021	0.59	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-11	21.8	n/a	9/21/2021	0.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-12	21.8	n/a	9/21/2021	5.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-13	21.8	n/a	9/21/2021	0.38	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-14	21.8	n/a	9/22/2021	0.052	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-15	21.8	n/a	9/23/2021	0.72	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-16	21.8	n/a	9/22/2021	11.5	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-17	21.8	n/a	9/22/2021	1.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-2	21.8	n/a	9/22/2021	0.017J	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-20	21.8	n/a	9/22/2021	11.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-21	21.8	n/a	9/22/2021	0.095	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-22	21.8	n/a	9/21/2021	0.19	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-9	21.8	n/a	9/22/2021	0.015J	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWB-4R</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>67.5</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWB-5R</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>140</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWB-6R</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>110</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-1</b>	<b>35.8</b>	<b>n/a</b>	<b>9/23/2021</b>	<b>69.1</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-11</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>87</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-12</b>	<b>35.8</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>63.4</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-13	35.8	n/a	9/21/2021	3.6	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-14</b>	<b>35.8</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>185</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-15</b>	<b>35.8</b>	<b>n/a</b>	<b>9/23/2021</b>	<b>146</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-16</b>	<b>35.8</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>267</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-17</b>	<b>35.8</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>94.6</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-2	35.8	n/a	9/22/2021	0.19J	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-20</b>	<b>35.8</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>266</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-21	35.8	n/a	9/22/2021	5.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-22	35.8	n/a	9/21/2021	15.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-9	35.8	n/a	9/22/2021	5	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-4R	260	n/a	9/21/2021	13.9	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-5R	260	n/a	9/21/2021	38.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-6R	260	n/a	9/21/2021	53.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-1	260	n/a	9/23/2021	8.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-11	260	n/a	9/21/2021	103	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-12	260	n/a	9/21/2021	63.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-13	260	n/a	9/21/2021	7.9	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-14	260	n/a	9/22/2021	28	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-15	260	n/a	9/23/2021	7.1	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-16	260	n/a	9/22/2021	55.8	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Chloride (mg/L)</b>	<b>GWC-17</b>	<b>260</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>517</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	GWC-2	260	n/a	9/22/2021	7.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-20	260	n/a	9/22/2021	38.9	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-21	260	n/a	9/22/2021	6	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-22	260	n/a	9/21/2021	9.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-9	260	n/a	9/22/2021	19.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWB-4R	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWB-5R	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2

# Appendix III Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method	
Fluoride (mg/L)	GWB-6R	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-1	0.4672	n/a	9/23/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-11	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-12	0.4672	n/a	9/21/2021	0.31	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-13	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-14	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-15	0.4672	n/a	9/23/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-16	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
<b>Fluoride (mg/L)</b>	<b>GWC-17</b>	<b>0.4672</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>0.79</b>	<b>Yes</b>	<b>34</b>	<b>-2.29</b>	<b>0.6855</b>	<b>23.53</b>	<b>Kaplan-Meier</b>	<b>ln(x)</b>	<b>0.0004702</b>	<b>Param Inter 1 of 2</b>
Fluoride (mg/L)	GWC-2	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-20	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-21	0.4672	n/a	9/22/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-22	0.4672	n/a	9/21/2021	0.1ND	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-9	0.4672	n/a	9/22/2021	0.13	No	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
pH (SU)	GWB-4R	6.43	4.23	9/21/2021	5.78	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWB-5R	6.43	4.23	9/21/2021	4.68	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWB-6R	6.43	4.23	9/21/2021	5.4	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-1	6.43	4.23	9/23/2021	6.06	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-11	6.43	4.23	9/21/2021	4.92	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GWC-12</b>	<b>6.43</b>	<b>4.23</b>	<b>9/21/2021</b>	<b>4.05</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.003244</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GWC-13	6.43	4.23	9/21/2021	4.83	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-14	6.43	4.23	9/22/2021	5.76	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GWC-15</b>	<b>6.43</b>	<b>4.23</b>	<b>9/23/2021</b>	<b>6.48</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.003244</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GWC-16	6.43	4.23	9/22/2021	5.57	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-17	6.43	4.23	9/22/2021	4.63	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-2	6.43	4.23	9/22/2021	4.71	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-20	6.43	4.23	9/22/2021	6	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-21	6.43	4.23	9/22/2021	5.39	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-22	6.43	4.23	9/21/2021	4.72	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
pH (SU)	GWC-9	6.43	4.23	9/22/2021	4.7	No	32	n/a	n/a	0	n/a	n/a	0.003244	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWB-4R</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>232</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWB-5R</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>829</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWB-6R</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>645</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-1	160	n/a	9/23/2021	37.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-11</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>433</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWC-12</b>	<b>160</b>	<b>n/a</b>	<b>9/21/2021</b>	<b>315</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-13	160	n/a	9/21/2021	36.6	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-14</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>444</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-15	160	n/a	9/23/2021	124	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-16</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>1040</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWC-17</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>394</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-2	160	n/a	9/22/2021	10.3	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-20</b>	<b>160</b>	<b>n/a</b>	<b>9/22/2021</b>	<b>905</b>	<b>Yes</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001792</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-21	160	n/a	9/22/2021	14.6	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-22	160	n/a	9/21/2021	52.4	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-9	160	n/a	9/22/2021	42.7	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-4R	3660	n/a	9/21/2021	476	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-5R	3660	n/a	9/21/2021	1240	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-6R	3660	n/a	9/21/2021	985	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-1	3660	n/a	9/23/2021	360	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2

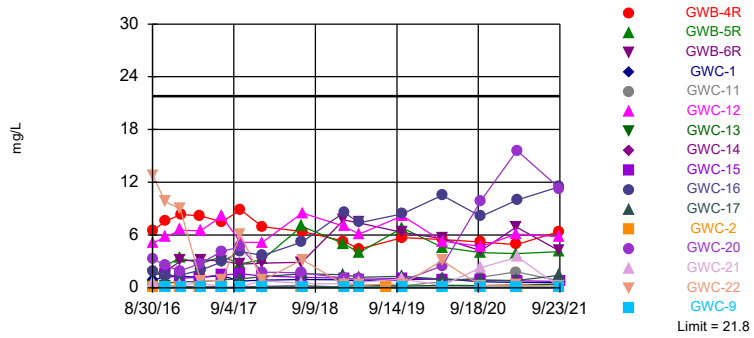
# Appendix III Interwell Prediction Limit - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Total Dissolved Solids (mg/L)	GWC-11	3660	n/a	9/21/2021	842	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-12	3660	n/a	9/21/2021	558	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-13	3660	n/a	9/21/2021	83	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-14	3660	n/a	9/22/2021	864	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-15	3660	n/a	9/23/2021	556	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-16	3660	n/a	9/22/2021	1680	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-17	3660	n/a	9/22/2021	1530	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-2	3660	n/a	9/22/2021	33	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-20	3660	n/a	9/22/2021	1430	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-21	3660	n/a	9/22/2021	51	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-22	3660	n/a	9/21/2021	87	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-9	3660	n/a	9/22/2021	94	No	30	n/a	n/a	0	n/a	n/a	0.001792	NP Inter (normality) 1 of 2



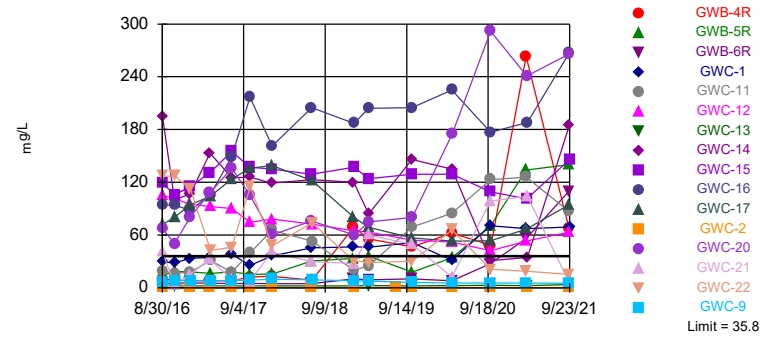
Within Limit Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 30 background values. Annual per-constituent alpha = 0.05578. Individual comparison alpha = 0.001792 (1 of 2). Comparing 16 points to limit. Seasonality was not detected with 95% confidence.

Constituent: Boron Analysis Run 11/20/2021 2:30 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

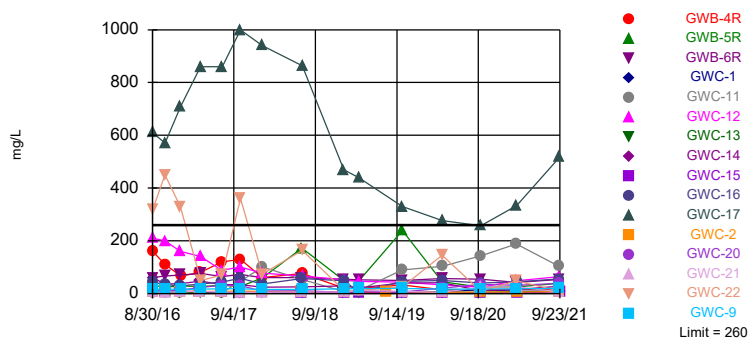
Exceeds Limit: GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, GWC-12, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20 Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 30 background values. Annual per-constituent alpha = 0.05578. Individual comparison alpha = 0.001792 (1 of 2). Comparing 16 points to limit. Seasonality was not detected with 95% confidence.

Constituent: Calcium Analysis Run 11/20/2021 2:30 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

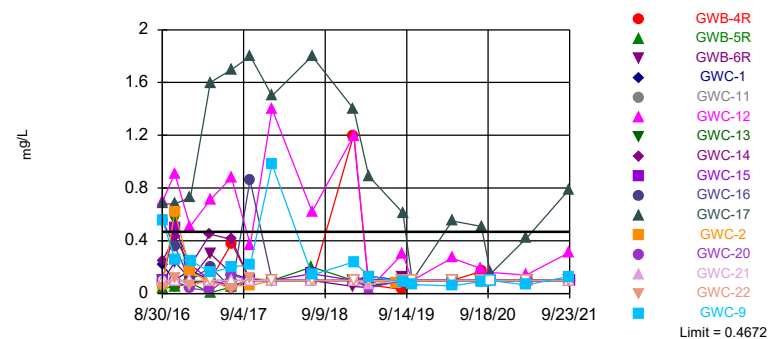
Exceeds Limit: GWC-17 Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 30 background values. Annual per-constituent alpha = 0.05578. Individual comparison alpha = 0.001792 (1 of 2). Comparing 16 points to limit. Seasonality was not detected with 95% confidence.

Constituent: Chloride Analysis Run 11/20/2021 2:30 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWC-17 Prediction Limit  
Interwell Parametric

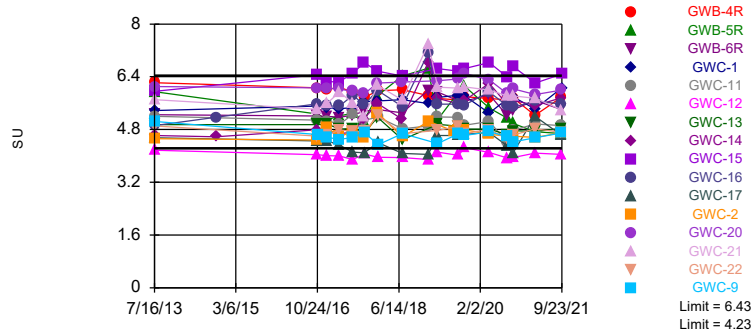


Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-2.29, Std. Dev.=0.6855, n=34, 23.53% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9232, critical = 0.908. Kappa = 2.231 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004702. Comparing 16 points to limit.

Constituent: Fluoride Analysis Run 11/20/2021 2:30 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limits: GWC-12, GWC-15

Prediction Limit  
Interwell Non-parametric

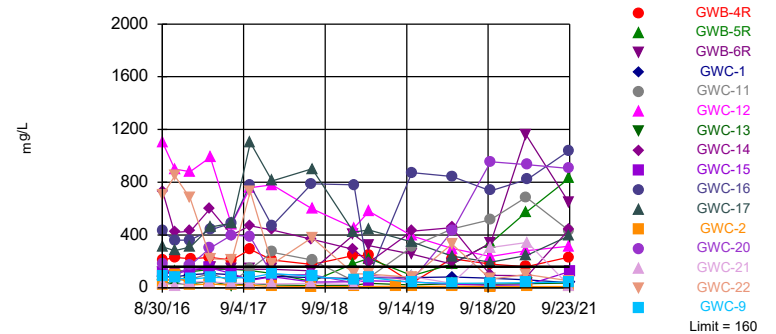


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 32 background values. Annual per-constituent alpha = 0.1013. Individual comparison alpha = 0.003244 (1 of 2). Comparing 16 points to limit. Seasonality was not detected with 95% confidence.

Constituent: pH Analysis Run 11/20/2021 2:30 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWC-12, GWC-15

Prediction Limit  
Interwell Non-parametric



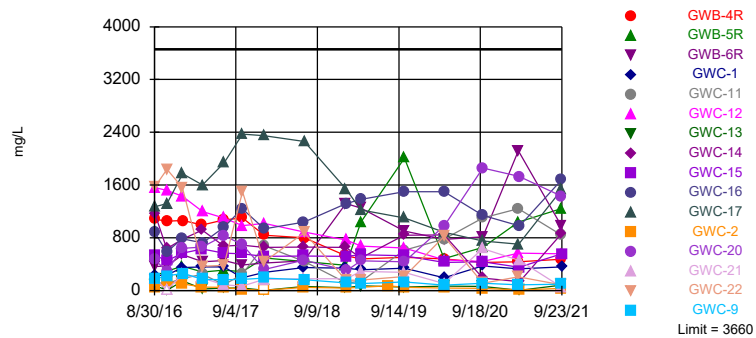
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 30 background values. Annual per-constituent alpha = 0.05578. Individual comparison alpha = 0.001792 (1 of 2). Comparing 16 points to limit. Seasonality was not detected with 95% confidence.

Constituent: Sulfate Analysis Run 11/20/2021 2:30 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Hollow symbols indicate censored values.

Within Limit

Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 30 background values. Annual per-constituent alpha = 0.05578. Individual comparison alpha = 0.001792 (1 of 2). Comparing 16 points to limit. Seasonality was not detected with 95% confidence.

Constituent: Total Dissolved Solids Analysis Run 11/20/2021 2:30 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

# Appendix III Interwell Prediction Limit - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Calcium (mg/L)	GWB-4R	35.8	n/a	9/21/2021	67.5	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-5R	35.8	n/a	9/21/2021	140	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-6R	35.8	n/a	9/21/2021	110	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1	35.8	n/a	9/23/2021	69.1	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-11	35.8	n/a	9/21/2021	87	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-12	35.8	n/a	9/21/2021	63.4	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-14	35.8	n/a	9/22/2021	185	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-15	35.8	n/a	9/23/2021	146	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-16	35.8	n/a	9/22/2021	267	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-17	35.8	n/a	9/22/2021	94.6	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-20	35.8	n/a	9/22/2021	266	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-17	260	n/a	9/22/2021	517	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWC-17	0.4672	n/a	9/22/2021	0.79	Yes	34	-2.29	0.6855	23.53	Kaplan-Meier ln(x)	0.0004702	Param Inter 1 of 2
pH (SU)	GWC-12	6.43	4.23	9/21/2021	4.05	Yes	32	n/a	n/a	0	n/a	n/a	0.003244 NP Inter (normality) 1 of 2
pH (SU)	GWC-15	6.43	4.23	9/23/2021	6.48	Yes	32	n/a	n/a	0	n/a	n/a	0.003244 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-4R	160	n/a	9/21/2021	232	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-5R	160	n/a	9/21/2021	829	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-6R	160	n/a	9/21/2021	645	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-11	160	n/a	9/21/2021	433	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-12	160	n/a	9/21/2021	315	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-14	160	n/a	9/22/2021	444	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-16	160	n/a	9/22/2021	1040	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-17	160	n/a	9/22/2021	394	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-20	160	n/a	9/22/2021	905	Yes	30	n/a	n/a	0	n/a	n/a	0.001792 NP Inter (normality) 1 of 2

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-1	GWC-13	GWC-22	GWC-12	GWC-11	GWC-2
8/30/2016	1.09	1.41	0.117	0.875					
8/31/2016					0.261	12.8	5.1	0.0688 (J)	0.0196 (J)
9/1/2016									
10/24/2016			0.126						
10/25/2016				1.22					
10/26/2016	2.5	1.83			0.211	9.81	5.74	0.083 (J)	0.05 (J)
10/27/2016									
1/3/2017	3.39		0.124						
1/4/2017				1.3		8.94	6.56	0.0738	
1/5/2017		3.07			0.179				0.0162 (J)
1/6/2017									
4/3/2017			0.105						
4/4/2017				1.19					0.019 (J)
4/5/2017							6.49		
4/6/2017	2.76	3.19			0.112	0.733		0.0754	
7/10/2017							8.13		
7/11/2017			0.136			0.852		0.0614	
7/12/2017	3.55	3.06		1.37	0.0882				
7/13/2017									0.023 (J)
10/2/2017			0.107						
10/3/2017	2.72	2.69		0.765				0.0838	0.0266 (J)
10/4/2017					0.116	6.05	5.18		
1/9/2018		2.81	0.123						
1/10/2018	3.21			0.876	0.101				0.0203 (J)
1/11/2018						0.838	5.16	0.169	
7/9/2018			0.11						
7/10/2018	7	2.9		0.94					0.026 (J)
7/11/2018					0.098	3.2	8.5	0.3	
1/16/2019	5	7.7	0.13	0.91	0.11				
1/17/2019							7	0.065	
1/18/2019						0.37			
1/21/2019									0.018 (J)
3/25/2019			0.098						
3/26/2019	4	7.4		0.77	0.35				
3/27/2019						0.37	6.1	0.089	
7/30/2019									0.02 (J)
10/7/2019			0.12						
10/8/2019					0.18			0.22	
10/9/2019	6.8	6.3		0.93		0.39	8.2		0.024 (J)
4/6/2020			0.14						
4/7/2020	4.6	5.6		1		3.1	5.3	0.67	
4/8/2020					0.28				0.031 (J)
9/28/2020			0.15	0.69	0.24				
9/29/2020							4.7	1.2	0.024 (J)
9/30/2020	4	4.2				0.25			
10/1/2020									
3/10/2021	3.9	6.9		0.63		0.32	6.1	1.8	
3/11/2021									
3/12/2021			0.11						
3/15/2021					0.31				0.084
3/16/2021									
9/21/2021	4.1	4.2	0.13		0.38	0.19	5.8	0.8	

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-1	GWC-13	GWC-22	GWC-12	GWC-11	GWC-2
9/22/2021									0.017 (J)
9/23/2021				0.59					

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWC-14	GWC-16	GWC-17	GWA-7 (bg)	GWC-20	GWC-21	GWC-15	GWC-9
8/30/2016									
8/31/2016									0.096 (JO)
9/1/2016	6.48	0.071 (J)	1.82	0.408	11.6	3.34	0.62	9.01 (O)	
10/24/2016									
10/25/2016		0.0819 (J)	1.26		21.4	2.54	0.0658 (J)	1.66	
10/26/2016	7.57			0.5					
10/27/2016									0.0281 (J)
1/3/2017									
1/4/2017			1.46			1.91	0.36		
1/5/2017		0.0813		0.676				1.1	
1/6/2017	8.34				20.1				0.0189 (J)
4/3/2017								1.21	
4/4/2017	8.18	0.0723				2.77	0.509		
4/5/2017			2	0.69					
4/6/2017					21.8				0.0181 (J)
7/10/2017									
7/11/2017		0.0734				4.14		1.44	
7/12/2017	7.51		2.95						0.0211 (J)
7/13/2017				0.888	16.3		0.126		
10/2/2017		0.0748				4.65		1.59	
10/3/2017			4.15				0.1		
10/4/2017	8.88			1.02	21.5				0.0254 (J)
1/9/2018		0.0679			13.9		0.783	1.35	
1/10/2018			3.68			1.79			
1/11/2018	6.95			1.28					0.018 (J)
7/9/2018		0.061				1.7			
7/10/2018			5.2				0.5	1.2	
7/11/2018	6.4			1.6	11.7				0.02 (J)
1/16/2019	5.3	0.046		1.5	9.3				
1/17/2019			8.6				0.43	1.1	
1/18/2019									0.018 (J)
1/21/2019						1.1			
3/25/2019	4.4				8.5	1			
3/26/2019		0.037 (J)	7.4	1.2			0.61	0.95	
3/27/2019									0.016 (J)
7/30/2019									
10/7/2019									
10/8/2019		0.048	8.4		6.4		1	1.1	
10/9/2019	5.7			1.3		0.79			0.019 (J)
4/6/2020					6.1				
4/7/2020	5.5	0.061 (J)	10.5				0.24	0.96	
4/8/2020				0.99		2.5			0.023 (J)
9/28/2020					4.6				
9/29/2020		0.053							
9/30/2020			8.1	0.86		9.9	2.3	0.86	
10/1/2020	5.2								0.028 (J)
3/10/2021	4.9								0.022 (J)
3/11/2021				0.85	8				
3/12/2021						15.6		0.81	
3/15/2021									
3/16/2021		0.08	10				3.5		
9/21/2021	6.4				4.4				



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-1	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-11	GWC-9	GWC-12	GWC-2	GWC-13
8/30/2016	29.4	14.3	4.68	23.8					
8/31/2016					18.8	6.9	105	0.371 (J)	2.77
9/1/2016									
10/24/2016				22.5					
10/25/2016	28.3								
10/26/2016		18.6	5.45		16.6		101	5.84	2.25
10/27/2016						8.2			
1/3/2017		18.1		22.1					
1/4/2017	33.4				17.6		94.9		
1/5/2017			5.35					0.379 (J)	2.27
1/6/2017						7.97			
4/3/2017				24.6 (J)					
4/4/2017	34.6							0.993	
4/5/2017							92.5		
4/6/2017		16.2	5.41		30.9	7.95			2.04
7/10/2017							90.3		
7/11/2017				23.5	17.7				
7/12/2017	38	18.1	4.81			8.37			2.25
7/13/2017								0.388 (J)	
10/2/2017				22.7					
10/3/2017	25.5	15.2	5.17		39.8			0.251 (J)	
10/4/2017						8.57	74.6		2.19
1/9/2018			4.73	23.2					
1/10/2018	36.5	15.5						0.177 (J)	2.28
1/11/2018					65.6	9.78	78.1		
7/9/2018				24.6 (J)					
7/10/2018	45.5	30.6	4.5					0.17 (J)	
7/11/2018					53	9.2	72.2		2.3
1/16/2019	46.5	33.3	10.1	27.7					2.3
1/17/2019					19.8 (J)		64.7		
1/18/2019						8.1			
1/21/2019								0.19 (J)	
3/25/2019				31.7					
3/26/2019	46.3	36.1	9						2.4
3/27/2019					25.1	7.7	63.1		
7/30/2019								0.43	
10/7/2019				31.6					
10/8/2019					69.2				2.3
10/9/2019	51.2	17.7	10.1			6	54.2	0.18	
4/6/2020				35.8					
4/7/2020	31.1	34.1	7.8		84.7		52.1		
4/8/2020						5.3		0.24 (J)	2.5
9/28/2020	70.7			25.6					2.9
9/29/2020					123		42	0.18 (J)	
9/30/2020		70.4	27.5						
10/1/2020						5.5			
3/10/2021	67.2	134	55.9		126	5.3	53.1		
3/11/2021									
3/12/2021				21.4					
3/15/2021								0.22 (J)	2.4
3/16/2021									
9/21/2021		140	110	18.5	87		63.4		3.6





# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-22	GWC-20	GWC-17	GWB-4R	GWC-21	GWC-16	GWC-15	GWA-7 (bg)	GWC-14
8/30/2016									
8/31/2016	127								
9/1/2016		67.2	71.9	9.91	40.5	93.8	119	5.59	194
10/24/2016									
10/25/2016		50.1			3.91	94.1	106	6.43	100
10/26/2016	127		80.3	8.56					
10/27/2016									
1/3/2017									
1/4/2017	113	80.4			15.2	88.2			
1/5/2017			94.4				115		107
1/6/2017				8.18				8.13	
4/3/2017							131		
4/4/2017		108		8.12	32.3				153
4/5/2017			104			106			
4/6/2017	42.7							7.72	
7/10/2017									
7/11/2017	46	136					155		125
7/12/2017				8		149			
7/13/2017			124		8.92			4.57	
10/2/2017		105					137		126
10/3/2017					7.88	217			
10/4/2017	115		136	12.5				6.41	
1/9/2018					40.5		135	4.68	119
1/10/2018		60.1				161			
1/11/2018	47.6		139	12.9					
7/9/2018		75.9							123
7/10/2018					29.8	205	129		
7/11/2018	73.7		122	8.6				3.9	
1/16/2019			80.5	68.8				4.3	120
1/17/2019					27.6	187	137		
1/18/2019	30.6								
1/21/2019		60							
3/25/2019		74.8		55.6				3.9	
3/26/2019			68.8		60.1	204	124		84.2
3/27/2019	28.8								
7/30/2019									
10/7/2019									
10/8/2019					49.5	205	129	3.5	146
10/9/2019	30.1	80.1	56.6	46.7					
4/6/2020								3.1	
4/7/2020	65.7			62.1	12.5	225	129		135
4/8/2020		175	53.1						
9/28/2020								3.3	
9/29/2020									30.8
9/30/2020	20.9	292	53.5		98.4	177	109		
10/1/2020				48.4					
3/10/2021	18.7			263					
3/11/2021			67					2.4	
3/12/2021		241					101		
3/15/2021									
3/16/2021					104	188			34.4
9/21/2021	15.3			67.5				2.7	

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-22	GWC-20	GWC-17	GWB-4R	GWC-21	GWC-16	GWC-15	GWA-7 (bg)	GWC-14
9/22/2021		266	94.6		5.8	267			185
9/23/2021							146		

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-1	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-11	GWC-9	GWC-12	GWC-2	GWC-13
8/30/2016	5.5	31	60	15					
8/31/2016					3.5	17	210	7.8	4.3
9/1/2016									
10/24/2016				13					
10/25/2016	5.1								
10/26/2016		24	67		2.5		200	12	4.9
10/27/2016						17			
1/3/2017		29		13					
1/4/2017	6.9				3.8		160		
1/5/2017			70					7.4	4.1
1/6/2017						16			
4/3/2017				14					
4/4/2017	6.5							8.7	
4/5/2017							140		
4/6/2017		27	76		7.1	17			3.7
7/10/2017							88		
7/11/2017				13	3.1				
7/12/2017	6.5	31	64			18			2.6
7/13/2017								8.3	
10/2/2017				15					
10/3/2017	4.5	27	73		46			9	
10/4/2017						18	100		3
1/9/2018			61	13					
1/10/2018	6.9	59						8.2	3.4
1/11/2018					100	16	78		
7/9/2018				15.4					
7/10/2018	6.2	172	60.2					7.3	
7/11/2018					53.7	16.2	66.9		3.2
1/16/2019	6.6	49.7	54.1	16					3.8
1/17/2019					6.6		52		
1/18/2019						17.5			
1/21/2019								6.9	
3/25/2019				17.7					
3/26/2019	7	47.9	51.8						3.2
3/27/2019					11.9	18.9	45.6		
7/30/2019								7.1	
10/7/2019				18					
10/8/2019					89				4
10/9/2019	7.2	239	49.7			19	44.1	7	
4/6/2020				13.5					
4/7/2020	7.7	44.3	56.4		103		32.5		
4/8/2020						16.9		5.2	4.5
9/28/2020	13.8			13.7					4.3
9/29/2020					143		24.3	5.4	
9/30/2020		24.1	53.9						
10/1/2020						16.8			
3/10/2021	8.5	25.7	42.4		188	18.3	48.7		
3/11/2021									
3/12/2021				14.1					
3/15/2021								6.4	7.6
3/16/2021									
9/21/2021		38.8	53.8	12.2	103		63.8		7.9



# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-22	GWC-20	GWC-17	GWB-4R	GWC-21	GWC-16	GWC-15	GWA-7 (bg)	GWC-14
8/30/2016									
8/31/2016	320								
9/1/2016		16	610	160	5.9	43	10	190	60
10/24/2016									
10/25/2016		8.1			4.4	34	6.5	175 (D)	36
10/26/2016	450		570	110					
10/27/2016									
1/3/2017									
1/4/2017	330	13			7.7	29			
1/5/2017			710				10		37
1/6/2017				67				180	
4/3/2017							7.3		
4/4/2017		23		80	8				47
4/5/2017			860			36			
4/6/2017	50							200	
7/10/2017									
7/11/2017	70	31					5.7		34
7/12/2017				120		44			
7/13/2017			860		5.4			200	
10/2/2017		30					4.4		34
10/3/2017					4.4	58			
10/4/2017	360		1000	130				260	
1/9/2018					4.4		5.7	210	24
1/10/2018		9.7				36			
1/11/2018	74		940	60					
7/9/2018		10.8							25.9
7/10/2018					6.3	57	3.1		
7/11/2018	164		864	75.9				177	
1/16/2019			469	20.2				165	29.2
1/17/2019					5.4	48.9	3.2		
1/18/2019	11								
1/21/2019		5.1							
3/25/2019		9.4		19.7				147	
3/26/2019			439		11.9	5.1	3		21.1
3/27/2019	11.5								
7/30/2019									
10/7/2019									
10/8/2019					7.8	46.4	2.9	125	40.2
10/9/2019	25.3	5.4	330	32.1					
4/6/2020								30.2	
4/7/2020	146			14.5	4.7	49.3	3.4		41.6
4/8/2020		20.2	277						
9/28/2020								113	
9/29/2020									10.6
9/30/2020	8.5	34.9	257		23.7	39.6	1.7		
10/1/2020				15.7					
3/10/2021	48.2			16					
3/11/2021			334					96.7	
3/12/2021		31.9					2.3		
3/15/2021									
3/16/2021					25.3	44.9			15.8
9/21/2021	9.4			13.9				92.2	

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-22	GWC-20	GWC-17	GWB-4R	GWC-21	GWC-16	GWC-15	GWA-7 (bg)	GWC-14
9/22/2021		38.9	517		6	55.8			28
9/23/2021							7.1		

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
8/30/2016		0.1 (J)		0.04 (J)	0.09 (J)	0.22 (J)			
8/31/2016							<0.1	0.7	<0.1
9/1/2016	<0.1		<0.1						
10/24/2016		0.18 (J)							
10/25/2016	0.07 (J)					<0.1			
10/26/2016			0.05 (J)	0.05 (J)	0.24 (J)		<0.1	0.91	0.55
10/27/2016									
1/3/2017		0.18 (J)		0.08 (J)					
1/4/2017						0.18 (J)	<0.1	0.51	
1/5/2017					0.11 (J)				0.09 (J)
1/6/2017	0.2 (J)		0.08 (J)						
4/3/2017		0.12 (J)							
4/4/2017			<0.1			<0.1			
4/5/2017								0.71	
4/6/2017	0.05 (J)			0.006 (J)	0.3		<0.1		<0.1
7/10/2017								0.88	
7/11/2017		0.39					<0.1		
7/12/2017			0.38	0.05 (J)	0.15 (J)	0.04 (J)			<0.1
7/13/2017	0.41								
10/2/2017		0.12 (J)							
10/3/2017				0.11 (J)	0.11 (J)	<0.1	<0.1		
10/4/2017	0.04 (J)		<0.1					0.37	<0.1
1/9/2018	0.46	0.21 (J)			<0.1				
1/10/2018				<0.1		<0.1			<0.1
1/11/2018			<0.1				<0.1	1.4	
7/9/2018		0.04 (J)							
7/10/2018				0.2 (J)	<0.1	<0.1			
7/11/2018	<0.1		<0.1				<0.1	0.62	<0.1
1/16/2019	0.49	<0.1	1.2	<0.1	0.053 (J)	<0.1			<0.1
1/17/2019							<0.1	1.2	
1/18/2019									
1/21/2019									
3/25/2019	0.21 (J)	0.082 (J)	0.064 (J)						
3/26/2019				<0.1	0.046 (J)	0.051 (J)			0.052 (J)
3/27/2019							<0.1	0.036 (J)	
7/30/2019									
8/26/2019	<0.1	0.13							
8/27/2019			0.031 (J)		0.13 (J)	<0.1	<0.1	0.3	<0.1
8/28/2019				0.097 (J)					
10/7/2019		<0.1							
10/8/2019	<0.1						<0.1		<0.1
10/9/2019			<0.1	<0.1	<0.1	<0.1		<0.1	
4/6/2020	0.13 (J)	0.089 (J)							
4/7/2020			<0.1	<0.1	<0.1	<0.1	<0.1	0.27 (J)	
4/8/2020									<0.1
8/17/2020		0.079 (J)						0.19	<0.1
8/18/2020							<0.1		
8/19/2020	0.21		0.17	<0.1	<0.1	<0.1			
9/28/2020	0.069 (J)	<0.1				<0.1			<0.1
9/29/2020							<0.1	0.16	
9/30/2020				<0.1	<0.1				
10/1/2020			<0.1						



# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13
3/10/2021			<0.1	<0.1	<0.1	<0.1	<0.1	0.14	
3/11/2021	<0.1								
3/12/2021		0.087 (J)							
3/15/2021									<0.1
3/16/2021									
9/21/2021	0.077 (J)	0.068 (J)	<0.1	<0.1	<0.1		<0.1	0.31	<0.1
9/22/2021									
9/23/2021						<0.1			



# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
3/10/2021									
3/11/2021				0.42				<0.1	0.066 (J)
3/12/2021		<0.1				<0.1			
3/15/2021					<0.1				
3/16/2021	<0.1		<0.1				<0.1		
9/21/2021								<0.1	
9/22/2021	<0.1		<0.1	0.79	<0.1	<0.1	<0.1		0.13
9/23/2021		<0.1							

# Prediction Limit

Constituent: pH (SU) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13	GWC-15	GWB-5R	GWC-16
7/16/2013	4.62	5.25	5.38	5.2	4.17	4.95	5.96	5.95	4.92
10/11/2014	4.58								5.17
10/24/2016									
10/25/2016	4.79		5.51				6.46		5.58
10/26/2016		5.21		5.08	4.04	4.95		5.27	
10/27/2016									
1/3/2017								5.09	
1/4/2017			5.46	5.06	4.01				5.51
1/5/2017	4.73	5.2				4.97	6.25		
1/6/2017									
4/3/2017							6.25		
4/4/2017	4.68		5.43						
4/5/2017					4	4.81			5.51
4/6/2017		5.17		4.97				5.22	
7/10/2017					3.89				
7/11/2017	4.72			5.26			6.5		
7/12/2017		5.24	5.46			4.83		5.29	5.84
7/13/2017									
10/2/2017	5.13						6.83		
10/3/2017		5.36	5.65	5.07				5.08	5.55
10/4/2017					4.06	4.71			
1/9/2018	5.59	5.4					6.57		
1/10/2018			5.67			5.17		5.83	5.99
1/11/2018				5.18	3.96				
7/9/2018	5.11								
7/10/2018		5.31	5.71				6.42	6.42	5.5
7/11/2018				4.82	3.95	4.49			
1/16/2019	6.82	5.99	5.59			6.45 (O)		6.66	
1/17/2019				4.91	3.89		8.44 (O)		7.13
1/18/2019									
1/21/2019									
3/25/2019									
3/26/2019	5.74	5.94	5.77			4.96	6.65	5.1	5.57
3/27/2019				5.18	4.11				
7/30/2019									
8/26/2019									
8/27/2019	5.58	5.67	5.84	5.17	4.02	4.9	6.57		
8/28/2019								5.95	5.57
10/7/2019									
10/8/2019	5.68			4.93		4.81	6.65		5.54
10/9/2019		5.66	5.82		4.25			6.11	
4/6/2020									
4/7/2020	6.2	5.86	5.3	5.05	4.1		6.83	5.45	5.94
4/8/2020						4.81			
8/17/2020					3.94	4.65			
8/18/2020	5.56			4.41			6.39		5.52
8/19/2020		5.21	5.73					5.14 (D)	
9/28/2020			5.79			4.76			
9/29/2020	5.69			4.77	3.95				
9/30/2020		5.39					6.71	4.99	5.47
10/1/2020									
3/10/2021		5.69	5.42	4.97	4.08			4.73	

# Prediction Limit

Constituent: pH (SU) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-14	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13	GWC-15	GWB-5R	GWC-16
3/11/2021									
3/12/2021							6.21		
3/15/2021						4.74			
3/16/2021	5.53								5.67
9/21/2021		5.4		4.92	4.05	4.83		4.68	
9/22/2021	5.76								5.57
9/23/2021			6.06				6.48		

# Prediction Limit

Constituent: pH (SU) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9	GWA-8 (bg)	GWA-7 (bg)
7/16/2013	6.22	4.55	4.52	6.1	5.71	4.91	5.05		
10/11/2014								4.42	
10/24/2016								4.36	
10/25/2016				6.06	5.41				6.17
10/26/2016	6.06	4.45	4.48			4.6			
10/27/2016							4.65		
1/3/2017								4.28	
1/4/2017				6.05	5.6	4.63			
1/5/2017		4.45	4.85						
1/6/2017	6.02						4.56		6.16
4/3/2017								4.29	
4/4/2017	6.08		4.58	6.03	5.94				
4/5/2017		4.33							
4/6/2017						4.79	4.5		6.26
7/10/2017									
7/11/2017				5.96		4.73		4.35	
7/12/2017	5.93						4.56		
7/13/2017		4.11	4.74		5.6				5.99
10/2/2017				5.88				4.32	
10/3/2017			4.57		5.18				
10/4/2017	5.77	4.09				4.74	4.72		6.16
1/9/2018					6.14			4.44	6.43
1/10/2018			5.31	6.21					
1/11/2018	5.98	4.4				5.22	4.34		
7/9/2018				6.24				4.4	
7/10/2018			4.58		5.7				
7/11/2018	6.01	4.07				4.68	4.68		6.1
1/16/2019	5.83	4.05						6.16 (O)	6.05
1/17/2019					7.39				
1/18/2019						6.98 (O)	6.87 (O)		
1/21/2019			5.05	7.73 (O)					
3/25/2019	5.74			6.28				4.4	6.06
3/26/2019		4.62			6.08				
3/27/2019						4.77	4.38		
7/30/2019			4.74						
8/26/2019								4.26	5.91
8/27/2019	5.7		4.77			4.89			
8/28/2019		4.62		6.34	6.05		4.68		
10/7/2019								4.24	
10/8/2019					6.09				5.74
10/9/2019	5.79	4.66	4.79	6.5		4.68	4.62		
4/6/2020								4.52	6.02
4/7/2020	5.74				6	4.8			
4/8/2020		4.71	4.66	6.31			4.73		
8/17/2020								4.23	
8/18/2020		4.31	4.6	5.89	5.82	4.52			
8/19/2020	5.7						4.58		5.81 (D)
9/28/2020								4.41	5.86
9/29/2020			4.6						
9/30/2020		4.08		6.04	5.82	4.63			
10/1/2020	5.75						4.42		
3/10/2021	5.23					4.82	4.55		



# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLS App III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-1	GWB-5R	GWB-6R	GWA-8 (bg)	GWC-11	GWC-9	GWC-12	GWC-2	GWC-13
8/30/2016	87	100	120	140					
8/31/2016					64	84	1100	21	43
9/1/2016									
10/24/2016				160					
10/25/2016	83								
10/26/2016		130	120		56		900	100	29
10/27/2016						76			
1/3/2017		120		140					
1/4/2017	99				65		880		
1/5/2017			130					22	32
1/6/2017						66			
4/3/2017				140					
4/4/2017	110							29	
4/5/2017							990		
4/6/2017		140	150		110	79			49
7/10/2017							480		
7/11/2017				130	49				
7/12/2017	100	140	140			75			16
7/13/2017								20	
10/2/2017				150					
10/3/2017	63	130	140		140			20	
10/4/2017						78	760		33
1/9/2018			140	120					
1/10/2018	86	110						9.5	22
1/11/2018					270	110	780		
7/9/2018				123					
7/10/2018	77.7	48.1	128					8.5	
7/11/2018					211	87.4	598		17.8
1/16/2019	71.2	184	402	129					20.2
1/17/2019					50.3		454		
1/18/2019						56.9			
1/21/2019								10.2	
3/25/2019				152					
3/26/2019	73.8	222	319						33.6
3/27/2019					76.8	76.2	579		
7/30/2019								12.3	
10/7/2019				156					
10/8/2019					310				22
10/9/2019	76.3	90.8	255			41.1	392	10.1	
4/6/2020				123					
4/7/2020	83	180	180		446		297		
4/8/2020						34.2		12.9	30.7
9/28/2020	71.6			93.6					25.6
9/29/2020					516		237	8.6	
9/30/2020		339	339						
10/1/2020						35			
3/10/2021	61.2	572	1160		687	38.7	282		
3/11/2021									
3/12/2021				103					
3/15/2021								10	30.6
3/16/2021									
9/21/2021		829	645	96.5	433		315		36.6





# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-22	GWC-20	GWC-17	GWB-4R	GWC-21	GWC-16	GWC-15	GWA-7 (bg)	GWC-14
8/30/2016									
8/31/2016	700								
9/1/2016		180	310	210	36	430	120	73	730
10/24/2016									
10/25/2016		79			16	360	100	26	420
10/26/2016	850		280	230					
10/27/2016									
1/3/2017									
1/4/2017	680	170			45	360			
1/5/2017			310				140		430
1/6/2017				220				23	
4/3/2017							150		
4/4/2017		300		230	46				600
4/5/2017			460			440			
4/6/2017	220							25	
7/10/2017									
7/11/2017	210	400					110		400
7/12/2017				210		490			
7/13/2017			490		33			65	
10/2/2017		390					56		470
10/3/2017					34	780			
10/4/2017	730		1100	290				13	
1/9/2018					29		84	45	440
1/10/2018		99				470			
1/11/2018	180		810	210					
7/9/2018		99.2							369
7/10/2018					33.2	787	43		
7/11/2018	381		902	177				37.7	
1/16/2019			422	244				24.5	291
1/17/2019					24.1	780	45.2		
1/18/2019	107								
1/21/2019		35.5							
3/25/2019		95.6		245				14.7	
3/26/2019			439		83.9	87.9	54		192
3/27/2019	103								
7/30/2019									
10/7/2019									
10/8/2019					85.6	872	45.8	32.8	428
10/9/2019	80.2	58.5	346	38.5					
4/6/2020								20.3	
4/7/2020	333			221	33.2	844	26.9		456
4/8/2020		428	239						
9/28/2020								20	
9/29/2020									93.5
9/30/2020	65.5	956	193		306	736	18.5		
10/1/2020				178					
3/10/2021	101			160					
3/11/2021			244					12	
3/12/2021		933					21.1		
3/15/2021									
3/16/2021					343	821			92
9/21/2021	52.4			232				11.1	

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLS App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-22	GWC-20	GWC-17	GWB-4R	GWC-21	GWC-16	GWC-15	GWA-7 (bg)	GWC-14
9/22/2021		905	394		14.6	1040			444
9/23/2021							124		

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWC-1	GWA-8 (bg)	GWC-9	GWC-22	GWC-2	GWC-11	GWC-13
8/30/2016	224	365	225	234					
8/31/2016					173	1570	39	119	77
9/1/2016									
10/24/2016				216					
10/25/2016			230						
10/26/2016	297	373				1840	135	108	<10
10/27/2016					221				
1/3/2017	366			333					
1/4/2017			349			1560		182	
1/5/2017		543					99		146
1/6/2017					259				
4/3/2017				288					
4/4/2017			356				54		
4/5/2017									
4/6/2017	279	434			169	368		248	23 (J)
7/10/2017									
7/11/2017				188		383		88	
7/12/2017	308	454	357		163				39
7/13/2017							50		
10/2/2017				210					
10/3/2017	288	389	192				18 (J)	248	
10/4/2017					168	1500			38
1/9/2018		415		118					
1/10/2018	493		277				<10		<10
1/11/2018					190	438		681	
7/9/2018				235					
7/10/2018	1730 (O)	453	349				49		
7/11/2018					165	876		440	63
1/16/2019	382	1320	341	219					44
1/17/2019								118	
1/18/2019					118	154			
1/21/2019							39		
3/25/2019				240					
3/26/2019	1040	1250	317						72
3/27/2019					104	158		138	
7/30/2019							70		
10/7/2019				275					
10/8/2019								613	51
10/9/2019	2010	903	338		128	211	46		
4/6/2020				214					
4/7/2020	483	775	195			819		780	
4/8/2020					80		38		65
9/28/2020			373	175					60
9/29/2020							33	1100	
9/30/2020	652	816				113			
10/1/2020					111				
3/10/2021	1040	2120	329		89	210		1240	
3/11/2021									
3/12/2021				163					
3/15/2021							11		<10
3/16/2021									
9/21/2021	1240	985		145		87		842	83

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWB-5R	GWB-6R	GWC-1	GWA-8 (bg)	GWC-9	GWC-22	GWC-2	GWC-11	GWC-13
9/22/2021					94		33		
9/23/2021			360						

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-12	GWA-7 (bg)	GWC-15	GWC-17	GWC-20	GWC-21	GWC-16	GWB-4R	GWC-14
8/30/2016									
8/31/2016	1560								
9/1/2016		3660	539	1270	470	184	878	1080	1170
10/24/2016									
10/25/2016		3560	449		289	<10	585		633
10/26/2016	1520			1320				1050	
10/27/2016									
1/3/2017									
1/4/2017	1430				639	242	783		
1/5/2017			565	1770					781
1/6/2017		3490						1060	
4/3/2017			632						
4/4/2017					660	187		994	916
4/5/2017	1200			1600			722		
4/6/2017		3170							
7/10/2017	1100								
7/11/2017			569		836				675
7/12/2017							962	1070	
7/13/2017		2280		1940		86			
10/2/2017			559		698				689
10/3/2017						66	1240		
10/4/2017	986	3350		2370				1100	
1/9/2018		2640	520			167			653
1/10/2018					322		935		
1/11/2018	1020			2350				838	
7/9/2018					461				659
7/10/2018			524			180	1040		
7/11/2018	888	2200		2260				799	
1/16/2019		2100		1540				530	656
1/17/2019	765		518 (D)			178	1320		
1/18/2019									
1/21/2019					307				
3/25/2019		2100			449			479	
3/26/2019			541	1220		292	1380		496
3/27/2019	673								
7/30/2019									
10/7/2019									
10/8/2019		1840	526			278	1500		841
10/9/2019	647			1100	434			502	
4/6/2020		1670							
4/7/2020	464		428			106	1500	482	843
4/8/2020				881	986				
9/28/2020		1450							
9/29/2020	440								187
9/30/2020			434	752	1860	634	1140		
10/1/2020								424	
3/10/2021	566							434	
3/11/2021		1220		705					
3/12/2021			353		1730				
3/15/2021									
3/16/2021						454	980		137
9/21/2021	558	1210						476	

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/20/2021 2:32 PM View: PLs App III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-12	GWA-7 (bg)	GWC-15	GWC-17	GWC-20	GWC-21	GWC-16	GWB-4R	GWC-14
9/22/2021				1530	1430	51	1680		864
9/23/2021			556						

FIGURE G.



# Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:41 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	GWA-7 (bg)	-0.7636	-82	-53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-4R	13.04	61	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-5R	10.1	66	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-6R	2.358	56	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-1	8.001	69	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-11	18.7	75	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-12	-13.59	-89	-53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-16	28.1	64	53	Yes	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-7 (bg)	-23.14	-62	-53	Yes	15	0	n/a	n/a	0.01	NP
pH (SU)	GWA-7 (bg)	-0.07621	-65	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-7 (bg)	-5.236	-55	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-6R	57.03	69	53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-11	92.22	65	53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-12	-165.3	-81	-53	Yes	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-16	108.2	59	53	Yes	15	0	n/a	n/a	0.01	NP

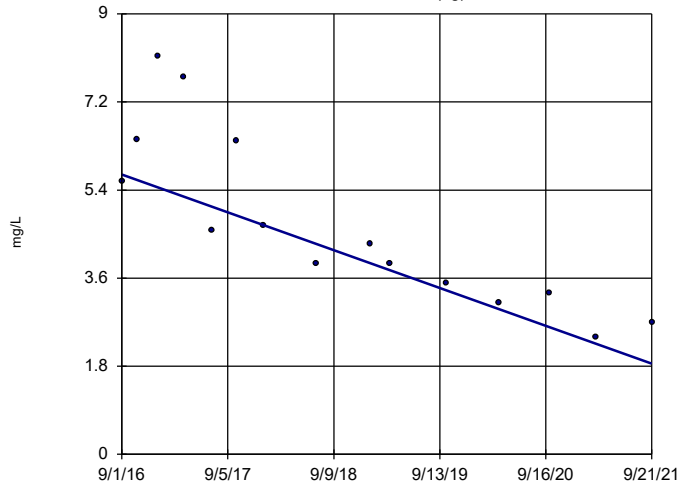
# Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/20/2021, 2:41 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Calcium (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-0.7636</b>	<b>-82</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GWA-8 (bg)	0.8051	18	53	No	15	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GWB-4R</b>	<b>13.04</b>	<b>61</b>	<b>53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GWB-5R	10.1	66	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-6R	2.358	56	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-1	8.001	69	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-11	18.7	75	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-12	-13.59	-89	-53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-14	-5.733	-13	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-15	0	-1	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-16	28.1	64	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-17	-6.554	-25	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-20	33.76	45	53	No	15	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-23.14</b>	<b>-62</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	GWA-8 (bg)	0.178	14	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWC-17	-89.93	-40	-53	No	15	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-7 (bg)	0	-3	-63	No	17	29.41	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-8 (bg)	-0.01375	-60	-63	No	17	17.65	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWC-17	-0.1378	-50	-63	No	17	5.882	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>GWA-7 (bg)</b>	<b>-0.07621</b>	<b>-65</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH (SU)	GWA-8 (bg)	0.01642	18	58	No	16	0	n/a	n/a	0.01	NP
pH (SU)	GWC-12	-0.00126	-2	-63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	GWC-15	0.05848	30	58	No	16	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-5.236</b>	<b>-55</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWA-8 (bg)	-8.833	-45	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-4R	-6.377	-13	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-5R	47.47	51	53	No	15	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWB-6R</b>	<b>57.03</b>	<b>69</b>	<b>53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>GWC-11</b>	<b>92.22</b>	<b>65</b>	<b>53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>GWC-12</b>	<b>-165.3</b>	<b>-81</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWC-14	-71.81	-41	-53	No	15	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWC-16</b>	<b>108.2</b>	<b>59</b>	<b>53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWC-17	-19.71	-18	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-20	129.5	25	53	No	15	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator

GWA-7 (bg)

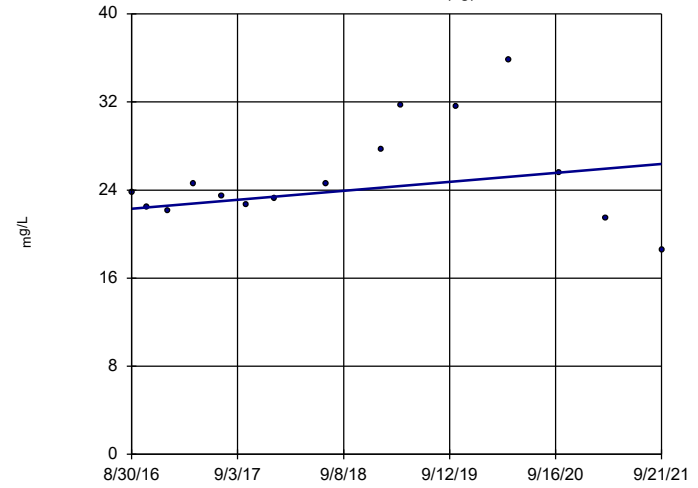


n = 15  
 Slope = -0.7636 units per year.  
 Mann-Kendall statistic = -82  
 critical = -53  
 Decreasing trend significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Calcium Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWA-8 (bg)

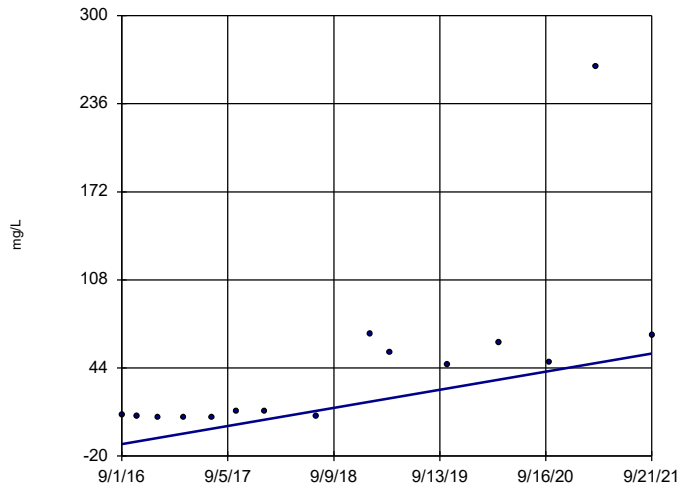


n = 15  
 Slope = 0.8051 units per year.  
 Mann-Kendall statistic = 18  
 critical = 53  
 Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Calcium Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWB-4R

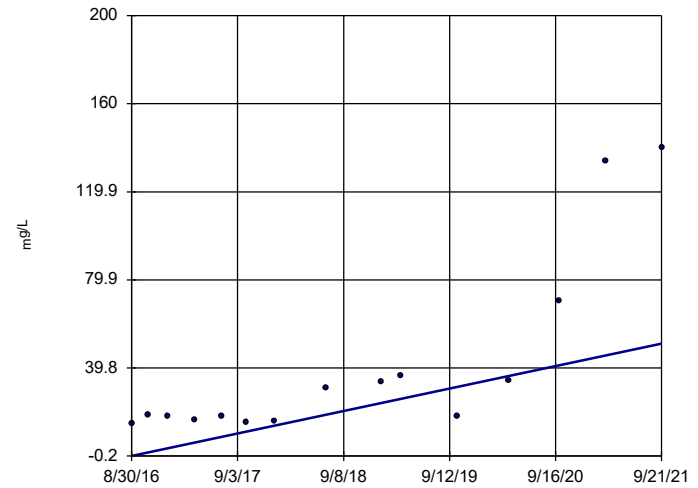


n = 15  
 Slope = 13.04 units per year.  
 Mann-Kendall statistic = 61  
 critical = 53  
 Increasing trend significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Calcium Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

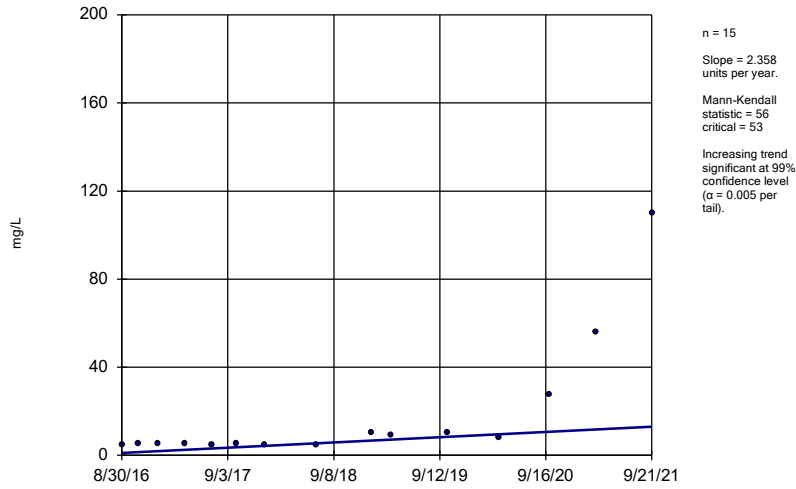
GWB-5R



n = 15  
 Slope = 10.1 units per year.  
 Mann-Kendall statistic = 66  
 critical = 53  
 Increasing trend significant at 99% confidence level ( $\alpha = 0.005$  per tail).

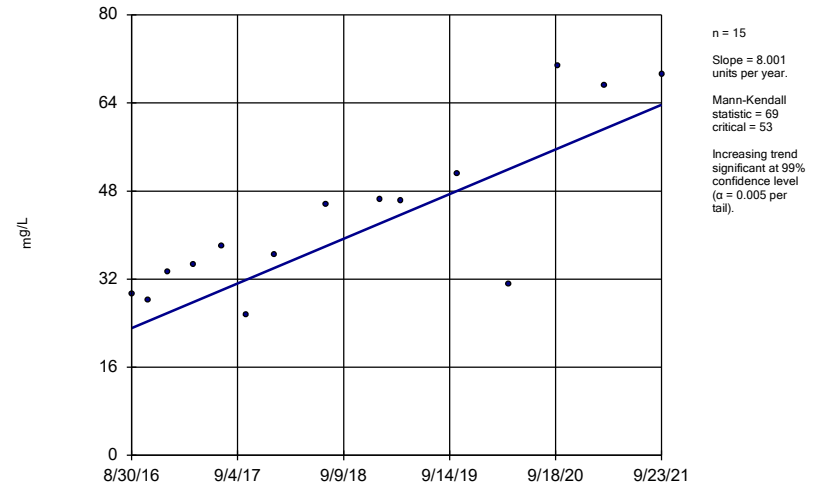
Constituent: Calcium Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWB-6R



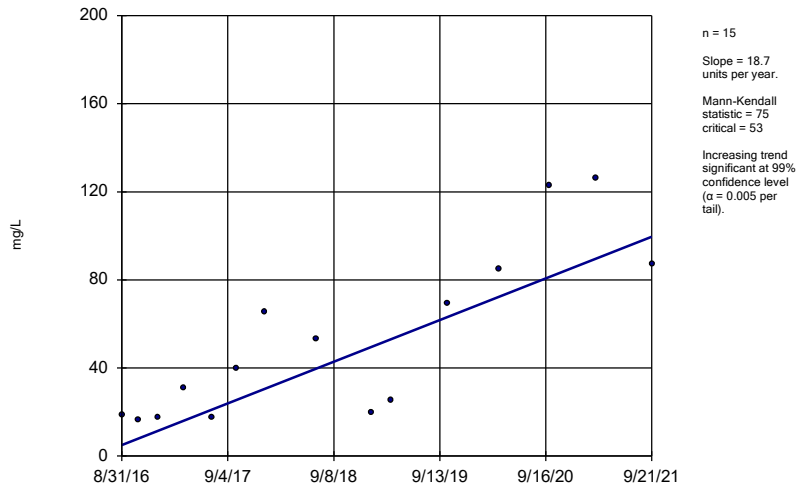
Constituent: Calcium Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-1



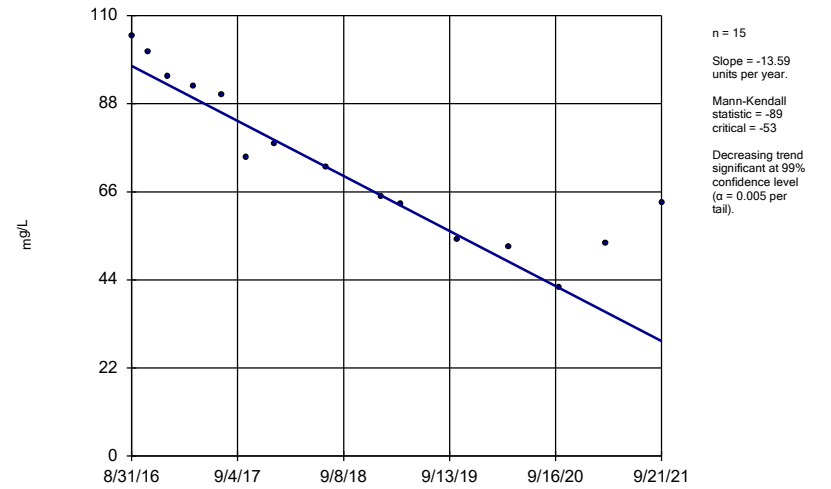
Constituent: Calcium Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-11



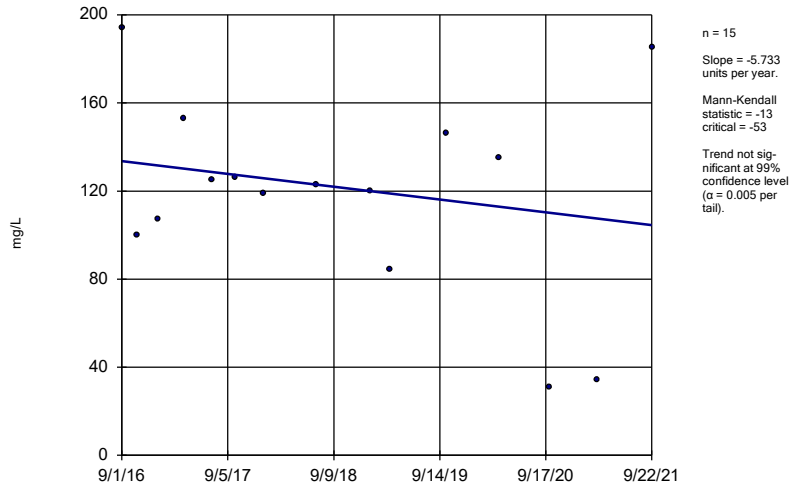
Constituent: Calcium Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-12



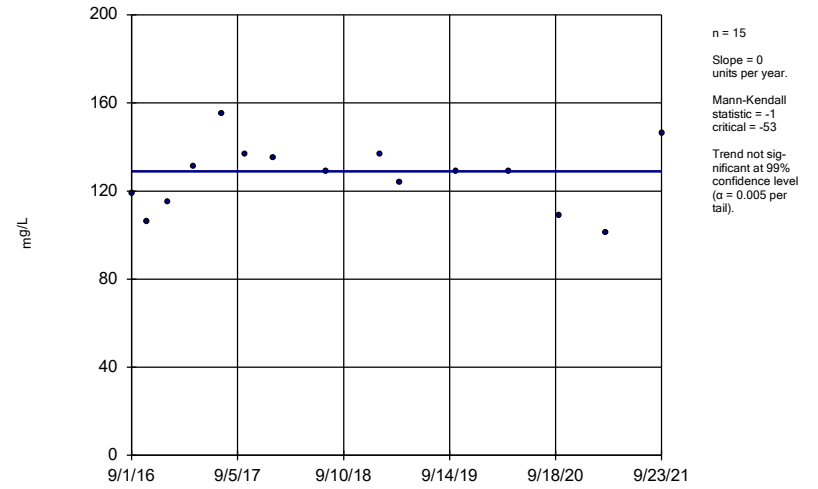
Constituent: Calcium Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-14



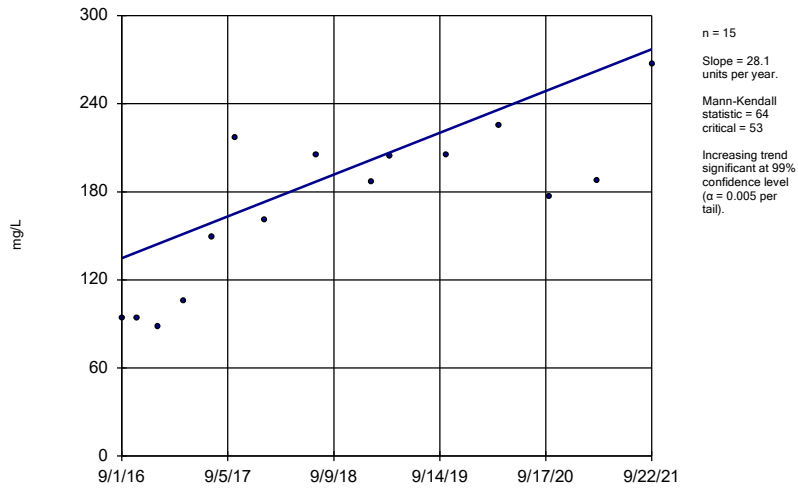
Constituent: Calcium Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-15



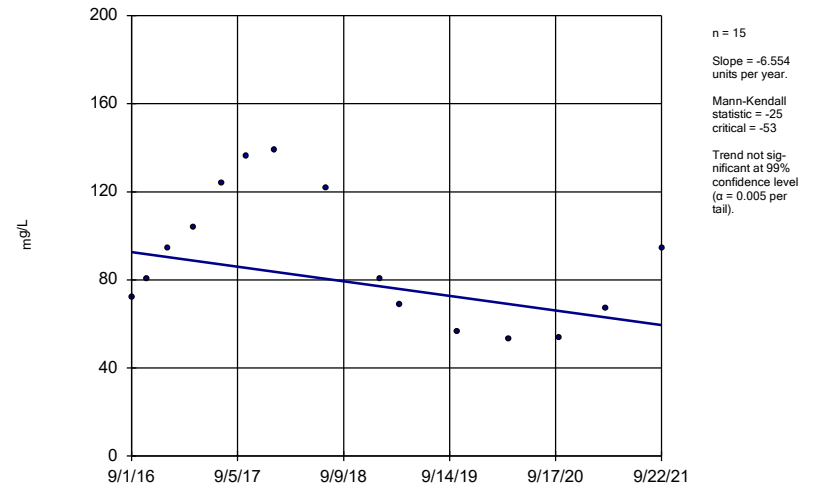
Constituent: Calcium Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-16



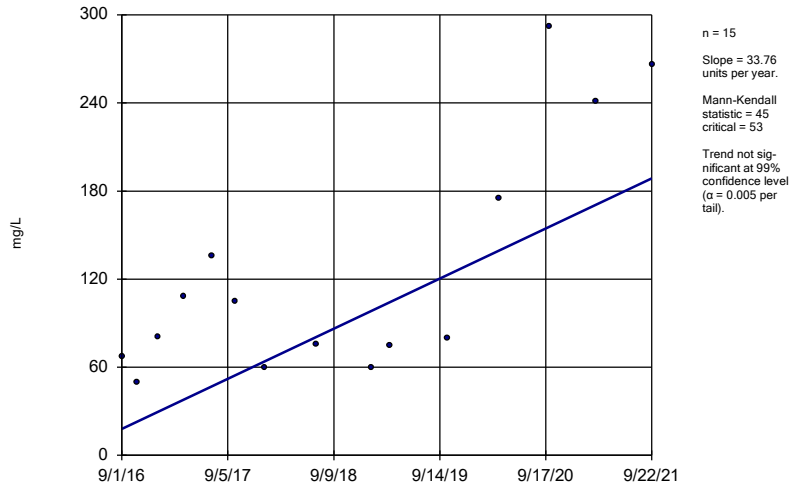
Constituent: Calcium Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-17



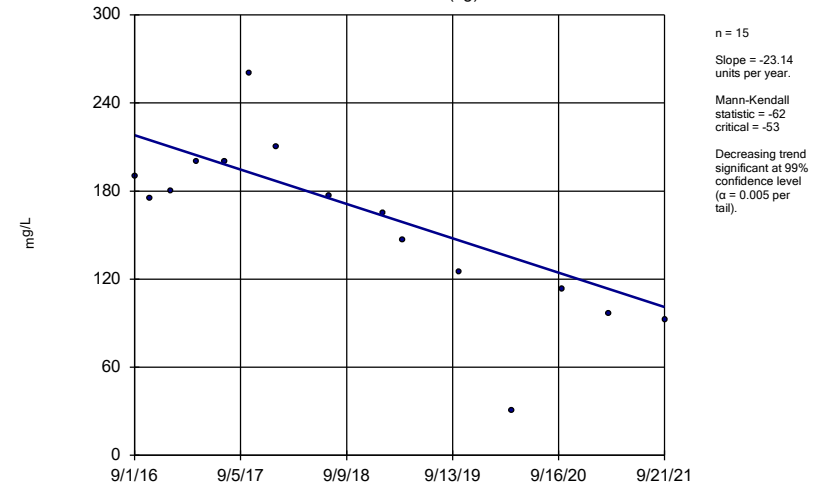
Constituent: Calcium Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-20



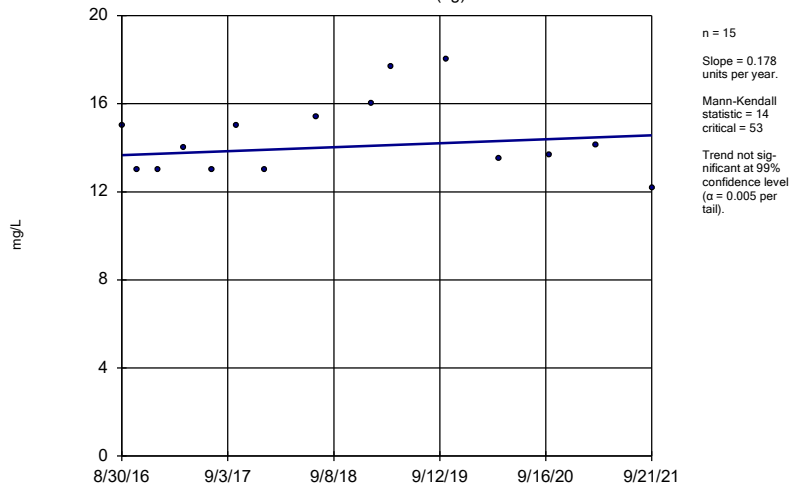
Constituent: Calcium Analysis Run 11/20/2021 2:38 PM View: Trend Tests - ApIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWA-7 (bg)



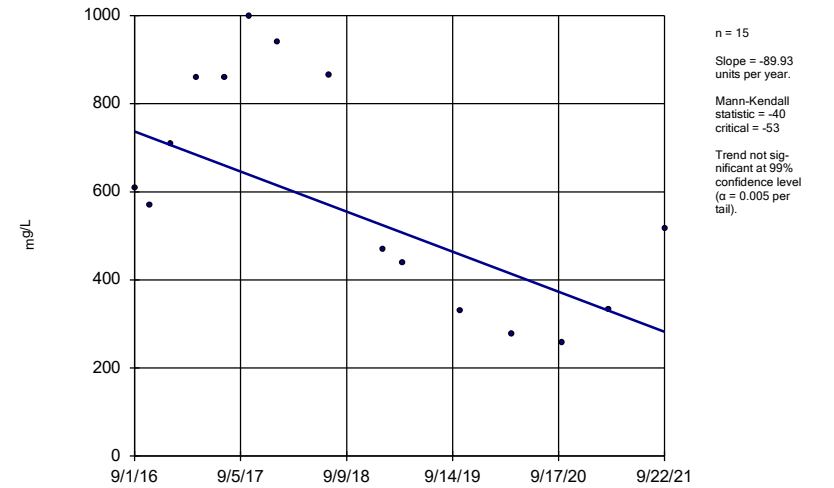
Constituent: Chloride Analysis Run 11/20/2021 2:38 PM View: Trend Tests - ApIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWA-8 (bg)



Constituent: Chloride Analysis Run 11/20/2021 2:38 PM View: Trend Tests - ApIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

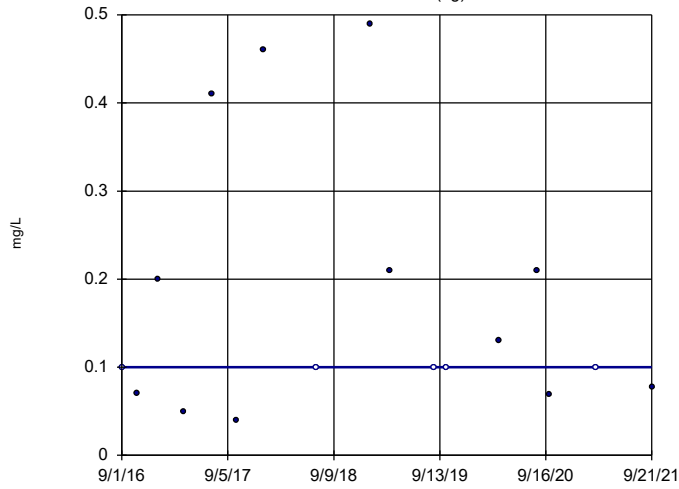
Sen's Slope Estimator  
GWC-17



Constituent: Chloride Analysis Run 11/20/2021 2:38 PM View: Trend Tests - ApIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWA-7 (bg)

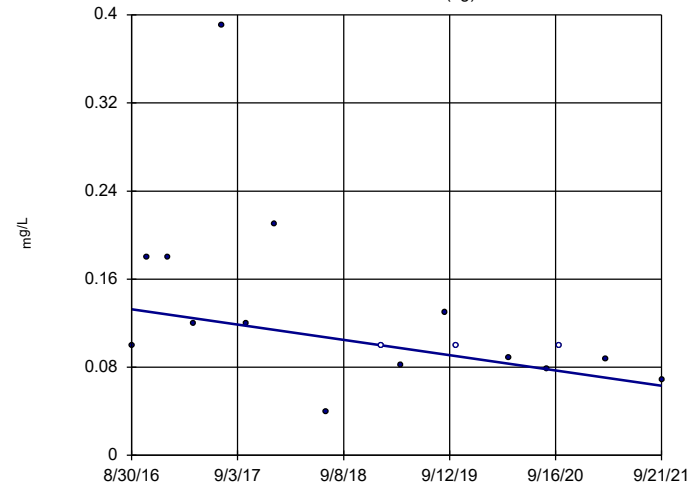


n = 17  
Slope = 0  
units per year.  
Mann-Kendall  
statistic = -3  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Fluoride Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWA-8 (bg)

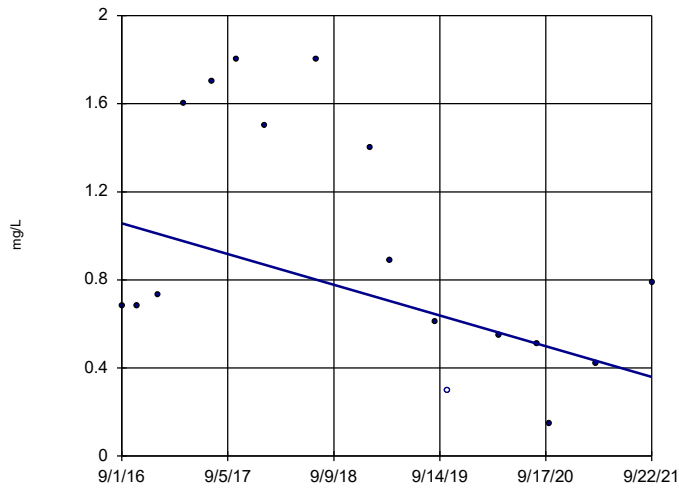


n = 17  
Slope = -0.01375  
units per year.  
Mann-Kendall  
statistic = -60  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Fluoride Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWC-17

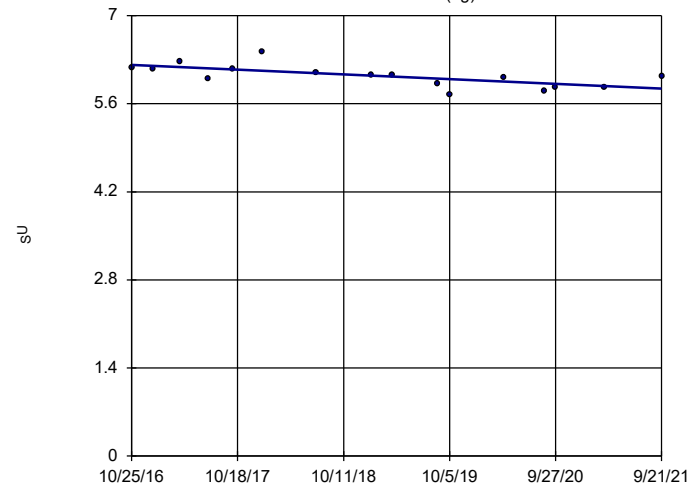


n = 17  
Slope = -0.1378  
units per year.  
Mann-Kendall  
statistic = -50  
critical = -63  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Fluoride Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

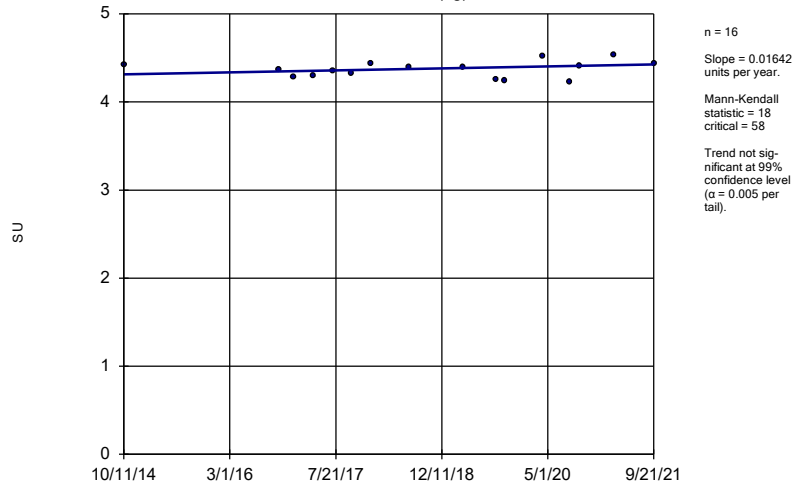
GWA-7 (bg)



n = 16  
Slope = -0.07621  
units per year.  
Mann-Kendall  
statistic = -65  
critical = -58  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

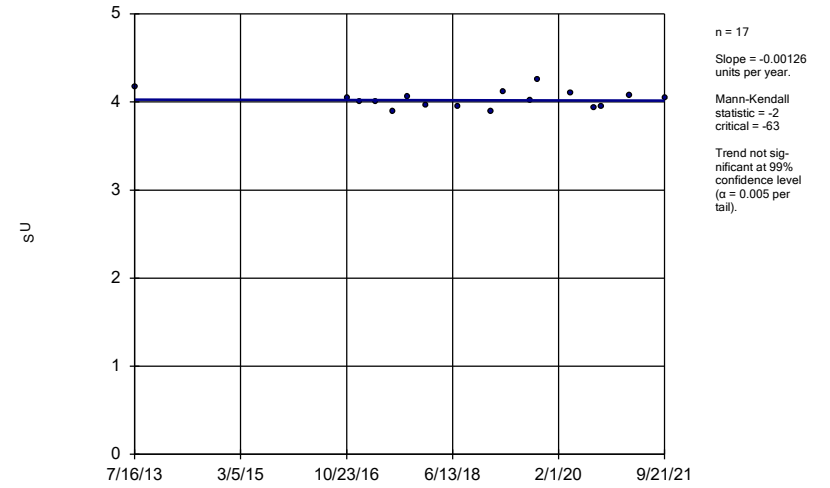
Constituent: pH Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWA-8 (bg)



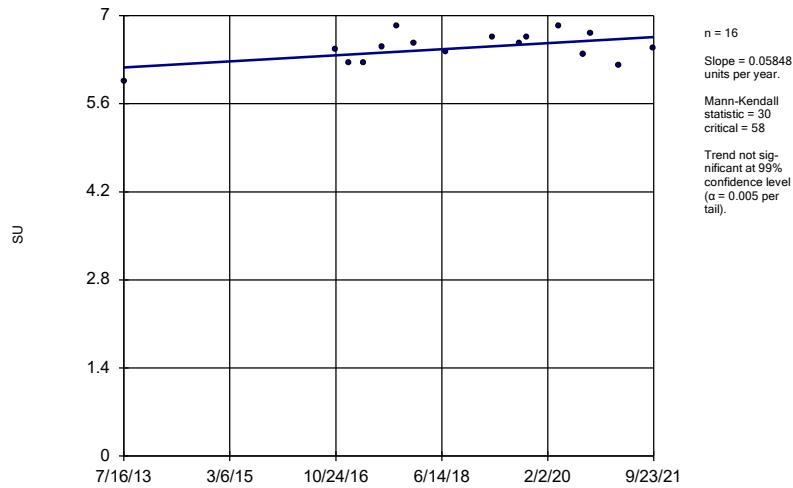
Constituent: pH Analysis Run 11/20/2021 2:38 PM View: Trend Tests - ApIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-12



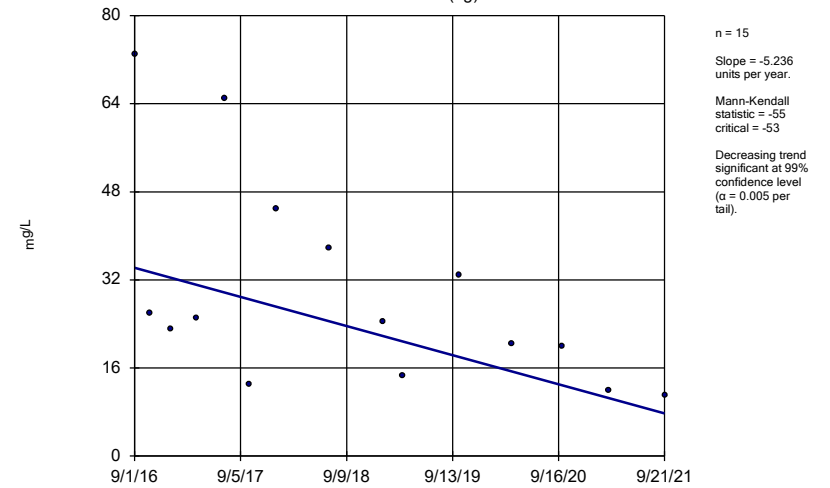
Constituent: pH Analysis Run 11/20/2021 2:38 PM View: Trend Tests - ApIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-15



Constituent: pH Analysis Run 11/20/2021 2:38 PM View: Trend Tests - ApIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWA-7 (bg)

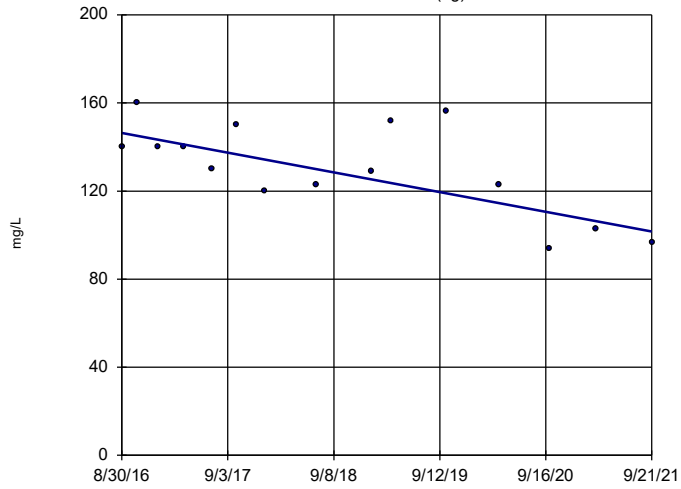


Constituent: Sulfate Analysis Run 11/20/2021 2:38 PM View: Trend Tests - ApIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



### Sen's Slope Estimator

GWA-8 (bg)

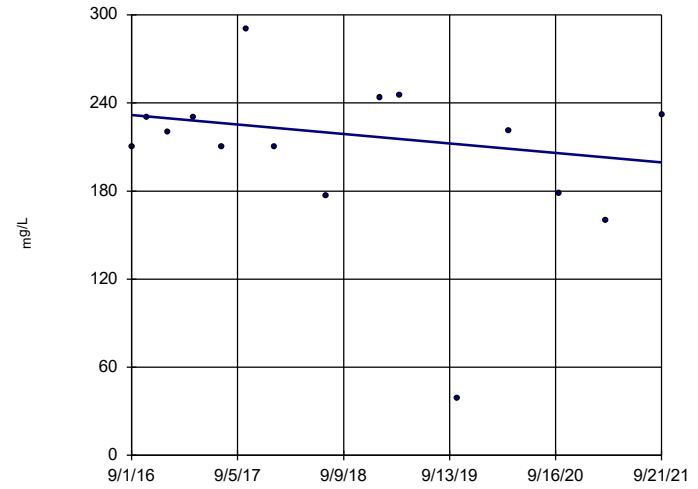


n = 15  
 Slope = -8.833  
 units per year.  
 Mann-Kendall  
 statistic = -45  
 critical = -53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWB-4R

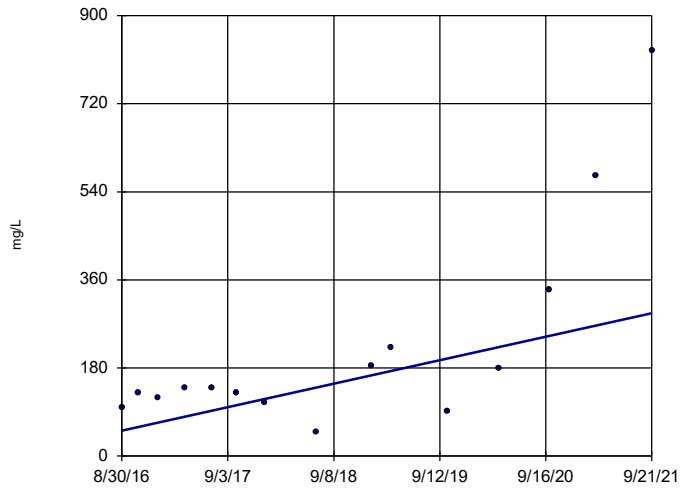


n = 15  
 Slope = -6.377  
 units per year.  
 Mann-Kendall  
 statistic = -13  
 critical = -53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWB-5R

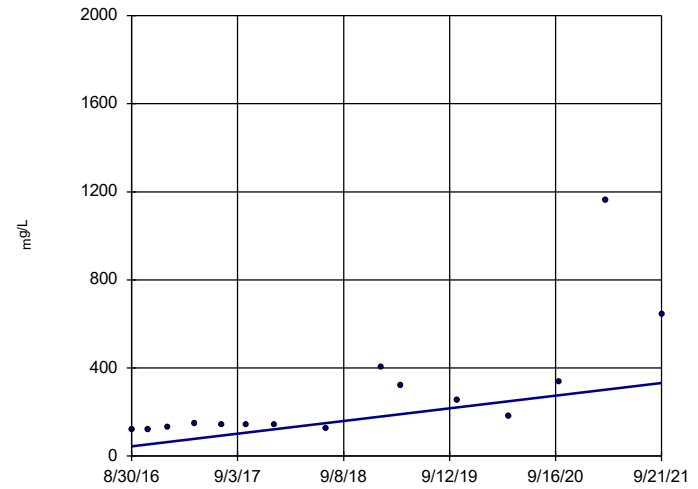


n = 15  
 Slope = 47.47  
 units per year.  
 Mann-Kendall  
 statistic = 51  
 critical = 53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Sulfate Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

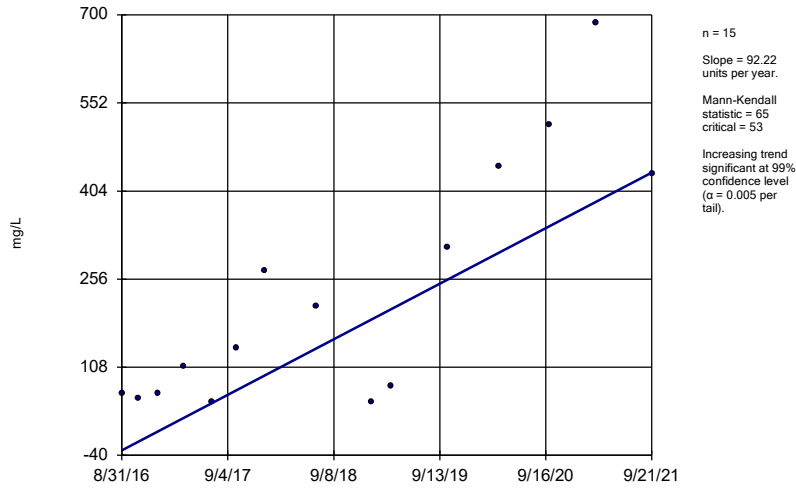
GWB-6R



n = 15  
 Slope = 57.03  
 units per year.  
 Mann-Kendall  
 statistic = 69  
 critical = 53  
 Increasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

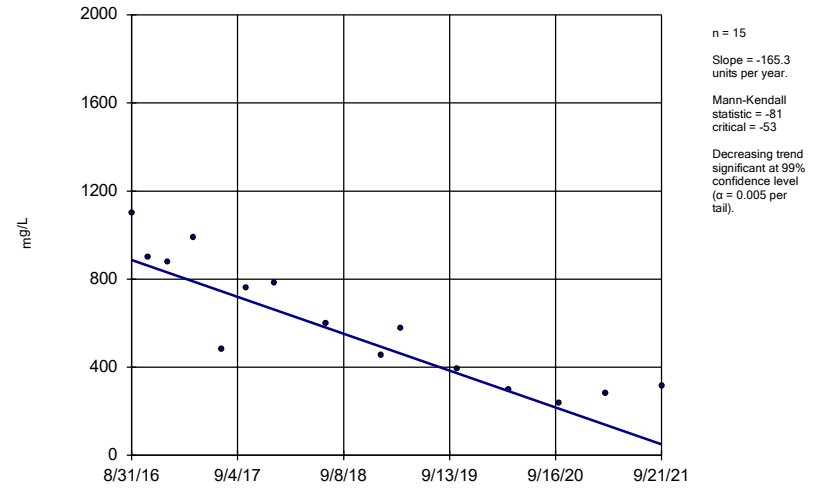
Constituent: Sulfate Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-11



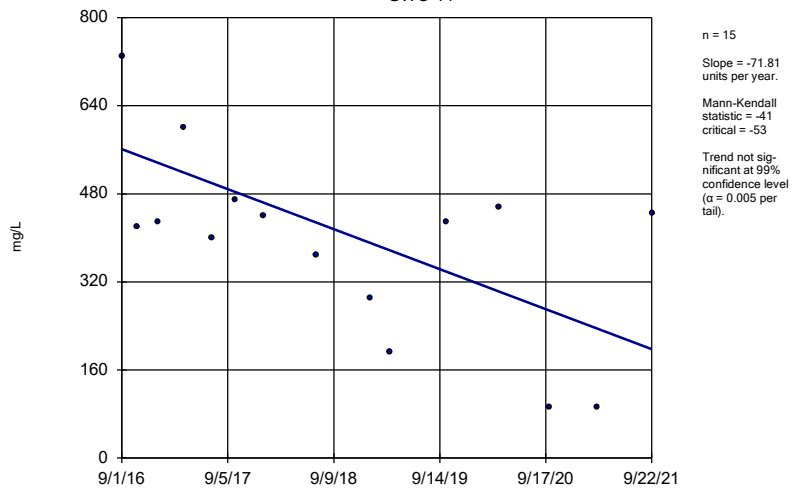
Constituent: Sulfate Analysis Run 11/20/2021 2:38 PM View: Trend Tests - ApIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-12



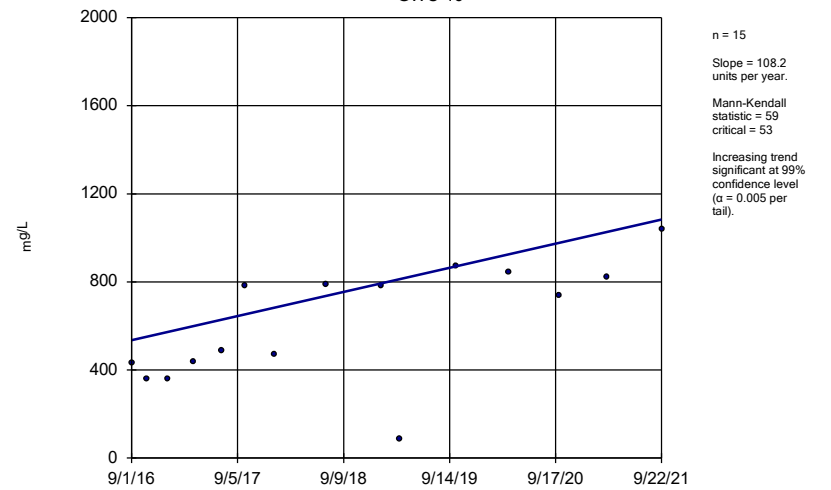
Constituent: Sulfate Analysis Run 11/20/2021 2:38 PM View: Trend Tests - ApIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-14



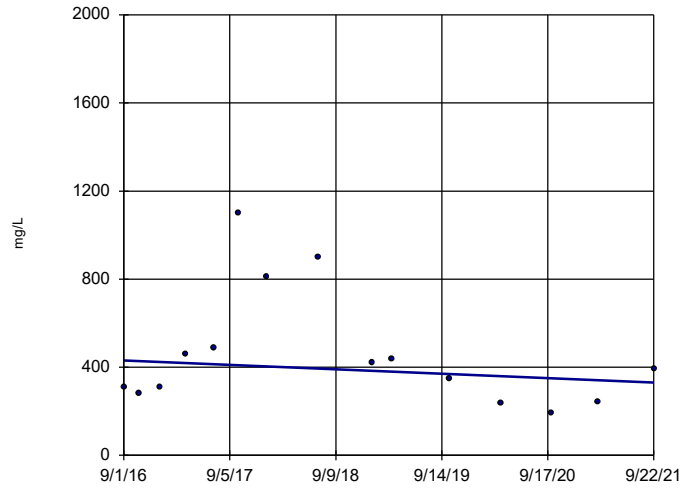
Constituent: Sulfate Analysis Run 11/20/2021 2:38 PM View: Trend Tests - ApIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-16



Constituent: Sulfate Analysis Run 11/20/2021 2:38 PM View: Trend Tests - ApIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

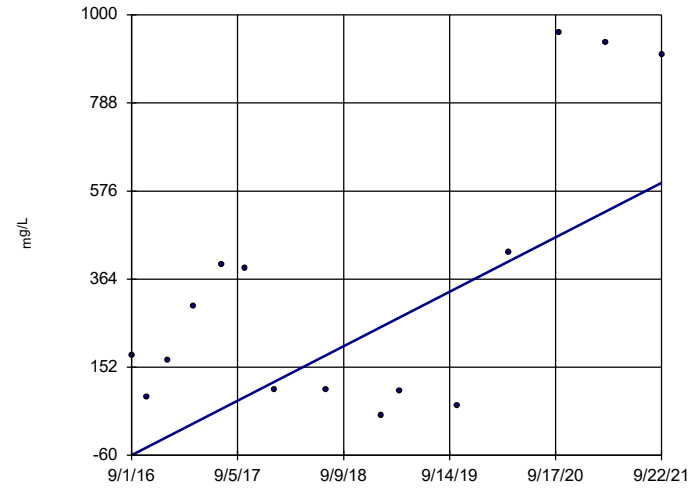
### Sen's Slope Estimator GWC-17



n = 15  
Slope = -19.71  
units per year.  
Mann-Kendall  
statistic = -18  
critical = -53  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Sulfate Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-20



n = 15  
Slope = 129.5  
units per year.  
Mann-Kendall  
statistic = 25  
critical = 53  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Sulfate Analysis Run 11/20/2021 2:38 PM View: Trend Tests - AppIII PL Exceedances  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

FIGURE H.

# Upper Tolerance Limits Summary Table

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/24/2021, 2:17 PM

Constituent	Upper Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	123	n/a	n/a	95.12	n/a	n/a	0.00182	NP Inter(NDs)
Arsenic (mg/L)	0.0287	123	n/a	n/a	77.24	n/a	n/a	0.00182	NP Inter(NDs)
Barium (mg/L)	0.22	121	n/a	n/a	0	n/a	n/a	0.002016	NP Inter(normality)
Beryllium (mg/L)	0.0025	43	n/a	n/a	51.16	n/a	n/a	0.1102	NP Inter(normality)
Cadmium (mg/L)	0.0007	41	n/a	n/a	95.12	n/a	n/a	0.1221	NP Inter(NDs)
Chromium (mg/L)	0.068	122	n/a	n/a	62.3	n/a	n/a	0.001915	NP Inter(normality)
Cobalt (mg/L)	0.0102	42	n/a	n/a	52.38	n/a	n/a	0.116	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	32.08	30	1.458	0.9054	0	None	ln(x)	0.05	Inter
Fluoride (mg/L)	0.4502	34	-2.29	0.6855	23.53	Kaplan-Meier	ln(x)	0.05	Inter
Lead (mg/L)	0.013	119	n/a	n/a	75.63	n/a	n/a	0.002234	NP Inter(NDs)
Lithium (mg/L)	0.03	30	n/a	n/a	73.33	n/a	n/a	0.2146	NP Inter(normality)
Mercury (mg/L)	0.0002	24	n/a	n/a	79.17	n/a	n/a	0.292	NP Inter(NDs)
Molybdenum (mg/L)	0.01	30	n/a	n/a	90	n/a	n/a	0.2146	NP Inter(NDs)
Selenium (mg/L)	0.0438	123	n/a	n/a	83.74	n/a	n/a	0.00182	NP Inter(NDs)
Thallium (mg/L)	0.001	62	n/a	n/a	93.55	n/a	n/a	0.04158	NP Inter(NDs)
Vanadium (mg/L)	0.425	117	n/a	n/a	63.25	n/a	n/a	0.002475	NP Inter(normality)
Zinc (mg/L)	0.16	115	n/a	n/a	26.96	n/a	n/a	0.002743	NP Inter(normality)

FIGURE I.

<b>GRUMMAN ROAD LANDFILL GWPS</b>			
<b>Constituent Name</b>	<b>MCL</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006	0.003	0.006
Arsenic, Total (mg/L)	0.01	0.029	0.029
Barium, Total (mg/L)	2	0.22	2
Beryllium, Total (mg/L)	0.004	0.0025	0.004
Cadmium, Total (mg/L)	0.005	0.0007	0.005
Chromium, Total (mg/L)	0.1	0.068	0.1
Cobalt, Total (mg/L)	n/a	0.01	0.01
Combined Radium, Total (pCi/L)	5	32.08	32.08
Fluoride, Total (mg/L)	4	0.45	4
Lead, Total (mg/L)	n/a	0.013	0.013
Lithium, Total (mg/L)	n/a	0.03	0.03
Mercury, Total (mg/L)	0.002	0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.01	0.01
Selenium, Total (mg/L)	0.05	0.044	0.05
Thallium, Total (mg/L)	0.002	0.001	0.002
Vanadium, Total (mg/L)	n/a	0.43	0.43
Zinc, Total (mg/L)	n/a	0.16	0.16

*\*Highlighted cells indicated Background is higher than MCLs*

*\*MCL = Maximum Contaminant Level*

*\*GWPS = Groundwater Protection Standard*

FIGURE J.



# Confidence Intervals - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	GWC-15	0.1637	0.07185	0.029	Yes	19	0.1178	0.07842	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-16	0.08029	0.061	0.029	Yes	20	0.07065	0.01699	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-20	0.356	0.2756	0.029	Yes	19	0.3158	0.06866	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWB-4R	0.13	0.0237	0.01	Yes	15	0.07218	0.05409	0	None	No	0.01	NP (normality)
Molybdenum (mg/L)	GWC-1	0.1579	0.06845	0.01	Yes	15	0.1132	0.06604	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-15	0.1119	0.09163	0.01	Yes	15	0.1017	0.01493	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-16	0.214	0.1235	0.01	Yes	15	0.1688	0.06681	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-20	0.3095	0.1197	0.01	Yes	15	0.226	0.1527	0	None	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GWC-21	0.05906	0.01743	0.01	Yes	15	0.03825	0.03071	0	None	No	0.01	Param.

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GWB-4R	0.003	0.0003	0.006	No	19	0.002858	0.0006194	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWB-5R	0.003	0.0013	0.006	No	19	0.002639	0.0008742	84.21	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWB-6R	0.003	0.00059	0.006	No	19	0.002731	0.0008087	89.47	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-1	0.003	0.0016	0.006	No	19	0.002539	0.0009428	78.95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-11	0.003	0.00051	0.006	No	19	0.00174	0.001234	47.37	None	No	0.01	NP (normality)
Antimony (mg/L)	GWC-12	0.003	0.0003	0.006	No	19	0.002858	0.0006194	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-13	0.003	0.0006	0.006	No	19	0.002874	0.0005506	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-14	0.003	0.003	0.006	No	20	0.003	0	100	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-15	0.003	0.0018	0.006	No	19	0.002937	0.0002753	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-16	0.003	0.003	0.006	No	20	0.003	0	100	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-17	0.003	0.0014	0.006	No	19	0.002778	0.0006847	89.47	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-2	0.003	0.0016	0.006	No	19	0.002837	0.0004913	89.47	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-20	0.003	0.0019	0.006	No	19	0.002818	0.0005824	89.47	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-21	0.003	0.00033	0.006	No	19	0.002859	0.0006125	94.74	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-22	0.003	0.0016	0.006	No	19	0.002481	0.0009731	73.68	None	No	0.01	NP (normality)
Antimony (mg/L)	GWC-9	0.003	0.0016	0.006	No	19	0.002786	0.0006757	89.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWB-4R	0.003063	0.001864	0.029	No	19	0.002529	0.001085	10.53	None	sqrt(x)	0.01	Param.
Arsenic (mg/L)	GWB-5R	0.005	0.001	0.029	No	19	0.002516	0.001817	26.32	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWB-6R	0.005	0.0014	0.029	No	19	0.003202	0.001749	26.32	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-1	0.005182	0.002158	0.029	No	18	0.004661	0.005815	0	None	ln(x)	0.01	Param.
Arsenic (mg/L)	GWC-12	0.005	0.0009	0.029	No	19	0.004332	0.001587	84.21	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-13	0.005	0.0006	0.029	No	19	0.004536	0.00139	89.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-14	0.002822	0.001785	0.029	No	20	0.002446	0.001175	15	None	ln(x)	0.01	Param.
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.1637</b>	<b>0.07185</b>	<b>0.029</b>	<b>Yes</b>	<b>19</b>	<b>0.1178</b>	<b>0.07842</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>GWC-16</b>	<b>0.08029</b>	<b>0.061</b>	<b>0.029</b>	<b>Yes</b>	<b>20</b>	<b>0.07065</b>	<b>0.01699</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GWC-17	0.005	0.0011	0.029	No	19	0.002627	0.001879	36.84	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-2	0.005	0.00094	0.029	No	19	0.004312	0.001635	84.21	None	No	0.01	NP (NDs)
<b>Arsenic (mg/L)</b>	<b>GWC-20</b>	<b>0.356</b>	<b>0.2756</b>	<b>0.029</b>	<b>Yes</b>	<b>19</b>	<b>0.3158</b>	<b>0.06866</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GWC-21	0.004545	0.002687	0.029	No	19	0.004453	0.001822	36.84	Kaplan-Meier	sqrt(x)	0.01	Param.
Arsenic (mg/L)	GWC-22	0.005	0.0011	0.029	No	19	0.003188	0.002025	52.63	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-9	0.005	0.00084	0.029	No	19	0.004781	0.0009544	94.74	None	No	0.01	NP (NDs)
Barium (mg/L)	GWB-4R	0.09302	0.07854	2	No	19	0.08605	0.01279	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWB-5R	0.1489	0.09276	2	No	19	0.1249	0.05511	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	GWB-6R	0.107	0.014	2	No	19	0.07173	0.04152	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-1	0.05725	0.05085	2	No	19	0.05405	0.005465	0	None	No	0.01	Param.
Barium (mg/L)	GWC-11	0.1175	0.06851	2	No	19	0.09299	0.04181	0	None	No	0.01	Param.
Barium (mg/L)	GWC-12	0.0197	0.017	2	No	19	0.01916	0.004257	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-13	0.02726	0.02086	2	No	19	0.02406	0.005463	0	None	No	0.01	Param.
Barium (mg/L)	GWC-14	0.038	0.025	2	No	20	0.03986	0.02416	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-15	0.04873	0.03897	2	No	19	0.04385	0.008331	0	None	No	0.01	Param.
Barium (mg/L)	GWC-16	0.146	0.06573	2	No	18	0.1121	0.07648	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWC-17	0.107	0.04768	2	No	19	0.08256	0.05661	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWC-2	0.054	0.049	2	No	18	0.05311	0.007646	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-20	0.34	0.0788	2	No	19	0.163	0.1172	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-21	0.0954	0.0509	2	No	19	0.08036	0.04847	0	None	ln(x)	0.01	Param.
Barium (mg/L)	GWC-22	0.09382	0.05954	2	No	19	0.07668	0.02927	0	None	No	0.01	Param.
Barium (mg/L)	GWC-9	0.2544	0.1839	2	No	19	0.2192	0.06021	0	None	No	0.01	Param.
Beryllium (mg/L)	GWB-4R	0.0005	0.0001	0.004	No	15	0.00036	0.000192	60	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWB-5R	0.0001724	0.00007737	0.004	No	15	0.0002335	0.0001598	20	Kaplan-Meier	sqrt(x)	0.01	Param.
Beryllium (mg/L)	GWB-6R	0.0005	0.00005	0.004	No	15	0.0004397	0.000159	86.67	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-11	0.0005	0.000047	0.004	No	15	0.0004698	0.000117	93.33	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-12	0.0007761	0.0005017	0.004	No	15	0.0006567	0.0002292	0	None	ln(x)	0.01	Param.
Beryllium (mg/L)	GWC-13	0.0005	0.000058	0.004	No	15	0.0004705	0.0001141	93.33	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-14	0.0005	0.0001	0.004	No	15	0.0004168	0.0001724	80	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-16	0.0005	0.000068	0.004	No	15	0.0002223	0.0002036	33.33	None	No	0.01	NP (normality)

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	GWC-17	0.0034	0.0014	0.004	No	15	0.002167	0.0009123	0	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-2	0.0005	0.000075	0.004	No	16	0.0003548	0.0002009	62.5	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-22	0.0005	0.00009	0.004	No	15	0.0003224	0.0001999	53.33	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-9	0.0003	0.00019	0.004	No	15	0.0002413	0.00005153	0	None	No	0.01	NP (normality)
Cadmium (mg/L)	GWB-4R	0.0005	0.0002	0.005	No	15	0.0004053	0.0001651	73.33	None	No	0.01	NP (normality)
Cadmium (mg/L)	GWC-1	0.0005	0.0001	0.005	No	15	0.0004447	0.0001461	86.67	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-11	0.0005824	0.0002696	0.005	No	15	0.000426	0.0002307	6.667	None	No	0.01	Param.
Cadmium (mg/L)	GWC-14	0.0005	0.00017	0.005	No	15	0.000346	0.0001727	53.33	None	No	0.01	NP (normality)
Cadmium (mg/L)	GWC-20	0.0005	0.00018	0.005	No	15	0.000454	0.0001218	86.67	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-22	0.0005	0.0001	0.005	No	15	0.0003033	0.0001794	33.33	None	No	0.01	NP (normality)
Chromium (mg/L)	GWB-4R	0.0106	0.0022	0.1	No	19	0.006516	0.00453	0	None	No	0.01	NP (normality)
Chromium (mg/L)	GWB-5R	0.0055	0.0011	0.1	No	19	0.007084	0.01598	26.32	None	No	0.01	NP (normality)
Chromium (mg/L)	GWB-6R	0.006091	0.002106	0.1	No	19	0.005358	0.005239	0	None	ln(x)	0.01	Param.
Chromium (mg/L)	GWC-1	0.0024	0.0016	0.1	No	19	0.002347	0.001215	5.263	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-11	0.005	0.00091	0.1	No	19	0.002893	0.002607	36.84	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-12	0.0028	0.00091	0.1	No	19	0.001992	0.001654	21.05	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-13	0.005	0.00077	0.1	No	19	0.003067	0.002112	52.63	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-14	0.005	0.0008	0.1	No	20	0.002533	0.002077	40	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-15	0.005	0.0013	0.1	No	19	0.002611	0.001729	31.58	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-16	0.005	0.00099	0.1	No	20	0.002883	0.002545	35	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-17	0.005	0.0009	0.1	No	19	0.002532	0.002004	31.58	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-2	0.005	0.00069	0.1	No	19	0.003217	0.002151	57.89	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-20	0.005	0.0009	0.1	No	19	0.002499	0.001969	36.84	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-21	0.005	0.00065	0.1	No	19	0.003013	0.00272	42.11	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-22	0.005	0.00057	0.1	No	19	0.002915	0.002259	52.63	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-9	0.005	0.0011	0.1	No	19	0.002657	0.001871	36.84	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-4R	0.0024	0.00072	0.01	No	15	0.001567	0.001462	13.33	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-5R	0.0057	0.00056	0.01	No	15	0.004619	0.004413	46.67	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-6R	0.005	0.0049	0.01	No	15	0.004685	0.001191	86.67	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-11	0.005	0.00055	0.01	No	15	0.003805	0.002054	73.33	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWC-12	0.001299	0.000794	0.01	No	15	0.001047	0.0003729	0	None	No	0.01	Param.
Cobalt (mg/L)	GWC-14	0.005	0.0003	0.01	No	15	0.004687	0.001214	93.33	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-17	0.007	0.0023	0.01	No	15	0.0044	0.002202	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWC-2	0.005	0.00032	0.01	No	16	0.003586	0.002173	68.75	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWC-22	0.005	0.0007	0.01	No	15	0.003296	0.002164	60	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWC-9	0.0017	0.00096	0.01	No	15	0.00137	0.0004019	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWB-4R	5	2.32	32.08	No	15	3.347	1.201	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWB-5R	3.969	2.219	32.08	No	15	3.159	1.448	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWB-6R	4.896	2.672	32.08	No	15	3.784	1.641	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-1	2.242	1.575	32.08	No	15	1.909	0.4917	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-11	6.613	3.152	32.08	No	15	4.882	2.553	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-12	2.873	1.74	32.08	No	15	2.306	0.8361	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-13	1.437	0.8095	32.08	No	15	1.123	0.4631	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-14	1.332	0.6666	32.08	No	15	0.9992	0.4909	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-15	1.798	1.078	32.08	No	15	1.438	0.5313	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-16	2.73	1.711	32.08	No	15	2.292	0.8809	0	None	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-17	4.006	2.724	32.08	No	15	3.365	0.9459	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-2	0.9857	0.6494	32.08	No	15	0.8175	0.2481	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-20	4.69	1.992	32.08	No	15	3.341	1.991	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-21	2.419	1.167	32.08	No	15	1.793	0.9233	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-22	6.641	3.426	32.08	No	15	5.17	2.244	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-9	3.31	2.08	32.08	No	15	3.119	1.557	0	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWB-4R	0.17	0.08	4	No	17	0.175	0.2746	58.82	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWB-5R	0.11	0.05	4	No	17	0.09018	0.04055	52.94	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWB-6R	0.13	0.09	4	No	17	0.1194	0.06228	47.06	None	No	0.01	NP (normality)

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	GWC-1	0.18	0.051	4	No	17	0.1054	0.04055	76.47	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-12	0.769	0.267	4	No	17	0.518	0.4006	5.882	None	No	0.01	Param.
Fluoride (mg/L)	GWC-13	0.55	0.09	4	No	17	0.1231	0.1106	82.35	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-14	0.25	0.1	4	No	17	0.1753	0.1291	64.71	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-15	0.13	0.06	4	No	17	0.1329	0.1003	70.59	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-16	0.2	0.1	4	No	17	0.1894	0.2129	58.82	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-17	1.295	0.5764	4	No	17	0.9359	0.5738	5.882	None	No	0.01	Param.
Fluoride (mg/L)	GWC-2	0.17	0.08	4	No	17	0.1261	0.1296	58.82	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-20	0.14	0.043	4	No	17	0.09076	0.02894	76.47	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-21	0.1	0.071	4	No	17	0.09829	0.007034	94.12	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-22	0.12	0.1	4	No	17	0.09235	0.02488	64.71	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-9	0.2566	0.09976	4	No	17	0.2195	0.2288	5.882	None	ln(x)	0.01	Param.
Lead (mg/L)	GWB-4R	0.003133	0.0006645	0.013	No	18	0.003221	0.00299	16.67	Kaplan-Meier	ln(x)	0.01	Param.
Lead (mg/L)	GWB-5R	0.0011	0.0002	0.013	No	19	0.0007701	0.0006197	36.84	None	No	0.01	NP (normality)
Lead (mg/L)	GWB-6R	0.001	0.00014	0.013	No	19	0.000604	0.0004143	42.11	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-1	0.001	0.00012	0.013	No	19	0.0008086	0.0003811	78.95	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-11	0.00042	0.0002	0.013	No	19	0.0003795	0.0002877	15.79	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-12	0.001	0.000068	0.013	No	19	0.0005737	0.0008023	31.58	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-13	0.001	0.00013	0.013	No	19	0.0006095	0.0004401	31.58	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-14	0.001	0.00051	0.013	No	20	0.0008395	0.0003396	80	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-15	0.001	0.00009	0.013	No	19	0.000554	0.0004405	47.37	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-16	0.001	0.0001	0.013	No	20	0.0004832	0.000435	40	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-17	0.001	0.00014	0.013	No	19	0.0006697	0.0004345	57.89	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-2	0.001	0.0002	0.013	No	19	0.0007308	0.0004106	68.42	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-20	0.001	0.00018	0.013	No	19	0.0007692	0.0003979	73.68	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-21	0.001	0.0001	0.013	No	19	0.0006323	0.0004452	57.89	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-22	0.0008128	0.0003366	0.013	No	19	0.0006984	0.0006477	10.53	None	ln(x)	0.01	Param.
Lead (mg/L)	GWC-9	0.001	0.000096	0.013	No	19	0.0006113	0.0004423	52.63	None	No	0.01	NP (normality)
Lithium (mg/L)	GWB-4R	0.014	0.0041	0.03	No	15	0.00902	0.004665	0	None	No	0.01	NP (normality)
Lithium (mg/L)	GWB-5R	0.03	0.0031	0.03	No	15	0.01777	0.01355	53.33	None	No	0.01	NP (normality)
Lithium (mg/L)	GWC-12	0.03	0.00091	0.03	No	15	0.01259	0.01472	40	None	No	0.01	NP (normality)
Lithium (mg/L)	GWC-13	0.03	0.00087	0.03	No	15	0.02806	0.007521	93.33	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-17	0.006795	0.004938	0.03	No	15	0.005867	0.00137	0	None	No	0.01	Param.
Lithium (mg/L)	GWC-9	0.002074	0.001769	0.03	No	14	0.001921	0.0002155	0	None	No	0.01	Param.
Mercury (mg/L)	GWB-4R	0.0002	0.0001	0.002	No	12	0.0001791	0.00005005	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWB-5R	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWB-6R	0.0002	0.0001	0.002	No	12	0.0001786	0.00005147	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-1	0.0002	0.0001	0.002	No	12	0.0001783	0.00005219	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-11	0.0002	0.0001	0.002	No	12	0.0001917	0.00002887	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-12	0.0002	0.0001	0.002	No	12	0.0001917	0.00002887	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-13	0.0002	0.00013	0.002	No	12	0.0001858	0.0000337	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-14	0.0002	0.00011	0.002	No	12	0.0001925	0.00002598	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-15	0.0002	0.0001	0.002	No	12	0.0001917	0.00002887	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-16	0.0002	0.0001	0.002	No	12	0.0001917	0.00002887	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-17	0.0002	0.00011	0.002	No	12	0.0001925	0.00002598	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-2	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-20	0.0002	0.00011	0.002	No	12	0.0001925	0.00002598	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-21	0.0002	0.00011	0.002	No	12	0.0001925	0.00002598	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-22	0.0002	0.0001	0.002	No	12	0.0001917	0.00002887	91.67	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-9	0.0002	0.00011	0.002	No	12	0.00018	0.00004843	83.33	None	No	0.01	NP (NDs)
<b>Molybdenum (mg/L)</b>	<b>GWB-4R</b>	<b>0.13</b>	<b>0.0237</b>	<b>0.01</b>	<b>Yes</b>	<b>15</b>	<b>0.07218</b>	<b>0.05409</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>NP (normality)</b>
Molybdenum (mg/L)	GWB-5R	0.01	0.0012	0.01	No	15	0.009413	0.002272	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWB-6R	0.01	0.0013	0.01	No	15	0.007725	0.003922	73.33	None	No	0.01	NP (normality)
<b>Molybdenum (mg/L)</b>	<b>GWC-1</b>	<b>0.1579</b>	<b>0.06845</b>	<b>0.01</b>	<b>Yes</b>	<b>15</b>	<b>0.1132</b>	<b>0.06604</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Molybdenum (mg/L)	GWC-11	0.01	0.0018	0.01	No	15	0.008838	0.003073	86.67	None	No	0.01	NP (NDs)

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Molybdenum (mg/L)	GWC-13	0.01	0.0056	0.01	No	15	0.009707	0.001136	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-14	0.01276	0.00333	0.01	No	15	0.01026	0.01011	0	None	ln(x)	0.01	Param.
<b>Molybdenum (mg/L)</b>	<b>GWC-15</b>	<b>0.1119</b>	<b>0.09163</b>	<b>0.01</b>	<b>Yes</b>	<b>15</b>	<b>0.1017</b>	<b>0.01493</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Molybdenum (mg/L)</b>	<b>GWC-16</b>	<b>0.214</b>	<b>0.1235</b>	<b>0.01</b>	<b>Yes</b>	<b>15</b>	<b>0.1688</b>	<b>0.06681</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Molybdenum (mg/L)	GWC-17	0.01	0.0036	0.01	No	15	0.006941	0.003507	53.33	None	No	0.01	NP (normality)
<b>Molybdenum (mg/L)</b>	<b>GWC-20</b>	<b>0.3095</b>	<b>0.1197</b>	<b>0.01</b>	<b>Yes</b>	<b>15</b>	<b>0.226</b>	<b>0.1527</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.01</b>	<b>Param.</b>
<b>Molybdenum (mg/L)</b>	<b>GWC-21</b>	<b>0.05906</b>	<b>0.01743</b>	<b>0.01</b>	<b>Yes</b>	<b>15</b>	<b>0.03825</b>	<b>0.03071</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Selenium (mg/L)	GWB-4R	0.003986	0.002596	0.05	No	19	0.004163	0.001269	42.11	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	GWB-5R	0.006	0.0033	0.05	No	19	0.004916	0.001035	78.95	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWB-6R	0.005	0.0023	0.05	No	19	0.006584	0.0106	63.16	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-1	0.005	0.0018	0.05	No	19	0.003611	0.004842	10.53	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-11	0.007249	0.003213	0.05	No	19	0.006784	0.00553	21.05	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	GWC-12	0.005	0.003	0.05	No	19	0.004442	0.001129	78.95	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-14	0.004438	0.00297	0.05	No	20	0.003704	0.001293	5	None	No	0.01	Param.
Selenium (mg/L)	GWC-15	0.005174	0.002026	0.05	No	19	0.005374	0.00293	47.37	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	GWC-16	0.005553	0.003634	0.05	No	20	0.004593	0.00169	5	None	No	0.01	Param.
Selenium (mg/L)	GWC-17	0.005	0.0013	0.05	No	19	0.003474	0.001772	52.63	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-2	0.005	0.0035	0.05	No	19	0.004763	0.0007522	89.47	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-20	0.005	0.0014	0.05	No	19	0.003911	0.001662	68.42	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-21	0.02088	0.01127	0.05	No	19	0.01607	0.0082	0	None	No	0.01	Param.
Selenium (mg/L)	GWC-22	0.005	0.0023	0.05	No	19	0.004311	0.001396	78.95	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-9	0.005	0.005	0.05	No	19	0.005	0	100	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWB-4R	0.001	0.00007	0.002	No	15	0.000876	0.0003272	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWB-5R	0.001	0.00031	0.002	No	15	0.0008911	0.0002912	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-1	0.001	0.000054	0.002	No	15	0.0008105	0.0003922	80	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-11	0.001	0.000098	0.002	No	15	0.0005412	0.0004466	46.67	None	No	0.01	NP (normality)
Thallium (mg/L)	GWC-12	0.001	0.00014	0.002	No	15	0.0005653	0.000423	46.67	None	No	0.01	NP (normality)
Thallium (mg/L)	GWC-14	0.001	0.00007	0.002	No	15	0.0008753	0.000329	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-16	0.001	0.00006	0.002	No	15	0.000874	0.0003325	86.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-17	0.001	0.000076	0.002	No	15	0.0006332	0.0004652	60	None	No	0.01	NP (normality)
Thallium (mg/L)	GWC-2	0.001	0.00011	0.002	No	16	0.0009444	0.0002225	93.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-21	0.001	0.00005	0.002	No	15	0.0009367	0.0002453	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-22	0.001	0.000086	0.002	No	15	0.0006987	0.0004416	66.67	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWB-4R	0.0388	0.0037	0.43	No	14	0.02031	0.01738	7.143	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWB-5R	0.01026	0.004007	0.43	No	14	0.00825	0.007889	7.143	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWB-6R	0.03356	0.007419	0.43	No	14	0.02379	0.02645	0	None	x^(1/3)	0.01	Param.
Vanadium (mg/L)	GWC-1	0.007246	0.004083	0.43	No	14	0.005664	0.002232	14.29	None	No	0.01	Param.
Vanadium (mg/L)	GWC-11	0.01	0.002	0.43	No	14	0.003957	0.003283	21.43	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-12	0.007037	0.003634	0.43	No	14	0.005336	0.002402	14.29	None	No	0.01	Param.
Vanadium (mg/L)	GWC-13	0.01	0.0019	0.43	No	14	0.007657	0.003813	64.29	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-14	0.01713	0.007529	0.43	No	17	0.01317	0.007256	17.65	Kaplan-Meier	No	0.01	Param.
Vanadium (mg/L)	GWC-15	0.01	0.0021	0.43	No	16	0.005225	0.00385	37.5	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-16	0.01	0.0026	0.43	No	17	0.004651	0.003092	23.53	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-17	0.01	0.0026	0.43	No	14	0.006414	0.003742	50	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-2	0.01	0.0024	0.43	No	14	0.009457	0.002031	92.86	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-20	0.01	0.0025	0.43	No	16	0.005075	0.003449	31.25	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-21	0.01	0.0022	0.43	No	14	0.005064	0.003322	28.57	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-22	0.01	0.0016	0.43	No	14	0.006707	0.004052	57.14	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-9	0.01	0.0015	0.43	No	14	0.008771	0.003123	85.71	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWB-4R	0.008882	0.004471	0.16	No	14	0.00775	0.003091	21.43	Kaplan-Meier	No	0.01	Param.
Zinc (mg/L)	GWB-5R	0.01	0.0023	0.16	No	14	0.00815	0.003375	71.43	None	No	0.01	NP (normality)
Zinc (mg/L)	GWB-6R	0.016	0.0032	0.16	No	14	0.008086	0.003986	57.14	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-1	0.01	0.0057	0.16	No	14	0.008457	0.003066	71.43	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-11	0.01	0.0031	0.16	No	14	0.007707	0.003315	64.29	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-12	0.01	0.0023	0.16	No	14	0.004864	0.00313	21.43	None	No	0.01	NP (normality)

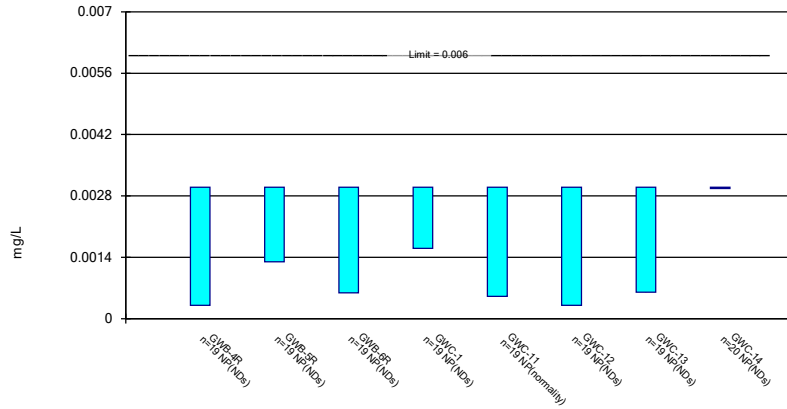
# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:04 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Zinc (mg/L)	GWC-13	0.039	0.0021	0.16	No	14	0.01883	0.01885	0	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-14	0.01	0.0052	0.16	No	17	0.0088	0.002745	76.47	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-15	0.032	0.0051	0.16	No	16	0.01107	0.005714	87.5	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-16	0.01	0.0025	0.16	No	17	0.007459	0.003613	58.82	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-17	0.01304	0.007776	0.16	No	14	0.01041	0.003714	14.29	None	No	0.01	Param.
Zinc (mg/L)	GWC-2	0.056	0.0018	0.16	No	14	0.01089	0.01346	57.14	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-20	0.031	0.0049	0.16	No	16	0.01058	0.005803	81.25	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-21	0.01	0.002	0.16	No	14	0.007986	0.003493	64.29	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-22	0.0086	0.003171	0.16	No	14	0.007964	0.003345	42.86	Kaplan-Meier	x^2	0.01	Param.
Zinc (mg/L)	GWC-9	0.006076	0.002475	0.16	No	14	0.006536	0.00606	21.43	Kaplan-Meier	ln(x)	0.01	Param.

### Non-Parametric Confidence Interval

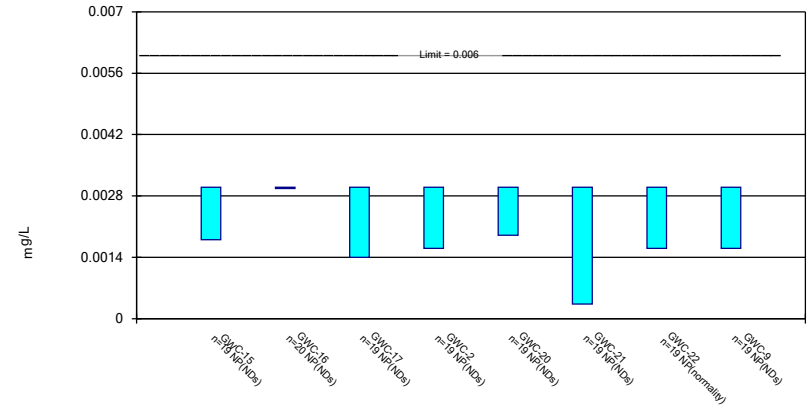
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

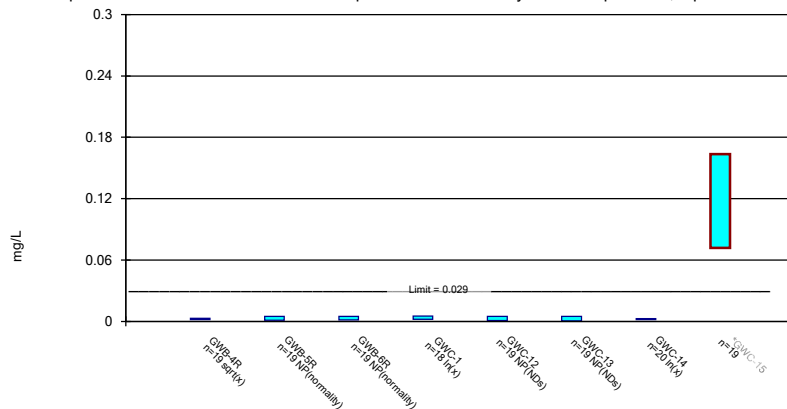
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

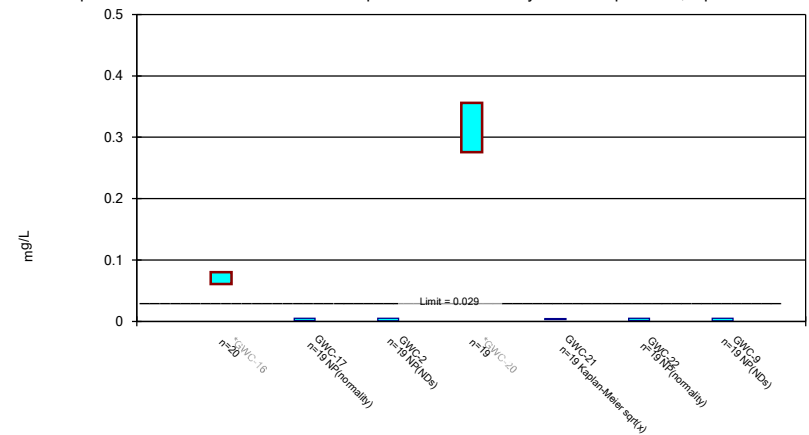
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

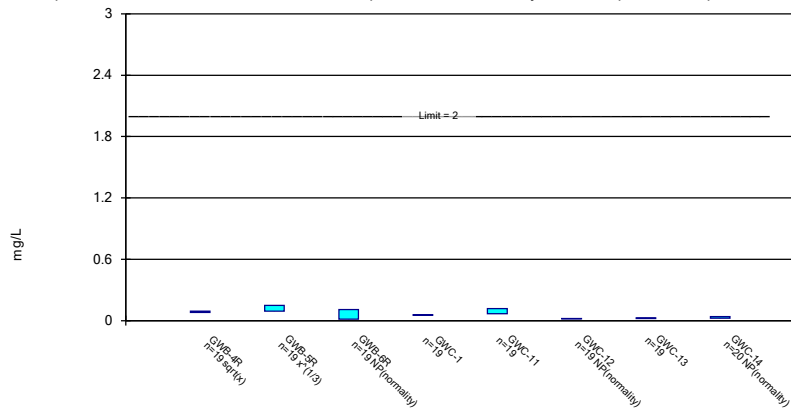
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

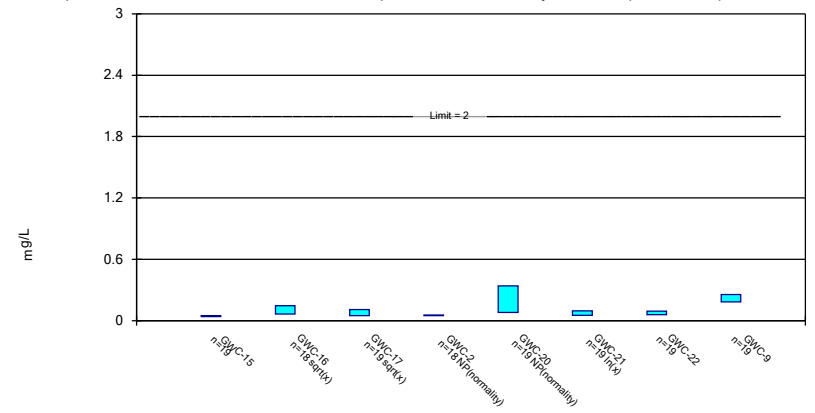
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

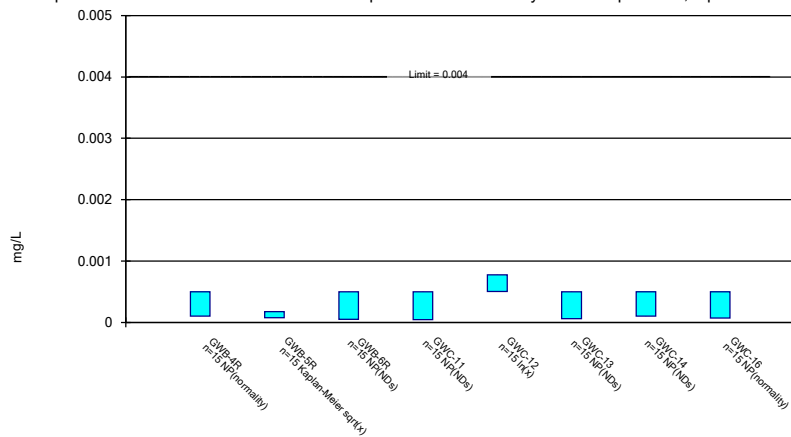
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

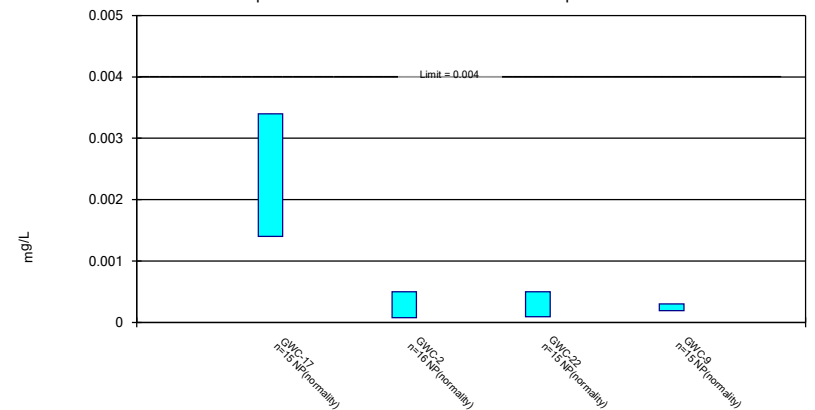
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

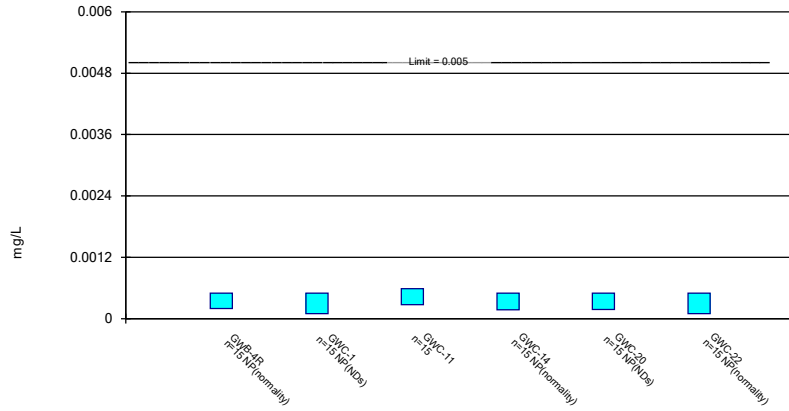


Constituent: Beryllium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



### Parametric and Non-Parametric (NP) Confidence Interval

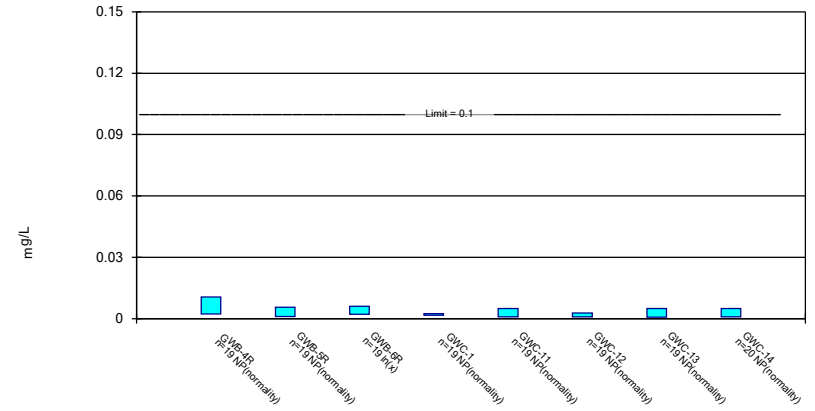
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

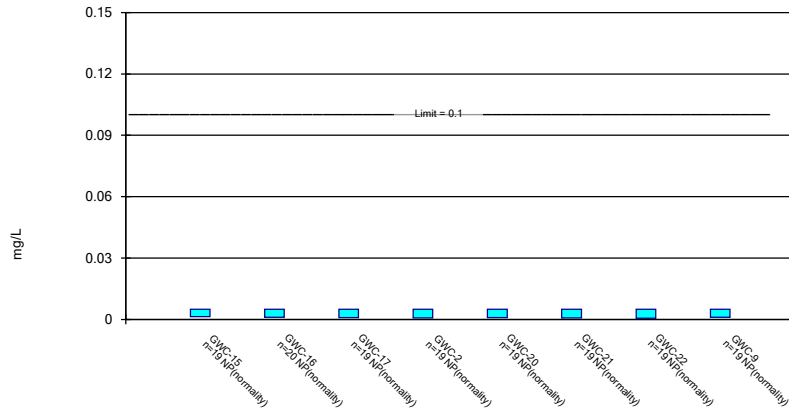
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

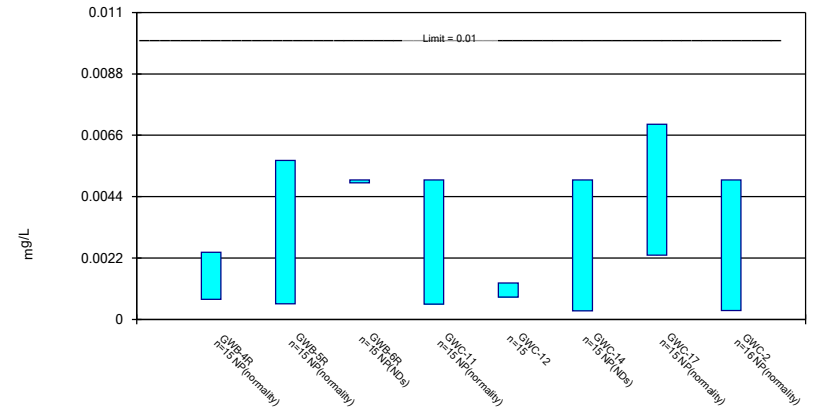
Compliance Limit is not exceeded. Per-well alpha = 0.01.



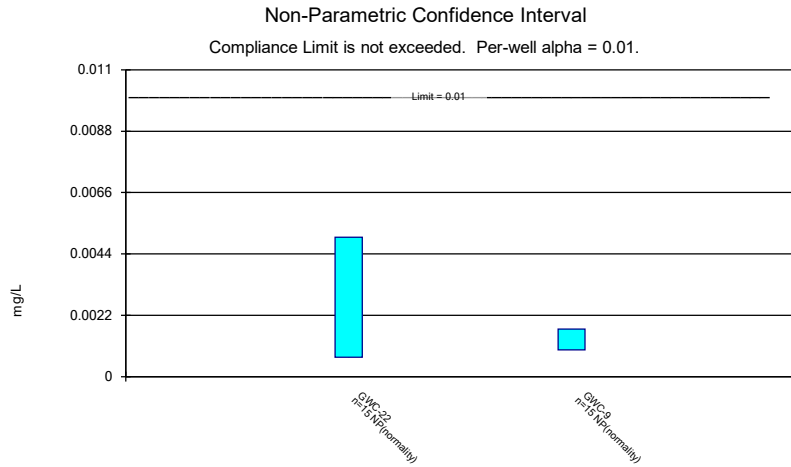
Constituent: Chromium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

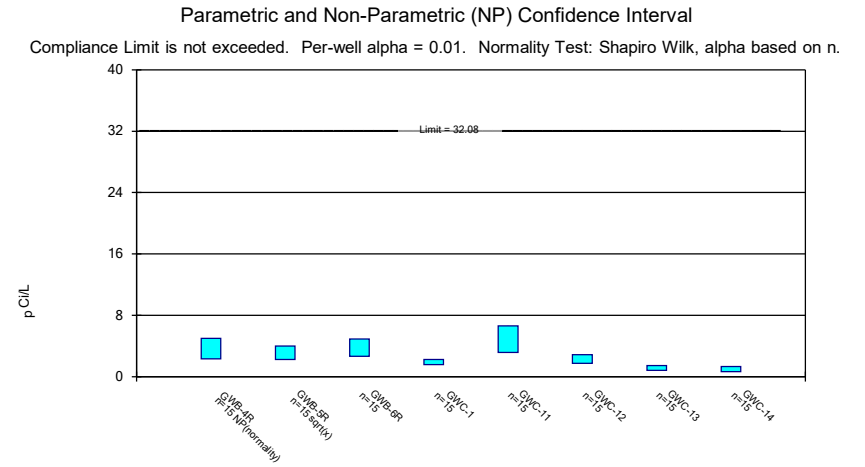
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



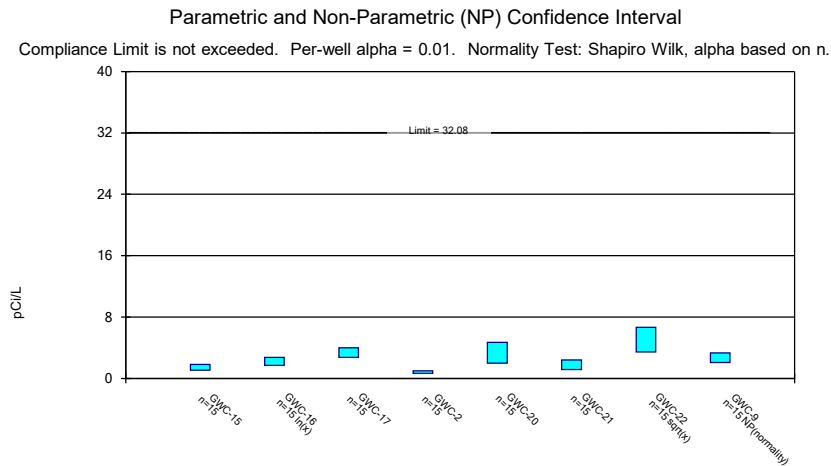
Constituent: Cobalt Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



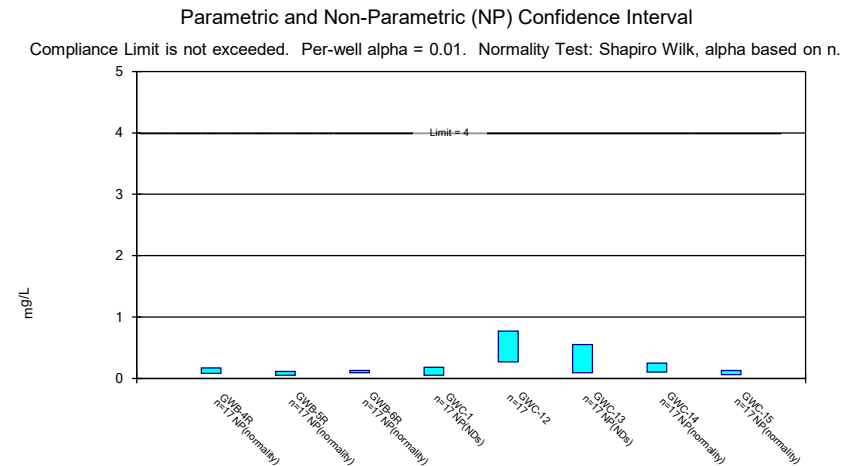
Constituent: Cobalt Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



Constituent: Combined Radium 226 + 228 Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



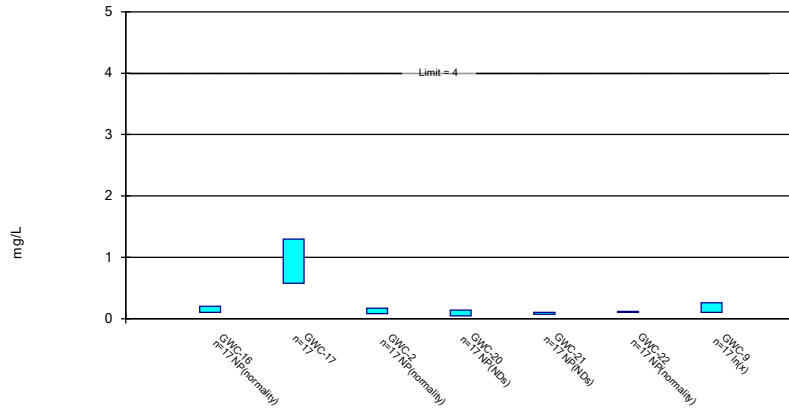
Constituent: Combined Radium 226 + 228 Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



Constituent: Fluoride Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

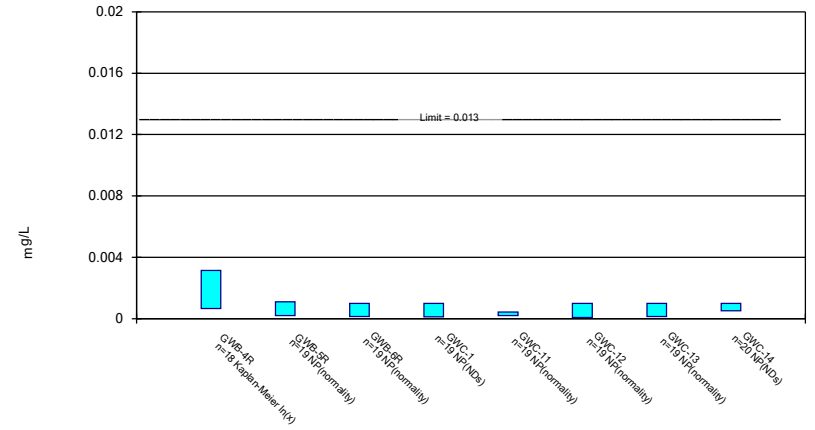
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

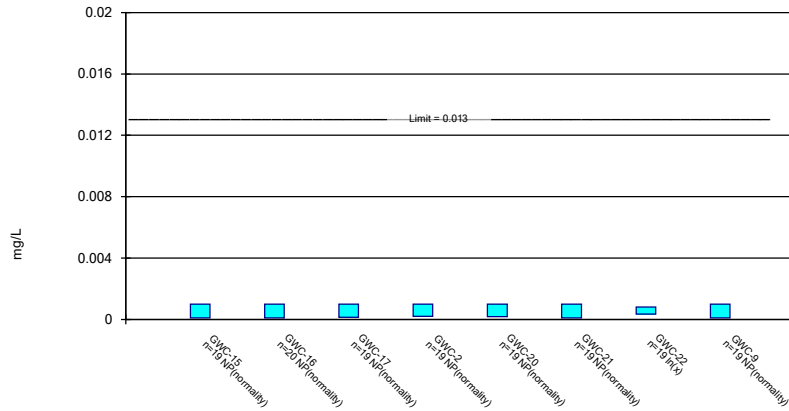
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

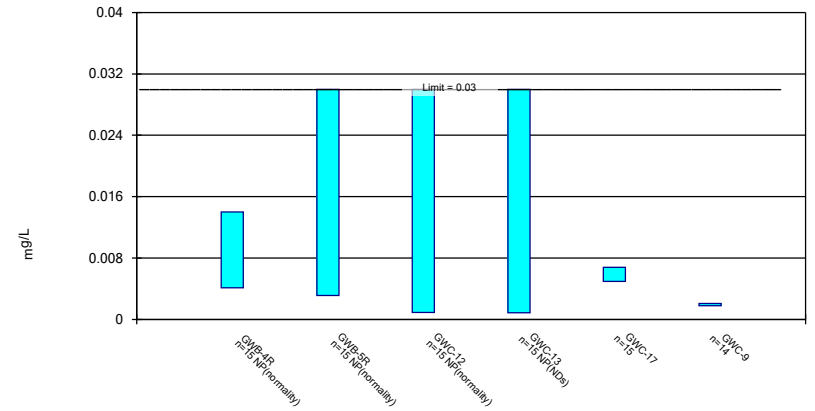
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

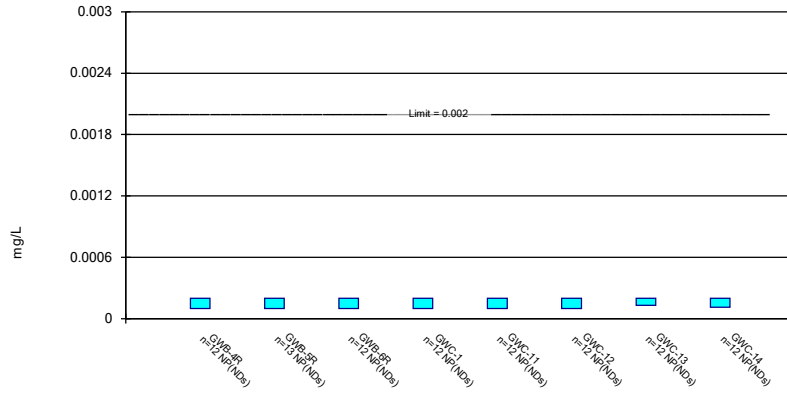
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

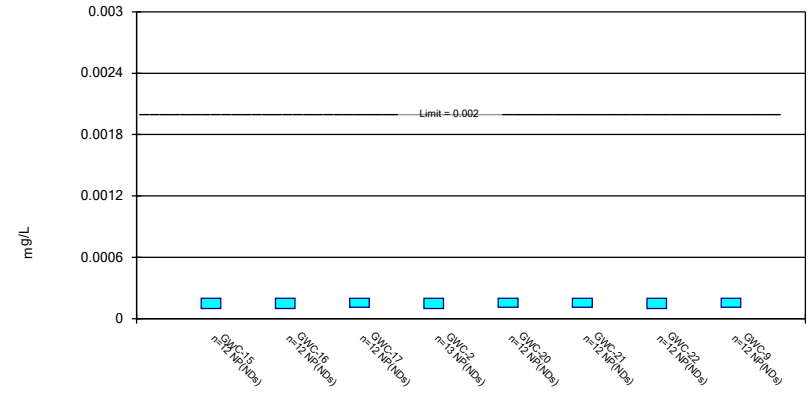
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

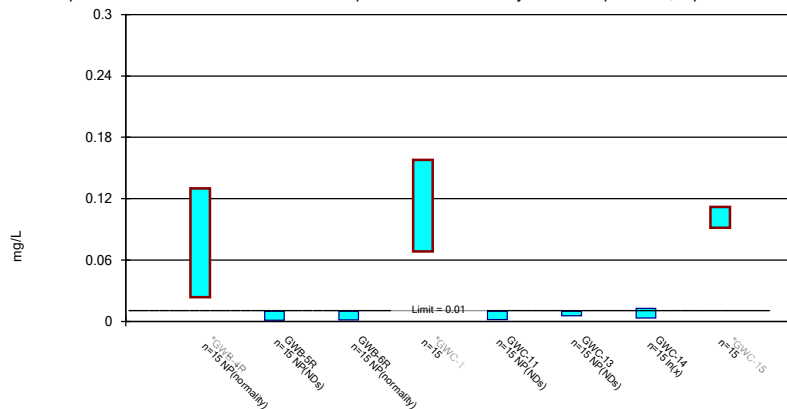
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

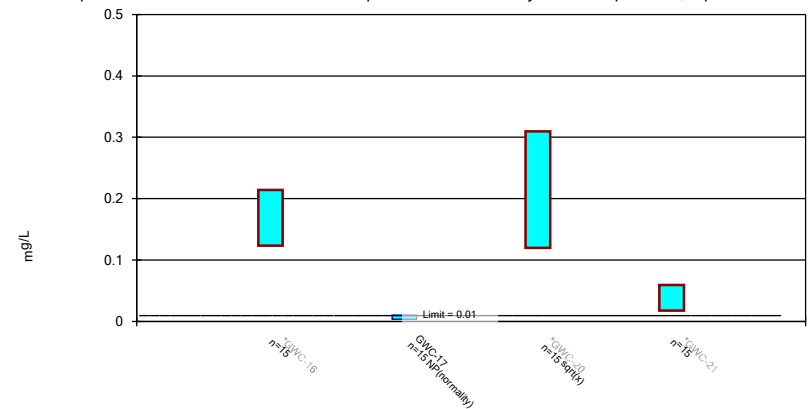
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

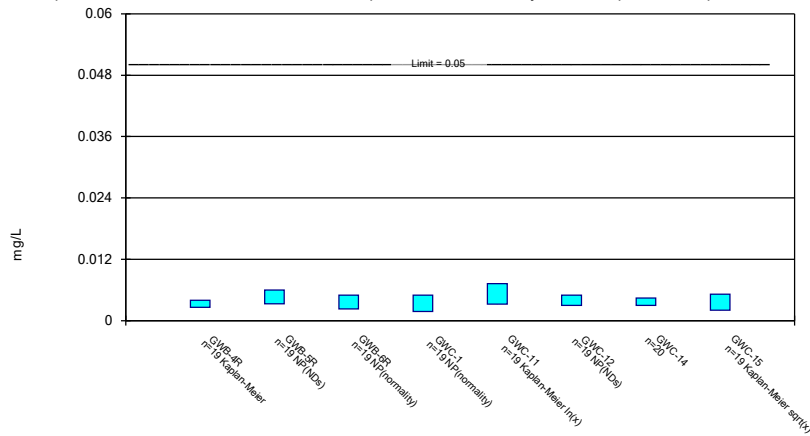
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

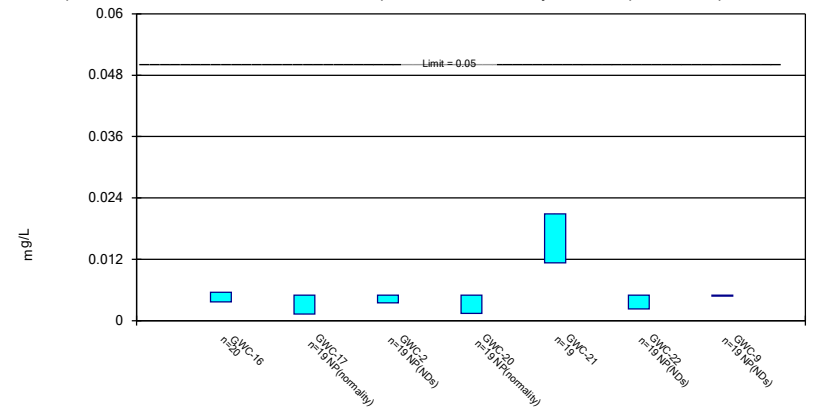
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

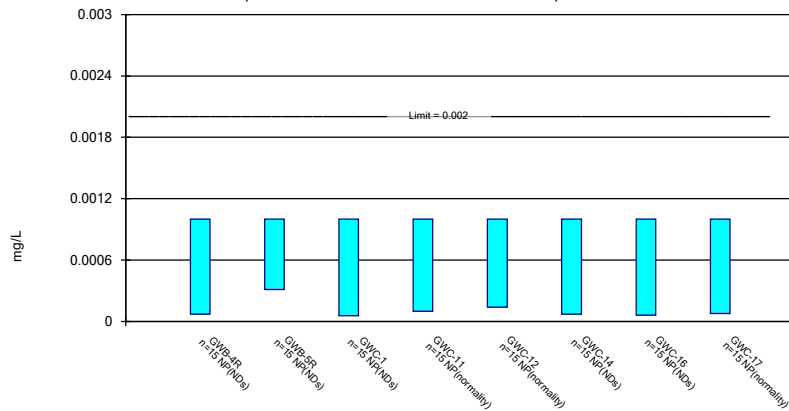
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

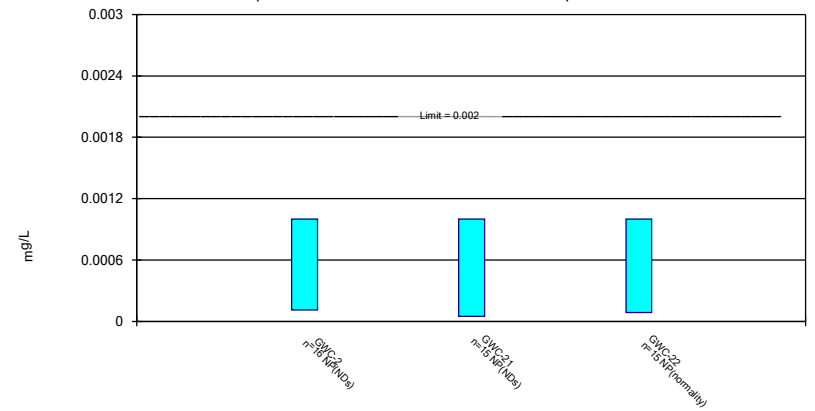
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

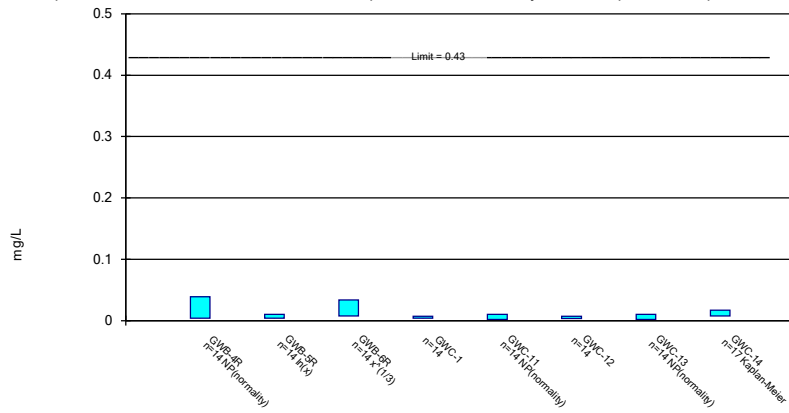
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

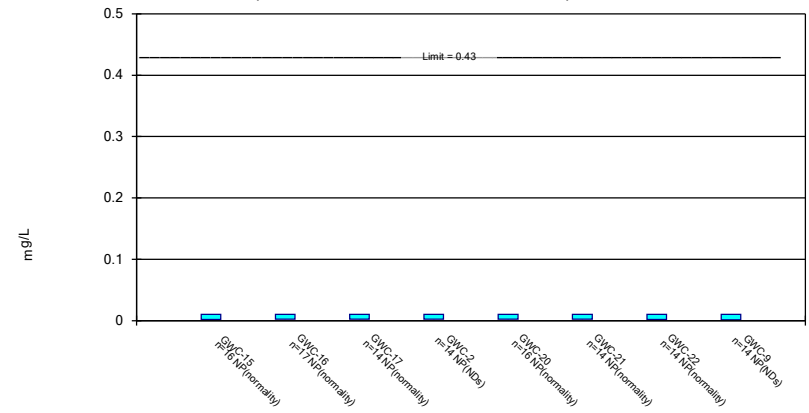
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Vanadium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

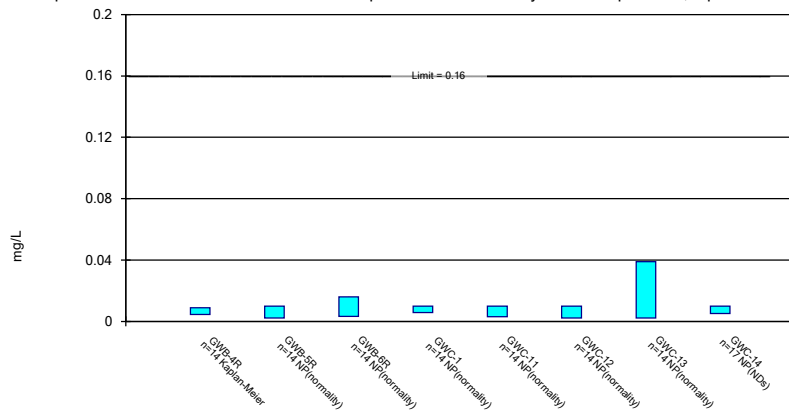
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Vanadium Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

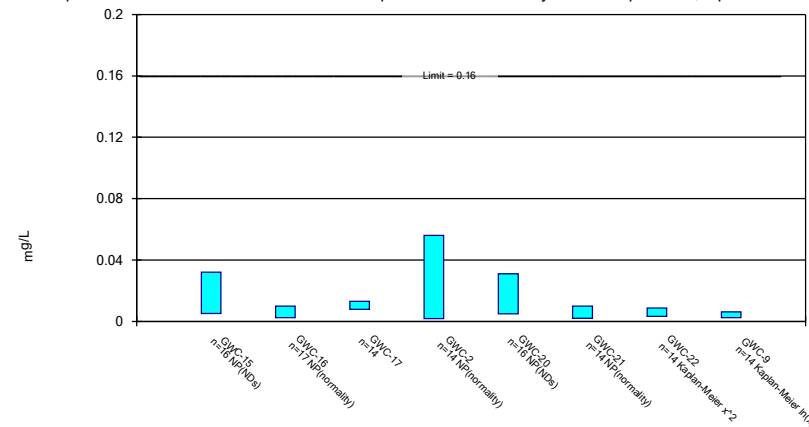
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Zinc Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Zinc Analysis Run 11/21/2021 11:01 AM View: Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

FIGURE K.

# Appendix I & IV Trend Tests - Confidence Interval Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:08 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.0341</b>	<b>141</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Molybdenum (mg/L)</b>	<b>GWC-1</b>	<b>-0.03266</b>	<b>-76</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Molybdenum (mg/L)</b>	<b>GWC-16</b>	<b>0.03158</b>	<b>56</b>	<b>53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

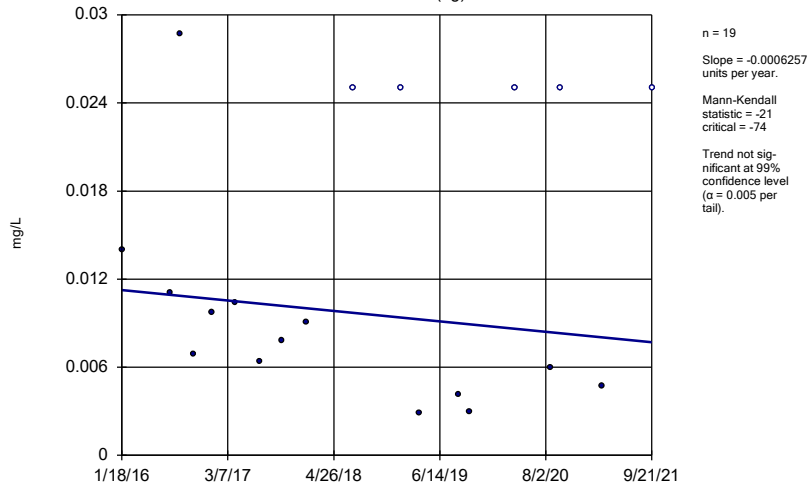


# Appendix I & IV Trend Tests - Confidence Interval Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 11/21/2021, 11:08 AM

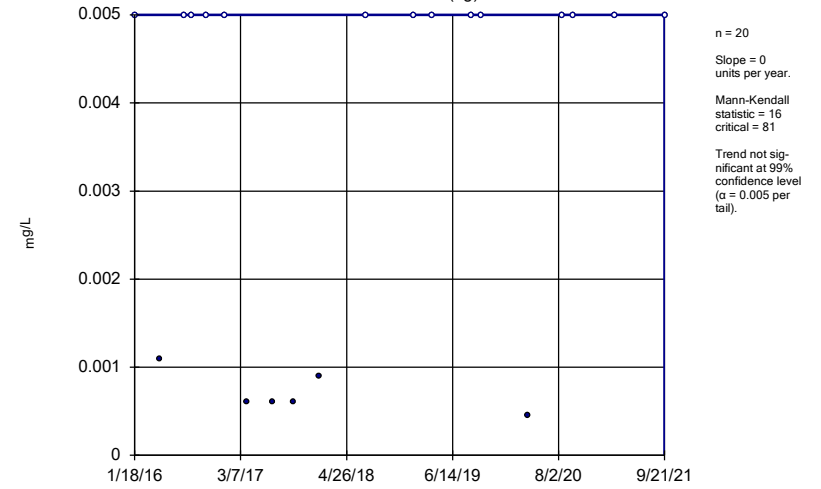
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	GWA-7 (bg)	-0.0006257	-21	-74	No	19	26.32	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	16	81	No	20	70	n/a	n/a	0.01	NP
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.0341</b>	<b>141</b>	<b>74</b>	<b>Yes</b>	<b>19</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Arsenic (mg/L)	GWC-16	0.001946	24	81	No	20	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-20	0.003529	17	74	No	19	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWA-7 (bg)	0	22	53	No	15	80	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWA-8 (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWB-4R	0.02482	45	53	No	15	0	n/a	n/a	0.01	NP
<b>Molybdenum (mg/L)</b>	<b>GWC-1</b>	<b>-0.03266</b>	<b>-76</b>	<b>-53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Molybdenum (mg/L)	GWC-15	-0.004337	-33	-53	No	15	0	n/a	n/a	0.01	NP
<b>Molybdenum (mg/L)</b>	<b>GWC-16</b>	<b>0.03158</b>	<b>56</b>	<b>53</b>	<b>Yes</b>	<b>15</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Molybdenum (mg/L)	GWC-20	-0.01481	-17	-53	No	15	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWC-21	-0.0003021	-1	-53	No	15	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator GWA-7 (bg)



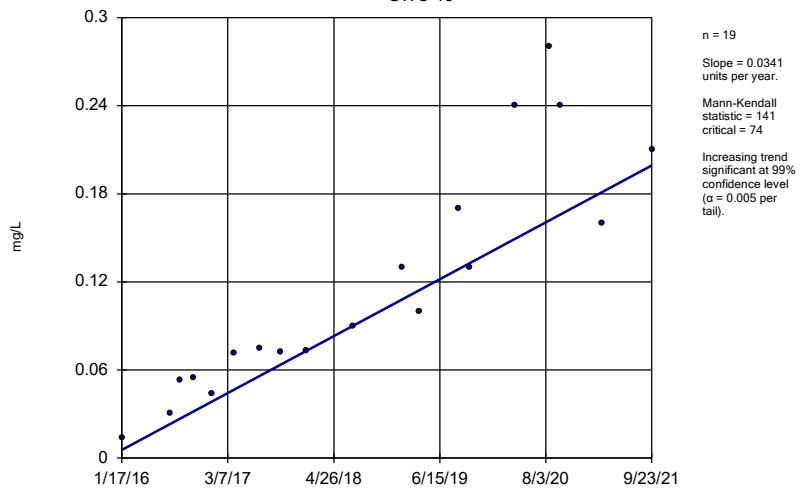
Constituent: Arsenic Analysis Run 11/21/2021 11:06 AM View: Trend Tests - Confidence Interval Exceeda  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWA-8 (bg)



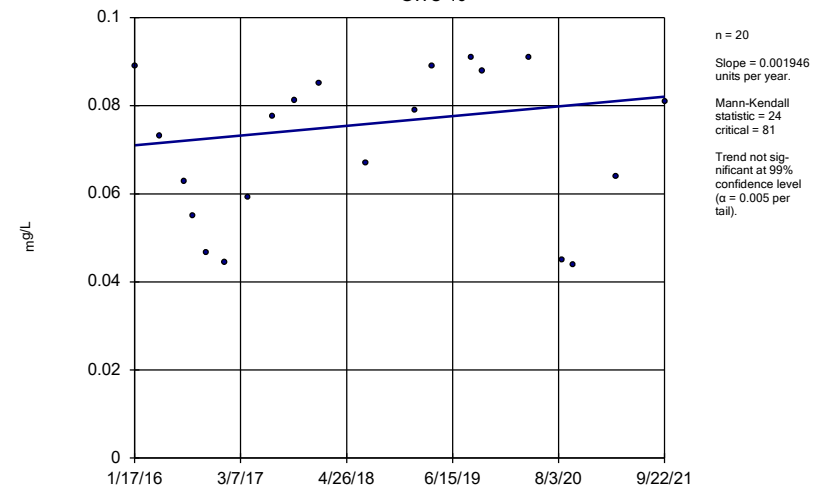
Constituent: Arsenic Analysis Run 11/21/2021 11:06 AM View: Trend Tests - Confidence Interval Exceeda  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-15

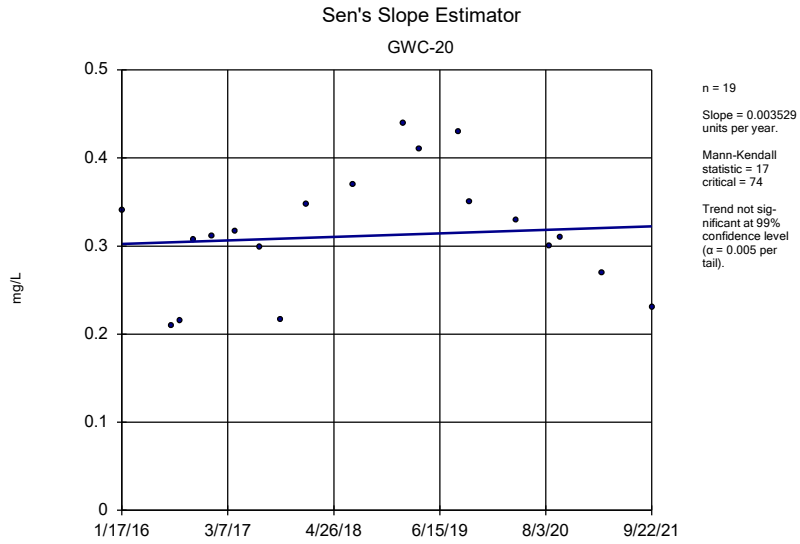


Constituent: Arsenic Analysis Run 11/21/2021 11:06 AM View: Trend Tests - Confidence Interval Exceeda  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

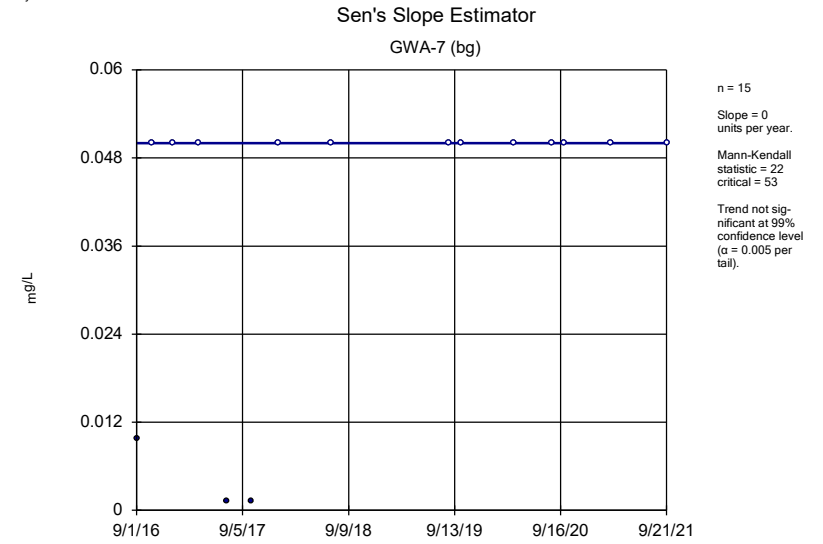
### Sen's Slope Estimator GWC-16



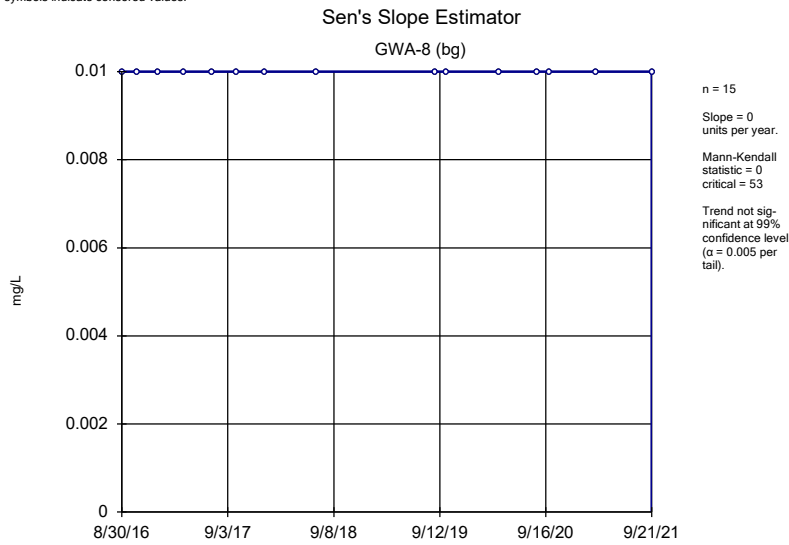
Constituent: Arsenic Analysis Run 11/21/2021 11:06 AM View: Trend Tests - Confidence Interval Exceeda  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



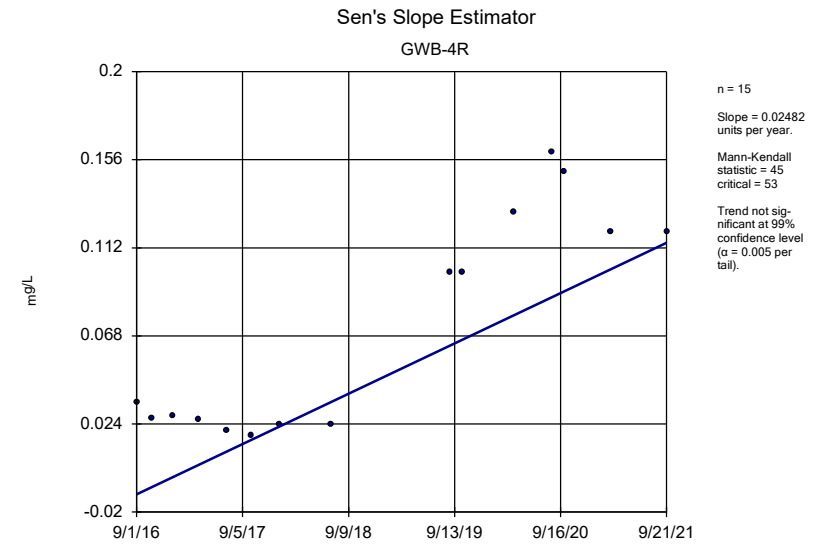
Constituent: Arsenic Analysis Run 11/21/2021 11:06 AM View: Trend Tests - Confidence Interval Exceeds  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



Constituent: Molybdenum Analysis Run 11/21/2021 11:06 AM View: Trend Tests - Confidence Interval Exceeds  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



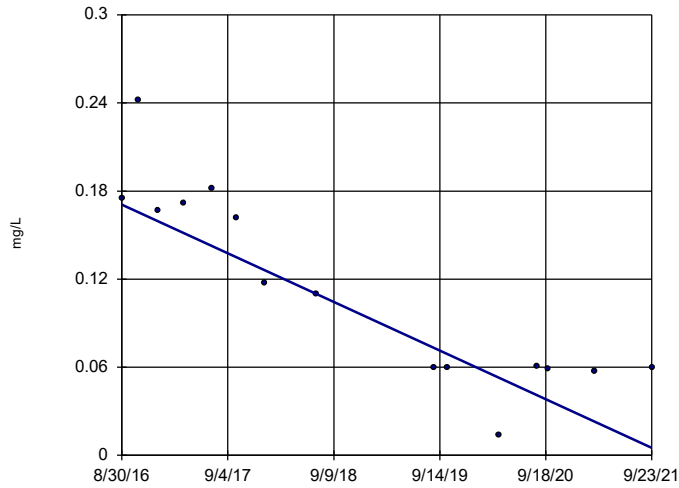
Constituent: Molybdenum Analysis Run 11/21/2021 11:06 AM View: Trend Tests - Confidence Interval Exceeds  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



Constituent: Molybdenum Analysis Run 11/21/2021 11:06 AM View: Trend Tests - Confidence Interval Exceeds  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWC-1

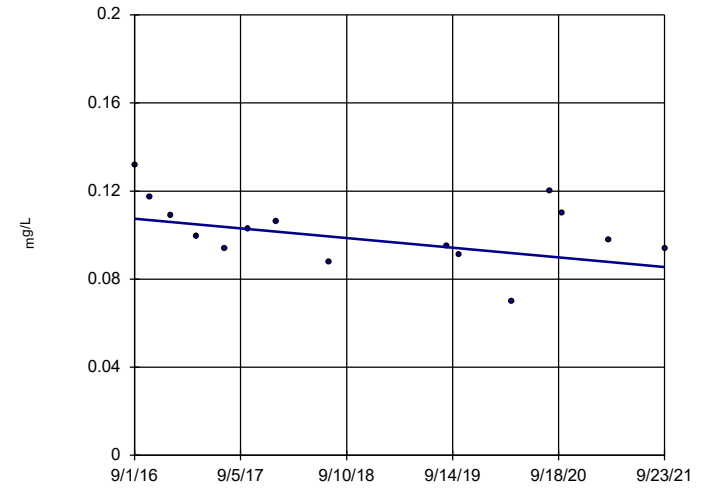


n = 15  
 Slope = -0.03266  
 units per year.  
 Mann-Kendall  
 statistic = -76  
 critical = -53  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Molybdenum Analysis Run 11/21/2021 11:06 AM View: Trend Tests - Confidence Interval Ex  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWC-15

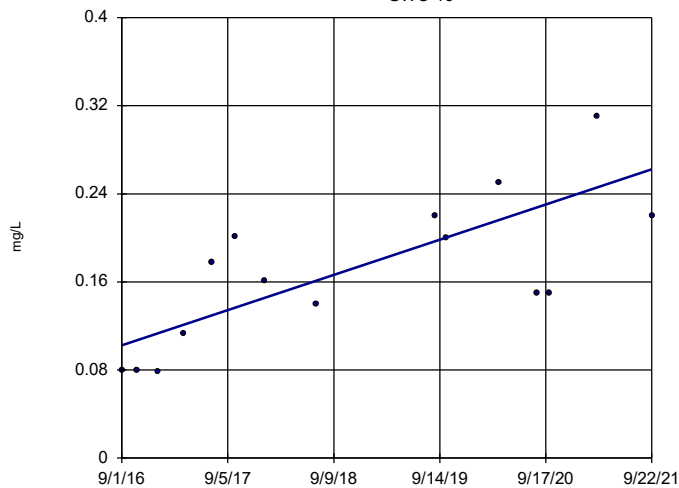


n = 15  
 Slope = -0.004337  
 units per year.  
 Mann-Kendall  
 statistic = -33  
 critical = -53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Molybdenum Analysis Run 11/21/2021 11:06 AM View: Trend Tests - Confidence Interval Ex  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWC-16

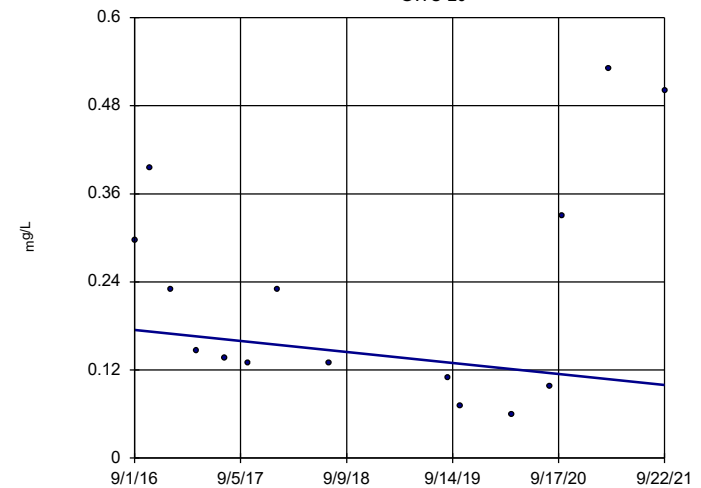


n = 15  
 Slope = 0.03158  
 units per year.  
 Mann-Kendall  
 statistic = 56  
 critical = 53  
 Increasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Molybdenum Analysis Run 11/21/2021 11:06 AM View: Trend Tests - Confidence Interval Ex  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWC-20

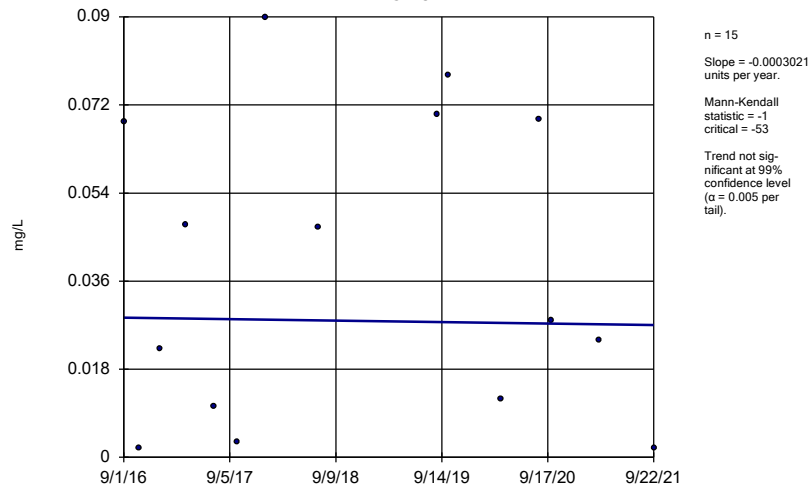


n = 15  
 Slope = -0.01481  
 units per year.  
 Mann-Kendall  
 statistic = -17  
 critical = -53  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Molybdenum Analysis Run 11/21/2021 11:06 AM View: Trend Tests - Confidence Interval Ex  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWC-21



Constituent: Molybdenum Analysis Run 11/21/2021 11:06 AM View: Trend Tests - Confidence Interval Ex  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

## APPENDIX D

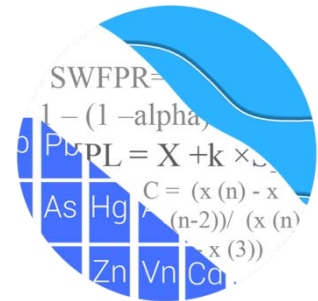
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*Statistical Analysis Report  
February 2022 Monitoring Event*

## GROUNDWATER STATS CONSULTING

July 29, 2022

Southern Company Services  
Attn: Ms. Kristen Jurinko  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, Georgia 30308



Re: Plant Kraft's Grumman Road Landfill  
Statistical Analysis – January/February 2022 Sample Event

Dear Ms. Jurinko,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the groundwater statistical analysis of the January/February 2022 sample event for Georgia Power Company's Plant Kraft's Grumman Road Landfill. The analysis complies with the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10 and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began for the Coal Combustion Residuals (CCR) program in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. Semi-annual sampling of the majority of Appendix IV constituents has been performed at most wells for several years in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** GWA-7 and GWA-8
- **Downgradient wells:** GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-2, GWC-9, GWC-11, GWC-12, GWC-13, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20, GWC-21, and GWC-22
- **Delineation wells:** MW-23D, MW-24D, MW-25D, MW-26D, and MW-27D

Delineation wells were installed in late 2020 and were first sampled in early 2021 for all constituents except mercury, which was first sampled in September 2021. These delineation wells currently have limited samples available; however, data are evaluated with confidence intervals for well/constituent pairs when a minimum of four observations are available.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Kristina Rayner, Founder and Senior Statistician to Groundwater Stats Consulting.

The program monitors the constituents listed below. Georgia EPD Appendix II and CCR Appendix IV constituents overlap with the exception of vanadium and zinc, which are required for Georgia EPD. The terms “parameters” and “constituents” are used interchangeably throughout.

- **Georgia EPD Appendix I** (Detection Monitoring) – antimony, arsenic, barium, chromium, lead, selenium, vanadium, and zinc
- **CCR Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Georgia EPD Appendix II/CCR Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, vanadium, and zinc

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of well/constituent pairs containing 100% non-detects follows this letter.

Time series plots for all parameters at each well are provided for the purpose of screening data at these wells (Figure A). Additionally, time series plots of all parameters at upgradient wells are included to more easily display concentrations upgradient of the facility (Figure A). A separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

Due to varying detection limits in background data sets as a result of improved laboratory practices, a substitution of the most recent reporting limit is used for all non-detects. Of



particular note is the reporting limits for metals at upgradient well GWA-7. Due to higher dilutions needed for some metal analyses for this well, the reporting limits may vary between sampling events and are sometimes considerably higher than corresponding reporting limits for other wells. In the case of cobalt, a high reporting limit of 0.025 mg/L was reported for well GWA-7, but a reporting limit of 0.005 mg/L was substituted in order to maintain conservative (i.e., lower) statistical limits. On the other hand, some detected observations are recorded at extremely low concentrations, below the MCL of 0.005 mg/L for arsenic, as an example. Therefore, the same reporting limit substitution is used for this well as for all other wells.

Data at all wells were originally evaluated during 2019 for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. However, interwell methods are currently implemented in accordance with the Georgia EPD regulations and are used to evaluate compliance samples in downgradient wells. Power curves were provided along with the previous screening and demonstrated that the selected statistical methods comply with the USEPA Unified Guidance. The EPA suggests that the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

## **Summary of Statistical Methods – Detection Monitoring**

### **Georgia EPD Appendix I Constituents:**

Semi-Annual Sampling

Interwell Prediction Limits with 1 of 2 resample plan

# Constituents Downgradient: 8

# Downgradient wells: 16

### **CCR Appendix III Constituents:**

Semi-Annual Sampling

Interwell Prediction Limits with 1 of 2 resample plan

# Constituents Downgradient: 7

# Downgradient wells: 16

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual rate of 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate

associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits, along with the following methodology for handling non-detects:

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory. Due to varying detection limits, the following substitution of 0.03 mg/L was made for lithium
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In some cases, an earlier portion of data may require deselection prior to construction of limits to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

## **Summary of Background Screening – Georgia EPD Appendix I Constituents – Conducted in August 2019**

### Outlier Testing

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells and parameters were formally tested using Tukey's box plot

method and, when identified, flagged in the computer database with “o” and deselected prior to construction of statistical limits.

Using the Tukey’s box plot method, several outliers were identified. A summary of those findings was submitted with the August 2019 report. As a general rule, when the most recent values are identified as outliers, values are not flagged in the database (except in cases where they would cause background limits to be elevated) as they may represent a possible trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory’s Practical Quantitation Limit. However, these values are observed trace values (i.e. measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

Additionally, values that were not identified by Tukey’s test but that are much higher than the remaining measurements were flagged as appropriate in order to obtain conservative prediction limits that are capable of detecting future changes. As mentioned above, when any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well.

### Seasonality

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

### Trend Testing

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen’s Slope/Mann Kendall trend test, which tests for statistically significant increasing or decreasing trends, was used to evaluate data at all upgradient wells and downgradient wells with detections.

In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to

determine whether earlier concentration levels are significantly different from current reported concentrations and will be deselected as necessary. This step would apply to upgradient wells GWA-7 and GWA-8 only since pooled data from these wells are used to construct interwell prediction limits. While this was not required, when any records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits. A summary of the trend analyses was submitted with the screening report.

### Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells for constituents detected in downgradient wells. The ANOVA assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells are not representative of the current background data population; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified significant differences among upgradient well data for all constituents which would suggest intrawell methods as the most appropriate statistical method. However, interwell methods are currently constructed in accordance with the Georgia EPD regulations and are used to evaluate compliance samples in downgradient wells.

## **Summary of Background Screening – CCR Appendices III and IV Parameters – Conducted in March 2019**

### Outlier and Trend Testing

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey box plot method, several outliers were identified. A summary of those findings was included with the screening report. When the most recent values are

identified as outliers, values were not flagged in the database at this time (except in cases where they would cause background limits to be elevated) as they may represent a possible trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory's Practical Quantitation Limit. However, these values are observed trace values (i.e., measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

Of the outliers identified by Tukey's method, several values were flagged in the database, and the remaining values were similar to other measurements within a given well or neighboring wells or were reported non-detects. A summary of all flagged values follows this letter (Figure C).

### Seasonality

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

### Trend Tests

The results of the Sen's Slope/Mann Kendall trend analyses showed a number of statistically significant increasing and decreasing trends for the Appendix III parameters. Most of the statistically significant trends identified, particularly those in upgradient wells GWA-7 and GWA-8 from which data are used in construction of the interwell prediction limits, were relatively low in magnitude when compared to average concentrations. Also, the background period was short in 2019, making it difficult to determine whether an apparent trend represents a long-term change or simply normal year-to-year variation; therefore, no adjustments were made to the data sets.

### Appendix III – Determination of Spatial Variation

The ANOVA identified no variation among upgradient well data for fluoride, making interwell analyses the most appropriate statistical method for this constituent. Variation was noted for boron, calcium, chloride, pH, sulfate, and TDS which suggests the use of intrawell methods as the most appropriate statistical method. However, interwell methods

are currently constructed in accordance with the Georgia EPD regulations and are used to evaluate compliance samples in downgradient wells.

### **Statistical Analysis of Georgia EPD Appendix I Constituents – January/February 2022**

All Appendix I parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. No new values were flagged as shown in the outlier summary following this report (Figure C).

#### Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed from carefully screened pooled upgradient well data through February 2022 for antimony, arsenic, barium, chromium, lead, selenium, vanadium, and zinc (Figure D). The January/February 2022 sample at each downgradient well is compared to these background limits.

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result, and therefore, no further action is necessary. If no resample is collected, the initial exceedance is automatically confirmed. A summary table and complete graphical results of the interwell prediction limits follow this letter and include a list of exceedances. Exceedances were identified for the following well/constituent pairs:

- Arsenic: GWC-15, GWC-16, and GWC-20
- Barium: GWC-16, GWC-20, and GWC-21

#### Trend Tests – Appendix I Exceedances

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient well data are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. When trends are present in upgradient wells it is an indication of natural variability

in groundwater quality unrelated to practices at the site. Statistically significant trends were noted for the following well/constituent pairs:

Increasing Trends:

- Arsenic: GWC-15
- Barium: GWC-16 and GWC-20

Decreasing Trends:

- Arsenic: GWA-7, GWA-8 (both upgradient), and GWC-16
- Barium: GWA-8 (upgradient)

Note that while the trend test identified statistically significant decreasing trends for arsenic in upgradient wells GWA-7 and GWA-8, the slopes are displayed as zero which represents the median slopes of all the possible pairwise slopes. The zero median slopes result from the large number of non-detects in the record, and the negative test statistics result from a few trace values being recorded in the latter part of the records. Both a summary and complete graphical presentation of the trend test results follow this letter.

### **Statistical Analysis of CCR Appendix III Parameters – January/February 2022**

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. No new values were flagged as shown in the outlier summary following this report (Figure C).

#### Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using pooled upgradient well data through February 2022 to develop background limits for boron, calcium, chloride, fluoride, pH, sulfate and TDS (Figure F). In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no further action is necessary. The February 2022 sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs). Summary tables of the prediction limits follow this letter. Exceedances were identified for the following well/constituent pairs:

- Calcium: GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, GWC-12, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20, and GWC-21
- Chloride: GWC-17
- Fluoride: GWC-17
- pH: GWC-12 (lower limit) and GWC-15 (upper limit)
- Sulfate: GWB-4R, GWB-5R, GWB-6R, GWC-11, GWC-12, GWC-14, GWC-16, GWC-17, GWC-20, and GWC-21

### Trend Tests – Appendix III Exceedances

Data from downgradient well/constituent pairs found to exceed their respective prediction limit were further evaluated using the Sen’s Slope/Mann Kendall trend test along with upgradient wells for the same constituents (Figure G). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Such patterns are an indication of natural variability in groundwater unrelated to practices at the site. Statistically significant trends were noted for the following well/constituent pairs:

#### Increasing trends:

- Calcium: GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, and GWC-16
- Sulfate: GWB-5R, GWB-6R, GWC-11, and GWC-16

#### Decreasing trends:

- Calcium: GWA-7 (upgradient) and GWC-12
- Chloride: GWA-7 (upgradient)
- pH: GWA-7 (upgradient)
- Sulfate: GWA-7, GWA-8 (both upgradient), and GWC-12

### **Statistical Analysis of Georgia EPD Appendix II and CCR Appendix IV – January/February 2022**

For Appendix II and IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs containing 100% non-detects do not require analysis. Data from upgradient wells for Appendix II and IV parameters are reassessed for outliers during each analysis. Historically high values for combined radium 226 + 228 were flagged in order to construct statistical limits that are conservative (i.e., lower) from a regulatory perspective and are more representative of present-day groundwater quality conditions. A summary of flagged outliers follows this report (Figure C).



## Interwell Upper Tolerance Limits

Interwell upper tolerance limits (UTLs) are calculated using Sanitas software, from all historical pooled upgradient well data for Appendix II and IV constituents (Figure H). The UTLs serve as site-specific background limits for each constituent. Parametric tolerance limits are used when data follow a normal or transformed-normal distribution, i.e. fluoride. When data contain greater than 50% non-detects or do not follow a normal or transformed-normal distribution, non-parametric tolerance limits are used.

## Groundwater Protection Standards

The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a). On July 30, 2018, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, the GWPS is:

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, Federal and State CCR Rules specify levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix II and IV constituents for this sample event (Figure I).

## Confidence Intervals

To complete the statistical comparison of current sampling data to GWPS, confidence intervals were constructed using Sanitas software using data from 2016 through the present for each of the Appendix II and IV constituents in each downgradient well (Figure J). As mentioned above, any well/constituent pairs containing 100% non-detects since 2016 were not required for statistical analyses. The confidence intervals were then compared to the GWPS as described above. Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level

(SSL) exceedance is identified. A summary of the confidence intervals follows this letter and exceedances were identified for the following well/constituent pairs:

- Arsenic: GWC-15, GWC-16, and GWC-20
- Molybdenum: GWC-16 and GWC-20

#### Trend Test Evaluation – Appendix IV

Data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure K). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient trends, it is an indication of natural variability in groundwater quality unrelated to practices at the site. A summary of the Appendix IV trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing trends:

- Arsenic: GWC-15
- Molybdenum: GWC-16

Decreasing trends:

- None

### **SUMMARY**

Based on the statistical analyses described in this letter, the following statistical exceedances were noted:

#### **Prediction Limits (Detection Monitoring Parameters)**

##### **Georgia EPD Appendix I:**

- Arsenic: GWC-15, GWC-16, and GWC-20
- Barium: GWC-16, GWC-20, and GWC-21

##### **CCR Appendix III:**

- Calcium: GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, GWC-12, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20, and GWC-21
- Chloride: GWC-17
- Fluoride: GWC-17

- pH: GWC-12 (lower limit) and GWC-15 (upper limit)
- Sulfate: GWB-4R, GWB-5R, GWB-6R, GWC-11, GWC-12, GWC-14, GWC-16, GWC-17, GWC-20, and GWC-21

**Confidence Intervals (Assessment Monitoring Parameters)**

**Georgia EPD Appendix II and CCR Appendix IV:**

- Arsenic: GWC-15, GWC-16, and GWC-20
- Molybdenum: GWC-16 and GWC-20

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Kraft's Grumman Road Landfill. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Andrew Collins  
Project Manager



Kristina Rayner  
Senior Statistician

# 100% Non-Detects: Appendix I Downgradient

Analysis Run 4/13/2022 2:03 PM View: Appendix I

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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Arsenic (mg/L)  
GWC-11

Selenium (mg/L)  
GWC-13

# 100% Non-Detects: Appendix II & IV Downgradient & Delineation

Analysis Run 4/13/2022 3:07 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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Antimony (mg/L)

GWC-14, GWC-16, MW-23D, MW-24D, MW-25D, MW-26D, MW-27D

Arsenic (mg/L)

GWC-11, MW-23D, MW-24D

Beryllium (mg/L)

GWC-1, GWC-15, GWC-20, GWC-21, MW-23D, MW-24D

Cadmium (mg/L)

GWB-5R, GWB-6R, GWC-12, GWC-13, GWC-15, GWC-16, GWC-17, GWC-2, GWC-21, GWC-9, MW-24D

Chromium (mg/L)

MW-23D

Cobalt (mg/L)

GWC-1, GWC-13, GWC-15, GWC-16, GWC-20, GWC-21, MW-23D, MW-24D, MW-25D, MW-26D, MW-27D

Fluoride (mg/L)

GWC-11, MW-23D, MW-24D, MW-26D, MW-27D

Lithium (mg/L)

GWB-6R, GWC-1, GWC-11, GWC-14, GWC-15, GWC-16, GWC-2, GWC-20, GWC-21, GWC-22, MW-23D, MW-24D, MW-25D, MW-26D, MW-27D

Molybdenum (mg/L)

GWC-12, GWC-2, GWC-22, GWC-9, MW-23D, MW-26D, MW-27D

Selenium (mg/L)

GWC-13, GWC-9, MW-23D, MW-24D, MW-25D, MW-26D, MW-27D

Thallium (mg/L)

GWB-6R, GWC-13, GWC-15, GWC-20, GWC-9, MW-23D, MW-24D, MW-25D, MW-26D, MW-27D

Vanadium (mg/L)

MW-23D, MW-24D, MW-26D

# Appendix I Interwell Prediction Limits - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:07 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Arsenic (mg/L)	GWC-15	0.0287	n/a	2/3/2022	0.23	Yes	125	n/a	n/a	n/a	77.6	n/a	n/a	0.0001254 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-16	0.0287	n/a	2/1/2022	0.095	Yes	125	n/a	n/a	n/a	77.6	n/a	n/a	0.0001254 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-20	0.0287	n/a	2/1/2022	0.22	Yes	125	n/a	n/a	n/a	77.6	n/a	n/a	0.0001254 NP Inter (NDs) 1 of 2
Barium (mg/L)	GWC-16	0.22	n/a	2/1/2022	0.23	Yes	123	n/a	n/a	n/a	0	n/a	n/a	0.0001289 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-20	0.22	n/a	2/1/2022	0.36	Yes	123	n/a	n/a	n/a	0	n/a	n/a	0.0001289 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-21	0.22	n/a	2/1/2022	0.24	Yes	123	n/a	n/a	n/a	0	n/a	n/a	0.0001289 NP Inter (normality) 1 of 2

# Appendix I Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:07 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig. Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GWB-4R	0.003	n/a	2/2/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWB-5R	0.003	n/a	2/3/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWB-6R	0.003	n/a	2/2/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-1	0.003	n/a	2/3/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-11	0.003	n/a	2/3/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-12	0.003	n/a	2/3/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-13	0.003	n/a	2/3/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-14	0.003	n/a	2/2/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-15	0.003	n/a	2/3/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-16	0.003	n/a	2/1/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-17	0.003	n/a	2/1/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-2	0.003	n/a	2/2/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-20	0.003	n/a	2/1/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-21	0.003	n/a	2/1/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-22	0.003	n/a	2/3/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-9	0.003	n/a	2/2/2022	0.003ND	No	125	n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-4R	0.0287	n/a	2/2/2022	0.0036J	No	125	n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-5R	0.0287	n/a	2/3/2022	0.0029J	No	125	n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-6R	0.0287	n/a	2/2/2022	0.01	No	125	n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-1	0.0287	n/a	2/3/2022	0.0057	No	125	n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-12	0.0287	n/a	2/3/2022	0.0016J	No	125	n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-13	0.0287	n/a	2/3/2022	0.0025J	No	125	n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-14	0.0287	n/a	2/2/2022	0.0036J	No	125	n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.0287</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>0.23</b>	<b>Yes</b>	<b>125</b>	<b>n/a</b>	<b>n/a</b>	<b>77.6</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001254</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Arsenic (mg/L)</b>	<b>GWC-16</b>	<b>0.0287</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>0.095</b>	<b>Yes</b>	<b>125</b>	<b>n/a</b>	<b>n/a</b>	<b>77.6</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001254</b>	<b>NP Inter (NDs) 1 of 2</b>
Arsenic (mg/L)	GWC-17	0.0287	n/a	2/1/2022	0.005ND	No	125	n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-2	0.0287	n/a	2/2/2022	0.005ND	No	125	n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
<b>Arsenic (mg/L)</b>	<b>GWC-20</b>	<b>0.0287</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>0.22</b>	<b>Yes</b>	<b>125</b>	<b>n/a</b>	<b>n/a</b>	<b>77.6</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001254</b>	<b>NP Inter (NDs) 1 of 2</b>
Arsenic (mg/L)	GWC-21	0.0287	n/a	2/1/2022	0.02	No	125	n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-22	0.0287	n/a	2/3/2022	0.005ND	No	125	n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-9	0.0287	n/a	2/2/2022	0.005ND	No	125	n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Barium (mg/L)	GWB-4R	0.22	n/a	2/2/2022	0.17	No	123	n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWB-5R	0.22	n/a	2/3/2022	0.062	No	123	n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWB-6R	0.22	n/a	2/2/2022	0.026	No	123	n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-1	0.22	n/a	2/3/2022	0.051	No	123	n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-11	0.22	n/a	2/3/2022	0.17	No	123	n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-12	0.22	n/a	2/3/2022	0.025	No	123	n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-13	0.22	n/a	2/3/2022	0.038	No	123	n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-14	0.22	n/a	2/2/2022	0.1	No	123	n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-15	0.22	n/a	2/3/2022	0.061	No	123	n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
<b>Barium (mg/L)</b>	<b>GWC-16</b>	<b>0.22</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>0.23</b>	<b>Yes</b>	<b>123</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001289</b>	<b>NP Inter (normality) 1 of 2</b>
Barium (mg/L)	GWC-17	0.22	n/a	2/1/2022	0.055	No	123	n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-2	0.22	n/a	2/2/2022	0.052	No	123	n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
<b>Barium (mg/L)</b>	<b>GWC-20</b>	<b>0.22</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>0.36</b>	<b>Yes</b>	<b>123</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001289</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Barium (mg/L)</b>	<b>GWC-21</b>	<b>0.22</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>0.24</b>	<b>Yes</b>	<b>123</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001289</b>	<b>NP Inter (normality) 1 of 2</b>
Barium (mg/L)	GWC-22	0.22	n/a	2/3/2022	0.038	No	123	n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-9	0.22	n/a	2/2/2022	0.15	No	123	n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Chromium (mg/L)	GWB-4R	0.068	n/a	2/2/2022	0.003J	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWB-5R	0.068	n/a	2/3/2022	0.0014J	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWB-6R	0.068	n/a	2/2/2022	0.0033J	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-1	0.068	n/a	2/3/2022	0.0019J	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-11	0.068	n/a	2/3/2022	0.0011J	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-12	0.068	n/a	2/3/2022	0.0018J	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-13	0.068	n/a	2/3/2022	0.005ND	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-14	0.068	n/a	2/2/2022	0.005ND	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2

# Appendix I Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:07 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig. Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chromium (mg/L)	GWC-15	0.068	n/a	2/3/2022	0.0016J	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-16	0.068	n/a	2/1/2022	0.005ND	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-17	0.068	n/a	2/1/2022	0.0014J	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-2	0.068	n/a	2/2/2022	0.005ND	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-20	0.068	n/a	2/1/2022	0.0036J	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-21	0.068	n/a	2/1/2022	0.005ND	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-22	0.068	n/a	2/3/2022	0.005ND	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-9	0.068	n/a	2/2/2022	0.0012J	No	124	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-4R	0.013	n/a	2/2/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-5R	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-6R	0.013	n/a	2/2/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-1	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-11	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-12	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-13	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-14	0.013	n/a	2/2/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-15	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-16	0.013	n/a	2/1/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-17	0.013	n/a	2/1/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-2	0.013	n/a	2/2/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-20	0.013	n/a	2/1/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-21	0.013	n/a	2/1/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-22	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-9	0.013	n/a	2/2/2022	0.001ND	No	121	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-4R	0.0438	n/a	2/2/2022	0.005ND	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-5R	0.0438	n/a	2/3/2022	0.005ND	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-6R	0.0438	n/a	2/2/2022	0.0017J	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-1	0.0438	n/a	2/3/2022	0.0022J	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-11	0.0438	n/a	2/3/2022	0.019	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-12	0.0438	n/a	2/3/2022	0.005ND	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-14	0.0438	n/a	2/2/2022	0.0038J	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-15	0.0438	n/a	2/3/2022	0.0031J	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-16	0.0438	n/a	2/1/2022	0.0024J	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-17	0.0438	n/a	2/1/2022	0.005ND	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-2	0.0438	n/a	2/2/2022	0.005ND	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-20	0.0438	n/a	2/1/2022	0.005ND	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-21	0.0438	n/a	2/1/2022	0.0054	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-22	0.0438	n/a	2/3/2022	0.005ND	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-9	0.0438	n/a	2/2/2022	0.005ND	No	125	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-4R	0.425	n/a	2/2/2022	0.0031J	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-5R	0.425	n/a	2/3/2022	0.0046J	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-6R	0.425	n/a	2/2/2022	0.0099J	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-1	0.425	n/a	2/3/2022	0.0028J	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-11	0.425	n/a	2/3/2022	0.0031J	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-12	0.425	n/a	2/3/2022	0.0052J	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-13	0.425	n/a	2/3/2022	0.01ND	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-14	0.425	n/a	2/2/2022	0.004J	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-15	0.425	n/a	2/3/2022	0.0023J	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-16	0.425	n/a	2/1/2022	0.0021J	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-17	0.425	n/a	2/1/2022	0.0022J	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-2	0.425	n/a	2/2/2022	0.01ND	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-20	0.425	n/a	2/1/2022	0.0039J	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-21	0.425	n/a	2/1/2022	0.0036J	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-22	0.425	n/a	2/3/2022	0.01ND	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-9	0.425	n/a	2/2/2022	0.01ND	No	119	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2



# Appendix I Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:07 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Zinc (mg/L)	GWB-4R	0.16	n/a	2/2/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWB-5R	0.16	n/a	2/3/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWB-6R	0.16	n/a	2/2/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-1	0.16	n/a	2/3/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-11	0.16	n/a	2/3/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-12	0.16	n/a	2/3/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-13	0.16	n/a	2/3/2022	0.037	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-14	0.16	n/a	2/2/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-15	0.16	n/a	2/3/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-16	0.16	n/a	2/1/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-17	0.16	n/a	2/1/2022	0.011	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-2	0.16	n/a	2/2/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-20	0.16	n/a	2/1/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-21	0.16	n/a	2/1/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-22	0.16	n/a	2/3/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-9	0.16	n/a	2/2/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2

# Appendix I Trend Tests - Prediction Limit Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:11 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWA-7 (bg)	0	-3.792	-2.58	Yes	52	57.69	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	-2.899	-2.58	Yes	73	91.78	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-15	0.004915	8.212	2.58	Yes	53	47.17	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-16	-0.001082	-2.68	-2.58	Yes	72	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWA-8 (bg)	-0.002919	-8.887	-2.58	Yes	72	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWC-16	0.001647	3.607	2.58	Yes	69	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWC-20	0.01405	306	161	Yes	32	0	n/a	n/a	0.01	NP

# Appendix I Trend Tests - Prediction Limit Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:11 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Arsenic (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>0</b>	<b>-3.792</b>	<b>-2.58</b>	<b>Yes</b>	<b>52</b>	<b>57.69</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>GWA-8 (bg)</b>	<b>0</b>	<b>-2.899</b>	<b>-2.58</b>	<b>Yes</b>	<b>73</b>	<b>91.78</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.004915</b>	<b>8.212</b>	<b>2.58</b>	<b>Yes</b>	<b>53</b>	<b>47.17</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>GWC-16</b>	<b>-0.001082</b>	<b>-2.68</b>	<b>-2.58</b>	<b>Yes</b>	<b>72</b>	<b>0</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
Arsenic (mg/L)	GWC-20	0.006766	88	161	No	32	3.125	<i>n/a</i>	<i>n/a</i>	0.01	NP
Barium (mg/L)	GWA-7 (bg)	-0.0004935	-0.5778	-2.58	No	51	0	<i>n/a</i>	<i>n/a</i>	0.01	NP
<b>Barium (mg/L)</b>	<b>GWA-8 (bg)</b>	<b>-0.002919</b>	<b>-8.887</b>	<b>-2.58</b>	<b>Yes</b>	<b>72</b>	<b>0</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
<b>Barium (mg/L)</b>	<b>GWC-16</b>	<b>0.001647</b>	<b>3.607</b>	<b>2.58</b>	<b>Yes</b>	<b>69</b>	<b>0</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
<b>Barium (mg/L)</b>	<b>GWC-20</b>	<b>0.01405</b>	<b>306</b>	<b>161</b>	<b>Yes</b>	<b>32</b>	<b>0</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
Barium (mg/L)	GWC-21	-0.002852	-80	-152	No	31	0	<i>n/a</i>	<i>n/a</i>	0.01	NP

# Appendix III Interwell Prediction Limits - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:21 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Calcium (mg/L)	GWB-4R	35.8	n/a	2/2/2022	98.2	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-5R	35.8	n/a	2/3/2022	130	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-6R	35.8	n/a	2/2/2022	293	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1	35.8	n/a	2/3/2022	58.2	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-11	35.8	n/a	2/3/2022	65.4	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-12	35.8	n/a	2/3/2022	63.7	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-14	35.8	n/a	2/2/2022	245	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-15	35.8	n/a	2/3/2022	144	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-16	35.8	n/a	2/1/2022	267	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-17	35.8	n/a	2/1/2022	90.8	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-20	35.8	n/a	2/1/2022	259	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-21	35.8	n/a	2/1/2022	125	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-17	260	n/a	2/1/2022	549	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWC-17	0.4391	n/a	2/1/2022	0.68	Yes	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
pH (SU)	GWC-12	6.43	4.23	2/3/2022	4.04	Yes	34	n/a	n/a	n/a	0	n/a	n/a	0.002907 NP Inter (normality) 1 of 2
pH (SU)	GWC-15	6.43	4.23	2/3/2022	6.61	Yes	34	n/a	n/a	n/a	0	n/a	n/a	0.002907 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-4R	160	n/a	2/2/2022	338	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-5R	160	n/a	2/3/2022	797	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-6R	160	n/a	2/2/2022	1460	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-11	160	n/a	2/3/2022	347	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-12	160	n/a	2/3/2022	333	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-14	160	n/a	2/2/2022	589	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-16	160	n/a	2/1/2022	1010	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-17	160	n/a	2/1/2022	416	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-20	160	n/a	2/1/2022	862	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-21	160	n/a	2/1/2022	374	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2

# Appendix III Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:21 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsrv.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWB-4R	21.8	n/a	2/2/2022	6.2	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-5R	21.8	n/a	2/3/2022	4.9	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-6R	21.8	n/a	2/2/2022	6.2	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-1	21.8	n/a	2/3/2022	0.59	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-11	21.8	n/a	2/3/2022	0.1	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-12	21.8	n/a	2/3/2022	7.5	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-13	21.8	n/a	2/3/2022	0.37	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-14	21.8	n/a	2/2/2022	0.044	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-15	21.8	n/a	2/3/2022	0.71	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-16	21.8	n/a	2/1/2022	16	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-17	21.8	n/a	2/1/2022	1.8	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-2	21.8	n/a	2/2/2022	0.023J	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-20	21.8	n/a	2/1/2022	15.7	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-21	21.8	n/a	2/1/2022	4.4	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-22	21.8	n/a	2/3/2022	0.18	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-9	21.8	n/a	2/2/2022	0.011J	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWB-4R</b>	<b>35.8</b>	<b>n/a</b>	<b>2/2/2022</b>	<b>98.2</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWB-5R</b>	<b>35.8</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>130</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWB-6R</b>	<b>35.8</b>	<b>n/a</b>	<b>2/2/2022</b>	<b>293</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-1</b>	<b>35.8</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>58.2</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-11</b>	<b>35.8</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>65.4</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-12</b>	<b>35.8</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>63.7</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-13	35.8	n/a	2/3/2022	2.7	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-14</b>	<b>35.8</b>	<b>n/a</b>	<b>2/2/2022</b>	<b>245</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-15</b>	<b>35.8</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>144</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-16</b>	<b>35.8</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>267</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-17</b>	<b>35.8</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>90.8</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-2	35.8	n/a	2/2/2022	0.16J	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-20</b>	<b>35.8</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>259</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-21</b>	<b>35.8</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>125</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-22	35.8	n/a	2/3/2022	14.6	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-9	35.8	n/a	2/2/2022	4.6	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-4R	260	n/a	2/2/2022	14.5	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-5R	260	n/a	2/3/2022	38.5	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-6R	260	n/a	2/2/2022	42.3	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-1	260	n/a	2/3/2022	8	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-11	260	n/a	2/3/2022	83.4	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-12	260	n/a	2/3/2022	57	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-13	260	n/a	2/3/2022	8.8	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-14	260	n/a	2/2/2022	29.6	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-15	260	n/a	2/3/2022	5.1	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-16	260	n/a	2/1/2022	61.5	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
<b>Chloride (mg/L)</b>	<b>GWC-17</b>	<b>260</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>549</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	GWC-2	260	n/a	2/2/2022	6.9	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-20	260	n/a	2/1/2022	33.4	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-21	260	n/a	2/1/2022	29.3	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-22	260	n/a	2/3/2022	10.8	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-9	260	n/a	2/2/2022	17.5	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWB-4R	0.4391	n/a	2/2/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWB-5R	0.4391	n/a	2/3/2022	0.081J	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWB-6R	0.4391	n/a	2/2/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-1	0.4391	n/a	2/3/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-11	0.4391	n/a	2/3/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-12	0.4391	n/a	2/3/2022	0.36	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-13	0.4391	n/a	2/3/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-14	0.4391	n/a	2/2/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	

# Appendix III Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:21 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	GWC-15	0.4391	n/a	2/3/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-16	0.4391	n/a	2/1/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
<b>Fluoride (mg/L)</b>	<b>GWC-17</b>	<b>0.4391</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>0.68</b>	<b>Yes</b>	<b>36</b>	<b>-2.301</b>	<b>0.667</b>	<b>25</b>	<b>Kaplan-Meier</b>	<b>ln(x)</b>	<b>0.0004702</b>	<b>Param Inter 1 of 2</b>	
Fluoride (mg/L)	GWC-2	0.4391	n/a	2/2/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-20	0.4391	n/a	2/1/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-21	0.4391	n/a	2/1/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-22	0.4391	n/a	2/3/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-9	0.4391	n/a	2/2/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
pH (SU)	GWB-4R	6.43	4.23	2/2/2022	5.71	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
pH (SU)	GWB-5R	6.43	4.23	2/3/2022	4.48	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
pH (SU)	GWB-6R	6.43	4.23	2/2/2022	5.75	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
pH (SU)	GWC-1	6.43	4.23	2/3/2022	5.89	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
pH (SU)	GWC-11	6.43	4.23	2/3/2022	4.98	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
<b>pH (SU)</b>	<b>GWC-12</b>	<b>6.43</b>	<b>4.23</b>	<b>2/3/2022</b>	<b>4.04</b>	<b>Yes</b>	<b>34</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002907</b>	<b>NP Inter (normality) 1 of 2</b>	
pH (SU)	GWC-13	6.43	4.23	2/3/2022	4.97	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
pH (SU)	GWC-14	6.43	4.23	2/2/2022	5.98	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
<b>pH (SU)</b>	<b>GWC-15</b>	<b>6.43</b>	<b>4.23</b>	<b>2/3/2022</b>	<b>6.61</b>	<b>Yes</b>	<b>34</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002907</b>	<b>NP Inter (normality) 1 of 2</b>	
pH (SU)	GWC-16	6.43	4.23	2/1/2022	5.57	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
pH (SU)	GWC-17	6.43	4.23	2/1/2022	4.53	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
pH (SU)	GWC-2	6.43	4.23	2/2/2022	4.79	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
pH (SU)	GWC-20	6.43	4.23	2/1/2022	5.9	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
pH (SU)	GWC-21	6.43	4.23	2/1/2022	5.76	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
pH (SU)	GWC-22	6.43	4.23	2/3/2022	4.63	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
pH (SU)	GWC-9	6.43	4.23	2/2/2022	4.66	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2	
<b>Sulfate (mg/L)</b>	<b>GWB-4R</b>	<b>160</b>	<b>n/a</b>	<b>2/2/2022</b>	<b>338</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>	
<b>Sulfate (mg/L)</b>	<b>GWB-5R</b>	<b>160</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>797</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>	
<b>Sulfate (mg/L)</b>	<b>GWB-6R</b>	<b>160</b>	<b>n/a</b>	<b>2/2/2022</b>	<b>1460</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>	
Sulfate (mg/L)	GWC-1	160	n/a	2/3/2022	49.2	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
<b>Sulfate (mg/L)</b>	<b>GWC-11</b>	<b>160</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>347</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>	
<b>Sulfate (mg/L)</b>	<b>GWC-12</b>	<b>160</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>333</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>	
Sulfate (mg/L)	GWC-13	160	n/a	2/3/2022	32.1	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
<b>Sulfate (mg/L)</b>	<b>GWC-14</b>	<b>160</b>	<b>n/a</b>	<b>2/2/2022</b>	<b>589</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>	
Sulfate (mg/L)	GWC-15	160	n/a	2/3/2022	102	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
<b>Sulfate (mg/L)</b>	<b>GWC-16</b>	<b>160</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>1010</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>	
<b>Sulfate (mg/L)</b>	<b>GWC-17</b>	<b>160</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>416</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>	
Sulfate (mg/L)	GWC-2	160	n/a	2/2/2022	9	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
<b>Sulfate (mg/L)</b>	<b>GWC-20</b>	<b>160</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>862</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>	
<b>Sulfate (mg/L)</b>	<b>GWC-21</b>	<b>160</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>374</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>	
Sulfate (mg/L)	GWC-22	160	n/a	2/3/2022	46.2	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	GWC-9	160	n/a	2/2/2022	31.5	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWB-4R	3660	n/a	2/2/2022	654	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWB-5R	3660	n/a	2/3/2022	1240	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWB-6R	3660	n/a	2/2/2022	2440	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWC-1	3660	n/a	2/3/2022	315	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWC-11	3660	n/a	2/3/2022	538	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWC-12	3660	n/a	2/3/2022	566	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWC-13	3660	n/a	2/3/2022	72	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWC-14	3660	n/a	2/2/2022	1130	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWC-15	3660	n/a	2/3/2022	516	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWC-16	3660	n/a	2/1/2022	1990	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWC-17	3660	n/a	2/1/2022	1580	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWC-2	3660	n/a	2/2/2022	43	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWC-20	3660	n/a	2/1/2022	1580	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWC-21	3660	n/a	2/1/2022	783	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWC-22	3660	n/a	2/3/2022	89	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	GWC-9	3660	n/a	2/2/2022	96	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2	

# Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:27 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	GWA-7 (bg)	-0.7049	-89	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-4R	14.64	74	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-5R	12.87	77	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-6R	3.681	71	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-1	7.538	78	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-11	17.66	78	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-12	-12.48	-92	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-16	27.28	78	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-7 (bg)	-23.13	-75	-58	Yes	16	0	n/a	n/a	0.01	NP
pH (SU)	GWA-7 (bg)	-0.05633	-71	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-7 (bg)	-4.311	-62	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-8 (bg)	-9.36	-60	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-5R	60.14	64	58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-6R	81.33	84	58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-11	87.44	72	58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-12	-150.1	-88	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-16	109	72	58	Yes	16	0	n/a	n/a	0.01	NP

# Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:27 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Calcium (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-0.7049</b>	<b>-89</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GWA-8 (bg)	0.2497	3	58	No	16	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GWB-4R</b>	<b>14.64</b>	<b>74</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>GWB-5R</b>	<b>12.87</b>	<b>77</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>GWB-6R</b>	<b>3.681</b>	<b>71</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>GWC-1</b>	<b>7.538</b>	<b>78</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>GWC-11</b>	<b>17.66</b>	<b>78</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>GWC-12</b>	<b>-12.48</b>	<b>-92</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GWC-14	2.28	2	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-15	1.953	10	58	No	16	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GWC-16</b>	<b>27.28</b>	<b>78</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GWC-17	-5.074	-24	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-20	35.25	56	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-21	14.68	41	58	No	16	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-23.13</b>	<b>-75</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	GWA-8 (bg)	0	-1	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWC-17	-80.44	-41	-58	No	16	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-7 (bg)	0	-5	-68	No	18	33.33	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-8 (bg)	-0.01215	-65	-68	No	18	16.67	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWC-17	-0.1299	-53	-68	No	18	5.556	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>GWA-7 (bg)</b>	<b>-0.05633</b>	<b>-71</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH (SU)	GWA-8 (bg)	0.01437	18	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	GWC-12	0	0	68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	GWC-15	0.05228	36	63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-4.311</b>	<b>-62</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>GWA-8 (bg)</b>	<b>-9.36</b>	<b>-60</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWB-4R	0	2	58	No	16	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWB-5R</b>	<b>60.14</b>	<b>64</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>GWB-6R</b>	<b>81.33</b>	<b>84</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>GWC-11</b>	<b>87.44</b>	<b>72</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>GWC-12</b>	<b>-150.1</b>	<b>-88</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWC-14	-49.22	-30	-58	No	16	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWC-16</b>	<b>109</b>	<b>72</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWC-17	-14.68	-17	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-20	132.4	34	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-21	17.24	33	58	No	16	0	n/a	n/a	0.01	NP



# Upper Tolerance Limits Summary Table

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/18/2022, 4:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	125	n/a	n/a	95.2	n/a	n/a	0.001642	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0287	n/a	n/a	n/a	n/a	125	n/a	n/a	77.6	n/a	n/a	0.001642	NP Inter(NDs)
Barium (mg/L)	n/a	0.22	n/a	n/a	n/a	n/a	123	n/a	n/a	0	n/a	n/a	0.00182	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	45	n/a	n/a	51.11	n/a	n/a	0.09944	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0007	n/a	n/a	n/a	n/a	43	n/a	n/a	95.35	n/a	n/a	0.1102	NP Inter(NDs)
Chromium (mg/L)	n/a	0.068	n/a	n/a	n/a	n/a	124	n/a	n/a	62.1	n/a	n/a	0.001729	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0102	n/a	n/a	n/a	n/a	44	n/a	n/a	52.27	n/a	n/a	0.1047	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	12.78	n/a	n/a	n/a	n/a	29	1.981	0.7129	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.4224	n/a	n/a	n/a	n/a	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.05	Inter
Lead (mg/L)	n/a	0.013	n/a	n/a	n/a	n/a	121	n/a	n/a	76.03	n/a	n/a	0.002016	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	n/a	32	n/a	n/a	71.88	n/a	n/a	0.1937	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	n/a	26	n/a	n/a	80.77	n/a	n/a	0.2635	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	n/a	32	n/a	n/a	90.63	n/a	n/a	0.1937	NP Inter(NDs)
Selenium (mg/L)	n/a	0.0438	n/a	n/a	n/a	n/a	125	n/a	n/a	84	n/a	n/a	0.001642	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	64	n/a	n/a	93.75	n/a	n/a	0.03752	NP Inter(NDs)
Vanadium (mg/L)	n/a	0.425	n/a	n/a	n/a	n/a	119	n/a	n/a	63.03	n/a	n/a	0.002234	NP Inter(NDs)
Zinc (mg/L)	n/a	0.16	n/a	n/a	n/a	n/a	117	n/a	n/a	28.21	n/a	n/a	0.002475	NP Inter(normality)

<b>GRUMMAN ROAD LANDFILL GWPS</b>				
<b>Constituent Name</b>	<b>MCL</b>	<b>CCR-Rule Specified</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.029	0.029
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0007	0.005
Chromium, Total (mg/L)	0.1		0.068	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0102	0.0102
Combined Radium, Total (pCi/L)	5		12.78	12.78
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)	n/a	0.015	0.013	0.015
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.044	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002
Vanadium, Total (mg/L)	n/a		0.43	0.43
Zinc, Total (mg/L)	n/a		0.16	0.16

*\*Highlighted cells indicated Background is higher than MCLs*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residuals*

*\*GWPS = Groundwater Protection Standard*

# Confidence Intervals - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 5/17/2022, 3:05 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	GWC-15	0.169	0.07776	0.029	Yes	20	0.1234	0.08035	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-16	0.0814	0.06221	0.029	Yes	21	0.0718	0.01739	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-20	0.3509	0.2712	0.029	Yes	20	0.3111	0.07018	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-16	0.2115	0.1274	0.1	Yes	16	0.1695	0.0646	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-20	0.357	0.1282	0.1	Yes	16	0.26	0.2006	0	None	sqrt(x)	0.01	Param.

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 5/17/2022, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GWB-4R	0.003	0.0003	0.006	No	20	0.002865	0.0006037	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWB-5R	0.003	0.0013	0.006	No	20	0.002657	0.0008547	85	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWB-6R	0.003	0.00059	0.006	No	20	0.002744	0.0007895	90	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-1	0.003	0.0016	0.006	No	20	0.002563	0.0009235	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-11	0.003	0.0006	0.006	No	20	0.001803	0.001233	50	None	No	0.01	NP (normality)
Antimony (mg/L)	GWC-12	0.003	0.0003	0.006	No	20	0.002865	0.0006037	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-13	0.003	0.0006	0.006	No	20	0.00288	0.0005367	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-15	0.003	0.0018	0.006	No	20	0.00294	0.0002683	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-17	0.003	0.0014	0.006	No	20	0.00279	0.0006683	90	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-2	0.003	0.0016	0.006	No	20	0.002845	0.0004796	90	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-20	0.003	0.0019	0.006	No	20	0.002828	0.0005683	90	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-21	0.003	0.00033	0.006	No	20	0.002867	0.000597	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-22	0.003	0.0022	0.006	No	20	0.002507	0.0009543	75	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-9	0.003	0.0016	0.006	No	20	0.002797	0.0006594	90	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWB-4R	0.003197	0.001968	0.029	No	20	0.002582	0.001083	10	None	No	0.01	Param.
Arsenic (mg/L)	GWB-5R	0.00192	0.001006	0.029	No	20	0.002535	0.001771	25	Kaplan-Meier	x^(1/3)	0.01	Param.
Arsenic (mg/L)	GWB-6R	0.00382	0.001396	0.029	No	20	0.003541	0.002282	25	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	GWC-1	0.005225	0.002264	0.029	No	19	0.004716	0.005656	0	None	ln(x)	0.01	Param.
Arsenic (mg/L)	GWC-12	0.005	0.0016	0.029	No	20	0.004195	0.001661	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-13	0.005	0.0025	0.029	No	20	0.004434	0.001428	85	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-14	0.002873	0.001834	0.029	No	21	0.002501	0.001173	14.29	None	ln(x)	0.01	Param.
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.169</b>	<b>0.07776</b>	<b>0.029</b>	<b>Yes</b>	<b>20</b>	<b>0.1234</b>	<b>0.08035</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>GWC-16</b>	<b>0.0814</b>	<b>0.06221</b>	<b>0.029</b>	<b>Yes</b>	<b>21</b>	<b>0.0718</b>	<b>0.01739</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GWC-17	0.005	0.0011	0.029	No	20	0.002746	0.001904	40	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-2	0.005	0.00094	0.029	No	20	0.004346	0.001599	85	None	No	0.01	NP (NDs)
<b>Arsenic (mg/L)</b>	<b>GWC-20</b>	<b>0.3509</b>	<b>0.2712</b>	<b>0.029</b>	<b>Yes</b>	<b>20</b>	<b>0.3111</b>	<b>0.07018</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GWC-21	0.005085	0.002722	0.029	No	20	0.00523	0.003903	35	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	GWC-22	0.005	0.0011	0.029	No	20	0.003278	0.002012	55	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-9	0.005	0.00084	0.029	No	20	0.004792	0.0009302	95	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-25D	0.005	0.00092	0.029	No	4	0.00398	0.00204	75	Kaplan-Meier	No	0.0625	NP (NDs)
Barium (mg/L)	GWB-4R	0.095	0.076	2	No	20	0.09025	0.02253	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWB-5R	0.1466	0.09033	2	No	20	0.1218	0.05546	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWB-6R	0.106	0.014	2	No	20	0.06945	0.04169	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-1	0.05694	0.05085	2	No	20	0.0539	0.005362	0	None	No	0.01	Param.
Barium (mg/L)	GWC-11	0.1219	0.07175	2	No	20	0.09685	0.04419	0	None	No	0.01	Param.
Barium (mg/L)	GWC-12	0.0197	0.017	2	No	20	0.01945	0.004345	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-13	0.02826	0.02125	2	No	20	0.02476	0.006164	0	None	No	0.01	Param.
Barium (mg/L)	GWC-14	0.067	0.025	2	No	21	0.04272	0.02696	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-15	0.0498	0.03961	2	No	20	0.04471	0.00897	0	None	No	0.01	Param.
Barium (mg/L)	GWC-16	0.1526	0.07009	2	No	19	0.1183	0.07909	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWC-17	0.1039	0.04807	2	No	20	0.08119	0.05544	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWC-2	0.054	0.049	2	No	19	0.05305	0.007435	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-20	0.34	0.0788	2	No	20	0.1728	0.1223	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-21	0.1091	0.05411	2	No	20	0.08835	0.05916	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	GWC-22	0.09165	0.05784	2	No	20	0.07475	0.02978	0	None	No	0.01	Param.
Barium (mg/L)	GWC-9	0.2501	0.1813	2	No	20	0.2157	0.06061	0	None	No	0.01	Param.
Beryllium (mg/L)	GWB-4R	0.0005	0.0001	0.004	No	16	0.0003688	0.0001887	62.5	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWB-5R	0.0001715	0.00008308	0.004	No	16	0.0002276	0.0001561	18.75	Kaplan-Meier	sqrt(x)	0.01	Param.
Beryllium (mg/L)	GWB-6R	0.0005	0.00005	0.004	No	16	0.0004435	0.0001544	87.5	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-11	0.0005	0.000047	0.004	No	16	0.0004717	0.0001133	93.75	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-12	0.0009	0.00046	0.004	No	16	0.0006506	0.0002228	0	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-13	0.0005	0.000058	0.004	No	16	0.0004724	0.0001105	93.75	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-14	0.0005	0.0001	0.004	No	16	0.000422	0.0001678	81.25	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-16	0.0005	0.000068	0.004	No	16	0.0002397	0.0002086	37.5	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-17	0.002568	0.001574	0.004	No	16	0.002156	0.0008824	0	None	ln(x)	0.01	Param.

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 5/17/2022, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	GWC-2	0.0005	0.000088	0.004	No	17	0.0003634	0.0001976	64.71	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-22	0.0005	0.00009	0.004	No	16	0.0003335	0.0001982	56.25	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-9	0.0003	0.00019	0.004	No	16	0.0002375	0.00005209	0	None	No	0.01	NP (normality)
Cadmium (mg/L)	GWB-4R	0.0005	0.0002	0.005	No	16	0.0004113	0.0001613	75	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-1	0.0005	0.0001	0.005	No	16	0.0004481	0.0001419	87.5	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-11	0.0005613	0.0002612	0.005	No	16	0.0004113	0.0002306	6.25	None	No	0.01	Param.
Cadmium (mg/L)	GWC-14	0.0005	0.00017	0.005	No	16	0.0003556	0.0001712	56.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-20	0.0005	0.0002	0.005	No	16	0.0004381	0.0001337	81.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-22	0.0005	0.00012	0.005	No	16	0.0003156	0.0001801	37.5	None	No	0.01	NP (normality)
Chromium (mg/L)	GWB-4R	0.0101	0.0022	0.1	No	20	0.00634	0.004478	0	None	No	0.01	NP (normality)
Chromium (mg/L)	GWB-5R	0.003596	0.000977	0.1	No	20	0.0068	0.01561	25	Kaplan-Meier	ln(x)	0.01	Param.
Chromium (mg/L)	GWB-6R	0.006595	0.002265	0.1	No	20	0.005255	0.00512	0	None	x^(1/3)	0.01	Param.
Chromium (mg/L)	GWC-1	0.0023	0.0017	0.1	No	20	0.002325	0.001187	5	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-11	0.005	0.00091	0.1	No	20	0.002803	0.002569	35	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-12	0.0028	0.00091	0.1	No	20	0.001982	0.00161	20	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-13	0.005	0.00077	0.1	No	20	0.003163	0.0021	55	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-14	0.005	0.0008	0.1	No	21	0.00265	0.002095	42.86	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-15	0.005	0.0013	0.1	No	20	0.00256	0.001698	30	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-16	0.005	0.00099	0.1	No	21	0.002984	0.002523	38.1	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-17	0.005	0.0009	0.1	No	20	0.002475	0.001967	30	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-2	0.005	0.0008	0.1	No	20	0.003306	0.002132	60	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-20	0.005	0.0009	0.1	No	20	0.002554	0.001933	35	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-21	0.005	0.00067	0.1	No	20	0.003112	0.002685	45	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-22	0.005	0.0006	0.1	No	20	0.003019	0.002248	55	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-9	0.005	0.0011	0.1	No	20	0.002584	0.00185	35	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-4R	0.0027	0.00072	0.0102	No	16	0.001638	0.00144	12.5	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-5R	0.0057	0.00056	0.0102	No	16	0.005518	0.005577	43.75	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-6R	0.07	0.0049	0.0102	No	16	0.008767	0.01637	81.25	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-11	0.005	0.00055	0.0102	No	16	0.003879	0.002007	75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-12	0.001267	0.0007859	0.0102	No	16	0.001026	0.0003694	0	None	No	0.01	Param.
Cobalt (mg/L)	GWC-14	0.005	0.0003	0.0102	No	16	0.004706	0.001175	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-17	0.005578	0.002845	0.0102	No	16	0.00435	0.002136	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	GWC-2	0.005	0.00036	0.0102	No	17	0.003669	0.002132	70.59	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-22	0.005	0.00077	0.0102	No	16	0.003402	0.002134	62.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-9	0.0017	0.00096	0.0102	No	16	0.001344	0.0004015	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWB-4R	5	2.32	12.78	No	16	3.336	1.161	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWB-5R	3.82	2.256	12.78	No	16	3.128	1.405	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWB-6R	4.891	2.802	12.78	No	16	3.847	1.605	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-1	2.194	1.509	12.78	No	16	1.852	0.5265	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-11	6.44	3.219	12.78	No	16	4.83	2.476	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-12	2.792	1.652	12.78	No	16	2.222	0.8754	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-13	1.418	0.8356	12.78	No	16	1.127	0.4476	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-14	1.301	0.6827	12.78	No	16	0.9918	0.4752	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-15	1.746	1.022	12.78	No	16	1.384	0.5563	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-16	2.776	1.766	12.78	No	16	2.319	0.858	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-17	3.922	2.701	12.78	No	16	3.311	0.9385	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-2	0.9759	0.6638	12.78	No	16	0.8198	0.2399	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-20	4.736	2.168	12.78	No	16	3.452	1.973	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-21	2.43	1.246	12.78	No	16	1.838	0.9099	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-22	7.57	2.53	12.78	No	16	4.934	2.364	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWC-9	3.723	2.017	12.78	No	16	2.984	1.597	0	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	GWB-4R	0.17	0.08	4	No	18	0.1708	0.267	61.11	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWB-5R	0.11	0.05	4	No	18	0.08967	0.0394	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWB-6R	0.13	0.09	4	No	18	0.1183	0.06059	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-1	0.18	0.051	4	No	18	0.1051	0.03936	77.78	None	No	0.01	NP (NDs)

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 5/17/2022, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	GWC-12	0.7455	0.273	4	No	18	0.5092	0.3904	5.556	None	No	0.01	Param.
Fluoride (mg/L)	GWC-13	0.55	0.09	4	No	18	0.1218	0.1075	83.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-14	0.25	0.1	4	No	18	0.1711	0.1265	66.67	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-15	0.13	0.06	4	No	18	0.1311	0.09761	72.22	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-16	0.2	0.1	4	No	18	0.1844	0.2077	61.11	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-17	1.208	0.5244	4	No	18	0.9217	0.5599	5.556	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	GWC-2	0.17	0.08	4	No	18	0.1246	0.1258	61.11	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-20	0.14	0.043	4	No	18	0.09128	0.02816	77.78	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-21	0.1	0.071	4	No	18	0.09839	0.006835	94.44	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-22	0.12	0.1	4	No	18	0.09278	0.02421	66.67	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-9	0.2439	0.09963	4	No	18	0.2129	0.2237	11.11	None	ln(x)	0.01	Param.
Fluoride (mg/L)	MW-25D	0.1431	0.05842	4	No	4	0.1008	0.01864	0	None	No	0.01	Param.
Lead (mg/L)	GWB-4R	0.002866	0.0006427	0.015	No	19	0.003104	0.00295	21.05	Kaplan-Meier	ln(x)	0.01	Param.
Lead (mg/L)	GWB-5R	0.0005318	0.00008789	0.015	No	20	0.0007816	0.0006054	40	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	GWB-6R	0.001	0.0002	0.015	No	20	0.0006238	0.0004129	45	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-1	0.001	0.00012	0.015	No	20	0.0008182	0.0003734	80	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-11	0.0002673	0.000145	0.015	No	20	0.0004105	0.0003125	20	Kaplan-Meier	ln(x)	0.01	Param.
Lead (mg/L)	GWC-12	0.0001677	0.00005339	0.015	No	20	0.0005951	0.0007867	35	Kaplan-Meier	ln(x)	0.01	Param.
Lead (mg/L)	GWC-13	0.0005781	0.0001494	0.015	No	20	0.000629	0.0004372	35	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	GWC-14	0.001	0.00051	0.015	No	21	0.0008471	0.0003329	80.95	Kaplan-Meier	No	0.01	NP (NDs)
Lead (mg/L)	GWC-15	0.001	0.0001	0.015	No	20	0.0005763	0.0004402	50	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-16	0.001	0.0001	0.015	No	21	0.0005078	0.0004388	42.86	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-17	0.001	0.00014	0.015	No	20	0.0006862	0.0004293	60	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-2	0.001	0.0002	0.015	No	20	0.0007443	0.0004042	70	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-20	0.001	0.0002	0.015	No	20	0.0007808	0.0003907	75	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-21	0.001	0.0001	0.015	No	20	0.0006507	0.0004411	60	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-22	0.0008934	0.0003663	0.015	No	20	0.0007135	0.000634	15	None	x^(1/3)	0.01	Param.
Lead (mg/L)	GWC-9	0.001	0.0001	0.015	No	20	0.0006308	0.0004391	55	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWB-4R	0.014	0.0041	0.04	No	16	0.009394	0.004749	0	None	No	0.01	NP (normality)
Lithium (mg/L)	GWB-5R	0.03	0.0031	0.04	No	16	0.01854	0.01344	56.25	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-12	0.03	0.00091	0.04	No	16	0.01186	0.01451	37.5	None	No	0.01	NP (normality)
Lithium (mg/L)	GWC-13	0.03	0.00087	0.04	No	16	0.02635	0.009967	87.5	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-17	0.006743	0.005019	0.04	No	16	0.005881	0.001325	0	None	No	0.01	Param.
Lithium (mg/L)	GWC-9	0.002053	0.001761	0.04	No	15	0.001907	0.0002154	0	None	No	0.01	Param.
Mercury (mg/L)	GWB-4R	0.0002	0.0001	0.002	No	13	0.0001807	0.00004827	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWB-5R	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWB-6R	0.0002	0.0001	0.002	No	13	0.0001802	0.00004964	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-1	0.0002	0.0001	0.002	No	13	0.00018	0.00005033	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-11	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-12	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-13	0.0002	0.00013	0.002	No	13	0.0001869	0.0000325	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-14	0.0002	0.00011	0.002	No	13	0.0001931	0.00002496	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-15	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-16	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-17	0.0002	0.00011	0.002	No	13	0.0001931	0.00002496	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-2	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-20	0.0002	0.00011	0.002	No	13	0.0001931	0.00002496	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-21	0.0002	0.00011	0.002	No	13	0.0001931	0.00002496	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-22	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-9	0.0002	0.00011	0.002	No	13	0.0001815	0.0000467	84.62	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWB-4R	0.13	0.0237	0.1	No	16	0.07454	0.05311	0	None	No	0.01	NP (normality)
Molybdenum (mg/L)	GWB-5R	0.01	0.0012	0.1	No	16	0.00945	0.0022	93.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWB-6R	0.01	0.001	0.1	No	16	0.007295	0.00416	68.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-1	0.1518	0.06523	0.1	No	16	0.1085	0.06651	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-11	0.01	0.0018	0.1	No	16	0.008911	0.002983	87.5	None	No	0.01	NP (NDs)

# Confidence Intervals - All Results

Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill    Printed 5/17/2022, 3:05 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Molybdenum (mg/L)	GWC-13	0.01	0.0056	0.1	No	16	0.009725	0.0011	93.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-14	0.013	0.00363	0.1	No	16	0.01056	0.009834	0	None	ln(x)	0.01	Param.
Molybdenum (mg/L)	GWC-15	0.1105	0.09103	0.1	No	16	0.1008	0.01495	0	None	No	0.01	Param.
<b>Molybdenum (mg/L)</b>	<b>GWC-16</b>	<b>0.2115</b>	<b>0.1274</b>	<b>0.1</b>	<b>Yes</b>	<b>16</b>	<b>0.1695</b>	<b>0.0646</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Molybdenum (mg/L)	GWC-17	0.01	0.003	0.1	No	16	0.006695	0.003528	50	None	No	0.01	NP (normality)
<b>Molybdenum (mg/L)</b>	<b>GWC-20</b>	<b>0.357</b>	<b>0.1282</b>	<b>0.1</b>	<b>Yes</b>	<b>16</b>	<b>0.26</b>	<b>0.2006</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.01</b>	<b>Param.</b>
Molybdenum (mg/L)	GWC-21	0.0578	0.01917	0.1	No	16	0.03848	0.02969	0	None	No	0.01	Param.
Molybdenum (mg/L)	MW-24D	0.004758	0.0004922	0.1	No	4	0.002625	0.0009394	0	None	No	0.01	Param.
Molybdenum (mg/L)	MW-25D	0.01	0.0011	0.1	No	4	0.00565	0.005026	50	None	No	0.0625	NP (normality)
Selenium (mg/L)	GWB-4R	0.003949	0.002614	0.05	No	20	0.004205	0.001249	45	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	GWB-5R	0.006	0.0033	0.05	No	20	0.00492	0.001008	80	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWB-6R	0.005	0.0023	0.05	No	20	0.00634	0.01038	60	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-1	0.0026	0.0018	0.05	No	20	0.00354	0.004724	10	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-11	0.008658	0.003486	0.05	No	20	0.007395	0.006036	20	Kaplan-Meier	x^(1/3)	0.01	Param.
Selenium (mg/L)	GWC-12	0.005	0.003	0.05	No	20	0.00447	0.001106	80	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-14	0.004404	0.003013	0.05	No	21	0.003709	0.00126	4.762	None	No	0.01	Param.
Selenium (mg/L)	GWC-15	0.005132	0.002166	0.05	No	20	0.00526	0.002897	45	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	GWC-16	0.005435	0.003543	0.05	No	21	0.004489	0.001715	4.762	None	No	0.01	Param.
Selenium (mg/L)	GWC-17	0.005	0.0016	0.05	No	20	0.00355	0.001758	55	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-2	0.005	0.0035	0.05	No	20	0.004775	0.000734	90	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-20	0.005	0.0024	0.05	No	20	0.003965	0.001636	70	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-21	0.02027	0.01081	0.05	No	20	0.01554	0.008331	0	None	No	0.01	Param.
Selenium (mg/L)	GWC-22	0.005	0.0023	0.05	No	20	0.004345	0.001367	80	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWB-4R	0.001	0.00007	0.002	No	16	0.0008838	0.0003177	87.5	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWB-5R	0.001	0.00031	0.002	No	16	0.0008979	0.0002827	87.5	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-1	0.001	0.000054	0.002	No	16	0.0008224	0.0003819	81.25	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-11	0.001	0.000098	0.002	No	16	0.0005699	0.0004464	50	None	No	0.01	NP (normality)
Thallium (mg/L)	GWC-12	0.001	0.00014	0.002	No	16	0.0005925	0.0004228	50	None	No	0.01	NP (normality)
Thallium (mg/L)	GWC-14	0.001	0.00007	0.002	No	16	0.0008831	0.0003194	87.5	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-16	0.001	0.00006	0.002	No	16	0.0008819	0.0003228	87.5	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-17	0.001	0.000076	0.002	No	16	0.0006561	0.0004586	62.5	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-2	0.001	0.00011	0.002	No	17	0.0009476	0.0002159	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-21	0.001	0.00005	0.002	No	16	0.0009406	0.0002375	93.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-22	0.001	0.000086	0.002	No	16	0.0007176	0.0004333	68.75	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWB-4R	0.0388	0.0031	0.43	No	15	0.01916	0.01733	6.667	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWB-5R	0.009707	0.004051	0.43	No	15	0.008007	0.00766	6.667	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWB-6R	0.02741	0.007652	0.43	No	15	0.02286	0.02574	0	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWC-1	0.007015	0.003932	0.43	No	15	0.005473	0.002275	13.33	None	No	0.01	Param.
Vanadium (mg/L)	GWC-11	0.01	0.0021	0.43	No	15	0.0039	0.003172	20	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-12	0.006895	0.003758	0.43	No	15	0.005327	0.002315	13.33	None	No	0.01	Param.
Vanadium (mg/L)	GWC-13	0.01	0.0019	0.43	No	15	0.007813	0.003724	66.67	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-14	0.0165	0.007166	0.43	No	18	0.01266	0.007364	16.67	Kaplan-Meier	No	0.01	Param.
Vanadium (mg/L)	GWC-15	0.01	0.0021	0.43	No	17	0.005053	0.003795	35.29	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-16	0.0038	0.0025	0.43	No	18	0.004509	0.003059	22.22	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-17	0.01	0.0024	0.43	No	15	0.006133	0.003767	46.67	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-2	0.01	0.0024	0.43	No	15	0.009493	0.001962	93.33	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-20	0.01	0.0025	0.43	No	17	0.005006	0.003351	29.41	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-21	0.01	0.0022	0.43	No	15	0.004967	0.003223	26.67	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-22	0.01	0.0016	0.43	No	15	0.006927	0.003996	60	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-9	0.01	0.0015	0.43	No	15	0.008853	0.003026	86.67	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWB-4R	0.008706	0.004532	0.16	No	15	0.0079	0.003035	26.67	Kaplan-Meier	No	0.01	Param.
Zinc (mg/L)	GWB-5R	0.01	0.0023	0.16	No	15	0.008273	0.003287	73.33	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWB-6R	0.016	0.0032	0.16	No	15	0.008213	0.003873	60	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-1	0.01	0.0057	0.16	No	15	0.00856	0.002981	73.33	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-11	0.01	0.0031	0.16	No	15	0.00786	0.003249	66.67	Kaplan-Meier	No	0.01	NP (NDs)

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 5/17/2022, 3:05 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Zinc (mg/L)	GWC-12	0.01	0.0025	0.16	No	15	0.005207	0.003295	26.67	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-13	0.039	0.0021	0.16	No	15	0.02004	0.01876	0	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-14	0.01	0.0052	0.16	No	18	0.008867	0.002678	77.78	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-15	0.032	0.0051	0.16	No	17	0.01101	0.005539	88.24	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-16	0.01	0.0025	0.16	No	18	0.0076	0.003556	61.11	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-17	0.01287	0.008019	0.16	No	15	0.01045	0.003582	13.33	None	No	0.01	Param.
Zinc (mg/L)	GWC-2	0.056	0.0018	0.16	No	15	0.01083	0.01297	60	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-20	0.031	0.0049	0.16	No	17	0.01055	0.005621	82.35	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-21	0.01	0.002	0.16	No	15	0.00812	0.003405	66.67	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-22	0.0106	0.0031	0.16	No	15	0.0081	0.003266	46.67	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-9	0.006583	0.002375	0.16	No	15	0.006767	0.005908	26.67	Kaplan-Meier	x^(1/3)	0.01	Param.



# Appendix IV Trend Tests - Confidence Interval Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 3:14 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWC-15	0.03428	154	81	Yes	20	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWC-16	0.02239	59	58	Yes	16	0	n/a	n/a	0.01	NP

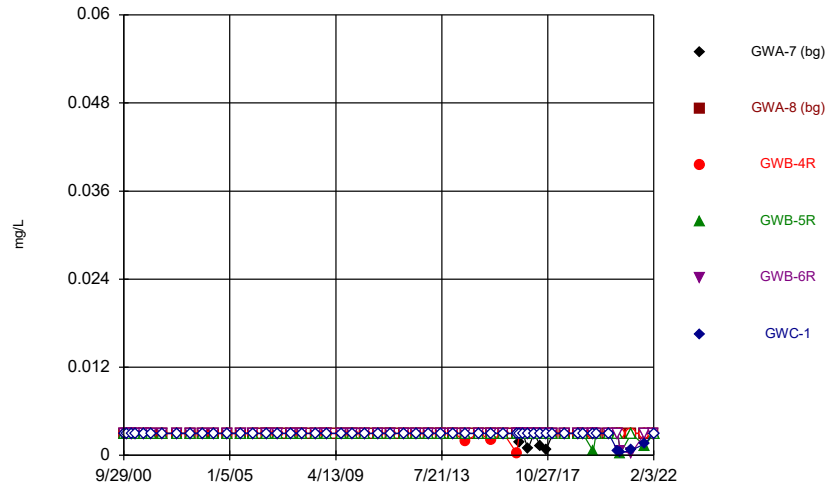
# Appendix IV Trend Tests - Confidence Interval Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 3:14 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWA-7 (bg)	0	-9	-81	No	20	30	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	22	87	No	21	71.43	n/a	n/a	0.01	NP
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.03428</b>	<b>154</b>	<b>81</b>	<b>Yes</b>	<b>20</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Arsenic (mg/L)	GWC-16	0.003089	44	87	No	21	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-20	0.0008421	4	81	No	20	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWA-7 (bg)	0	25	58	No	16	81.25	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWA-8 (bg)	0	0	58	No	16	100	n/a	n/a	0.01	NP
<b>Molybdenum (mg/L)</b>	<b>GWC-16</b>	<b>0.02239</b>	<b>59</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Molybdenum (mg/L)	GWC-20	-0.003017	-2	-58	No	16	0	n/a	n/a	0.01	NP

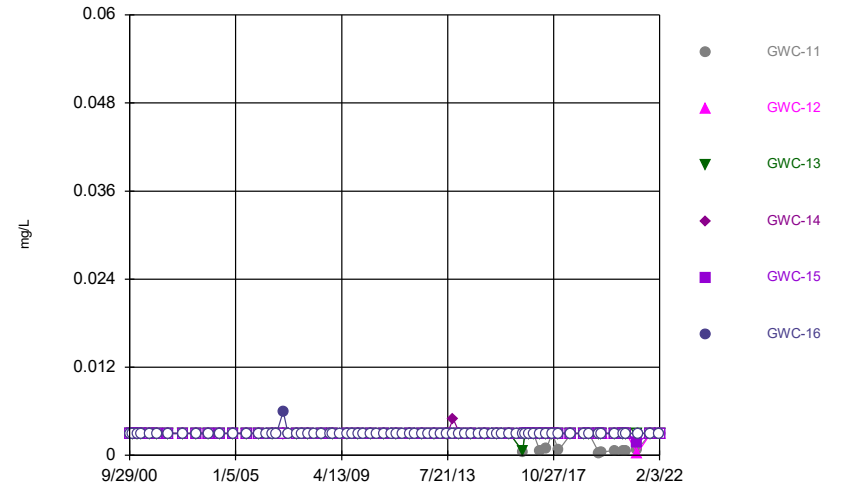
FIGURE A.

### Time Series



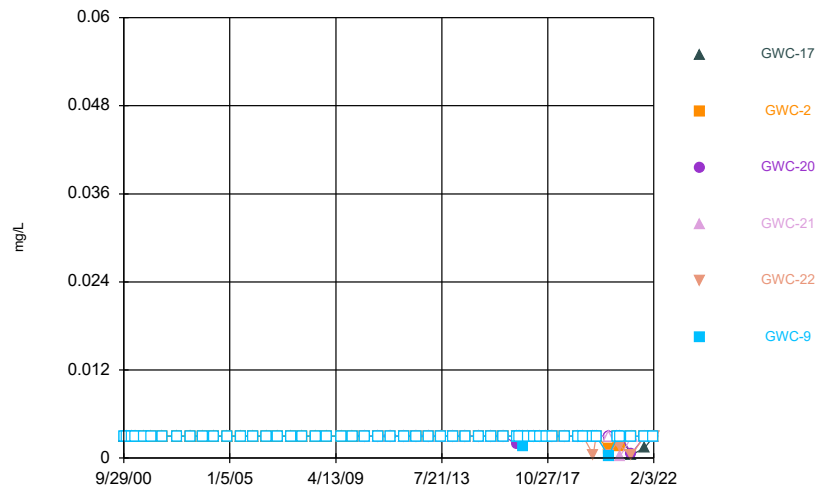
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



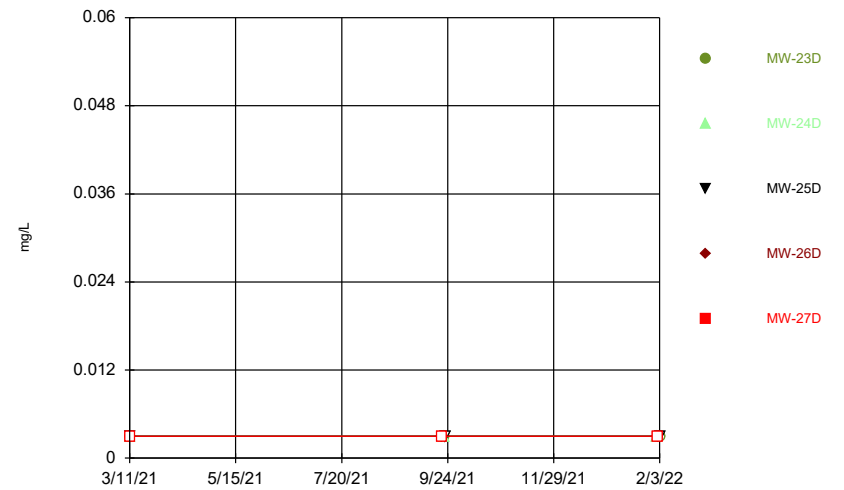
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



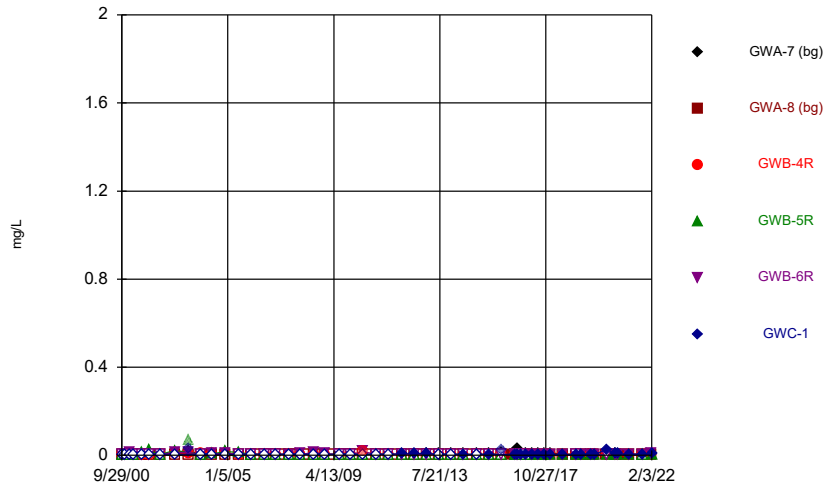
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



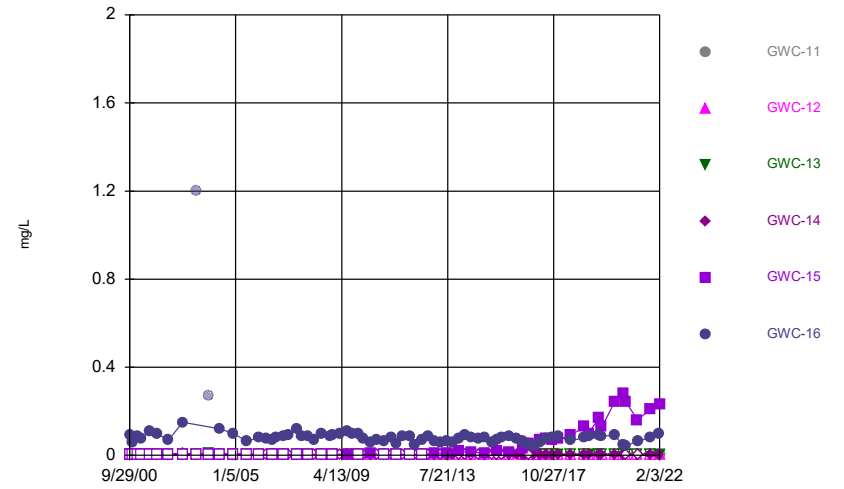
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



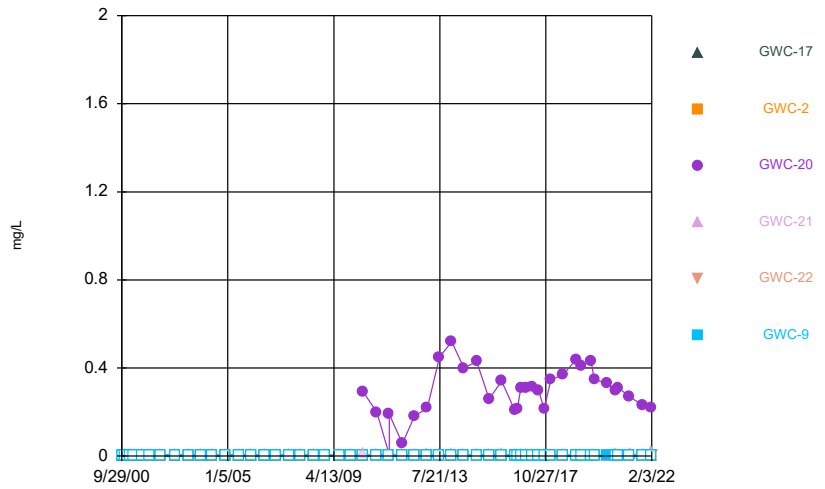
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



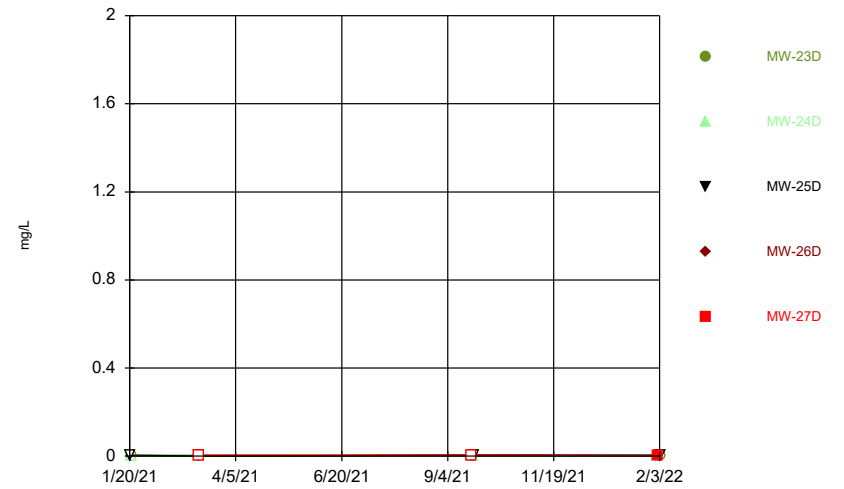
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Time Series



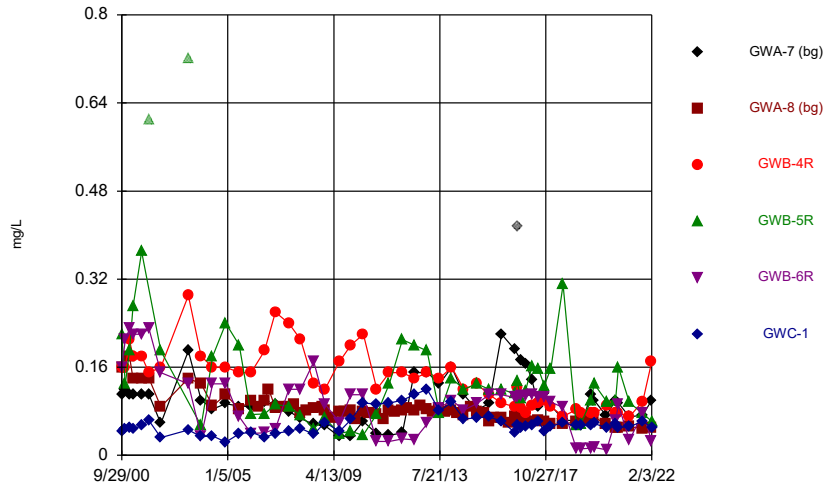
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Time Series



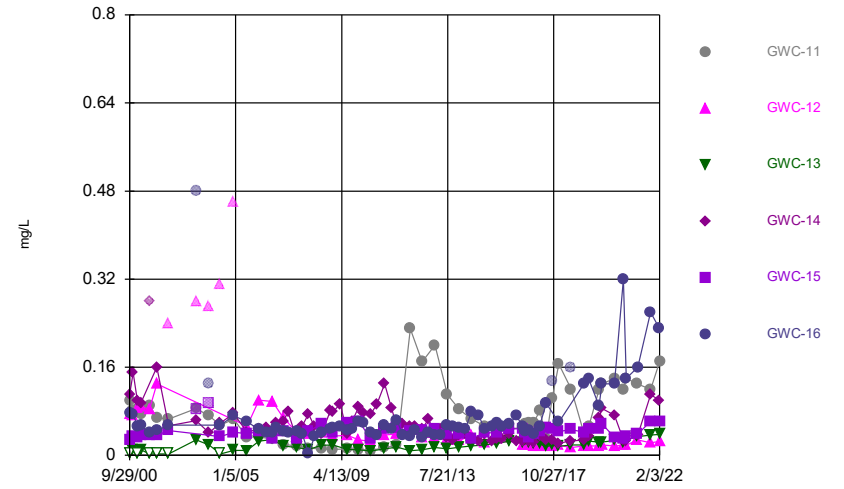
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Time Series



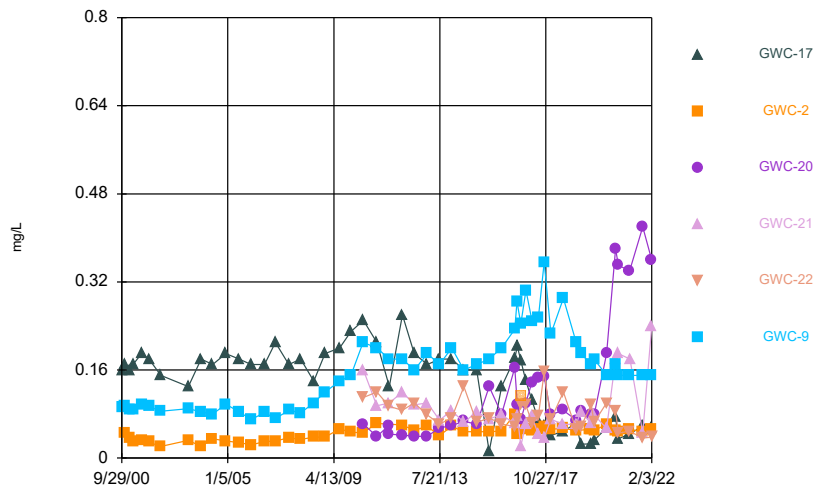
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Time Series



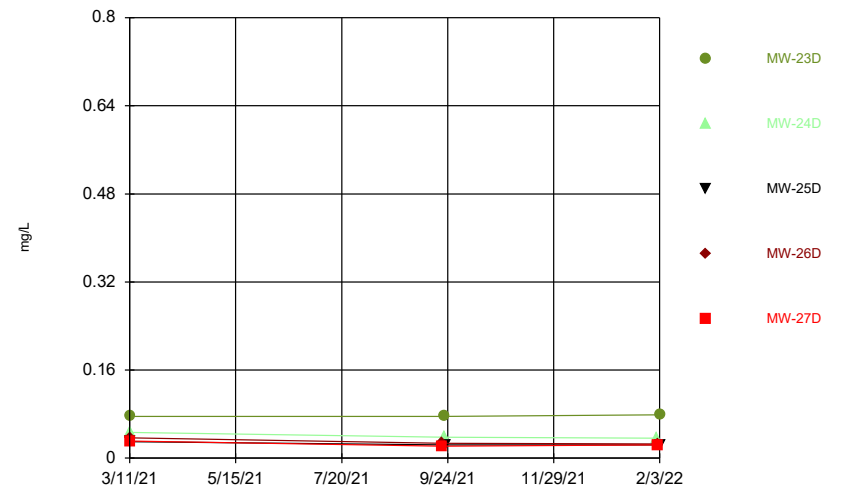
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Time Series



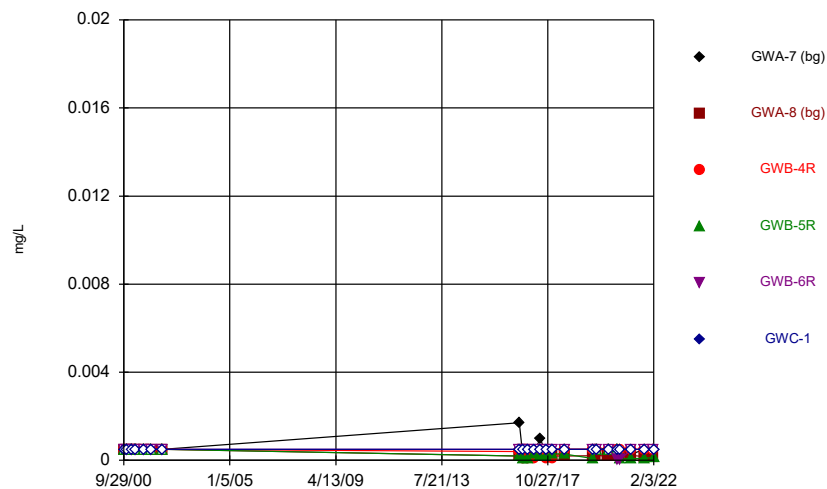
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Time Series



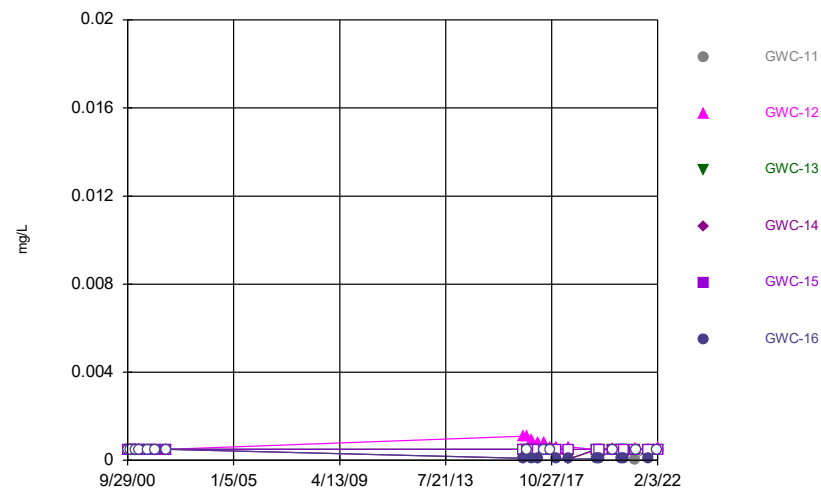
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### Time Series



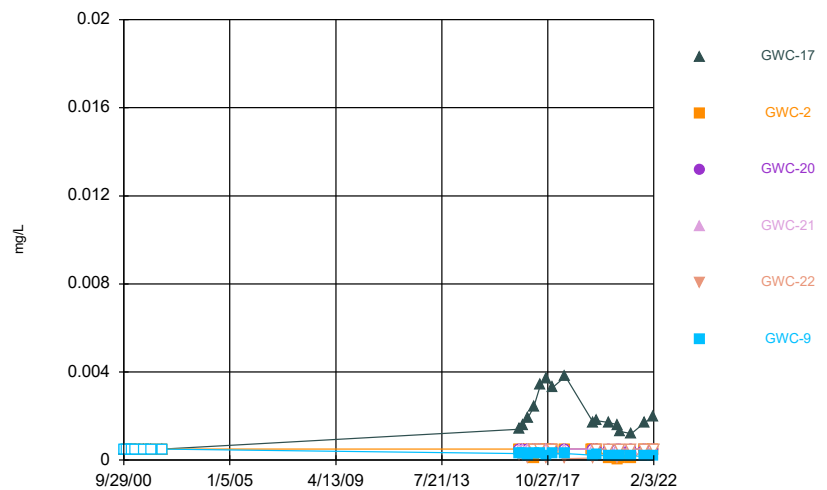
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### Time Series



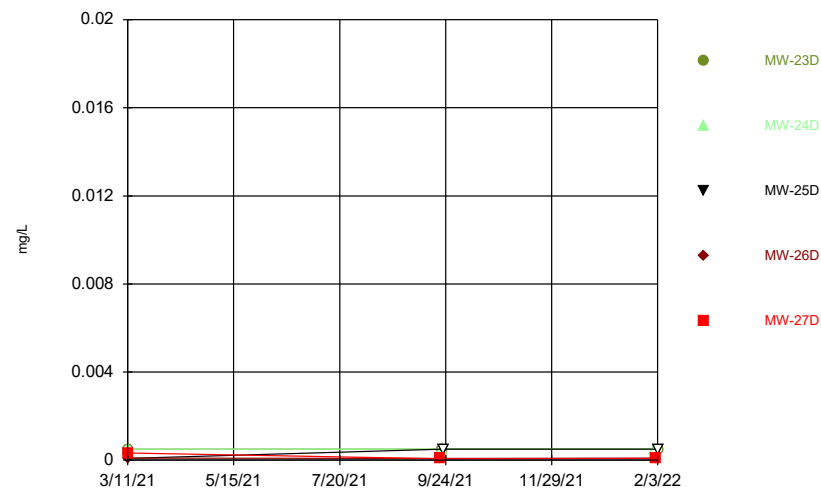
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### Time Series



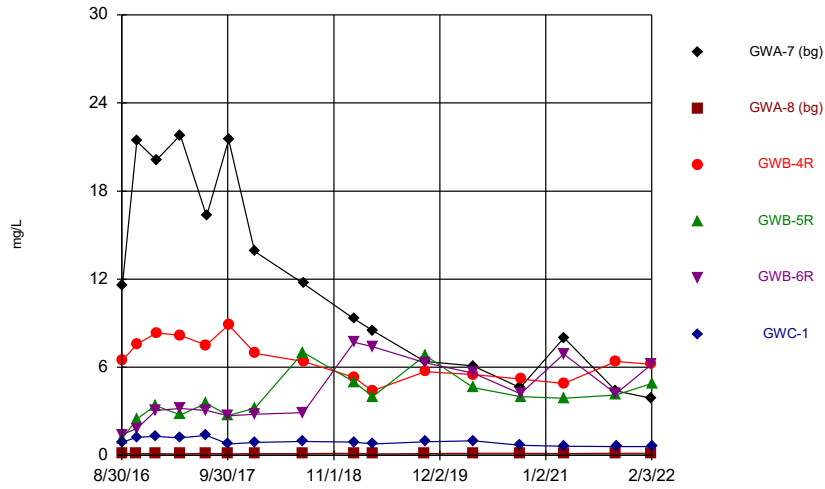
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### Time Series



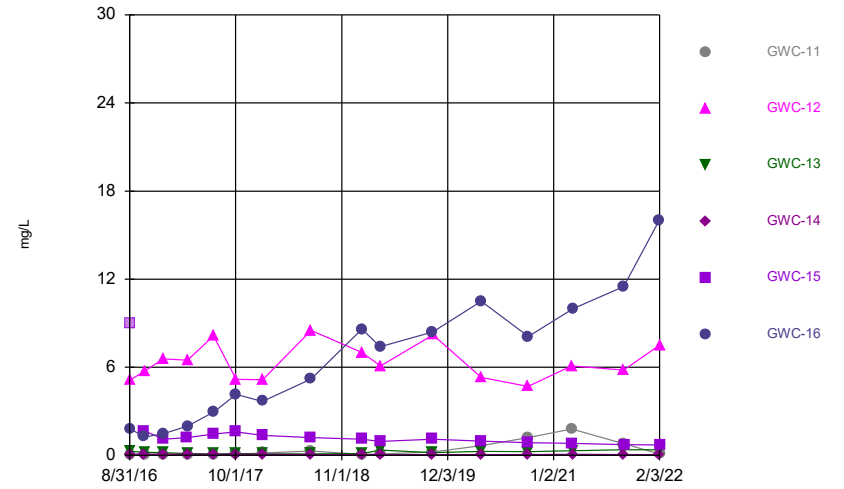
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Time Series



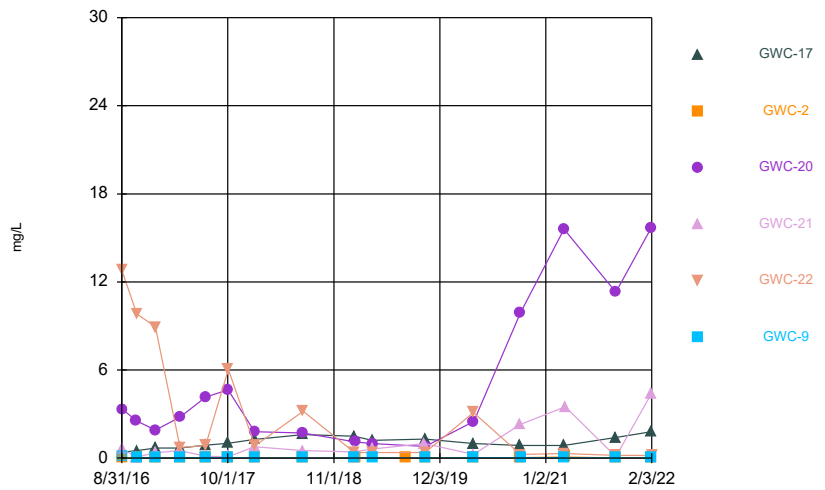
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Time Series



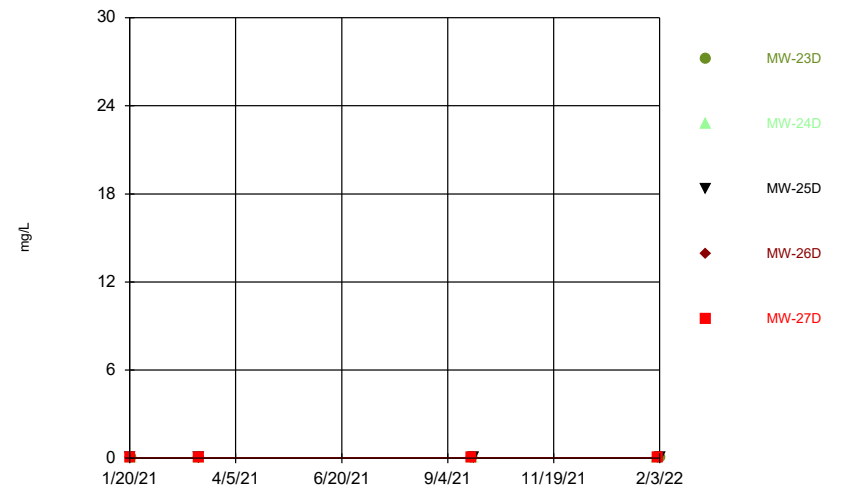
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



Constituent: Boron Analysis Run 4/13/2022 1:53 PM  
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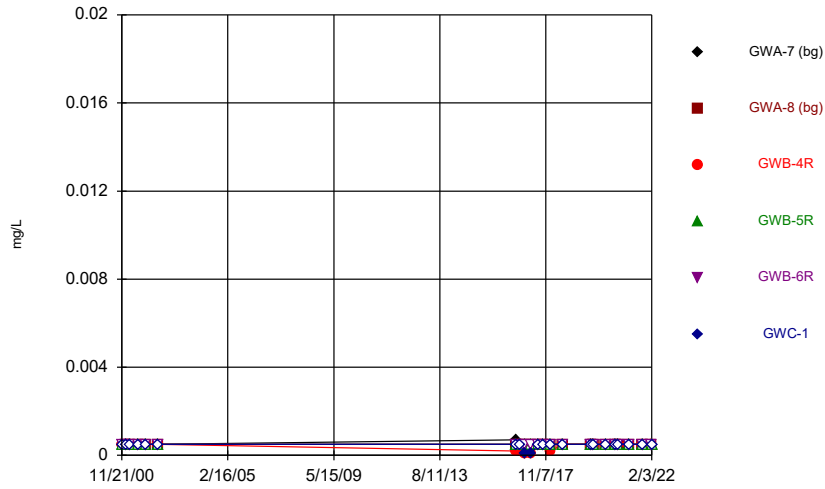
Time Series



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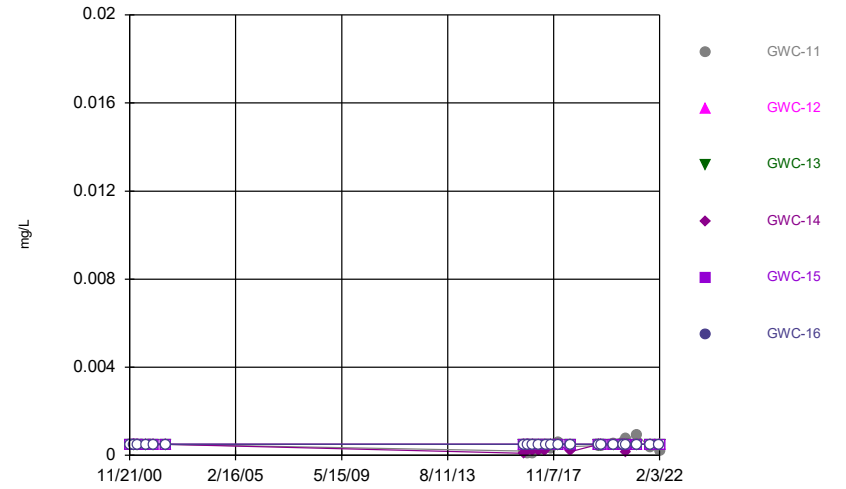


### Time Series



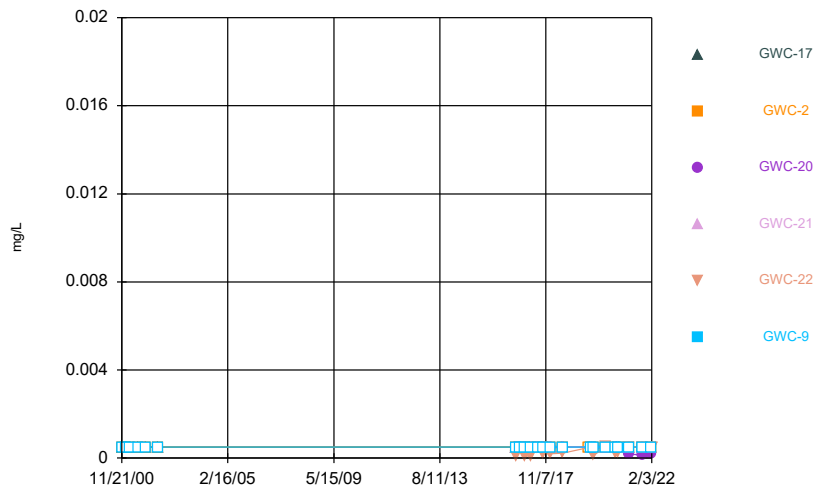
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### Time Series



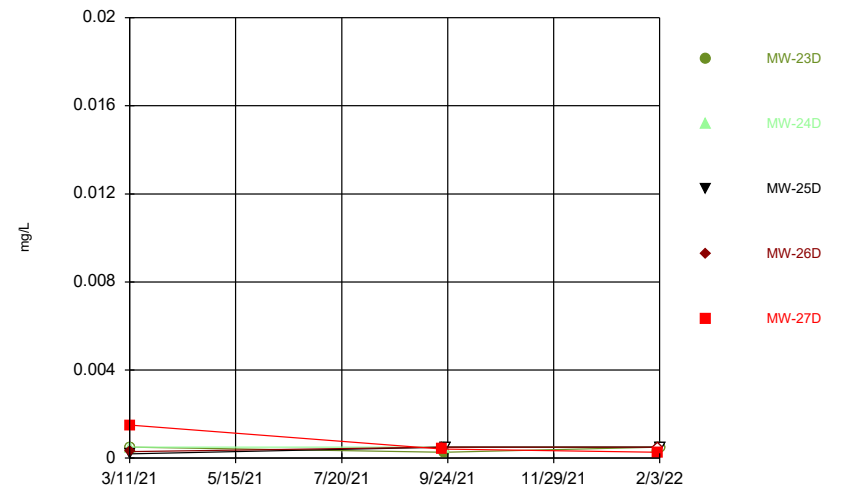
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### Time Series



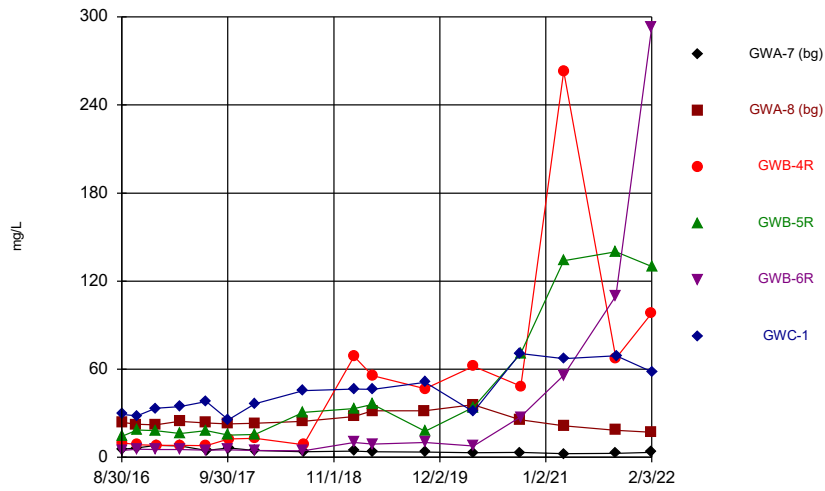
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### Time Series



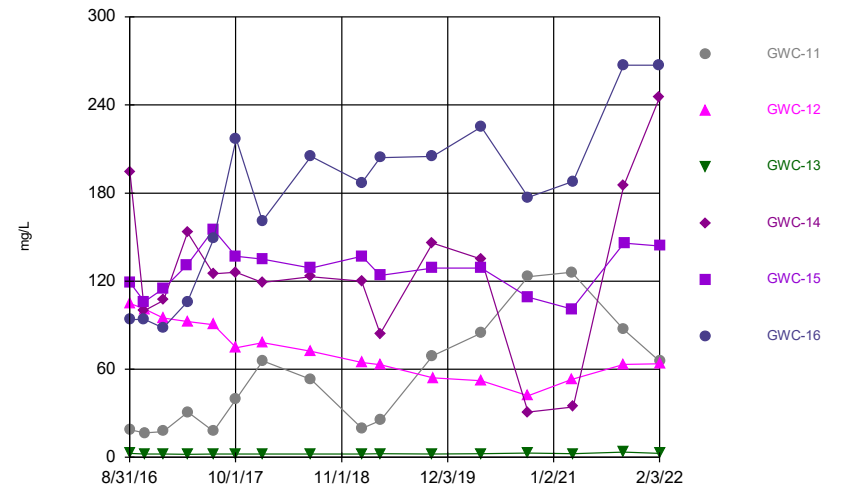
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### Time Series



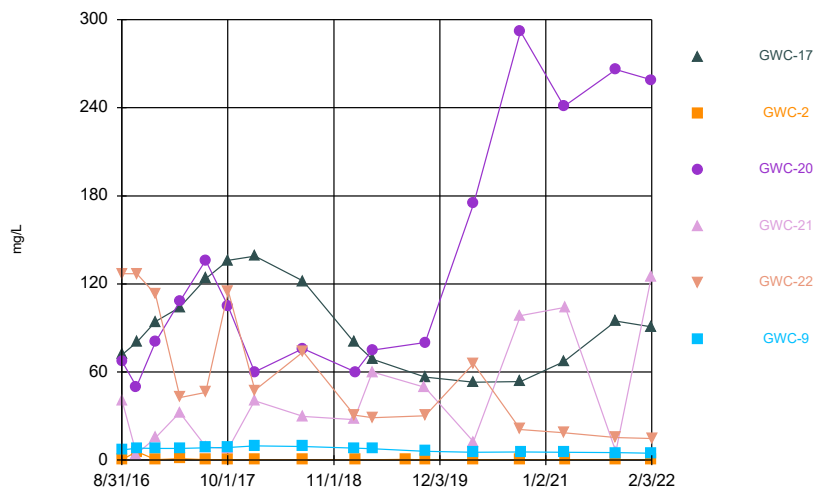
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### Time Series



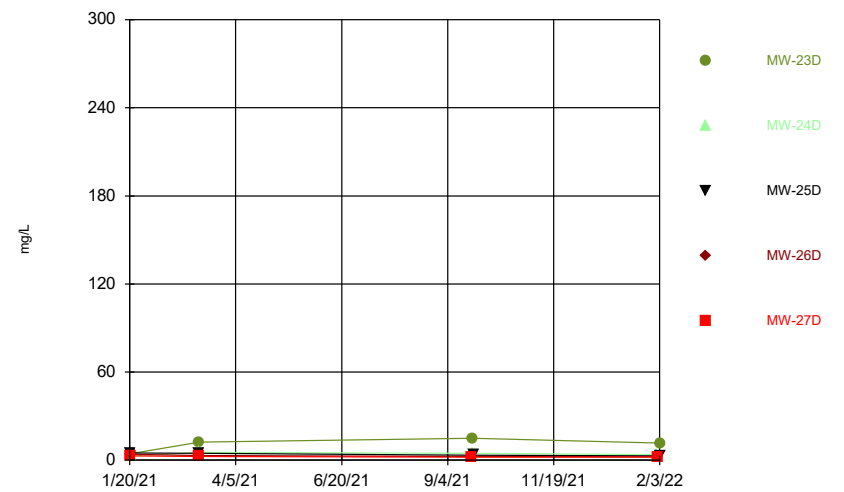
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### Time Series



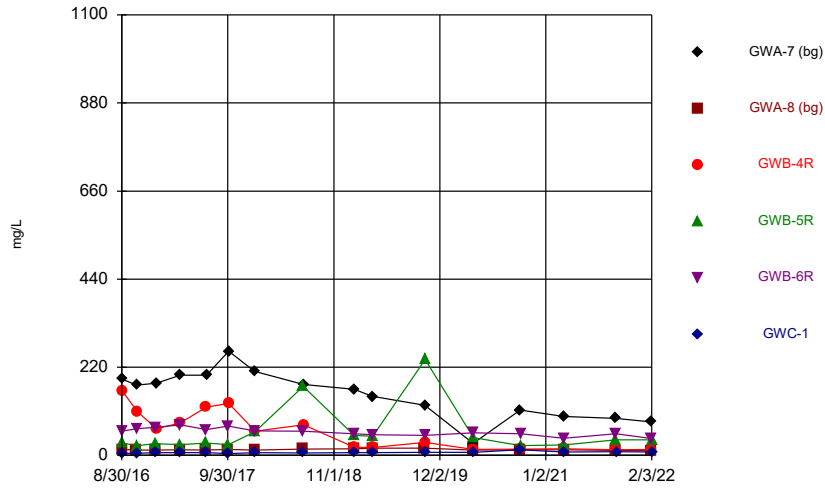
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### Time Series



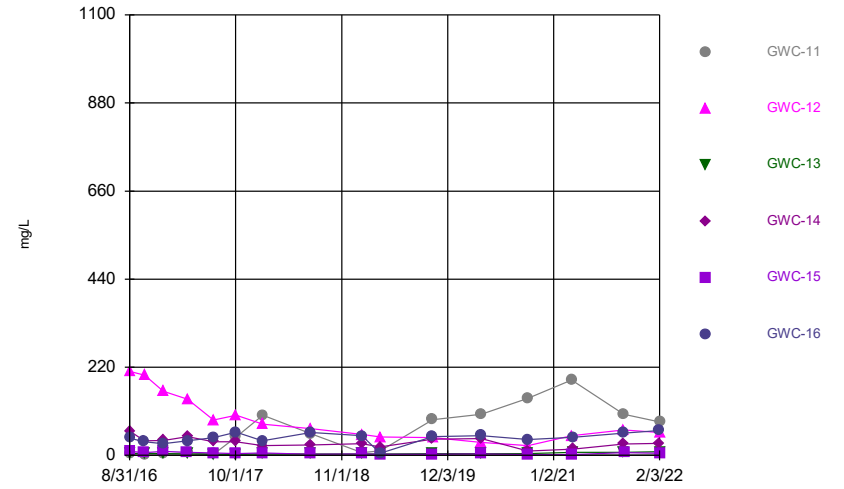
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Time Series



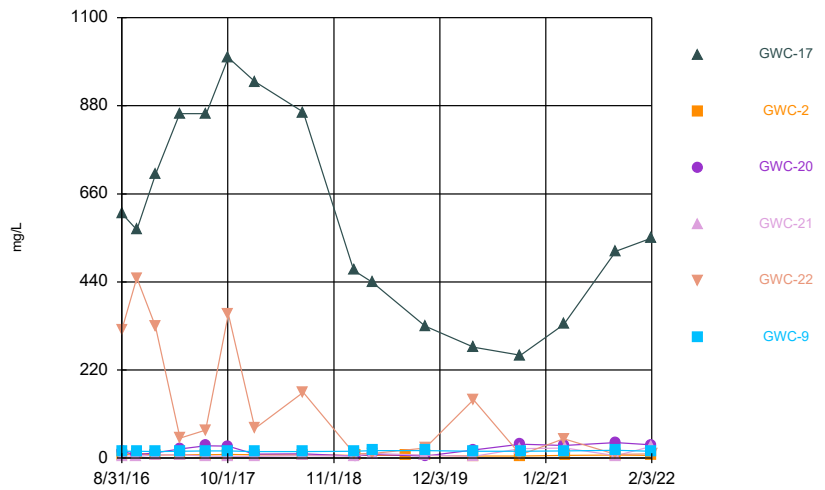
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Time Series



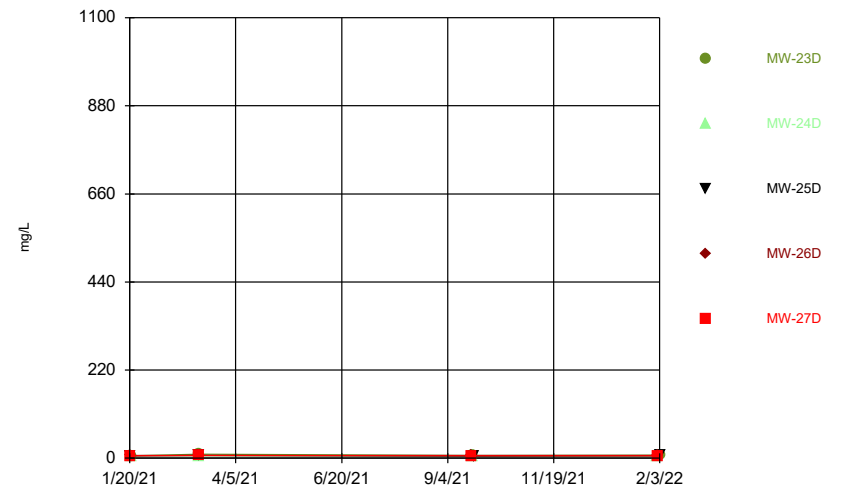
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Time Series



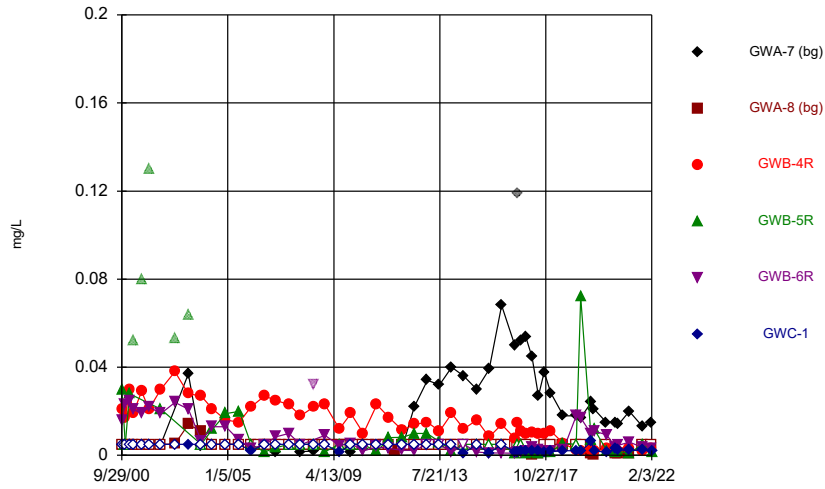
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Time Series



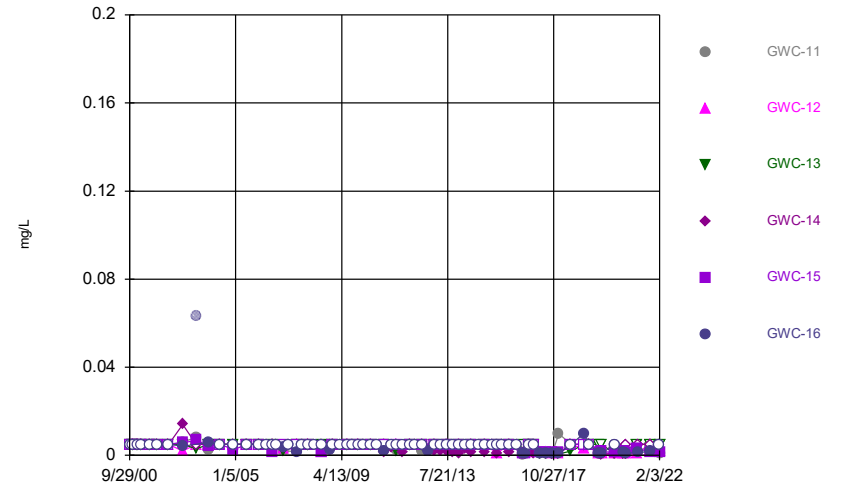
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Time Series



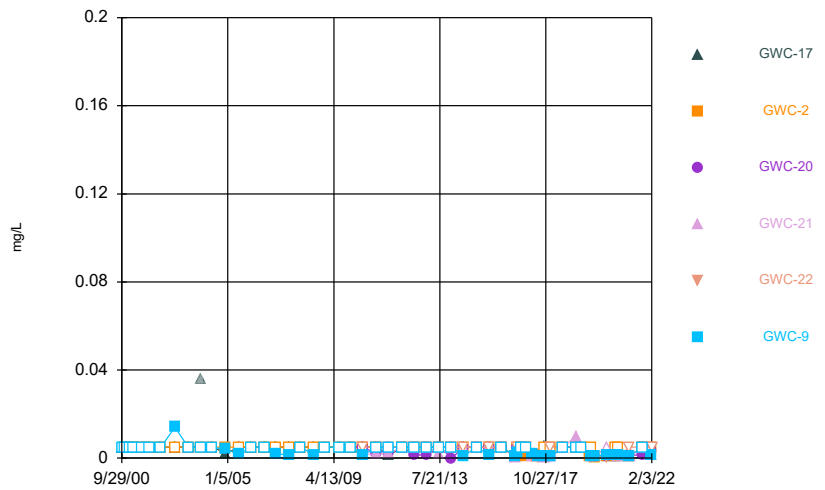
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Time Series



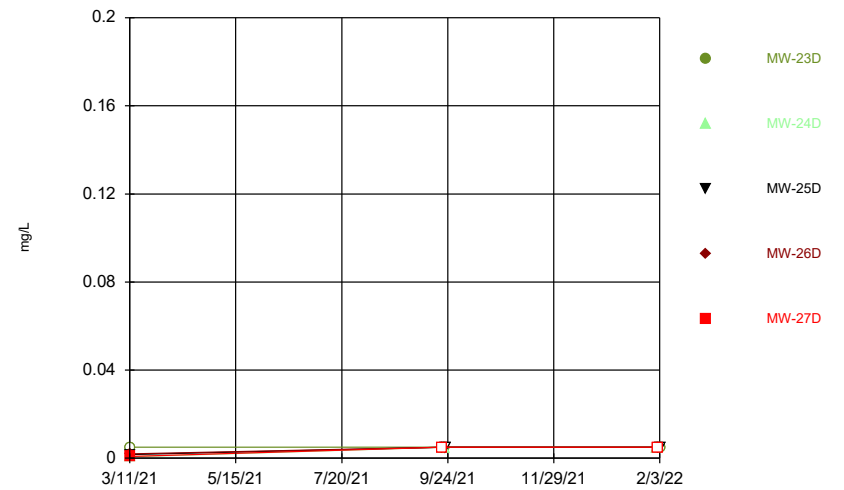
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Time Series



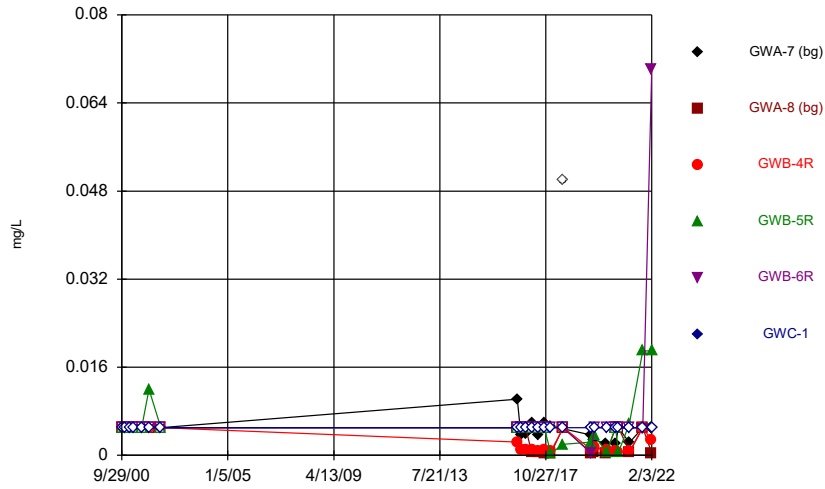
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Time Series



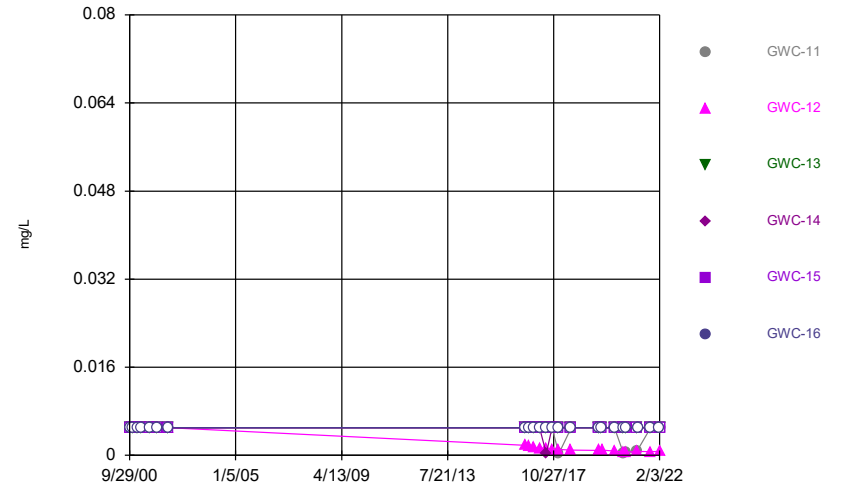
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### Time Series



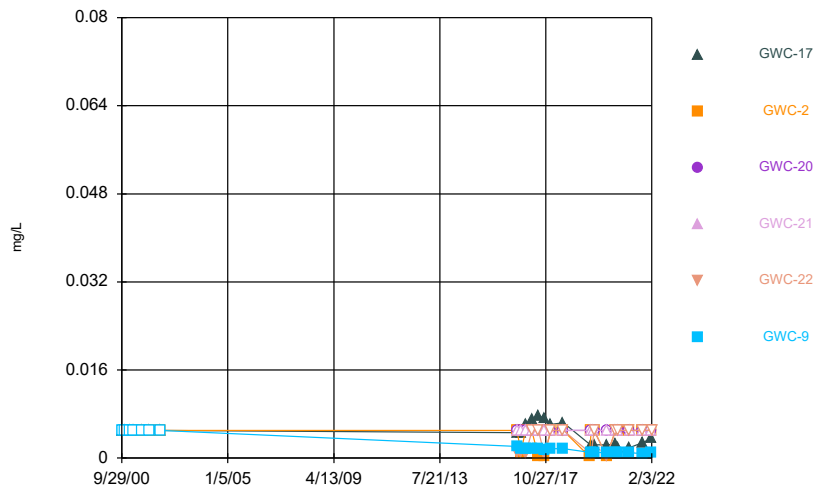
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### Time Series



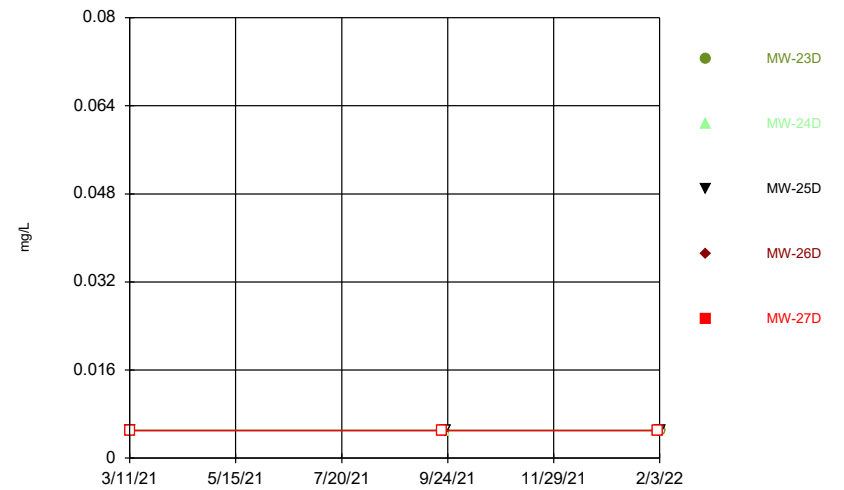
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### Time Series



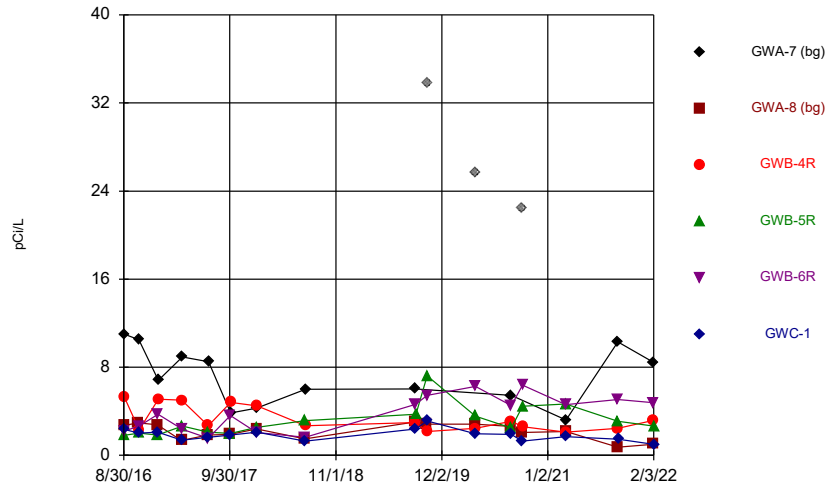
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### Time Series



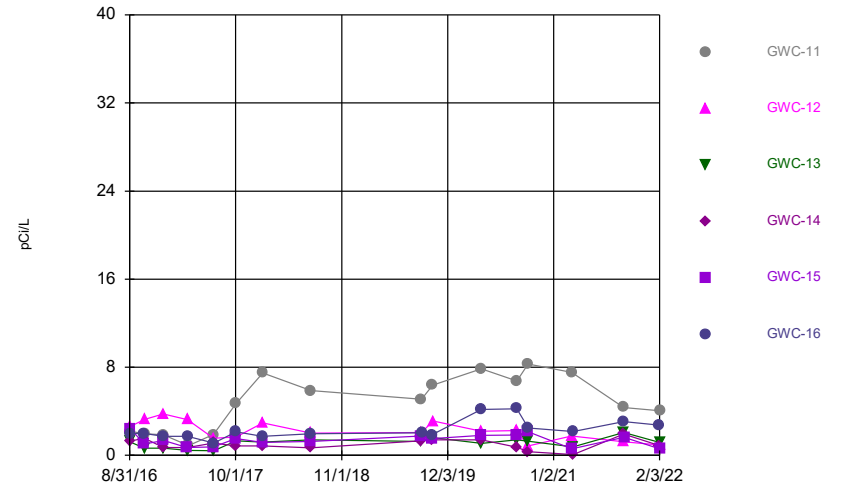
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Time Series



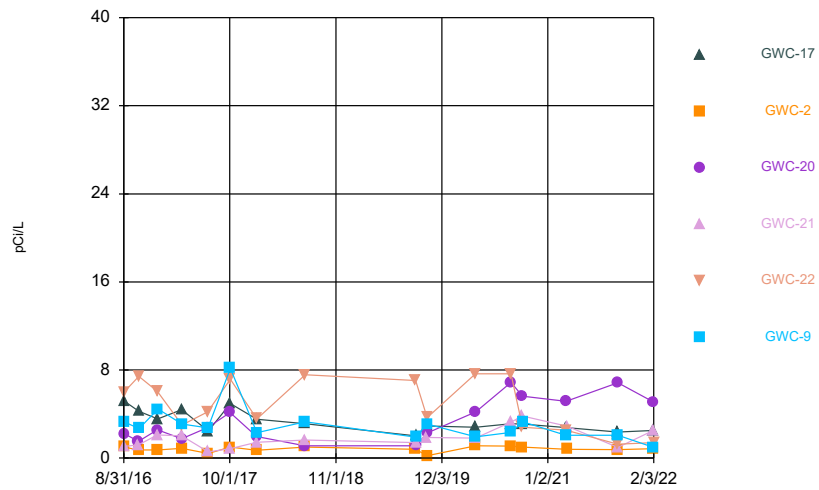
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



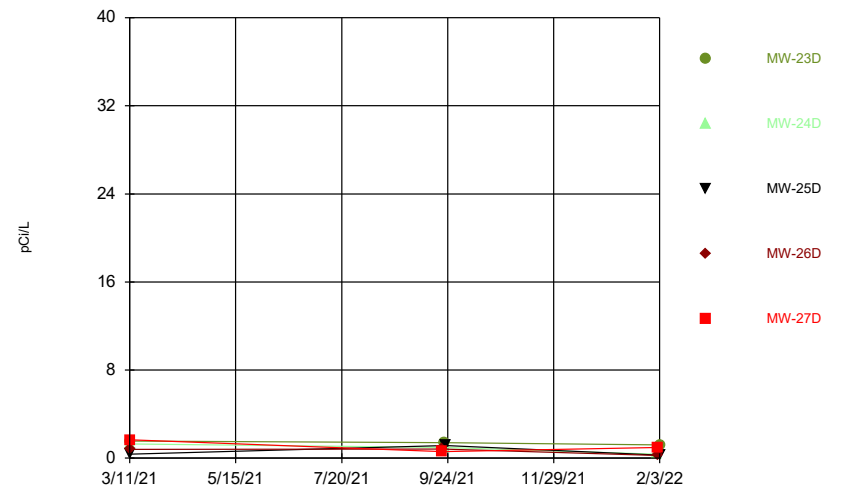
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



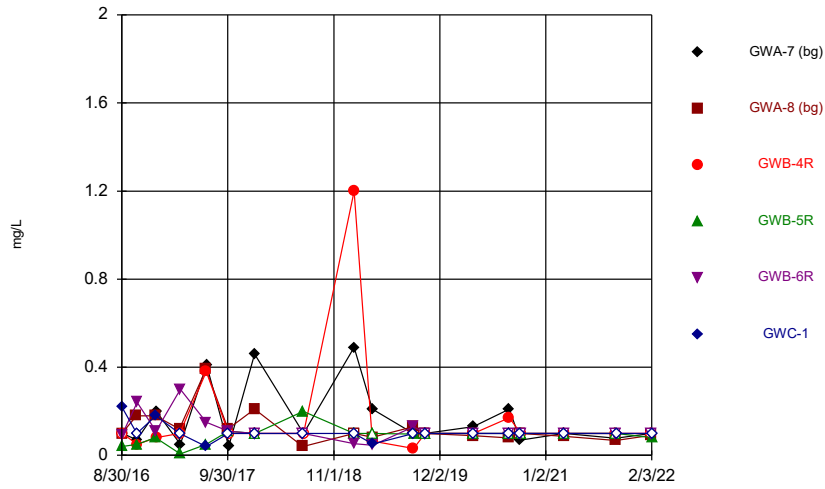
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Time Series



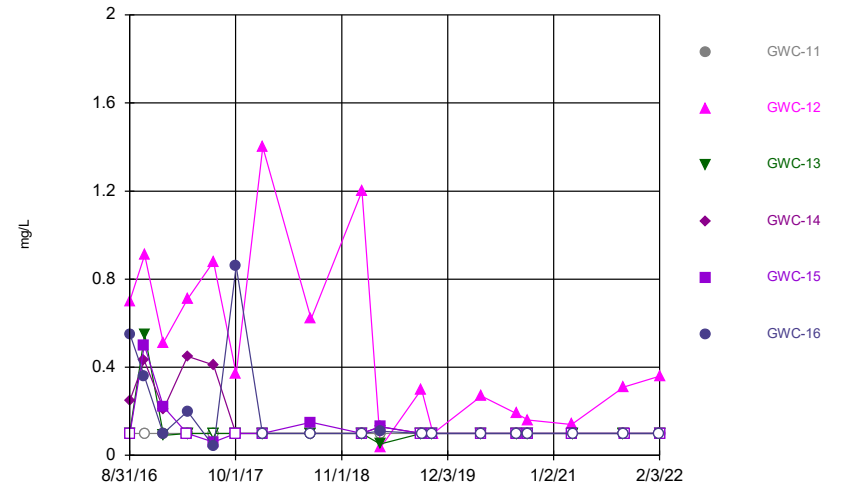
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Time Series



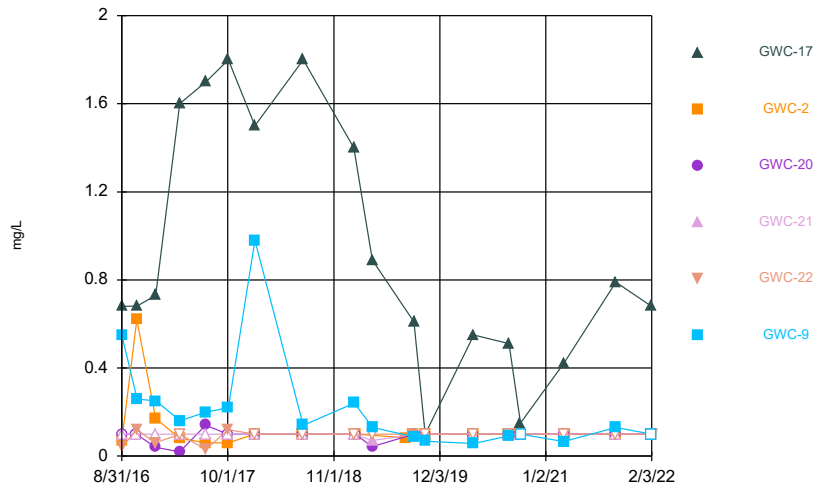
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Time Series



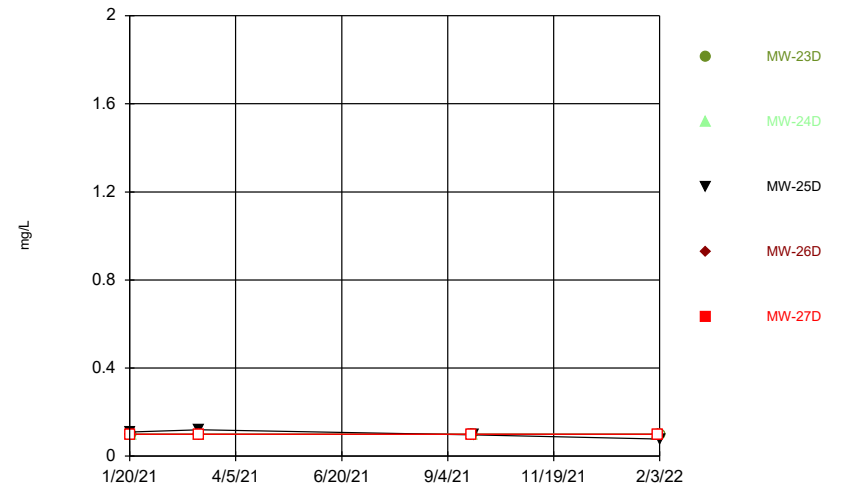
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Time Series



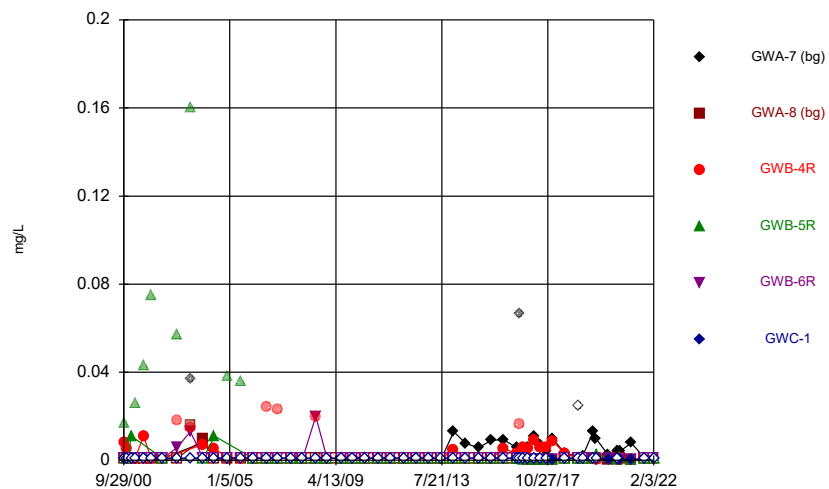
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Time Series



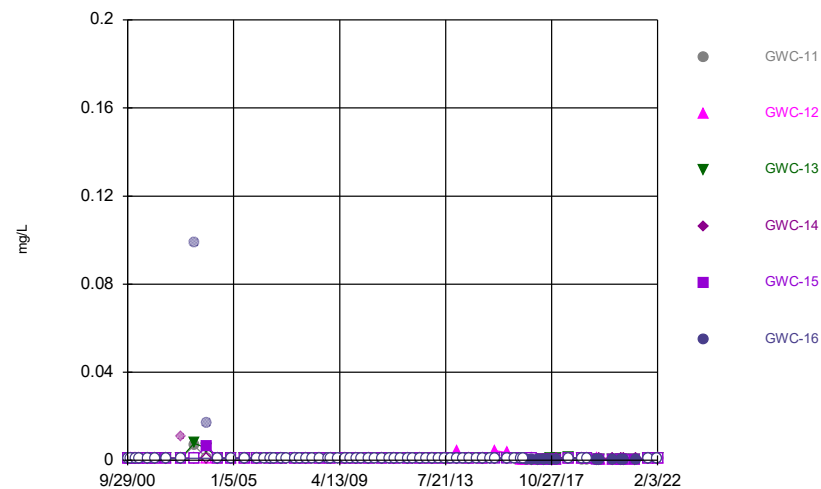
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Time Series



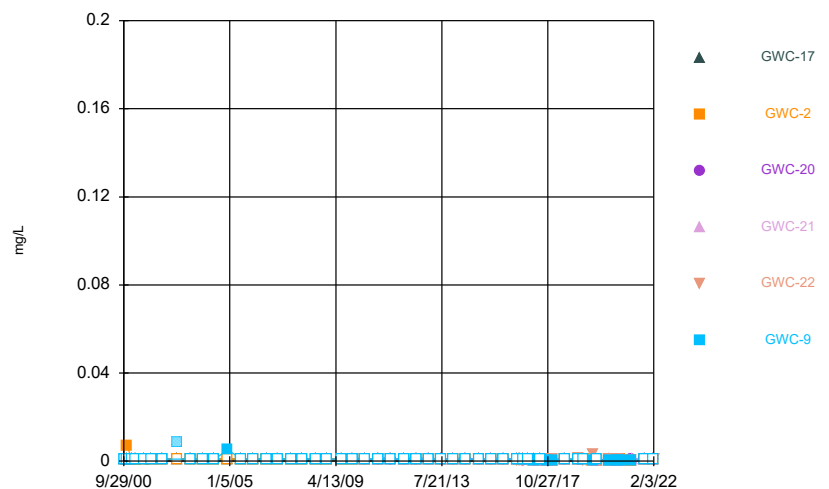
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Time Series



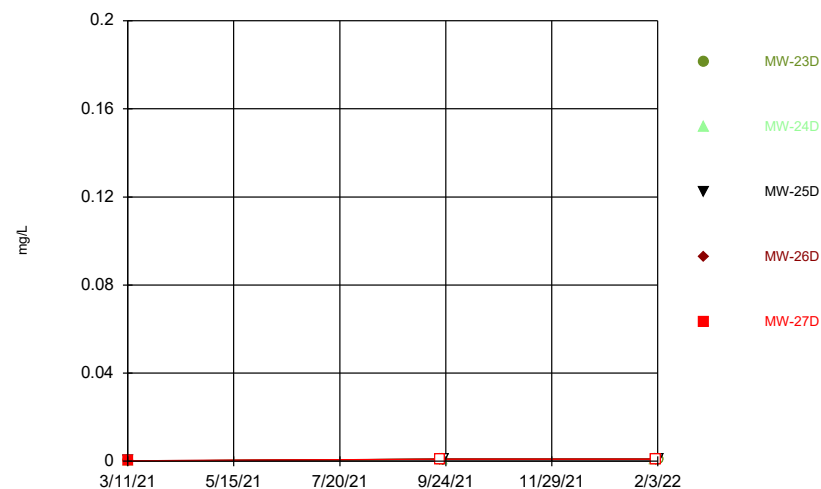
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Time Series



Constituent: Lead Analysis Run 4/13/2022 1:53 PM  
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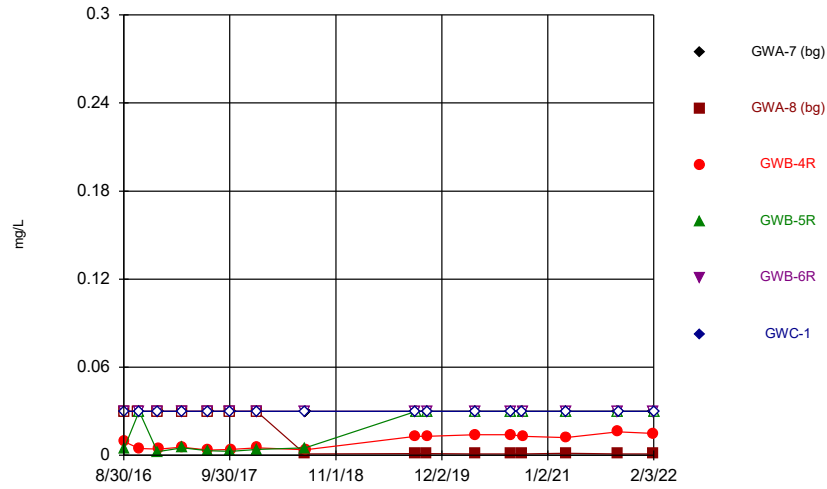
Time Series



Constituent: Lead Analysis Run 4/13/2022 1:53 PM  
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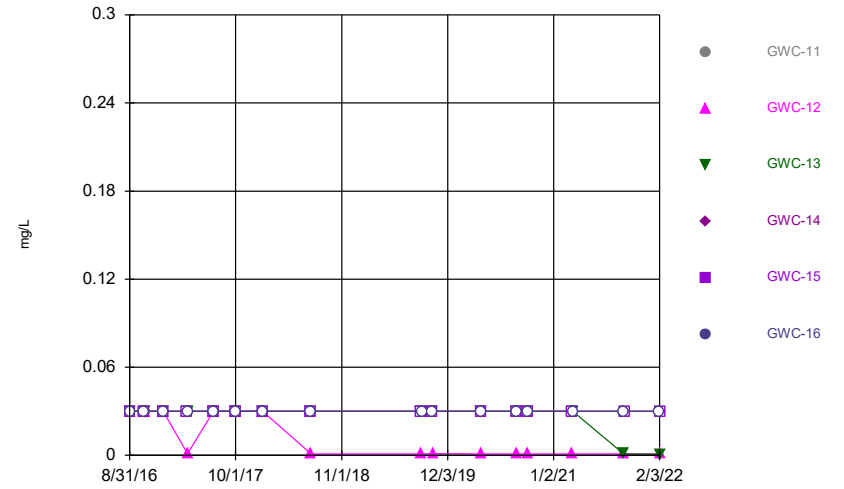


Time Series



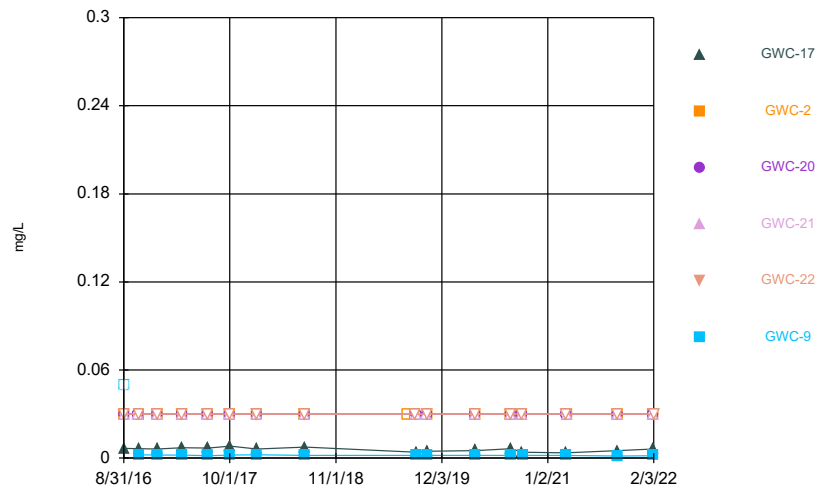
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Time Series



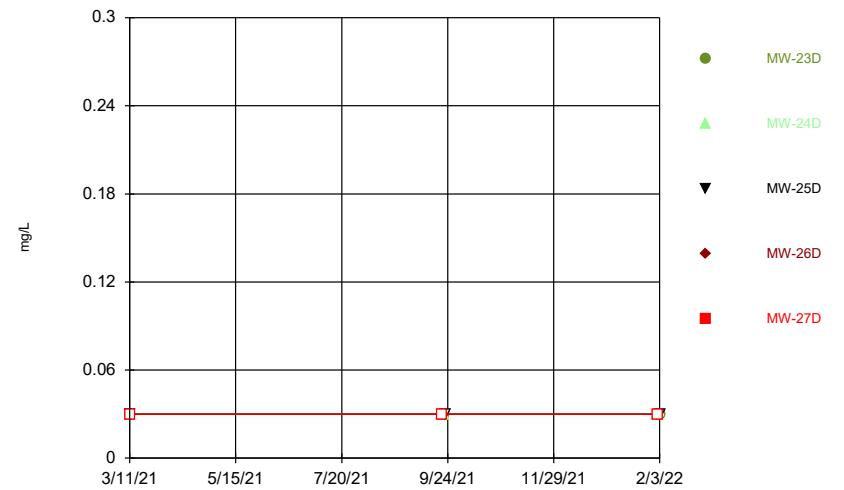
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Time Series



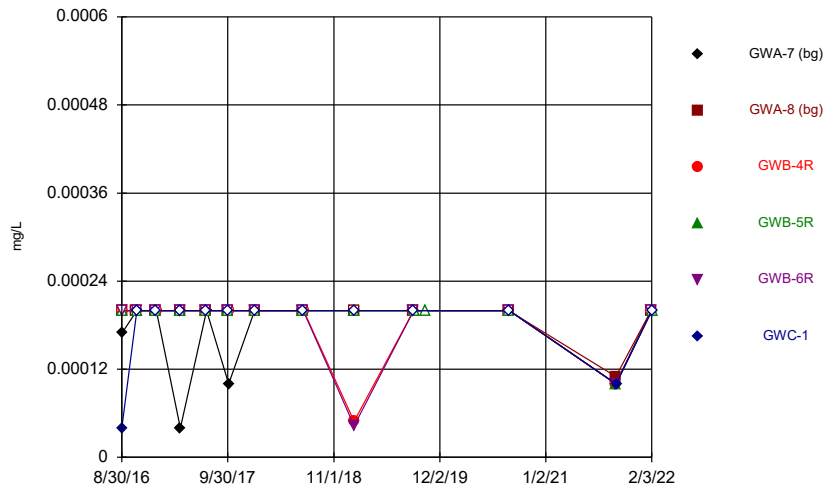
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Time Series



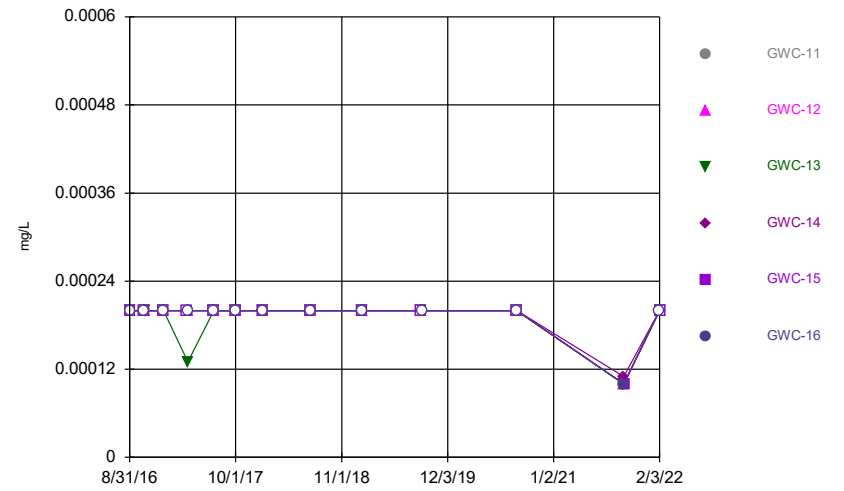
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Time Series



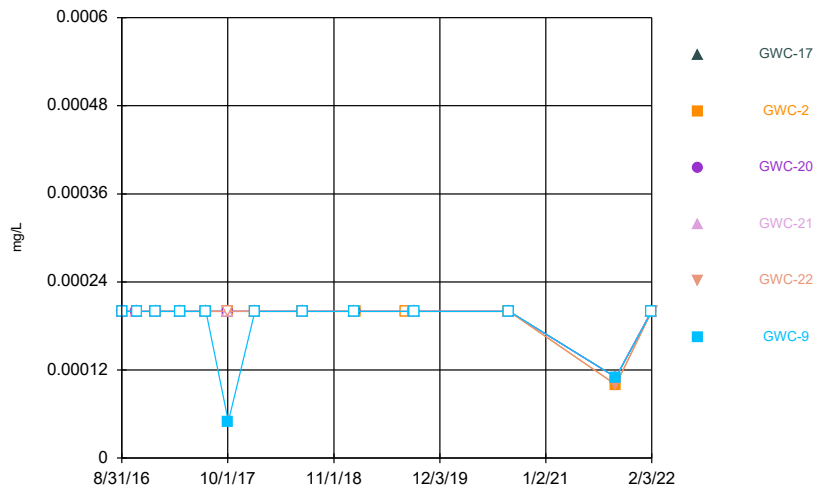
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



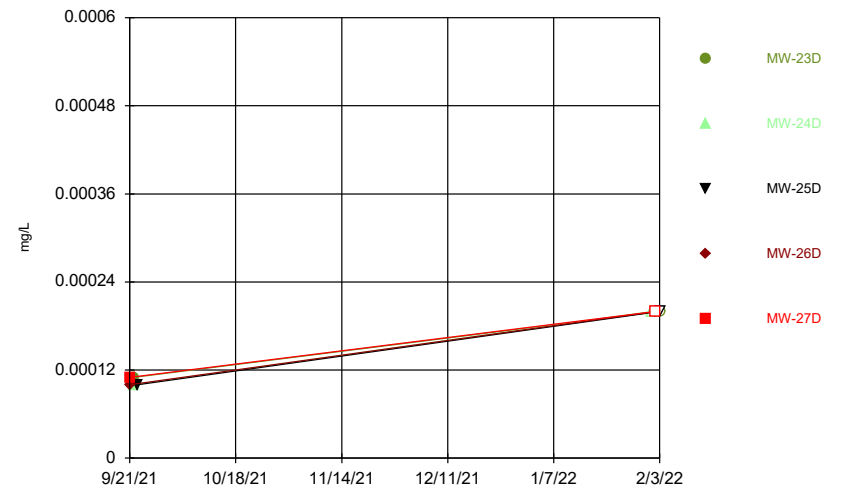
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Time Series



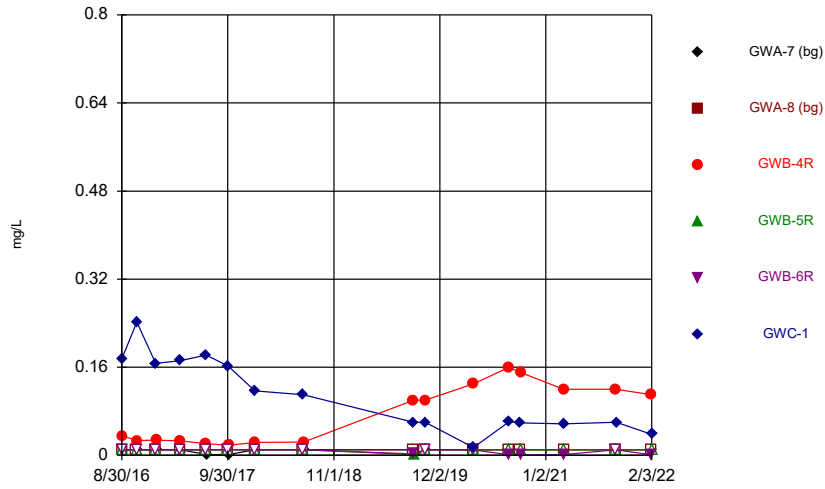
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Time Series



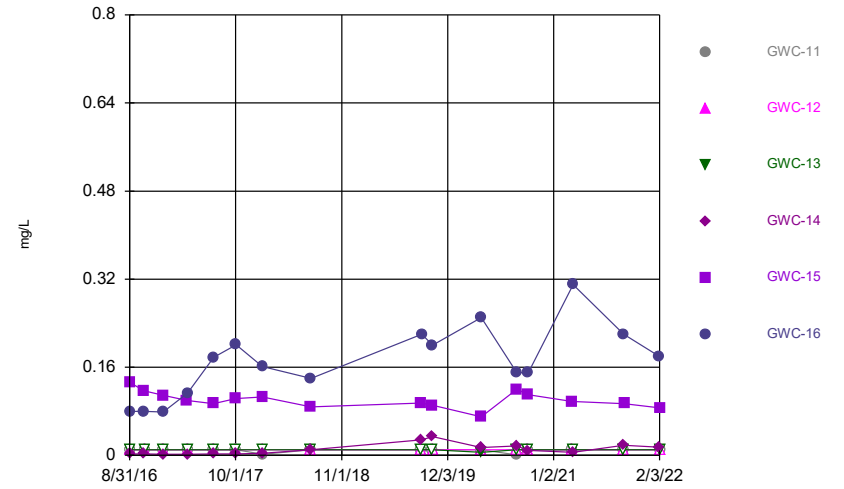
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



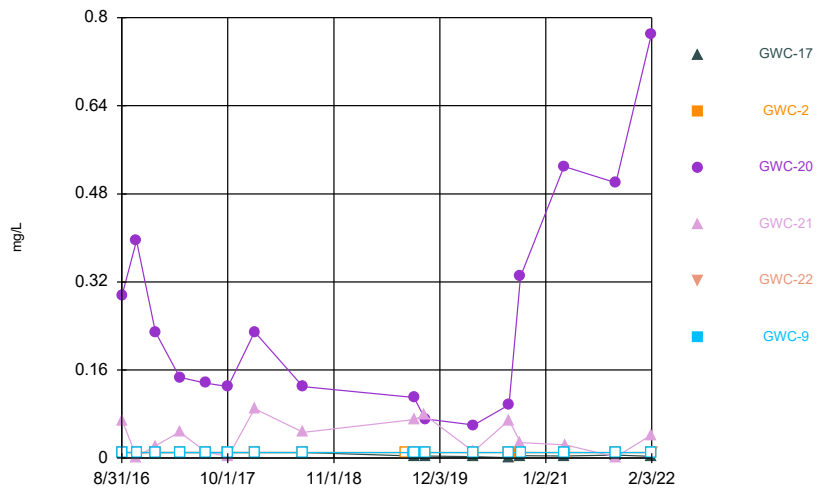
Constituent: Molybdenum Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



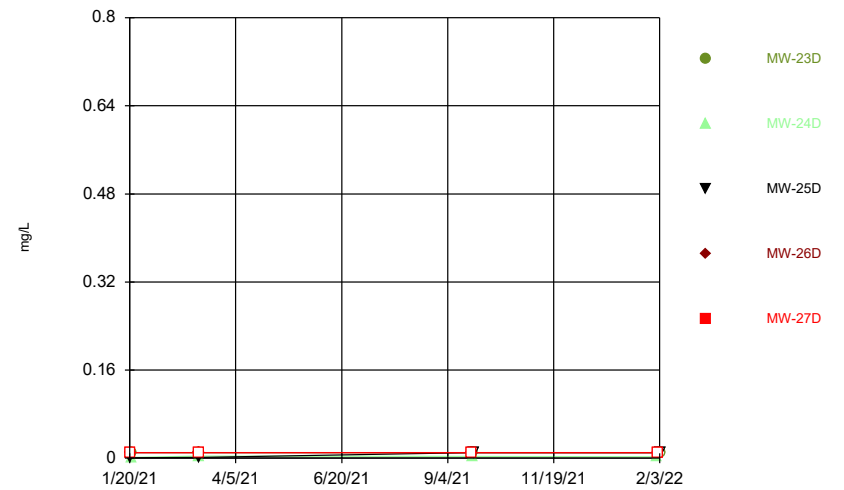
Constituent: Molybdenum Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



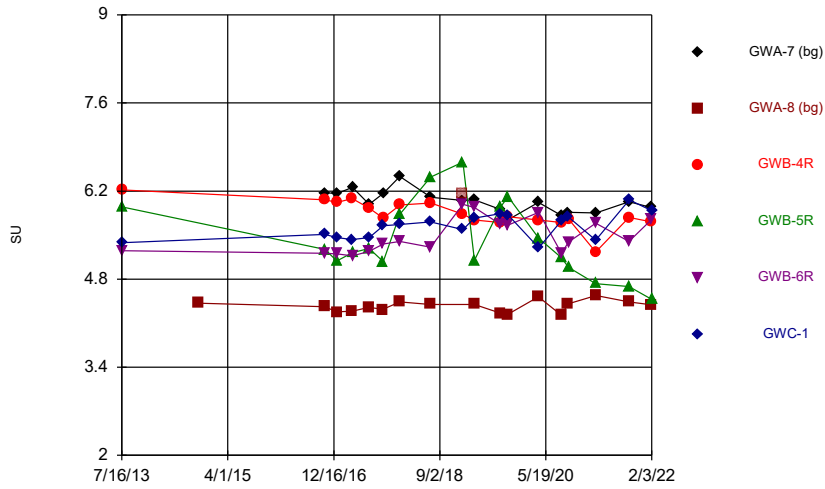
Constituent: Molybdenum Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



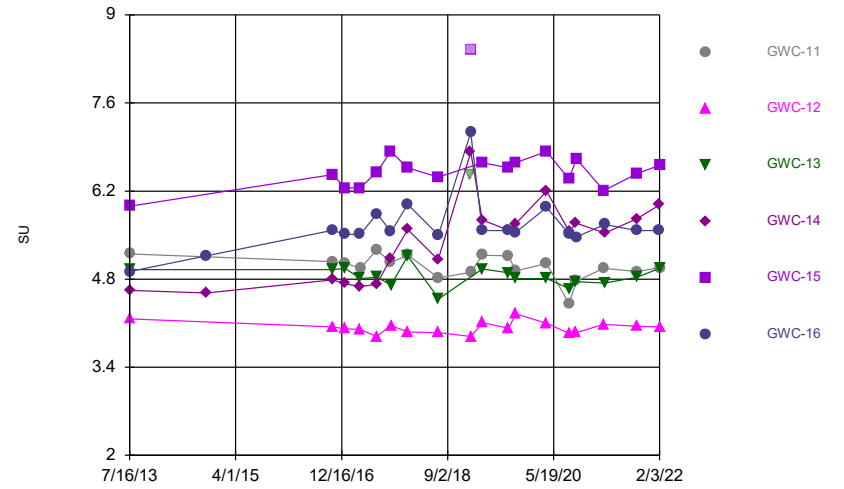
Constituent: Molybdenum Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



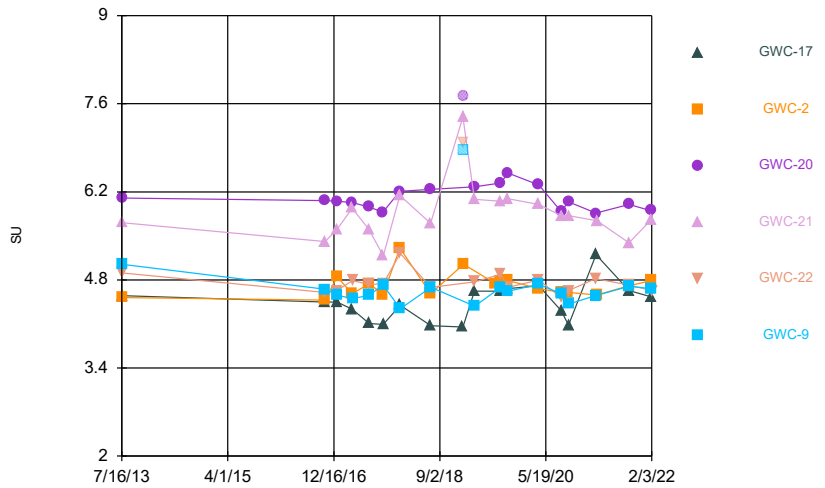
Constituent: pH Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



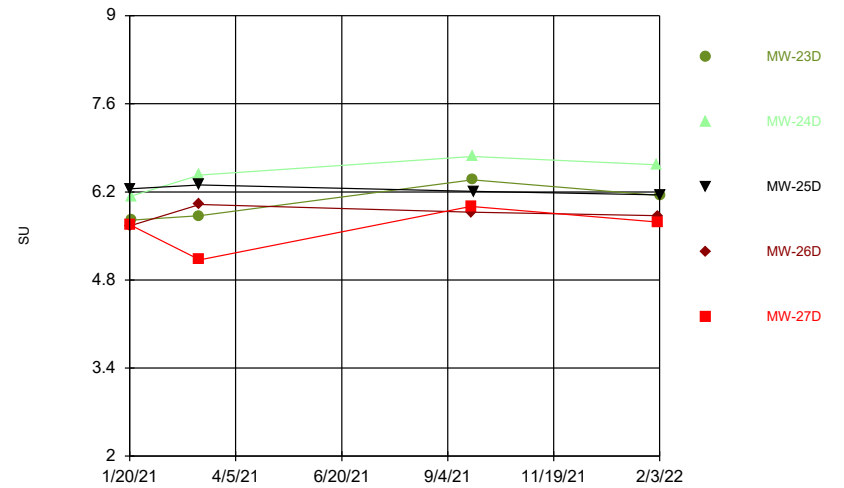
Constituent: pH Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



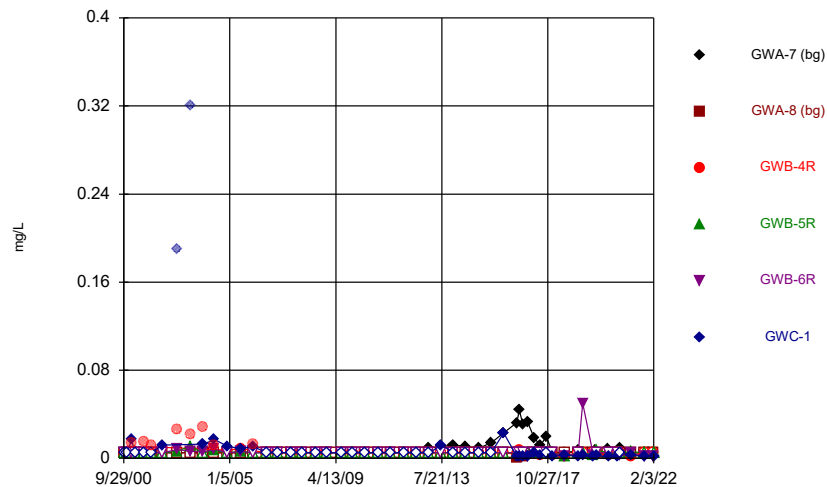
Constituent: pH Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



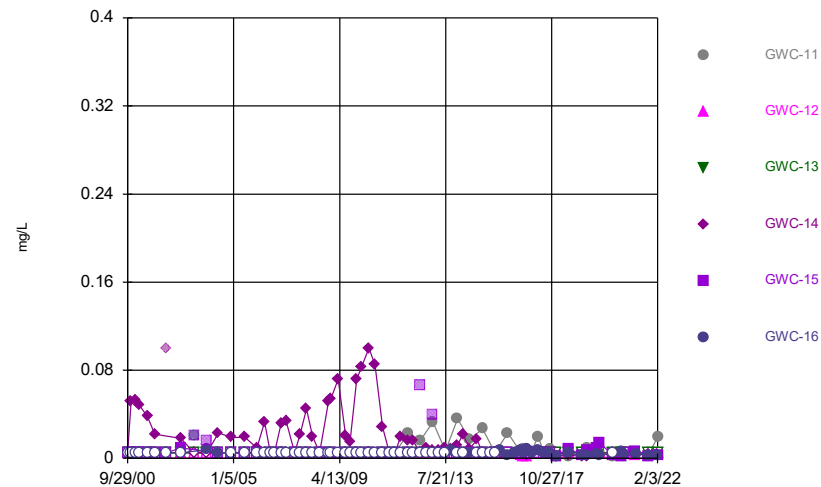
Constituent: pH Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



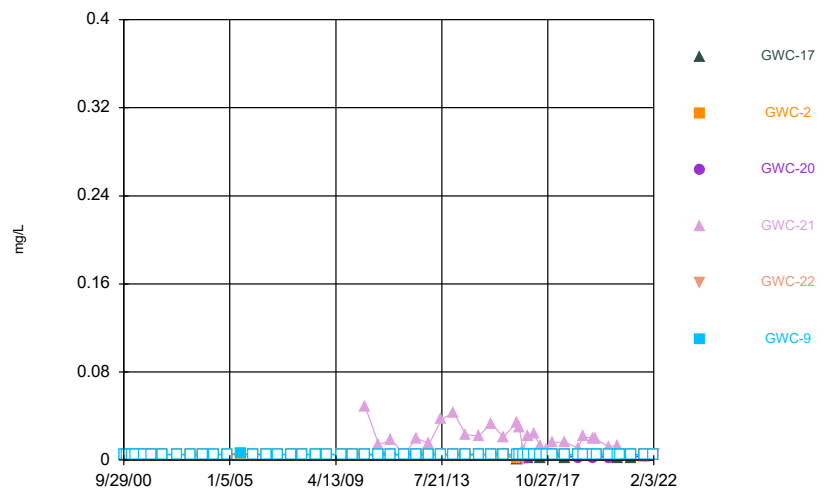
Constituent: Selenium Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



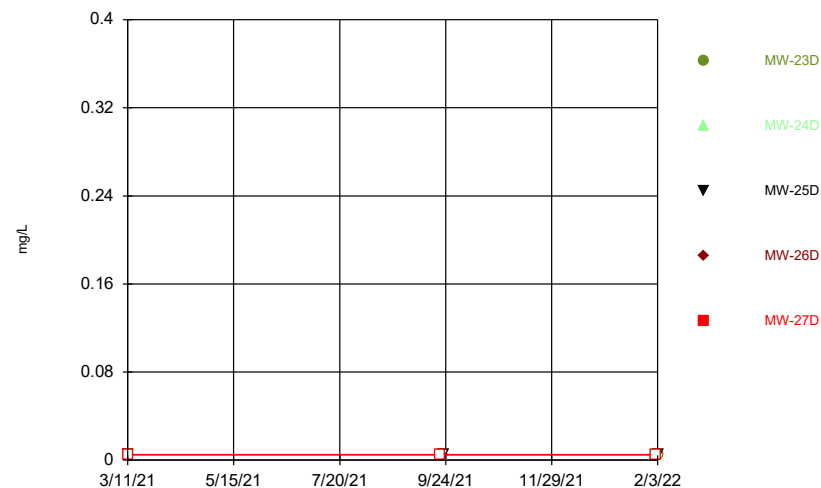
Constituent: Selenium Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



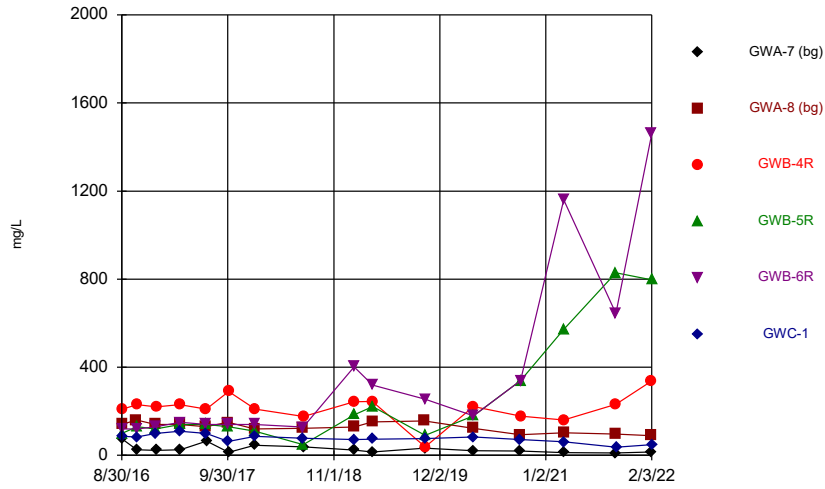
Constituent: Selenium Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



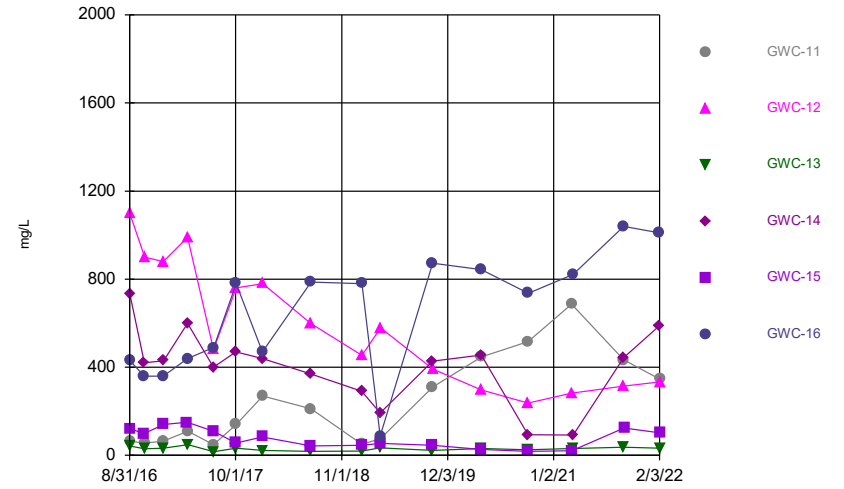
Constituent: Selenium Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



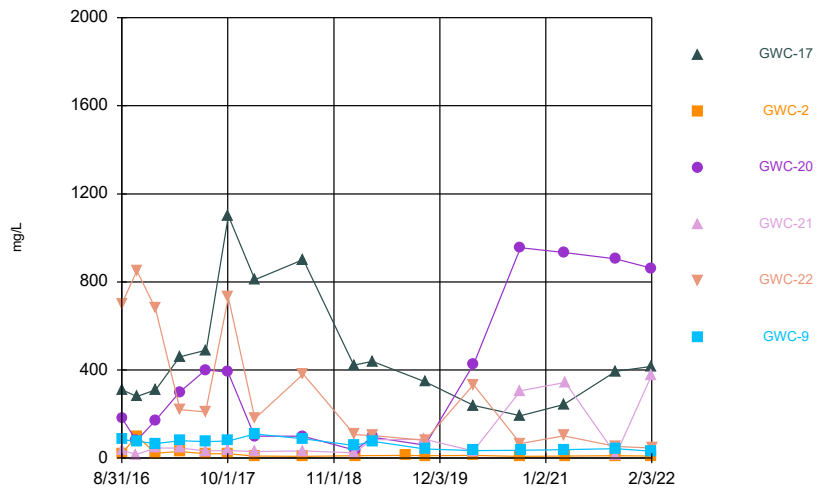
Constituent: Sulfate Analysis Run 4/13/2022 1:53 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



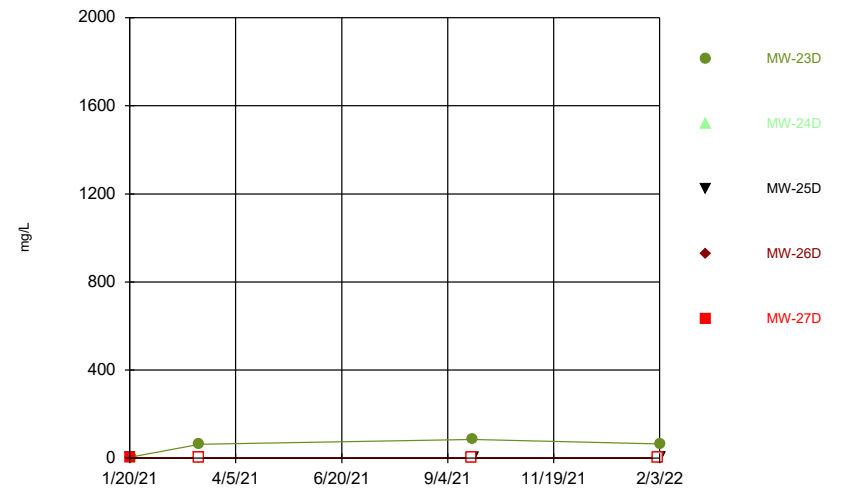
Constituent: Sulfate Analysis Run 4/13/2022 1:53 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



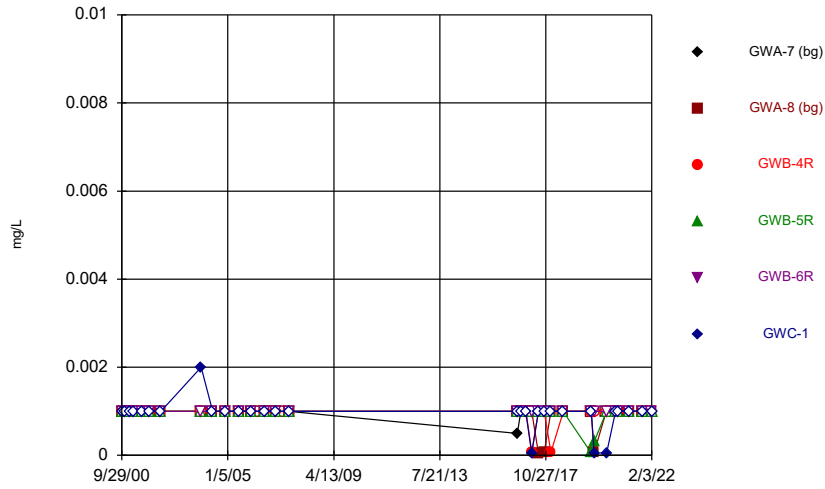
Constituent: Sulfate Analysis Run 4/13/2022 1:53 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Time Series



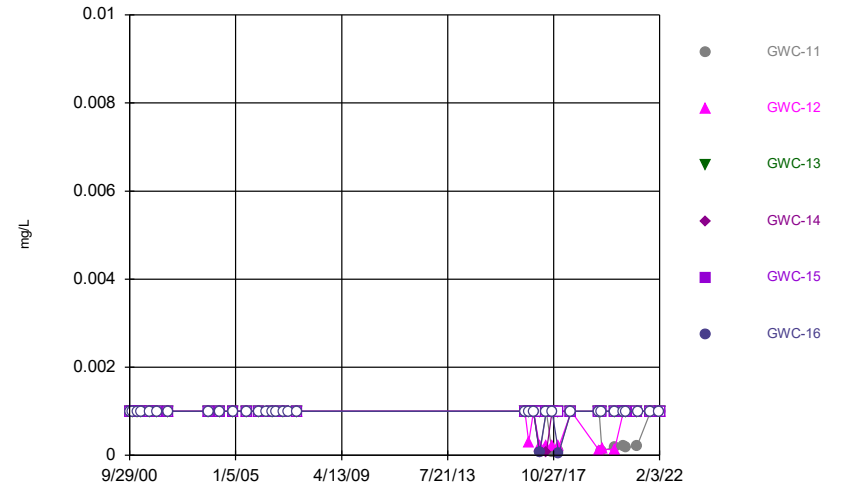
Constituent: Sulfate Analysis Run 4/13/2022 1:53 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



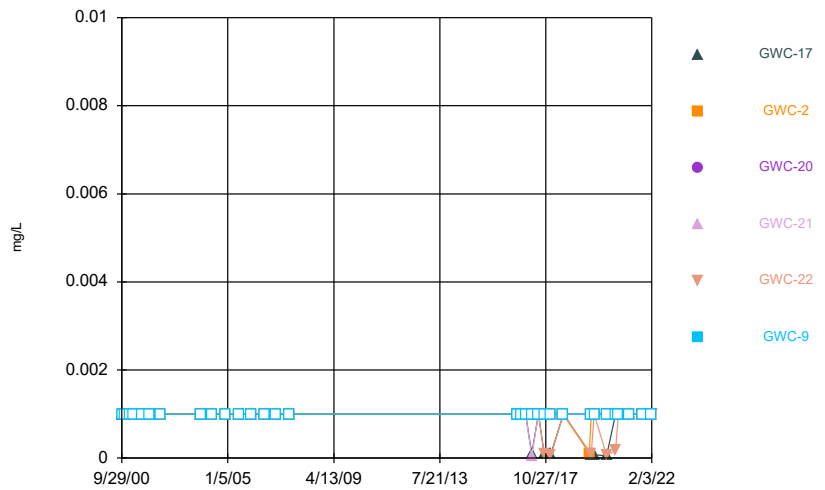
Constituent: Thallium Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



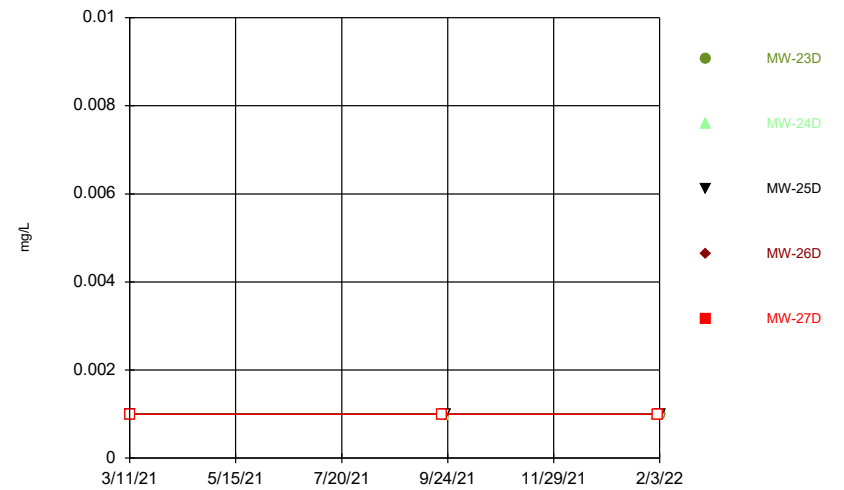
Constituent: Thallium Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



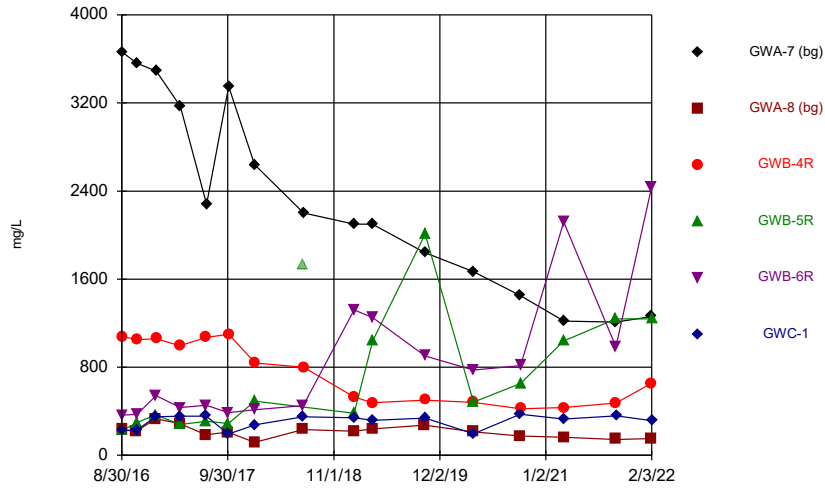
Constituent: Thallium Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



Constituent: Thallium Analysis Run 4/13/2022 1:53 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

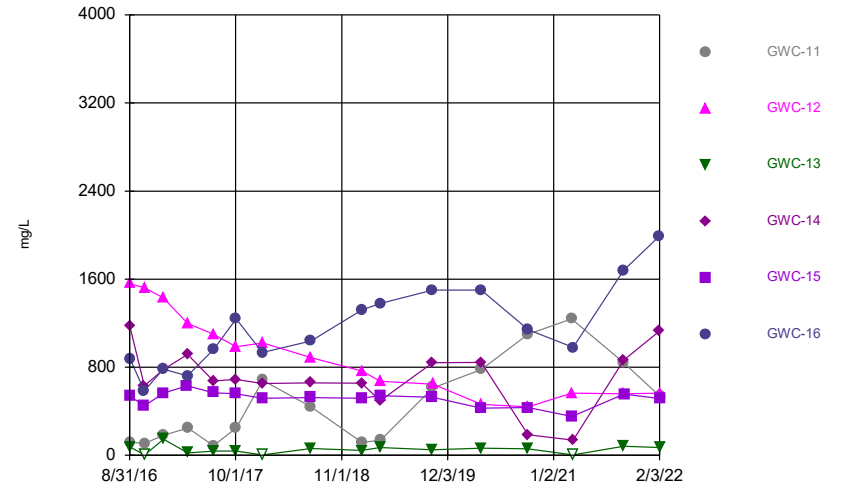
Time Series



Constituent: Total Dissolved Solids Analysis Run 4/13/2022 1:53 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Hollow symbols indicate censored values.

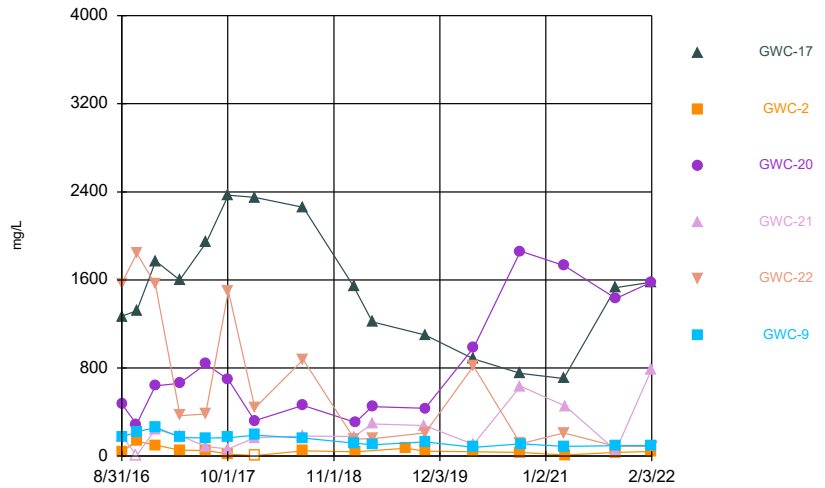
Time Series



Constituent: Total Dissolved Solids Analysis Run 4/13/2022 1:53 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

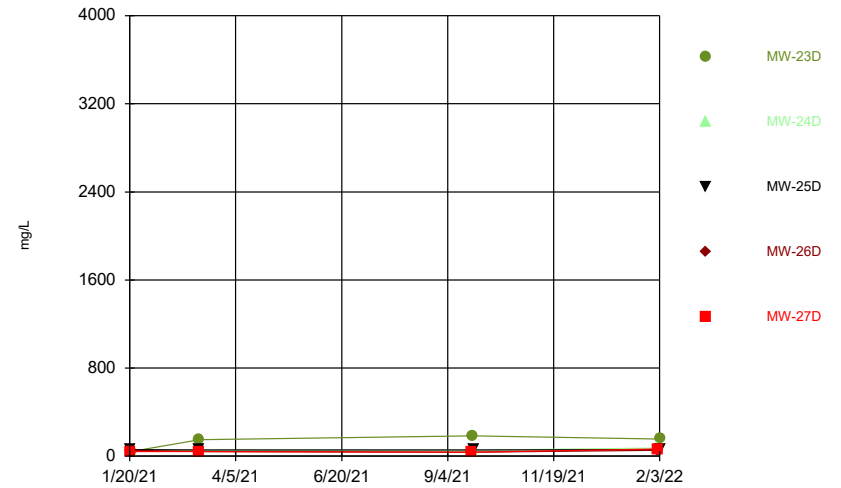
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 4/13/2022 1:53 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

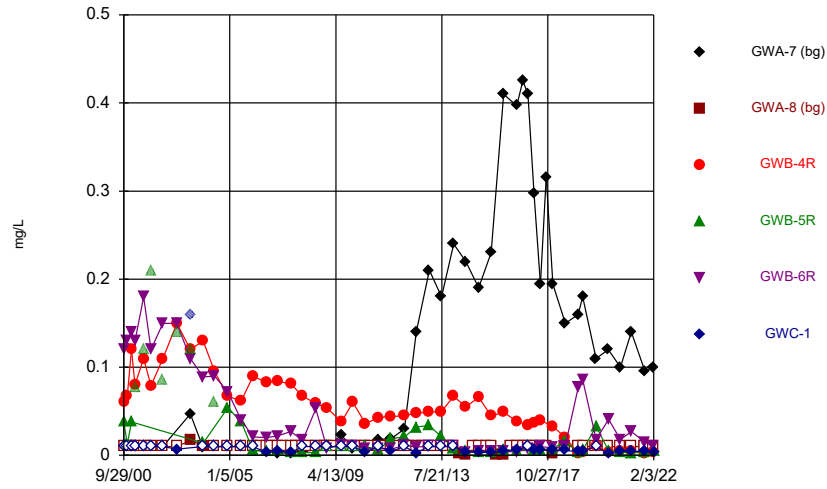
Time Series



Constituent: Total Dissolved Solids Analysis Run 4/13/2022 1:53 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

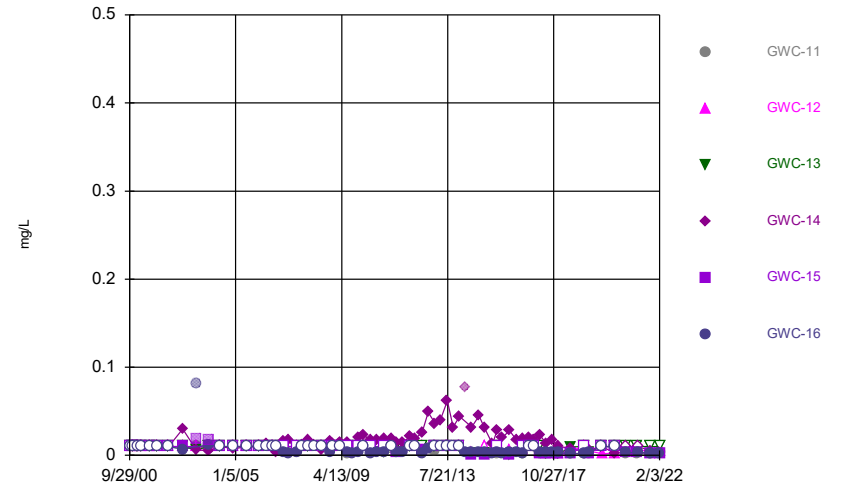


### Time Series



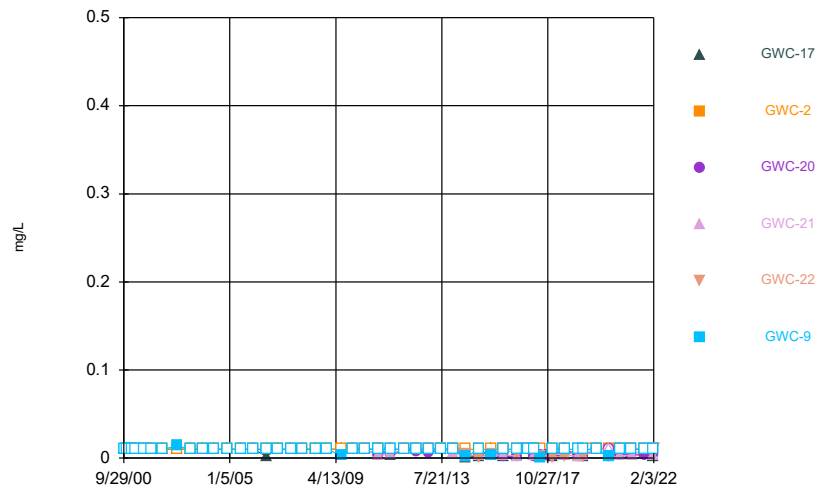
Constituent: Vanadium Analysis Run 4/13/2022 1:54 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



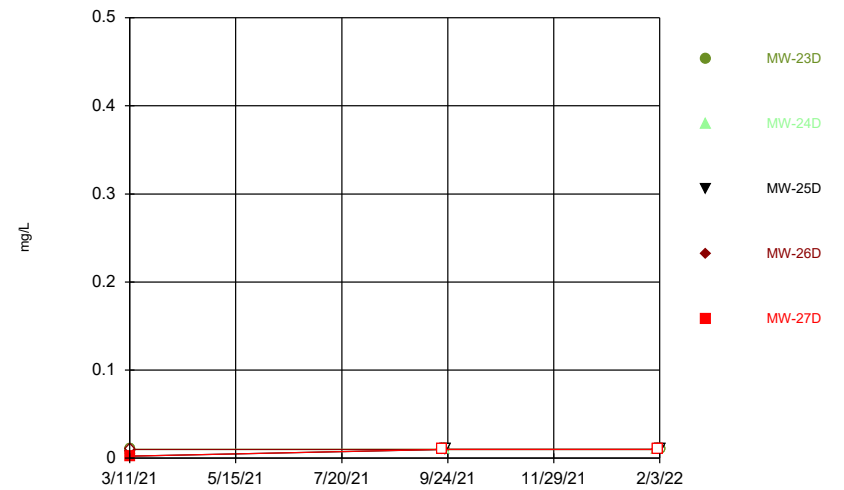
Constituent: Vanadium Analysis Run 4/13/2022 1:54 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



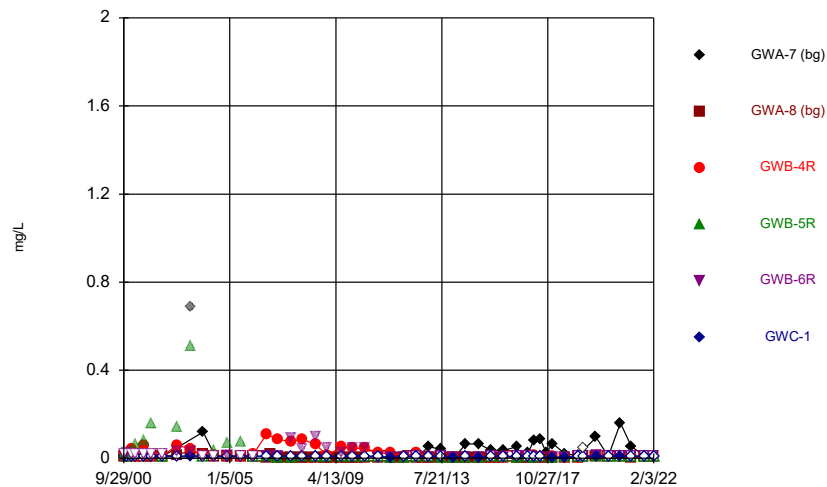
Constituent: Vanadium Analysis Run 4/13/2022 1:54 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



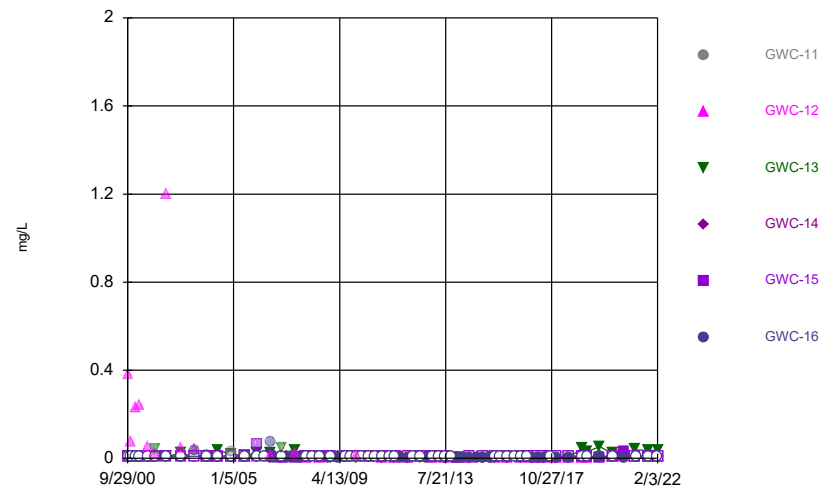
Constituent: Vanadium Analysis Run 4/13/2022 1:54 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



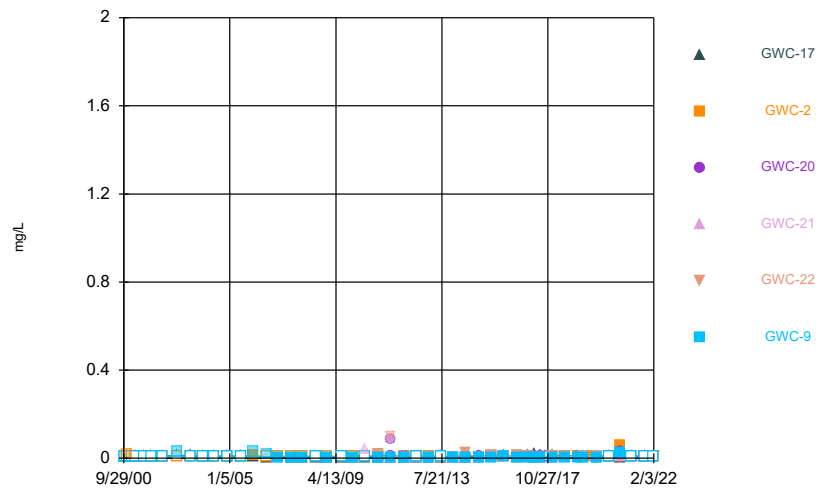
Constituent: Zinc Analysis Run 4/13/2022 1:54 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



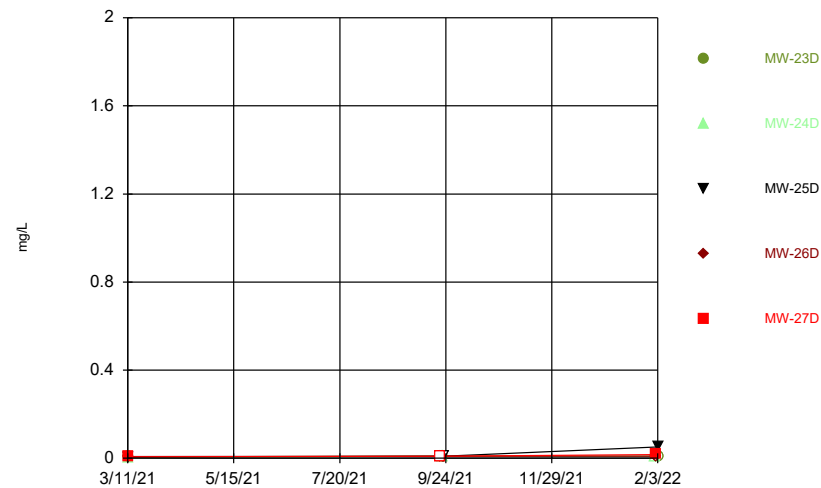
Constituent: Zinc Analysis Run 4/13/2022 1:54 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



Constituent: Zinc Analysis Run 4/13/2022 1:54 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Time Series



Constituent: Zinc Analysis Run 4/13/2022 1:54 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

# Time Series

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/21/2000	<0.003		<0.003	<0.003	<0.003	<0.003
1/20/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/14/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
7/16/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/1/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/25/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/20/2002		<0.003	<0.003	<0.003	<0.003	<0.003
6/6/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
5/26/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/7/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/21/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/4/2006		<0.003				
6/27/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/30/2006		<0.003				
12/4/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
2/15/2007		<0.003				
6/23/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/11/2007		<0.003				
12/11/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/11/2008		<0.003				
6/23/2008	<0.003	<0.003				
6/24/2008			<0.003	<0.003	<0.003	<0.003
11/3/2008		<0.003				
12/4/2008	<0.003	<0.003				
12/5/2008			<0.003	<0.003	<0.003	<0.003
3/25/2009		<0.003				
7/7/2009	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/14/2009		<0.003				
12/20/2009	<0.003	<0.003				<0.003
12/21/2009			<0.003	<0.003	<0.003	
3/4/2010		<0.003				
6/20/2010	<0.003	<0.003		<0.003	<0.003	<0.003
6/21/2010			<0.003			
9/14/2010		<0.003				
1/6/2011				<0.003		<0.003
1/7/2011	<0.003	<0.003	<0.003		<0.003	
4/15/2011		<0.003				
7/7/2011	<0.003	<0.003		<0.003	<0.003	<0.003
7/8/2011			<0.003			
9/25/2011		<0.003				
1/17/2012	<0.003	<0.003		<0.003		<0.003
1/18/2012			<0.003		<0.003	
4/4/2012		<0.003				
7/9/2012	<0.003			<0.003		<0.003
7/10/2012		<0.003	<0.003		<0.003	
10/9/2012		<0.003				
1/17/2013				<0.003		<0.003
1/18/2013	<0.003	<0.003	<0.003		<0.003	
4/5/2013		<0.003				

# Time Series

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				<0.003		<0.003
7/17/2013	<0.003	<0.003	<0.003		<0.003	
10/11/2013		<0.003				
1/13/2014	<0.003			<0.003		<0.003
1/14/2014		<0.003	<0.003		<0.003	
4/3/2014		<0.003				
7/9/2014	0.0022 (J)	<0.003	0.002 (J)	<0.003	<0.003	<0.003
10/24/2014		<0.003				
1/12/2015			<0.003			
1/13/2015	<0.003			<0.003		<0.003
1/14/2015		<0.003			<0.003	
5/10/2015		<0.003				
7/16/2015	0.0028 (J)		0.0021 (J)	<0.003		<0.003
7/17/2015		<0.003			<0.003	
10/6/2015		<0.003				
1/17/2016						<0.003
1/18/2016	<0.003	<0.003	<0.003	<0.003	<0.003	
4/26/2016		<0.003				
7/27/2016	<0.003			<0.003		<0.003
7/28/2016		<0.003			<0.003	
7/29/2016			0.0003 (J)			
8/30/2016		<0.003		<0.003	<0.003	<0.003
9/1/2016	0.0017 (J)		<0.003			
10/24/2016		<0.003				
10/25/2016	<0.003					<0.003
10/26/2016			<0.003	<0.003	<0.003	
1/3/2017		<0.003		<0.003		
1/4/2017						<0.003
1/5/2017					<0.003	
1/6/2017	0.0009 (J)		<0.003			
4/3/2017		<0.003				
4/4/2017			<0.003			<0.003
4/6/2017	<0.003			<0.003	<0.003	
7/11/2017		<0.003				
7/12/2017			<0.003	<0.003	<0.003	<0.003
7/13/2017	0.0013 (J)					
10/2/2017		<0.003				
10/3/2017				<0.003	<0.003	<0.003
10/4/2017	0.0008 (J)		<0.003			
1/9/2018	<0.003	<0.003			<0.003	
1/10/2018				<0.003		<0.003
1/11/2018			<0.003			
7/9/2018		<0.003				
7/10/2018				<0.003	<0.003	<0.003
7/11/2018	<0.003		<0.003			
1/16/2019	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/25/2019	<0.003	<0.003	<0.003			
3/26/2019				<0.003	<0.003	<0.003
8/26/2019	<0.003	<0.003				
8/27/2019			<0.003		<0.003	<0.003
8/28/2019				0.00054 (J)		
10/7/2019		<0.003				

# Time Series

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
10/8/2019	<0.003					
10/9/2019			<0.003	<0.003	<0.003	<0.003
4/6/2020	<0.003	<0.003				
4/7/2020			<0.003	<0.003	<0.003	<0.003
8/17/2020		<0.003				
8/19/2020	<0.003		<0.003	<0.003	<0.003	0.00061 (J)
9/28/2020	<0.003	<0.003				0.00035 (J)
9/30/2020				0.0003 (J)	0.00059 (J)	
10/1/2020			<0.003			
3/10/2021			<0.003	<0.003	0.00029 (J)	0.00069 (J)
3/11/2021	<0.003					
3/12/2021		<0.003				
9/21/2021	<0.003	<0.003	<0.003	0.0013 (J)	<0.003	
9/23/2021						0.0016 (J)
1/31/2022	<0.003	<0.003				
2/2/2022			<0.003		<0.003	
2/3/2022				<0.003		<0.003

# Time Series

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/21/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/20/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/14/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
7/16/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/1/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/25/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/20/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/6/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
5/26/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/7/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/21/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/4/2006				<0.003		<0.003
6/27/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/30/2006				<0.003		<0.003
12/4/2006	<0.003	<0.003	<0.003	<0.003	<0.003	0.006
2/15/2007				<0.003		<0.003
6/23/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/11/2007				<0.003		<0.003
12/11/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/11/2008				<0.003		<0.003
6/23/2008	<0.003	<0.003	<0.003			
6/24/2008				<0.003	<0.003	<0.003
11/3/2008				<0.003		<0.003
12/4/2008	<0.003	<0.003	<0.003	<0.003		
12/5/2008					<0.003	<0.003
3/25/2009				<0.003		<0.003
7/8/2009	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/14/2009				<0.003		<0.003
12/20/2009				<0.003	<0.003	<0.003
12/21/2009	<0.003	<0.003	<0.003			
3/4/2010				<0.003		<0.003
6/20/2010	<0.003	<0.003	<0.003	<0.003	<0.003	
6/21/2010						<0.003
9/14/2010				<0.003		<0.003
1/6/2011	<0.003		<0.003			
1/7/2011		<0.003		<0.003	<0.003	<0.003
4/15/2011				<0.003		<0.003
7/7/2011	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/25/2011				<0.003		<0.003
1/17/2012	<0.003	<0.003	<0.003	<0.003	<0.003	
1/18/2012						<0.003
4/4/2012				<0.003		<0.003
7/9/2012	<0.003	<0.003	<0.003	<0.003	<0.003	
7/10/2012						<0.003
10/9/2012				<0.003		<0.003
1/17/2013	<0.003	<0.003	<0.003			
1/18/2013				<0.003	<0.003	<0.003
4/5/2013				<0.003		<0.003
7/16/2013	<0.003	<0.003	<0.003			

# Time Series

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				<0.003	<0.003	<0.003
10/11/2013				0.005		<0.003
1/13/2014	<0.003	<0.003	<0.003		<0.003	
1/14/2014				<0.003		<0.003
4/3/2014				<0.003		<0.003
7/8/2014	<0.003	<0.003	<0.003			
7/9/2014				<0.003	<0.003	<0.003
10/24/2014				<0.003		<0.003
1/13/2015	<0.003	<0.003	<0.003		<0.003	
1/14/2015				<0.003		<0.003
5/10/2015				<0.003		
5/11/2015						<0.003
7/16/2015	<0.003	<0.003	<0.003		<0.003	<0.003
7/17/2015				<0.003		
10/6/2015				<0.003		<0.003
1/17/2016				<0.003	<0.003	<0.003
1/18/2016		<0.003	<0.003			
1/19/2016	<0.003					
4/26/2016				<0.003		<0.003
7/26/2016	0.0005 (J)		0.0006 (J)			
7/27/2016		<0.003		<0.003	<0.003	
7/28/2016						<0.003
8/31/2016	<0.003	<0.003	<0.003			
9/1/2016				<0.003	<0.003	<0.003
10/25/2016				<0.003	<0.003	<0.003
10/26/2016	<0.003	<0.003	<0.003			
1/4/2017	<0.003	<0.003				<0.003
1/5/2017			<0.003	<0.003	<0.003	
4/3/2017					<0.003	
4/4/2017				<0.003		
4/5/2017		<0.003				<0.003
4/6/2017	0.0006 (J)		<0.003			
7/10/2017		<0.003				
7/11/2017	0.0009 (J)			<0.003	<0.003	
7/12/2017			<0.003			<0.003
10/2/2017				<0.003	<0.003	
10/3/2017	<0.003					<0.003
10/4/2017		<0.003	<0.003			
1/9/2018				<0.003	<0.003	
1/10/2018			<0.003			<0.003
1/11/2018	0.0007 (J)	<0.003				
7/9/2018				<0.003		
7/10/2018					<0.003	<0.003
7/11/2018	<0.003	<0.003	<0.003			
1/16/2019			<0.003	<0.003		
1/17/2019	<0.003	<0.003			<0.003	<0.003
3/26/2019			<0.003	<0.003	<0.003	<0.003
3/27/2019	<0.003	<0.003				
8/27/2019	0.00033 (J)	<0.003	<0.003	<0.003	<0.003	
8/28/2019						<0.003
10/8/2019	0.00046 (J)		<0.003	<0.003	<0.003	<0.003
10/9/2019		<0.003				

# Time Series

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
4/7/2020	0.00066 (J)	<0.003		<0.003	<0.003	<0.003
4/8/2020			<0.003			
8/17/2020		<0.003	<0.003			
8/18/2020	0.00064 (J)			<0.003	<0.003	<0.003
9/28/2020			<0.003			
9/29/2020	0.00051 (J)	<0.003		<0.003		
9/30/2020					<0.003	<0.003
3/10/2021	0.00076 (J)	0.0003 (J)				
3/12/2021					0.0018 (J)	
3/15/2021			<0.003			
3/16/2021				<0.003		<0.003
9/21/2021	<0.003	<0.003	<0.003			
9/22/2021				<0.003		<0.003
9/23/2021					<0.003	
2/1/2022						<0.003
2/2/2022				<0.003		
2/3/2022	<0.003	<0.003	<0.003		<0.003	



# Time Series

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.003					<0.003
11/21/2000	<0.003	<0.003				<0.003
1/20/2001	<0.003	<0.003				<0.003
3/14/2001	<0.003	<0.003				<0.003
7/16/2001	<0.003	<0.003				<0.003
11/1/2001	<0.003	<0.003				<0.003
4/25/2002	<0.003	<0.003				<0.003
11/20/2002	<0.003	<0.003				<0.003
6/6/2003	<0.003	<0.003				<0.003
12/12/2003	<0.003	<0.003				<0.003
5/26/2004	<0.003	<0.003				<0.003
12/7/2004	<0.003	<0.003				<0.003
6/21/2005	<0.003	<0.003				<0.003
12/12/2005	<0.003	<0.003				<0.003
6/27/2006	<0.003	<0.003				<0.003
12/4/2006	<0.003	<0.003				<0.003
6/23/2007	<0.003	<0.003				<0.003
12/11/2007	<0.003	<0.003				<0.003
6/23/2008						<0.003
6/24/2008	<0.003	<0.003				
12/4/2008		<0.003				<0.003
12/5/2008	<0.003					
7/8/2009	<0.003	<0.003				<0.003
12/20/2009		<0.003				
12/21/2009	<0.003					<0.003
6/20/2010		<0.003				<0.003
6/21/2010	<0.003		<0.003	<0.003	<0.003	
1/6/2011		<0.003				
1/7/2011	<0.003		<0.003	<0.003	<0.003	<0.003
7/7/2011			<0.003			
7/8/2011	<0.003		<0.003	<0.003	<0.003	<0.003
1/17/2012		<0.003				
1/18/2012	<0.003		<0.003	<0.003	<0.003	<0.003
7/9/2012		<0.003				
7/10/2012	<0.003		<0.003	<0.003	<0.003	<0.003
1/17/2013		<0.003				
1/18/2013	<0.003		<0.003	<0.003	<0.003	<0.003
7/17/2013	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/13/2014		<0.003				
1/14/2014	<0.003		<0.003	<0.003	<0.003	<0.003
7/9/2014	<0.003	<0.003		<0.003		<0.003
7/10/2014			<0.003		<0.003	
1/12/2015			<0.003			
1/13/2015		<0.003				
1/14/2015	<0.003			<0.003	<0.003	<0.003
7/16/2015		<0.003				
7/17/2015				<0.003		<0.003
7/18/2015	<0.003		<0.003		<0.003	
1/17/2016		<0.003	<0.003	<0.003		
1/18/2016	<0.003				<0.003	<0.003
7/27/2016		<0.003				
7/28/2016			0.0019 (J)	<0.003		<0.003

# Time Series

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	<0.003				<0.003	
8/31/2016		<0.003			<0.003	<0.003
9/1/2016	<0.003		<0.003	<0.003		
10/25/2016			<0.003	<0.003		
10/26/2016	<0.003	<0.003			<0.003	
10/27/2016						0.0016 (J)
1/4/2017			<0.003	<0.003	<0.003	
1/5/2017	<0.003	<0.003				
1/6/2017						<0.003
4/4/2017		<0.003	<0.003	<0.003		
4/5/2017	<0.003					
4/6/2017					<0.003	<0.003
7/11/2017			<0.003		<0.003	
7/12/2017						<0.003
7/13/2017	<0.003	<0.003		<0.003		
10/2/2017			<0.003			
10/3/2017		<0.003		<0.003		
10/4/2017	<0.003				<0.003	<0.003
1/9/2018				<0.003		
1/10/2018		<0.003	<0.003			
1/11/2018	<0.003				<0.003	<0.003
7/9/2018			<0.003			
7/10/2018		<0.003		<0.003		
7/11/2018	<0.003				<0.003	<0.003
1/16/2019	<0.003					
1/17/2019				<0.003		
1/18/2019					<0.003	<0.003
1/21/2019		<0.003	<0.003			
3/25/2019			<0.003			
3/26/2019	<0.003			<0.003		
3/27/2019					<0.003	<0.003
7/30/2019		<0.003				
8/27/2019		<0.003			0.00045 (J)	
8/28/2019	<0.003		<0.003	<0.003		<0.003
10/8/2019				<0.003		
10/9/2019	<0.003	<0.003	<0.003		<0.003	<0.003
4/7/2020				<0.003	0.00049 (J)	
4/8/2020	<0.003	0.0013 (J)	<0.003			0.00033 (J)
8/18/2020	<0.003	<0.003	<0.003	<0.003	0.0022 (J)	
8/19/2020						<0.003
9/29/2020		0.0016 (J)				
9/30/2020	<0.003		<0.003	0.00033 (J)	0.0016 (J)	
10/1/2020						<0.003
3/10/2021					0.0004 (J)	<0.003
3/11/2021	0.00039 (J)					
3/12/2021			0.00065 (J)			
3/15/2021		<0.003				
3/16/2021				<0.003		
9/21/2021					<0.003	
9/22/2021	0.0014 (J)	<0.003	<0.003	<0.003		<0.003
2/1/2022	<0.003		<0.003	<0.003		
2/2/2022		<0.003				<0.003

# Time Series

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
2/3/2022					<0.003	

# Time Series

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.003	<0.003	<0.003	<0.003	<0.003
9/21/2021				<0.003	<0.003
9/22/2021	<0.003	<0.003			
9/23/2021			<0.003		
2/1/2022		<0.003			
2/2/2022				<0.003	<0.003
2/3/2022	<0.003		<0.003		

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005		<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	0.01	<0.005	0.014	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	<0.005	<0.005	0.014	<0.005	<0.005
11/1/2001	<0.005	<0.005	<0.005	0.023	<0.005	<0.005
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/20/2002		<0.005	0.0096	0.022	0.014	<0.005
6/6/2003	0.02	<0.005	0.0076	0.07 (O)	0.014	0.03 (O)
12/12/2003	<0.005	<0.005	0.0058	<0.005	<0.005	<0.005
5/26/2004	<0.005	<0.005	0.0068	0.0074	0.0082	<0.005
12/7/2004	<0.005	<0.005	0.0066	0.017	0.0062	<0.005
6/21/2005	<0.005	<0.005	<0.005	0.013	<0.005	<0.005
12/12/2005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/4/2006		<0.005				
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006		<0.005				
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/15/2007		<0.005				
6/23/2007	<0.005	<0.005	<0.005	<0.005	0.0053	<0.005
9/11/2007		<0.005				
12/11/2007	<0.005	<0.005	<0.005	<0.005	0.0057	<0.005
3/11/2008		<0.005				
6/23/2008	<0.005	<0.005				
6/24/2008			0.005	<0.005	0.012	<0.005
11/3/2008		<0.005				
12/4/2008	<0.005	<0.005				
12/5/2008			<0.005	<0.005	0.0064	<0.005
3/25/2009		<0.005				
7/7/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/14/2009		<0.005				
12/20/2009	<0.005	<0.005				<0.005
12/21/2009			<0.005	<0.005	<0.005	
3/4/2010		<0.005				
6/20/2010	<0.005	<0.005		<0.005	0.017	<0.005
6/21/2010			0.018 (O)			
9/14/2010		<0.005				
1/6/2011				<0.005		<0.005
1/7/2011	<0.005	<0.005	<0.005		<0.005	
4/15/2011		<0.005				
7/7/2011	<0.005	<0.005		<0.005	<0.005	<0.005
7/8/2011			<0.005			
9/25/2011		<0.005				
1/17/2012	<0.005	<0.005		<0.005		0.0071
1/18/2012			<0.005		<0.005	
4/4/2012		<0.005				
7/9/2012	0.0052			<0.005		0.0076
7/10/2012		<0.005	0.0052		<0.005	
10/9/2012		<0.005				
1/17/2013				<0.005		0.0086
1/18/2013	0.0087	<0.005	<0.005		<0.005	
4/5/2013		<0.005				

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				<0.005		<0.005
7/17/2013	0.0084	<0.005	<0.005		<0.005	
10/11/2013		<0.005				
1/13/2014	0.009			<0.005		<0.005
1/14/2014		<0.005	<0.005		<0.005	
4/3/2014		<0.005				
7/9/2014	0.008	<0.005	0.0023 (J)	<0.005	<0.005	0.0022 (J)
10/24/2014		<0.005				
1/12/2015			0.0028 (J)			
1/13/2015	0.0077			<0.005		<0.005
1/14/2015		<0.005			<0.005	
5/10/2015		<0.005				
7/16/2015	0.0077		<0.005	<0.005		0.0037 (J)
7/17/2015		<0.005			<0.005	
10/6/2015		<0.005				
1/17/2016						0.024 (O)
1/18/2016	0.014	<0.005	<0.005	<0.005	<0.005	
4/26/2016		0.0011 (J)				
7/27/2016	0.0111			0.0008 (J)		0.0046 (J)
7/28/2016		<0.005			0.0009 (J)	
7/29/2016			0.0014 (J)			
8/30/2016		<0.005		<0.005	<0.005	0.0023 (J)
9/1/2016	0.0287		0.0033 (J)			
10/24/2016		<0.005				
10/25/2016	0.0069					0.0035 (J)
10/26/2016			0.0016 (J)	<0.005	<0.005	
1/3/2017		<0.005		<0.005		
1/4/2017						0.0018 (J)
1/5/2017					0.0021 (J)	
1/6/2017	0.0097		<0.005			
4/3/2017		0.0006 (J)				
4/4/2017			0.0021 (J)			0.0015 (J)
4/6/2017	0.0104			0.0006 (J)	0.0011 (J)	
7/11/2017		0.0006 (J)				
7/12/2017			0.0015 (J)	0.0009 (J)	0.0014 (J)	0.0015 (J)
7/13/2017	0.0064					
10/2/2017		0.0006 (J)				
10/3/2017				0.001 (J)	0.0014 (J)	0.0013 (J)
10/4/2017	0.0078		0.0018 (J)			
1/9/2018	0.0091 (J)	0.0009 (J)			0.0017 (J)	
1/10/2018				0.0012 (J)		0.0023 (J)
1/11/2018			0.0015 (J)			
7/9/2018		<0.005				
7/10/2018				0.0016 (J)	0.00063 (J)	0.0031 (J)
7/11/2018	<0.005		0.00095 (J)			
1/16/2019	<0.005	<0.005	0.0024 (J)	0.0011 (J)	<0.005	0.0023 (J)
3/25/2019	0.0029 (J)	<0.005	0.0029 (J)			
3/26/2019				0.0014 (J)	0.0029 (J)	0.0032 (J)
8/26/2019	0.0041 (J)	<0.005				
8/27/2019			0.0023 (J)		0.0035 (J)	0.0022 (J)
8/28/2019				0.0023 (J)		
10/7/2019		<0.005				

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
10/8/2019	0.003 (J)					
10/9/2019			0.0024 (J)	0.0053 (J)	0.0018 (J)	0.0042 (J)
4/6/2020	<0.005	0.00045 (J)				
4/7/2020			0.0027 (J)	0.0011 (J)	<0.005	0.027
8/17/2020		<0.005				
8/19/2020	0.006 (J)		0.0033 (J)	0.0019 (J)	0.0036 (J)	0.007
9/28/2020	<0.005	<0.005				0.0058
9/30/2020				0.0017 (J)	0.004 (J)	
10/1/2020			0.0027 (J)			
3/10/2021			0.0025 (J)	0.0019 (J)	0.0054	0.0055
3/11/2021	0.0047 (J)					
3/12/2021		<0.005				
9/21/2021	<0.005	<0.005	0.0027 (J)	<0.005	0.0054	
9/23/2021						0.0048 (J)
1/31/2022	<0.005	<0.005				
2/2/2022			0.0036 (J)		0.01	
2/3/2022				0.0029 (J)		0.0057

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	0.094
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005	0.059
1/20/2001	<0.005	<0.005	<0.005	<0.005	<0.005	0.087
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	0.075
7/16/2001	<0.005	<0.005	<0.005	<0.005	<0.005	0.11
11/1/2001	<0.005	<0.005	<0.005	<0.005	<0.005	0.098
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005	0.071
11/20/2002	<0.005	<0.005	<0.005	0.011	<0.005	0.15
6/6/2003	<0.005	<0.005	<0.005	<0.005	<0.005	1.2 (O)
12/12/2003	<0.005	<0.005	0.0064	<0.005	<0.005	0.27 (O)
5/26/2004	<0.005	<0.005	<0.005	<0.005	<0.005	0.12
12/7/2004	<0.005	<0.005	<0.005	<0.005	<0.005	0.098
6/21/2005	<0.005	<0.005	<0.005	<0.005	<0.005	0.065
12/12/2005	<0.005	<0.005	<0.005	<0.005	<0.005	0.081
4/4/2006				<0.005		0.077
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	0.071
8/30/2006				<0.005		0.08
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	0.085
2/15/2007				<0.005		0.09
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005	0.12
9/11/2007				<0.005		0.088
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005	0.088
3/11/2008				<0.005		0.071
6/23/2008	<0.005	<0.005	<0.005			
6/24/2008				<0.005	<0.005	0.097
11/3/2008				<0.005		0.089
12/4/2008	<0.005	<0.005	<0.005	<0.005		
12/5/2008					<0.005	0.092
3/25/2009				<0.005		0.095
7/8/2009	<0.005	<0.005	<0.005	<0.005	0.0052	0.11
9/14/2009				<0.005		0.099
12/20/2009				<0.005	<0.005	0.1
12/21/2009	<0.005	<0.005	<0.005			
3/4/2010				<0.005		0.074
6/20/2010	<0.005	<0.005	<0.005	<0.005	0.0068	
6/21/2010						0.056
9/14/2010				<0.005		0.067
1/6/2011	<0.005		<0.005			
1/7/2011		<0.005		<0.005	<0.005	0.066
4/15/2011				<0.005		0.08
7/7/2011	<0.005	<0.005	<0.005	<0.005	<0.005	0.054
9/25/2011				<0.005		0.085
1/17/2012	<0.005	<0.005	<0.005	<0.005	<0.005	
1/18/2012						0.089
4/4/2012				<0.005		0.0473
7/9/2012	<0.005	<0.005	<0.005	<0.005	<0.005	
7/10/2012						0.07
10/9/2012				<0.005		0.088
1/17/2013	<0.005	<0.005	<0.005			
1/18/2013				<0.005	0.0089	0.063
4/5/2013				<0.005		0.06
7/16/2013	<0.005	<0.005	<0.005			



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				<0.005	0.011	0.063
10/11/2013				0.005		0.059
1/13/2014	<0.005	<0.005	<0.005		0.017	
1/14/2014				<0.005		0.077
4/3/2014				<0.005		0.091
7/8/2014	<0.005	<0.005	<0.005			
7/9/2014				<0.005	0.014	0.08
10/24/2014				<0.005		0.073
1/13/2015	<0.005	<0.005	<0.005		0.011	
1/14/2015				<0.005		0.079
5/10/2015				<0.005		
5/11/2015						0.058
7/16/2015	<0.005	<0.005	<0.005		0.02	0.068
7/17/2015				<0.005		
10/6/2015				<0.005		0.078
1/17/2016				0.002 (J)	0.014	0.089
1/18/2016		<0.005	<0.005			
1/19/2016	<0.005					
4/26/2016				0.00183 (J)		0.0731
7/26/2016	<0.005		<0.005			
7/27/2016		<0.005		0.0021 (J)	0.0303	
7/28/2016						0.0627
8/31/2016	<0.005	<0.005	<0.005			
9/1/2016				0.0024 (J)	0.0533	0.0551
10/25/2016				<0.005	0.0551	0.0466
10/26/2016	<0.005	<0.005	<0.005			
1/4/2017	<0.005	<0.005				0.0444
1/5/2017			<0.005	0.0024 (J)	0.0437	
4/3/2017					0.0713	
4/4/2017				0.003 (J)		
4/5/2017		0.0006 (J)				0.0591
4/6/2017	<0.005		<0.005			
7/10/2017		0.0008 (J)				
7/11/2017	<0.005			0.0019 (J)	0.0745	
7/12/2017			<0.005			0.0776
10/2/2017				0.0026 (J)	0.0723	
10/3/2017	<0.005					0.0813
10/4/2017		0.0009 (J)	<0.005			
1/9/2018				0.0021 (J)	0.0731	
1/10/2018			0.0006 (J)			0.085
1/11/2018	<0.005	<0.005				
7/9/2018				0.0019 (J)		
7/10/2018					0.09	0.067
7/11/2018	<0.005	<0.005	<0.005			
1/16/2019			<0.005	0.0016 (J)		
1/17/2019	<0.005	<0.005			0.13	0.079
3/26/2019			0.00058 (J)	0.0023 (J)	0.1	0.089
3/27/2019	<0.005	<0.005				
8/27/2019	<0.005	<0.005	<0.005	0.0017 (J)	0.17	
8/28/2019						0.091
10/8/2019	<0.005		<0.005	0.0017 (J)	0.13	0.088
10/9/2019		<0.005				

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
4/7/2020	<0.005	<0.005		0.0018 (J)	0.24	0.091
4/8/2020			<0.005			
8/17/2020		<0.005	<0.005			
8/18/2020	<0.005			0.0012 (J)	0.28	0.045
9/28/2020			<0.005			
9/29/2020	<0.005	<0.005		<0.005		
9/30/2020					0.24	0.044
3/10/2021	<0.005	<0.005				
3/12/2021					0.16	
3/15/2021			<0.005			
3/16/2021				<0.005		0.064
9/21/2021	<0.005	<0.005	<0.005			
9/22/2021				0.0014 (J)		0.081
9/23/2021					0.21	
2/1/2022						0.095
2/2/2022				0.0036 (J)		
2/3/2022	<0.005	0.0016 (J)	0.0025 (J)		0.23	

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.005					<0.005
11/21/2000	<0.005	<0.005				<0.005
1/20/2001	<0.005	<0.005				<0.005
3/14/2001	<0.005	<0.005				<0.005
7/16/2001	<0.005	<0.005				<0.005
11/1/2001	<0.005	<0.005				<0.005
4/25/2002	<0.005	<0.005				<0.005
11/20/2002	<0.005	<0.005				<0.005
6/6/2003	<0.005	<0.005				<0.005
12/12/2003	<0.005	<0.005				<0.005
5/26/2004	<0.005	<0.005				<0.005
12/7/2004	<0.005	<0.005				<0.005
6/21/2005	<0.005	<0.005				<0.005
12/12/2005	<0.005	<0.005				<0.005
6/27/2006	<0.005	<0.005				<0.005
12/4/2006	<0.005	<0.005				<0.005
6/23/2007	<0.005	<0.005				<0.005
12/11/2007	<0.005	<0.005				<0.005
6/23/2008						<0.005
6/24/2008	<0.005	<0.005				
12/4/2008		<0.005				<0.005
12/5/2008	<0.005					
7/8/2009	<0.005	<0.005				<0.005
12/20/2009		<0.005				
12/21/2009	<0.005					<0.005
6/20/2010		<0.005				<0.005
6/21/2010	<0.005		0.29	0.013 (O)	<0.005	
1/6/2011		<0.005				
1/7/2011	<0.005		0.2	<0.005	<0.005	<0.005
7/7/2011			<0.005			
7/8/2011	<0.005		0.19	<0.005	<0.005	<0.005
1/17/2012		<0.005				
1/18/2012	<0.005		0.058	<0.005	<0.005	<0.005
7/9/2012		<0.005				
7/10/2012	<0.005		0.18	<0.005	<0.005	<0.005
1/17/2013		<0.005				
1/18/2013	<0.005		0.22	0.0061	<0.005	<0.005
7/17/2013	<0.005	<0.005	0.45	<0.005	<0.005	<0.005
1/13/2014		<0.005				
1/14/2014	<0.005		0.52	0.006	<0.005	<0.005
7/9/2014	<0.005	<0.005		<0.005		<0.005
7/10/2014			0.4		0.0027 (J)	
1/12/2015			0.43			
1/13/2015		<0.005				
1/14/2015	<0.005			<0.005	<0.005	<0.005
7/16/2015		<0.005				
7/17/2015				<0.005		<0.005
7/18/2015	<0.005		0.26		<0.005	
1/17/2016		<0.005	0.34	0.0065		
1/18/2016	<0.005				<0.005	<0.005
7/27/2016		<0.005				
7/28/2016			0.209	<0.005		<0.005

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	0.0009 (J)				0.002 (J)	
8/31/2016		<0.005			0.0017 (J)	<0.005
9/1/2016	<0.005		0.215	0.0039 (J)		
10/25/2016			0.307	<0.005		
10/26/2016	<0.005	<0.005			<0.005	
10/27/2016						<0.005
1/4/2017			0.311	<0.005	<0.005	
1/5/2017	<0.005	<0.005				
1/6/2017						<0.005
4/4/2017		<0.005	0.317	0.0031 (J)		
4/5/2017	0.0011 (J)					
4/6/2017					0.0006 (J)	<0.005
7/11/2017			0.299		0.0012 (J)	
7/12/2017						<0.005
7/13/2017	0.0016 (J)	<0.005		<0.005		
10/2/2017			0.216			
10/3/2017		<0.005		<0.005		
10/4/2017	0.0019 (J)				0.0025 (J)	<0.005
1/9/2018				0.0033 (J)		
1/10/2018		0.0006 (J)	0.347			
1/11/2018	0.0015 (J)				0.0006 (J)	<0.005
7/9/2018			0.37			
7/10/2018		<0.005		0.0027 (J)		
7/11/2018	0.00082 (J)				0.0011 (J)	<0.005
1/16/2019	<0.005					
1/17/2019				0.0022 (J)		
1/18/2019					<0.005	<0.005
1/21/2019		<0.005	0.44			
3/25/2019			0.41			
3/26/2019	0.0015 (J)			0.0045 (J)		
3/27/2019					<0.005	<0.005
7/30/2019		0.00039 (J)				
8/27/2019		<0.005			0.00044 (J)	
8/28/2019	0.0011 (J)		0.43	0.002 (J)		<0.005
10/8/2019				0.0028 (J)		
10/9/2019	0.0011 (J)	<0.005	0.35		<0.005	<0.005
4/7/2020				<0.005	0.00043 (J)	
4/8/2020	0.0013 (J)	0.00094 (J)	0.33			0.00084 (J)
8/18/2020	<0.005	<0.005	0.3	0.0059	<0.005	
8/19/2020						<0.005
9/29/2020		<0.005				
9/30/2020	0.0012 (J)		0.31	0.0029 (J)	<0.005	
10/1/2020						<0.005
3/10/2021					<0.005	<0.005
3/11/2021	0.0009 (J)					
3/12/2021			0.27			
3/15/2021		<0.005				
3/16/2021				0.0098		
9/21/2021					<0.005	
9/22/2021	<0.005	<0.005	0.23	<0.005		<0.005
2/1/2022	<0.005		0.22	0.02		
2/2/2022		<0.005				<0.005

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
2/3/2022					<0.005	

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			<0.005		
1/21/2021	<0.005	<0.005			
3/11/2021	<0.005	<0.005	0.00092 (J)	0.001 (J)	<0.005
9/21/2021				<0.005	<0.005
9/22/2021	<0.005	<0.005			
9/23/2021			<0.005		
2/1/2022		<0.005			
2/2/2022				0.0015 (J)	0.0021 (J)
2/3/2022	<0.005		<0.005		

# Time Series

Constituent: Barium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	0.11	0.16	0.16	0.22	0.16	0.044
11/21/2000	0.12		0.16	0.13	0.21	0.047
1/20/2001	0.11	0.18	0.21	0.19	0.23	0.051
3/14/2001	0.11	0.14	0.18	0.27	0.22	0.048
7/16/2001	0.11	0.14	0.18	0.37	0.22	0.054
11/1/2001	0.11	0.14	0.15	0.61 (O)	0.23	0.063
4/25/2002	0.058	0.088	0.16	0.19	0.15	0.032
6/6/2003	0.19	0.14	0.29	0.72 (O)	0.13	0.046
12/12/2003	0.1	0.13	0.18	0.054	0.034	0.034
5/26/2004	0.084	0.09	0.16	0.18	0.13	0.035
12/7/2004	0.094	0.11	0.16	0.24	0.13	0.024
6/21/2005	0.089	0.084	0.15	0.2	0.07	0.039
12/12/2005	0.089	0.1	0.15	0.074	0.04	0.042
4/4/2006		0.089				
6/27/2006	0.096	0.1	0.19	0.075	0.041	0.033
8/30/2006		0.12				
12/4/2006	0.092	0.086	0.26	0.092	0.048	0.04
2/15/2007		0.088				
6/23/2007	0.08	0.089	0.24	0.089	0.12	0.044
9/11/2007		0.092				
12/11/2007	0.067	0.077	0.21	0.072	0.12	0.049
3/11/2008		0.082				
6/23/2008	0.056	0.086				
6/24/2008			0.13	0.049	0.17	0.038
11/3/2008		0.088				
12/4/2008	0.054	0.081				
12/5/2008			0.12	0.067	0.093	0.06
3/25/2009		0.069				
7/7/2009	0.034	0.078	0.17	0.04	0.06	0.043
9/14/2009		0.079				
12/20/2009	0.034	0.081				0.065
12/21/2009			0.2	0.044	0.11	
3/4/2010		0.065				
6/20/2010	0.062	0.078		0.036	0.11	0.095
6/21/2010			0.22			
9/14/2010		0.076				
1/6/2011				0.075		0.093
1/7/2011	0.039	0.074	0.12		0.025	
4/15/2011		0.065				
7/7/2011	0.036	0.081		0.13	0.025	0.095
7/8/2011			0.15			
9/25/2011		0.078				
1/17/2012	0.041	0.082		0.21		0.1
1/18/2012			0.15		0.03	
4/4/2012		0.0861				
7/9/2012	0.15			0.2		0.11
7/10/2012		0.082	0.14		0.028	
10/9/2012		0.09				
1/17/2013				0.19		0.12
1/18/2013	0.15	0.083	0.15		0.058	
4/5/2013		0.078				
7/16/2013				0.076		0.081

# Time Series

Constituent: Barium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/17/2013	0.13	0.083	0.14		0.086	
10/11/2013		0.078				
1/13/2014	0.16			0.14		0.096
1/14/2014		0.081	0.16		0.1	
4/3/2014		0.077				
7/9/2014	0.11	0.073	0.12	0.12	0.082	0.066
10/24/2014		0.087				
1/12/2015			0.13			
1/13/2015	0.083			0.13		0.068
1/14/2015		0.079			0.094	
5/10/2015		0.076				
7/16/2015	0.094		0.11	0.12		0.07
7/17/2015		0.061			0.11	
10/6/2015		0.067				
1/17/2016						0.062
1/18/2016	0.22	0.068	0.095	0.12	0.11	
4/26/2016		0.0596				
7/27/2016	0.192			0.112		0.0417
7/28/2016		0.0701			0.105	
7/29/2016			0.0883			
8/30/2016		0.0687		0.135	0.106	0.0545
9/1/2016	0.415 (O)		0.123			
10/24/2016		0.07				
10/25/2016	0.173					0.0504
10/26/2016			0.0863	0.103	0.107	
1/3/2017		0.061		0.118		
1/4/2017						0.0534
1/5/2017					0.107	
1/6/2017	0.167		0.0758			
4/3/2017		0.0612				
4/4/2017			0.091			0.0549
4/6/2017	0.136			0.162	0.111	
7/11/2017		0.0624				
7/12/2017			0.0941	0.157	0.106	0.0614
7/13/2017	0.0891					
10/2/2017		0.0618				
10/3/2017				0.127	0.105	0.0436
10/4/2017	0.113		0.0994			
1/9/2018	0.0901	0.0574			0.0969	
1/10/2018				0.158		0.053
1/11/2018			0.088			
7/9/2018		0.056				
7/10/2018				0.31	0.087	0.059
7/11/2018	0.065		0.071			
1/16/2019	0.062	0.062	0.083	0.054	0.013 (J)	0.054
3/25/2019	0.054	0.064	0.077			
3/26/2019				0.057	0.012 (J)	0.055
8/26/2019	0.11	0.065				
8/27/2019			0.076		0.013	0.054
8/28/2019				0.1		
10/7/2019		0.069				
10/8/2019	0.1					



# Time Series

Constituent: Barium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
10/9/2019			0.076	0.13	0.014 (J)	0.058
4/6/2020	0.072	0.057				
4/7/2020			0.09	0.098	0.01 (J)	0.05
8/17/2020		0.051				
8/19/2020	0.1		0.076	0.1	0.064	0.057
9/28/2020	0.095	0.05				0.051
9/30/2020				0.16	0.092	
10/1/2020			0.077			
3/10/2021			0.07	0.096	0.027	0.052
3/11/2021	0.07					
3/12/2021		0.052				
9/21/2021	0.073	0.049	0.098	0.076	0.077	
9/23/2021						0.062
1/31/2022	0.1	0.051				
2/2/2022			0.17		0.026	
2/3/2022				0.062		0.051

# Time Series

Constituent: Barium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	0.1	0.075	<0.005	0.11	0.028	0.076
11/21/2000	0.082	0.072	0.01	0.15	0.035	0.075
1/20/2001	0.083	0.086	<0.005	0.1	0.032	0.053
3/14/2001	0.075	0.088	0.01	0.095	0.036	0.055
7/16/2001	0.091	0.084	<0.005	0.28 (O)	0.036	0.041
11/1/2001	0.068	0.13	<0.005	0.16	0.036	0.045
4/25/2002	0.066	0.24 (O)	<0.005	0.054	0.045	0.055
6/6/2003	0.085	0.28 (O)	0.028	0.063	0.083 (O)	0.48 (O)
12/12/2003	0.072	0.27 (O)	0.019	0.041	0.094 (O)	0.13 (O)
5/26/2004	0.055	0.31 (O)	<0.005	0.059	0.034	0.055
12/7/2004	0.066	0.46 (O)	0.009	0.076	0.042	0.072
6/21/2005	0.033	0.053	0.0089	0.042	0.039	0.061
12/12/2005	0.034	0.1	0.026	0.048	0.043	0.047
4/4/2006				0.05		0.042
6/27/2006	0.029	0.098	0.029	0.036	0.031	0.042
8/30/2006				0.059		0.05
12/4/2006	0.02	0.068	0.017	0.062	0.043	0.044
2/15/2007				0.079		0.041
6/23/2007	0.017	0.042	0.014	0.03	0.031	0.044
9/11/2007				0.053		0.04
12/11/2007	0.013	0.04	0.011	0.075	0.044	0.0035
3/11/2008				0.052		0.034
6/23/2008	0.012	0.041	0.018			
6/24/2008				0.039	0.057	0.042
11/3/2008				0.082		0.049
12/4/2008	0.011	0.035	0.019	0.079		
12/5/2008					0.041	0.05
3/25/2009				0.093		0.052
7/8/2009	0.012	0.036	0.011	0.039	0.058	0.046
9/14/2009				0.061		0.048
12/20/2009				0.088	0.062	0.062
12/21/2009	0.011	0.028	0.01			
3/4/2010				0.077		0.058
6/20/2010	0.0089	0.025	0.0081	0.075	0.03	
6/21/2010						0.041
9/14/2010				0.093		0.036
1/6/2011	0.014		0.012			
1/7/2011		0.037		0.13	0.049	0.054
4/15/2011				0.086		0.049
7/7/2011	0.018	0.039	0.015	0.051	0.05	0.063
9/25/2011				0.056		0.037
1/17/2012	0.23	0.045	0.0086	0.052	0.044	
1/18/2012						0.034
4/4/2012				0.0519		0.0446
7/9/2012	0.17	0.032	0.01	0.048	0.045	
7/10/2012						0.033
10/9/2012				0.065		0.041
1/17/2013	0.2	0.033	0.014			
1/18/2013				0.045	0.049	0.036
4/5/2013				0.047		0.036
7/16/2013	0.11	0.027	0.012			
7/17/2013				0.032	0.039	0.054

# Time Series

Constituent: Barium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
10/11/2013				0.028		0.052
1/13/2014	0.083	0.027	0.015		0.038	
1/14/2014				0.036		0.051
4/3/2014				0.038		0.047
7/8/2014	0.066	0.037	0.017			
7/9/2014				0.03	0.031	0.08
10/24/2014				0.025		0.072
1/13/2015	0.053	0.023	0.019		0.041	
1/14/2015				0.04		0.047
5/10/2015				0.026		
5/11/2015						0.053
7/16/2015	0.052	0.03	0.022		0.041	0.059
7/17/2015				0.029		
10/6/2015				0.03		0.053
1/17/2016				0.038	0.048	0.056
1/18/2016		0.032	0.026			
1/19/2016	0.048					
4/26/2016				0.025		0.0721
7/26/2016	0.051		0.0236			
7/27/2016		0.0191		0.0248	0.0487	
7/28/2016						0.0534
8/31/2016	0.0565	0.019	0.0273			
9/1/2016				0.0346	0.0403	0.0445
10/25/2016				0.0248	0.0329	0.0464
10/26/2016	0.0591	0.0197	0.0238			
1/4/2017	0.0598	0.0174				0.0379
1/5/2017			0.0218	0.0245	0.0392	
4/3/2017					0.0439	
4/4/2017				0.0342		
4/5/2017		0.0174				0.0534
4/6/2017	0.0813		0.0204			
7/10/2017		0.0172				
7/11/2017	0.0302			0.0276	0.051	
7/12/2017			0.0161			0.0944
10/2/2017				0.0274	0.047	
10/3/2017	0.103					0.135 (O)
10/4/2017		0.0162	0.0185			
1/9/2018				0.0222	0.0431	
1/10/2018			0.0166			0.0603
1/11/2018	0.166	0.018				
7/9/2018				0.026		
7/10/2018					0.047	0.16 (O)
7/11/2018	0.12	0.014	0.019			
1/16/2019			0.019	0.028		
1/17/2019	0.039	0.017			0.042	0.13
3/26/2019			0.026	0.034	0.047	0.14
3/27/2019	0.053	0.017				
8/27/2019	0.12	0.017	0.024	0.067	0.049	
8/28/2019						0.09
10/8/2019	0.13		0.024	0.085	0.057	0.13
10/9/2019		0.019				
4/7/2020	0.14	0.017		0.073	0.033	0.13

# Time Series

Constituent: Barium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
4/8/2020			0.027			
8/17/2020		0.018	0.024			
8/18/2020	0.12			0.028	0.03	0.32
9/28/2020			0.029			
9/29/2020	0.14	0.018		0.026		
9/30/2020					0.034	0.14
3/10/2021	0.13	0.028				
3/12/2021					0.038	
3/15/2021			0.034			
3/16/2021				0.037		0.16
9/21/2021	0.12	0.023	0.037			
9/22/2021				0.11		0.26
9/23/2021					0.062	
2/1/2022						0.23
2/2/2022				0.1		
2/3/2022	0.17	0.025	0.038		0.061	

# Time Series

Constituent: Barium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	0.16					0.093
11/21/2000	0.17	0.046				0.095
1/20/2001	0.16	0.036				0.089
3/14/2001	0.17	0.03				0.088
7/16/2001	0.19	0.032				0.096
11/1/2001	0.18	0.029				0.094
4/25/2002	0.15	0.021				0.085
6/6/2003	0.13	0.032				0.09
12/12/2003	0.18	0.021				0.084
5/26/2004	0.17	0.035				0.08
12/7/2004	0.19	0.031				0.098
6/21/2005	0.18	0.028				0.084
12/12/2005	0.17	0.024				0.07
6/27/2006	0.17	0.03				0.083
12/4/2006	0.21	0.031				0.072
6/23/2007	0.17	0.037				0.087
12/11/2007	0.18	0.034				0.082
6/23/2008						0.1
6/24/2008	0.14	0.038				
12/4/2008		0.038				0.12
12/5/2008	0.19					
7/8/2009	0.2	0.053				0.14
12/20/2009		0.047				
12/21/2009	0.23					0.15
6/20/2010		0.046				0.21
6/21/2010	0.25		0.062	0.16	0.11	
1/6/2011		0.063				
1/7/2011	0.21		0.039	0.095	0.12	0.2
7/7/2011			0.06			
7/8/2011	0.13		0.043	0.1	0.094	0.18
1/17/2012		0.06				
1/18/2012	0.26		0.042	0.12	0.087	0.18
7/9/2012		0.05				
7/10/2012	0.19		0.039	0.097	0.1	0.16
1/17/2013		0.058				
1/18/2013	0.17		0.04	0.1	0.078	0.19
7/17/2013	0.18	0.041	0.055	0.069	0.062	0.17
1/13/2014		0.058				
1/14/2014	0.18		0.059	0.086	0.073	0.2
7/9/2014	0.16	0.048		0.065		0.16
7/10/2014			0.067		0.13	
1/12/2015			0.061			
1/13/2015		0.048				
1/14/2015	0.16			0.084	0.065	0.17
7/16/2015		0.048				
7/17/2015				0.071		0.18
7/18/2015	0.012		0.13		0.073	
1/17/2016		0.049	0.08	0.079		
1/18/2016	0.13				0.062	0.2
7/27/2016		0.0796				
7/28/2016			0.164	0.0626		0.234
7/29/2016	0.181				0.0575	

# Time Series

Constituent: Barium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		0.0429			0.0693	0.284
9/1/2016	0.203		0.0976	0.077		
10/25/2016			0.0702	0.0217		
10/26/2016	0.177	0.113 (O)			0.0966	
10/27/2016						0.244
1/4/2017			0.0999	0.0617	0.0975	
1/5/2017	0.142	0.0526				
1/6/2017						0.305
4/4/2017		0.0503	0.136	0.0761		
4/5/2017	0.106					
4/6/2017					0.064	0.249
7/11/2017			0.145		0.0778	
7/12/2017						0.256
7/13/2017	0.0686	0.0529		0.0428		
10/2/2017			0.148			
10/3/2017		0.057		0.0376		
10/4/2017	0.0589				0.156	0.356
1/9/2018				0.0704		
1/10/2018		0.0527	0.0788			
1/11/2018	0.0412				0.0702	0.226
7/9/2018			0.087			
7/10/2018		0.054		0.061		
7/11/2018	0.049				0.12	0.29
1/16/2019	0.063					
1/17/2019				0.061		
1/18/2019					0.052	0.21
1/21/2019		0.05	0.069			
3/25/2019			0.085			
3/26/2019	0.025			0.084		
3/27/2019					0.057	0.19
7/30/2019		0.052				
8/27/2019		0.053			0.097	
8/28/2019	0.026		0.078	0.063		0.17
10/8/2019				0.079		
10/9/2019	0.032	0.05	0.078		0.065	0.18
4/7/2020				0.054	0.1	
4/8/2020	0.055	0.061	0.19			0.15
8/18/2020	0.074	0.05	0.38	0.18	0.085	
8/19/2020						0.17
9/29/2020		0.049				
9/30/2020	0.035		0.35	0.19	0.045	
10/1/2020						0.15
3/10/2021					0.049	0.15
3/11/2021	0.044					
3/12/2021			0.34			
3/15/2021		0.053				
3/16/2021				0.18		
9/21/2021					0.036	
9/22/2021	0.058	0.047	0.42	0.046		0.15
2/1/2022	0.055		0.36	0.24		
2/2/2022		0.052				0.15
2/3/2022					0.038	

# Time Series

Constituent: Barium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	0.076	0.047	0.03	0.037	0.031
9/21/2021				0.027	0.022
9/22/2021	0.076	0.038			
9/23/2021			0.024		
2/1/2022		0.036			
2/2/2022				0.026	0.024
2/3/2022	0.079		0.024		

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/21/2000	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005
1/20/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/14/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
7/16/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/1/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4/25/2002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/30/2016		0.0002 (J)		0.0002 (J)	<0.0005	<0.0005
9/1/2016	0.0017 (J)		0.0004 (J)			
10/24/2016		<0.0005				
10/25/2016	0.0002 (J)					<0.0005
10/26/2016			0.0001 (J)	0.0001 (J)	<0.0005	
1/3/2017		0.0002 (J)		0.0001 (J)		
1/4/2017						<0.0005
1/5/2017					<0.0005	
1/6/2017	0.0003 (J)		0.0001 (J)			
4/3/2017		0.0002 (J)				
4/4/2017			0.0001 (J)			<0.0005
4/6/2017	0.0004 (J)			0.0003 (J)	<0.0005	
7/11/2017		0.0002 (J)				
7/12/2017			<0.0005	0.0002 (J)	<0.0005	<0.0005
7/13/2017	0.001 (J)					
10/2/2017		0.0002 (J)				
10/3/2017				0.0002 (J)	<0.0005	<0.0005
10/4/2017	0.0002 (J)		0.0001 (J)			
1/9/2018	<0.0005	0.0002 (J)			<0.0005	
1/10/2018				0.0003 (J)		<0.0005
1/11/2018			0.0001 (J)			
7/9/2018		0.0002 (J)				
7/10/2018				0.00028 (J)	<0.0005	<0.0005
7/11/2018	<0.0005		<0.0005			
8/26/2019	<0.0005	0.00021 (J)				
8/27/2019			<0.0005		<0.0005	<0.0005
8/28/2019				7.6E-05 (J)		
10/7/2019		0.00024 (J)				
10/8/2019	<0.0005					
10/9/2019			<0.0005	<0.0005	<0.0005	<0.0005
4/6/2020	<0.0005	0.00017 (J)				
4/7/2020			<0.0005	<0.0005	<0.0005	<0.0005
8/17/2020		0.00019 (J)				
8/19/2020	<0.0005		<0.0005	<0.0005	5E-05 (J)	<0.0005
9/28/2020	<0.0005	0.00021 (J)				<0.0005
9/30/2020				6.5E-05 (J)	4.6E-05 (J)	
10/1/2020			<0.0005			
3/10/2021			<0.0005	8.2E-05 (J)	<0.0005	<0.0005
3/11/2021	0.00028 (J)					
3/12/2021		0.00023 (J)				
9/21/2021	<0.0005	0.00016 (J)	<0.0005	9.9E-05 (J)	<0.0005	
9/23/2021						<0.0005
1/31/2022	<0.0005	0.00016 (J)				
2/2/2022			<0.0005		<0.0005	
2/3/2022				0.00014 (J)		<0.0005



# Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/21/2000	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/20/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/14/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
7/16/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/1/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4/25/2002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/31/2016	<0.0005	0.0011 (J)	<0.0005			
9/1/2016				0.0001 (J)	<0.0005	0.0001 (J)
10/25/2016				<0.0005	<0.0005	<0.0005
10/26/2016	<0.0005	0.0011 (J)	<0.0005			
1/4/2017	<0.0005	0.0009 (J)				9E-05 (J)
1/5/2017			<0.0005	<0.0005	<0.0005	
4/3/2017					<0.0005	
4/4/2017				9E-05 (J)		
4/5/2017		0.0008 (J)				9E-05 (J)
4/6/2017	<0.0005		<0.0005			
7/10/2017		0.0008 (J)				
7/11/2017	<0.0005			<0.0005	<0.0005	
7/12/2017			<0.0005			<0.0005
10/2/2017				<0.0005	<0.0005	
10/3/2017	<0.0005					<0.0005
10/4/2017		0.0006 (J)	<0.0005			
1/9/2018				<0.0005	<0.0005	
1/10/2018			<0.0005			0.0001 (J)
1/11/2018	<0.0005	0.0006 (J)				
7/9/2018				6.2E-05 (J)		
7/10/2018					<0.0005	6E-05 (J)
7/11/2018	<0.0005	0.00061 (J)	5.8E-05 (J)			
8/27/2019	<0.0005	0.00047 (J)	<0.0005	<0.0005	<0.0005	
8/28/2019						8E-05 (J)
10/8/2019	<0.0005		<0.0005	<0.0005	<0.0005	9.8E-05 (J)
10/9/2019		0.00046 (J)				
4/7/2020	<0.0005	0.00051 (J)		<0.0005	<0.0005	<0.0005
4/8/2020			<0.0005			
8/17/2020		0.00046 (J)	<0.0005			
8/18/2020	<0.0005			<0.0005	<0.0005	6.8E-05 (J)
9/28/2020			<0.0005			
9/29/2020	<0.0005	0.00043 (J)		<0.0005		
9/30/2020					<0.0005	8.9E-05 (J)
3/10/2021	4.7E-05 (J)	0.00054				
3/12/2021					<0.0005	
3/15/2021			<0.0005			
3/16/2021				<0.0005		<0.0005
9/21/2021	<0.0005	0.00047 (J)	<0.0005			
9/22/2021				<0.0005		6E-05 (J)
9/23/2021					<0.0005	
2/1/2022						<0.0005
2/2/2022				<0.0005		
2/3/2022	<0.0005	0.00056	<0.0005		<0.0005	

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.0005					<0.0005
11/21/2000	<0.0005	<0.0005				<0.0005
1/20/2001	<0.0005	<0.0005				<0.0005
3/14/2001	<0.0005	<0.0005				<0.0005
7/16/2001	<0.0005	<0.0005				<0.0005
11/1/2001	<0.0005	<0.0005				<0.0005
4/25/2002	<0.0005	<0.0005				<0.0005
8/31/2016		<0.0005			0.0002 (J)	0.0003 (J)
9/1/2016	0.0014 (J)		<0.0005	<0.0005		
10/25/2016			<0.0005	<0.0005		
10/26/2016	0.0016 (J)	0.0003 (J)			0.0002 (J)	
10/27/2016						0.0003 (J)
1/4/2017			<0.0005	<0.0005	0.0001 (J)	
1/5/2017	0.0019 (J)	<0.0005				
1/6/2017						0.0002 (J)
4/4/2017		9E-05 (J)	<0.0005	<0.0005		
4/5/2017	0.0024 (J)					
4/6/2017					<0.0005	0.0003 (J)
7/11/2017			<0.0005		<0.0005	
7/12/2017						0.0003 (J)
7/13/2017	0.0034	<0.0005		<0.0005		
10/2/2017			<0.0005			
10/3/2017		<0.0005		<0.0005		
10/4/2017	0.0037				0.0001 (J)	0.0002 (J)
1/9/2018				<0.0005		
1/10/2018		<0.0005	<0.0005			
1/11/2018	0.0033				<0.0005	0.0003 (J)
7/9/2018			<0.0005			
7/10/2018		<0.0005		<0.0005		
7/11/2018	0.0038				7E-05 (J)	0.0003 (J)
7/30/2019		<0.0005				
8/27/2019		<0.0005			9E-05 (J)	
8/28/2019	0.0017 (J)		<0.0005	<0.0005		0.00022 (J)
10/8/2019				<0.0005		
10/9/2019	0.0018 (J)	<0.0005	<0.0005		<0.0005	0.00023 (J)
4/7/2020				<0.0005	<0.0005	
4/8/2020	0.0017 (J)	8.8E-05 (J)	<0.0005			0.00019 (J)
8/18/2020	0.0016 (J)	5.1E-05 (J)	<0.0005	<0.0005	7.6E-05 (J)	
8/19/2020						0.00022 (J)
9/29/2020		7.5E-05 (J)				
9/30/2020	0.0013 (J)		<0.0005	<0.0005	<0.0005	
10/1/2020						0.0002 (J)
3/10/2021					<0.0005	0.00019 (J)
3/11/2021	0.0012					
3/12/2021			<0.0005			
3/15/2021		7.3E-05 (J)				
3/16/2021				<0.0005		
9/21/2021					<0.0005	
9/22/2021	0.0017	<0.0005	<0.0005	<0.0005		0.00017 (J)
2/1/2022	0.002		<0.0005	<0.0005		
2/2/2022		<0.0005				0.00018 (J)
2/3/2022					<0.0005	

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.0005	<0.0005	8.4E-05 (J)	0.0001 (J)	0.00032 (J)
9/21/2021				7.3E-05 (J)	6.6E-05 (J)
9/22/2021	<0.0005	<0.0005			
9/23/2021			<0.0005		
2/1/2022		<0.0005			
2/2/2022				8.8E-05 (J)	7.6E-05 (J)
2/3/2022	<0.0005		<0.0005		

# Time Series

Constituent: Boron (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		0.117		1.09	1.41	0.875
9/1/2016	11.6		6.48			
10/24/2016		0.126				
10/25/2016	21.4					1.22
10/26/2016			7.57	2.5	1.83	
1/3/2017		0.124		3.39		
1/4/2017						1.3
1/5/2017					3.07	
1/6/2017	20.1		8.34			
4/3/2017		0.105				
4/4/2017			8.18			1.19
4/6/2017	21.8			2.76	3.19	
7/11/2017		0.136				
7/12/2017			7.51	3.55	3.06	1.37
7/13/2017	16.3					
10/2/2017		0.107				
10/3/2017				2.72	2.69	0.765
10/4/2017	21.5		8.88			
1/9/2018	13.9	0.123			2.81	
1/10/2018				3.21		0.876
1/11/2018			6.95			
7/9/2018		0.11				
7/10/2018				7	2.9	0.94
7/11/2018	11.7		6.4			
1/16/2019	9.3	0.13	5.3	5	7.7	0.91
3/25/2019	8.5	0.098	4.4			
3/26/2019				4	7.4	0.77
10/7/2019		0.12				
10/8/2019	6.4					
10/9/2019			5.7	6.8	6.3	0.93
4/6/2020	6.1	0.14				
4/7/2020			5.5	4.6	5.6	1
9/28/2020	4.6	0.15				0.69
9/30/2020				4	4.2	
10/1/2020			5.2			
3/10/2021			4.9	3.9	6.9	0.63
3/11/2021	8					
3/12/2021		0.11				
9/21/2021	4.4	0.13	6.4	4.1	4.2	
9/23/2021						0.59
1/31/2022	3.9	0.13				
2/2/2022			6.2		6.2	
2/3/2022				4.9		0.59

# Time Series

Constituent: Boron (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	0.0688 (J)	5.1	0.261			
9/1/2016				0.071 (J)	9.01 (O)	1.82
10/25/2016				0.0819 (J)	1.66	1.26
10/26/2016	0.083 (J)	5.74	0.211			
1/4/2017	0.0738	6.56				1.46
1/5/2017			0.179	0.0813	1.1	
4/3/2017					1.21	
4/4/2017				0.0723		
4/5/2017		6.49				2
4/6/2017	0.0754		0.112			
7/10/2017		8.13				
7/11/2017	0.0614			0.0734	1.44	
7/12/2017			0.0882			2.95
10/2/2017				0.0748	1.59	
10/3/2017	0.0838					4.15
10/4/2017		5.18	0.116			
1/9/2018				0.0679	1.35	
1/10/2018			0.101			3.68
1/11/2018	0.169	5.16				
7/9/2018				0.061		
7/10/2018					1.2	5.2
7/11/2018	0.3	8.5	0.098			
1/16/2019			0.11	0.046		
1/17/2019	0.065	7			1.1	8.6
3/26/2019			0.35	0.037 (J)	0.95	7.4
3/27/2019	0.089	6.1				
10/8/2019	0.22		0.18	0.048	1.1	8.4
10/9/2019		8.2				
4/7/2020	0.67	5.3		0.061 (J)	0.96	10.5
4/8/2020			0.28			
9/28/2020			0.24			
9/29/2020	1.2	4.7		0.053		
9/30/2020					0.86	8.1
3/10/2021	1.8	6.1				
3/12/2021					0.81	
3/15/2021			0.31			
3/16/2021				0.08		10
9/21/2021	0.8	5.8	0.38			
9/22/2021				0.052		11.5
9/23/2021					0.72	
2/1/2022						16
2/2/2022				0.044		
2/3/2022	0.1	7.5	0.37		0.71	

# Time Series

Constituent: Boron (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		0.0196 (J)			12.8	0.096 (JO)
9/1/2016	0.408		3.34	0.62		
10/25/2016			2.54	0.0658 (J)		
10/26/2016	0.5	0.05 (J)			9.81	
10/27/2016						0.0281 (J)
1/4/2017			1.91	0.36	8.94	
1/5/2017	0.676	0.0162 (J)				
1/6/2017						0.0189 (J)
4/4/2017		0.019 (J)	2.77	0.509		
4/5/2017	0.69					
4/6/2017					0.733	0.0181 (J)
7/11/2017			4.14		0.852	
7/12/2017						0.0211 (J)
7/13/2017	0.888	0.023 (J)		0.126		
10/2/2017			4.65			
10/3/2017		0.0266 (J)		0.1		
10/4/2017	1.02				6.05	0.0254 (J)
1/9/2018				0.783		
1/10/2018		0.0203 (J)	1.79			
1/11/2018	1.28				0.838	0.018 (J)
7/9/2018			1.7			
7/10/2018		0.026 (J)		0.5		
7/11/2018	1.6				3.2	0.02 (J)
1/16/2019	1.5					
1/17/2019				0.43		
1/18/2019					0.37	0.018 (J)
1/21/2019		0.018 (J)	1.1			
3/25/2019			1			
3/26/2019	1.2			0.61		
3/27/2019					0.37	0.016 (J)
7/30/2019		0.02 (J)				
10/8/2019				1		
10/9/2019	1.3	0.024 (J)	0.79		0.39	0.019 (J)
4/7/2020				0.24	3.1	
4/8/2020	0.99	0.031 (J)	2.5			0.023 (J)
9/29/2020		0.024 (J)				
9/30/2020	0.86		9.9	2.3	0.25	
10/1/2020						0.028 (J)
3/10/2021					0.32	0.022 (J)
3/11/2021	0.85					
3/12/2021			15.6			
3/15/2021		0.084				
3/16/2021				3.5		
9/21/2021					0.19	
9/22/2021	1.4	0.017 (J)	11.3	0.095		0.015 (J)
2/1/2022	1.8		15.7	4.4		
2/2/2022		0.023 (J)				0.011 (J)
2/3/2022					0.18	

# Time Series

Constituent: Boron (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			0.013 (J)	0.013 (J)	0.011 (J)
1/21/2021	0.018 (J)	0.014 (J)			
3/11/2021	0.03 (J)	0.019 (J)	0.017 (J)	0.015 (J)	0.014 (J)
9/21/2021				0.025 (J)	0.012 (J)
9/22/2021	0.033 (J)	0.014 (J)			
9/23/2021			0.012 (J)		
2/1/2022		0.014 (J)			
2/2/2022				0.033 (J)	0.0091 (J)
2/3/2022	0.03 (J)		0.013 (J)		

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
11/21/2000	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005
1/20/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/14/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
7/16/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/1/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4/25/2002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/30/2016		<0.0005		<0.0005	<0.0005	<0.0005
9/1/2016	0.0007 (J)		0.0002 (J)			
10/24/2016		<0.0005				
10/25/2016	<0.0005					<0.0005
10/26/2016			<0.0005	<0.0005	<0.0005	
1/3/2017		<0.0005		<0.0005		
1/4/2017						0.0001 (J)
1/5/2017					<0.0005	
1/6/2017	0.0001 (J)		9E-05 (J)			
4/3/2017		<0.0005				
4/4/2017			9E-05 (J)			7E-05 (J)
4/6/2017	<0.0005			<0.0005	<0.0005	
7/11/2017		<0.0005				
7/12/2017			<0.0005	<0.0005	<0.0005	<0.0005
7/13/2017	<0.0005					
10/2/2017		<0.0005				
10/3/2017				<0.0005	<0.0005	<0.0005
10/4/2017	<0.0005		<0.0005			
1/9/2018	<0.0005	<0.0005			<0.0005	
1/10/2018				<0.0005		<0.0005
1/11/2018			0.0002 (J)			
7/9/2018		<0.0005				
7/10/2018				<0.0005	<0.0005	<0.0005
7/11/2018	<0.0005		<0.0005			
8/26/2019	<0.0005	<0.0005				
8/27/2019			<0.0005		<0.0005	<0.0005
8/28/2019				<0.0005		
10/7/2019		<0.0005				
10/8/2019	<0.0005					
10/9/2019			<0.0005	<0.0005	<0.0005	<0.0005
4/6/2020	<0.0005	<0.0005				
4/7/2020			<0.0005	<0.0005	<0.0005	<0.0005
8/17/2020		<0.0005				
8/19/2020	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005
9/28/2020	<0.0005	<0.0005				<0.0005
9/30/2020				<0.0005	<0.0005	
10/1/2020			<0.0005			
3/10/2021			<0.0005	<0.0005	<0.0005	<0.0005
3/11/2021	<0.0005					
3/12/2021		<0.0005				
9/21/2021	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
9/23/2021						<0.0005
1/31/2022	<0.0005	<0.0005				
2/2/2022			<0.0005		<0.0005	
2/3/2022				<0.0005		<0.0005



# Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
11/21/2000	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/20/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/14/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
7/16/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/1/2001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4/25/2002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/31/2016	0.0002 (J)	<0.0005	<0.0005			
9/1/2016				0.0001 (J)	<0.0005	<0.0005
10/25/2016				0.0002 (J)	<0.0005	<0.0005
10/26/2016	0.0001 (J)	<0.0005	<0.0005			
1/4/2017	0.0001 (J)	<0.0005				<0.0005
1/5/2017			<0.0005	0.0002 (J)	<0.0005	
4/3/2017					<0.0005	
4/4/2017				0.0002 (J)		
4/5/2017		<0.0005				<0.0005
4/6/2017	0.0002 (J)		<0.0005			
7/10/2017		<0.0005				
7/11/2017	<0.0005			0.0002 (J)	<0.0005	
7/12/2017			<0.0005			<0.0005
10/2/2017				<0.0005	<0.0005	
10/3/2017	0.0003 (J)					<0.0005
10/4/2017		<0.0005	<0.0005			
1/9/2018				<0.0005	<0.0005	
1/10/2018			<0.0005			<0.0005
1/11/2018	0.0006 (J)	<0.0005				
7/9/2018				0.00017 (J)		
7/10/2018					<0.0005	<0.0005
7/11/2018	0.0004 (J)	<0.0005	<0.0005			
8/27/2019	0.00044 (J)	<0.0005	<0.0005	<0.0005	<0.0005	
8/28/2019						<0.0005
10/8/2019	0.00043 (J)		<0.0005	<0.0005	<0.0005	<0.0005
10/9/2019		<0.0005				
4/7/2020	0.00051 (J)	<0.0005		<0.0005	<0.0005	<0.0005
4/8/2020			<0.0005			
8/17/2020		<0.0005	<0.0005			
8/18/2020	0.00058 (J)			<0.0005	<0.0005	<0.0005
9/28/2020			<0.0005			
9/29/2020	0.00077 (J)	<0.0005		0.00012 (J)		
9/30/2020					<0.0005	<0.0005
3/10/2021	0.0009	<0.0005				
3/12/2021					<0.0005	
3/15/2021			<0.0005			
3/16/2021				<0.0005		<0.0005
9/21/2021	0.00036 (J)	<0.0005	<0.0005			
9/22/2021				<0.0005		<0.0005
9/23/2021					<0.0005	
2/1/2022						<0.0005
2/2/2022				<0.0005		
2/3/2022	0.00019 (J)	<0.0005	<0.0005		<0.0005	

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
11/21/2000	<0.0005	<0.0005				<0.0005
1/20/2001	<0.0005	<0.0005				<0.0005
3/14/2001	<0.0005	<0.0005				<0.0005
7/16/2001	<0.0005	<0.0005				<0.0005
11/1/2001	<0.0005	<0.0005				<0.0005
4/25/2002	<0.0005	<0.0005				<0.0005
8/31/2016		<0.0005			8E-05 (J)	<0.0005
9/1/2016	<0.0005		<0.0005	<0.0005		
10/25/2016			<0.0005	<0.0005		
10/26/2016	<0.0005	<0.0005			<0.0005	
10/27/2016						<0.0005
1/4/2017			<0.0005	<0.0005	0.0001 (J)	
1/5/2017	<0.0005	<0.0005				
1/6/2017						<0.0005
4/4/2017		<0.0005	<0.0005	<0.0005		
4/5/2017	<0.0005					
4/6/2017					0.0001 (J)	<0.0005
7/11/2017			<0.0005		<0.0005	
7/12/2017						<0.0005
7/13/2017	<0.0005	<0.0005		<0.0005		
10/2/2017			<0.0005			
10/3/2017		<0.0005		<0.0005		
10/4/2017	<0.0005				0.0002 (J)	<0.0005
1/9/2018				<0.0005		
1/10/2018		<0.0005	<0.0005			
1/11/2018	<0.0005				0.0002 (J)	<0.0005
7/9/2018			<0.0005			
7/10/2018		<0.0005		<0.0005		
7/11/2018	<0.0005				0.00023 (J)	<0.0005
7/30/2019		<0.0005				
8/27/2019		<0.0005			<0.0005	
8/28/2019	<0.0005		<0.0005	<0.0005		<0.0005
10/8/2019				<0.0005		
10/9/2019	<0.0005	<0.0005	<0.0005		0.00012 (J)	<0.0005
4/7/2020				<0.0005	0.00054 (J)	
4/8/2020	<0.0005	<0.0005	<0.0005			<0.0005
8/18/2020	<0.0005	<0.0005	<0.0005	<0.0005	0.00024 (J)	
8/19/2020						<0.0005
9/29/2020		<0.0005				
9/30/2020	<0.0005		<0.0005	<0.0005	0.00024 (J)	
10/1/2020						<0.0005
3/10/2021					<0.0005	<0.0005
3/11/2021	<0.0005					
3/12/2021			0.00018 (J)			
3/15/2021		<0.0005				
3/16/2021				<0.0005		
9/21/2021					<0.0005	
9/22/2021	<0.0005	<0.0005	0.00013 (J)	<0.0005		<0.0005
2/1/2022	<0.0005		0.0002 (J)	<0.0005		
2/2/2022		<0.0005				<0.0005
2/3/2022					<0.0005	

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.0005	<0.0005	0.00019 (J)	0.00029 (J)	0.0015
9/21/2021				<0.0005	0.00042 (J)
9/22/2021	0.00027 (J)	<0.0005			
9/23/2021			<0.0005		
2/1/2022		<0.0005			
2/2/2022				<0.0005	0.00027 (J)
2/3/2022	<0.0005		<0.0005		

# Time Series

Constituent: Calcium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		23.8		14.3	4.68	29.4
9/1/2016	5.59		9.91			
10/24/2016		22.5				
10/25/2016	6.43					28.3
10/26/2016			8.56	18.6	5.45	
1/3/2017		22.1		18.1		
1/4/2017						33.4
1/5/2017					5.35	
1/6/2017	8.13		8.18			
4/3/2017		24.6 (J)				
4/4/2017			8.12			34.6
4/6/2017	7.72			16.2	5.41	
7/11/2017		23.5				
7/12/2017			8	18.1	4.81	38
7/13/2017	4.57					
10/2/2017		22.7				
10/3/2017				15.2	5.17	25.5
10/4/2017	6.41		12.5			
1/9/2018	4.68	23.2			4.73	
1/10/2018				15.5		36.5
1/11/2018			12.9			
7/9/2018		24.6 (J)				
7/10/2018				30.6	4.5	45.5
7/11/2018	3.9		8.6			
1/16/2019	4.3	27.7	68.8	33.3	10.1	46.5
3/25/2019	3.9	31.7	55.6			
3/26/2019				36.1	9	46.3
10/7/2019		31.6				
10/8/2019	3.5					
10/9/2019			46.7	17.7	10.1	51.2
4/6/2020	3.1	35.8				
4/7/2020			62.1	34.1	7.8	31.1
9/28/2020	3.3	25.6				70.7
9/30/2020				70.4	27.5	
10/1/2020			48.4			
3/10/2021			263	134	55.9	67.2
3/11/2021	2.4					
3/12/2021		21.4				
9/21/2021	2.7	18.5	67.5	140	110	
9/23/2021						69.1
1/31/2022	3.4	17.2				
2/2/2022			98.2		293	
2/3/2022				130		58.2

# Time Series

Constituent: Calcium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	18.8	105	2.77			
9/1/2016				194	119	93.8
10/25/2016				100	106	94.1
10/26/2016	16.6	101	2.25			
1/4/2017	17.6	94.9				88.2
1/5/2017			2.27	107	115	
4/3/2017					131	
4/4/2017				153		
4/5/2017		92.5				106
4/6/2017	30.9		2.04			
7/10/2017		90.3				
7/11/2017	17.7			125	155	
7/12/2017			2.25			149
10/2/2017				126	137	
10/3/2017	39.8					217
10/4/2017		74.6	2.19			
1/9/2018				119	135	
1/10/2018			2.28			161
1/11/2018	65.6	78.1				
7/9/2018				123		
7/10/2018					129	205
7/11/2018	53	72.2	2.3			
1/16/2019			2.3	120		
1/17/2019	19.8 (J)	64.7			137	187
3/26/2019			2.4	84.2	124	204
3/27/2019	25.1	63.1				
10/8/2019	69.2		2.3	146	129	205
10/9/2019		54.2				
4/7/2020	84.7	52.1		135	129	225
4/8/2020			2.5			
9/28/2020			2.9			
9/29/2020	123	42		30.8		
9/30/2020					109	177
3/10/2021	126	53.1				
3/12/2021					101	
3/15/2021			2.4			
3/16/2021				34.4		188
9/21/2021	87	63.4	3.6			
9/22/2021				185		267
9/23/2021					146	
2/1/2022						267
2/2/2022				245		
2/3/2022	65.4	63.7	2.7		144	

# Time Series

Constituent: Calcium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		0.371 (J)			127	6.9
9/1/2016	71.9		67.2	40.5		
10/25/2016			50.1	3.91		
10/26/2016	80.3	5.84			127	
10/27/2016						8.2
1/4/2017			80.4	15.2	113	
1/5/2017	94.4	0.379 (J)				
1/6/2017						7.97
4/4/2017		0.993	108	32.3		
4/5/2017	104					
4/6/2017					42.7	7.95
7/11/2017			136		46	
7/12/2017						8.37
7/13/2017	124	0.388 (J)		8.92		
10/2/2017			105			
10/3/2017		0.251 (J)		7.88		
10/4/2017	136				115	8.57
1/9/2018				40.5		
1/10/2018		0.177 (J)	60.1			
1/11/2018	139				47.6	9.78
7/9/2018			75.9			
7/10/2018		0.17 (J)		29.8		
7/11/2018	122				73.7	9.2
1/16/2019	80.5					
1/17/2019				27.6		
1/18/2019					30.6	8.1
1/21/2019		0.19 (J)	60			
3/25/2019			74.8			
3/26/2019	68.8			60.1		
3/27/2019					28.8	7.7
7/30/2019		0.43				
10/8/2019				49.5		
10/9/2019	56.6	0.18	80.1		30.1	6
4/7/2020				12.5	65.7	
4/8/2020	53.1	0.24 (J)	175			5.3
9/29/2020		0.18 (J)				
9/30/2020	53.5		292	98.4	20.9	
10/1/2020						5.5
3/10/2021					18.7	5.3
3/11/2021	67					
3/12/2021			241			
3/15/2021		0.22 (J)				
3/16/2021				104		
9/21/2021					15.3	
9/22/2021	94.6	0.19 (J)	266	5.8		5
2/1/2022	90.8		259	125		
2/2/2022		0.16 (J)				4.6
2/3/2022					14.6	

# Time Series

Constituent: Calcium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			4.9	4.1	3
1/21/2021	4.4	2.8			
3/11/2021	12.4	5.4	4.7	3.1	2.6
9/21/2021				2.5	2.1
9/22/2021	14.9	4.7			
9/23/2021			3.4		
2/1/2022		3.7			
2/2/2022				2.3	2.1
2/3/2022	11.6		3		

# Time Series

Constituent: Chloride (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		15		31	60	5.5
9/1/2016	190		160			
10/24/2016		13				
10/25/2016	175 (D)					5.1
10/26/2016			110	24	67	
1/3/2017		13		29		
1/4/2017						6.9
1/5/2017					70	
1/6/2017	180		67			
4/3/2017		14				
4/4/2017			80			6.5
4/6/2017	200			27	76	
7/11/2017		13				
7/12/2017			120	31	64	6.5
7/13/2017	200					
10/2/2017		15				
10/3/2017				27	73	4.5
10/4/2017	260		130			
1/9/2018	210	13			61	
1/10/2018				59		6.9
1/11/2018			60			
7/9/2018		15.4				
7/10/2018				172	60.2	6.2
7/11/2018	177		75.9			
1/16/2019	165	16	20.2	49.7	54.1	6.6
3/25/2019	147	17.7	19.7			
3/26/2019				47.9	51.8	7
10/7/2019		18				
10/8/2019	125					
10/9/2019			32.1	239	49.7	7.2
4/6/2020	30.2	13.5				
4/7/2020			14.5	44.3	56.4	7.7
9/28/2020	113	13.7				13.8
9/30/2020				24.1	53.9	
10/1/2020			15.7			
3/10/2021			16	25.7	42.4	8.5
3/11/2021	96.7					
3/12/2021		14.1				
9/21/2021	92.2	12.2	13.9	38.8	53.8	
9/23/2021						8.8
1/31/2022	83.4	11.2				
2/2/2022			14.5		42.3	
2/3/2022				38.5		8



# Time Series

Constituent: Chloride (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	3.5	210	4.3			
9/1/2016				60	10	43
10/25/2016				36	6.5	34
10/26/2016	2.5	200	4.9			
1/4/2017	3.8	160				29
1/5/2017			4.1	37	10	
4/3/2017					7.3	
4/4/2017				47		
4/5/2017		140				36
4/6/2017	7.1		3.7			
7/10/2017		88				
7/11/2017	3.1			34	5.7	
7/12/2017			2.6			44
10/2/2017				34	4.4	
10/3/2017	46					58
10/4/2017		100	3			
1/9/2018				24	5.7	
1/10/2018			3.4			36
1/11/2018	100	78				
7/9/2018				25.9		
7/10/2018					3.1	57
7/11/2018	53.7	66.9	3.2			
1/16/2019			3.8	29.2		
1/17/2019	6.6	52			3.2	48.9
3/26/2019			3.2	21.1	3	5.1
3/27/2019	11.9	45.6				
10/8/2019	89		4	40.2	2.9	46.4
10/9/2019		44.1				
4/7/2020	103	32.5		41.6	3.4	49.3
4/8/2020			4.5			
9/28/2020			4.3			
9/29/2020	143	24.3		10.6		
9/30/2020					1.7	39.6
3/10/2021	188	48.7				
3/12/2021					2.3	
3/15/2021			7.6			
3/16/2021				15.8		44.9
9/21/2021	103	63.8	7.9			
9/22/2021				28		55.8
9/23/2021					7.1	
2/1/2022						61.5
2/2/2022				29.6		
2/3/2022	83.4	57	8.8		5.1	

# Time Series

Constituent: Chloride (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		7.8			320	17
9/1/2016	610		16	5.9		
10/25/2016			8.1	4.4		
10/26/2016	570	12			450	
10/27/2016						17
1/4/2017			13	7.7	330	
1/5/2017	710	7.4				
1/6/2017						16
4/4/2017		8.7	23	8		
4/5/2017	860					
4/6/2017					50	17
7/11/2017			31		70	
7/12/2017						18
7/13/2017	860	8.3		5.4		
10/2/2017			30			
10/3/2017		9		4.4		
10/4/2017	1000				360	18
1/9/2018				4.4		
1/10/2018		8.2	9.7			
1/11/2018	940				74	16
7/9/2018			10.8			
7/10/2018		7.3		6.3		
7/11/2018	864				164	16.2
1/16/2019	469					
1/17/2019				5.4		
1/18/2019					11	17.5
1/21/2019		6.9	5.1			
3/25/2019			9.4			
3/26/2019	439			11.9		
3/27/2019					11.5	18.9
7/30/2019		7.1				
10/8/2019				7.8		
10/9/2019	330	7	5.4		25.3	19
4/7/2020				4.7	146	
4/8/2020	277	5.2	20.2			16.9
9/29/2020		5.4				
9/30/2020	257		34.9	23.7	8.5	
10/1/2020						16.8
3/10/2021					48.2	18.3
3/11/2021	334					
3/12/2021			31.9			
3/15/2021		6.4				
3/16/2021				25.3		
9/21/2021					9.4	
9/22/2021	517	7.4	38.9	6		19.3
2/1/2022	549		33.4	29.3		
2/2/2022		6.9				17.5
2/3/2022					10.8	

# Time Series

Constituent: Chloride (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			6.1	6.9	6.1
1/21/2021	6.1	6.1			
3/11/2021	9.9	6	6.4	7	6.5
9/21/2021				6.7	6.1
9/22/2021	7.1	4.9			
9/23/2021			5.5		
2/1/2022		5.4			
2/2/2022				6.6	6
2/3/2022	7.5		6.3		

# Time Series

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.005	<0.005	0.021	0.03	0.016	<0.005
11/21/2000	<0.005		0.017	<0.005	0.023	<0.005
1/20/2001	<0.005	<0.005	0.03	0.028	0.025	<0.005
3/14/2001	<0.005	<0.005	0.019	0.052 (O)	0.021	<0.005
7/16/2001	<0.005	<0.005	0.029	0.08 (O)	0.019	<0.005
11/1/2001	<0.005	<0.005	0.021	0.13 (O)	0.022	<0.005
4/25/2002	<0.005	<0.005	0.03	0.021	0.019	<0.005
11/20/2002		0.0051	0.038	0.053 (O)	0.024	<0.005
6/6/2003	0.037	0.014	0.028	0.064 (O)	0.021	0.005
12/12/2003	0.0044	0.011	0.027	<0.005	0.0066	<0.005
5/26/2004	<0.005	<0.005	0.021	0.012	0.013	<0.005
12/7/2004	<0.005	<0.005	0.016	0.019	0.013	<0.005
6/21/2005	<0.005	<0.005	0.015	0.02	0.0067	<0.005
12/12/2005	<0.005	<0.005	0.022	<0.005	0.0033	0.002
4/4/2006		<0.005				
6/27/2006	<0.005	<0.005	0.027	0.0015	0.0047	<0.005
8/30/2006		<0.005				
12/4/2006	0.0015	<0.005	0.025	0.0034	0.0084	<0.005
2/15/2007		<0.005				
6/23/2007	<0.005	<0.005	0.023	<0.005	0.01	<0.005
9/11/2007		<0.005				
12/11/2007	0.0016	<0.005	0.018	<0.005	0.0049	<0.005
3/11/2008		<0.005				
6/23/2008	0.0019	<0.005				
6/24/2008			0.022	<0.005	0.032 (O)	<0.005
11/3/2008		<0.005				
12/4/2008	<0.005	<0.005				
12/5/2008			0.023	0.0016	0.009	<0.005
3/25/2009		<0.005				
7/7/2009	0.0037	<0.005	0.012	<0.005	0.0044	0.0013
9/14/2009		<0.005				
12/20/2009	0.0016	<0.005				<0.005
12/21/2009			0.019	<0.005	0.0055	
3/4/2010		<0.005				
6/20/2010	<0.005	<0.005		<0.005	0.002	<0.005
6/21/2010			0.01			
9/14/2010		<0.005				
1/6/2011				0.0017		<0.005
1/7/2011	0.0033	<0.005	0.023		0.0039	
4/15/2011		<0.005				
7/7/2011	0.0044	<0.005		0.008	0.0031	<0.005
7/8/2011			0.017			
9/25/2011		0.0021				
1/17/2012	0.0038	<0.005		0.0082		<0.005
1/18/2012			0.0114		0.0023	
4/4/2012		<0.005				
7/9/2012	0.022			0.01		<0.005
7/10/2012		<0.005	0.014		0.0022	
10/9/2012		<0.005				
1/17/2013				0.01		<0.005
1/18/2013	0.034	<0.005	0.015		<0.005	
4/5/2013		<0.005				

# Time Series

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				0.0061		<0.005
7/17/2013	0.032	<0.005	0.011		<0.005	
10/11/2013		<0.005				
1/13/2014	0.04			0.002		<0.005
1/14/2014		<0.005	0.019		0.0013	
4/3/2014		<0.005				
7/9/2014	0.036	<0.005	0.012	<0.005	<0.005	0.0011 (J)
10/24/2014		<0.005				
1/12/2015			0.016			
1/13/2015	0.03			<0.005		<0.005
1/14/2015		<0.005			0.0015	
5/10/2015		<0.005				
7/16/2015	0.039		0.0084	<0.005		0.0011 (J)
7/17/2015		<0.005			0.0011 (J)	
10/6/2015		<0.005				
1/17/2016						<0.005
1/18/2016	0.068	<0.005	0.014	<0.005	0.0011 (J)	
4/26/2016		<0.005				
7/27/2016	0.05			0.0006 (J)		0.0016 (J)
7/28/2016		<0.005			0.001 (J)	
7/29/2016			0.0077 (J)			
8/30/2016		<0.005		<0.005	0.0013 (J)	0.0015 (J)
9/1/2016	0.119 (O)		0.015			
10/24/2016		<0.005				
10/25/2016	0.0519					0.0018 (J)
10/26/2016			0.0106	<0.005	0.0014 (J)	
1/3/2017		<0.005		0.001 (J)		
1/4/2017						0.0021 (J)
1/5/2017					0.002 (J)	
1/6/2017	0.0536		0.0098 (J)			
4/3/2017		0.0004 (J)				
4/4/2017			0.0101			0.002 (J)
4/6/2017	0.0447 (J)			0.0013 (J)	0.0034 (J)	
7/11/2017		0.0006 (J)				
7/12/2017			0.0096 (J)	0.0011 (J)	0.0024 (J)	0.0021 (J)
7/13/2017	0.0269					
10/2/2017		<0.005				
10/3/2017				0.0012 (J)	0.0022 (J)	0.0014 (J)
10/4/2017	0.0378		0.0097 (J)			
1/9/2018	0.0283 (J)	<0.005			0.0019 (J)	
1/10/2018				0.0016 (J)		0.0017 (J)
1/11/2018			0.0109			
7/9/2018		<0.005				
7/10/2018				0.0055 (J)	0.0023 (J)	0.0021 (J)
7/11/2018	0.018 (J)		0.0055 (J)			
1/16/2019	0.018 (J)	<0.005	0.0024 (J)	<0.005	0.018 (J)	0.0021 (J)
3/25/2019	0.017 (J)	<0.005	0.002 (J)			
3/26/2019				0.072	0.017 (J)	0.0018 (J)
8/26/2019	0.024 (J)	0.001 (J)				
8/27/2019			0.0027 (J)		0.0097 (J)	0.0062 (J)
8/28/2019				0.0071 (J)		
10/7/2019		0.00052 (J)				

# Time Series

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
10/8/2019	0.021 (J)					
10/9/2019			0.002 (J)	0.012 (J)	0.011 (J)	0.0019 (J)
4/6/2020	0.015 (J)	<0.005				
4/7/2020			0.0028 (J)	0.0022 (J)	0.0094 (J)	0.0015 (J)
8/17/2020		0.00082 (J)				
8/19/2020	0.015 (J)		0.0022 (J)	0.0012 (J)	0.0037 (J)	0.0028 (J)
9/28/2020	0.014 (J)	0.00071 (J)				0.0024 (J)
9/30/2020				0.0018 (J)	0.0045 (J)	
10/1/2020			0.002 (J)			
3/10/2021			0.003 (J)	0.001 (J)	0.006	0.0023 (J)
3/11/2021	0.02 (J)					
3/12/2021		0.00074 (J)				
9/21/2021	0.013 (J)	<0.005	0.0018 (J)	<0.005	0.0035 (J)	
9/23/2021						0.0023 (J)
1/31/2022	0.015 (J)	<0.005				
2/2/2022			0.003 (J)		0.0033 (J)	
2/3/2022				0.0014 (J)		0.0019 (J)

# Time Series

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/1/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/20/2002	0.006	0.002	<0.005	0.014	0.0058	0.0041
6/6/2003	0.0082	<0.005	0.003	<0.005	0.0068	0.063 (O)
12/12/2003	0.0023	<0.005	<0.005	<0.005	0.0041	0.0059
5/26/2004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
12/7/2004	<0.005	<0.005	<0.005	<0.005	0.0026	<0.005
6/21/2005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
12/12/2005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/4/2006				<0.005		<0.005
6/27/2006	<0.005	<0.005	<0.005	<0.005	0.0013	<0.005
8/30/2006				<0.005		<0.005
12/4/2006	0.0021	0.0032	0.0017	0.0042	<0.005	0.0036
2/15/2007				<0.005		<0.005
6/23/2007	0.0017	<0.005	<0.005	<0.005	<0.005	0.0016
9/11/2007				<0.005		<0.005
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/11/2008				<0.005		<0.005
6/23/2008	<0.005	0.0016	<0.005			
6/24/2008				<0.005	0.0014	<0.005
11/3/2008				<0.005		0.0025
12/4/2008	<0.005	<0.005	<0.005	<0.005		
12/5/2008					<0.005	<0.005
3/25/2009				<0.005		<0.005
7/8/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/14/2009				<0.005		<0.005
12/20/2009				<0.005	<0.005	<0.005
12/21/2009	<0.005	<0.005	<0.005			
3/4/2010				<0.005		<0.005
6/20/2010	<0.005	<0.005	<0.005	<0.005	<0.005	
6/21/2010						<0.005
9/14/2010				<0.005		<0.005
1/6/2011	<0.005		<0.005			
1/7/2011		<0.005		0.0016	<0.005	0.0018
4/15/2011				0.0034		<0.005
7/7/2011	0.0023	<0.005	0.0019	<0.005	<0.005	<0.005
9/25/2011				0.0013		<0.005
1/17/2012	<0.005	<0.005	<0.005	<0.005	<0.005	
1/18/2012						<0.005
4/4/2012				<0.005		<0.005
7/9/2012	0.0017	<0.005	<0.005	<0.005	<0.005	
7/10/2012						<0.005
10/9/2012				0.0019		0.0018
1/17/2013	<0.005	<0.005	<0.005			
1/18/2013				0.0017	<0.005	<0.005
4/5/2013				0.0019		<0.005
7/16/2013	<0.005	<0.005	<0.005			

# Time Series

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				0.0017	<0.005	<0.005
10/11/2013				0.0013		<0.005
1/13/2014	<0.005	<0.005	<0.005		<0.005	
1/14/2014				0.001		<0.005
4/3/2014				0.0031		<0.005
7/8/2014	<0.005	<0.005	<0.005			
7/9/2014				0.0012 (J)	<0.005	<0.005
10/24/2014				<0.005		<0.005
1/13/2015	<0.005	<0.005	<0.005		<0.005	
1/14/2015				0.0013		<0.005
5/10/2015				<0.005		
5/11/2015						<0.005
7/16/2015	<0.005	0.001 (J)	<0.005		<0.005	<0.005
7/17/2015				0.001 (J)		
10/6/2015				<0.005		<0.005
1/17/2016				0.0012 (J)	<0.005	<0.005
1/18/2016		<0.005	<0.005			
1/19/2016	<0.005					
4/26/2016				<0.005		<0.005
7/26/2016	0.0005 (J)		<0.005			
7/27/2016		0.0014 (J)		0.0008 (J)	0.0007 (J)	
7/28/2016						0.0006 (J)
8/31/2016	0.001 (J)	0.0012 (J)	0.0011 (J)			
9/1/2016				0.0015 (J)	0.0011 (J)	0.0011 (J)
10/25/2016				<0.005	<0.005	<0.005
10/26/2016	<0.005	0.0012 (J)	<0.005			
1/4/2017	<0.005	0.0012 (J)				<0.005
1/5/2017			<0.005	0.001 (J)	<0.005	
4/3/2017					0.0015 (J)	
4/4/2017				0.001 (J)		
4/5/2017		0.0013 (J)				0.001 (J)
4/6/2017	0.0007 (J)		0.0011 (J)			
7/10/2017		0.0014 (J)				
7/11/2017	0.0006 (J)			0.0008 (J)	0.0013 (J)	
7/12/2017			0.0007 (J)			0.0011 (J)
10/2/2017				0.0009 (J)	0.0013 (J)	
10/3/2017	0.0007 (J)					0.0009 (J)
10/4/2017		0.0011 (J)	0.0008 (J)			
1/9/2018				0.0006 (J)	0.0012 (J)	
1/10/2018			0.0007 (J)			0.0007 (J)
1/11/2018	0.0098 (J)	0.001 (J)				
7/9/2018				<0.005		
7/10/2018					<0.005	<0.005
7/11/2018	<0.005	<0.005	0.0019 (J)			
1/16/2019			<0.005	<0.005		
1/17/2019	<0.005	0.0028 (J)			<0.005	0.01 (J)
3/26/2019			<0.005	<0.005	<0.005	<0.005
3/27/2019	<0.005	<0.005				
8/27/2019	0.00092 (J)	0.00085 (J)	<0.005	0.001 (J)	0.0016 (J)	
8/28/2019						0.0011 (J)
10/8/2019	0.00091 (J)		<0.005	0.00053 (J)	0.0017 (J)	0.00099 (J)
10/9/2019		0.00081 (J)				



# Time Series

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
4/7/2020	0.00094 (J)	0.00082 (J)		0.00074 (J)	0.0014 (J)	<0.005
4/8/2020			0.00058 (J)			
8/17/2020		0.001 (J)	0.00077 (J)			
8/18/2020	0.0015 (J)			0.00059 (J)	0.0018 (J)	0.0012 (J)
9/28/2020			0.00062 (J)			
9/29/2020	0.0011 (J)	0.00085 (J)		<0.005		
9/30/2020					0.0016 (J)	0.00098 (J)
3/10/2021	0.0013 (J)	0.00091 (J)				
3/12/2021					0.0031 (J)	
3/15/2021			<0.005			
3/16/2021				<0.005		0.0012 (J)
9/21/2021	<0.005	<0.005	<0.005			
9/22/2021				<0.005		0.0018 (J)
9/23/2021					0.0013 (J)	
2/1/2022						<0.005
2/2/2022				<0.005		
2/3/2022	0.0011 (J)	0.0018 (J)	<0.005		0.0016 (J)	

# Time Series

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.005					<0.005
11/21/2000	<0.005	<0.005				<0.005
1/20/2001	<0.005	<0.005				<0.005
3/14/2001	<0.005	<0.005				<0.005
7/16/2001	<0.005	<0.005				<0.005
11/1/2001	<0.005	<0.005				<0.005
4/25/2002	<0.005	<0.005				<0.005
11/20/2002	<0.005	<0.005				0.014
6/6/2003	<0.005	<0.005				<0.005
12/12/2003	0.036 (O)	<0.005				<0.005
5/26/2004	<0.005	<0.005				<0.005
12/7/2004	0.0021	<0.005				0.0039
6/21/2005	<0.005	<0.005				0.002
12/12/2005	<0.005	<0.005				<0.005
6/27/2006	<0.005	<0.005				<0.005
12/4/2006	<0.005	<0.005				0.0019
6/23/2007	<0.005	<0.005				0.0015
12/11/2007	<0.005	<0.005				<0.005
6/23/2008						0.0015
6/24/2008	<0.005	<0.005				
12/4/2008		<0.005				<0.005
12/5/2008	<0.005					
7/8/2009	<0.005	<0.005				<0.005
12/20/2009		<0.005				
12/21/2009	<0.005					<0.005
6/20/2010		<0.005				0.0015
6/21/2010	<0.005		<0.005	0.0019	<0.005	
1/6/2011		<0.005				
1/7/2011	<0.005		0.0018	0.0017	<0.005	<0.005
7/7/2011			<0.005			
7/8/2011	0.0013		0.0019	0.0023	<0.005	<0.005
1/17/2012		<0.005				
1/18/2012	<0.005		<0.005	<0.005	<0.005	<0.005
7/9/2012		<0.005				
7/10/2012	<0.005		0.0013	<0.005	<0.005	<0.005
1/17/2013		<0.005				
1/18/2013	<0.005		0.0015	<0.005	<0.005	<0.005
7/17/2013	<0.005	<0.005	<0.005	0.0019	<0.005	<0.005
1/13/2014		<0.005				
1/14/2014	<0.005		0	<0.005	<0.005	<0.005
7/9/2014	<0.005	<0.005		<0.005		0.0011 (J)
7/10/2014			<0.005		<0.005	
1/12/2015			<0.005			
1/13/2015		<0.005				
1/14/2015	<0.005			<0.005	<0.005	<0.005
7/16/2015		<0.005				
7/17/2015				<0.005		0.0013
7/18/2015	<0.005		<0.005	<0.005	<0.005	
1/17/2016		<0.005	<0.005	<0.005		
1/18/2016	<0.005				<0.005	<0.005
7/27/2016		0.0008 (J)				
7/28/2016			0.0007 (J)	0.0005 (J)		0.0011 (J)

# Time Series

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	0.0009 (J)				0.0007 (J)	
8/31/2016		<0.005			<0.005	0.0024 (J)
9/1/2016	0.0011 (J)		<0.005	<0.005		
10/25/2016			<0.005	<0.005		
10/26/2016	<0.005	0.001 (J)			<0.005	
10/27/2016						<0.005
1/4/2017			<0.005	<0.005	<0.005	
1/5/2017	0.0012 (J)	<0.005				
1/6/2017						<0.005
4/4/2017		0.0008 (J)	0.0011 (J)	0.0008 (J)		
4/5/2017	0.0015 (J)					
4/6/2017					0.0006 (J)	0.0019 (J)
7/11/2017			0.0009 (J)		0.0005 (J)	
7/12/2017						0.0011 (J)
7/13/2017	0.0012 (J)	0.0006 (J)		0.0006 (J)		
10/2/2017			0.0009 (J)			
10/3/2017		<0.005		0.0005 (J)		
10/4/2017	0.0055 (J)				0.0006 (J)	0.0011 (J)
1/9/2018				0.0007 (J)		
1/10/2018		<0.005	0.0008 (J)			
1/11/2018	0.0009 (J)				<0.005	0.001 (J)
7/9/2018			<0.005			
7/10/2018		<0.005		<0.005		
7/11/2018	<0.005				<0.005	<0.005
1/16/2019	<0.005					
1/17/2019				0.01		
1/18/2019					<0.005	<0.005
1/21/2019		<0.005	<0.005			
3/25/2019			<0.005			
3/26/2019	<0.005			<0.005		
3/27/2019					<0.005	<0.005
7/30/2019		0.00065 (J)				
8/27/2019		<0.005			0.00057 (J)	
8/28/2019	0.0013 (J)		0.00089 (J)	0.00087 (J)		0.00089 (J)
10/8/2019				0.00065 (J)		
10/9/2019	0.00081 (J)	0.00049 (J)	0.0011 (J)		0.00072 (J)	0.0009 (J)
4/7/2020				<0.005	0.00049 (J)	
4/8/2020	0.00073 (J)	0.00069 (J)	0.001 (J)			0.0015 (J)
8/18/2020	0.0011 (J)	<0.005	0.0011 (J)	0.0012 (J)	0.00056 (J)	
8/19/2020						0.0013 (J)
9/29/2020		<0.005				
9/30/2020	0.00096 (J)		0.0013 (J)	0.00067 (J)	0.00064 (J)	
10/1/2020						0.0012 (J)
3/10/2021					<0.005	0.0011 (J)
3/11/2021	0.0009 (J)					
3/12/2021			0.0014 (J)			
3/15/2021		0.0011 (J)				
3/16/2021				0.00075 (J)		
9/21/2021					<0.005	
9/22/2021	<0.005	<0.005	0.0013 (J)	<0.005		<0.005
2/1/2022	0.0014 (J)		0.0036 (J)	<0.005		
2/2/2022		<0.005				0.0012 (J)

# Time Series

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
2/3/2022					<0.005	

# Time Series

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.005	0.00069 (J)	0.0016 (J)	0.002 (J)	0.00073 (J)
9/21/2021				<0.005	<0.005
9/22/2021	<0.005	<0.005			
9/23/2021			<0.005		
2/1/2022		<0.005			
2/2/2022				<0.005	<0.005
2/3/2022	<0.005		<0.005		

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005		<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/1/2001	<0.005	<0.005	<0.005	0.012	<0.005	<0.005
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2016		<0.005		<0.005	<0.005	<0.005
9/1/2016	0.0102		0.0024 (J)			
10/24/2016		<0.005				
10/25/2016	0.0037 (J)					<0.005
10/26/2016			0.0011 (J)	<0.005	<0.005	
1/3/2017		<0.005		<0.005		
1/4/2017						<0.005
1/5/2017					<0.005	
1/6/2017	0.0039 (J)		0.001 (J)			
4/3/2017		0.0005 (J)				
4/4/2017			0.001 (J)			<0.005
4/6/2017	0.006 (J)			<0.005	<0.005	
7/11/2017		0.0005 (J)				
7/12/2017			0.0008 (J)	<0.005	<0.005	<0.005
7/13/2017	0.0037 (J)					
10/2/2017		0.0004 (J)				
10/3/2017				<0.005	<0.005	<0.005
10/4/2017	0.0058 (J)		0.001 (J)			
1/9/2018	0.0053 (J)	0.0004 (J)			<0.005	
1/10/2018				0.0004 (J)		<0.005
1/11/2018			0.0008 (J)			
7/9/2018		<0.005				
7/10/2018				0.002 (J)	<0.005	<0.005
7/11/2018	<0.05 (O)		<0.005			
8/26/2019	0.0037 (J)	0.00042 (J)				
8/27/2019			0.0011 (J)		0.00038 (J)	<0.005
8/28/2019				0.0024 (J)		
10/7/2019		0.00046 (J)				
10/8/2019	0.0028 (J)					
10/9/2019			0.0015 (J)	0.0037 (J)	<0.005	<0.005
4/6/2020	0.0021 (J)	0.00036 (J)				
4/7/2020			0.0009 (J)	0.00053 (J)	<0.005	<0.005
8/17/2020		<0.005				
8/19/2020	0.0021 (J)		0.00072 (J)	<0.005	<0.005	<0.005
9/28/2020	<0.005	<0.005				<0.005
9/30/2020				0.00056 (J)	<0.005	
10/1/2020			0.0005 (J)			
3/10/2021			0.00069 (J)	0.0057	<0.005	<0.005
3/11/2021	0.0023 (J)					
3/12/2021		0.00058 (J)				
9/21/2021	<0.005	<0.005	<0.005	0.019	0.0049 (J)	
9/23/2021						<0.005
1/31/2022	<0.005	0.00044 (J)				
2/2/2022			0.0027 (J)		0.07	
2/3/2022				0.019		<0.005

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/1/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/31/2016	<0.005	0.0018 (J)	<0.005			
9/1/2016				<0.005	<0.005	<0.005
10/25/2016				<0.005	<0.005	<0.005
10/26/2016	<0.005	0.0016 (J)	<0.005			
1/4/2017	<0.005	0.0014 (J)				<0.005
1/5/2017			<0.005	<0.005	<0.005	
4/3/2017					<0.005	
4/4/2017				<0.005		
4/5/2017		0.0013 (J)				<0.005
4/6/2017	<0.005		<0.005			
7/10/2017		0.0013 (J)				
7/11/2017	<0.005			0.0003 (J)	<0.005	
7/12/2017			<0.005			<0.005
10/2/2017				<0.005	<0.005	
10/3/2017	<0.005					<0.005
10/4/2017		0.0011 (J)	<0.005			
1/9/2018				<0.005	<0.005	
1/10/2018			<0.005			<0.005
1/11/2018	0.0003 (J)	0.0011 (J)				
7/9/2018				<0.005		
7/10/2018					<0.005	<0.005
7/11/2018	<0.005	0.00096 (J)	<0.005			
8/27/2019	<0.005	0.0009 (J)	<0.005	<0.005	<0.005	
8/28/2019						<0.005
10/8/2019	<0.005		<0.005	<0.005	<0.005	<0.005
10/9/2019		0.00094 (J)				
4/7/2020	<0.005	0.00077 (J)		<0.005	<0.005	<0.005
4/8/2020			<0.005			
8/17/2020		0.0006 (J)	<0.005			
8/18/2020	0.0004 (J)			<0.005	<0.005	<0.005
9/28/2020			<0.005			
9/29/2020	0.00055 (J)	0.00057 (J)		<0.005		
9/30/2020					<0.005	<0.005
3/10/2021	0.00082 (J)	0.00071 (J)				
3/12/2021					<0.005	
3/15/2021			<0.005			
3/16/2021				<0.005		<0.005
9/21/2021	<0.005	0.00065 (J)	<0.005			
9/22/2021				<0.005		<0.005
9/23/2021					<0.005	
2/1/2022						<0.005
2/2/2022				<0.005		
2/3/2022	<0.005	0.00072 (J)	<0.005		<0.005	

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.005					<0.005
11/21/2000	<0.005	<0.005				<0.005
1/20/2001	<0.005	<0.005				<0.005
3/14/2001	<0.005	<0.005				<0.005
7/16/2001	<0.005	<0.005				<0.005
11/1/2001	<0.005	<0.005				<0.005
4/25/2002	<0.005	<0.005				<0.005
8/31/2016		<0.005			0.001 (J)	0.0021 (J)
9/1/2016	0.0046 (J)		<0.005	<0.005		
10/25/2016			<0.005	<0.005		
10/26/2016	0.0046 (J)	0.0011 (J)			0.0009 (J)	
10/27/2016						0.0017 (J)
1/4/2017			<0.005	<0.005	0.0007 (J)	
1/5/2017	0.0062 (J)	<0.005				
1/6/2017						0.0017 (J)
4/4/2017		<0.005	<0.005	<0.005		
4/5/2017	0.007 (J)					
4/6/2017					<0.005	0.0017 (J)
7/11/2017			<0.005		<0.005	
7/12/2017						0.0016 (J)
7/13/2017	0.0077 (J)	0.0003 (J)		<0.005		
10/2/2017			<0.005			
10/3/2017		0.0003 (J)		<0.005		
10/4/2017	0.0073 (J)				0.0007 (J)	0.0015 (J)
1/9/2018				<0.005		
1/10/2018		<0.005	<0.005			
1/11/2018	0.0061 (J)				<0.005	0.0017 (J)
7/9/2018			<0.005			
7/10/2018		<0.005		<0.005		
7/11/2018	0.0064 (J)				<0.005	0.0017 (J)
7/30/2019		0.00032 (J)				
8/27/2019		<0.005			0.00077 (J)	
8/28/2019	0.0023 (J)		<0.005	<0.005		0.00099 (J)
10/8/2019				<0.005		
10/9/2019	0.0024 (J)	<0.005	<0.005		<0.005	0.00099 (J)
4/7/2020				<0.005	0.00037 (J)	
4/8/2020	0.0024 (J)	0.00036 (J)	<0.005			0.001 (J)
8/18/2020	0.0025 (J)	<0.005	<0.005	<0.005	<0.005	
8/19/2020						0.0011 (J)
9/29/2020		<0.005				
9/30/2020	0.0018 (J)		<0.005	<0.005	<0.005	
10/1/2020						0.00099 (J)
3/10/2021					<0.005	0.00096 (J)
3/11/2021	0.0019 (J)					
3/12/2021			<0.005			
3/15/2021		<0.005				
3/16/2021				<0.005		
9/21/2021					<0.005	
9/22/2021	0.0028 (J)	<0.005	<0.005	<0.005		0.00082 (J)
2/1/2022	0.0036 (J)		<0.005	<0.005		
2/2/2022		<0.005				0.00096 (J)
2/3/2022					<0.005	



# Time Series

Constituent: Cobalt (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.005	<0.005	<0.005	<0.005	<0.005
9/21/2021				<0.005	<0.005
9/22/2021	<0.005	<0.005			
9/23/2021			<0.005		
2/1/2022		<0.005			
2/2/2022				<0.005	<0.005
2/3/2022	<0.005		<0.005		

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		2.72		1.81	2.19	2.36
9/1/2016	11		5.27			
10/24/2016		2.96				
10/25/2016	10.5					2.02
10/26/2016			2.32	2.03	2.67	
1/3/2017		2.76		1.85		
1/4/2017						2.1
1/5/2017					3.74	
1/6/2017	6.81		5.1			
4/3/2017		1.36				
4/4/2017			5			1.39 (U)
4/6/2017	8.93			2.66	2.36	
7/11/2017		1.85				
7/12/2017			2.69	2.1	1.54	1.63
7/13/2017	8.51					
10/2/2017		1.9				
10/3/2017				2	3.63	1.84
10/4/2017	3.85		4.82			
1/9/2018	4.28	2.39			2.07	
1/10/2018				2.55		2.11
1/11/2018			4.48			
7/9/2018		1.49				
7/10/2018				3.14	1.63	1.29
7/11/2018	5.99		2.69			
8/26/2019	6.03	3.03				
8/27/2019			2.97		4.63	2.41
8/28/2019				3.74		
10/7/2019		2.83				
10/8/2019	33.8 (o)					
10/9/2019			2.17	7.23	5.45	3.13
4/6/2020	25.7 (o)	2.83				
4/7/2020			2.44	3.57	6.25	1.97
8/17/2020		2.63				
8/19/2020	5.45		3.1	2.49	4.53	1.91
9/28/2020	22.4 (o)	2.08				1.29
9/30/2020				4.45	6.39	
10/1/2020			2.6			
3/10/2021			2.11	4.67	4.61	1.7
3/11/2021	3.22					
3/12/2021		2.17				
9/21/2021	10.3	0.73 (U)	2.45	3.1	5.07	
9/23/2021						1.48
1/31/2022	8.46 (U)	1.01				
2/2/2022			3.17		4.79	
2/3/2022				2.65		1

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	2.2	2.61	1.23			
9/1/2016				1.28	2.45	1.99
10/25/2016				1.54	1.04 (U)	1.98
10/26/2016	1.96	3.28	0.641 (U)			
1/4/2017	1.88	3.77				1.72
1/5/2017			0.657 (U)	0.715 (U)	1.36	
4/3/2017					0.697 (U)	
4/4/2017				0.699 (U)		
4/5/2017		3.25				1.72
4/6/2017			0.439 (U)			
4/8/2017	0.893 (U)					
7/10/2017		1.55				
7/11/2017	1.89			1.12	0.754 (U)	
7/12/2017			0.414 (U)			1.11
10/2/2017				0.855 (U)	1.52	
10/3/2017	4.73					2.13
10/4/2017		1.68	1.33			
1/9/2018				0.861 (U)	1.17	
1/10/2018			1.21			1.74
1/11/2018	7.49	2.94				
7/9/2018				0.693 (U)		
7/10/2018					1.26	1.97
7/11/2018	5.88	2.03	1.4 (U)			
8/27/2019	5.09	2.09	1.27	1.32	1.75	
8/28/2019						2.04
10/8/2019	6.39		1.62	1.41	1.52	1.89
10/9/2019		3.11				
4/7/2020	7.87	2.18		1.41	1.82	4.17
4/8/2020			1.08 (U)			
8/17/2020		2.25	1.42			
8/18/2020	6.76			0.731 (U)	1.84	4.24
9/28/2020			1.28			
9/29/2020	8.3	0.845 (U)		0.331 (U)		
9/30/2020					2.14	2.47
3/10/2021	7.55	1.77				
3/12/2021					0.607 (U)	
3/15/2021			0.769 (U)			
3/16/2021				0.0831 (U)		2.15
9/21/2021	4.35	1.24 (U)	2.09			
9/22/2021				1.94 (U)		3.06
9/23/2021					1.64	
2/1/2022						2.73
2/2/2022				0.881 (U)		
2/3/2022	4.04	0.957	1.18		0.58 (U)	

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		1.01			5.96	3.3
9/1/2016	5.19		2.21	1.05		
10/25/2016			1.51 (U)	1.2		
10/26/2016	4.25	0.725 (U)			7.42	
10/27/2016						2.7
1/4/2017			2.56	2.11	6.07	
1/5/2017	3.55	0.735 (U)				
1/6/2017						4.45
4/4/2017		0.87 (U)	1.77	2.02		
4/5/2017	4.39					
4/6/2017					3	3.1
7/11/2017			2.76		4.2	
7/12/2017						2.73
7/13/2017	2.44	0.42 (U)		0.576 (U)		
10/2/2017			4.15			
10/3/2017		0.995 (U)		0.86		
10/4/2017	4.95				7.16	8.16
1/9/2018				1.43		
1/10/2018		0.698 (U)	1.96			
1/11/2018	3.53				3.57	2.31
7/9/2018			1.11			
7/10/2018		1.01		1.63		
7/11/2018	3.13				7.57	3.31
8/27/2019		0.787 (U)			7.04	
8/28/2019	2.01		1.13 (U)	1.4 (U)		1.91
10/8/2019				1.88		
10/9/2019	2.91	0.22 (U)	2.28		3.68	3.09
4/7/2020				1.8	7.66	
4/8/2020	2.79	1.13 (U)	4.19			1.92
8/18/2020	3.11	1.09 (U)	6.86	3.27	7.65	
8/19/2020						2.34
9/29/2020		1 (U)				
9/30/2020	3.09		5.62	3.83	2.79	
10/1/2020						3.3
3/10/2021					2.53	2.08
3/11/2021	2.77					
3/12/2021			5.17			
3/15/2021		0.804 (U)				
3/16/2021				2.88		
9/21/2021					1.25 (U)	
9/22/2021	2.36	0.769 (U)	6.84	0.959 (U)		2.08
2/1/2022	2.51		5.11	2.51		
2/2/2022		0.854 (U)				0.967 (U)
2/3/2022					1.4	

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	1.55	1.29	0.353 (U)	0.783 (U)	1.67
9/21/2021				0.815 (U)	0.593 (U)
9/22/2021	1.4	0.982 (U)			
9/23/2021			1.15		
2/1/2022		0.36 (U)			
2/2/2022				0.249 (U)	0.962
2/3/2022	1.21		0.278 (U)		

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		0.1 (J)		0.04 (J)	0.09 (J)	0.22 (J)
9/1/2016	<0.1		<0.1			
10/24/2016		0.18 (J)				
10/25/2016	0.07 (J)					<0.1
10/26/2016			0.05 (J)	0.05 (J)	0.24 (J)	
1/3/2017		0.18 (J)		0.08 (J)		
1/4/2017						0.18 (J)
1/5/2017					0.11 (J)	
1/6/2017	0.2 (J)		0.08 (J)			
4/3/2017		0.12 (J)				
4/4/2017			<0.1			<0.1
4/6/2017	0.05 (J)			0.006 (J)	0.3	
7/11/2017		0.39				
7/12/2017			0.38	0.05 (J)	0.15 (J)	0.04 (J)
7/13/2017	0.41					
10/2/2017		0.12 (J)				
10/3/2017				0.11 (J)	0.11 (J)	<0.1
10/4/2017	0.04 (J)		<0.1			
1/9/2018	0.46	0.21 (J)			<0.1	
1/10/2018				<0.1		<0.1
1/11/2018			<0.1			
7/9/2018		0.04 (J)				
7/10/2018				0.2 (J)	<0.1	<0.1
7/11/2018	<0.1		<0.1			
1/16/2019	0.49	<0.1	1.2	<0.1	0.053 (J)	<0.1
3/25/2019	0.21 (J)	0.082 (J)	0.064 (J)			
3/26/2019				<0.1	0.046 (J)	0.051 (J)
8/26/2019	<0.1	0.13				
8/27/2019			0.031 (J)		0.13 (J)	<0.1
8/28/2019				0.097 (J)		
10/7/2019		<0.1				
10/8/2019	<0.1					
10/9/2019			<0.1	<0.1	<0.1	<0.1
4/6/2020	0.13 (J)	0.089 (J)				
4/7/2020			<0.1	<0.1	<0.1	<0.1
8/17/2020		0.079 (J)				
8/19/2020	0.21		0.17	<0.1	<0.1	<0.1
9/28/2020	0.069 (J)	<0.1				<0.1
9/30/2020				<0.1	<0.1	
10/1/2020			<0.1			
3/10/2021			<0.1	<0.1	<0.1	<0.1
3/11/2021	<0.1					
3/12/2021		0.087 (J)				
9/21/2021	0.077 (J)	0.068 (J)	<0.1	<0.1	<0.1	
9/23/2021						<0.1
1/31/2022	<0.1	0.09 (J)				
2/2/2022			<0.1		<0.1	
2/3/2022				0.081 (J)		<0.1

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	<0.1	0.7	<0.1			
9/1/2016				0.25 (J)	<0.1	0.55
10/25/2016				0.43	0.5	0.36
10/26/2016	<0.1	0.91	0.55			
1/4/2017	<0.1	0.51				0.1 (J)
1/5/2017			0.09 (J)	0.21 (J)	0.22 (J)	
4/3/2017					<0.1	
4/4/2017				0.45		
4/5/2017		0.71				0.2 (J)
4/6/2017	<0.1		<0.1			
7/10/2017		0.88				
7/11/2017	<0.1			0.41	0.06 (J)	
7/12/2017			<0.1			0.04 (J)
10/2/2017				<0.1	<0.1	
10/3/2017	<0.1					0.86
10/4/2017		0.37	<0.1			
1/9/2018				<0.1	<0.1	
1/10/2018			<0.1			<0.1
1/11/2018	<0.1	1.4				
7/9/2018				<0.1		
7/10/2018					0.15 (J)	<0.1
7/11/2018	<0.1	0.62	<0.1			
1/16/2019			<0.1	<0.1		
1/17/2019	<0.1	1.2			<0.1	<0.1
3/26/2019			0.052 (J)	0.13 (J)	0.13 (J)	0.11 (J)
3/27/2019	<0.1	0.036 (J)				
8/27/2019	<0.1	0.3	<0.1	<0.1	<0.1	
8/28/2019						<0.1
10/8/2019	<0.1		<0.1	<0.1	<0.1	<0.1
10/9/2019		<0.1				
4/7/2020	<0.1	0.27 (J)		<0.1	<0.1	<0.1
4/8/2020			<0.1			
8/17/2020		0.19	<0.1			
8/18/2020	<0.1			<0.1	<0.1	<0.1
9/28/2020			<0.1			
9/29/2020	<0.1	0.16		<0.1		
9/30/2020					<0.1	<0.1
3/10/2021	<0.1	0.14				
3/12/2021					<0.1	
3/15/2021			<0.1			
3/16/2021				<0.1		<0.1
9/21/2021	<0.1	0.31	<0.1			
9/22/2021				<0.1		<0.1
9/23/2021					<0.1	
2/1/2022						<0.1
2/2/2022				<0.1		
2/3/2022	<0.1	0.36	<0.1		<0.1	

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		0.07 (J)			0.04 (J)	0.55
9/1/2016	0.68		<0.1	<0.1		
10/25/2016			<0.1	<0.1		
10/26/2016	0.68	0.62			0.12 (J)	
10/27/2016						0.26 (J)
1/4/2017			0.04 (J)	<0.1	0.06 (J)	
1/5/2017	0.73	0.17 (J)				
1/6/2017						0.25 (J)
4/4/2017		0.08 (J)	0.02 (J)	<0.1		
4/5/2017	1.6					
4/6/2017					<0.1	0.16 (J)
7/11/2017			0.14 (J)		0.03 (J)	
7/12/2017						0.2 (J)
7/13/2017	1.7	0.06 (J)		<0.1		
10/2/2017			<0.1			
10/3/2017		0.06 (J)		<0.1		
10/4/2017	1.8				0.12 (J)	0.22 (J)
1/9/2018				<0.1		
1/10/2018		<0.1	<0.1			
1/11/2018	1.5				<0.1	0.98
7/9/2018			<0.1			
7/10/2018		<0.1		<0.1		
7/11/2018	1.8				<0.1	0.14 (J)
1/16/2019	1.4					
1/17/2019				<0.1		
1/18/2019					<0.1	0.24 (J)
1/21/2019		<0.1	<0.1			
3/25/2019			0.043 (J)			
3/26/2019	0.89			0.071 (J)		
3/27/2019					<0.1	0.13 (J)
7/30/2019		0.083 (J)				
8/27/2019		<0.1			0.1	
8/28/2019	0.61		<0.1	<0.1		0.088 (J)
10/8/2019				<0.1		
10/9/2019	<0.1	<0.1	<0.1		<0.1	0.068 (J)
4/7/2020				<0.1	<0.1	
4/8/2020	0.55	<0.1	<0.1			0.058 (J)
8/18/2020	0.51	<0.1	<0.1	<0.1	<0.1	
8/19/2020						0.092 (J)
9/29/2020		<0.1				
9/30/2020	0.15		<0.1	<0.1	<0.1	
10/1/2020						<0.1
3/10/2021					<0.1	0.066 (J)
3/11/2021	0.42					
3/12/2021			<0.1			
3/15/2021		<0.1				
3/16/2021				<0.1		
9/21/2021					<0.1	
9/22/2021	0.79	<0.1	<0.1	<0.1		0.13
2/1/2022	0.68		<0.1	<0.1		
2/2/2022		<0.1				<0.1
2/3/2022					<0.1	



# Time Series

Constituent: Fluoride (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			0.11	<0.1	<0.1
1/21/2021	<0.1	<0.1			
3/11/2021	<0.1	<0.1	0.12	<0.1	<0.1
9/21/2021				<0.1	<0.1
9/22/2021	<0.1	<0.1			
9/23/2021			0.096 (J)		
2/1/2022		<0.1			
2/2/2022				<0.1	<0.1
2/3/2022	<0.1		0.077 (J)		

# Time Series

Constituent: Lead (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.001	<0.001	0.0083	0.017 (O)	<0.001	<0.001
11/21/2000	<0.001		0.0052	<0.001	<0.001	<0.001
1/20/2001	<0.001	<0.001	<0.001	0.011	<0.001	<0.001
3/14/2001	<0.001	<0.001	<0.001	0.026 (O)	<0.001	<0.001
7/16/2001	<0.001	<0.001	0.011	0.043 (O)	<0.001	<0.001
11/1/2001	<0.001	<0.001	<0.001	0.075 (O)	<0.001	<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/20/2002		<0.001	0.018 (O)	0.057 (O)	0.0057 (J)	<0.001
6/6/2003	0.037 (O)	0.016 (O)	0.015 (O)	0.16 (O)	0.013	<0.001
12/12/2003	0.008	0.0095	0.0072	<0.001	<0.001	<0.001
5/26/2004	<0.001	<0.001	0.0055	0.011	<0.001	<0.001
12/7/2004	<0.001	<0.001	<0.001	0.038 (O)	<0.001	<0.001
6/21/2005	<0.001	<0.001	<0.001	0.036 (O)	<0.001	<0.001
12/12/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/4/2006		<0.001				
6/27/2006	<0.001	<0.001	0.024 (O)	<0.001	<0.001	<0.001
8/30/2006		<0.001				
12/4/2006	<0.001	<0.001	0.023 (O)	<0.001	<0.001	<0.001
2/15/2007		<0.001				
6/23/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9/11/2007		<0.001				
12/11/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/11/2008		<0.001				
6/23/2008	<0.001	<0.001				
6/24/2008			0.02 (O)	<0.001	0.02	<0.001
11/3/2008		<0.001				
12/4/2008	<0.001	<0.001				
12/5/2008			<0.001	<0.001	<0.001	<0.001
3/25/2009		<0.001				
7/7/2009	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9/14/2009		<0.001				
12/20/2009	<0.001	<0.001				<0.001
12/21/2009			<0.001	<0.001	<0.001	
3/4/2010		<0.001				
6/20/2010	<0.001	<0.001		<0.001	<0.001	<0.001
6/21/2010			<0.001			
9/14/2010		<0.001				
1/6/2011				<0.001		<0.001
1/7/2011	<0.001	<0.001	<0.001		<0.001	
4/15/2011		<0.001				
7/7/2011	<0.001	<0.001		<0.001	<0.001	<0.001
7/8/2011			<0.001			
9/25/2011		<0.001				
1/17/2012	<0.001	<0.001		<0.001		<0.001
1/18/2012			<0.001		<0.001	
4/4/2012		<0.001				
7/9/2012	<0.001			<0.001		<0.001
7/10/2012		<0.001	<0.001		<0.001	
10/9/2012		<0.001				
1/17/2013				<0.001		<0.001
1/18/2013	<0.001	<0.001	<0.001		<0.001	
4/5/2013		<0.001				

# Time Series

Constituent: Lead (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				<0.001		<0.001
7/17/2013	<0.001	<0.001	<0.001		<0.001	
10/11/2013		<0.001				
1/13/2014	0.013			<0.001		<0.001
1/14/2014		<0.001	0.005		<0.001	
4/3/2014		<0.001				
7/9/2014	0.0076 (J)	<0.001	<0.001	<0.001	<0.001	<0.001
10/24/2014		<0.001				
1/12/2015			<0.001			
1/13/2015	0.0057 (J)			<0.001		<0.001
1/14/2015		<0.001			<0.001	
5/10/2015		<0.001				
7/16/2015	0.009 (J)		<0.001	<0.001		<0.001
7/17/2015		<0.001			<0.001	
10/6/2015		<0.001				
1/17/2016						<0.001
1/18/2016	0.0094 (J)	<0.001	0.0055 (J)	<0.001	<0.001	
4/26/2016		<0.001				
7/27/2016	0.0058			<0.001		<0.001
7/28/2016		<0.001			<0.001	
7/29/2016			0.003 (J)			
8/30/2016		<0.001		<0.001	<0.001	<0.001
9/1/2016	0.0663 (O)		0.0166 (O)			
10/24/2016		<0.001				
10/25/2016	0.0003 (J)					<0.001
10/26/2016			0.0057	0.0002 (J)	<0.001	
1/3/2017		0.0001 (J)		0.0001 (J)		
1/4/2017						<0.001
1/5/2017					0.0003 (J)	
1/6/2017	0.006		0.0053			
4/3/2017		0.0002 (J)				
4/4/2017			0.0092			<0.001
4/6/2017	0.0109			0.0003 (J)	0.0002 (J)	
7/11/2017		0.0001 (J)				
7/12/2017			0.006	0.0002 (J)	0.0002 (J)	<0.001
7/13/2017	0.007					
10/2/2017		0.0001 (J)				
10/3/2017				0.0002 (J)	0.0001 (J)	<0.001
10/4/2017	0.0042 (J)		0.0057			
1/9/2018	0.0098	0.0001 (J)			0.0003 (J)	
1/10/2018				0.0003 (J)		0.0001 (J)
1/11/2018			0.0085			
7/9/2018		<0.001				
7/10/2018				<0.001	<0.001	<0.001
7/11/2018	0.0028 (J)		0.0029 (J)			
1/16/2019	<0.025 (O)	<0.001	<0.001	<0.001	<0.001	<0.001
3/25/2019	0.0019 (J)	<0.001	<0.001			
3/26/2019				<0.001	<0.001	<0.001
8/26/2019	0.013 (J)	<0.001				
8/27/2019			0.001 (J)		0.0011 (J)	<0.001
8/28/2019				0.0011 (J)		
10/7/2019		<0.001				

# Time Series

Constituent: Lead (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
10/8/2019	0.0098 (J)					
10/9/2019			0.00041 (J)	0.0025 (J)	0.00033 (J)	<0.001
4/6/2020	0.0024 (J)	0.0001 (J)				
4/7/2020			0.00073 (J)	0.0014 (J)	0.00063 (J)	0.00012 (J)
8/17/2020		<0.001				
8/19/2020	0.0044 (J)		0.00048 (J)	7.9E-05 (J)	0.00014 (J)	<0.001
9/28/2020	0.0043 (J)	<0.001				4.3E-05 (J)
9/30/2020				0.0012 (J)	8E-05 (J)	
10/1/2020			0.00026 (J)			
3/10/2021			0.0003 (J)	5.2E-05 (J)	9.6E-05 (J)	0.0001 (J)
3/11/2021	0.0079					
3/12/2021		9.3E-05 (J)				
9/21/2021	<0.001	<0.001	<0.001	<0.001	<0.001	
9/23/2021						<0.001
1/31/2022	<0.001	<0.001				
2/2/2022			<0.001		<0.001	
2/3/2022				<0.001		<0.001

# Time Series

Constituent: Lead (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/21/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/20/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/14/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/16/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/1/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/20/2002	<0.001	<0.001	<0.001	0.011 (O)	<0.001	<0.001
6/6/2003	0.0068	<0.001	0.0078	<0.001	<0.001	0.099 (O)
12/12/2003	<0.001	<0.001	0.0055	<0.001	0.0065	0.017 (O)
5/26/2004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/7/2004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
6/21/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/12/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/4/2006				<0.001		<0.001
6/27/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/30/2006				<0.001		<0.001
12/4/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2/15/2007				<0.001		<0.001
6/23/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9/11/2007				<0.001		<0.001
12/11/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/11/2008				<0.001		<0.001
6/23/2008	<0.001	<0.001	<0.001			
6/24/2008				<0.001	<0.001	<0.001
11/3/2008				<0.001		<0.001
12/4/2008	<0.001	<0.001	<0.001	<0.001		
12/5/2008					<0.001	<0.001
3/25/2009				<0.001		<0.001
7/8/2009	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9/14/2009				<0.001		<0.001
12/20/2009				<0.001	<0.001	<0.001
12/21/2009	<0.001	<0.001	<0.001			
3/4/2010				<0.001		<0.001
6/20/2010	<0.001	<0.001	<0.001	<0.001	<0.001	
6/21/2010						<0.001
9/14/2010				<0.001		<0.001
1/6/2011	<0.001		<0.001			
1/7/2011		<0.001		<0.001	<0.001	<0.001
4/15/2011				<0.001		<0.001
7/7/2011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9/25/2011				<0.001		<0.001
1/17/2012	<0.001	<0.001	<0.001	<0.001	<0.001	
1/18/2012						<0.001
4/4/2012				<0.001		<0.001
7/9/2012	<0.001	<0.001	<0.001	<0.001	<0.001	
7/10/2012						<0.001
10/9/2012				<0.001		<0.001
1/17/2013	<0.001	<0.001	<0.001			
1/18/2013				<0.001	<0.001	<0.001
4/5/2013				<0.001		<0.001
7/16/2013	<0.001	<0.001	<0.001			

# Time Series

Constituent: Lead (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				<0.001	<0.001	<0.001
10/11/2013				<0.001		<0.001
1/13/2014	<0.001	0.004	<0.001		<0.001	
1/14/2014				<0.001		<0.001
4/3/2014				<0.001		<0.001
7/8/2014	<0.001	<0.001	<0.001			
7/9/2014				<0.001	<0.001	<0.001
10/24/2014				<0.001		<0.001
1/13/2015	<0.001	<0.001	<0.001		<0.001	
1/14/2015				<0.001		<0.001
5/10/2015				<0.001		
5/11/2015						<0.001
7/16/2015	<0.001	0.0044 (J)	<0.001		<0.001	<0.001
7/17/2015				<0.001		
1/17/2016				<0.001	<0.001	<0.001
1/18/2016		0.0034 (J)	<0.001			
1/19/2016	<0.001					
4/26/2016				<0.001		<0.001
7/26/2016	0.0001 (J)		<0.001			
7/27/2016		0.0001 (J)		<0.001	<0.001	
7/28/2016						<0.001
8/31/2016	0.0002 (J)	0.0001 (J)	<0.001			
9/1/2016				<0.001	<0.001	<0.001
10/25/2016				<0.001	<0.001	0.0002 (J)
10/26/2016	0.0001 (J)	0.0001 (J)	<0.001			
1/4/2017	0.0002 (J)	<0.001				0.0001 (J)
1/5/2017			0.0002 (J)	<0.001	<0.001	
4/3/2017					0.0003 (J)	
4/4/2017				0.0001 (J)		
4/5/2017		0.0003 (J)				0.0002 (J)
4/6/2017	0.0003 (J)		0.0005 (J)			
7/10/2017		0.0003 (J)				
7/11/2017	0.0002 (J)			8E-05 (J)	0.0001 (J)	
7/12/2017			0.0005 (J)			0.0001 (J)
10/2/2017				0.0001 (J)	0.0002 (J)	
10/3/2017	0.0003 (J)					0.0001 (J)
10/4/2017		0.0001 (J)	0.0007 (J)			
1/9/2018				<0.001	0.0002 (J)	
1/10/2018			0.0009 (J)			0.0002 (J)
1/11/2018	0.0003 (J)	0.0002 (J)				
7/9/2018				<0.001		
7/10/2018					<0.001	<0.001
7/11/2018	<0.001	<0.001	0.0015 (J)			
1/16/2019			0.00061 (J)	<0.001		
1/17/2019	0.00028 (J)	<0.001			<0.001	<0.001
3/26/2019			<0.001	<0.001	<0.001	<0.001
3/27/2019	0.00029 (J)	<0.001				
8/27/2019	0.00021 (J)	<0.001	0.0001 (J)	0.00051 (J)	0.00033 (J)	
8/28/2019						0.0001 (J)
10/8/2019	0.00028 (J)		0.00013 (J)	<0.001	0.00012 (J)	0.0001 (J)
10/9/2019		6.6E-05 (J)				
4/7/2020	0.00036 (J)	8.1E-05 (J)		<0.001	8.6E-05 (J)	0.00023 (J)

# Time Series

Constituent: Lead (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
4/8/2020			0.00017 (J)			
8/17/2020		4.9E-05 (J)	7.6E-05 (J)			
8/18/2020	0.00035 (J)			<0.001	9E-05 (J)	0.00017 (J)
9/28/2020			6.4E-05 (J)			
9/29/2020	0.00032 (J)	3.7E-05 (J)		<0.001		
9/30/2020					4.7E-05 (J)	9.1E-05 (J)
3/10/2021	0.00042 (J)	6.8E-05 (J)				
3/12/2021					5.3E-05 (J)	
3/15/2021			0.00013 (J)			
3/16/2021				<0.001		7.3E-05 (J)
9/21/2021	<0.001	<0.001	<0.001			
9/22/2021				<0.001		<0.001
9/23/2021					<0.001	
2/1/2022						<0.001
2/2/2022				<0.001		
2/3/2022	<0.001	<0.001	<0.001		<0.001	

# Time Series

Constituent: Lead (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.001					<0.001
11/21/2000	<0.001	0.0069				<0.001
1/20/2001	<0.001	<0.001				<0.001
3/14/2001	<0.001	<0.001				<0.001
7/16/2001	<0.001	<0.001				<0.001
11/1/2001	<0.001	<0.001				<0.001
4/25/2002	<0.001	<0.001				<0.001
11/20/2002	<0.001	<0.001				0.0086 (O)
6/6/2003	<0.001	<0.001				<0.001
12/12/2003	<0.001	<0.001				<0.001
5/26/2004	<0.001	<0.001				<0.001
12/7/2004	<0.001	<0.001				0.0051
6/21/2005	<0.001	<0.001				<0.001
12/12/2005	<0.001	<0.001				<0.001
6/27/2006	<0.001	<0.001				<0.001
12/4/2006	<0.001	<0.001				<0.001
6/23/2007	<0.001	<0.001				<0.001
12/11/2007	<0.001	<0.001				<0.001
6/23/2008						<0.001
6/24/2008	<0.001	<0.001				
12/4/2008		<0.001				<0.001
12/5/2008	<0.001					
7/8/2009	<0.001	<0.001				<0.001
12/20/2009		<0.001				
12/21/2009	<0.001					<0.001
6/20/2010		<0.001				<0.001
6/21/2010	<0.001		<0.001	<0.001	<0.001	
1/6/2011		<0.001				
1/7/2011	<0.001		<0.001	<0.001	<0.001	<0.001
7/7/2011			<0.001			
7/8/2011	<0.001		<0.001	<0.001	<0.001	<0.001
1/17/2012		<0.001				
1/18/2012	<0.001		<0.001	<0.001	<0.001	<0.001
7/9/2012		<0.001				
7/10/2012	<0.001		<0.001	<0.001	<0.001	<0.001
1/17/2013		<0.001				
1/18/2013	<0.001		<0.001	<0.001	<0.001	<0.001
7/17/2013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/13/2014		<0.001				
1/14/2014	<0.001		<0.001	<0.001	<0.001	<0.001
7/9/2014	<0.001	<0.001		<0.001		<0.001
7/10/2014			<0.001		<0.001	
1/12/2015			<0.001			
1/13/2015		<0.001				
1/14/2015	<0.001			<0.001	<0.001	<0.001
7/16/2015		<0.001				
7/17/2015				<0.001		<0.001
7/18/2015	<0.001		<0.001		<0.001	
1/17/2016		<0.001	<0.001	<0.001		
1/18/2016	<0.001				<0.001	<0.001
7/27/2016		<0.001				
7/28/2016			<0.001	<0.001		<0.001



# Time Series

Constituent: Lead (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	<0.001				0.0004 (J)	
8/31/2016		<0.001			0.0003 (J)	0.0007 (J)
9/1/2016	<0.001		<0.001	<0.001		
10/25/2016			0.0001 (J)	<0.001		
10/26/2016	<0.001	<0.001			0.0003 (J)	
10/27/2016						<0.001
1/4/2017			<0.001	<0.001	0.0003 (J)	
1/5/2017	<0.001	<0.001				
1/6/2017						<0.001
4/4/2017		0.0002 (J)	7E-05 (J)	9E-05 (J)		
4/5/2017	0.0009 (J)					
4/6/2017					0.0003 (J)	0.0001 (J)
7/11/2017			<0.001		0.0002 (J)	
7/12/2017						<0.001
7/13/2017	<0.001	0.0003 (J)		7E-05 (J)		
10/2/2017			<0.001			
10/3/2017		<0.001		0.0001 (J)		
10/4/2017	0.0001 (J)				0.0008 (J)	9E-05 (J)
1/9/2018				9E-05 (J)		
1/10/2018		8E-05 (J)	0.0002 (J)			
1/11/2018	0.0001 (J)				0.0009 (J)	0.0002 (J)
7/9/2018			<0.001			
7/10/2018		<0.001		<0.001		
7/11/2018	<0.001				0.001 (J)	<0.001
1/16/2019	<0.001					
1/17/2019				<0.001		
1/18/2019					0.0012 (J)	<0.001
1/21/2019		<0.001	<0.001			
3/25/2019			<0.001			
3/26/2019	<0.001			<0.001		
3/27/2019					0.00047 (J)	<0.001
7/30/2019		0.0002 (J)				
8/27/2019		<0.001			0.003 (J)	
8/28/2019	<0.001		6.5E-05 (J)	0.00018 (J)		6.1E-05 (J)
10/8/2019				0.00016 (J)		
10/9/2019	0.00015 (J)	6.4E-05 (J)	0.00018 (J)		0.00032 (J)	<0.001
4/7/2020				<0.001	0.00067 (J)	
4/8/2020	8.4E-05 (J)	<0.001	<0.001			0.00021 (J)
8/18/2020	0.00014 (J)	<0.001	<0.001	0.00027 (J)	0.00072 (J)	
8/19/2020						9.6E-05 (J)
9/29/2020		<0.001				
9/30/2020	6E-05 (J)		<0.001	5.4E-05 (J)	0.00023 (J)	
10/1/2020						3.8E-05 (J)
3/10/2021					0.00016 (J)	0.00012 (J)
3/11/2021	0.00019 (J)					
3/12/2021			<0.001			
3/15/2021		4.1E-05 (J)				
3/16/2021				<0.001		
9/21/2021					<0.001	
9/22/2021	<0.001	<0.001	<0.001	<0.001		<0.001
2/1/2022	<0.001		<0.001	<0.001		
2/2/2022		<0.001				<0.001

# Time Series

Constituent: Lead (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
2/3/2022					<0.001	

# Time Series

Constituent: Lead (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	5.7E-05 (J)	9.4E-05 (J)	9.5E-05 (J)	0.00015 (J)	0.00022 (J)
9/21/2021				<0.001	<0.001
9/22/2021	<0.001	<0.001			
9/23/2021			<0.001		
2/1/2022		<0.001			
2/2/2022				<0.001	<0.001
2/3/2022	<0.001		<0.001		

# Time Series

Constituent: Lithium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		<0.03		0.0042 (J)	<0.03	<0.03
9/1/2016	<0.03		0.0092 (J)			
10/24/2016		<0.03				
10/25/2016	<0.03					<0.03
10/26/2016			0.0046 (J)	<0.03	<0.03	
1/3/2017		<0.03		0.0024 (J)		
1/4/2017						<0.03
1/5/2017					<0.03	
1/6/2017	<0.03		0.0042 (J)			
4/3/2017		<0.03				
4/4/2017			0.0056 (J)			<0.03
4/6/2017	<0.03			0.0051 (J)	<0.03	
7/11/2017		<0.03				
7/12/2017			0.0035 (J)	0.0031 (J)	<0.03	<0.03
7/13/2017	<0.03					
10/2/2017		<0.03				
10/3/2017				0.0027 (J)	<0.03	<0.03
10/4/2017	<0.03		0.0041 (J)			
1/9/2018	<0.03	<0.03			<0.03	
1/10/2018				0.0041 (J)		<0.03
1/11/2018			0.0052 (J)			
7/9/2018		0.001 (J)				
7/10/2018				0.005 (J)	<0.03	<0.03
7/11/2018	<0.03		0.0039 (J)			
8/26/2019	<0.03	0.0012 (J)				
8/27/2019			0.013 (J)		<0.03	<0.03
8/28/2019				<0.03		
10/7/2019		0.0012 (J)				
10/8/2019	<0.03					
10/9/2019			0.013 (J)	<0.03	<0.03	<0.03
4/6/2020	<0.03	0.00086 (J)				
4/7/2020			0.014 (J)	<0.03	<0.03	<0.03
8/17/2020		0.001 (J)				
8/19/2020	<0.03		0.014 (J)	<0.03	<0.03	<0.03
9/28/2020	<0.03	0.001 (J)				<0.03
9/30/2020				<0.03	<0.03	
10/1/2020			0.013 (J)			
3/10/2021			0.012 (J)	<0.03	<0.03	<0.03
3/11/2021	<0.03					
3/12/2021		0.0013 (J)				
9/21/2021	<0.03	0.00092 (J)	0.016 (J)	<0.03	<0.03	
9/23/2021						<0.03
1/31/2022	<0.03	0.00091 (J)				
2/2/2022			0.015 (J)		<0.03	
2/3/2022				<0.03		<0.03

# Time Series

Constituent: Lithium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	<0.03	<0.03	<0.03			
9/1/2016				<0.03	<0.03	<0.03
10/25/2016				<0.03	<0.03	<0.03
10/26/2016	<0.03	<0.03	<0.03			
1/4/2017	<0.03	<0.03				<0.03
1/5/2017			<0.03	<0.03	<0.03	
4/3/2017					<0.03	
4/4/2017				<0.03		
4/5/2017		0.0012 (J)				<0.03
4/6/2017	<0.03		<0.03			
7/10/2017		<0.03				
7/11/2017	<0.03			<0.03	<0.03	
7/12/2017			<0.03			<0.03
10/2/2017				<0.03	<0.03	
10/3/2017	<0.03					<0.03
10/4/2017		<0.03	<0.03			
1/9/2018				<0.03	<0.03	
1/10/2018			<0.03			<0.03
1/11/2018	<0.03	<0.03				
7/9/2018				<0.03		
7/10/2018					<0.03	<0.03
7/11/2018	<0.03	0.00098 (J)	<0.03			
8/27/2019	<0.03	0.00094 (J)	<0.03	<0.03	<0.03	
8/28/2019						<0.03
10/8/2019	<0.03		<0.03	<0.03	<0.03	<0.03
10/9/2019		0.0011 (J)				
4/7/2020	<0.03	0.00094 (J)		<0.03	<0.03	<0.03
4/8/2020			<0.03			
8/17/2020		0.00091 (J)	<0.03			
8/18/2020	<0.03			<0.03	<0.03	<0.03
9/28/2020			<0.03			
9/29/2020	<0.03	0.00086 (J)		<0.03		
9/30/2020					<0.03	<0.03
3/10/2021	<0.03	0.00095 (J)				
3/12/2021					<0.03	
3/15/2021			<0.03			
3/16/2021				<0.03		<0.03
9/21/2021	<0.03	0.00091 (J)	0.00087 (J)			
9/22/2021				<0.03		<0.03
9/23/2021					<0.03	
2/1/2022						<0.03
2/2/2022				<0.03		
2/3/2022	<0.03	0.001 (J)	0.00077 (J)		<0.03	

# Time Series

Constituent: Lithium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		<0.03			<0.03	<0.05 (O)
9/1/2016	0.0066 (J)		<0.03	<0.03		
10/25/2016			<0.03	<0.03		
10/26/2016	0.0065 (J)	<0.03			<0.03	
10/27/2016						0.0023 (J)
1/4/2017			<0.03	<0.03	<0.03	
1/5/2017	0.0062 (J)	<0.03				
1/6/2017						0.0021 (J)
4/4/2017		<0.03	<0.03	<0.03		
4/5/2017	0.007 (J)					
4/6/2017					<0.03	0.0021 (J)
7/11/2017			<0.03		<0.03	
7/12/2017						0.0017 (J)
7/13/2017	0.0069 (J)	<0.03		<0.03		
10/2/2017			<0.03			
10/3/2017		<0.03		<0.03		
10/4/2017	0.0082 (J)				<0.03	0.0021 (J)
1/9/2018				<0.03		
1/10/2018		<0.03	<0.03			
1/11/2018	0.0061 (J)				<0.03	0.0022 (J)
7/9/2018			<0.03			
7/10/2018		<0.03		<0.03		
7/11/2018	0.0075 (J)				<0.03	0.0019 (J)
7/30/2019		<0.03				
8/27/2019		<0.03			<0.03	
8/28/2019	0.0041 (J)		<0.03	<0.03		0.0018 (J)
10/8/2019				<0.03		
10/9/2019	0.0046 (J)	<0.03	<0.03		<0.03	0.0018 (J)
4/7/2020				<0.03	<0.03	
4/8/2020	0.0051 (J)	<0.03	<0.03			0.0018 (J)
8/18/2020	0.0065 (J)	<0.03	<0.03	<0.03	<0.03	
8/19/2020						0.0019 (J)
9/29/2020		<0.03				
9/30/2020	0.0041 (J)		<0.03	<0.03	<0.03	
10/1/2020						0.0019 (J)
3/10/2021					<0.03	0.0018 (J)
3/11/2021	0.0036 (J)					
3/12/2021			<0.03			
3/15/2021		<0.03				
3/16/2021				<0.03		
9/21/2021					<0.03	
9/22/2021	0.005 (J)	<0.03	<0.03	<0.03		0.0015 (J)
2/1/2022	0.0061 (J)		<0.03	<0.03		
2/2/2022		<0.03				0.0017 (J)
2/3/2022					<0.03	

# Time Series

Constituent: Lithium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.03	<0.03	<0.03	<0.03	<0.03
9/21/2021				<0.03	<0.03
9/22/2021	<0.03	<0.03			
9/23/2021			<0.03		
2/1/2022		<0.03			
2/2/2022				<0.03	<0.03
2/3/2022	<0.03		<0.03		

# Time Series

Constituent: Mercury (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		<0.0002		<0.0002	<0.0002	4E-05 (J)
9/1/2016	0.00017 (J)		<0.0002			
10/24/2016		<0.0002				
10/25/2016	<0.0002					<0.0002
10/26/2016			<0.0002	<0.0002	<0.0002	
1/3/2017		<0.0002		<0.0002		
1/4/2017						<0.0002
1/5/2017					<0.0002	
1/6/2017	<0.0002		<0.0002			
4/3/2017		<0.0002				
4/4/2017			<0.0002			<0.0002
4/6/2017	4E-05 (J)			<0.0002	<0.0002	
7/11/2017		<0.0002				
7/12/2017			<0.0002	<0.0002	<0.0002	<0.0002
7/13/2017	<0.0002					
10/2/2017		<0.0002				
10/3/2017				<0.0002	<0.0002	<0.0002
10/4/2017	0.0001 (J)		<0.0002			
1/9/2018	<0.0002	<0.0002			<0.0002	
1/10/2018				<0.0002		<0.0002
1/11/2018			<0.0002			
7/9/2018		<0.0002				
7/10/2018				<0.0002	<0.0002	<0.0002
7/11/2018	<0.0002		<0.0002			
1/16/2019	<0.0002	<0.0002	4.9E-05 (J)	<0.0002	4.3E-05 (J)	<0.0002
8/26/2019	<0.0002	<0.0002				
8/27/2019			<0.0002		<0.0002	<0.0002
8/28/2019				<0.0002		
10/9/2019				<0.0002		
8/17/2020		<0.0002				
8/19/2020	<0.0002		<0.0002	<0.0002	<0.0002	<0.0002
9/21/2021	0.0001 (J)	0.00011 (J)	0.0001 (J)	0.0001 (J)	0.0001 (J)	
9/23/2021						0.0001 (J)
1/31/2022	<0.0002	<0.0002				
2/2/2022			<0.0002		<0.0002	
2/3/2022				<0.0002		<0.0002



# Time Series

Constituent: Mercury (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	<0.0002	<0.0002	<0.0002			
9/1/2016				<0.0002	<0.0002	<0.0002
10/25/2016				<0.0002	<0.0002	<0.0002
10/26/2016	<0.0002	<0.0002	<0.0002			
1/4/2017	<0.0002	<0.0002				<0.0002
1/5/2017			<0.0002	<0.0002	<0.0002	
4/3/2017					<0.0002	
4/4/2017				<0.0002		
4/5/2017		<0.0002				<0.0002
4/6/2017	<0.0002		0.00013 (J)			
7/10/2017		<0.0002				
7/11/2017	<0.0002			<0.0002	<0.0002	
7/12/2017			<0.0002			<0.0002
10/2/2017				<0.0002	<0.0002	
10/3/2017	<0.0002					<0.0002
10/4/2017		<0.0002	<0.0002			
1/9/2018				<0.0002	<0.0002	
1/10/2018			<0.0002			<0.0002
1/11/2018	<0.0002	<0.0002				
7/9/2018				<0.0002		
7/10/2018					<0.0002	<0.0002
7/11/2018	<0.0002	<0.0002	<0.0002			
1/16/2019			<0.0002	<0.0002		
1/17/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/27/2019	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
8/28/2019						<0.0002
8/17/2020		<0.0002	<0.0002			
8/18/2020	<0.0002			<0.0002	<0.0002	<0.0002
9/21/2021	0.0001 (J)	0.0001 (J)	0.0001 (J)			
9/22/2021				0.00011 (J)		0.0001 (J)
9/23/2021					0.0001 (J)	
2/1/2022						<0.0002
2/2/2022				<0.0002		
2/3/2022	<0.0002	<0.0002	<0.0002		<0.0002	

# Time Series

Constituent: Mercury (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		<0.0002			<0.0002	<0.0002
9/1/2016	<0.0002		<0.0002	<0.0002		
10/25/2016			<0.0002	<0.0002		
10/26/2016	<0.0002	<0.0002			<0.0002	
10/27/2016						<0.0002
1/4/2017			<0.0002	<0.0002	<0.0002	
1/5/2017	<0.0002	<0.0002				
1/6/2017						<0.0002
4/4/2017		<0.0002	<0.0002	<0.0002		
4/5/2017	<0.0002					
4/6/2017					<0.0002	<0.0002
7/11/2017			<0.0002		<0.0002	
7/12/2017						<0.0002
7/13/2017	<0.0002	<0.0002		<0.0002		
10/2/2017			<0.0002			
10/3/2017		<0.0002		<0.0002		
10/4/2017	<0.0002				<0.0002	5E-05 (J)
1/9/2018				<0.0002		
1/10/2018		<0.0002	<0.0002			
1/11/2018	<0.0002				<0.0002	<0.0002
7/9/2018			<0.0002			
7/10/2018		<0.0002		<0.0002		
7/11/2018	<0.0002				<0.0002	<0.0002
1/16/2019	<0.0002					
1/17/2019				<0.0002		
1/18/2019					<0.0002	<0.0002
1/21/2019		<0.0002	<0.0002			
7/30/2019		<0.0002				
8/27/2019		<0.0002			<0.0002	
8/28/2019	<0.0002		<0.0002	<0.0002		<0.0002
8/18/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
8/19/2020						<0.0002
9/21/2021					0.0001 (J)	
9/22/2021	0.00011 (J)	0.0001 (J)	0.00011 (J)	0.00011 (J)		0.00011 (J)
2/1/2022	<0.0002		<0.0002	<0.0002		
2/2/2022		<0.0002				<0.0002
2/3/2022					<0.0002	

# Time Series

Constituent: Mercury (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
9/21/2021				0.0001 (J)	0.00011 (J)
9/22/2021	0.00011 (J)	0.0001 (J)			
9/23/2021			0.0001 (J)		
2/1/2022		<0.0002			
2/2/2022				<0.0002	<0.0002
2/3/2022	<0.0002		<0.0002		

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		<0.01		<0.01	<0.01	0.175
9/1/2016	0.0098 (J)		0.035			
10/24/2016		<0.01				
10/25/2016	<0.01					0.242
10/26/2016			0.0267	<0.01	<0.01	
1/3/2017		<0.01		<0.01		
1/4/2017						0.167
1/5/2017					<0.01	
1/6/2017	<0.01		0.0278			
4/3/2017		<0.01				
4/4/2017			0.0265			0.172
4/6/2017	<0.01			<0.01	<0.01	
7/11/2017		<0.01				
7/12/2017			0.0209	<0.01	<0.01	0.182
7/13/2017	0.0013 (J)					
10/2/2017		<0.01				
10/3/2017				<0.01	<0.01	0.162
10/4/2017	0.0013 (J)		0.0181			
1/9/2018	<0.01	<0.01			<0.01	
1/10/2018				<0.01		0.117
1/11/2018			0.0237			
7/9/2018		<0.01				
7/10/2018				<0.01	<0.01	0.11
7/11/2018	<0.01		0.024			
8/26/2019	<0.01	<0.01				
8/27/2019			0.1		0.0026 (J)	0.06
8/28/2019				0.0012 (J)		
10/7/2019		<0.01				
10/8/2019	<0.01					
10/9/2019			0.1	<0.01	<0.01	0.06
4/6/2020	<0.01	<0.01				
4/7/2020			0.13	<0.01	<0.01	0.014
8/17/2020		<0.01				
8/19/2020	<0.01		0.16	<0.01	0.001 (J)	0.061
9/28/2020	<0.01	<0.01				0.059
9/30/2020				<0.01	0.00097 (J)	
10/1/2020			0.15			
3/10/2021			0.12	<0.01	0.0013 (J)	0.057
3/11/2021	<0.01					
3/12/2021		<0.01				
9/21/2021	<0.01	<0.01	0.12	<0.01	<0.01	
9/23/2021						0.06
1/31/2022	<0.01	<0.01				
2/2/2022			0.11		0.00085 (J)	
2/3/2022				<0.01		0.038

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	<0.01	<0.01	<0.01			
9/1/2016				0.0027 (J)	0.132	0.08
10/25/2016				0.0028 (J)	0.117	0.08
10/26/2016	<0.01	<0.01	<0.01			
1/4/2017	<0.01	<0.01				0.0786
1/5/2017			<0.01	0.0022 (J)	0.109	
4/3/2017					0.0994	
4/4/2017				0.0022 (J)		
4/5/2017		<0.01				0.113
4/6/2017	<0.01		<0.01			
7/10/2017		<0.01				
7/11/2017	<0.01			0.0024 (J)	0.0938	
7/12/2017			<0.01			0.178
10/2/2017				0.0025 (J)	0.103	
10/3/2017	<0.01					0.201
10/4/2017		<0.01	<0.01			
1/9/2018				0.0038 (J)	0.106	
1/10/2018			<0.01			0.161
1/11/2018	0.0018 (J)	<0.01				
7/9/2018				0.01		
7/10/2018					0.088	0.14
7/11/2018	<0.01	<0.01	<0.01			
8/27/2019	<0.01	<0.01	<0.01	0.028	0.095	
8/28/2019						0.22
10/8/2019	<0.01		<0.01	0.034	0.091	0.2
10/9/2019		<0.01				
4/7/2020	<0.01	<0.01		0.014	0.07	0.25
4/8/2020			0.0056 (J)			
8/17/2020		<0.01	<0.01			
8/18/2020	0.00077 (J)			0.017	0.12	0.15
9/28/2020			<0.01			
9/29/2020	<0.01	<0.01		0.0089 (J)		
9/30/2020					0.11	0.15
3/10/2021	<0.01	<0.01				
3/12/2021					0.098	
3/15/2021			<0.01			
3/16/2021				0.0054 (J)		0.31
9/21/2021	<0.01	<0.01	<0.01			
9/22/2021				0.018		0.22
9/23/2021					0.094	
2/1/2022						0.18
2/2/2022				0.015		
2/3/2022	<0.01	<0.01	<0.01		0.086	

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		<0.01			<0.01	<0.01
9/1/2016	<0.01		0.296	0.0686		
10/25/2016			0.395	0.0018 (J)		
10/26/2016	<0.01	<0.01			<0.01	
10/27/2016						<0.01
1/4/2017			0.229	0.0222	<0.01	
1/5/2017	<0.01	<0.01				
1/6/2017						<0.01
4/4/2017		<0.01	0.147	0.0476		
4/5/2017	<0.01					
4/6/2017					<0.01	<0.01
7/11/2017			0.136		<0.01	
7/12/2017						<0.01
7/13/2017	<0.01	<0.01		0.0105		
10/2/2017			0.13			
10/3/2017		<0.01		0.0031 (J)		
10/4/2017	<0.01				<0.01	<0.01
1/9/2018				0.09		
1/10/2018		<0.01	0.229			
1/11/2018	<0.01				<0.01	<0.01
7/9/2018			0.13			
7/10/2018		<0.01		0.047		
7/11/2018	<0.01				<0.01	<0.01
7/30/2019		<0.01				
8/27/2019		<0.01			<0.01	
8/28/2019	0.004 (J)		0.11	0.07		<0.01
10/8/2019				0.078		
10/9/2019	0.0036 (J)	<0.01	0.071		<0.01	<0.01
4/7/2020				0.012	<0.01	
4/8/2020	0.0024 (J)	<0.01	0.06			<0.01
8/18/2020	0.00092 (J)	<0.01	0.097	0.069	<0.01	
8/19/2020						<0.01
9/29/2020		<0.01				
9/30/2020	0.0041 (J)		0.33	0.028	<0.01	
10/1/2020						<0.01
3/10/2021					<0.01	<0.01
3/11/2021	0.0038 (J)					
3/12/2021			0.53			
3/15/2021		<0.01				
3/16/2021				0.024		
9/21/2021					<0.01	
9/22/2021	0.0053 (J)	<0.01	0.5	0.0019 (J)		<0.01
2/1/2022	0.003 (J)		0.77	0.042		
2/2/2022		<0.01				<0.01
2/3/2022					<0.01	

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			0.0011 (J)	<0.01	<0.01
1/21/2021	<0.01	0.0014 (J)			
3/11/2021	<0.01	0.0035 (J)	0.0015 (J)	<0.01	<0.01
9/21/2021				<0.01	<0.01
9/22/2021	<0.01	0.0032 (J)			
9/23/2021			<0.01		
2/1/2022		0.0024 (J)			
2/2/2022				<0.01	<0.01
2/3/2022	<0.01		<0.01		

# Time Series

Constituent: pH (SU) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013			6.22	5.95	5.25	5.38
10/11/2014		4.42				
10/24/2016		4.36				
10/25/2016	6.17					5.51
10/26/2016			6.06	5.27	5.21	
1/3/2017		4.28		5.09		
1/4/2017						5.46
1/5/2017					5.2	
1/6/2017	6.16		6.02			
4/3/2017		4.29				
4/4/2017			6.08			5.43
4/6/2017	6.26			5.22	5.17	
7/11/2017		4.35				
7/12/2017			5.93	5.29	5.24	5.46
7/13/2017	5.99					
10/2/2017		4.32				
10/3/2017				5.08	5.36	5.65
10/4/2017	6.16		5.77			
1/9/2018	6.43	4.44			5.4	
1/10/2018				5.83		5.67
1/11/2018			5.98			
7/9/2018		4.4				
7/10/2018				6.42	5.31	5.71
7/11/2018	6.1		6.01			
1/16/2019	6.05	6.16 (O)	5.83	6.66	5.99	5.59
3/25/2019	6.06	4.4	5.74			
3/26/2019				5.1	5.94	5.77
8/26/2019	5.91	4.26				
8/27/2019			5.7		5.67	5.84
8/28/2019				5.95		
10/7/2019		4.24				
10/8/2019	5.74					
10/9/2019			5.79	6.11	5.66	5.82
4/6/2020	6.02	4.52				
4/7/2020			5.74	5.45	5.86	5.3
8/17/2020		4.23				
8/19/2020	5.81 (D)		5.7	5.14 (D)	5.21	5.73
9/28/2020	5.86	4.41				5.79
9/30/2020				4.99	5.39	
10/1/2020			5.75			
3/10/2021			5.23	4.73	5.69	5.42
3/11/2021	5.85					
3/12/2021		4.54				
9/21/2021	6.03	4.44	5.78	4.68	5.4	
9/23/2021						6.06
1/31/2022	5.94	4.39				
2/2/2022			5.71		5.75	
2/3/2022				4.48		5.89



# Time Series

Constituent: pH (SU) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/16/2013	5.2	4.17	4.95	4.62	5.96	4.92
10/11/2014				4.58		5.17
10/25/2016				4.79	6.46	5.58
10/26/2016	5.08	4.04	4.95			
1/4/2017	5.06	4.01				5.51
1/5/2017			4.97	4.73	6.25	
4/3/2017					6.25	
4/4/2017				4.68		
4/5/2017		4	4.81			5.51
4/6/2017	4.97					
7/10/2017		3.89				
7/11/2017	5.26			4.72	6.5	
7/12/2017			4.83			5.84
10/2/2017				5.13	6.83	
10/3/2017	5.07					5.55
10/4/2017		4.06	4.71			
1/9/2018				5.59	6.57	
1/10/2018			5.17			5.99
1/11/2018	5.18	3.96				
7/9/2018				5.11		
7/10/2018					6.42	5.5
7/11/2018	4.82	3.95	4.49			
1/16/2019			6.45 (O)	6.82		
1/17/2019	4.91	3.89			8.44 (O)	7.13
3/26/2019			4.96	5.74	6.65	5.57
3/27/2019	5.18	4.11				
8/27/2019	5.17	4.02	4.9	5.58	6.57	
8/28/2019						5.57
10/8/2019	4.93		4.81	5.68	6.65	5.54
10/9/2019		4.25				
4/7/2020	5.05	4.1		6.2	6.83	5.94
4/8/2020			4.81			
8/17/2020		3.94	4.65			
8/18/2020	4.41			5.56	6.39	5.52
9/28/2020			4.76			
9/29/2020	4.77	3.95		5.69		
9/30/2020					6.71	5.47
3/10/2021	4.97	4.08				
3/12/2021					6.21	
3/15/2021			4.74			
3/16/2021				5.53		5.67
9/21/2021	4.92	4.05	4.83			
9/22/2021				5.76		5.57
9/23/2021					6.48	
2/1/2022						5.57
2/2/2022				5.98		
2/3/2022	4.98	4.04	4.97		6.61	

# Time Series

Constituent: pH (SU) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/16/2013	4.55	4.52	6.1	5.71	4.91	5.05
10/25/2016			6.06	5.41		
10/26/2016	4.45	4.48			4.6	
10/27/2016						4.65
1/4/2017			6.05	5.6	4.63	
1/5/2017	4.45	4.85				
1/6/2017						4.56
4/4/2017		4.58	6.03	5.94		
4/5/2017	4.33					
4/6/2017					4.79	4.5
7/11/2017			5.96		4.73	
7/12/2017						4.56
7/13/2017	4.11	4.74		5.6		
10/2/2017			5.88			
10/3/2017		4.57		5.18		
10/4/2017	4.09				4.74	4.72
1/9/2018				6.14		
1/10/2018		5.31	6.21			
1/11/2018	4.4				5.22	4.34
7/9/2018			6.24			
7/10/2018		4.58		5.7		
7/11/2018	4.07				4.68	4.68
1/16/2019	4.05					
1/17/2019				7.39		
1/18/2019					6.98 (O)	6.87 (O)
1/21/2019		5.05	7.73 (O)			
3/25/2019			6.28			
3/26/2019	4.62			6.08		
3/27/2019					4.77	4.38
7/30/2019		4.74				
8/27/2019		4.77			4.89	
8/28/2019	4.62		6.34	6.05		4.68
10/8/2019				6.09		
10/9/2019	4.66	4.79	6.5		4.68	4.62
4/7/2020				6	4.8	
4/8/2020	4.71	4.66	6.31			4.73
8/18/2020	4.31	4.6	5.89	5.82	4.52	
8/19/2020						4.58
9/29/2020		4.6				
9/30/2020	4.08		6.04	5.82	4.63	
10/1/2020						4.42
3/10/2021					4.82	4.55
3/11/2021	5.2					
3/12/2021			5.86			
3/15/2021		4.56				
3/16/2021				5.74		
9/21/2021					4.72	
9/22/2021	4.63	4.71	6	5.39		4.7
2/1/2022	4.53		5.9	5.76		
2/2/2022		4.79				4.66
2/3/2022					4.63	

# Time Series

Constituent: pH (SU) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			6.25	5.66	5.68
1/21/2021	5.75	6.13			
3/11/2021	5.82	6.47	6.31	6	5.12
9/21/2021				5.88	5.97
9/22/2021	6.39	6.76			
9/23/2021			6.21		
2/1/2022		6.63			
2/2/2022				5.82	5.72
2/3/2022	6.14		6.15		

# Time Series

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005		<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	0.014 (O)	<0.005	<0.005	0.017
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	<0.005	0.015 (O)	<0.005	<0.005	<0.005
11/1/2001	<0.005	<0.005	0.012 (O)	<0.005	<0.005	<0.005
4/25/2002	<0.005	<0.005	0.01	<0.005	<0.005	0.012
11/20/2002		<0.005	0.026 (O)	0.0064	0.008	0.19 (O)
6/6/2003	<0.005	<0.005	0.022 (O)	0.011	0.0066	0.32 (O)
12/12/2003	<0.005	<0.005	0.028 (O)	<0.005	0.0056	0.013
5/26/2004	<0.005	<0.005	0.012 (O)	0.007	0.0084	0.017
12/7/2004	<0.005	<0.005	0.0073	<0.005	<0.005	0.011
6/21/2005	<0.005	<0.005	0.0087	0.0063	0.0062	0.0088
12/12/2005	<0.005	<0.005	0.013 (O)	<0.005	<0.005	0.011
4/4/2006		<0.005				
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006		<0.005				
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/15/2007		<0.005				
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/11/2007		<0.005				
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/11/2008		<0.005				
6/23/2008	<0.005	<0.005				
6/24/2008			<0.005	<0.005	<0.005	<0.005
11/3/2008		<0.005				
12/4/2008	<0.005	<0.005				
12/5/2008			<0.005	<0.005	<0.005	<0.005
3/25/2009		<0.005				
7/7/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/14/2009		<0.005				
12/20/2009	<0.005	<0.005				<0.005
12/21/2009			<0.005	<0.005	<0.005	
3/4/2010		<0.005				
6/20/2010	<0.005	<0.005		<0.005	<0.005	<0.005
6/21/2010			<0.005			
9/14/2010		<0.005				
1/6/2011				<0.005		<0.005
1/7/2011	<0.005	<0.005	<0.005		<0.005	
4/15/2011		<0.005				
7/7/2011	<0.005	<0.005		<0.005	<0.005	<0.005
7/8/2011			<0.005			
9/25/2011		<0.005				
1/17/2012	<0.005	<0.005		<0.005		<0.005
1/18/2012			<0.005		<0.005	
4/4/2012		<0.005				
7/9/2012	<0.005			<0.005		<0.005
7/10/2012		<0.005	<0.005		<0.005	
10/9/2012		<0.005				
1/17/2013				<0.005		<0.005
1/18/2013	0.009	<0.005	<0.005		<0.005	
4/5/2013		<0.005				

# Time Series

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				<0.005		0.012
7/17/2013	0.011	<0.005	<0.005		<0.005	
10/11/2013		<0.005				
1/13/2014	0.012			<0.005		<0.005
1/14/2014		<0.005	<0.005		<0.005	
4/3/2014		<0.005				
7/9/2014	0.011	<0.005	<0.005	<0.005	<0.005	<0.005
10/24/2014		<0.005				
1/12/2015			<0.005			
1/13/2015	0.0092			<0.005		<0.005
1/14/2015		<0.005			<0.005	
5/10/2015		<0.005				
7/16/2015	0.014		<0.005	<0.005		<0.005
7/17/2015		<0.005			<0.005	
10/6/2015		<0.005				
1/17/2016						0.023
1/18/2016	0.023	<0.005	<0.005	<0.005	<0.005	
4/26/2016		<0.005				
7/27/2016	0.0323			<0.005		0.002 (J)
7/28/2016		0.001 (J)			<0.005	
7/29/2016			0.0036 (J)			
8/30/2016		<0.005		<0.005	<0.005	0.002 (J)
9/1/2016	0.0438		0.0067 (J)			
10/24/2016		0.0013 (J)				
10/25/2016	0.031					0.0022 (J)
10/26/2016			0.0042 (J)	<0.005	<0.005	
1/3/2017		<0.005		<0.005		
1/4/2017						0.0016 (J)
1/5/2017					0.0014 (J)	
1/6/2017	0.0324		0.0042 (J)			
4/3/2017		<0.005				
4/4/2017			0.0043 (J)			0.0052 (J)
4/6/2017	0.0188 (J)			<0.005	<0.005	
7/11/2017		<0.005				
7/12/2017			0.0033 (J)	<0.005	<0.005	0.0024 (J)
7/13/2017	0.0118					
10/2/2017		<0.005				
10/3/2017				<0.005	<0.005	<0.005
10/4/2017	0.0195		0.0038 (J)			
1/9/2018	<0.005	<0.005			<0.005	
1/10/2018				<0.005		0.0018 (J)
1/11/2018			0.0029 (J)			
7/9/2018		<0.005				
7/10/2018				0.0018 (J)	0.0016 (J)	0.0026 (J)
7/11/2018	<0.005		0.0015 (J)			
1/16/2019	0.0071 (J)	<0.005	<0.005	<0.005	<0.005	0.0018 (J)
3/25/2019	<0.005	<0.005	<0.005			
3/26/2019				<0.005	0.05 (J)	0.0023 (J)
8/26/2019	<0.005	<0.005				
8/27/2019			<0.005		0.0033 (J)	0.0016 (J)
8/28/2019				0.0033 (J)		
10/7/2019		<0.005				

# Time Series

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
10/8/2019	0.0072 (J)					
10/9/2019			<0.005	0.0073 (J)	<0.005	0.0024 (J)
4/6/2020	0.0078 (J)	<0.005				
4/7/2020			0.0025 (J)	<0.005	<0.005	0.0013 (J)
8/17/2020		<0.005				
8/19/2020	<0.005		<0.005	<0.005	<0.005	0.002 (J)
9/28/2020	0.01 (J)	<0.005				<0.005
9/30/2020				<0.005	0.0023 (J)	
10/1/2020			<0.005			
3/10/2021			0.0021 (J)	0.006	0.0049 (J)	0.0026 (J)
3/11/2021	<0.005					
3/12/2021		<0.005				
9/21/2021	<0.005	<0.005	<0.005	<0.005	0.0016 (J)	
9/23/2021						0.0018 (J)
1/31/2022	<0.005	<0.005				
2/2/2022			<0.005		0.0017 (J)	
2/3/2022				<0.005		0.0022 (J)

# Time Series

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005	<0.005	<0.005	0.052	<0.005	<0.005
1/20/2001	<0.005	<0.005	<0.005	0.053	<0.005	<0.005
3/14/2001	<0.005	<0.005	<0.005	0.049	<0.005	<0.005
7/16/2001	<0.005	<0.005	<0.005	0.038	<0.005	<0.005
11/1/2001	<0.005	<0.005	<0.005	0.022	<0.005	<0.005
4/25/2002	<0.005	<0.005	<0.005	0.1 (O)	<0.005	<0.005
11/20/2002	<0.005	<0.005	<0.005	0.018	0.0094	<0.005
6/6/2003	<0.005	<0.005	<0.005	<0.005	0.021 (O)	0.021 (O)
12/12/2003	<0.005	<0.005	<0.005	<0.005	0.016 (O)	0.0078
5/26/2004	<0.005	<0.005	<0.005	0.023	<0.005	0.0053
12/7/2004	<0.005	<0.005	<0.005	0.019	<0.005	<0.005
6/21/2005	<0.005	<0.005	<0.005	0.019	<0.005	<0.005
12/12/2005	<0.005	<0.005	<0.005	0.0095	<0.005	<0.005
4/4/2006				0.033		<0.005
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006				<0.005		<0.005
12/4/2006	<0.005	<0.005	<0.005	0.032	<0.005	<0.005
2/15/2007				0.034		<0.005
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/11/2007				0.022		<0.005
12/11/2007	<0.005	<0.005	<0.005	0.045	<0.005	<0.005
3/11/2008				0.02		<0.005
6/23/2008	<0.005	<0.005	<0.005			
6/24/2008				<0.005	<0.005	<0.005
11/3/2008				0.052		<0.005
12/4/2008	<0.005	<0.005	<0.005	0.054		
12/5/2008					<0.005	<0.005
3/25/2009				0.072		<0.005
7/8/2009	<0.005	<0.005	<0.005	0.021	<0.005	<0.005
9/14/2009				0.015		<0.005
12/20/2009				0.072	<0.005	<0.005
12/21/2009	<0.005	<0.005	<0.005			
3/4/2010				0.083		<0.005
6/20/2010	<0.005	<0.005	<0.005	0.1	<0.005	
6/21/2010						<0.005
9/14/2010				0.085		<0.005
1/6/2011	<0.005		<0.005			
1/7/2011		<0.005		0.028	<0.005	<0.005
4/15/2011				<0.005		<0.005
7/7/2011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/25/2011				0.02		<0.005
1/17/2012	0.023	<0.005	<0.005	0.016	<0.005	
1/18/2012						<0.005
4/4/2012				0.0156		<0.005
7/9/2012	0.016	<0.005	<0.005	<0.005	0.066 (O)	
7/10/2012						<0.005
10/9/2012				0.0094		<0.005
1/17/2013	0.033	<0.005	<0.005			
1/18/2013				0.0067	0.04 (O)	<0.005
4/5/2013				0.0077		<0.005
7/16/2013	0.0068	<0.005	<0.005			

# Time Series

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				0.01	<0.005	<0.005
10/11/2013				0.0087		0.0069
1/13/2014	0.036	<0.005	<0.005		<0.005	
1/14/2014				0.012		<0.005
4/3/2014				0.022		<0.005
7/8/2014	0.017	<0.005	<0.005			
7/9/2014				0.0089	<0.005	0.005
10/24/2014				0.017		<0.005
1/13/2015	0.027	<0.005	<0.005		<0.005	
1/14/2015				<0.005		<0.005
5/10/2015				<0.005		
5/11/2015						<0.005
7/16/2015	<0.005	<0.005	<0.005		<0.005	<0.005
7/17/2015				<0.005		
10/6/2015				<0.005		0.0073
1/17/2016				<0.005	<0.005	0.0031 (J)
1/18/2016		<0.005	<0.005			
1/19/2016	0.023					
4/26/2016				0.00428 (J)		0.00497 (J)
7/26/2016	0.0056 (J)		<0.005			
7/27/2016		0.0025 (J)		0.0038 (J)	<0.005	
7/28/2016						0.0076 (J)
8/31/2016	0.0084 (J)	0.0019 (J)	<0.005			
9/1/2016				0.0056 (J)	<0.005	0.0052 (J)
10/25/2016				0.0023 (J)	<0.005	0.0085 (J)
10/26/2016	0.0052 (J)	0.002 (J)	<0.005			
1/4/2017	0.0062 (J)	<0.005				0.0048 (J)
1/5/2017			<0.005	0.0038 (J)	<0.005	
4/3/2017					<0.005	
4/4/2017				0.0064 (J)		
4/5/2017		<0.005				0.0068 (J)
4/6/2017	0.0195		<0.005			
7/10/2017		<0.005				
7/11/2017	<0.005			0.0044 (J)	<0.005	
7/12/2017			<0.005			0.0048 (J)
10/2/2017				0.004 (J)	<0.005	
10/3/2017	0.0079 (J)					0.0051 (J)
10/4/2017		<0.005	<0.005			
1/9/2018				0.0019 (J)	0.0019 (J)	
1/10/2018			<0.005			0.0018 (J)
1/11/2018	0.0054 (J)	<0.005				
7/9/2018				0.0029 (J)		
7/10/2018					0.0086 (J)	0.0045 (J)
7/11/2018	0.0022 (J)	<0.005	<0.005			
1/16/2019			<0.005	0.0016 (J)		
1/17/2019	<0.005	<0.005			0.0029 (J)	0.0031 (J)
3/26/2019			<0.005	0.0022 (J)	0.0074 (J)	0.0033 (J)
3/27/2019	0.01 (J)	<0.005				
8/27/2019	<0.005	<0.005	<0.005	0.0035 (J)	0.0092 (J)	
8/28/2019						0.004 (J)
10/8/2019	<0.005		<0.005	0.0026 (J)	0.014	0.0023 (J)
10/9/2019		<0.005				



# Time Series

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
4/7/2020	0.0021 (J)	<0.005		0.005 (J)	0.0029 (J)	<0.005
4/8/2020			<0.005			
8/17/2020		<0.005	<0.005			
8/18/2020	0.0028 (J)			0.0029 (J)	0.0022 (J)	0.0058 (J)
9/28/2020			<0.005			
9/29/2020	0.0024 (J)	<0.005		0.0051 (J)		
9/30/2020					<0.005	0.0037 (J)
3/10/2021	0.0044 (J)	0.003 (J)				
3/12/2021					0.0064	
3/15/2021			<0.005			
3/16/2021				0.0034 (J)		0.0044 (J)
9/21/2021	0.0038 (J)	<0.005	<0.005			
9/22/2021				0.0034 (J)		0.0031 (J)
9/23/2021					0.0016 (J)	
2/1/2022						0.0024 (J)
2/2/2022				0.0038 (J)		
2/3/2022	0.019	<0.005	<0.005		0.0031 (J)	

# Time Series

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.005					<0.005
11/21/2000	<0.005	<0.005				<0.005
1/20/2001	<0.005	<0.005				<0.005
3/14/2001	<0.005	<0.005				<0.005
7/16/2001	<0.005	<0.005				<0.005
11/1/2001	<0.005	<0.005				<0.005
4/25/2002	<0.005	<0.005				<0.005
11/20/2002	<0.005	<0.005				<0.005
6/6/2003	<0.005	<0.005				<0.005
12/12/2003	<0.005	<0.005				<0.005
5/26/2004	<0.005	0.005				<0.005
12/7/2004	<0.005	<0.005				<0.005
6/21/2005	<0.005	<0.005				0.0062
12/12/2005	<0.005	<0.005				<0.005
6/27/2006	<0.005	<0.005				<0.005
12/4/2006	<0.005	<0.005				<0.005
6/23/2007	<0.005	<0.005				<0.005
12/11/2007	<0.005	<0.005				<0.005
6/23/2008						<0.005
6/24/2008	<0.005	<0.005				
12/4/2008		<0.005				<0.005
12/5/2008	<0.005					
7/8/2009	<0.005	<0.005				<0.005
12/20/2009		<0.005				
12/21/2009	<0.005					<0.005
6/20/2010		<0.005				<0.005
6/21/2010	<0.005		<0.005	0.048	<0.005	
1/6/2011		<0.005				
1/7/2011	<0.005		<0.005	0.014	<0.005	<0.005
7/7/2011			<0.005			
7/8/2011	<0.005		<0.005	0.018	<0.005	<0.005
1/17/2012		<0.005				
1/18/2012	<0.005		<0.005	<0.005	<0.005	<0.005
7/9/2012		<0.005				
7/10/2012	<0.005		<0.005	0.02	<0.005	<0.005
1/17/2013		<0.005				
1/18/2013	<0.005		0.005	0.015	<0.005	<0.005
7/17/2013	<0.005	<0.005	<0.005	0.037	<0.005	<0.005
1/13/2014		<0.005				
1/14/2014	<0.005		<0.005	0.043	<0.005	<0.005
7/9/2014	<0.005	<0.005		0.023		<0.005
7/10/2014			<0.005		<0.005	
1/12/2015			<0.005			
1/13/2015		<0.005				
1/14/2015	<0.005			0.022	<0.005	<0.005
7/16/2015		<0.005				
7/17/2015				0.033		<0.005
7/18/2015	<0.005		<0.005		<0.005	
1/17/2016		<0.005	<0.005	0.021		
1/18/2016	<0.005				<0.005	<0.005
7/27/2016		0.002 (J)				
7/28/2016			<0.005	0.0341		<0.005

# Time Series

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	0.0011 (J)				0.0022 (J)	
8/31/2016		<0.005			0.0014 (J)	<0.005
9/1/2016	0.0012 (J)		<0.005	0.0297		
10/25/2016			0.0014 (J)	0.0095 (J)		
10/26/2016	0.0013 (J)	0.0035 (J)			0.001 (J)	
10/27/2016						<0.005
1/4/2017			0.0014 (J)	0.022	<0.005	
1/5/2017	0.0012 (J)	<0.005				
1/6/2017						<0.005
4/4/2017		<0.005	<0.005	0.0236		
4/5/2017	<0.005					
4/6/2017					<0.005	<0.005
7/11/2017			<0.005		<0.005	
7/12/2017						<0.005
7/13/2017	0.0018 (J)	<0.005		0.013		
10/2/2017			<0.005			
10/3/2017		<0.005		0.01 (J)		
10/4/2017	0.0042 (J)				0.0023 (J)	<0.005
1/9/2018				0.0162		
1/10/2018		<0.005	<0.005			
1/11/2018	<0.005				<0.005	<0.005
7/9/2018			<0.005			
7/10/2018		<0.005		0.016		
7/11/2018	0.0016 (J)				<0.005	<0.005
1/16/2019	<0.005					
1/17/2019				0.011		
1/18/2019					<0.005	<0.005
1/21/2019		<0.005	0.0014 (J)			
3/25/2019			<0.005			
3/26/2019	<0.005			0.022		
3/27/2019					<0.005	<0.005
7/30/2019		<0.005				
8/27/2019		<0.005			<0.005	
8/28/2019	<0.005		0.0014 (J)	0.019		<0.005
10/8/2019				0.019		
10/9/2019	<0.005	<0.005	<0.005		<0.005	<0.005
4/7/2020				0.012	<0.005	
4/8/2020	<0.005	<0.005	0.0013 (J)			<0.005
8/18/2020	0.002 (J)	<0.005	<0.005	0.013	<0.005	
8/19/2020						<0.005
9/29/2020		<0.005				
9/30/2020	<0.005		<0.005	0.0061 (J)	<0.005	
10/1/2020						<0.005
3/10/2021					<0.005	<0.005
3/11/2021	0.0016 (J)					
3/12/2021			<0.005			
3/15/2021		<0.005				
3/16/2021				0.0055		
9/21/2021					<0.005	
9/22/2021	<0.005	<0.005	0.0024 (J)	0.0027 (J)		<0.005
2/1/2022	<0.005		<0.005	0.0054		
2/2/2022		<0.005				<0.005

# Time Series

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
2/3/2022					<0.005	

# Time Series

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.005	<0.005	<0.005	<0.005	<0.005
9/21/2021				<0.005	<0.005
9/22/2021	<0.005	<0.005			
9/23/2021			<0.005		
2/1/2022		<0.005			
2/2/2022				<0.005	<0.005
2/3/2022	<0.005		<0.005		

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		140		100	120	87
9/1/2016	73		210			
10/24/2016		160				
10/25/2016	26					83
10/26/2016			230	130	120	
1/3/2017		140		120		
1/4/2017						99
1/5/2017					130	
1/6/2017	23		220			
4/3/2017		140				
4/4/2017			230			110
4/6/2017	25			140	150	
7/11/2017		130				
7/12/2017			210	140	140	100
7/13/2017	65					
10/2/2017		150				
10/3/2017				130	140	63
10/4/2017	13		290			
1/9/2018	45	120			140	
1/10/2018				110		86
1/11/2018			210			
7/9/2018		123				
7/10/2018				48.1	128	77.7
7/11/2018	37.7		177			
1/16/2019	24.5	129	244	184	402	71.2
3/25/2019	14.7	152	245			
3/26/2019				222	319	73.8
10/7/2019		156				
10/8/2019	32.8					
10/9/2019			38.5	90.8	255	76.3
4/6/2020	20.3	123				
4/7/2020			221	180	180	83
9/28/2020	20	93.6				71.6
9/30/2020				339	339	
10/1/2020			178			
3/10/2021			160	572	1160	61.2
3/11/2021	12					
3/12/2021		103				
9/21/2021	11.1	96.5	232	829	645	
9/23/2021						37.3
1/31/2022	15	89.7				
2/2/2022			338		1460	
2/3/2022				797		49.2

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	64	1100	43			
9/1/2016				730	120	430
10/25/2016				420	100	360
10/26/2016	56	900	29			
1/4/2017	65	880				360
1/5/2017			32	430	140	
4/3/2017					150	
4/4/2017				600		
4/5/2017		990				440
4/6/2017	110		49			
7/10/2017		480				
7/11/2017	49			400	110	
7/12/2017			16			490
10/2/2017				470	56	
10/3/2017	140					780
10/4/2017		760	33			
1/9/2018				440	84	
1/10/2018			22			470
1/11/2018	270	780				
7/9/2018				369		
7/10/2018					43	787
7/11/2018	211	598	17.8			
1/16/2019			20.2	291		
1/17/2019	50.3	454			45.2	780
3/26/2019			33.6	192	54	87.9
3/27/2019	76.8	579				
10/8/2019	310		22	428	45.8	872
10/9/2019		392				
4/7/2020	446	297		456	26.9	844
4/8/2020			30.7			
9/28/2020			25.6			
9/29/2020	516	237		93.5		
9/30/2020					18.5	736
3/10/2021	687	282				
3/12/2021					21.1	
3/15/2021			30.6			
3/16/2021				92		821
9/21/2021	433	315	36.6			
9/22/2021				444		1040
9/23/2021					124	
2/1/2022						1010
2/2/2022				589		
2/3/2022	347	333	32.1		102	

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		21			700	84
9/1/2016	310		180	36		
10/25/2016			79	16		
10/26/2016	280	100			850	
10/27/2016						76
1/4/2017			170	45	680	
1/5/2017	310	22				
1/6/2017						66
4/4/2017		29	300	46		
4/5/2017	460					
4/6/2017					220	79
7/11/2017			400		210	
7/12/2017						75
7/13/2017	490	20		33		
10/2/2017			390			
10/3/2017		20		34		
10/4/2017	1100				730	78
1/9/2018				29		
1/10/2018		9.5	99			
1/11/2018	810				180	110
7/9/2018			99.2			
7/10/2018		8.5		33.2		
7/11/2018	902				381	87.4
1/16/2019	422					
1/17/2019				24.1		
1/18/2019					107	56.9
1/21/2019		10.2	35.5			
3/25/2019			95.6			
3/26/2019	439			83.9		
3/27/2019					103	76.2
7/30/2019		12.3				
10/8/2019				85.6		
10/9/2019	346	10.1	58.5		80.2	41.1
4/7/2020				33.2	333	
4/8/2020	239	12.9	428			34.2
9/29/2020		8.6				
9/30/2020	193		956	306	65.5	
10/1/2020						35
3/10/2021					101	38.7
3/11/2021	244					
3/12/2021			933			
3/15/2021		10				
3/16/2021				343		
9/21/2021					52.4	
9/22/2021	394	10.3	905	14.6		42.7
2/1/2022	416		862	374		
2/2/2022		9				31.5
2/3/2022					46.2	



# Time Series

Constituent: Sulfate (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			1.6	1	0.88 (J)
1/21/2021	5	0.79 (J)			
3/11/2021	62.4	<1	0.52 (J)	<1	<1
9/21/2021				<1	<1
9/22/2021	84.6	<1			
9/23/2021			0.7 (J)		
2/1/2022		<1			
2/2/2022				<1	<1
2/3/2022	64.8		<1		

# Time Series

Constituent: Thallium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/21/2000	<0.001		<0.001	<0.001	<0.001	<0.001
1/20/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/14/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/16/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/1/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/12/2003	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
5/26/2004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/7/2004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
6/21/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/12/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/4/2006		<0.001				
6/27/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/30/2006		<0.001				
12/4/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2/15/2007		<0.001				
6/23/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/30/2016		<0.001		<0.001	<0.001	<0.001
9/1/2016	0.0005 (J)		<0.001			
10/24/2016		<0.001				
10/25/2016	<0.001					<0.001
10/26/2016			<0.001	<0.001	<0.001	
1/3/2017		<0.001		<0.001		
1/4/2017						<0.001
1/5/2017					<0.001	
1/6/2017	<0.001		<0.001			
4/3/2017		<0.001				
4/4/2017			7E-05 (J)			5E-05 (J)
4/6/2017	<0.001			<0.001	<0.001	
7/11/2017		5E-05 (J)				
7/12/2017			<0.001	<0.001	<0.001	<0.001
7/13/2017	<0.001					
10/2/2017		6E-05 (J)				
10/3/2017				<0.001	<0.001	<0.001
10/4/2017	<0.001		<0.001			
1/9/2018	<0.001	<0.001			<0.001	
1/10/2018				<0.001		<0.001
1/11/2018			7E-05 (J)			
7/9/2018		<0.001				
7/10/2018				<0.001	<0.001	<0.001
7/11/2018	<0.001		<0.001			
8/26/2019	<0.001	<0.001				
8/27/2019			<0.001		<0.001	<0.001
8/28/2019				5.7E-05 (J)		
10/7/2019		6.2E-05 (J)				
10/8/2019	<0.001					
10/9/2019			<0.001	0.00031 (J)	<0.001	5.4E-05 (J)
4/6/2020	<0.001	<0.001				
4/7/2020			<0.001	<0.001	<0.001	5.4E-05 (J)
8/17/2020		<0.001				
8/19/2020	<0.001		<0.001	<0.001	<0.001	<0.001

# Time Series

Constituent: Thallium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/28/2020	<0.001	<0.001				<0.001
9/30/2020				<0.001	<0.001	
10/1/2020			<0.001			
3/10/2021			<0.001	<0.001	<0.001	<0.001
3/11/2021	<0.001					
3/12/2021		<0.001				
9/21/2021	<0.001	<0.001	<0.001	<0.001	<0.001	
9/23/2021						<0.001
1/31/2022	<0.001	<0.001				
2/2/2022			<0.001		<0.001	
2/3/2022				<0.001		<0.001

# Time Series

Constituent: Thallium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/21/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/20/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/14/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/16/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/1/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/12/2003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
5/26/2004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/7/2004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
6/21/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/12/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/4/2006				<0.001		<0.001
6/27/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/30/2006				<0.001		<0.001
12/4/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2/15/2007				<0.001		<0.001
6/23/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/31/2016	<0.001	<0.001	<0.001			
9/1/2016				<0.001	<0.001	<0.001
10/25/2016				<0.001	<0.001	<0.001
10/26/2016	<0.001	0.0003 (J)	<0.001			
1/4/2017	<0.001	<0.001				<0.001
1/5/2017			<0.001	<0.001	<0.001	
4/3/2017					<0.001	
4/4/2017				7E-05 (J)		
4/5/2017		0.0002 (J)				6E-05 (J)
4/6/2017	6E-05 (J)		<0.001			
7/10/2017		0.0002 (J)				
7/11/2017	<0.001			6E-05 (J)	<0.001	
7/12/2017			<0.001			<0.001
10/2/2017				<0.001	<0.001	
10/3/2017	7E-05 (J)					<0.001
10/4/2017		0.0002 (J)	<0.001			
1/9/2018				<0.001	<0.001	
1/10/2018			<0.001			5E-05 (J)
1/11/2018	0.0001 (J)	0.0002 (J)				
7/9/2018				<0.001		
7/10/2018					<0.001	<0.001
7/11/2018	<0.001	<0.001	<0.001			
8/27/2019	<0.001	0.00011 (J)	<0.001	<0.001	<0.001	
8/28/2019						<0.001
10/8/2019	9.8E-05 (J)		<0.001	<0.001	<0.001	<0.001
10/9/2019		0.00014 (J)				
4/7/2020	0.00019 (J)	0.00013 (J)		<0.001	<0.001	<0.001
4/8/2020			<0.001			
8/17/2020		<0.001	<0.001			
8/18/2020	0.00021 (J)			<0.001	<0.001	<0.001
9/28/2020			<0.001			
9/29/2020	0.00017 (J)	<0.001		<0.001		
9/30/2020					<0.001	<0.001
3/10/2021	0.00022 (J)	<0.001				

# Time Series

Constituent: Thallium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
3/12/2021					<0.001	
3/15/2021			<0.001			
3/16/2021				<0.001		<0.001
9/21/2021	<0.001	<0.001	<0.001			
9/22/2021				<0.001		<0.001
9/23/2021					<0.001	
2/1/2022						<0.001
2/2/2022				<0.001		
2/3/2022	<0.001	<0.001	<0.001		<0.001	

# Time Series

Constituent: Thallium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.001					<0.001
11/21/2000	<0.001	<0.001				<0.001
1/20/2001	<0.001	<0.001				<0.001
3/14/2001	<0.001	<0.001				<0.001
7/16/2001	<0.001	<0.001				<0.001
11/1/2001	<0.001	<0.001				<0.001
4/25/2002	<0.001	<0.001				<0.001
12/12/2003	<0.001	<0.001				<0.001
5/26/2004	<0.001	<0.001				<0.001
12/7/2004	<0.001	<0.001				<0.001
6/21/2005	<0.001	<0.001				<0.001
12/12/2005	<0.001	<0.001				<0.001
6/27/2006	<0.001	<0.001				<0.001
12/4/2006	<0.001	<0.001				<0.001
6/23/2007	<0.001	<0.001				<0.001
8/31/2016		<0.001			<0.001	<0.001
9/1/2016	<0.001		<0.001	<0.001		
10/25/2016			<0.001	<0.001		
10/26/2016	<0.001	<0.001			<0.001	
10/27/2016						<0.001
1/4/2017			<0.001	<0.001	<0.001	
1/5/2017	<0.001	<0.001				
1/6/2017						<0.001
4/4/2017		<0.001	<0.001	5E-05 (J)		
4/5/2017	0.0001 (J)					
4/6/2017					<0.001	<0.001
7/11/2017			<0.001		<0.001	
7/12/2017						<0.001
7/13/2017	<0.001	<0.001		<0.001		
10/2/2017			<0.001			
10/3/2017		<0.001		<0.001		
10/4/2017	0.0001 (J)				0.0001 (J)	<0.001
1/9/2018				<0.001		
1/10/2018		<0.001	<0.001			
1/11/2018	0.0001 (J)				6E-05 (J)	<0.001
7/9/2018			<0.001			
7/10/2018		<0.001		<0.001		
7/11/2018	<0.001				<0.001	<0.001
7/30/2019		0.00011 (J)				
8/27/2019		<0.001			8.6E-05 (J)	
8/28/2019	6.6E-05 (J)		<0.001	<0.001		<0.001
10/8/2019				<0.001		
10/9/2019	7.6E-05 (J)	<0.001	<0.001		<0.001	<0.001
4/7/2020				<0.001	6.5E-05 (J)	
4/8/2020	5.6E-05 (J)	<0.001	<0.001			<0.001
8/18/2020	<0.001	<0.001	<0.001	<0.001	0.00017 (J)	
8/19/2020						<0.001
9/29/2020		<0.001				
9/30/2020	<0.001		<0.001	<0.001	<0.001	
10/1/2020						<0.001
3/10/2021					<0.001	<0.001
3/11/2021	<0.001					

# Time Series

Constituent: Thallium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
3/12/2021			<0.001			
3/15/2021		<0.001				
3/16/2021				<0.001		
9/21/2021					<0.001	
9/22/2021	<0.001	<0.001	<0.001	<0.001		<0.001
2/1/2022	<0.001		<0.001	<0.001		
2/2/2022		<0.001				<0.001
2/3/2022					<0.001	

# Time Series

Constituent: Thallium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.001	<0.001	<0.001	<0.001	<0.001
9/21/2021				<0.001	<0.001
9/22/2021	<0.001	<0.001			
9/23/2021			<0.001		
2/1/2022		<0.001			
2/2/2022				<0.001	<0.001
2/3/2022	<0.001		<0.001		



# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
8/30/2016		234		224	365	225
9/1/2016	3660		1080			
10/24/2016		216				
10/25/2016	3560					230
10/26/2016			1050	297	373	
1/3/2017		333		366		
1/4/2017						349
1/5/2017					543	
1/6/2017	3490		1060			
4/3/2017		288				
4/4/2017			994			356
4/6/2017	3170			279	434	
7/11/2017		188				
7/12/2017			1070	308	454	357
7/13/2017	2280					
10/2/2017		210				
10/3/2017				288	389	192
10/4/2017	3350		1100			
1/9/2018	2640	118			415	
1/10/2018				493		277
1/11/2018			838			
7/9/2018		235				
7/10/2018				1730 (O)	453	349
7/11/2018	2200		799			
1/16/2019	2100	219	530	382	1320	341
3/25/2019	2100	240	479			
3/26/2019				1040	1250	317
10/7/2019		275				
10/8/2019	1840					
10/9/2019			502	2010	903	338
4/6/2020	1670	214				
4/7/2020			482	483	775	195
9/28/2020	1450	175				373
9/30/2020				652	816	
10/1/2020			424			
3/10/2021			434	1040	2120	329
3/11/2021	1220					
3/12/2021		163				
9/21/2021	1210	145	476	1240	985	
9/23/2021						360
1/31/2022	1260	153				
2/2/2022			654		2440	
2/3/2022				1240		315

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
8/31/2016	119	1560	77			
9/1/2016				1170	539	878
10/25/2016				633	449	585
10/26/2016	108	1520	<10			
1/4/2017	182	1430				783
1/5/2017			146	781	565	
4/3/2017					632	
4/4/2017				916		
4/5/2017		1200				722
4/6/2017	248		23 (J)			
7/10/2017		1100				
7/11/2017	88			675	569	
7/12/2017			39			962
10/2/2017				689	559	
10/3/2017	248					1240
10/4/2017		986	38			
1/9/2018				653	520	
1/10/2018			<10			935
1/11/2018	681	1020				
7/9/2018				659		
7/10/2018					524	1040
7/11/2018	440	888	63			
1/16/2019			44	656		
1/17/2019	118	765			518 (D)	1320
3/26/2019			72	496	541	1380
3/27/2019	138	673				
10/8/2019	613		51	841	526	1500
10/9/2019		647				
4/7/2020	780	464		843	428	1500
4/8/2020			65			
9/28/2020			60			
9/29/2020	1100	440		187		
9/30/2020					434	1140
3/10/2021	1240	566				
3/12/2021					353	
3/15/2021			<10			
3/16/2021				137		980
9/21/2021	842	558	83			
9/22/2021				864		1680
9/23/2021					556	
2/1/2022						1990
2/2/2022				1130		
2/3/2022	538	566	72		516	

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016		39			1570	173
9/1/2016	1270		470	184		
10/25/2016			289	<10		
10/26/2016	1320	135			1840	
10/27/2016						221
1/4/2017			639	242	1560	
1/5/2017	1770	99				
1/6/2017						259
4/4/2017		54	660	187		
4/5/2017	1600					
4/6/2017					368	169
7/11/2017			836		383	
7/12/2017						163
7/13/2017	1940	50		86		
10/2/2017			698			
10/3/2017		18 (J)		66		
10/4/2017	2370				1500	168
1/9/2018				167		
1/10/2018		<10	322			
1/11/2018	2350				438	190
7/9/2018			461			
7/10/2018		49		180		
7/11/2018	2260				876	165
1/16/2019	1540					
1/17/2019				178		
1/18/2019					154	118
1/21/2019		39	307			
3/25/2019			449			
3/26/2019	1220			292		
3/27/2019					158	104
7/30/2019		70				
10/8/2019				278		
10/9/2019	1100	46	434		211	128
4/7/2020				106	819	
4/8/2020	881	38	986			80
9/29/2020		33				
9/30/2020	752		1860	634	113	
10/1/2020						111
3/10/2021					210	89
3/11/2021	705					
3/12/2021			1730			
3/15/2021		11				
3/16/2021				454		
9/21/2021					87	
9/22/2021	1530	33	1430	51		94
2/1/2022	1580		1580	783		
2/2/2022		43				96
2/3/2022					89	

# Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
1/20/2021			58	54	43
1/21/2021	41	50			
3/11/2021	149	53	57	41	43
9/21/2021				37	37
9/22/2021	184	53			
9/23/2021			56		
2/1/2022		75			
2/2/2022				54	65
2/3/2022	156		58		

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.01	<0.01	0.06	0.038	0.12	<0.01
11/21/2000	<0.01		0.068	0.013	0.13	<0.01
1/20/2001	<0.01	<0.01	0.12	0.038	0.14	<0.01
3/14/2001	<0.01	<0.01	0.08	0.077 (O)	0.13	<0.01
7/16/2001	<0.01	<0.01	0.11	0.12 (O)	0.18	<0.01
11/1/2001	<0.01	<0.01	0.079	0.21 (O)	0.12	<0.01
4/25/2002	<0.01	<0.01	0.11	0.086 (O)	0.15	<0.01
11/20/2002		<0.01	0.15	0.14 (O)	0.15	0.0069
6/6/2003	0.047	0.017	0.12	0.12 (O)	0.11	0.16 (O)
12/12/2003	0.0086	0.011	0.13	0.014	0.089	<0.01
5/26/2004	<0.01	<0.01	0.095	0.06 (O)	0.09	<0.01
12/7/2004	<0.01	<0.01	0.067	0.054	0.072	<0.01
6/21/2005	<0.01	<0.01	0.062	0.038	0.04	<0.01
12/12/2005	<0.01	<0.01	0.09	0.0056	0.021	<0.01
4/4/2006		<0.01				
6/27/2006	<0.01	<0.01	0.083	0.0043	0.02	0.0029
8/30/2006		<0.01				
12/4/2006	0.0027	<0.01	0.084	0.0044	0.022	0.0047
2/15/2007		<0.01				
6/23/2007	0.0027	<0.01	0.081	0.0039	0.027	0.0029
9/11/2007		<0.01				
12/11/2007	0.0033	<0.01	0.067	0.0029	0.017	<0.01
3/11/2008		<0.01				
6/23/2008	0.0074	<0.01				
6/24/2008			0.059	0.003	0.053	<0.01
11/3/2008		<0.01				
12/4/2008	0.0084	<0.01				
12/5/2008			0.054	<0.01	0.0078	<0.01
3/25/2009		<0.01				
7/7/2009	0.023	<0.01	0.038	<0.01	0.012	<0.01
9/14/2009		<0.01				
12/20/2009	0.007	<0.01				<0.01
12/21/2009			0.06	<0.01	0.011	
3/4/2010		<0.01				
6/20/2010	0.0047	<0.01		<0.01	0.0083	0.0037
6/21/2010			0.036			
9/14/2010		<0.01				
1/6/2011				0.0067		<0.01
1/7/2011	0.018	<0.01	0.043		0.0079	
4/15/2011		<0.01				
7/7/2011	0.019	<0.01		0.019	0.007	0.0045
7/8/2011			0.044			
9/25/2011		<0.01				
1/17/2012	0.0298	<0.01		0.021		<0.01
1/18/2012			0.045		0.0116	
4/4/2012		<0.01				
7/9/2012	0.14			0.032		0.0026
7/10/2012		<0.01	0.048		0.0096	
10/9/2012		<0.01				
1/17/2013				0.034		<0.01
1/18/2013	0.21	<0.01	0.049		<0.01	
4/5/2013		<0.01				

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				0.021		<0.01
7/17/2013	0.18	<0.01	0.05		<0.01	
10/11/2013		<0.01				
1/13/2014	0.24			0.008		<0.01
1/14/2014		<0.01	0.067		<0.01	
4/3/2014		0.0015 (J)				
7/9/2014	0.22	0.0012 (J)	0.055	0.0052	0.0039 (J)	0.0041 (J)
10/24/2014		<0.01				
1/12/2015			0.066			
1/13/2015	0.19			0.0036 (J)		0.0029 (J)
1/14/2015		<0.01			0.005	
5/10/2015		<0.01				
7/16/2015	0.23		0.045	0.004 (J)		0.0034 (J)
7/17/2015		<0.01			0.0045 (J)	
10/6/2015		0.0012 (J)				
1/17/2016						0.0046 (J)
1/18/2016	0.41	0.00079 (J)	0.049	0.0069	0.0044 (J)	
4/26/2016		<0.01				
7/27/2016	0.397			0.0046 (J)		0.0064 (J)
7/28/2016		<0.01			0.0038 (J)	
7/29/2016			0.0388			
10/24/2016		<0.01				
10/25/2016	0.425			<0.01		
1/3/2017		<0.01				
1/4/2017						<0.01
1/5/2017					0.0077 (J)	
1/6/2017	0.41		0.0341			
4/3/2017		<0.01				
4/4/2017			0.0371			0.0061 (J)
4/6/2017	0.297			0.0063 (J)	0.0069 (J)	
7/11/2017		<0.01				
7/12/2017			0.0399	0.0064 (J)	0.0098 (J)	0.0067 (J)
7/13/2017	0.194					
10/2/2017		<0.01				
10/4/2017	0.316					
1/9/2018	0.194	0.0014 (J)			0.0086 (J)	
1/10/2018				0.0077 (J)		0.0056 (J)
1/11/2018			0.0327			
7/9/2018		<0.01				
7/10/2018				0.016	0.0098 (J)	0.0056 (J)
7/11/2018	0.15		0.02			
1/16/2019	0.16	<0.01	0.0022 (J)	0.0033 (J)	0.077	0.0043 (J)
3/25/2019	0.18	<0.01	0.004 (J)			
3/26/2019				0.0058 (J)	0.086	0.0051 (J)
10/7/2019		<0.01				
10/8/2019	0.11					
10/9/2019			<0.01	0.033 (J)	0.018 (J)	<0.01
4/6/2020	0.12	<0.01				
4/7/2020			0.0037 (J)	0.0053 (J)	0.041 (J)	0.0015 (J)
9/28/2020	0.1	<0.01				0.0042 (J)
9/30/2020				0.0037 (J)	0.018	
10/1/2020			0.0047 (J)			

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
3/10/2021			0.0054 (J)	0.0026 (J)	0.027	0.005 (J)
3/11/2021	0.14					
3/12/2021		<0.01				
9/21/2021	0.096	<0.01	0.0027 (J)	0.0039 (J)	0.015	
9/23/2021						0.0042 (J)
1/31/2022	0.1	<0.01				
2/2/2022			0.0031 (J)		0.0099 (J)	
2/3/2022				0.0046 (J)		0.0028 (J)

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
11/21/2000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1/20/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3/14/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7/16/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
11/1/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4/25/2002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
11/20/2002	0.0071	<0.01	<0.01	0.03	0.0099	0.0069
6/6/2003	0.0098	<0.01	0.0063	0.0065	0.019 (O)	0.082 (O)
12/12/2003	0.0074	<0.01	<0.01	0.0052	0.018 (O)	0.012
5/26/2004	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
12/7/2004	<0.01	<0.01	<0.01	0.0074	<0.01	<0.01
6/21/2005	<0.01	<0.01	<0.01	0.01	<0.01	<0.01
12/12/2005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4/4/2006				0.013		<0.01
6/27/2006	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8/30/2006				0.0039		<0.01
12/4/2006	<0.01	<0.01	<0.01	0.016	<0.01	0.0031
2/15/2007				0.017		0.0025
6/23/2007	0.0036	<0.01	<0.01	0.0076	<0.01	0.0032
9/11/2007				0.012		<0.01
12/11/2007	<0.01	<0.01	<0.01	0.017	<0.01	<0.01
3/11/2008				0.012		<0.01
6/23/2008	<0.01	<0.01	<0.01			
6/24/2008				0.0069	<0.01	<0.01
11/3/2008				0.016		0.0032
12/4/2008	<0.01	<0.01	<0.01	0.013		
12/5/2008					<0.01	<0.01
3/25/2009				0.014		<0.01
7/8/2009	0.0026	<0.01	<0.01	0.014	<0.01	0.0036
9/14/2009				0.0072		0.0026
12/20/2009				0.02	<0.01	0.0031
12/21/2009	<0.01	<0.01	<0.01			
3/4/2010				0.023		<0.01
6/20/2010	<0.01	<0.01	<0.01	0.017	<0.01	
6/21/2010						0.0025
9/14/2010				0.018		0.0035
1/6/2011	0.003		0.0028			
1/7/2011		<0.01		0.019	<0.01	0.0036
4/15/2011				0.019		<0.01
7/7/2011	0.004	<0.01	<0.01	0.014	0.0036	0.003
9/25/2011				0.015		0.0037
1/17/2012	<0.01	<0.01	<0.01	0.021	<0.01	
1/18/2012						<0.01
4/4/2012				0.0191		<0.01
7/9/2012	0.005	<0.01	<0.01	0.026	0.0059	
7/10/2012						0.0026
10/9/2012				0.049		0.007
1/17/2013	0.005	<0.01	<0.01			
1/18/2013				0.036	<0.01	<0.01
4/5/2013				0.04		<0.01
7/16/2013	<0.01	<0.01	<0.01			



# Time Series

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				0.062	<0.01	<0.01
10/11/2013				0.032		<0.01
1/13/2014	<0.01	<0.01	<0.01		<0.01	
1/14/2014				0.044		<0.01
4/3/2014				0.077 (O)		0.0032 (J)
7/8/2014	0.0024 (J)	0.0034 (J)	0.002 (J)			
7/9/2014				0.032	0.0012 (J)	0.0031 (J)
10/24/2014				0.045		0.0028 (J)
1/13/2015	0.0023 (J)	<0.01	0.0015 (J)		0.0013 (J)	
1/14/2015				0.031		0.0034 (J)
5/10/2015				0.013		
5/11/2015						0.0026 (J)
7/16/2015	0.002 (J)	0.0049 (J)	<0.01		<0.01	0.0028 (J)
7/17/2015				0.028		
10/6/2015				0.02		0.0016 (J)
1/17/2016				0.028	0.0013 (J)	0.0029 (J)
1/18/2016		0.0058	0.0011 (J)			
1/19/2016	0.0025 (J)					
4/26/2016				0.0181		0.00296 (J)
7/26/2016	0.0027 (J)		<0.01			
7/27/2016		0.0058 (J)		0.0189	<0.01	
7/28/2016						0.0026 (J)
10/25/2016				0.0206	<0.01	<0.01
1/4/2017	<0.01	<0.01				<0.01
1/5/2017			<0.01	0.0172	<0.01	
4/3/2017					0.002 (J)	
4/4/2017				0.0235		
4/5/2017		0.0039 (J)				0.0033 (J)
4/6/2017	0.0025 (J)		<0.01			
7/10/2017		0.0062 (J)				
7/11/2017	0.0027 (J)			0.0136	0.0022 (J)	
7/12/2017			0.0016 (J)			0.0037 (J)
10/2/2017				0.0175	0.0022 (J)	
10/3/2017						0.0036 (J)
1/9/2018				0.0103	0.0021 (J)	
1/10/2018			0.0019 (J)			0.0029 (J)
1/11/2018	0.0019 (J)	0.0025 (J)				
7/9/2018				0.0078 (J)		
7/10/2018					0.0025 (J)	0.0025 (J)
7/11/2018	0.0021 (J)	0.0059 (J)	0.0097 (J)			
1/16/2019			<0.01	0.0043 (J)		
1/17/2019	0.0021 (J)	<0.01			<0.01	0.0021 (J)
3/26/2019			0.0029 (J)	0.0063 (J)	0.0026 (J)	0.0038 (J)
3/27/2019	0.0023 (J)	0.0049 (J)				
10/8/2019	<0.01		<0.01	<0.01	<0.01	<0.01
10/9/2019		0.0021 (J)				
4/7/2020	<0.01	0.0024 (J)		0.0026 (J)	<0.01	<0.01
4/8/2020			<0.01			
9/28/2020			<0.01			
9/29/2020	0.0023 (J)	0.0046 (J)		<0.01		
9/30/2020					0.0028 (J)	0.0028 (J)
3/10/2021	0.0023 (J)	0.0055 (J)				

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 1:55 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
3/12/2021					0.0037 (J)	
3/15/2021			<0.01			
3/16/2021				<0.01		0.0034 (J)
9/21/2021	0.002 (J)	0.0051 (J)	<0.01			
9/22/2021				0.0052 (J)		0.0025 (J)
9/23/2021					0.0022 (J)	
2/1/2022						0.0021 (J)
2/2/2022				0.004 (J)		
2/3/2022	0.0031 (J)	0.0052 (J)	<0.01		0.0023 (J)	

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.01					<0.01
11/21/2000	<0.01	<0.01				<0.01
1/20/2001	<0.01	<0.01				<0.01
3/14/2001	<0.01	<0.01				<0.01
7/16/2001	<0.01	<0.01				<0.01
11/1/2001	<0.01	<0.01				<0.01
4/25/2002	<0.01	<0.01				<0.01
11/20/2002	<0.01	<0.01				0.014
6/6/2003	<0.01	<0.01				<0.01
12/12/2003	<0.01	<0.01				<0.01
5/26/2004	<0.01	<0.01				<0.01
12/7/2004	<0.01	<0.01				<0.01
6/21/2005	<0.01	<0.01				<0.01
12/12/2005	<0.01	<0.01				<0.01
6/27/2006	0.0025	<0.01				<0.01
12/4/2006	<0.01	<0.01				<0.01
6/23/2007	<0.01	<0.01				<0.01
12/11/2007	<0.01	<0.01				<0.01
6/23/2008						<0.01
6/24/2008	<0.01	<0.01				
12/4/2008		<0.01				<0.01
12/5/2008	<0.01					
7/8/2009	<0.01	<0.01				0.0029
12/20/2009		<0.01				
12/21/2009	<0.01					<0.01
6/20/2010		<0.01				<0.01
6/21/2010	<0.01		<0.01	<0.01	<0.01	
1/6/2011		<0.01				
1/7/2011	<0.01		0.0029	0.0031	<0.01	<0.01
7/7/2011			<0.01			
7/8/2011	0.0031		0.0046	0.0048	<0.01	<0.01
1/17/2012		<0.01				
1/18/2012	<0.01		<0.01	<0.01	<0.01	<0.01
7/9/2012		<0.01				
7/10/2012	<0.01		0.0081	<0.01	<0.01	<0.01
1/17/2013		<0.01				
1/18/2013	<0.01		0.0063	<0.01	<0.01	<0.01
7/17/2013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1/13/2014		<0.01				
1/14/2014	<0.01		<0.01	0.006	<0.01	<0.01
7/9/2014	0.0012 (J)	<0.01		0.0019 (J)		0.0016 (J)
7/10/2014			0.0026 (J)		0.0053	
1/12/2015			0.0031 (J)			
1/13/2015		<0.01				
1/14/2015	0.002 (J)			0.0037 (J)	0.0013 (J)	<0.01
7/16/2015		<0.01				
7/17/2015				0.0028 (J)		0.0029 (J)
7/18/2015	<0.01		0.003 (J)		0.0043 (J)	
1/17/2016		<0.01	0.0025 (J)	0.0039 (J)		
1/18/2016	0.0019 (J)				<0.01	<0.01
7/27/2016		<0.01				
7/28/2016			0.0024 (J)	0.0022 (J)		<0.01

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	0.0031 (J)				0.0052 (J)	
10/25/2016			<0.01			
1/4/2017			<0.01	<0.01	<0.01	
1/5/2017	<0.01	<0.01				
1/6/2017						<0.01
4/4/2017		<0.01	0.0024 (J)	0.003 (J)		
4/5/2017	0.0029 (J)					
4/6/2017					<0.01	<0.01
7/11/2017			0.003 (J)		0.0016 (J)	
7/12/2017						0.0013 (J)
7/13/2017	0.0037 (J)	<0.01		0.0019 (J)		
10/2/2017			0.0028 (J)			
1/9/2018				0.0046 (J)		
1/10/2018		<0.01	0.0026 (J)			
1/11/2018	0.0026 (J)				0.0012 (J)	<0.01
7/9/2018			<0.01			
7/10/2018		<0.01		0.0031 (J)		
7/11/2018	0.0032 (J)				0.0025 (J)	<0.01
1/16/2019	<0.01					
1/17/2019				0.0022 (J)		
1/18/2019					<0.01	<0.01
1/21/2019		0.0024 (J)	0.0031 (J)			
3/25/2019			0.0024 (J)			
3/26/2019	0.0024 (J)			0.0041 (J)		
3/27/2019					0.002 (J)	<0.01
7/30/2019		<0.01				
10/8/2019				<0.01		
10/9/2019	<0.01	<0.01	<0.01		<0.01	<0.01
4/7/2020				<0.01	0.0014 (J)	
4/8/2020	<0.01	<0.01	<0.01			0.0015 (J)
9/29/2020		<0.01				
9/30/2020	<0.01		0.0029 (J)	0.0029 (J)	<0.01	
10/1/2020						<0.01
3/10/2021					<0.01	<0.01
3/11/2021	<0.01					
3/12/2021			0.0038 (J)			
3/15/2021		<0.01				
3/16/2021				0.003 (J)		
9/21/2021					<0.01	
9/22/2021	<0.01	<0.01	0.0033 (J)	<0.01		<0.01
2/1/2022	0.0022 (J)		0.0039 (J)	0.0036 (J)		
2/2/2022		<0.01				<0.01
2/3/2022					<0.01	

# Time Series

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	<0.01	<0.01	0.0024 (J)	<0.01	0.0024 (J)
9/21/2021				<0.01	<0.01
9/22/2021	<0.01	<0.01			
9/23/2021			<0.01		
2/1/2022		<0.01			
2/2/2022				<0.01	<0.01
2/3/2022	<0.01		<0.01		

# Time Series

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
9/29/2000	<0.01	<0.01	<0.01	0.026 (O)	<0.02 (O)	<0.01
11/21/2000	<0.01		<0.01	<0.01	0.024 (O)	<0.01
1/20/2001	<0.01	0.025	0.041	0.031 (O)	<0.02 (O)	<0.01
3/14/2001	<0.01	<0.01	<0.01	0.063 (O)	<0.02 (O)	<0.01
7/16/2001	<0.01	<0.01	0.059	0.08 (O)	<0.02 (O)	<0.01
11/1/2001	<0.01	<0.01	<0.01	0.16 (O)	<0.02 (O)	<0.01
4/25/2002	<0.01	<0.01	<0.01	<0.01	<0.02 (O)	<0.01
11/20/2002		0.016	0.061	0.14 (O)	0.028 (O)	<0.01
6/6/2003	0.69 (O)	0.032	0.041	0.51 (O)	0.032 (O)	0.011
12/12/2003	0.12	0.019	0.012	<0.01	<0.01 (O)	<0.01
5/26/2004	0.013	<0.01	0.016	0.036 (O)	<0.01 (O)	<0.01
12/7/2004	<0.01	<0.01	<0.01	0.069 (O)	0.012 (O)	<0.01
6/21/2005	<0.01	<0.01	<0.01	0.076 (O)	<0.01 (O)	<0.01
12/12/2005	0.014	0.01	0.017	<0.01	<0.01 (O)	<0.01
4/4/2006		<0.01				
6/27/2006	0.01	0.0043	0.11	0.01	0.0071	<0.01
8/30/2006		0.017				
12/4/2006	0.0065	0.0053	0.086	0.0035	0.0096	<0.01
2/15/2007		0.0045				
6/23/2007	0.0049	0.0043	0.076	0.0032	0.094 (O)	<0.01
9/11/2007		0.004				
12/11/2007	0.0043	0.0048	0.087	0.0079	0.042 (O)	<0.01
3/11/2008		0.0043				
6/23/2008	0.0025	0.0037				
6/24/2008			0.062	<0.01	0.098 (O)	<0.01
11/3/2008		0.0032				
12/4/2008	0.0025	0.0029				
12/5/2008			0.014	<0.01	0.047 (O)	<0.01
3/25/2009		0.0055				
7/7/2009	<0.01	0.0028	0.052	<0.01	0.024 (O)	<0.01
9/14/2009		0.0027				
12/20/2009	0.0031	0.0029				<0.01
12/21/2009			0.046	<0.01	0.049 (O)	
3/4/2010		0.0042				
6/20/2010	<0.01	0.0027		<0.01	0.045 (O)	<0.01
6/21/2010			0.045			
9/14/2010		<0.01				
1/6/2011				<0.01		<0.01
1/7/2011	<0.01	0.0032	0.024		0.0044	
4/15/2011		<0.01				
7/7/2011	0.0031	0.005		0.0027	0.003	0.0025
7/8/2011			0.023			
9/25/2011		0.0041				
1/17/2012	0.004	0.0043		0.0039		<0.01
1/18/2012			0.011		0.0048	
4/4/2012		<0.01				
7/9/2012	0.0096			<0.01		<0.01
7/10/2012		0.0028	0.024		<0.01	
10/9/2012		0.0033				
1/17/2013				<0.01		<0.01
1/18/2013	0.051	0.0038	0.011		0.0028	
4/5/2013		0.0026				

# Time Series

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
7/16/2013				0.0032		<0.01
7/17/2013	0.042	<0.01	0.0029		<0.01	
10/11/2013		0.0046				
1/13/2014	0.0025			0.0025		0.0025
1/14/2014		0.0025	0.0025		0.0025	
4/3/2014		0.0029				
7/9/2014	0.064	0.002 (J)	0.0051	0.00076 (J)	0.00093 (J)	<0.01
10/24/2014		0.0031				
1/12/2015			0.0023 (J)			
1/13/2015	0.066			0.0036		0.0025
1/14/2015		0.003			0.0023 (J)	
5/10/2015		0.0028				
7/16/2015	0.036		0.0021 (J)	<0.01		<0.01
7/17/2015		0.0018 (J)			<0.01	
10/6/2015		0.0018 (J)				
1/17/2016						<0.01
1/18/2016	0.035	0.0028	0.0092	<0.01	0.0029	
4/26/2016		<0.01				
7/27/2016	0.0529			0.0015 (J)		<0.01
7/28/2016		0.0018 (J)			<0.01	
7/29/2016			0.003 (J)			
10/24/2016		0.0024 (J)				
10/25/2016	0.0035 (J)					
1/3/2017		0.0035 (J)		<0.01		
1/4/2017						<0.01
1/5/2017					<0.01	
1/6/2017	0.0235		0.0104			
4/3/2017		0.0041 (J)				
4/4/2017			0.0132			<0.01
4/6/2017	0.0829			0.0023 (J)	0.0032 (J)	
7/11/2017		0.0029 (J)				
7/12/2017			0.0046 (J)	<0.01	0.002 (J)	<0.01
7/13/2017	0.0853					
10/2/2017		0.0026 (J)				
10/4/2017	0.0263					
1/9/2018	0.0665	0.0035 (J)			0.0036 (J)	
1/10/2018				0.0022 (J)		0.0014 (J)
1/11/2018			0.0095 (J)			
7/9/2018		0.0022 (J)				
7/10/2018				<0.01	0.0055 (J)	0.0021 (J)
7/11/2018	0.02 (J)		0.0028 (J)			
1/16/2019	0.014 (J)	0.0037 (J)	0.0052 (J)	<0.01	<0.01	<0.01
3/25/2019	<0.05 (O)	<0.01	0.0078 (J)			
3/26/2019				<0.01	<0.01	<0.01
10/7/2019		0.0077 (J)				
10/8/2019	0.095					
10/9/2019			0.0064 (J)	0.0081 (J)	0.016 (J)	0.0057 (J)
4/6/2020	<0.01	<0.01				
4/7/2020			<0.01	<0.01	<0.01	<0.01
9/28/2020	0.16	0.0092 (J)				0.0092 (J)
9/30/2020				<0.01	<0.01	
10/1/2020			0.0064 (J)			

# Time Series

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWA-7 (bg)	GWA-8 (bg)	GWB-4R	GWB-5R	GWB-6R	GWC-1
3/10/2021			<0.01	<0.01	<0.01	<0.01
3/11/2021	0.054					
3/12/2021		0.0028 (J)				
9/21/2021	<0.01	<0.01	<0.01	<0.01	<0.01	
9/23/2021						<0.01
1/31/2022	<0.01	<0.01				
2/2/2022			<0.01		<0.01	
2/3/2022				<0.01		<0.01



# Time Series

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
9/29/2000	<0.01	0.38 (O)	<0.01	<0.01	<0.01	<0.01
11/21/2000	<0.01	0.077 (O)	<0.01	<0.01	<0.01	<0.01
1/20/2001	<0.01	0.23 (O)	<0.01	<0.01	<0.01	<0.01
3/14/2001	<0.01	0.24 (O)	<0.01	<0.01	<0.01	<0.01
7/16/2001	<0.01	0.053 (O)	<0.01	<0.01	<0.01	<0.01
11/1/2001	<0.01	0.022 (O)	0.044 (O)	<0.01	<0.01	<0.01
4/25/2002	<0.01	1.2 (O)	<0.01	<0.01	<0.01	<0.01
11/20/2002	<0.01	0.045 (O)	0.023	<0.01	<0.01	<0.01
6/6/2003	<0.01	0.042 (O)	<0.01	<0.01	<0.01	0.035 (O)
12/12/2003	0.013	<0.01	<0.01	<0.01	<0.01	<0.01
5/26/2004	<0.01	<0.01	0.035	<0.01	<0.01	<0.01
12/7/2004	0.028 (O)	<0.01	0.018	<0.01	<0.01	<0.01
6/21/2005	<0.01	<0.01	0.014	<0.01	<0.01	<0.01
12/12/2005	<0.01	<0.01	0.023	0.011	0.064 (O)	<0.01
4/4/2006				<0.01		<0.01
6/27/2006	0.0028	0.012 (O)	0.023	0.0045	0.011	0.077 (O)
8/30/2006				<0.01		0.0027
12/4/2006	0.0028	0.0067	0.046 (O)	<0.01	0.0033	<0.01
2/15/2007				<0.01		0.0032
6/23/2007	0.0063	0.025 (O)	0.036	<0.01	0.0029	0.0058
9/11/2007				<0.01		0.0033
12/11/2007	<0.01	0.0038	0.011	<0.01	<0.01	<0.01
3/11/2008				<0.01		<0.01
6/23/2008	<0.01	0.0051	0.0091			
6/24/2008				<0.01	<0.01	<0.01
11/3/2008				<0.01		0.0025
12/4/2008	<0.01	<0.01	0.0038	<0.01		
12/5/2008					<0.01	<0.01
3/25/2009				<0.01		0.0025
7/8/2009	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
9/14/2009				<0.01		<0.01
12/20/2009				<0.01	<0.01	<0.01
12/21/2009	<0.01	0.013 (O)	0.0032			
3/4/2010				<0.01		<0.01
6/20/2010	<0.01	<0.01	<0.01	<0.01	<0.01	
6/21/2010						<0.01
9/14/2010				<0.01		<0.01
1/6/2011	<0.01		0.004			
1/7/2011		0.004		<0.01	<0.01	<0.01
4/15/2011				<0.01		<0.01
7/7/2011	<0.01	0.0028	0.0037	<0.01	<0.01	<0.01
9/25/2011				<0.01		0.0028
1/17/2012	0.0043	0.0043	0.0031	<0.01	<0.01	
1/18/2012						0.0029
4/4/2012				<0.01		<0.01
7/9/2012	<0.01	<0.01	0.003	<0.01	<0.01	
7/10/2012						<0.01
10/9/2012				<0.01		0.0027
1/17/2013	0.0025	0.0033	<0.01			
1/18/2013				<0.01	<0.01	<0.01
4/5/2013				<0.01		<0.01
7/16/2013	<0.01	0.0028	0.0029			

# Time Series

Constituent: Zinc (mg/L)    Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
7/17/2013				<0.01	<0.01	<0.01
10/11/2013				<0.01		<0.01
1/13/2014	0.0025	0.0025	0.0025		0.0025	
1/14/2014				0.0025		0.0025
4/3/2014				0.0014 (J)		0.0015 (J)
7/8/2014	0.0011 (J)	0.002 (J)	0.0018 (J)			
7/9/2014				0.00086 (J)	<0.01	0.0012 (J)
10/24/2014				0.00083 (J)		0.0013 (J)
1/13/2015	0.0021 (J)	0.0079	0.0028		<0.01	
1/14/2015				<0.01		0.0017 (J)
5/10/2015				<0.01		
5/11/2015						0.0015 (J)
7/16/2015	<0.01	0.0026	0.0018 (J)		<0.01	<0.01
7/17/2015				<0.01		
10/6/2015				<0.01		<0.01
1/17/2016				<0.01	<0.01	<0.01
1/18/2016		0.0025	0.0017 (J)			
1/19/2016	0.0029					
4/26/2016				<0.01		<0.01
7/26/2016	<0.01		0.0028 (J)			
7/27/2016		0.0021 (J)		<0.01	<0.01	
7/28/2016						<0.01
10/25/2016				<0.01	<0.01	<0.01
1/4/2017	<0.01	0.0025 (J)				0.0025 (J)
1/5/2017			0.0021 (J)	<0.01	<0.01	
4/3/2017				<0.01	<0.01	
4/4/2017				<0.01		
4/5/2017		0.0026 (J)				0.0025 (J)
4/6/2017	0.004 (J)		0.0027 (J)			
7/10/2017		0.0023 (J)				
7/11/2017	<0.01			<0.01	<0.01	
7/12/2017			0.0043 (J)			0.002 (J)
10/2/2017				0.0026 (J)	<0.01	
10/3/2017						<0.01
1/9/2018				0.0018 (J)	<0.01	
1/10/2018			0.0021 (J)			0.0016 (J)
1/11/2018	0.0018 (J)	0.0031 (J)				
7/9/2018				<0.01		
7/10/2018					<0.01	0.0031 (J)
7/11/2018	<0.01	0.0036 (J)	0.0039 (J)			
1/16/2019			0.047	<0.01		
1/17/2019	<0.01	0.0032 (J)			<0.01	<0.01
3/26/2019			0.03	<0.01	<0.01	<0.01
3/27/2019	<0.01	0.0031 (J)				
10/8/2019	0.0061 (J)		0.053	0.0052 (J)	0.0051 (J)	0.01
10/9/2019		0.0057 (J)				
4/7/2020	<0.01	<0.01		<0.01	<0.01	<0.01
4/8/2020			0.023			
9/28/2020			0.016			
9/29/2020	0.0031 (J)	0.0074 (J)		<0.01		
9/30/2020					0.032	0.0051 (J)
3/10/2021	<0.01	<0.01				

# Time Series

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-11	GWC-12	GWC-13	GWC-14	GWC-15	GWC-16
3/12/2021					<0.01	
3/15/2021			0.039			
3/16/2021				<0.01		<0.01
9/21/2021	<0.01	<0.01	0.036			
9/22/2021				0.01		<0.01
9/23/2021					<0.01	
2/1/2022						<0.01
2/2/2022				<0.01		
2/3/2022	<0.01	<0.01	0.037		<0.01	

# Time Series

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 1:55 PM

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
9/29/2000	<0.01					<0.01
11/21/2000	<0.01	0.021 (O)				<0.01
1/20/2001	<0.01	<0.01				<0.01
3/14/2001	<0.01	<0.01				<0.01
7/16/2001	<0.01	<0.01				<0.01
11/1/2001	<0.01	<0.01				<0.01
4/25/2002	<0.01	<0.01				<0.01
11/20/2002	0.014	<0.01				0.033 (O)
6/6/2003	0.012	<0.01				<0.01
12/12/2003	<0.01	<0.01				<0.01
5/26/2004	<0.01	<0.01				<0.01
12/7/2004	<0.01	<0.01				<0.01
6/21/2005	<0.01	<0.01				<0.01
12/12/2005	<0.01	0.012				0.032 (O)
6/27/2006	0.0046	<0.01				0.018 (O)
12/4/2006	0.0071	<0.01				0.0044
6/23/2007	0.005	<0.01				0.0041
12/11/2007	0.0033	<0.01				0.0039
6/23/2008						<0.01
6/24/2008	0.0037	<0.01				
12/4/2008		<0.01				0.0039
12/5/2008	0.0027					
7/8/2009	0.0048	<0.01				<0.01
12/20/2009		<0.01				
12/21/2009	0.0032					0.004
6/20/2010		<0.01				<0.01
6/21/2010	0.0028		<0.01	0.04 (O)	<0.01	
1/6/2011		<0.01				
1/7/2011	0.003		<0.01	<0.01	0.019	0.0032
7/7/2011			<0.01			
7/8/2011	0.0034		0.086 (JO)	0.0044	0.1 (O)	0.0025
1/17/2012		<0.01				
1/18/2012	0.0049		<0.01	<0.01	0.0051	0.0045
7/9/2012		<0.01				
7/10/2012	0.0039		<0.01	<0.01	0.01	<0.01
1/17/2013		<0.01				
1/18/2013	0.0043		0.0032	<0.01	0.0036	0.0029
7/17/2013	0.0035	<0.01	<0.01	<0.01	0.0025	<0.01
1/13/2014		0.0025				
1/14/2014	0.0025		0.0025	0.0025	0.0025	0.0025
7/9/2014	0.0033	0.00058 (J)		0.00084 (J)		0.0016 (J)
7/10/2014			<0.01		0.024	
1/12/2015			<0.01			
1/13/2015		0.0024 (J)				
1/14/2015	0.0067			0.0018 (J)	0.0016 (J)	0.0024 (J)
7/16/2015		<0.01				
7/17/2015				<0.01		0.0031
7/18/2015	<0.01		<0.01		0.014	
1/17/2016		<0.01	<0.01	<0.01		
1/18/2016	0.012				<0.01	0.0059
7/27/2016		0.0018 (J)				
7/28/2016			<0.01	<0.01		0.0019 (J)

# Time Series

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 1:55 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9
7/29/2016	0.0086 (J)				0.0129	
10/25/2016			<0.01			
1/4/2017			<0.01	<0.01	0.006 (J)	
1/5/2017	0.016	<0.01				
1/6/2017						0.0026 (J)
4/4/2017		0.0015 (J)	<0.01	0.0015 (J)		
4/5/2017	0.0175					
4/6/2017					0.0031 (J)	0.0047 (J)
7/11/2017			<0.01		0.0029 (J)	
7/12/2017						0.003 (J)
7/13/2017	0.0126	0.0014 (J)		0.002 (J)		
10/2/2017			<0.01			
1/9/2018				0.0016 (J)		
1/10/2018		<0.01	0.0034 (J)			
1/11/2018	0.012				0.0106	0.0046 (J)
7/9/2018			<0.01			
7/10/2018		<0.01		<0.01		
7/11/2018	0.011				0.0057 (J)	0.0033 (J)
1/16/2019	0.0094 (J)					
1/17/2019				<0.01		
1/18/2019					0.0024 (J)	0.0025 (J)
1/21/2019		<0.01	<0.01			
3/25/2019			<0.01			
3/26/2019	0.0057 (J)			<0.01		
3/27/2019					<0.01	0.0026 (J)
7/30/2019		0.0067 (J)				
10/8/2019				0.0071 (J)		
10/9/2019	0.011	0.005 (J)	0.0049 (J)		0.0079 (J)	0.0054 (J)
4/7/2020				<0.01	<0.01	
4/8/2020	<0.01	<0.01	<0.01			<0.01
9/29/2020		0.056				
9/30/2020	0.0043 (J)		0.031	0.0096 (J)	<0.01	
10/1/2020						0.025
3/10/2021					<0.01	<0.01
3/11/2021	0.0056 (J)					
3/12/2021			<0.01			
3/15/2021		<0.01				
3/16/2021				<0.01		
9/21/2021					<0.01	
9/22/2021	<0.01	<0.01	<0.01	<0.01		<0.01
2/1/2022	0.011		<0.01	<0.01		
2/2/2022		<0.01				<0.01
2/3/2022					<0.01	

# Time Series

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 1:55 PM

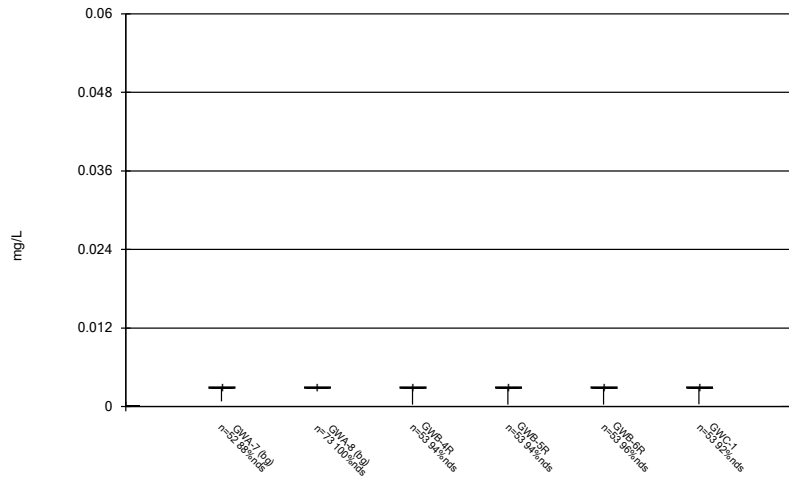
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-23D	MW-24D	MW-25D	MW-26D	MW-27D
3/11/2021	0.0067 (J)	0.0025 (J)	0.0054 (J)	0.008 (J)	0.0066 (J)
9/21/2021				<0.01	<0.01
9/22/2021	<0.01	<0.01			
9/23/2021			<0.01		
2/1/2022		<0.01			
2/2/2022				<0.01	0.017
2/3/2022	<0.01		0.051		

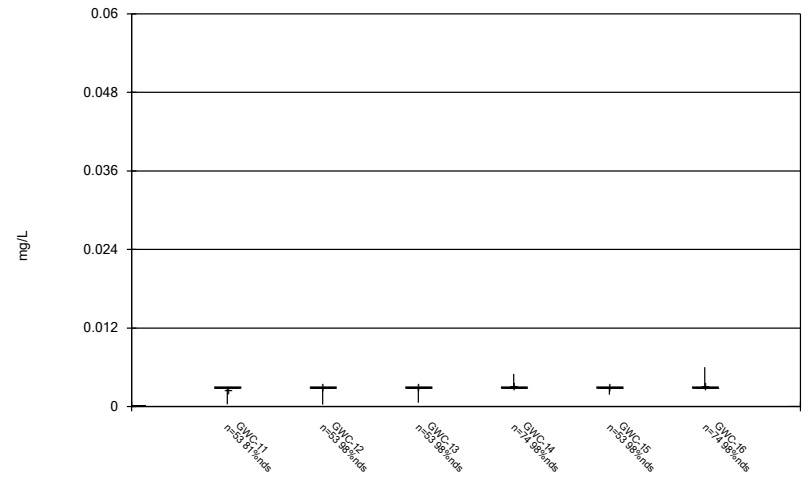
FIGURE B.

### Box & Whiskers Plot



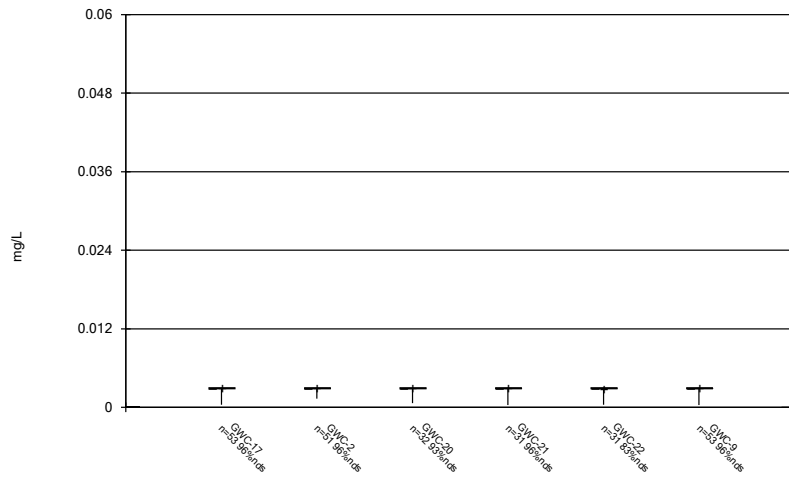
Constituent: Antimony Analysis Run 4/13/2022 1:56 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



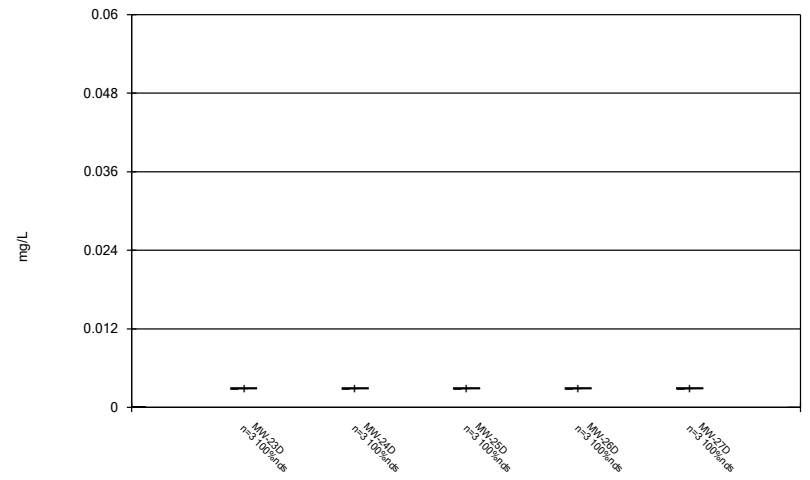
Constituent: Antimony Analysis Run 4/13/2022 1:56 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



Constituent: Antimony Analysis Run 4/13/2022 1:56 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

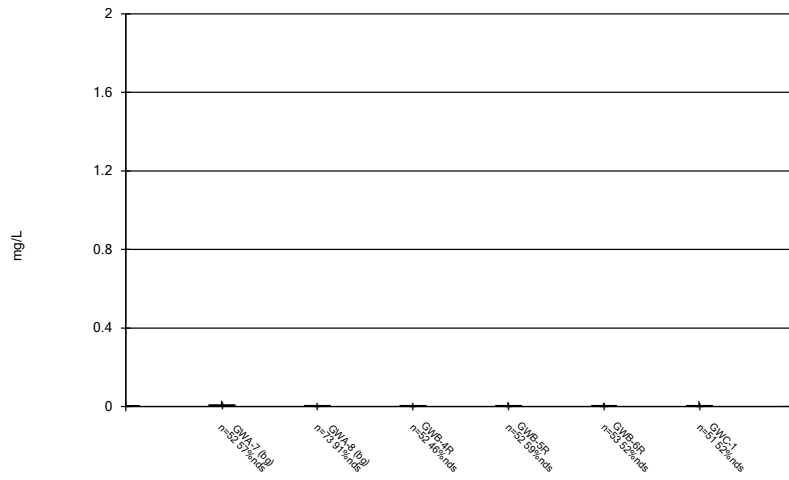
### Box & Whiskers Plot



Constituent: Antimony Analysis Run 4/13/2022 1:56 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

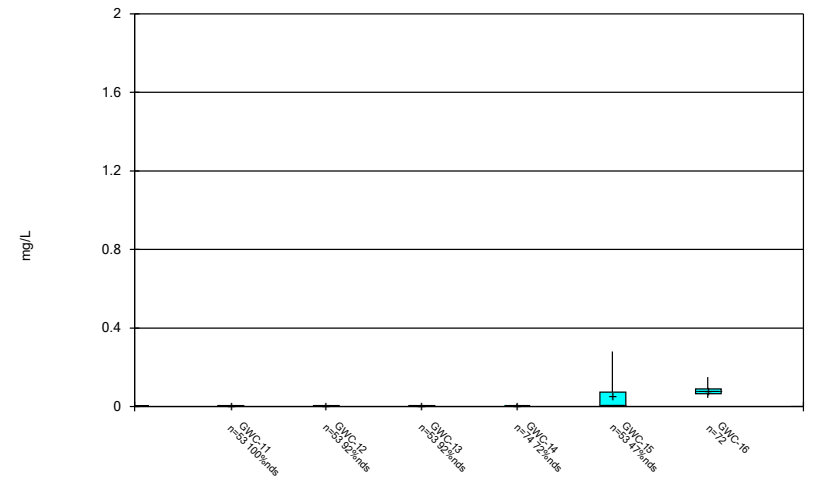


### Box & Whiskers Plot



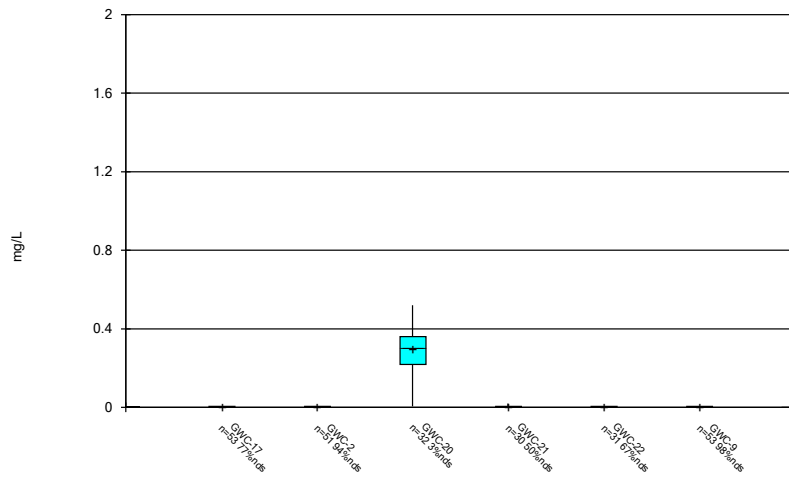
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



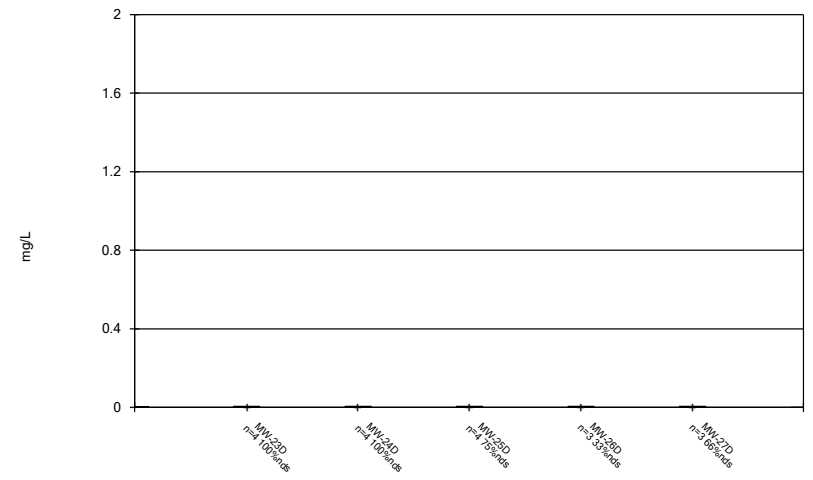
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### Box & Whiskers Plot



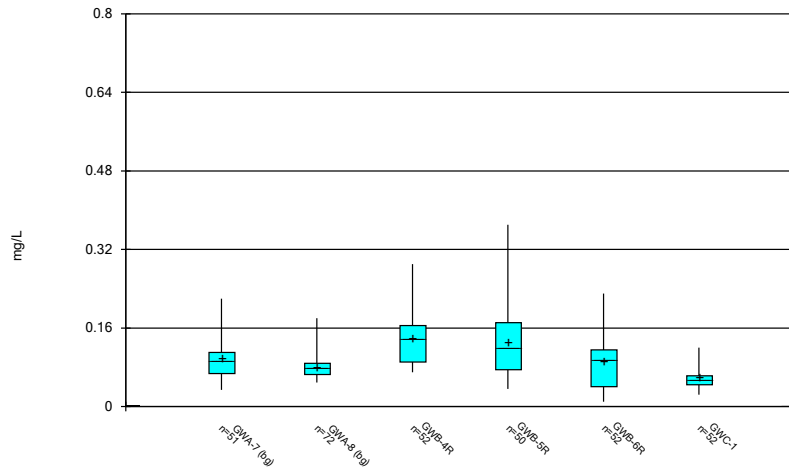
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### Box & Whiskers Plot



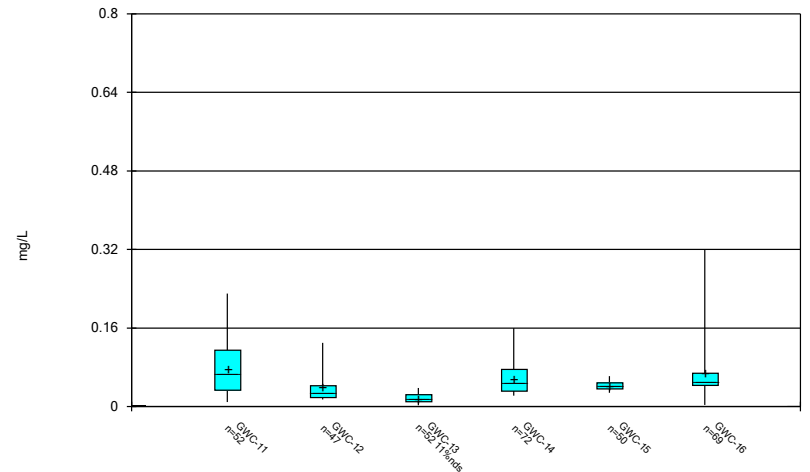
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



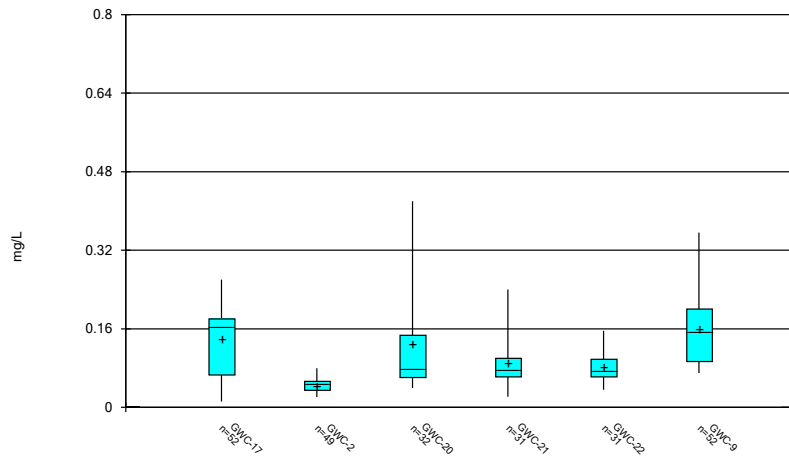
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### Box & Whiskers Plot



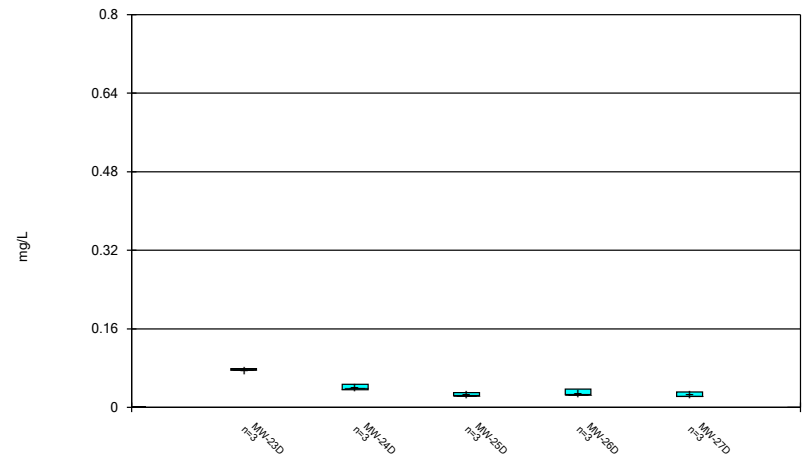
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### Box & Whiskers Plot



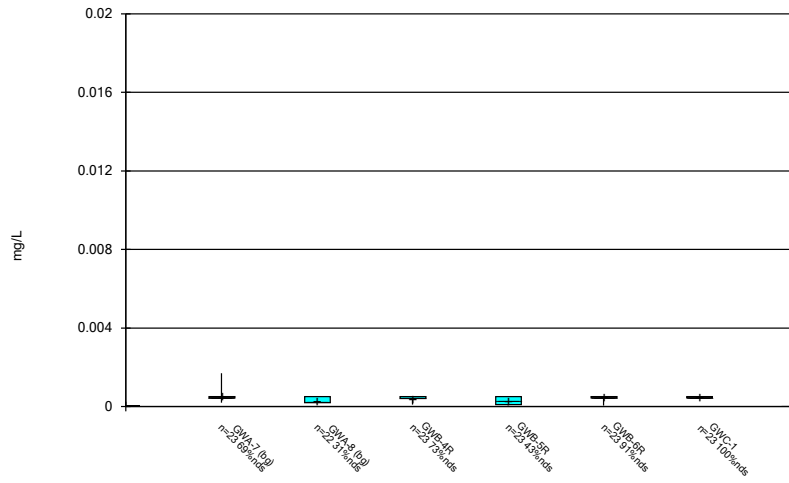
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



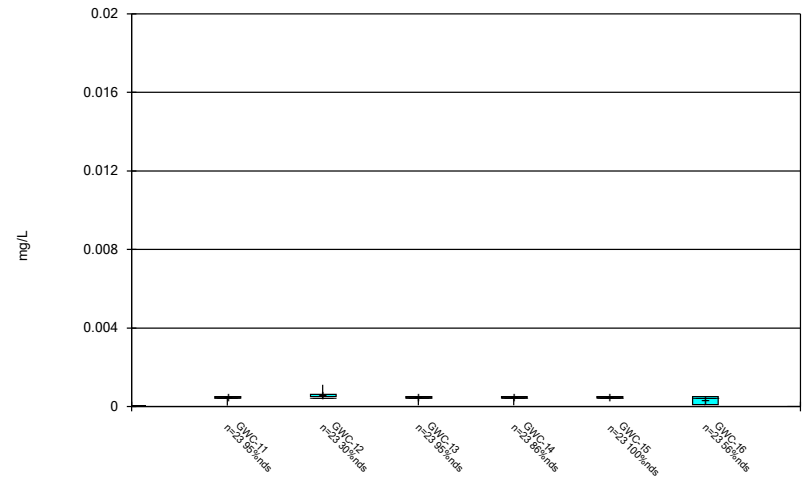
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



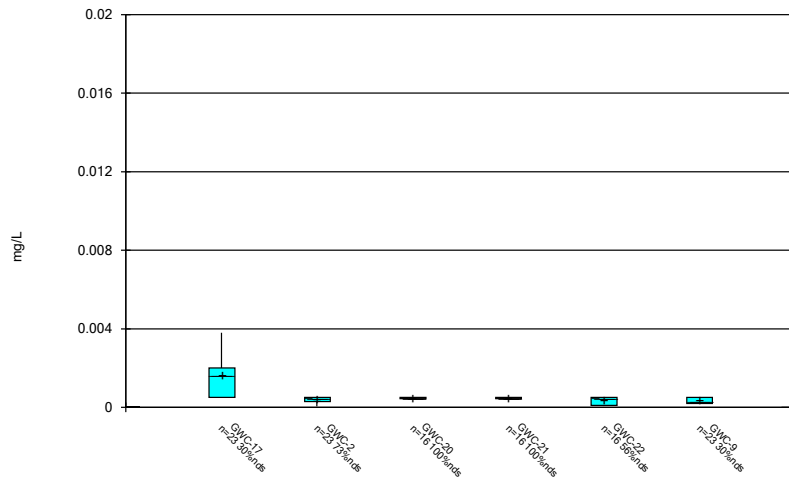
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



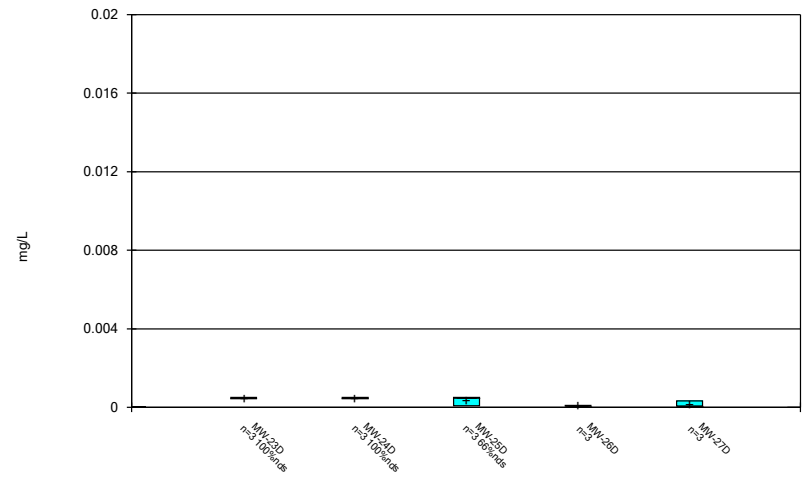
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



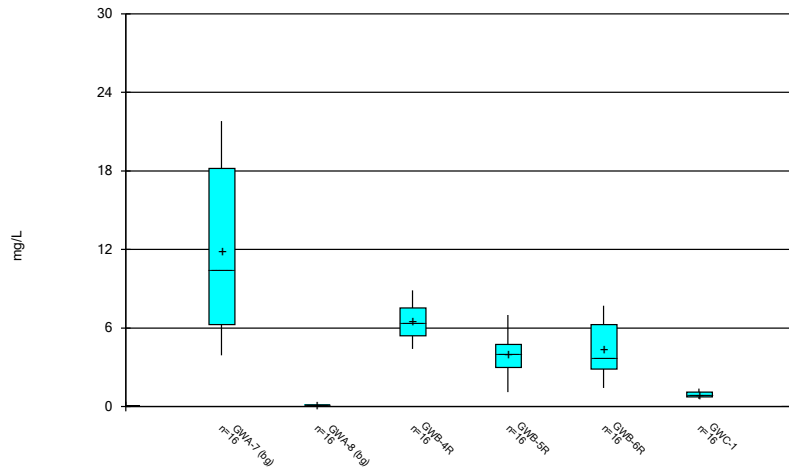
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



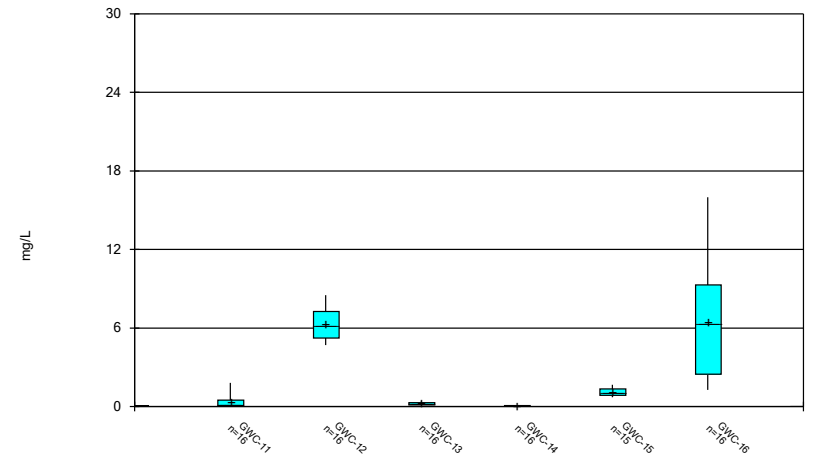
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



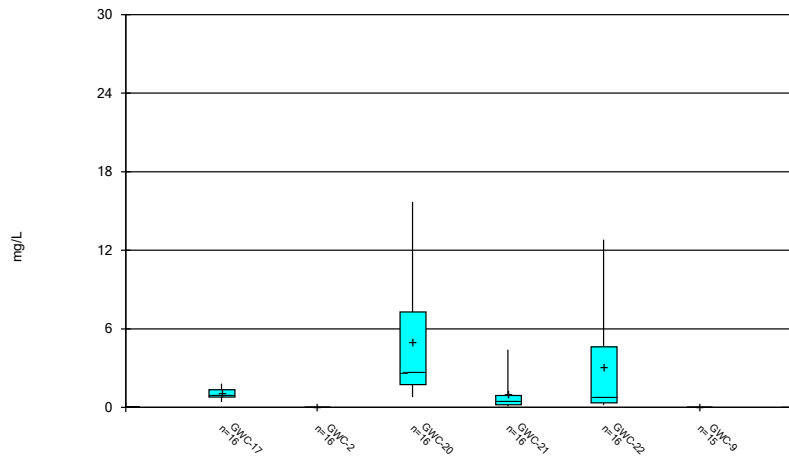
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### Box & Whiskers Plot



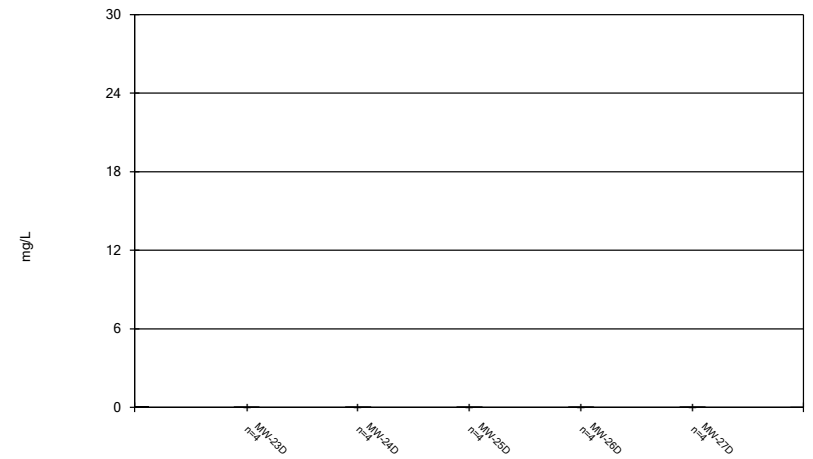
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



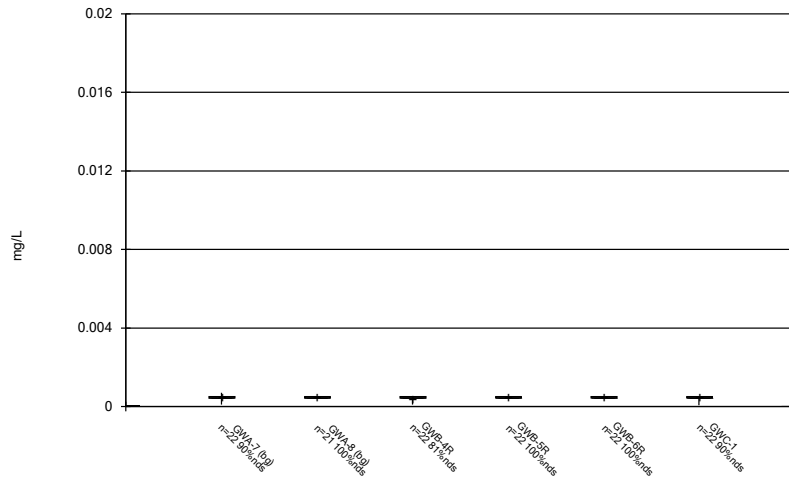
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



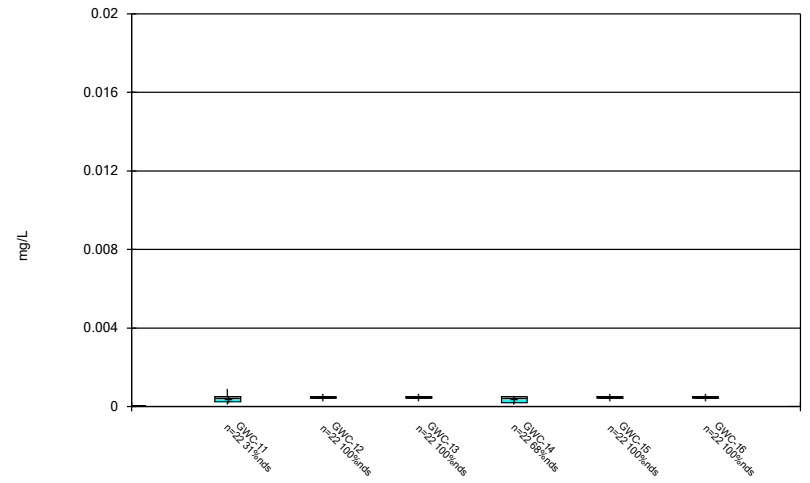
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



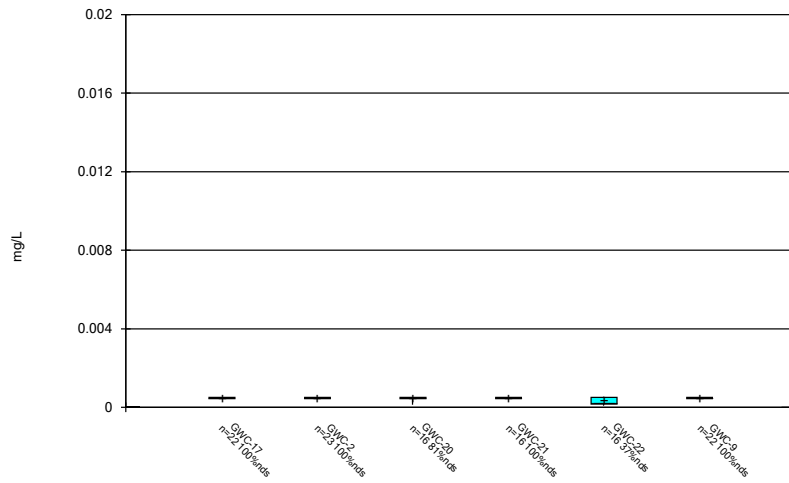
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### Box & Whiskers Plot



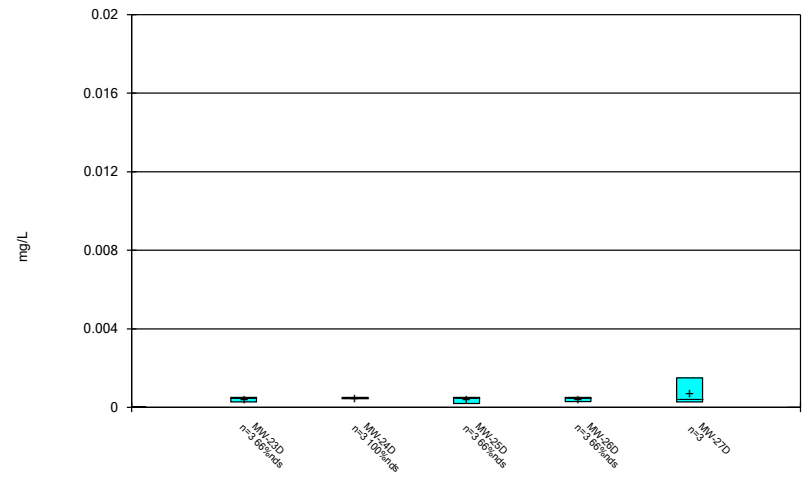
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### Box & Whiskers Plot



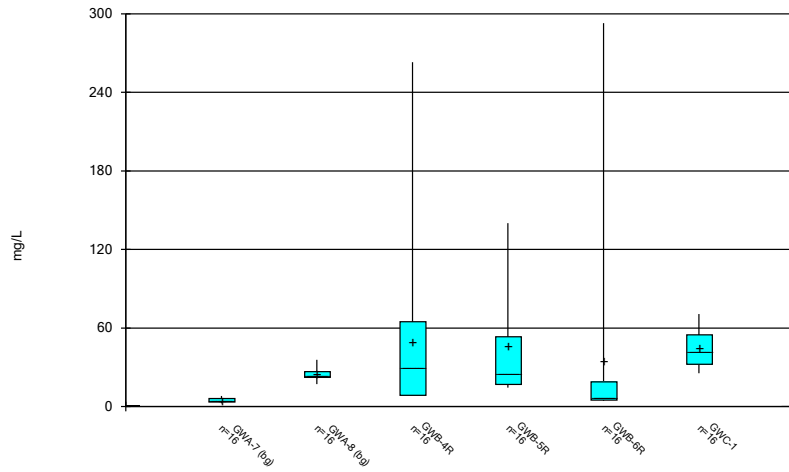
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



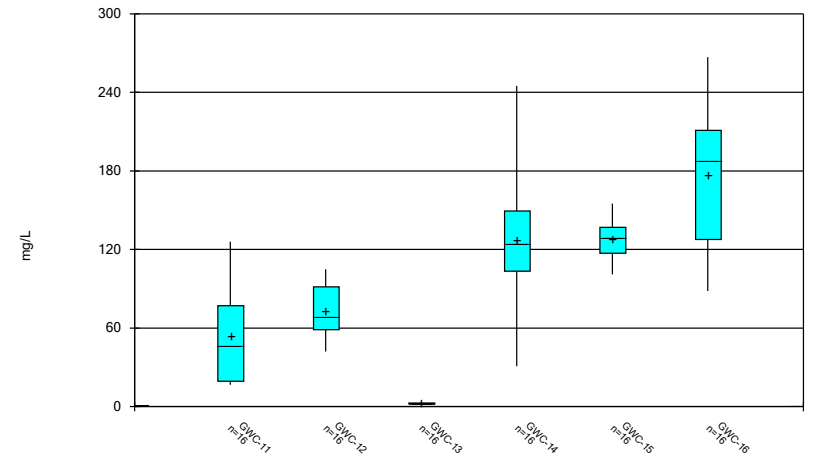
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### Box & Whiskers Plot



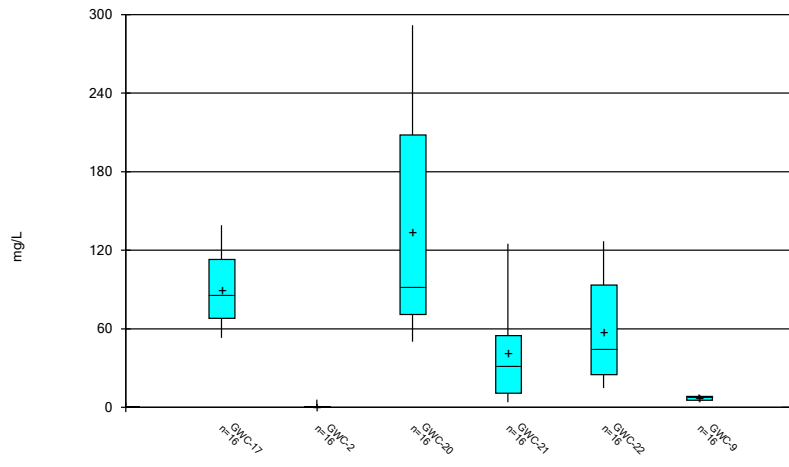
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### Box & Whiskers Plot



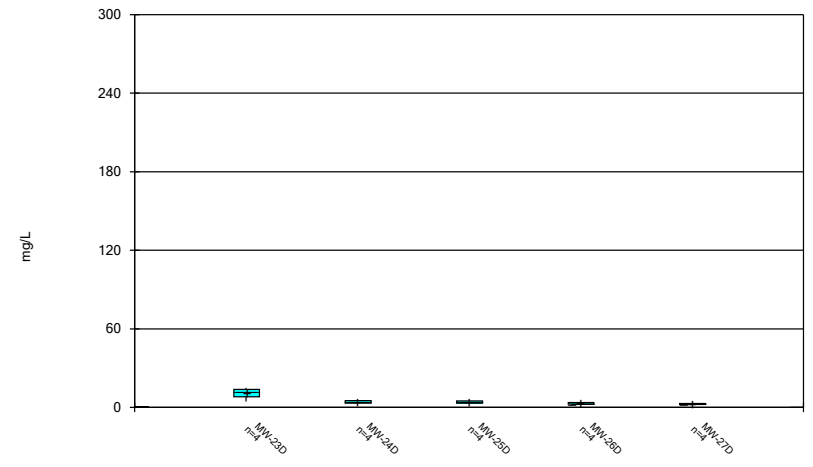
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### Box & Whiskers Plot



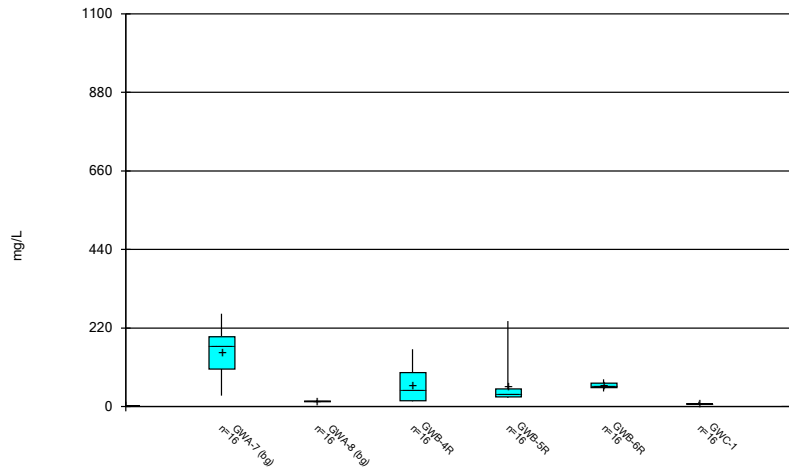
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### Box & Whiskers Plot



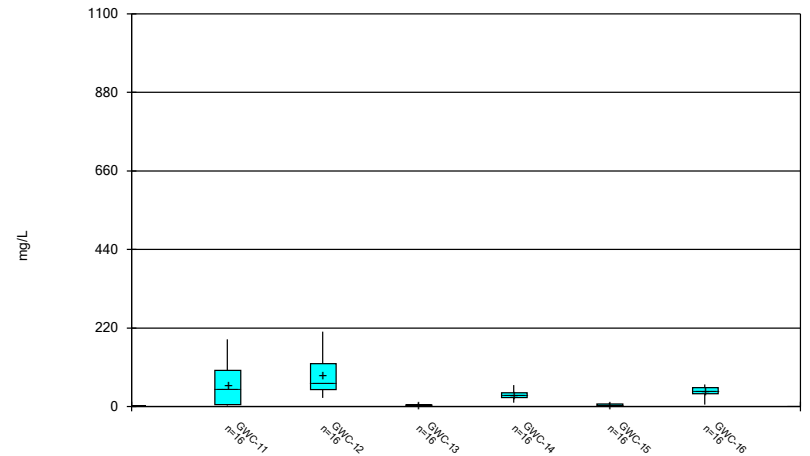
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### Box & Whiskers Plot



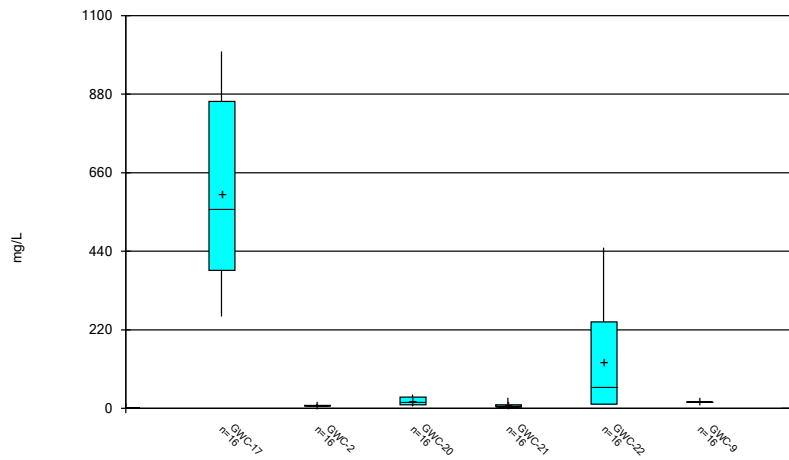
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



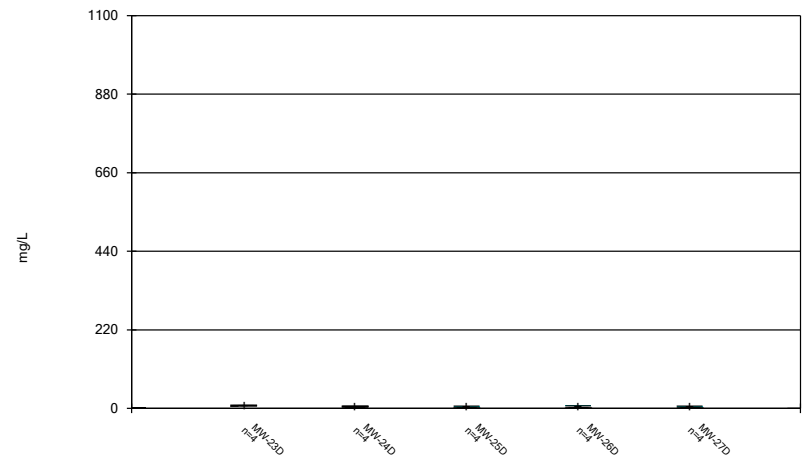
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### Box & Whiskers Plot



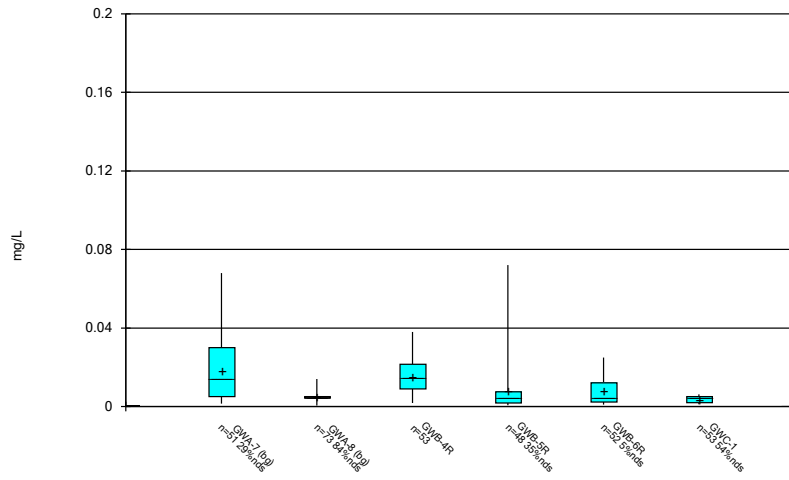
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### Box & Whiskers Plot



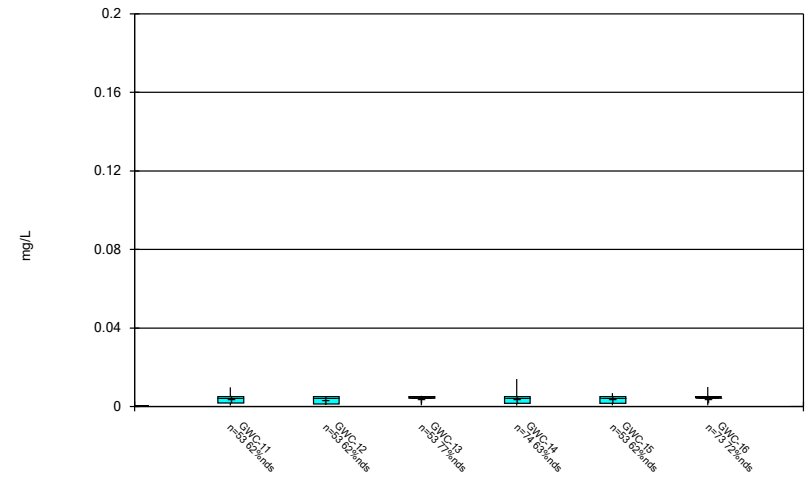
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### Box & Whiskers Plot



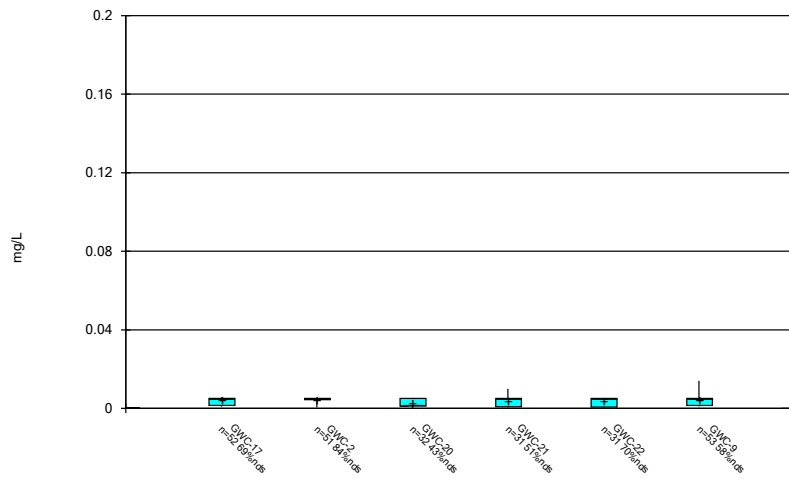
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



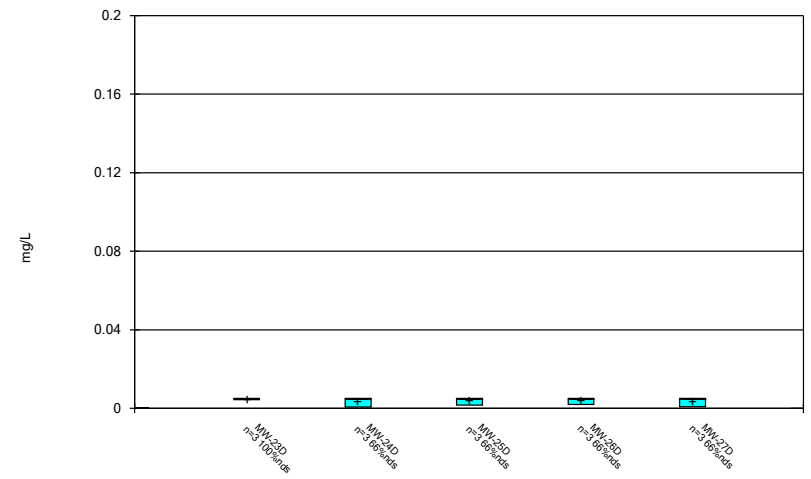
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



Constituent: Chromium Analysis Run 4/13/2022 1:56 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

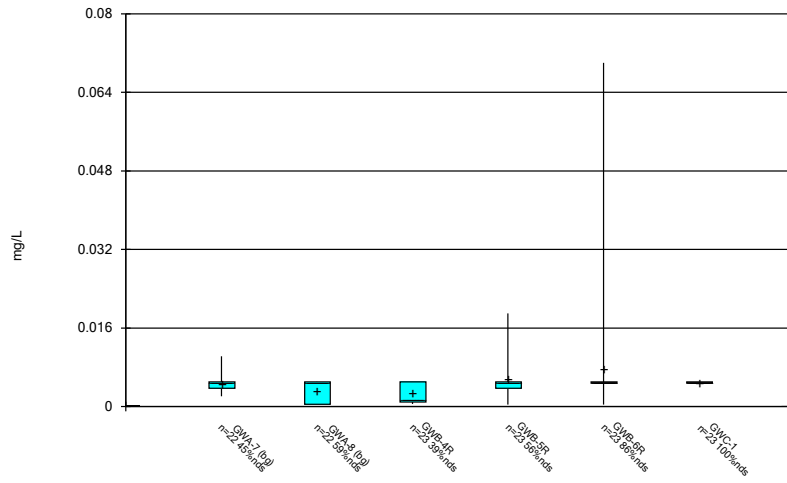
### Box & Whiskers Plot



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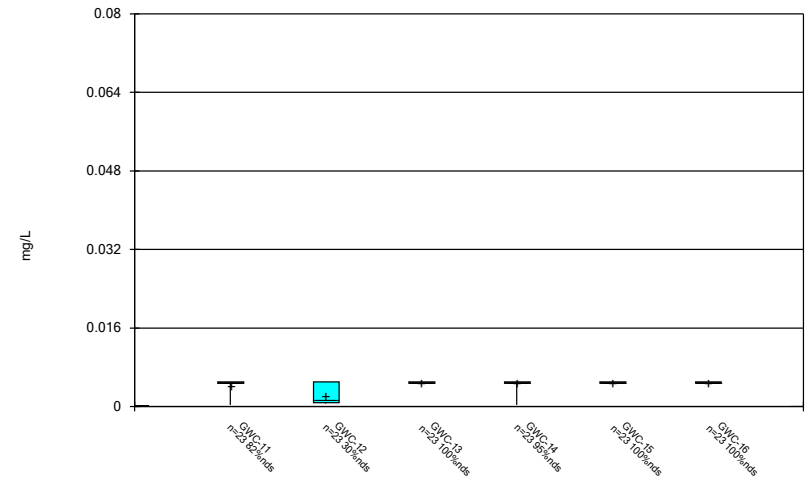


### Box & Whiskers Plot



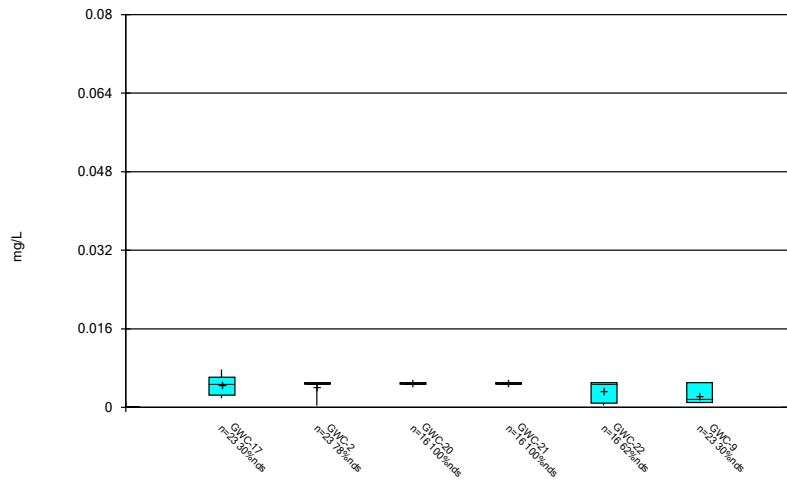
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



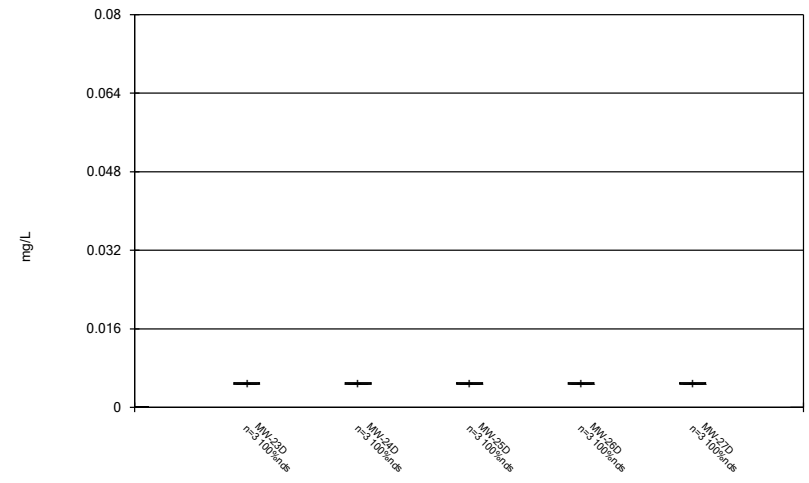
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### Box & Whiskers Plot



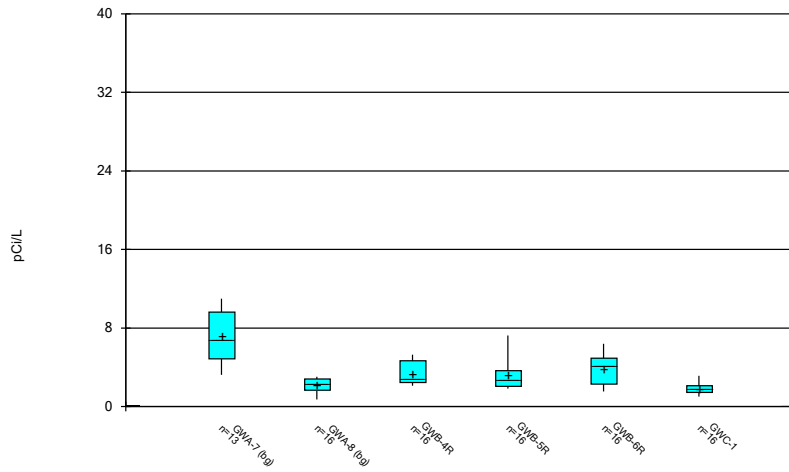
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### Box & Whiskers Plot



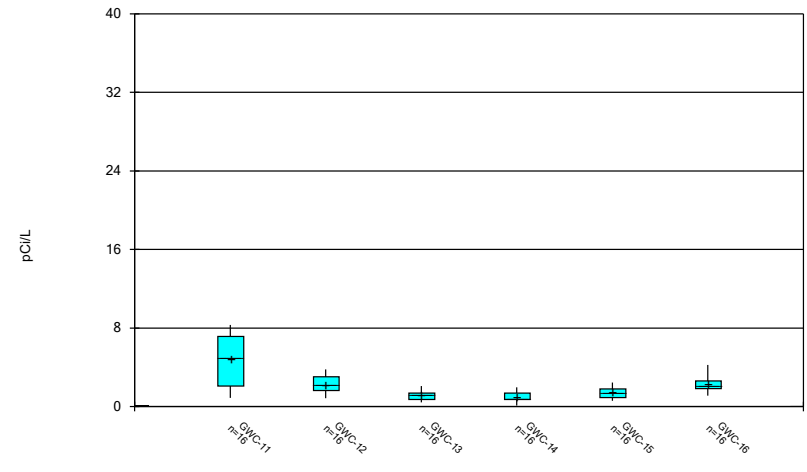
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



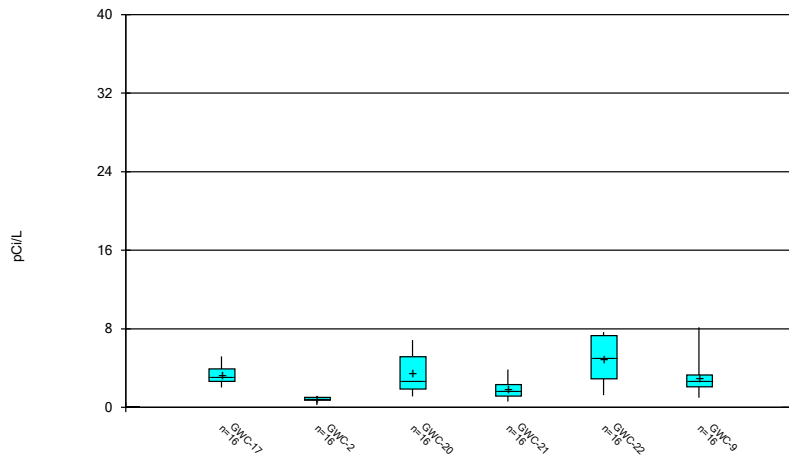
Constituent: Combined Radium 226 + 228 Analysis Run 4/13/2022 1:56 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



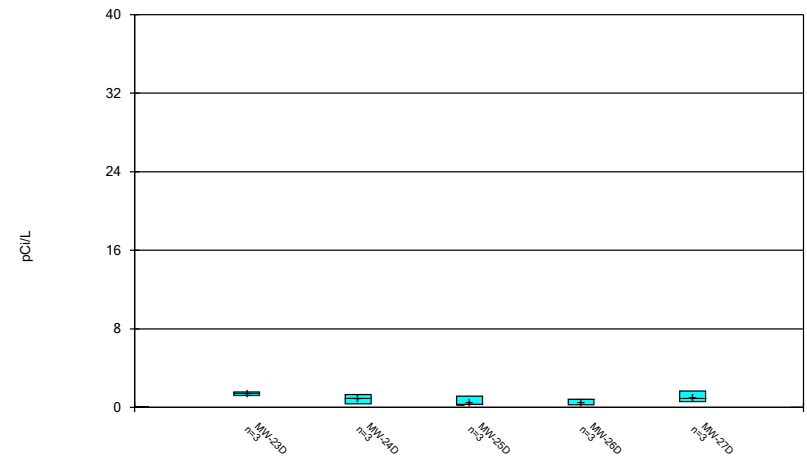
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



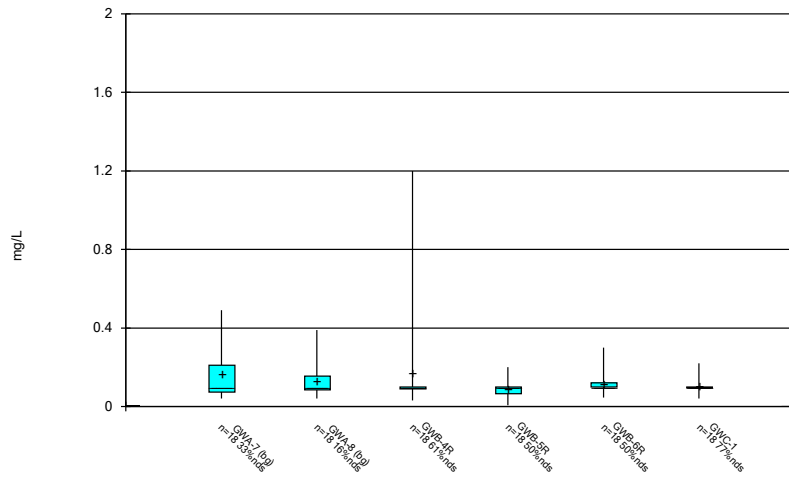
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



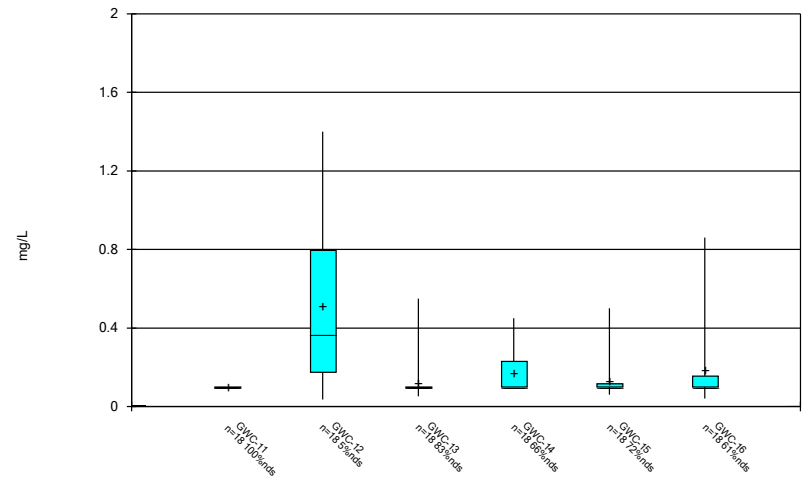
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



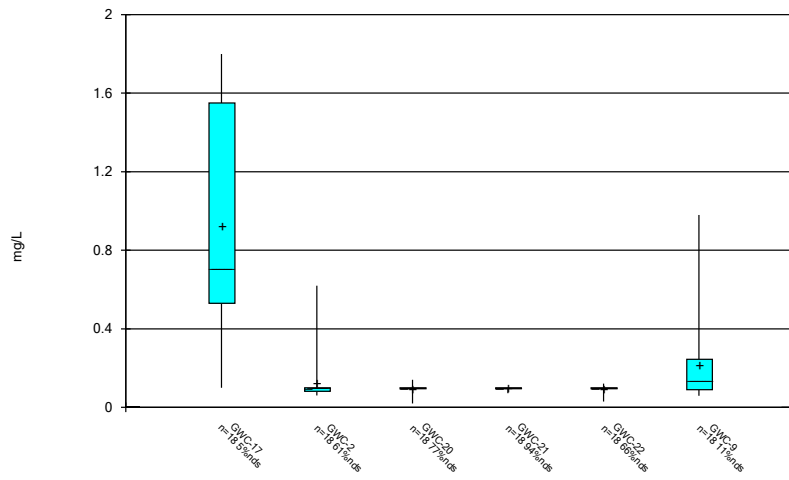
Constituent: Fluoride Analysis Run 4/13/2022 1:56 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



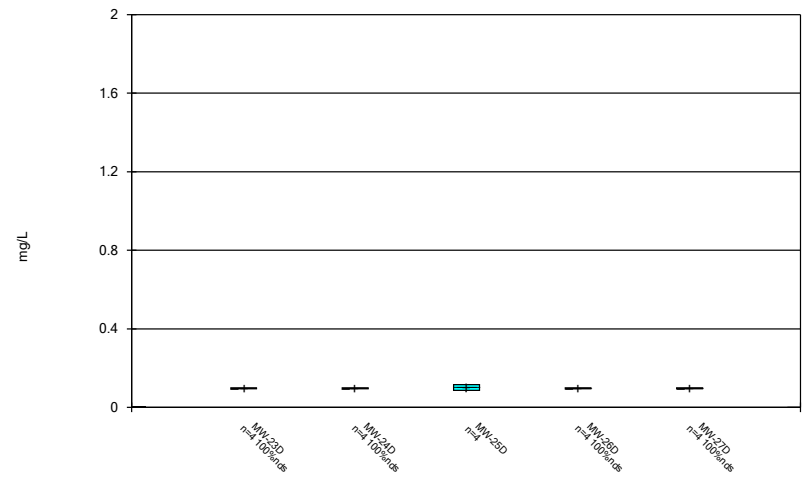
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



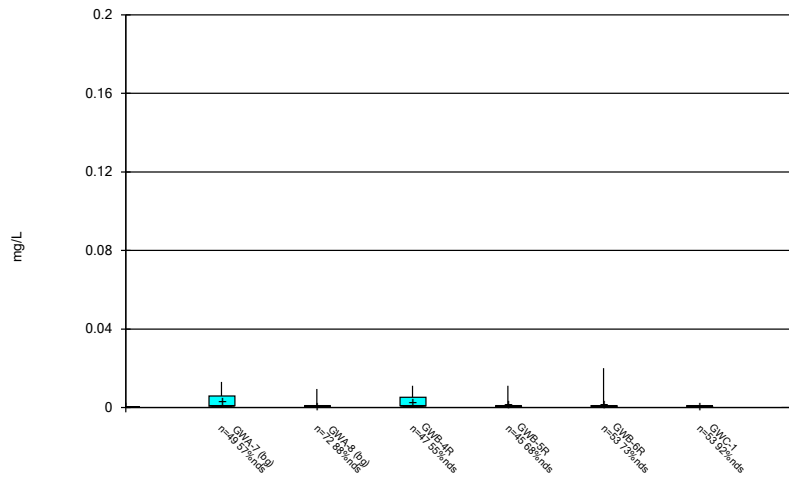
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### Box & Whiskers Plot



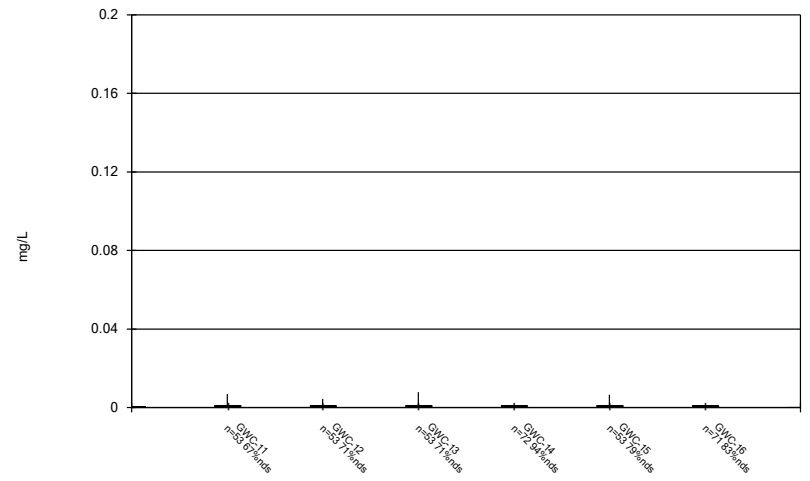
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



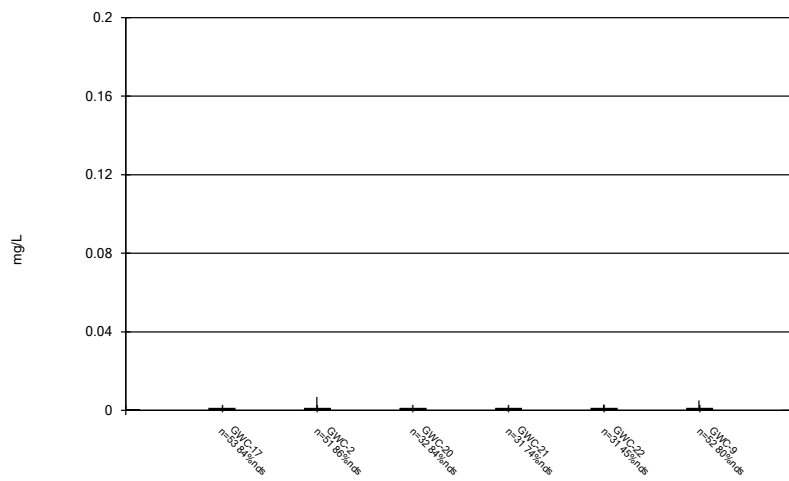
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### Box & Whiskers Plot



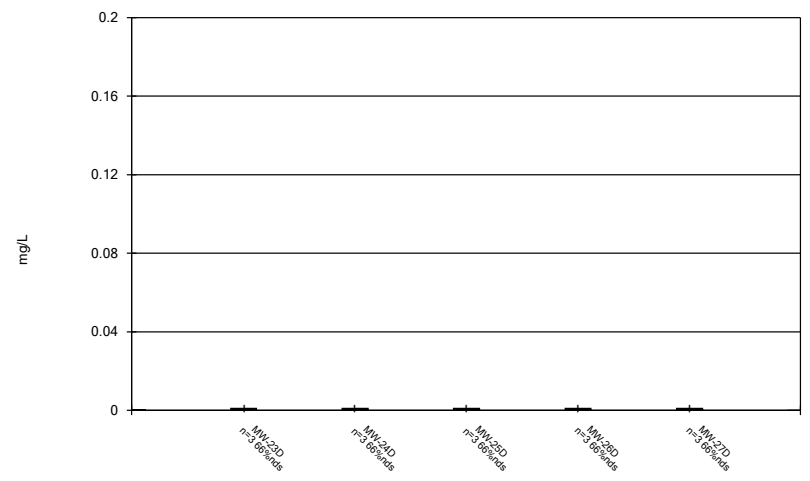
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### Box & Whiskers Plot



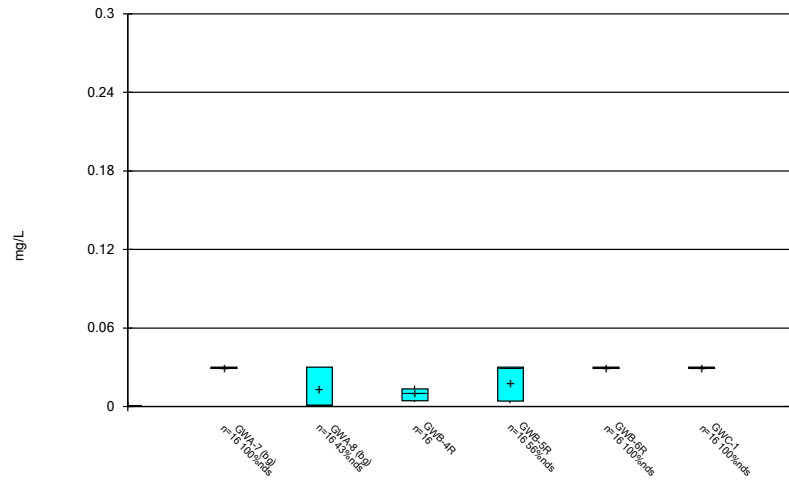
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### Box & Whiskers Plot



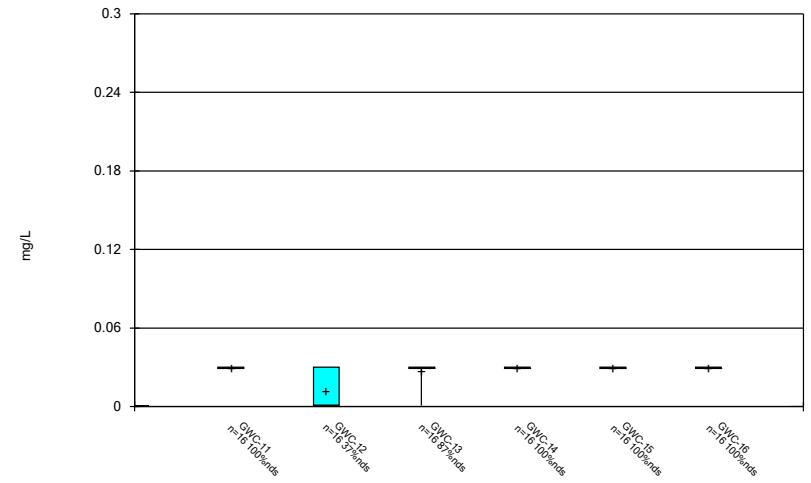
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



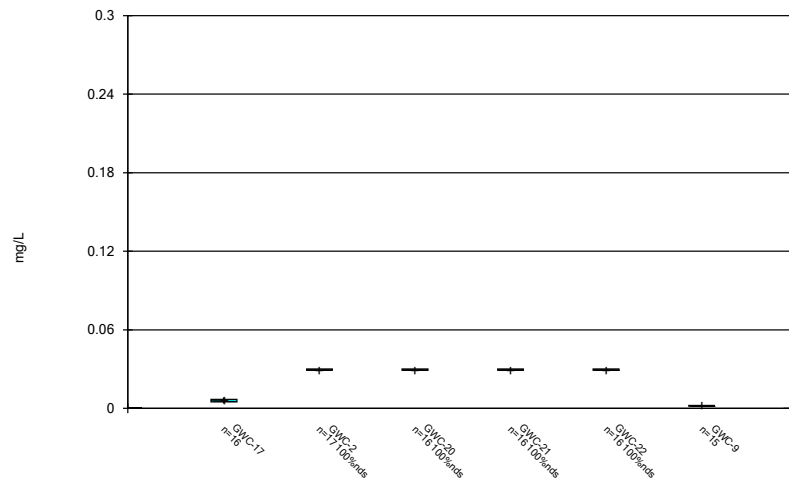
Constituent: Lithium Analysis Run 4/13/2022 1:57 PM  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



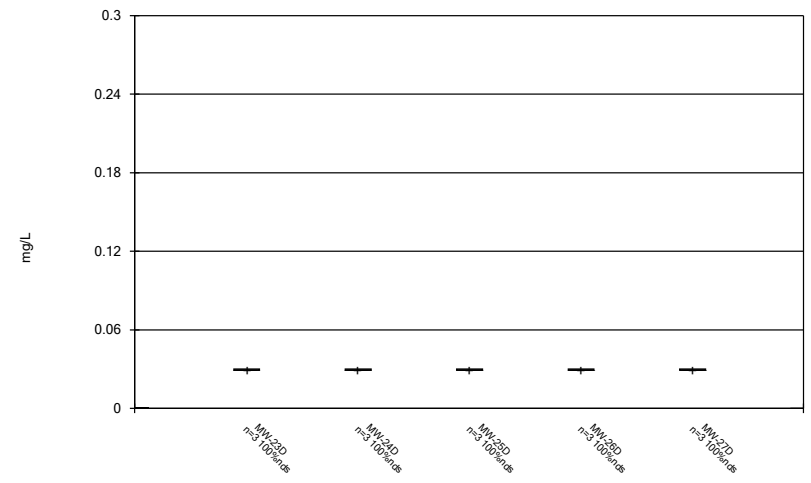
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### Box & Whiskers Plot



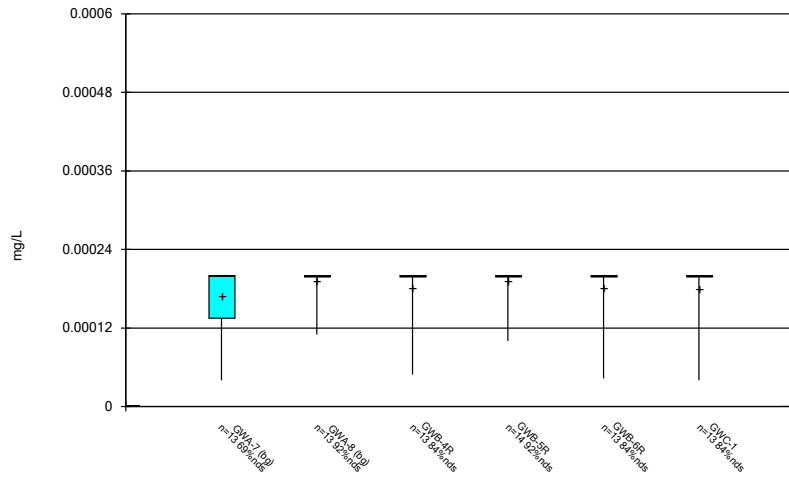
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### Box & Whiskers Plot



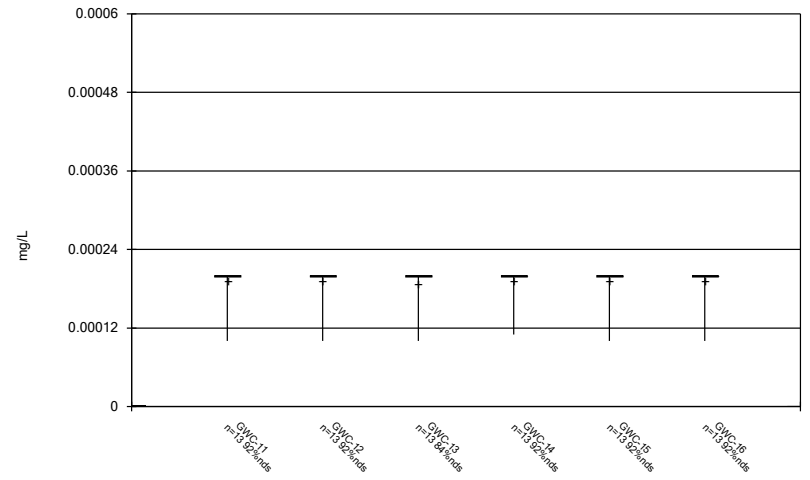
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 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



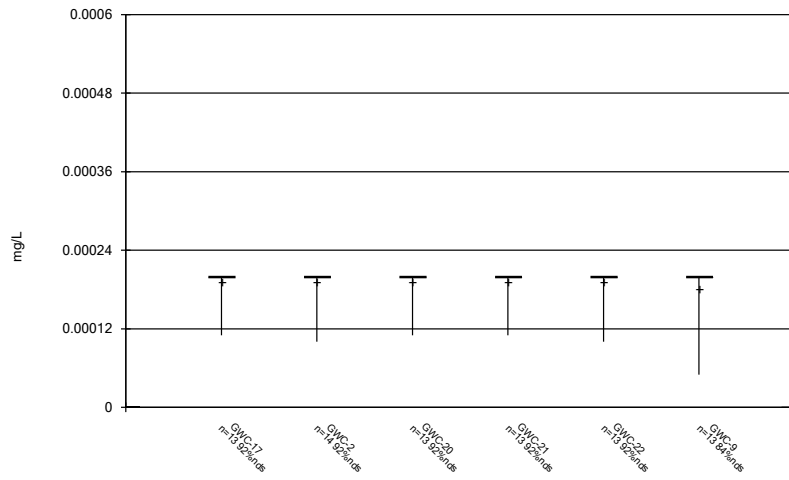
Constituent: Mercury Analysis Run 4/13/2022 1:57 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



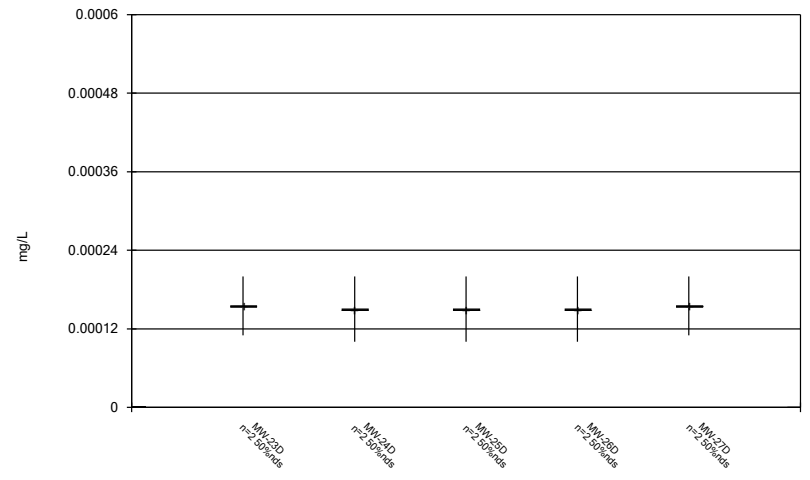
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



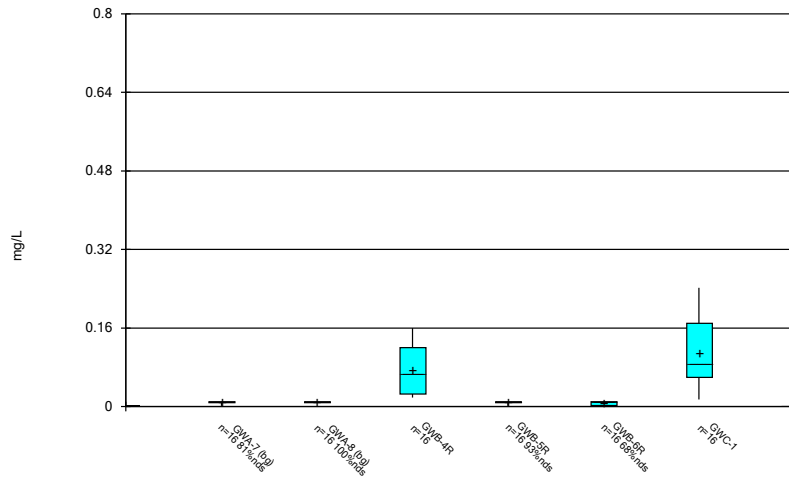
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



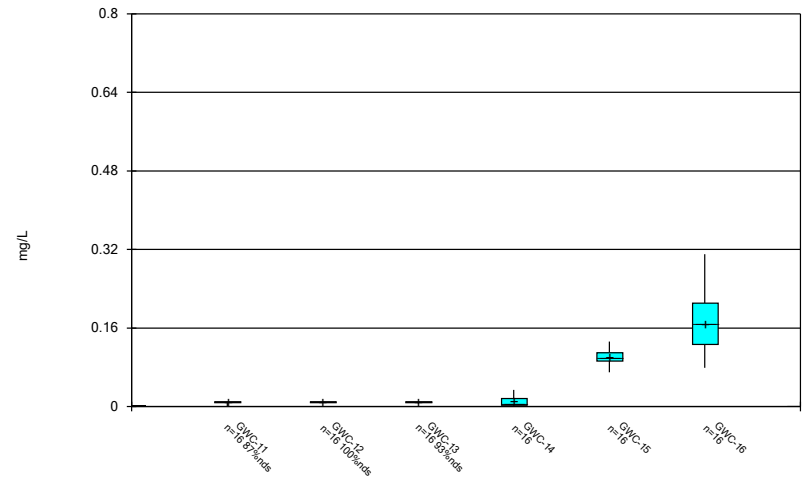
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



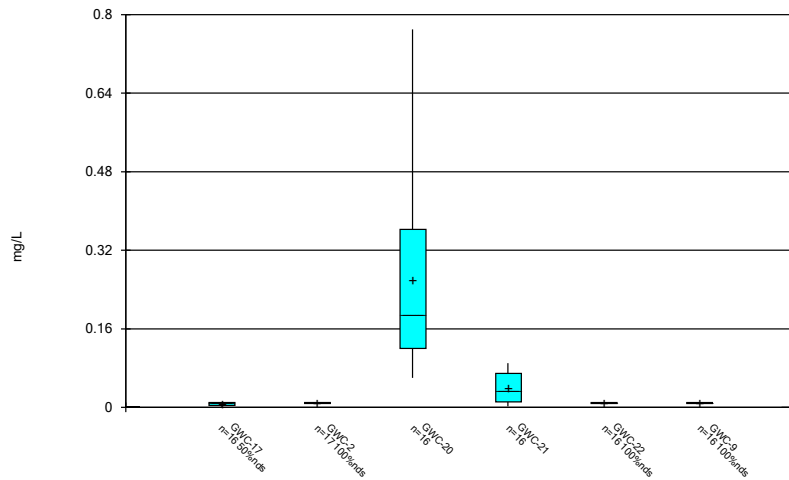
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### Box & Whiskers Plot



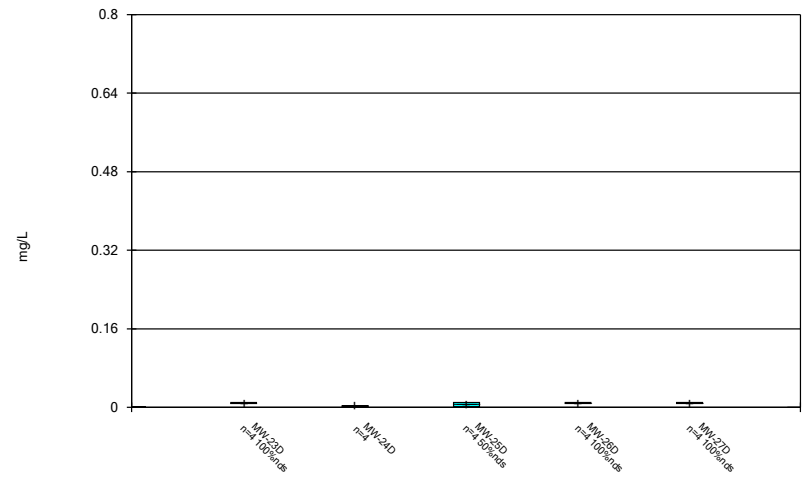
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### Box & Whiskers Plot



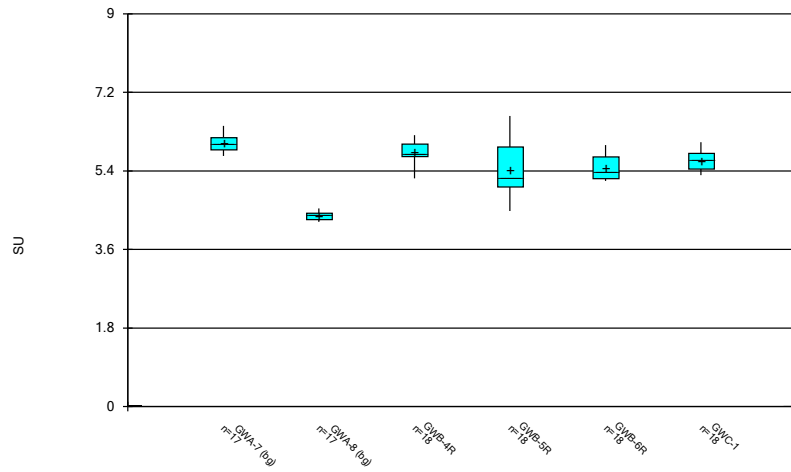
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### Box & Whiskers Plot



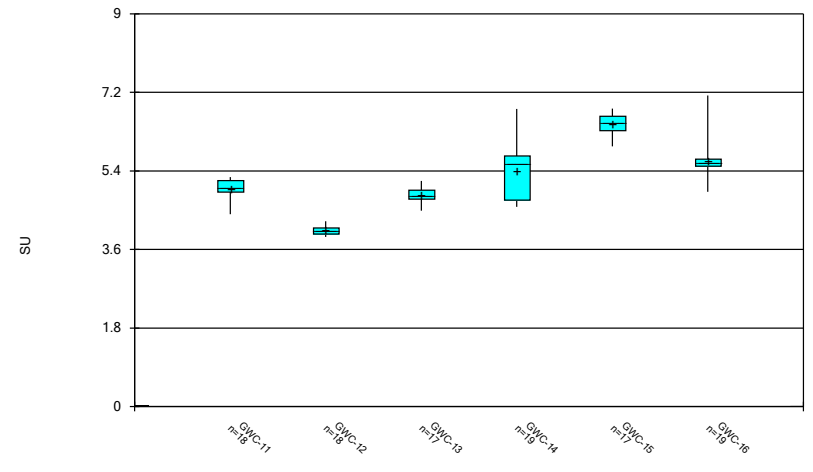
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### Box & Whiskers Plot



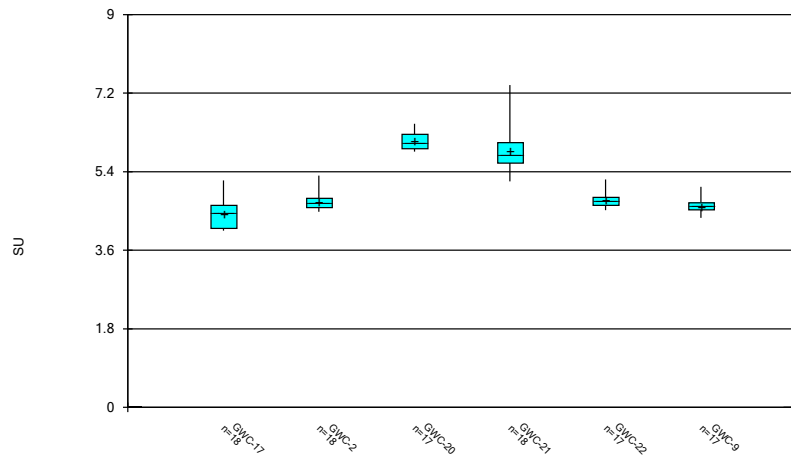
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### Box & Whiskers Plot



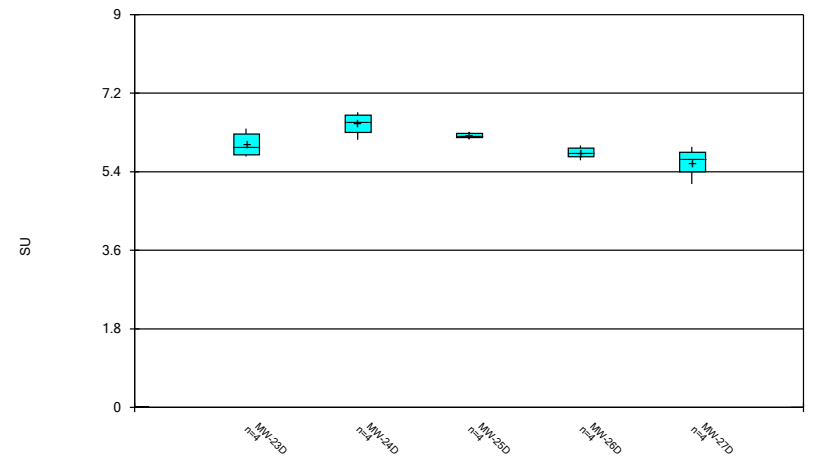
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### Box & Whiskers Plot



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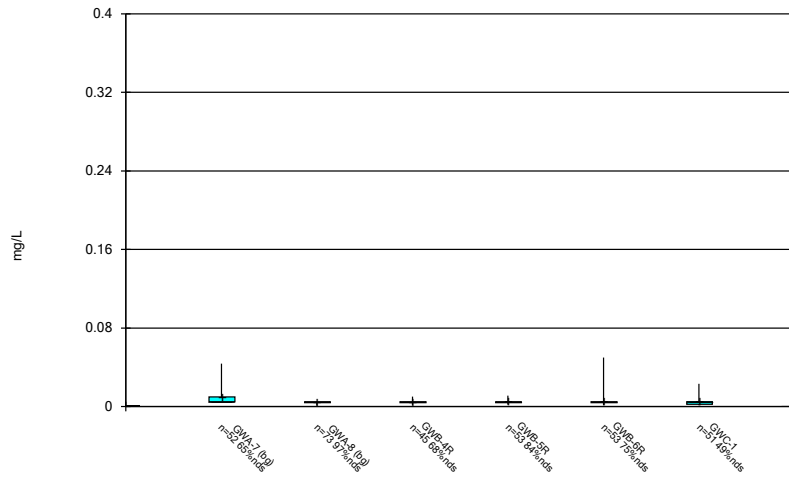
### Box & Whiskers Plot



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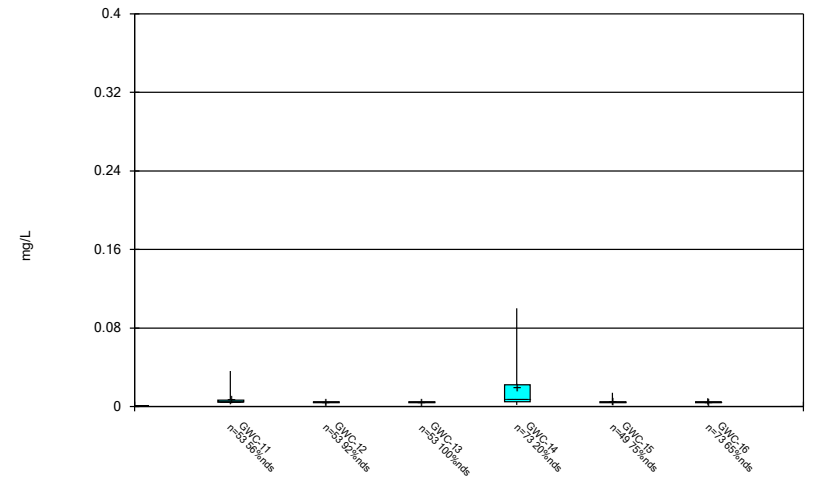


### Box & Whiskers Plot



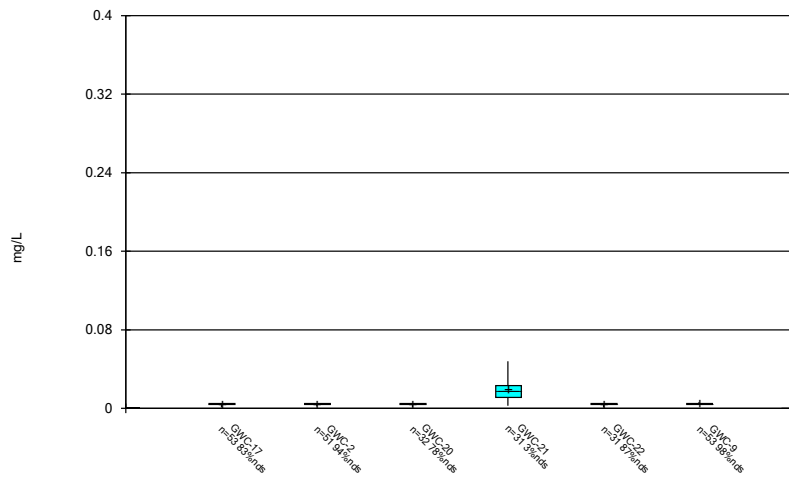
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### Box & Whiskers Plot



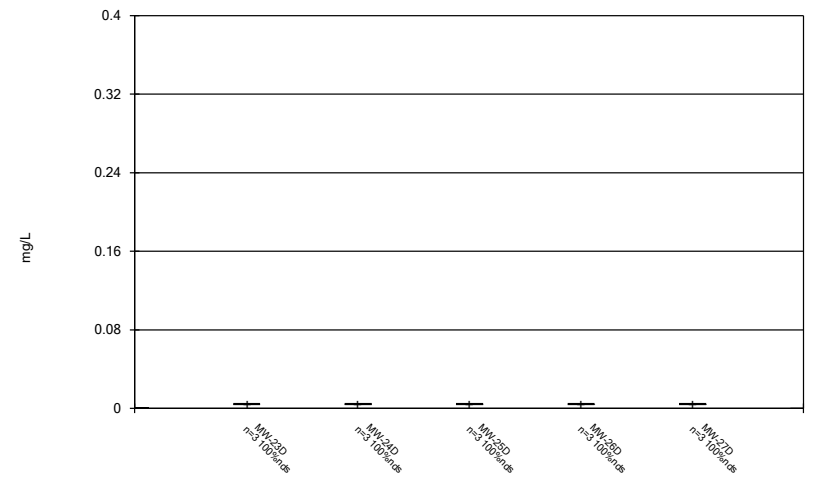
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### Box & Whiskers Plot



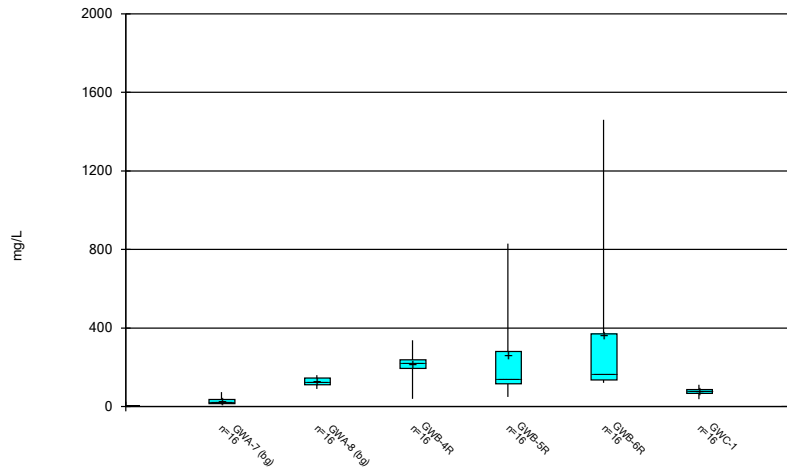
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### Box & Whiskers Plot



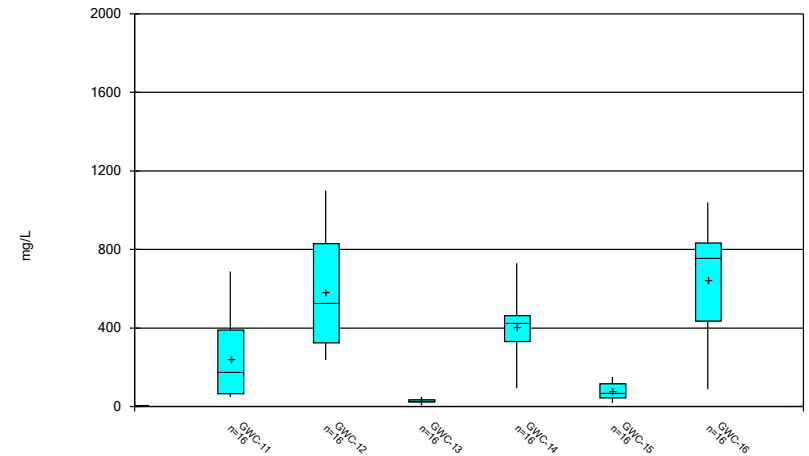
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### Box & Whiskers Plot



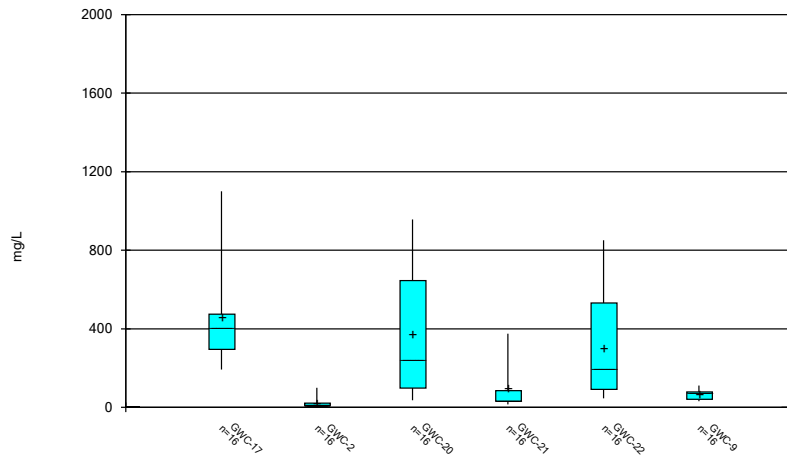
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### Box & Whiskers Plot



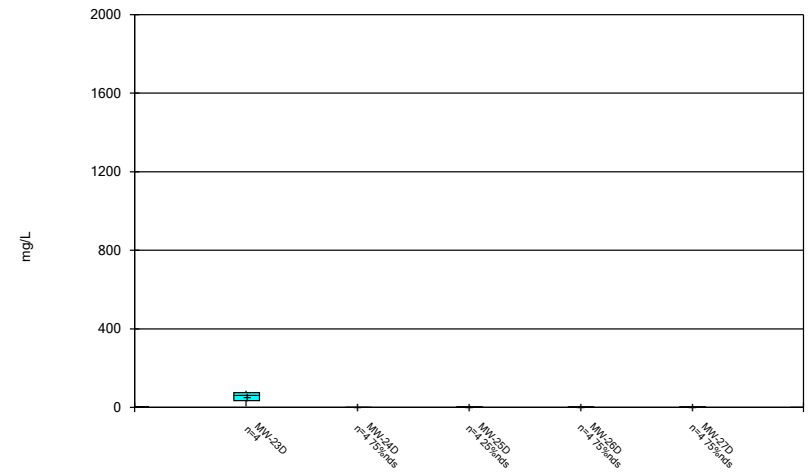
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### Box & Whiskers Plot



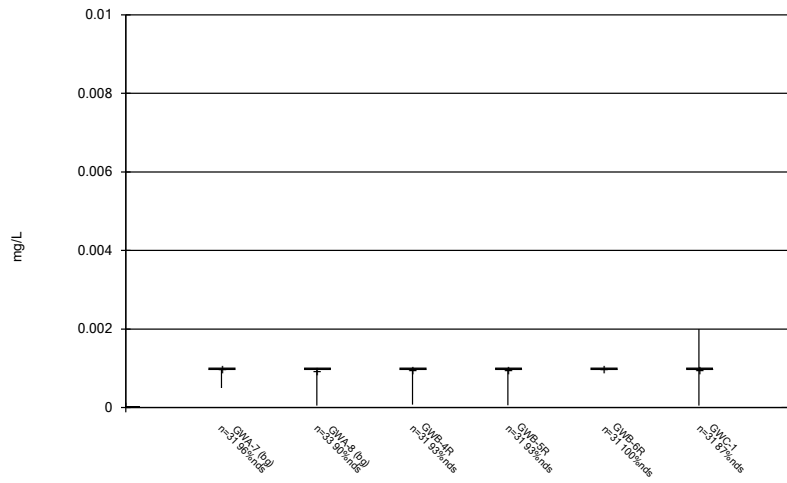
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### Box & Whiskers Plot



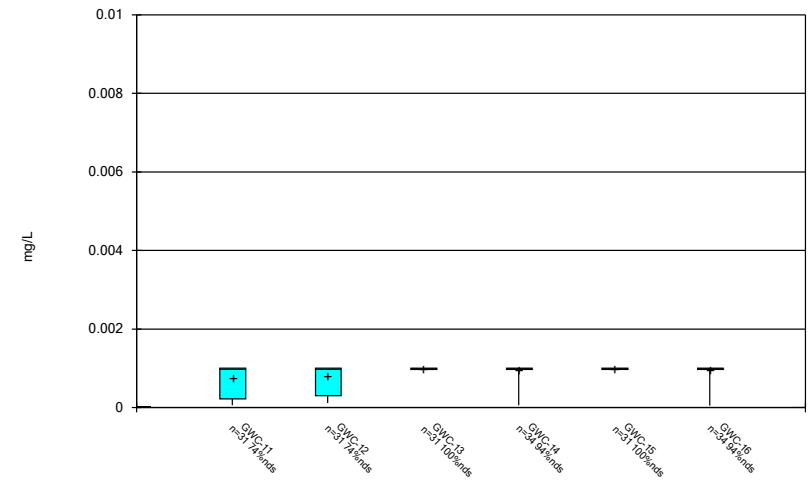
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Box & Whiskers Plot



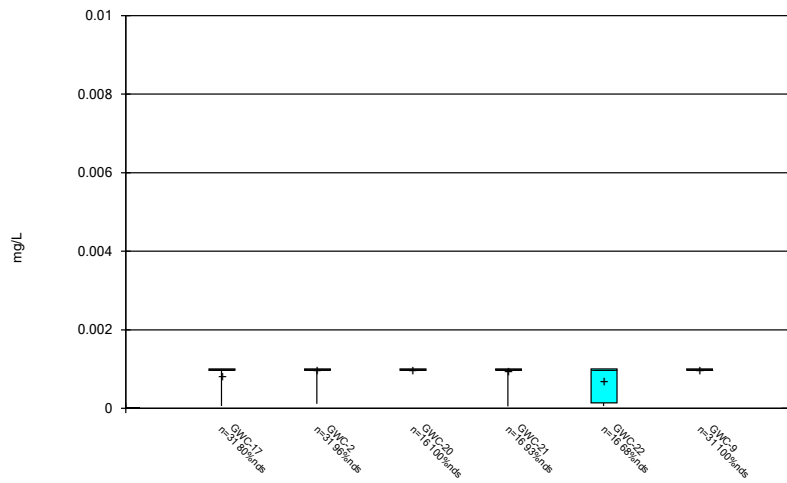
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Box & Whiskers Plot



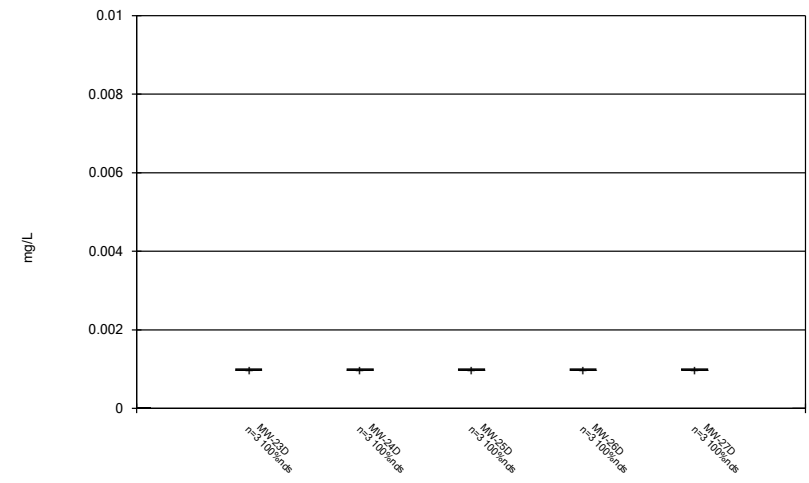
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Box & Whiskers Plot



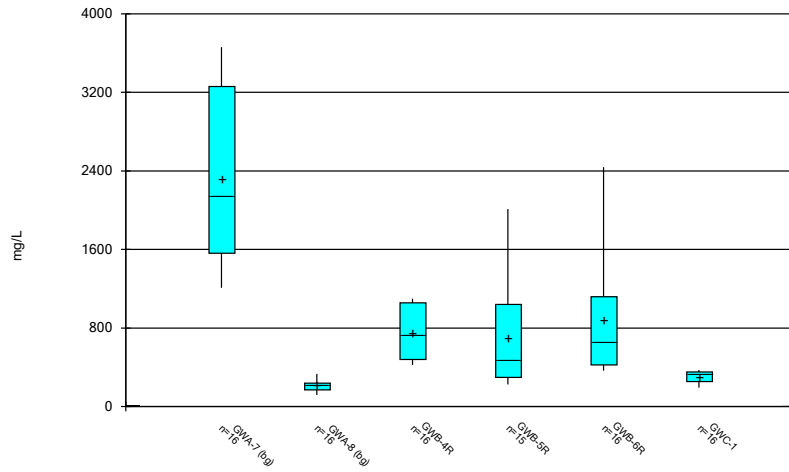
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Box & Whiskers Plot



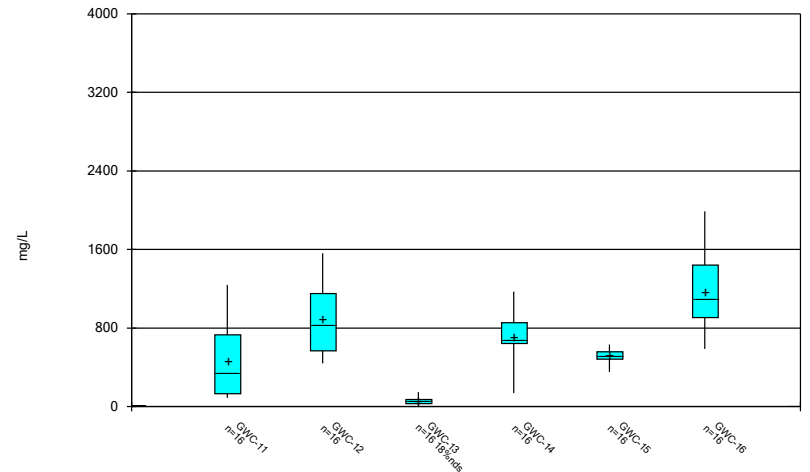
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### Box & Whiskers Plot



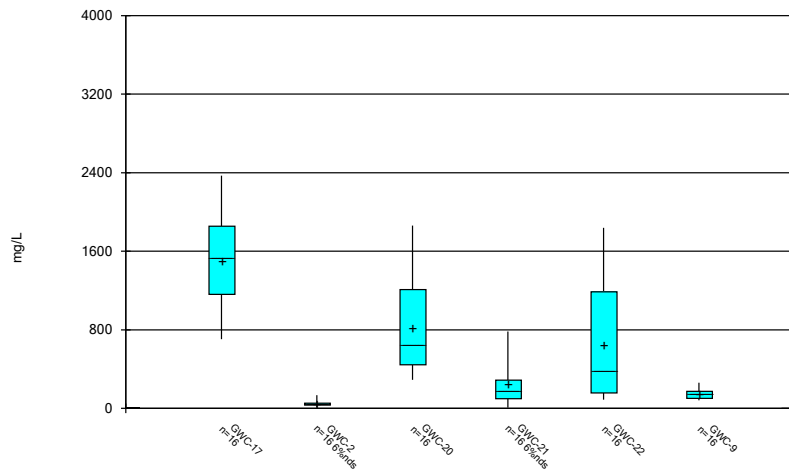
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### Box & Whiskers Plot



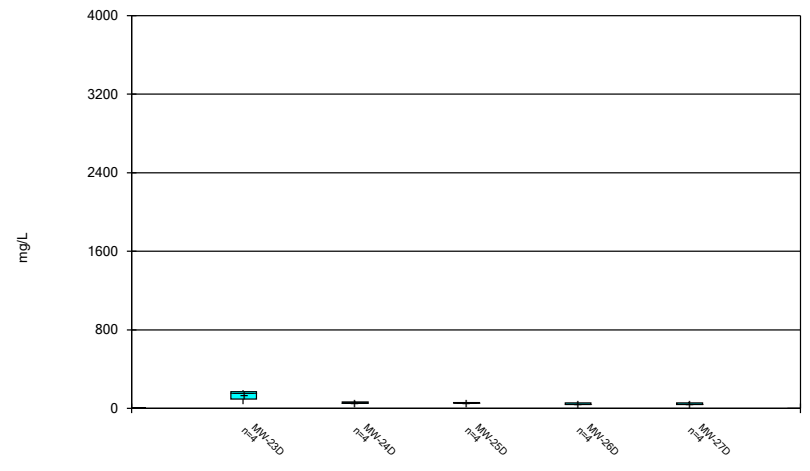
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### Box & Whiskers Plot



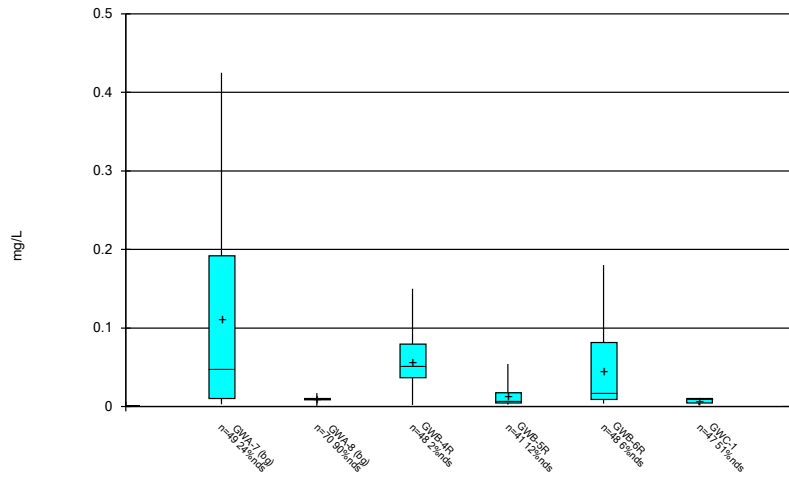
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### Box & Whiskers Plot



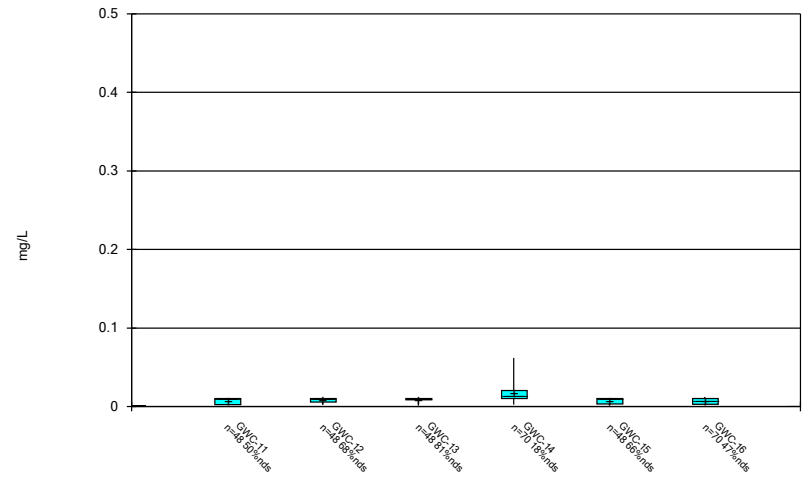
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### Box & Whiskers Plot



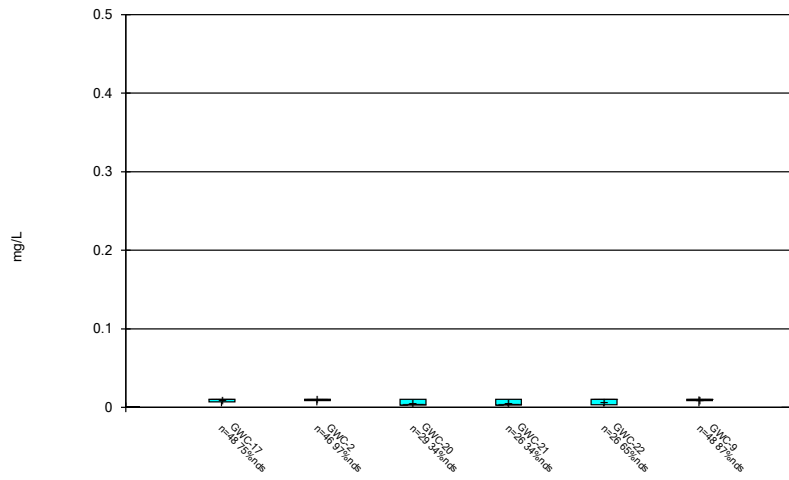
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### Box & Whiskers Plot



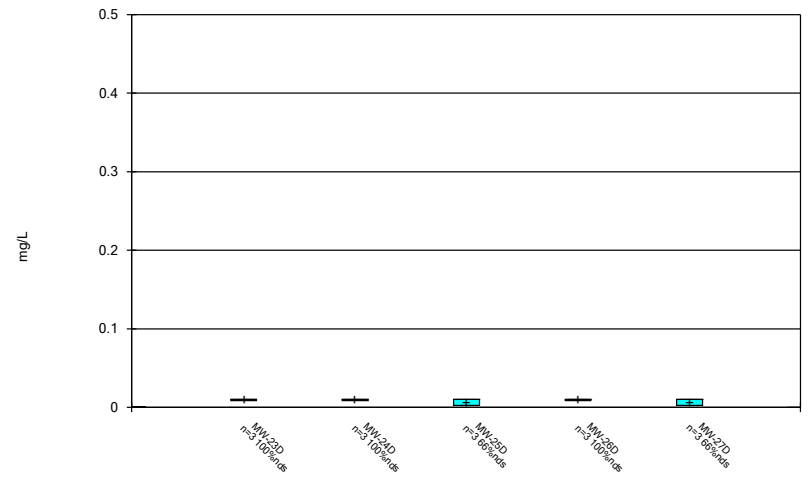
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### Box & Whiskers Plot



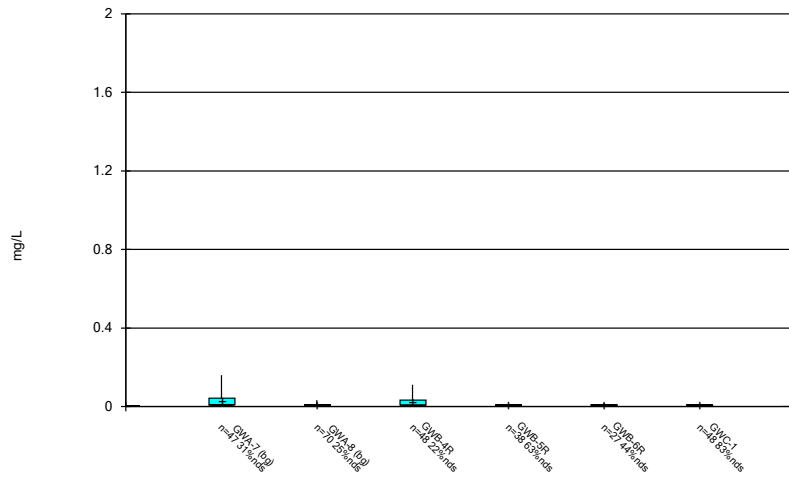
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### Box & Whiskers Plot



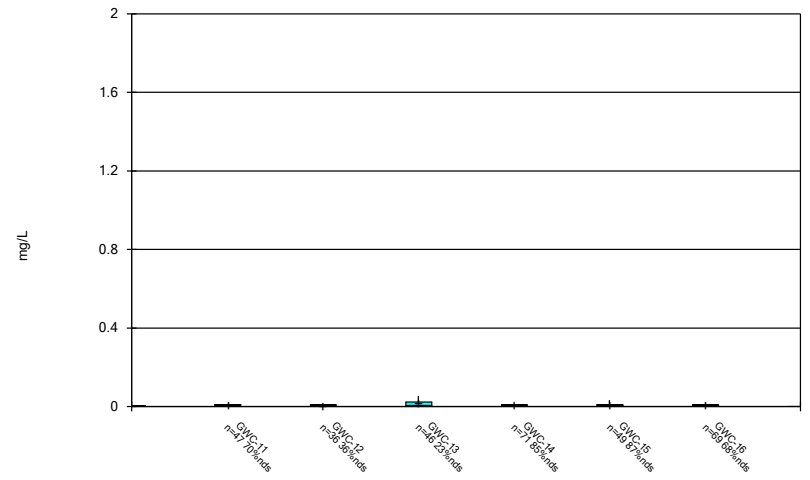
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### Box & Whiskers Plot



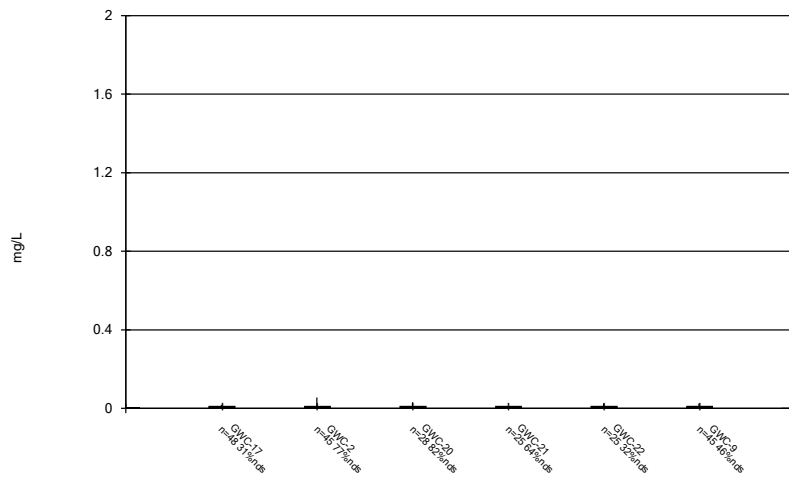
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### Box & Whiskers Plot



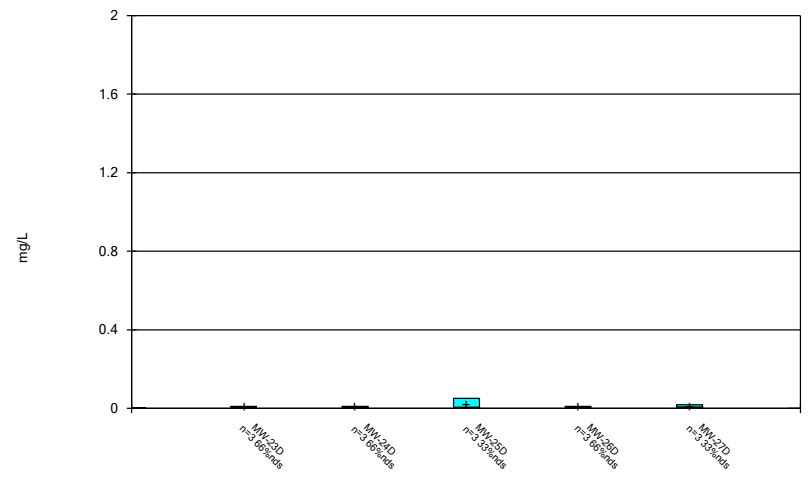
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### Box & Whiskers Plot



Constituent: Zinc Analysis Run 4/13/2022 1:57 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Box & Whiskers Plot



Constituent: Zinc Analysis Run 4/13/2022 1:57 PM  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

FIGURE C.















FIGURE D.

# Appendix I Interwell Prediction Limits - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:07 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Arsenic (mg/L)	GWC-15	0.0287	n/a	2/3/2022	0.23	Yes	125	n/a	n/a	n/a	77.6	n/a	n/a	0.0001254 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-16	0.0287	n/a	2/1/2022	0.095	Yes	125	n/a	n/a	n/a	77.6	n/a	n/a	0.0001254 NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-20	0.0287	n/a	2/1/2022	0.22	Yes	125	n/a	n/a	n/a	77.6	n/a	n/a	0.0001254 NP Inter (NDs) 1 of 2
Barium (mg/L)	GWC-16	0.22	n/a	2/1/2022	0.23	Yes	123	n/a	n/a	n/a	0	n/a	n/a	0.0001289 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-20	0.22	n/a	2/1/2022	0.36	Yes	123	n/a	n/a	n/a	0	n/a	n/a	0.0001289 NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-21	0.22	n/a	2/1/2022	0.24	Yes	123	n/a	n/a	n/a	0	n/a	n/a	0.0001289 NP Inter (normality) 1 of 2

# Appendix I Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:07 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig. Bg	NBq Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GWB-4R	0.003	n/a	2/2/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWB-5R	0.003	n/a	2/3/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWB-6R	0.003	n/a	2/2/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-1	0.003	n/a	2/3/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-11	0.003	n/a	2/3/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-12	0.003	n/a	2/3/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-13	0.003	n/a	2/3/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-14	0.003	n/a	2/2/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-15	0.003	n/a	2/3/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-16	0.003	n/a	2/1/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-17	0.003	n/a	2/1/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-2	0.003	n/a	2/2/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-20	0.003	n/a	2/1/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-21	0.003	n/a	2/1/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-22	0.003	n/a	2/3/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Antimony (mg/L)	GWC-9	0.003	n/a	2/2/2022	0.003ND	No	125 n/a	n/a	95.2	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-4R	0.0287	n/a	2/2/2022	0.0036J	No	125 n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-5R	0.0287	n/a	2/3/2022	0.0029J	No	125 n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWB-6R	0.0287	n/a	2/2/2022	0.01	No	125 n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-1	0.0287	n/a	2/3/2022	0.0057	No	125 n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-12	0.0287	n/a	2/3/2022	0.0016J	No	125 n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-13	0.0287	n/a	2/3/2022	0.0025J	No	125 n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-14	0.0287	n/a	2/2/2022	0.0036J	No	125 n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.0287</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>0.23</b>	<b>Yes</b>	<b>125 n/a</b>	<b>n/a</b>	<b>77.6</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001254</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Arsenic (mg/L)</b>	<b>GWC-16</b>	<b>0.0287</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>0.095</b>	<b>Yes</b>	<b>125 n/a</b>	<b>n/a</b>	<b>77.6</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001254</b>	<b>NP Inter (NDs) 1 of 2</b>
Arsenic (mg/L)	GWC-17	0.0287	n/a	2/1/2022	0.005ND	No	125 n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-2	0.0287	n/a	2/2/2022	0.005ND	No	125 n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
<b>Arsenic (mg/L)</b>	<b>GWC-20</b>	<b>0.0287</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>0.22</b>	<b>Yes</b>	<b>125 n/a</b>	<b>n/a</b>	<b>77.6</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001254</b>	<b>NP Inter (NDs) 1 of 2</b>
Arsenic (mg/L)	GWC-21	0.0287	n/a	2/1/2022	0.02	No	125 n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-22	0.0287	n/a	2/3/2022	0.005ND	No	125 n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Arsenic (mg/L)	GWC-9	0.0287	n/a	2/2/2022	0.005ND	No	125 n/a	n/a	77.6	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Barium (mg/L)	GWB-4R	0.22	n/a	2/2/2022	0.17	No	123 n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWB-5R	0.22	n/a	2/3/2022	0.062	No	123 n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWB-6R	0.22	n/a	2/2/2022	0.026	No	123 n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-1	0.22	n/a	2/3/2022	0.051	No	123 n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-11	0.22	n/a	2/3/2022	0.17	No	123 n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-12	0.22	n/a	2/3/2022	0.025	No	123 n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-13	0.22	n/a	2/3/2022	0.038	No	123 n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-14	0.22	n/a	2/2/2022	0.1	No	123 n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-15	0.22	n/a	2/3/2022	0.061	No	123 n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
<b>Barium (mg/L)</b>	<b>GWC-16</b>	<b>0.22</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>0.23</b>	<b>Yes</b>	<b>123 n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001289</b>	<b>NP Inter (normality) 1 of 2</b>
Barium (mg/L)	GWC-17	0.22	n/a	2/1/2022	0.055	No	123 n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-2	0.22	n/a	2/2/2022	0.052	No	123 n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
<b>Barium (mg/L)</b>	<b>GWC-20</b>	<b>0.22</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>0.36</b>	<b>Yes</b>	<b>123 n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001289</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Barium (mg/L)</b>	<b>GWC-21</b>	<b>0.22</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>0.24</b>	<b>Yes</b>	<b>123 n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0001289</b>	<b>NP Inter (normality) 1 of 2</b>
Barium (mg/L)	GWC-22	0.22	n/a	2/3/2022	0.038	No	123 n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Barium (mg/L)	GWC-9	0.22	n/a	2/2/2022	0.15	No	123 n/a	n/a	0	n/a	n/a	0.0001289	NP Inter (normality) 1 of 2
Chromium (mg/L)	GWB-4R	0.068	n/a	2/2/2022	0.003J	No	124 n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWB-5R	0.068	n/a	2/3/2022	0.0014J	No	124 n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWB-6R	0.068	n/a	2/2/2022	0.0033J	No	124 n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-1	0.068	n/a	2/3/2022	0.0019J	No	124 n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-11	0.068	n/a	2/3/2022	0.0011J	No	124 n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-12	0.068	n/a	2/3/2022	0.0018J	No	124 n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-13	0.068	n/a	2/3/2022	0.005ND	No	124 n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-14	0.068	n/a	2/2/2022	0.005ND	No	124 n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2



# Appendix I Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:07 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chromium (mg/L)	GWC-15	0.068	n/a	2/3/2022	0.0016J	No	124	n/a	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-16	0.068	n/a	2/1/2022	0.005ND	No	124	n/a	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-17	0.068	n/a	2/1/2022	0.0014J	No	124	n/a	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-2	0.068	n/a	2/2/2022	0.005ND	No	124	n/a	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-20	0.068	n/a	2/1/2022	0.0036J	No	124	n/a	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-21	0.068	n/a	2/1/2022	0.005ND	No	124	n/a	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-22	0.068	n/a	2/3/2022	0.005ND	No	124	n/a	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Chromium (mg/L)	GWC-9	0.068	n/a	2/2/2022	0.0012J	No	124	n/a	n/a	n/a	62.1	n/a	n/a	0.0001271	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-4R	0.013	n/a	2/2/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-5R	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWB-6R	0.013	n/a	2/2/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-1	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-11	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-12	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-13	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-14	0.013	n/a	2/2/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-15	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-16	0.013	n/a	2/1/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-17	0.013	n/a	2/1/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-2	0.013	n/a	2/2/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-20	0.013	n/a	2/1/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-21	0.013	n/a	2/1/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-22	0.013	n/a	2/3/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Lead (mg/L)	GWC-9	0.013	n/a	2/2/2022	0.001ND	No	121	n/a	n/a	n/a	76.03	n/a	n/a	0.0001324	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-4R	0.0438	n/a	2/2/2022	0.005ND	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-5R	0.0438	n/a	2/3/2022	0.005ND	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWB-6R	0.0438	n/a	2/2/2022	0.0017J	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-1	0.0438	n/a	2/3/2022	0.0022J	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-11	0.0438	n/a	2/3/2022	0.019	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-12	0.0438	n/a	2/3/2022	0.005ND	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-14	0.0438	n/a	2/2/2022	0.0038J	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-15	0.0438	n/a	2/3/2022	0.0031J	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-16	0.0438	n/a	2/1/2022	0.0024J	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-17	0.0438	n/a	2/1/2022	0.005ND	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-2	0.0438	n/a	2/2/2022	0.005ND	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-20	0.0438	n/a	2/1/2022	0.005ND	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-21	0.0438	n/a	2/1/2022	0.0054	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-22	0.0438	n/a	2/3/2022	0.005ND	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Selenium (mg/L)	GWC-9	0.0438	n/a	2/2/2022	0.005ND	No	125	n/a	n/a	n/a	84	n/a	n/a	0.0001254	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-4R	0.425	n/a	2/2/2022	0.0031J	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-5R	0.425	n/a	2/3/2022	0.0046J	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWB-6R	0.425	n/a	2/2/2022	0.0099J	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-1	0.425	n/a	2/3/2022	0.0028J	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-11	0.425	n/a	2/3/2022	0.0031J	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-12	0.425	n/a	2/3/2022	0.0052J	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-13	0.425	n/a	2/3/2022	0.01ND	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-14	0.425	n/a	2/2/2022	0.004J	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-15	0.425	n/a	2/3/2022	0.0023J	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-16	0.425	n/a	2/1/2022	0.0021J	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-17	0.425	n/a	2/1/2022	0.0022J	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-2	0.425	n/a	2/2/2022	0.01ND	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-20	0.425	n/a	2/1/2022	0.0039J	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-21	0.425	n/a	2/1/2022	0.0036J	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-22	0.425	n/a	2/3/2022	0.01ND	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2
Vanadium (mg/L)	GWC-9	0.425	n/a	2/2/2022	0.01ND	No	119	n/a	n/a	n/a	63.03	n/a	n/a	0.000137	NP Inter (NDs) 1 of 2

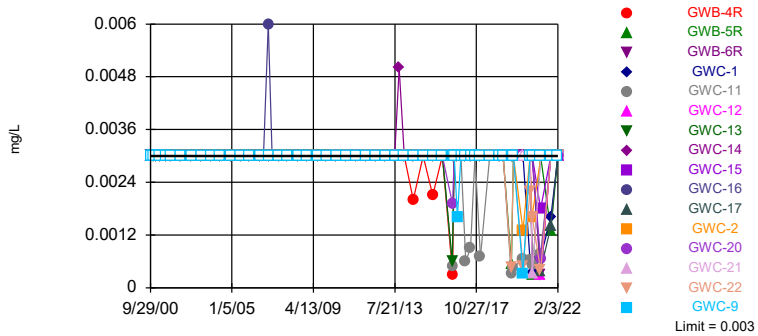
# Appendix I Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:07 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Zinc (mg/L)	GWB-4R	0.16	n/a	2/2/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWB-5R	0.16	n/a	2/3/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWB-6R	0.16	n/a	2/2/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-1	0.16	n/a	2/3/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-11	0.16	n/a	2/3/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-12	0.16	n/a	2/3/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-13	0.16	n/a	2/3/2022	0.037	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-14	0.16	n/a	2/2/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-15	0.16	n/a	2/3/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-16	0.16	n/a	2/1/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-17	0.16	n/a	2/1/2022	0.011	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-2	0.16	n/a	2/2/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-20	0.16	n/a	2/1/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-21	0.16	n/a	2/1/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-22	0.16	n/a	2/3/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2
Zinc (mg/L)	GWC-9	0.16	n/a	2/2/2022	0.01ND	No	117	n/a	n/a	n/a	28.21	n/a	n/a	0.0001427	NP Inter (normality) 1 of 2

Within Limit

Prediction Limit  
Interwell Non-parametric

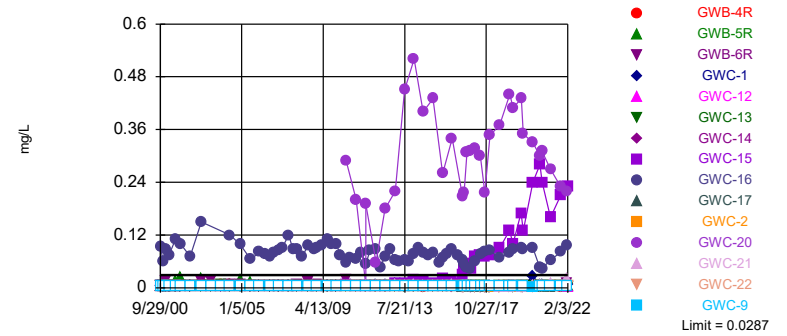


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 125 background values. 95.2% NDs. Annual per-constituent alpha = 0.004005. Individual comparison alpha = 0.0001254 (1 of 2). Comparing 16 points to limit.

Constituent: Antimony Analysis Run 4/13/2022 2:04 PM View: Appendix I  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWC-15, GWC-16, GWC-20

Prediction Limit  
Interwell Non-parametric

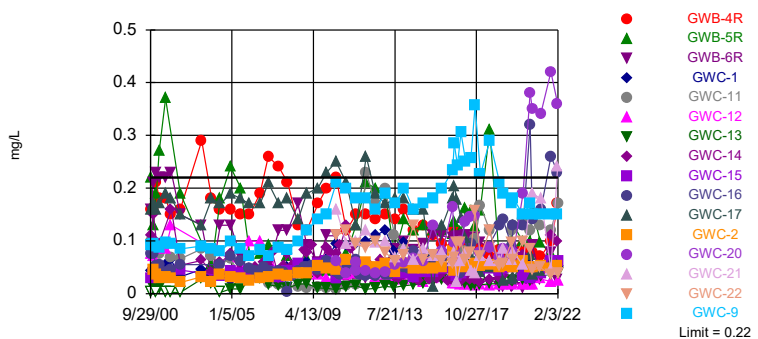


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 125 background values. 77.6% NDs. Annual per-constituent alpha = 0.004005. Individual comparison alpha = 0.0001254 (1 of 2). Comparing 15 points to limit. Assumes 1 future value.

Constituent: Arsenic Analysis Run 4/13/2022 2:04 PM View: Appendix I  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWC-16, GWC-20, GWC-21

Prediction Limit  
Interwell Non-parametric

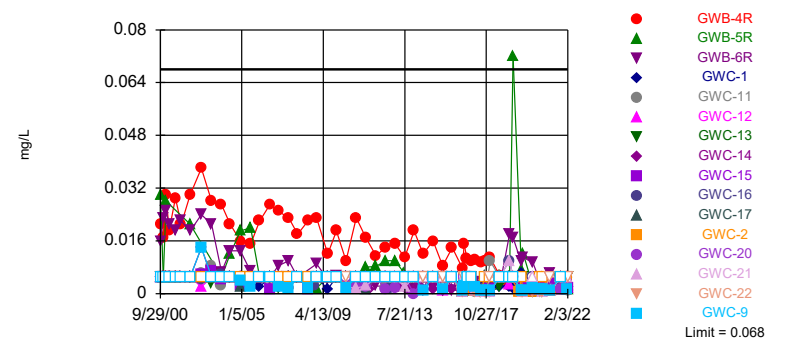


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 123 background values. Annual per-constituent alpha = 0.004116. Individual comparison alpha = 0.0001289 (1 of 2). Comparing 16 points to limit.

Constituent: Barium Analysis Run 4/13/2022 2:04 PM View: Appendix I  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit  
Interwell Non-parametric

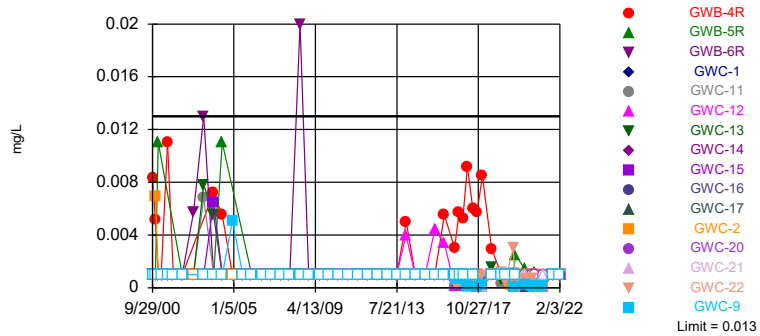


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 124 background values. 62.1% NDs. Annual per-constituent alpha = 0.00406. Individual comparison alpha = 0.0001271 (1 of 2). Comparing 16 points to limit.

Constituent: Chromium Analysis Run 4/13/2022 2:04 PM View: Appendix I  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit  
Interwell Non-parametric

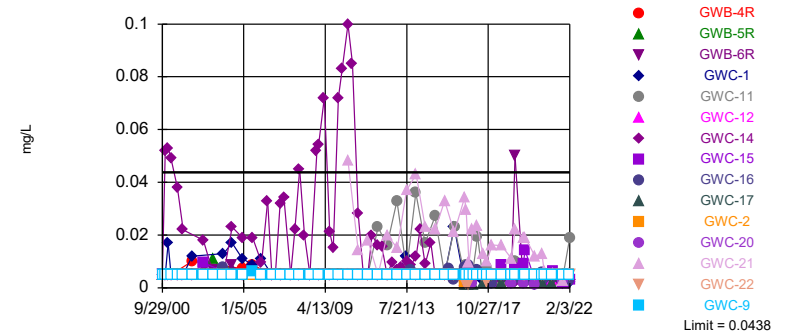


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 121 background values. 76.03% NDs. Annual per-constituent alpha = 0.004228. Individual comparison alpha = 0.0001324 (1 of 2). Comparing 16 points to limit.

Constituent: Lead Analysis Run 4/13/2022 2:04 PM View: Appendix I  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit  
Interwell Non-parametric

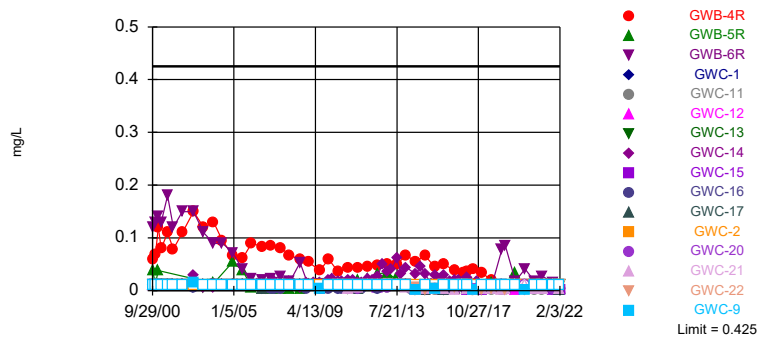


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 125 background values. 84% NDs. Annual per-constituent alpha = 0.004005. Individual comparison alpha = 0.0001254 (1 of 2). Comparing 15 points to limit. Assumes 1 future value.

Constituent: Selenium Analysis Run 4/13/2022 2:04 PM View: Appendix I  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit  
Interwell Non-parametric

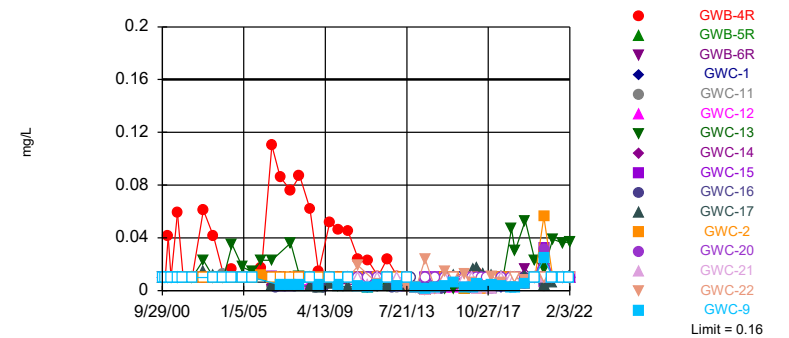


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 119 background values. 63.03% NDs. Annual per-constituent alpha = 0.004375. Individual comparison alpha = 0.000137 (1 of 2). Comparing 16 points to limit.

Constituent: Vanadium Analysis Run 4/13/2022 2:04 PM View: Appendix I  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 117 background values. 28.21% NDs. Annual per-constituent alpha = 0.004557. Individual comparison alpha = 0.0001427 (1 of 2). Comparing 16 points to limit.

Constituent: Zinc Analysis Run 4/13/2022 2:04 PM View: Appendix I  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-4R	GWC-15	GWB-5R	GWC-11	GWC-13	GWC-17	GWC-12	GWA-8 (bg)
9/29/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/21/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/20/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/14/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
7/16/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/1/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/25/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
11/20/2002		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/6/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
5/26/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/7/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
6/21/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
12/12/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
4/4/2006									<0.003
6/27/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
8/30/2006									<0.003
12/4/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
2/15/2007									<0.003
6/23/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
9/11/2007									<0.003
12/11/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/11/2008									<0.003
6/23/2008	<0.003				<0.003	<0.003		<0.003	<0.003
6/24/2008		<0.003	<0.003	<0.003			<0.003		
11/3/2008									<0.003
12/4/2008	<0.003				<0.003	<0.003		<0.003	<0.003
12/5/2008		<0.003	<0.003	<0.003			<0.003		
3/25/2009									<0.003
7/7/2009	<0.003	<0.003		<0.003					<0.003
7/8/2009			<0.003		<0.003	<0.003	<0.003	<0.003	
9/14/2009									<0.003
12/20/2009	<0.003		<0.003						<0.003
12/21/2009		<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	
3/4/2010									<0.003
6/20/2010	<0.003		<0.003	<0.003	<0.003	<0.003		<0.003	<0.003
6/21/2010		<0.003					<0.003		
9/14/2010									<0.003
1/6/2011				<0.003	<0.003	<0.003			
1/7/2011	<0.003	<0.003	<0.003				<0.003	<0.003	<0.003
4/15/2011									<0.003
7/7/2011	<0.003		<0.003	<0.003	<0.003	<0.003		<0.003	<0.003
7/8/2011		<0.003					<0.003		
9/25/2011									<0.003
1/17/2012	<0.003		<0.003	<0.003	<0.003	<0.003		<0.003	<0.003
1/18/2012		<0.003					<0.003		
4/4/2012									<0.003
7/9/2012	<0.003		<0.003	<0.003	<0.003	<0.003		<0.003	
7/10/2012		<0.003					<0.003		<0.003
10/9/2012									<0.003
1/17/2013				<0.003	<0.003	<0.003		<0.003	
1/18/2013	<0.003	<0.003	<0.003				<0.003		<0.003

# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-4R	GWC-15	GWB-5R	GWC-11	GWC-13	GWC-17	GWC-12	GWA-8 (bg)
4/5/2013									<0.003
7/16/2013				<0.003	<0.003	<0.003		<0.003	
7/17/2013	<0.003	<0.003	<0.003				<0.003		<0.003
10/11/2013									<0.003
1/13/2014	<0.003		<0.003	<0.003	<0.003	<0.003		<0.003	
1/14/2014		<0.003					<0.003		<0.003
4/3/2014									<0.003
7/8/2014					<0.003	<0.003		<0.003	
7/9/2014	0.0022 (J)	0.002 (J)	<0.003	<0.003			<0.003		<0.003
7/10/2014									
10/24/2014									<0.003
1/12/2015		<0.003							
1/13/2015	<0.003		<0.003	<0.003	<0.003	<0.003		<0.003	
1/14/2015							<0.003		<0.003
5/10/2015									<0.003
5/11/2015									
7/16/2015	0.0028 (J)	0.0021 (J)	<0.003	<0.003	<0.003	<0.003		<0.003	
7/17/2015									<0.003
7/18/2015							<0.003		
10/6/2015									<0.003
1/17/2016			<0.003						
1/18/2016	<0.003	<0.003		<0.003		<0.003	<0.003	<0.003	<0.003
1/19/2016					<0.003				
4/26/2016									<0.003
7/26/2016					0.0005 (J)	0.0006 (J)			
7/27/2016	<0.003		<0.003	<0.003				<0.003	
7/28/2016									<0.003
7/29/2016		0.0003 (J)					<0.003		
8/30/2016				<0.003					<0.003
8/31/2016					<0.003	<0.003		<0.003	
9/1/2016	0.0017 (J)	<0.003	<0.003				<0.003		
10/24/2016									<0.003
10/25/2016	<0.003		<0.003						
10/26/2016		<0.003		<0.003	<0.003	<0.003	<0.003	<0.003	
10/27/2016									
1/3/2017				<0.003					<0.003
1/4/2017					<0.003			<0.003	
1/5/2017			<0.003			<0.003	<0.003		
1/6/2017	0.0009 (J)	<0.003							
4/3/2017			<0.003						<0.003
4/4/2017		<0.003							
4/5/2017							<0.003	<0.003	
4/6/2017	<0.003			<0.003	0.0006 (J)	<0.003			
7/10/2017								<0.003	
7/11/2017			<0.003		0.0009 (J)				<0.003
7/12/2017		<0.003		<0.003		<0.003			
7/13/2017	0.0013 (J)						<0.003		
10/2/2017			<0.003						<0.003
10/3/2017				<0.003	<0.003				
10/4/2017	0.0008 (J)	<0.003				<0.003	<0.003	<0.003	
1/9/2018	<0.003		<0.003						<0.003
1/10/2018				<0.003		<0.003			

# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-4R	GWC-15	GWB-5R	GWC-11	GWC-13	GWC-17	GWC-12	GWA-8 (bg)
1/11/2018		<0.003			0.0007 (J)		<0.003	<0.003	
7/9/2018									<0.003
7/10/2018			<0.003	<0.003					
7/11/2018	<0.003	<0.003			<0.003	<0.003	<0.003	<0.003	
1/16/2019	<0.003	<0.003		<0.003		<0.003	<0.003		<0.003
1/17/2019			<0.003		<0.003			<0.003	
1/18/2019									
1/21/2019									
3/25/2019	<0.003	<0.003							<0.003
3/26/2019			<0.003	<0.003		<0.003	<0.003		
3/27/2019					<0.003			<0.003	
7/30/2019									
8/26/2019	<0.003								<0.003
8/27/2019		<0.003	<0.003		0.00033 (J)	<0.003		<0.003	
8/28/2019				0.00054 (J)			<0.003		
10/7/2019									<0.003
10/8/2019	<0.003		<0.003		0.00046 (J)	<0.003			
10/9/2019		<0.003		<0.003			<0.003	<0.003	
4/6/2020	<0.003								<0.003
4/7/2020		<0.003	<0.003	<0.003	0.00066 (J)			<0.003	
4/8/2020						<0.003	<0.003		
8/17/2020						<0.003		<0.003	<0.003
8/18/2020			<0.003		0.00064 (J)		<0.003		
8/19/2020	<0.003	<0.003		<0.003					
9/28/2020	<0.003					<0.003			<0.003
9/29/2020					0.00051 (J)			<0.003	
9/30/2020			<0.003	0.0003 (J)			<0.003		
10/1/2020		<0.003							
3/10/2021		<0.003		<0.003	0.00076 (J)			0.0003 (J)	
3/11/2021	<0.003						0.00039 (J)		
3/12/2021			0.0018 (J)						<0.003
3/15/2021						<0.003			
3/16/2021									
9/21/2021	<0.003	<0.003		0.0013 (J)	<0.003	<0.003		<0.003	<0.003
9/22/2021							0.0014 (J)		
9/23/2021			<0.003						
1/31/2022	<0.003								<0.003
2/1/2022							<0.003		
2/2/2022		<0.003							
2/3/2022			<0.003	<0.003	<0.003	<0.003		<0.003	

# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWB-6R	GWC-14	GWC-16	GWC-1	GWC-2	GWC-20	GWC-22	GWC-21
9/29/2000	<0.003	<0.003	<0.003	<0.003	<0.003				
11/21/2000	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
1/20/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
3/14/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
7/16/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
11/1/2001	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
4/25/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
11/20/2002	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
6/6/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
12/12/2003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
5/26/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
12/7/2004	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
6/21/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
12/12/2005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
4/4/2006			<0.003	<0.003					
6/27/2006	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
8/30/2006			<0.003	<0.003					
12/4/2006	<0.003	<0.003	<0.003	0.006	<0.003	<0.003			
2/15/2007			<0.003	<0.003					
6/23/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
9/11/2007			<0.003	<0.003					
12/11/2007	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
3/11/2008			<0.003	<0.003					
6/23/2008	<0.003								
6/24/2008		<0.003	<0.003	<0.003	<0.003	<0.003			
11/3/2008			<0.003	<0.003					
12/4/2008	<0.003		<0.003				<0.003		
12/5/2008		<0.003		<0.003	<0.003				
3/25/2009			<0.003	<0.003					
7/7/2009		<0.003			<0.003				
7/8/2009	<0.003		<0.003	<0.003		<0.003			
9/14/2009			<0.003	<0.003					
12/20/2009			<0.003	<0.003	<0.003	<0.003			
12/21/2009	<0.003	<0.003							
3/4/2010			<0.003	<0.003					
6/20/2010	<0.003	<0.003	<0.003		<0.003	<0.003			
6/21/2010				<0.003			<0.003	<0.003	<0.003
9/14/2010			<0.003	<0.003					
1/6/2011					<0.003	<0.003			
1/7/2011	<0.003	<0.003	<0.003	<0.003			<0.003	<0.003	<0.003
4/15/2011			<0.003	<0.003					
7/7/2011		<0.003	<0.003	<0.003	<0.003		<0.003		
7/8/2011	<0.003						<0.003	<0.003	<0.003
9/25/2011			<0.003	<0.003					
1/17/2012			<0.003		<0.003	<0.003			
1/18/2012	<0.003	<0.003		<0.003			<0.003	<0.003	<0.003
4/4/2012			<0.003	<0.003					
7/9/2012			<0.003		<0.003	<0.003			
7/10/2012	<0.003	<0.003		<0.003			<0.003	<0.003	<0.003
10/9/2012			<0.003	<0.003					
1/17/2013					<0.003	<0.003			
1/18/2013	<0.003	<0.003	<0.003	<0.003			<0.003	<0.003	<0.003



# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWB-6R	GWC-14	GWC-16	GWC-1	GWC-2	GWC-20	GWC-22	GWC-21
4/5/2013			<0.003	<0.003					
7/16/2013					<0.003				
7/17/2013	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	<0.003
10/11/2013			0.005	<0.003					
1/13/2014					<0.003	<0.003			
1/14/2014	<0.003	<0.003	<0.003	<0.003			<0.003	<0.003	<0.003
4/3/2014			<0.003	<0.003					
7/8/2014									
7/9/2014	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			<0.003
7/10/2014							<0.003	<0.003	
10/24/2014			<0.003	<0.003					
1/12/2015							<0.003		
1/13/2015					<0.003	<0.003			
1/14/2015	<0.003	<0.003	<0.003	<0.003				<0.003	<0.003
5/10/2015			<0.003						
5/11/2015				<0.003					
7/16/2015				<0.003	<0.003	<0.003			
7/17/2015	<0.003	<0.003	<0.003						<0.003
7/18/2015							<0.003	<0.003	
10/6/2015			<0.003	<0.003					
1/17/2016			<0.003	<0.003	<0.003	<0.003	<0.003		<0.003
1/18/2016	<0.003	<0.003						<0.003	
1/19/2016									
4/26/2016			<0.003	<0.003					
7/26/2016									
7/27/2016			<0.003		<0.003	<0.003			
7/28/2016	<0.003	<0.003		<0.003			0.0019 (J)		<0.003
7/29/2016								<0.003	
8/30/2016		<0.003			<0.003				
8/31/2016	<0.003					<0.003		<0.003	
9/1/2016			<0.003	<0.003			<0.003		<0.003
10/24/2016									
10/25/2016			<0.003	<0.003	<0.003		<0.003		<0.003
10/26/2016		<0.003				<0.003		<0.003	
10/27/2016	0.0016 (J)								
1/3/2017									
1/4/2017				<0.003	<0.003		<0.003	<0.003	<0.003
1/5/2017		<0.003	<0.003			<0.003			
1/6/2017	<0.003								
4/3/2017									
4/4/2017			<0.003		<0.003	<0.003	<0.003		<0.003
4/5/2017				<0.003					
4/6/2017	<0.003	<0.003						<0.003	
7/10/2017									
7/11/2017			<0.003				<0.003	<0.003	
7/12/2017	<0.003	<0.003		<0.003	<0.003				
7/13/2017						<0.003			<0.003
10/2/2017			<0.003				<0.003		
10/3/2017		<0.003		<0.003	<0.003	<0.003			<0.003
10/4/2017	<0.003							<0.003	
1/9/2018		<0.003	<0.003						<0.003
1/10/2018				<0.003	<0.003	<0.003	<0.003		

# Prediction Limit

Constituent: Antimony (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWB-6R	GWC-14	GWC-16	GWC-1	GWC-2	GWC-20	GWC-22	GWC-21
1/11/2018	<0.003							<0.003	
7/9/2018			<0.003				<0.003		
7/10/2018		<0.003		<0.003	<0.003	<0.003			<0.003
7/11/2018	<0.003							<0.003	
1/16/2019		<0.003	<0.003		<0.003				
1/17/2019				<0.003					<0.003
1/18/2019	<0.003							<0.003	
1/21/2019						<0.003	<0.003		
3/25/2019							<0.003		
3/26/2019		<0.003	<0.003	<0.003	<0.003				<0.003
3/27/2019	<0.003							<0.003	
7/30/2019						<0.003			
8/26/2019									
8/27/2019		<0.003	<0.003		<0.003	<0.003		0.00045 (J)	
8/28/2019	<0.003			<0.003			<0.003		<0.003
10/7/2019									
10/8/2019			<0.003	<0.003					<0.003
10/9/2019	<0.003	<0.003			<0.003	<0.003	<0.003	<0.003	
4/6/2020									
4/7/2020		<0.003	<0.003	<0.003	<0.003			0.00049 (J)	<0.003
4/8/2020	0.00033 (J)					0.0013 (J)	<0.003		
8/17/2020									
8/18/2020			<0.003	<0.003		<0.003	<0.003	0.0022 (J)	<0.003
8/19/2020	<0.003	<0.003			0.00061 (J)				
9/28/2020					0.00035 (J)				
9/29/2020			<0.003			0.0016 (J)			
9/30/2020		0.00059 (J)		<0.003			<0.003	0.0016 (J)	0.00033 (J)
10/1/2020	<0.003								
3/10/2021	<0.003	0.00029 (J)			0.00069 (J)			0.0004 (J)	
3/11/2021									
3/12/2021							0.00065 (J)		
3/15/2021						<0.003			
3/16/2021			<0.003	<0.003					<0.003
9/21/2021		<0.003						<0.003	
9/22/2021	<0.003		<0.003	<0.003		<0.003	<0.003		<0.003
9/23/2021					0.0016 (J)				
1/31/2022									
2/1/2022				<0.003			<0.003		<0.003
2/2/2022	<0.003	<0.003	<0.003			<0.003			
2/3/2022					<0.003			<0.003	

# Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWA-8 (bg)	GWB-6R	GWC-1	GWC-12	GWC-13	GWC-14	GWC-15
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/20/2001	<0.005	<0.005	<0.005	0.014	<0.005	<0.005	<0.005	<0.005	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/16/2001	<0.005	0.014	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/1/2001	<0.005	0.023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/20/2002		0.022	<0.005	0.014	<0.005	<0.005	<0.005	0.011	<0.005
6/6/2003	0.02	0.07 (O)	<0.005	0.014	0.03 (O)	<0.005	<0.005	<0.005	<0.005
12/12/2003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0064	<0.005	<0.005
5/26/2004	<0.005	0.0074	<0.005	0.0082	<0.005	<0.005	<0.005	<0.005	<0.005
12/7/2004	<0.005	0.017	<0.005	0.0062	<0.005	<0.005	<0.005	<0.005	<0.005
6/21/2005	<0.005	0.013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
12/12/2005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
4/4/2006			<0.005					<0.005	
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006			<0.005					<0.005	
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/15/2007			<0.005					<0.005	
6/23/2007	<0.005	<0.005	<0.005	0.0053	<0.005	<0.005	<0.005	<0.005	<0.005
9/11/2007			<0.005					<0.005	
12/11/2007	<0.005	<0.005	<0.005	0.0057	<0.005	<0.005	<0.005	<0.005	<0.005
3/11/2008			<0.005					<0.005	
6/23/2008	<0.005		<0.005			<0.005	<0.005		
6/24/2008		<0.005		0.012	<0.005			<0.005	<0.005
11/3/2008			<0.005					<0.005	
12/4/2008	<0.005		<0.005			<0.005	<0.005	<0.005	
12/5/2008		<0.005		0.0064	<0.005				<0.005
3/25/2009			<0.005					<0.005	
7/7/2009	<0.005	<0.005	<0.005	<0.005	<0.005				
7/8/2009						<0.005	<0.005	<0.005	0.0052
9/14/2009			<0.005					<0.005	
12/20/2009	<0.005		<0.005		<0.005			<0.005	<0.005
12/21/2009		<0.005		<0.005		<0.005	<0.005		
3/4/2010			<0.005					<0.005	
6/20/2010	<0.005	<0.005	<0.005	0.017	<0.005	<0.005	<0.005	<0.005	0.0068
6/21/2010									
9/14/2010			<0.005					<0.005	
1/6/2011		<0.005			<0.005		<0.005		
1/7/2011	<0.005		<0.005	<0.005		<0.005		<0.005	<0.005
4/15/2011			<0.005					<0.005	
7/7/2011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/8/2011									
9/25/2011			<0.005					<0.005	
1/17/2012	<0.005	<0.005	<0.005		0.0071	<0.005	<0.005	<0.005	<0.005
1/18/2012				<0.005					
4/4/2012			<0.005					<0.005	
7/9/2012	0.0052	<0.005			0.0076	<0.005	<0.005	<0.005	<0.005
7/10/2012			<0.005	<0.005					
10/9/2012			<0.005					<0.005	
1/17/2013		<0.005			0.0086	<0.005	<0.005		
1/18/2013	0.0087		<0.005	<0.005				<0.005	0.0089

# Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWA-8 (bg)	GWB-6R	GWC-1	GWC-12	GWC-13	GWC-14	GWC-15
4/5/2013			<0.005					<0.005	
7/16/2013		<0.005			<0.005	<0.005	<0.005		
7/17/2013	0.0084		<0.005	<0.005				<0.005	0.011
10/11/2013			<0.005					0.005	
1/13/2014	0.009	<0.005			<0.005	<0.005	<0.005		0.017
1/14/2014			<0.005	<0.005				<0.005	
4/3/2014			<0.005					<0.005	
7/8/2014						<0.005	<0.005		
7/9/2014	0.008	<0.005	<0.005	<0.005	0.0022 (J)			<0.005	0.014
7/10/2014									
10/24/2014			<0.005					<0.005	
1/12/2015									
1/13/2015	0.0077	<0.005			<0.005	<0.005	<0.005		0.011
1/14/2015			<0.005	<0.005				<0.005	
5/10/2015			<0.005					<0.005	
5/11/2015									
7/16/2015	0.0077	<0.005			0.0037 (J)	<0.005	<0.005		0.02
7/17/2015			<0.005	<0.005				<0.005	
7/18/2015									
10/6/2015			<0.005					<0.005	
1/17/2016					0.024 (O)			0.002 (J)	0.014
1/18/2016	0.014	<0.005	<0.005	<0.005		<0.005	<0.005		
4/26/2016			0.0011 (J)					0.00183 (J)	
7/26/2016							<0.005		
7/27/2016	0.0111	0.0008 (J)			0.0046 (J)	<0.005		0.0021 (J)	0.0303
7/28/2016			<0.005	0.0009 (J)					
7/29/2016									
8/30/2016		<0.005	<0.005	<0.005	0.0023 (J)				
8/31/2016						<0.005	<0.005		
9/1/2016	0.0287							0.0024 (J)	0.0533
10/24/2016			<0.005						
10/25/2016	0.0069				0.0035 (J)			<0.005	0.0551
10/26/2016		<0.005		<0.005		<0.005	<0.005		
10/27/2016									
1/3/2017		<0.005	<0.005						
1/4/2017					0.0018 (J)	<0.005			
1/5/2017				0.0021 (J)			<0.005	0.0024 (J)	0.0437
1/6/2017	0.0097								
4/3/2017			0.0006 (J)						0.0713
4/4/2017					0.0015 (J)			0.003 (J)	
4/5/2017						0.0006 (J)			
4/6/2017	0.0104	0.0006 (J)		0.0011 (J)			<0.005		
7/10/2017						0.0008 (J)			
7/11/2017			0.0006 (J)					0.0019 (J)	0.0745
7/12/2017		0.0009 (J)		0.0014 (J)	0.0015 (J)		<0.005		
7/13/2017	0.0064								
10/2/2017			0.0006 (J)					0.0026 (J)	0.0723
10/3/2017		0.001 (J)		0.0014 (J)	0.0013 (J)				
10/4/2017	0.0078					0.0009 (J)	<0.005		
1/9/2018	0.0091 (J)		0.0009 (J)	0.0017 (J)				0.0021 (J)	0.0731
1/10/2018		0.0012 (J)			0.0023 (J)		0.0006 (J)		
1/11/2018						<0.005			

# Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWA-8 (bg)	GWB-6R	GWC-1	GWC-12	GWC-13	GWC-14	GWC-15
7/9/2018			<0.005					0.0019 (J)	
7/10/2018		0.0016 (J)		0.00063 (J)	0.0031 (J)				0.09
7/11/2018	<0.005					<0.005	<0.005		
1/16/2019	<0.005	0.0011 (J)	<0.005	<0.005	0.0023 (J)		<0.005	0.0016 (J)	
1/17/2019						<0.005			0.13
1/18/2019									
1/21/2019									
3/25/2019	0.0029 (J)		<0.005						
3/26/2019		0.0014 (J)		0.0029 (J)	0.0032 (J)		0.00058 (J)	0.0023 (J)	0.1
3/27/2019						<0.005			
7/30/2019									
8/26/2019	0.0041 (J)		<0.005						
8/27/2019				0.0035 (J)	0.0022 (J)	<0.005	<0.005	0.0017 (J)	0.17
8/28/2019		0.0023 (J)							
10/7/2019			<0.005						
10/8/2019	0.003 (J)						<0.005	0.0017 (J)	0.13
10/9/2019		0.0053 (J)		0.0018 (J)	0.0042 (J)	<0.005			
4/6/2020	<0.005		0.00045 (J)						
4/7/2020		0.0011 (J)		<0.005	0.027	<0.005		0.0018 (J)	0.24
4/8/2020							<0.005		
8/17/2020			<0.005			<0.005	<0.005		
8/18/2020								0.0012 (J)	0.28
8/19/2020	0.006 (J)	0.0019 (J)		0.0036 (J)	0.007				
9/28/2020	<0.005		<0.005		0.0058		<0.005		
9/29/2020						<0.005		<0.005	
9/30/2020		0.0017 (J)		0.004 (J)					0.24
10/1/2020									
3/10/2021		0.0019 (J)		0.0054	0.0055	<0.005			
3/11/2021	0.0047 (J)								
3/12/2021			<0.005						0.16
3/15/2021							<0.005		
3/16/2021								<0.005	
9/21/2021	<0.005	<0.005	<0.005	0.0054		<0.005	<0.005		
9/22/2021								0.0014 (J)	
9/23/2021					0.0048 (J)				0.21
1/31/2022	<0.005		<0.005						
2/1/2022									
2/2/2022				0.01				0.0036 (J)	
2/3/2022		0.0029 (J)			0.0057	0.0016 (J)	0.0025 (J)		0.23

# Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWB-4R	GWC-9	GWC-2	GWC-22	GWC-20	GWC-21
9/29/2000	0.094	<0.005	<0.005	<0.005				
11/21/2000	0.059	<0.005	<0.005	<0.005	<0.005			
1/20/2001	0.087	<0.005	0.01	<0.005	<0.005			
3/14/2001	0.075	<0.005	<0.005	<0.005	<0.005			
7/16/2001	0.11	<0.005	<0.005	<0.005	<0.005			
11/1/2001	0.098	<0.005	<0.005	<0.005	<0.005			
4/25/2002	0.071	<0.005	<0.005	<0.005	<0.005			
11/20/2002	0.15	<0.005	0.0096	<0.005	<0.005			
6/6/2003	1.2 (O)	<0.005	0.0076	<0.005	<0.005			
12/12/2003	0.27 (O)	<0.005	0.0058	<0.005	<0.005			
5/26/2004	0.12	<0.005	0.0068	<0.005	<0.005			
12/7/2004	0.098	<0.005	0.0066	<0.005	<0.005			
6/21/2005	0.065	<0.005	<0.005	<0.005	<0.005			
12/12/2005	0.081	<0.005	<0.005	<0.005	<0.005			
4/4/2006	0.077							
6/27/2006	0.071	<0.005	<0.005	<0.005	<0.005			
8/30/2006	0.08							
12/4/2006	0.085	<0.005	<0.005	<0.005	<0.005			
2/15/2007	0.09							
6/23/2007	0.12	<0.005	<0.005	<0.005	<0.005			
9/11/2007	0.088							
12/11/2007	0.088	<0.005	<0.005	<0.005	<0.005			
3/11/2008	0.071							
6/23/2008				<0.005				
6/24/2008	0.097	<0.005	0.005		<0.005			
11/3/2008	0.089							
12/4/2008				<0.005	<0.005			
12/5/2008	0.092	<0.005	<0.005					
3/25/2009	0.095							
7/7/2009			<0.005					
7/8/2009	0.11	<0.005		<0.005	<0.005			
9/14/2009	0.099							
12/20/2009	0.1				<0.005			
12/21/2009		<0.005	<0.005	<0.005				
3/4/2010	0.074							
6/20/2010				<0.005	<0.005			
6/21/2010	0.056	<0.005	0.018 (O)			<0.005	0.29	0.013 (O)
9/14/2010	0.067							
1/6/2011					<0.005			
1/7/2011	0.066	<0.005	<0.005	<0.005		<0.005	0.2	<0.005
4/15/2011	0.08							
7/7/2011	0.054						<0.005	
7/8/2011		<0.005	<0.005	<0.005		<0.005	0.19	<0.005
9/25/2011	0.085							
1/17/2012					<0.005			
1/18/2012	0.089	<0.005	<0.005	<0.005		<0.005	0.058	<0.005
4/4/2012	0.0473							
7/9/2012					<0.005			
7/10/2012	0.07	<0.005	0.0052	<0.005		<0.005	0.18	<0.005
10/9/2012	0.088							
1/17/2013					<0.005			
1/18/2013	0.063	<0.005	<0.005	<0.005		<0.005	0.22	0.0061

# Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWB-4R	GWC-9	GWC-2	GWC-22	GWC-20	GWC-21
4/5/2013	0.06							
7/16/2013								
7/17/2013	0.063	<0.005	<0.005	<0.005	<0.005	<0.005	0.45	<0.005
10/11/2013	0.059							
1/13/2014					<0.005			
1/14/2014	0.077	<0.005	<0.005	<0.005		<0.005	0.52	0.006
4/3/2014	0.091							
7/8/2014								
7/9/2014	0.08	<0.005	0.0023 (J)	<0.005	<0.005			<0.005
7/10/2014						0.0027 (J)	0.4	
10/24/2014	0.073							
1/12/2015			0.0028 (J)				0.43	
1/13/2015					<0.005			
1/14/2015	0.079	<0.005		<0.005		<0.005		<0.005
5/10/2015								
5/11/2015	0.058							
7/16/2015	0.068		<0.005		<0.005			
7/17/2015				<0.005				<0.005
7/18/2015		<0.005				<0.005	0.26	
10/6/2015	0.078							
1/17/2016	0.089				<0.005		0.34	0.0065
1/18/2016		<0.005	<0.005	<0.005		<0.005		
4/26/2016	0.0731							
7/26/2016								
7/27/2016					<0.005			
7/28/2016	0.0627			<0.005			0.209	<0.005
7/29/2016		0.0009 (J)	0.0014 (J)			0.002 (J)		
8/30/2016								
8/31/2016				<0.005	<0.005	0.0017 (J)		
9/1/2016	0.0551	<0.005	0.0033 (J)				0.215	0.0039 (J)
10/24/2016								
10/25/2016	0.0466						0.307	<0.005
10/26/2016		<0.005	0.0016 (J)		<0.005	<0.005		
10/27/2016				<0.005				
1/3/2017								
1/4/2017	0.0444					<0.005	0.311	<0.005
1/5/2017		<0.005			<0.005			
1/6/2017			<0.005	<0.005				
4/3/2017								
4/4/2017			0.0021 (J)		<0.005		0.317	0.0031 (J)
4/5/2017	0.0591	0.0011 (J)						
4/6/2017				<0.005		0.0006 (J)		
7/10/2017								
7/11/2017						0.0012 (J)	0.299	
7/12/2017	0.0776		0.0015 (J)	<0.005				
7/13/2017		0.0016 (J)			<0.005			<0.005
10/2/2017							0.216	
10/3/2017	0.0813				<0.005			<0.005
10/4/2017		0.0019 (J)	0.0018 (J)	<0.005		0.0025 (J)		
1/9/2018								0.0033 (J)
1/10/2018	0.085				0.0006 (J)		0.347	
1/11/2018		0.0015 (J)	0.0015 (J)	<0.005		0.0006 (J)		

# Prediction Limit

Constituent: Arsenic (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWB-4R	GWC-9	GWC-2	GWC-22	GWC-20	GWC-21
7/9/2018							0.37	
7/10/2018	0.067				<0.005			0.0027 (J)
7/11/2018		0.00082 (J)	0.00095 (J)	<0.005		0.0011 (J)		
1/16/2019		<0.005	0.0024 (J)					
1/17/2019	0.079							0.0022 (J)
1/18/2019				<0.005		<0.005		
1/21/2019					<0.005		0.44	
3/25/2019			0.0029 (J)				0.41	
3/26/2019	0.089	0.0015 (J)						0.0045 (J)
3/27/2019				<0.005		<0.005		
7/30/2019					0.00039 (J)			
8/26/2019								
8/27/2019			0.0023 (J)		<0.005	0.00044 (J)		
8/28/2019	0.091	0.0011 (J)		<0.005			0.43	0.002 (J)
10/7/2019								
10/8/2019	0.088							0.0028 (J)
10/9/2019		0.0011 (J)	0.0024 (J)	<0.005	<0.005	<0.005	0.35	
4/6/2020								
4/7/2020	0.091		0.0027 (J)			0.00043 (J)		<0.005
4/8/2020		0.0013 (J)		0.00084 (J)	0.00094 (J)		0.33	
8/17/2020								
8/18/2020	0.045	<0.005		<0.005	<0.005	<0.005	0.3	0.0059
8/19/2020			0.0033 (J)	<0.005				
9/28/2020								
9/29/2020					<0.005			
9/30/2020	0.044	0.0012 (J)				<0.005	0.31	0.0029 (J)
10/1/2020			0.0027 (J)	<0.005				
3/10/2021			0.0025 (J)	<0.005		<0.005		
3/11/2021		0.0009 (J)						
3/12/2021							0.27	
3/15/2021					<0.005			
3/16/2021	0.064							0.0098
9/21/2021			0.0027 (J)			<0.005		
9/22/2021	0.081	<0.005		<0.005	<0.005		0.23	<0.005
9/23/2021								
1/31/2022								
2/1/2022	0.095	<0.005					0.22	0.02
2/2/2022			0.0036 (J)	<0.005	<0.005			
2/3/2022						<0.005		



# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-11	GWC-17	GWC-1	GWC-16	GWC-13	GWB-6R	GWB-5R	GWB-4R
9/29/2000	0.11	0.1	0.16	0.044	0.076	<0.005	0.16	0.22	0.16
11/21/2000	0.12	0.082	0.17	0.047	0.075	0.01	0.21	0.13	0.16
1/20/2001	0.11	0.083	0.16	0.051	0.053	<0.005	0.23	0.19	0.21
3/14/2001	0.11	0.075	0.17	0.048	0.055	0.01	0.22	0.27	0.18
7/16/2001	0.11	0.091	0.19	0.054	0.041	<0.005	0.22	0.37	0.18
11/1/2001	0.11	0.068	0.18	0.063	0.045	<0.005	0.23	0.61 (O)	0.15
4/25/2002	0.058	0.066	0.15	0.032	0.055	<0.005	0.15	0.19	0.16
6/6/2003	0.19	0.085	0.13	0.046	0.48 (O)	0.028	0.13	0.72 (O)	0.29
12/12/2003	0.1	0.072	0.18	0.034	0.13 (O)	0.019	0.034	0.054	0.18
5/26/2004	0.084	0.055	0.17	0.035	0.055	<0.005	0.13	0.18	0.16
12/7/2004	0.094	0.066	0.19	0.024	0.072	0.009	0.13	0.24	0.16
6/21/2005	0.089	0.033	0.18	0.039	0.061	0.0089	0.07	0.2	0.15
12/12/2005	0.089	0.034	0.17	0.042	0.047	0.026	0.04	0.074	0.15
4/4/2006					0.042				
6/27/2006	0.096	0.029	0.17	0.033	0.042	0.029	0.041	0.075	0.19
8/30/2006					0.05				
12/4/2006	0.092	0.02	0.21	0.04	0.044	0.017	0.048	0.092	0.26
2/15/2007					0.041				
6/23/2007	0.08	0.017	0.17	0.044	0.044	0.014	0.12	0.089	0.24
9/11/2007					0.04				
12/11/2007	0.067	0.013	0.18	0.049	0.0035	0.011	0.12	0.072	0.21
3/11/2008					0.034				
6/23/2008	0.056	0.012				0.018			
6/24/2008			0.14	0.038	0.042		0.17	0.049	0.13
11/3/2008					0.049				
12/4/2008	0.054	0.011				0.019			
12/5/2008			0.19	0.06	0.05		0.093	0.067	0.12
3/25/2009					0.052				
7/7/2009	0.034			0.043			0.06	0.04	0.17
7/8/2009		0.012	0.2		0.046	0.011			
9/14/2009					0.048				
12/20/2009	0.034			0.065	0.062				
12/21/2009		0.011	0.23			0.01	0.11	0.044	0.2
3/4/2010					0.058				
6/20/2010	0.062	0.0089		0.095		0.0081	0.11	0.036	
6/21/2010			0.25		0.041				0.22
9/14/2010					0.036				
1/6/2011		0.014		0.093		0.012		0.075	
1/7/2011	0.039		0.21		0.054		0.025		0.12
4/15/2011					0.049				
7/7/2011	0.036	0.018		0.095	0.063	0.015	0.025	0.13	
7/8/2011			0.13						0.15
9/25/2011					0.037				
1/17/2012	0.041	0.23		0.1		0.0086		0.21	
1/18/2012			0.26		0.034		0.03		0.15
4/4/2012					0.0446				
7/9/2012	0.15	0.17		0.11		0.01		0.2	
7/10/2012			0.19		0.033		0.028		0.14
10/9/2012					0.041				
1/17/2013		0.2		0.12		0.014		0.19	
1/18/2013	0.15		0.17		0.036		0.058		0.15
4/5/2013					0.036				

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-11	GWC-17	GWC-1	GWC-16	GWC-13	GWB-6R	GWB-5R	GWB-4R
7/16/2013		0.11		0.081		0.012		0.076	
7/17/2013	0.13		0.18		0.054		0.086		0.14
10/11/2013					0.052				
1/13/2014	0.16	0.083		0.096		0.015		0.14	
1/14/2014			0.18		0.051		0.1		0.16
4/3/2014					0.047				
7/8/2014		0.066				0.017			
7/9/2014	0.11		0.16	0.066	0.08		0.082	0.12	0.12
7/10/2014									
10/24/2014					0.072				
1/12/2015									0.13
1/13/2015	0.083	0.053		0.068		0.019		0.13	
1/14/2015			0.16		0.047		0.094		
5/10/2015									
5/11/2015					0.053				
7/16/2015	0.094	0.052		0.07	0.059	0.022		0.12	0.11
7/17/2015							0.11		
7/18/2015			0.012						
10/6/2015					0.053				
1/17/2016				0.062	0.056				
1/18/2016	0.22		0.13			0.026	0.11	0.12	0.095
1/19/2016		0.048							
4/26/2016					0.0721				
7/26/2016		0.051				0.0236			
7/27/2016	0.192			0.0417				0.112	
7/28/2016					0.0534		0.105		
7/29/2016			0.181						0.0883
8/30/2016				0.0545			0.106	0.135	
8/31/2016		0.0565				0.0273			
9/1/2016	0.415 (O)		0.203		0.0445				0.123
10/24/2016									
10/25/2016	0.173			0.0504	0.0464				
10/26/2016		0.0591	0.177			0.0238	0.107	0.103	0.0863
10/27/2016									
1/3/2017								0.118	
1/4/2017		0.0598		0.0534	0.0379				
1/5/2017			0.142			0.0218	0.107		
1/6/2017	0.167								0.0758
4/3/2017									
4/4/2017				0.0549					0.091
4/5/2017			0.106		0.0534				
4/6/2017	0.136	0.0813				0.0204	0.111	0.162	
7/10/2017									
7/11/2017		0.0302							
7/12/2017				0.0614	0.0944	0.0161	0.106	0.157	0.0941
7/13/2017	0.0891		0.0686						
10/2/2017									
10/3/2017		0.103		0.0436	0.135 (O)		0.105	0.127	
10/4/2017	0.113		0.0589			0.0185			0.0994
1/9/2018	0.0901						0.0969		
1/10/2018				0.053	0.0603	0.0166		0.158	
1/11/2018		0.166	0.0412						0.088

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-11	GWC-17	GWC-1	GWC-16	GWC-13	GWB-6R	GWB-5R	GWB-4R
7/9/2018									
7/10/2018				0.059	0.16 (O)		0.087	0.31	
7/11/2018	0.065	0.12	0.049			0.019			0.071
1/16/2019	0.062		0.063	0.054		0.019	0.013 (J)	0.054	0.083
1/17/2019		0.039			0.13				
1/18/2019									
1/21/2019									
3/25/2019	0.054								0.077
3/26/2019			0.025	0.055	0.14	0.026	0.012 (J)	0.057	
3/27/2019		0.053							
7/30/2019									
8/26/2019	0.11								
8/27/2019		0.12		0.054		0.024	0.013		0.076
8/28/2019			0.026		0.09			0.1	
10/7/2019									
10/8/2019	0.1	0.13			0.13	0.024			
10/9/2019			0.032	0.058			0.014 (J)	0.13	0.076
4/6/2020	0.072								
4/7/2020		0.14		0.05	0.13		0.01 (J)	0.098	0.09
4/8/2020			0.055			0.027			
8/17/2020						0.024			
8/18/2020		0.12	0.074		0.32				
8/19/2020	0.1			0.057			0.064	0.1	0.076
9/28/2020	0.095			0.051		0.029			
9/29/2020		0.14							
9/30/2020			0.035		0.14		0.092	0.16	
10/1/2020									0.077
3/10/2021		0.13		0.052			0.027	0.096	0.07
3/11/2021	0.07		0.044						
3/12/2021									
3/15/2021						0.034			
3/16/2021					0.16				
9/21/2021	0.073	0.12				0.037	0.077	0.076	0.098
9/22/2021			0.058		0.26				
9/23/2021				0.062					
1/31/2022	0.1								
2/1/2022			0.055		0.23				
2/2/2022							0.026		0.17
2/3/2022		0.17		0.051		0.038		0.062	

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-15	GWC-14	GWC-9	GWA-8 (bg)	GWC-12	GWC-2	GWC-21	GWC-20	GWC-22
9/29/2000	0.028	0.11	0.093	0.16	0.075				
11/21/2000	0.035	0.15	0.095		0.072	0.046			
1/20/2001	0.032	0.1	0.089	0.18	0.086	0.036			
3/14/2001	0.036	0.095	0.088	0.14	0.088	0.03			
7/16/2001	0.036	0.28 (O)	0.096	0.14	0.084	0.032			
11/1/2001	0.036	0.16	0.094	0.14	0.13	0.029			
4/25/2002	0.045	0.054	0.085	0.088	0.24 (O)	0.021			
6/6/2003	0.083 (O)	0.063	0.09	0.14	0.28 (O)	0.032			
12/12/2003	0.094 (O)	0.041	0.084	0.13	0.27 (O)	0.021			
5/26/2004	0.034	0.059	0.08	0.09	0.31 (O)	0.035			
12/7/2004	0.042	0.076	0.098	0.11	0.46 (O)	0.031			
6/21/2005	0.039	0.042	0.084	0.084	0.053	0.028			
12/12/2005	0.043	0.048	0.07	0.1	0.1	0.024			
4/4/2006		0.05		0.089					
6/27/2006	0.031	0.036	0.083	0.1	0.098	0.03			
8/30/2006		0.059		0.12					
12/4/2006	0.043	0.062	0.072	0.086	0.068	0.031			
2/15/2007		0.079		0.088					
6/23/2007	0.031	0.03	0.087	0.089	0.042	0.037			
9/11/2007		0.053		0.092					
12/11/2007	0.044	0.075	0.082	0.077	0.04	0.034			
3/11/2008		0.052		0.082					
6/23/2008			0.1	0.086	0.041				
6/24/2008	0.057	0.039				0.038			
11/3/2008		0.082		0.088					
12/4/2008		0.079	0.12	0.081	0.035	0.038			
12/5/2008	0.041								
3/25/2009		0.093		0.069					
7/7/2009				0.078					
7/8/2009	0.058	0.039	0.14		0.036	0.053			
9/14/2009		0.061		0.079					
12/20/2009	0.062	0.088		0.081		0.047			
12/21/2009			0.15		0.028				
3/4/2010		0.077		0.065					
6/20/2010	0.03	0.075	0.21	0.078	0.025	0.046			
6/21/2010							0.16	0.062	0.11
9/14/2010		0.093		0.076					
1/6/2011						0.063			
1/7/2011	0.049	0.13	0.2	0.074	0.037		0.095	0.039	0.12
4/15/2011		0.086		0.065					
7/7/2011	0.05	0.051		0.081	0.039			0.06	
7/8/2011			0.18				0.1	0.043	0.094
9/25/2011		0.056		0.078					
1/17/2012	0.044	0.052		0.082	0.045	0.06			
1/18/2012			0.18				0.12	0.042	0.087
4/4/2012		0.0519		0.0861					
7/9/2012	0.045	0.048			0.032	0.05			
7/10/2012			0.16	0.082			0.097	0.039	0.1
10/9/2012		0.065		0.09					
1/17/2013					0.033	0.058			
1/18/2013	0.049	0.045	0.19	0.083			0.1	0.04	0.078
4/5/2013		0.047		0.078					

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-15	GWC-14	GWC-9	GWA-8 (bg)	GWC-12	GWC-2	GWC-21	GWC-20	GWC-22
7/16/2013					0.027				
7/17/2013	0.039	0.032	0.17	0.083		0.041	0.069	0.055	0.062
10/11/2013		0.028		0.078					
1/13/2014	0.038				0.027	0.058			
1/14/2014		0.036	0.2	0.081			0.086	0.059	0.073
4/3/2014		0.038		0.077					
7/8/2014					0.037				
7/9/2014	0.031	0.03	0.16	0.073		0.048	0.065		
7/10/2014								0.067	0.13
10/24/2014		0.025		0.087					
1/12/2015								0.061	
1/13/2015	0.041				0.023	0.048			
1/14/2015		0.04	0.17	0.079			0.084		0.065
5/10/2015		0.026		0.076					
5/11/2015									
7/16/2015	0.041				0.03	0.048			
7/17/2015		0.029	0.18	0.061			0.071		
7/18/2015								0.13	0.073
10/6/2015		0.03		0.067					
1/17/2016	0.048	0.038				0.049	0.079	0.08	
1/18/2016			0.2	0.068	0.032				0.062
1/19/2016									
4/26/2016		0.025		0.0596					
7/26/2016									
7/27/2016	0.0487	0.0248			0.0191	0.0796			
7/28/2016			0.234	0.0701			0.0626	0.164	
7/29/2016									0.0575
8/30/2016				0.0687					
8/31/2016			0.284		0.019	0.0429			0.0693
9/1/2016	0.0403	0.0346					0.077	0.0976	
10/24/2016				0.07					
10/25/2016	0.0329	0.0248					0.0217	0.0702	
10/26/2016					0.0197	0.113 (O)			0.0966
10/27/2016			0.244						
1/3/2017				0.061					
1/4/2017					0.0174		0.0617	0.0999	0.0975
1/5/2017	0.0392	0.0245				0.0526			
1/6/2017			0.305						
4/3/2017	0.0439			0.0612					
4/4/2017		0.0342				0.0503	0.0761	0.136	
4/5/2017					0.0174				
4/6/2017			0.249						0.064
7/10/2017					0.0172				
7/11/2017	0.051	0.0276		0.0624				0.145	0.0778
7/12/2017			0.256						
7/13/2017						0.0529	0.0428		
10/2/2017	0.047	0.0274		0.0618				0.148	
10/3/2017						0.057	0.0376		
10/4/2017			0.356		0.0162				0.156
1/9/2018	0.0431	0.0222		0.0574			0.0704		
1/10/2018						0.0527		0.0788	
1/11/2018			0.226		0.018				0.0702

# Prediction Limit

Constituent: Barium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-15	GWC-14	GWC-9	GWA-8 (bg)	GWC-12	GWC-2	GWC-21	GWC-20	GWC-22
7/9/2018		0.026		0.056				0.087	
7/10/2018	0.047					0.054	0.061		
7/11/2018			0.29		0.014				0.12
1/16/2019		0.028		0.062					
1/17/2019	0.042				0.017		0.061		
1/18/2019			0.21						0.052
1/21/2019						0.05		0.069	
3/25/2019				0.064				0.085	
3/26/2019	0.047	0.034					0.084		
3/27/2019			0.19		0.017				0.057
7/30/2019						0.052			
8/26/2019				0.065					
8/27/2019	0.049	0.067			0.017	0.053			0.097
8/28/2019			0.17				0.063	0.078	
10/7/2019				0.069					
10/8/2019	0.057	0.085					0.079		
10/9/2019			0.18		0.019	0.05		0.078	0.065
4/6/2020				0.057					
4/7/2020	0.033	0.073			0.017		0.054		0.1
4/8/2020			0.15			0.061		0.19	
8/17/2020				0.051	0.018				
8/18/2020	0.03	0.028				0.05	0.18	0.38	0.085
8/19/2020			0.17						
9/28/2020				0.05					
9/29/2020		0.026			0.018	0.049			
9/30/2020	0.034						0.19	0.35	0.045
10/1/2020			0.15						
3/10/2021			0.15		0.028				0.049
3/11/2021									
3/12/2021	0.038			0.052				0.34	
3/15/2021						0.053			
3/16/2021		0.037					0.18		
9/21/2021				0.049	0.023				0.036
9/22/2021		0.11	0.15			0.047	0.046	0.42	
9/23/2021	0.062								
1/31/2022				0.051					
2/1/2022							0.24	0.36	
2/2/2022		0.1	0.15			0.052			
2/3/2022	0.061				0.025				0.038

# Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-17	GWC-14	GWA-8 (bg)	GWB-6R	GWC-11	GWB-4R	GWC-1	GWB-5R
9/29/2000	<0.005	<0.005	<0.005	<0.005	0.016	<0.005	0.021	<0.005	0.03
11/21/2000	<0.005	<0.005	<0.005	<0.005	0.023	<0.005	0.017	<0.005	<0.005
1/20/2001	<0.005	<0.005	<0.005	<0.005	0.025	<0.005	0.03	<0.005	0.028
3/14/2001	<0.005	<0.005	<0.005	<0.005	0.021	<0.005	0.019	<0.005	0.052 (O)
7/16/2001	<0.005	<0.005	<0.005	<0.005	0.019	<0.005	0.029	<0.005	0.08 (O)
11/1/2001	<0.005	<0.005	<0.005	<0.005	0.022	<0.005	0.021	<0.005	0.13 (O)
4/25/2002	<0.005	<0.005	<0.005	<0.005	0.019	<0.005	0.03	<0.005	0.021
11/20/2002		<0.005	0.014	0.0051	0.024	0.006	0.038	<0.005	0.053 (O)
6/6/2003	0.037	<0.005	<0.005	0.014	0.021	0.0082	0.028	0.005	0.064 (O)
12/12/2003	0.0044	0.036 (O)	<0.005	0.011	0.0066	0.0023	0.027	<0.005	<0.005
5/26/2004	<0.005	<0.005	<0.005	<0.005	0.013	<0.005	0.021	<0.005	0.012
12/7/2004	<0.005	0.0021	<0.005	<0.005	0.013	<0.005	0.016	<0.005	0.019
6/21/2005	<0.005	<0.005	<0.005	<0.005	0.0067	<0.005	0.015	<0.005	0.02
12/12/2005	<0.005	<0.005	<0.005	<0.005	0.0033	<0.005	0.022	0.002	<0.005
4/4/2006			<0.005	<0.005					
6/27/2006	<0.005	<0.005	<0.005	<0.005	0.0047	<0.005	0.027	<0.005	0.0015
8/30/2006			<0.005	<0.005					
12/4/2006	0.0015	<0.005	0.0042	<0.005	0.0084	0.0021	0.025	<0.005	0.0034
2/15/2007			<0.005	<0.005					
6/23/2007	<0.005	<0.005	<0.005	<0.005	0.01	0.0017	0.023	<0.005	<0.005
9/11/2007			<0.005	<0.005					
12/11/2007	0.0016	<0.005	<0.005	<0.005	0.0049	<0.005	0.018	<0.005	<0.005
3/11/2008			<0.005	<0.005					
6/23/2008	0.0019		<0.005	<0.005		<0.005			
6/24/2008		<0.005	<0.005	<0.005	0.032 (O)		0.022	<0.005	<0.005
11/3/2008			<0.005	<0.005					
12/4/2008	<0.005		<0.005	<0.005		<0.005			
12/5/2008		<0.005			0.009		0.023	<0.005	0.0016
3/25/2009			<0.005	<0.005					
7/7/2009	0.0037		<0.005	<0.005	0.0044		0.012	0.0013	<0.005
7/8/2009		<0.005	<0.005	<0.005		<0.005			
9/14/2009			<0.005	<0.005					
12/20/2009	0.0016		<0.005	<0.005				<0.005	
12/21/2009		<0.005			0.0055	<0.005	0.019		<0.005
3/4/2010			<0.005	<0.005					
6/20/2010	<0.005		<0.005	<0.005	0.002	<0.005		<0.005	<0.005
6/21/2010		<0.005					0.01		
9/14/2010			<0.005	<0.005					
1/6/2011						<0.005		<0.005	0.0017
1/7/2011	0.0033	<0.005	0.0016	<0.005	0.0039		0.023		
4/15/2011			0.0034	<0.005					
7/7/2011	0.0044		<0.005	<0.005	0.0031	0.0023		<0.005	0.008
7/8/2011		0.0013					0.017		
9/25/2011			0.0013	0.0021					
1/17/2012	0.0038	<0.005	<0.005	<0.005		<0.005		<0.005	0.0082
1/18/2012		<0.005			0.0023		0.0114		
4/4/2012			<0.005	<0.005					
7/9/2012	0.022		<0.005	<0.005		0.0017		<0.005	0.01
7/10/2012		<0.005		<0.005	0.0022		0.014		
10/9/2012			0.0019	<0.005					
1/17/2013						<0.005		<0.005	0.01
1/18/2013	0.034	<0.005	0.0017	<0.005	<0.005		0.015		

# Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-17	GWC-14	GWA-8 (bg)	GWB-6R	GWC-11	GWB-4R	GWC-1	GWB-5R
4/5/2013			0.0019	<0.005					
7/16/2013						<0.005		<0.005	0.0061
7/17/2013	0.032	<0.005	0.0017	<0.005	<0.005		0.011		
10/11/2013			0.0013	<0.005					
1/13/2014	0.04					<0.005		<0.005	0.002
1/14/2014		<0.005	0.001	<0.005	0.0013		0.019		
4/3/2014			0.0031	<0.005					
7/8/2014						<0.005			
7/9/2014	0.036	<0.005	0.0012 (J)	<0.005	<0.005		0.012	0.0011 (J)	<0.005
7/10/2014									
10/24/2014			<0.005	<0.005					
1/12/2015							0.016		
1/13/2015	0.03					<0.005		<0.005	<0.005
1/14/2015		<0.005	0.0013	<0.005	0.0015				
5/10/2015			<0.005	<0.005					
5/11/2015									
7/16/2015	0.039					<0.005	0.0084	0.0011 (J)	<0.005
7/17/2015			0.001 (J)	<0.005	0.0011 (J)				
7/18/2015		<0.005							
10/6/2015			<0.005	<0.005					
1/17/2016			0.0012 (J)					<0.005	
1/18/2016	0.068	<0.005		<0.005	0.0011 (J)		0.014		<0.005
1/19/2016						<0.005			
4/26/2016			<0.005	<0.005					
7/26/2016						0.0005 (J)			
7/27/2016	0.05		0.0008 (J)					0.0016 (J)	0.0006 (J)
7/28/2016				<0.005	0.001 (J)				
7/29/2016		0.0009 (J)					0.0077 (J)		
8/30/2016				<0.005	0.0013 (J)			0.0015 (J)	<0.005
8/31/2016						0.001 (J)			
9/1/2016	0.119 (O)	0.0011 (J)	0.0015 (J)				0.015		
10/24/2016				<0.005					
10/25/2016	0.0519		<0.005					0.0018 (J)	
10/26/2016		<0.005			0.0014 (J)	<0.005	0.0106		<0.005
10/27/2016									
1/3/2017				<0.005					0.001 (J)
1/4/2017						<0.005		0.0021 (J)	
1/5/2017		0.0012 (J)	0.001 (J)		0.002 (J)				
1/6/2017	0.0536						0.0098 (J)		
4/3/2017				0.0004 (J)					
4/4/2017			0.001 (J)				0.0101	0.002 (J)	
4/5/2017		0.0015 (J)							
4/6/2017	0.0447 (J)				0.0034 (J)	0.0007 (J)			0.0013 (J)
7/10/2017									
7/11/2017			0.0008 (J)	0.0006 (J)		0.0006 (J)			
7/12/2017					0.0024 (J)		0.0096 (J)	0.0021 (J)	0.0011 (J)
7/13/2017	0.0269	0.0012 (J)							
10/2/2017			0.0009 (J)	<0.005					
10/3/2017					0.0022 (J)	0.0007 (J)		0.0014 (J)	0.0012 (J)
10/4/2017	0.0378	0.0055 (J)					0.0097 (J)		
1/9/2018	0.0283 (J)		0.0006 (J)	<0.005	0.0019 (J)				
1/10/2018								0.0017 (J)	0.0016 (J)



# Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-17	GWC-14	GWA-8 (bg)	GWB-6R	GWC-11	GWB-4R	GWC-1	GWB-5R
1/11/2018		0.0009 (J)				0.0098 (J)	0.0109		
7/9/2018			<0.005	<0.005					
7/10/2018					0.0023 (J)			0.0021 (J)	0.0055 (J)
7/11/2018	0.018 (J)	<0.005				<0.005	0.0055 (J)		
1/16/2019	0.018 (J)	<0.005	<0.005	<0.005	0.018 (J)		0.0024 (J)	0.0021 (J)	<0.005
1/17/2019						<0.005			
1/18/2019									
1/21/2019									
3/25/2019	0.017 (J)			<0.005			0.002 (J)		
3/26/2019		<0.005	<0.005		0.017 (J)			0.0018 (J)	0.072
3/27/2019						<0.005			
7/30/2019									
8/26/2019	0.024 (J)			0.001 (J)					
8/27/2019			0.001 (J)		0.0097 (J)	0.00092 (J)	0.0027 (J)	0.0062 (J)	
8/28/2019		0.0013 (J)							0.0071 (J)
10/7/2019				0.00052 (J)					
10/8/2019	0.021 (J)		0.00053 (J)			0.00091 (J)			
10/9/2019		0.00081 (J)			0.011 (J)		0.002 (J)	0.0019 (J)	0.012 (J)
4/6/2020	0.015 (J)			<0.005					
4/7/2020			0.00074 (J)		0.0094 (J)	0.00094 (J)	0.0028 (J)	0.0015 (J)	0.0022 (J)
4/8/2020		0.00073 (J)							
8/17/2020				0.00082 (J)					
8/18/2020		0.0011 (J)	0.00059 (J)			0.0015 (J)			
8/19/2020	0.015 (J)				0.0037 (J)		0.0022 (J)	0.0028 (J)	0.0012 (J)
9/28/2020	0.014 (J)			0.00071 (J)				0.0024 (J)	
9/29/2020			<0.005			0.0011 (J)			
9/30/2020		0.00096 (J)			0.0045 (J)				0.0018 (J)
10/1/2020							0.002 (J)		
3/10/2021					0.006	0.0013 (J)	0.003 (J)	0.0023 (J)	0.001 (J)
3/11/2021	0.02 (J)	0.0009 (J)							
3/12/2021				0.00074 (J)					
3/15/2021									
3/16/2021			<0.005						
9/21/2021	0.013 (J)			<0.005	0.0035 (J)	<0.005	0.0018 (J)		<0.005
9/22/2021		<0.005	<0.005						
9/23/2021								0.0023 (J)	
1/31/2022	0.015 (J)			<0.005					
2/1/2022		0.0014 (J)							
2/2/2022			<0.005		0.0033 (J)		0.003 (J)		
2/3/2022						0.0011 (J)		0.0019 (J)	0.0014 (J)

# Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWC-15	GWC-16	GWC-13	GWC-12	GWC-2	GWC-21	GWC-20	GWC-22
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005				
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
1/20/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
7/16/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
11/1/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
4/25/2002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
11/20/2002	0.014	0.0058	0.0041	<0.005	0.002	<0.005			
6/6/2003	<0.005	0.0068	0.063 (O)	0.003	<0.005	<0.005			
12/12/2003	<0.005	0.0041	0.0059	<0.005	<0.005	<0.005			
5/26/2004	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
12/7/2004	0.0039	0.0026	<0.005	<0.005	<0.005	<0.005			
6/21/2005	0.002	<0.005	<0.005	<0.005	<0.005	<0.005			
12/12/2005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
4/4/2006			<0.005						
6/27/2006	<0.005	0.0013	<0.005	<0.005	<0.005	<0.005			
8/30/2006			<0.005						
12/4/2006	0.0019	<0.005	0.0036	0.0017	0.0032	<0.005			
2/15/2007			<0.005						
6/23/2007	0.0015	<0.005	0.0016	<0.005	<0.005	<0.005			
9/11/2007			<0.005						
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
3/11/2008			<0.005						
6/23/2008	0.0015			<0.005	0.0016				
6/24/2008		0.0014	<0.005			<0.005			
11/3/2008			0.0025						
12/4/2008	<0.005			<0.005	<0.005	<0.005			
12/5/2008		<0.005	<0.005						
3/25/2009			<0.005						
7/7/2009									
7/8/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
9/14/2009			<0.005						
12/20/2009		<0.005	<0.005				<0.005		
12/21/2009	<0.005			<0.005	<0.005				
3/4/2010			<0.005						
6/20/2010	0.0015	<0.005		<0.005	<0.005	<0.005			
6/21/2010			<0.005				0.0019	<0.005	<0.005
9/14/2010			<0.005						
1/6/2011				<0.005		<0.005			
1/7/2011	<0.005	<0.005	0.0018		<0.005		0.0017	0.0018	<0.005
4/15/2011			<0.005						
7/7/2011		<0.005	<0.005	0.0019	<0.005			<0.005	
7/8/2011	<0.005						0.0023	0.0019	<0.005
9/25/2011			<0.005						
1/17/2012		<0.005		<0.005	<0.005	<0.005			
1/18/2012	<0.005		<0.005				<0.005	<0.005	<0.005
4/4/2012			<0.005						
7/9/2012		<0.005		<0.005	<0.005	<0.005			
7/10/2012	<0.005		<0.005				<0.005	0.0013	<0.005
10/9/2012			0.0018						
1/17/2013				<0.005	<0.005	<0.005			
1/18/2013	<0.005	<0.005	<0.005				<0.005	0.0015	<0.005

# Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWC-15	GWC-16	GWC-13	GWC-12	GWC-2	GWC-21	GWC-20	GWC-22
4/5/2013			<0.005						
7/16/2013				<0.005	<0.005				
7/17/2013	<0.005	<0.005	<0.005			<0.005	0.0019	<0.005	<0.005
10/11/2013			<0.005						
1/13/2014		<0.005		<0.005	<0.005	<0.005			
1/14/2014	<0.005		<0.005				<0.005	0	<0.005
4/3/2014			<0.005						
7/8/2014				<0.005	<0.005				
7/9/2014	0.0011 (J)	<0.005	<0.005			<0.005	<0.005		
7/10/2014								<0.005	<0.005
10/24/2014			<0.005						
1/12/2015								<0.005	
1/13/2015		<0.005		<0.005	<0.005	<0.005			
1/14/2015	<0.005		<0.005				<0.005		<0.005
5/10/2015									
5/11/2015			<0.005						
7/16/2015		<0.005	<0.005	<0.005	0.001 (J)	<0.005			
7/17/2015	0.0013						<0.005		
7/18/2015								<0.005	<0.005
10/6/2015			<0.005						
1/17/2016		<0.005	<0.005			<0.005	<0.005	<0.005	
1/18/2016	<0.005			<0.005	<0.005				<0.005
1/19/2016									
4/26/2016			<0.005						
7/26/2016				<0.005					
7/27/2016		0.0007 (J)			0.0014 (J)	0.0008 (J)			
7/28/2016	0.0011 (J)		0.0006 (J)				0.0005 (J)	0.0007 (J)	
7/29/2016									0.0007 (J)
8/30/2016									
8/31/2016	0.0024 (J)			0.0011 (J)	0.0012 (J)	<0.005			<0.005
9/1/2016		0.0011 (J)	0.0011 (J)				<0.005	<0.005	
10/24/2016									
10/25/2016		<0.005	<0.005				<0.005	<0.005	
10/26/2016				<0.005	0.0012 (J)	0.001 (J)			<0.005
10/27/2016	<0.005								
1/3/2017									
1/4/2017			<0.005		0.0012 (J)		<0.005	<0.005	<0.005
1/5/2017		<0.005		<0.005		<0.005			
1/6/2017	<0.005								
4/3/2017		0.0015 (J)							
4/4/2017						0.0008 (J)	0.0008 (J)	0.0011 (J)	
4/5/2017			0.001 (J)		0.0013 (J)				
4/6/2017	0.0019 (J)			0.0011 (J)					0.0006 (J)
7/10/2017					0.0014 (J)				
7/11/2017		0.0013 (J)						0.0009 (J)	0.0005 (J)
7/12/2017	0.0011 (J)		0.0011 (J)	0.0007 (J)					
7/13/2017						0.0006 (J)	0.0006 (J)		
10/2/2017		0.0013 (J)						0.0009 (J)	
10/3/2017			0.0009 (J)			<0.005	0.0005 (J)		
10/4/2017	0.0011 (J)			0.0008 (J)	0.0011 (J)				0.0006 (J)
1/9/2018		0.0012 (J)					0.0007 (J)		
1/10/2018			0.0007 (J)	0.0007 (J)		<0.005		0.0008 (J)	

# Prediction Limit

Constituent: Chromium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWC-15	GWC-16	GWC-13	GWC-12	GWC-2	GWC-21	GWC-20	GWC-22
1/11/2018	0.001 (J)				0.001 (J)				<0.005
7/9/2018								<0.005	
7/10/2018		<0.005	<0.005			<0.005	<0.005		
7/11/2018	<0.005			0.0019 (J)	<0.005				<0.005
1/16/2019				<0.005					
1/17/2019		<0.005	0.01 (J)		0.0028 (J)		0.01		
1/18/2019	<0.005								<0.005
1/21/2019						<0.005		<0.005	
3/25/2019								<0.005	
3/26/2019		<0.005	<0.005	<0.005			<0.005		
3/27/2019	<0.005				<0.005				<0.005
7/30/2019						0.00065 (J)			
8/26/2019									
8/27/2019		0.0016 (J)		<0.005	0.00085 (J)	<0.005			0.00057 (J)
8/28/2019	0.00089 (J)		0.0011 (J)				0.00087 (J)	0.00089 (J)	
10/7/2019									
10/8/2019		0.0017 (J)	0.00099 (J)	<0.005			0.00065 (J)		
10/9/2019	0.0009 (J)				0.00081 (J)	0.00049 (J)		0.0011 (J)	0.00072 (J)
4/6/2020									
4/7/2020		0.0014 (J)	<0.005		0.00082 (J)		<0.005		0.00049 (J)
4/8/2020	0.0015 (J)			0.00058 (J)		0.00069 (J)		0.001 (J)	
8/17/2020				0.00077 (J)	0.001 (J)				
8/18/2020		0.0018 (J)	0.0012 (J)			<0.005	0.0012 (J)	0.0011 (J)	0.00056 (J)
8/19/2020	0.0013 (J)								
9/28/2020				0.00062 (J)					
9/29/2020					0.00085 (J)	<0.005			
9/30/2020		0.0016 (J)	0.00098 (J)				0.00067 (J)	0.0013 (J)	0.00064 (J)
10/1/2020	0.0012 (J)								
3/10/2021	0.0011 (J)				0.00091 (J)				<0.005
3/11/2021									
3/12/2021		0.0031 (J)						0.0014 (J)	
3/15/2021				<0.005		0.0011 (J)			
3/16/2021			0.0012 (J)				0.00075 (J)		
9/21/2021				<0.005	<0.005				<0.005
9/22/2021	<0.005		0.0018 (J)			<0.005	<0.005	0.0013 (J)	
9/23/2021		0.0013 (J)							
1/31/2022									
2/1/2022			<0.005				<0.005	0.0036 (J)	
2/2/2022	0.0012 (J)					<0.005			
2/3/2022		0.0016 (J)		<0.005	0.0018 (J)				<0.005

# Prediction Limit

Constituent: Lead (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-11	GWA-8 (bg)	GWC-1	GWC-12	GWC-15	GWC-17	GWB-6R	GWC-13
9/29/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/21/2000	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/20/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/14/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/16/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/1/2001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11/20/2002		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0057 (J)	<0.001
6/6/2003	0.037 (O)	0.0068	0.016 (O)	<0.001	<0.001	<0.001	<0.001	0.013	0.0078
12/12/2003	0.008	<0.001	0.0095	<0.001	<0.001	0.0065	<0.001	<0.001	0.0055
5/26/2004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/7/2004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
6/21/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12/12/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
4/4/2006			<0.001						
6/27/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/30/2006			<0.001						
12/4/2006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2/15/2007			<0.001						
6/23/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9/11/2007			<0.001						
12/11/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/11/2008			<0.001						
6/23/2008	<0.001	<0.001	<0.001		<0.001				<0.001
6/24/2008				<0.001		<0.001	<0.001	0.02	
11/3/2008			<0.001						
12/4/2008	<0.001	<0.001	<0.001		<0.001				<0.001
12/5/2008				<0.001		<0.001	<0.001	<0.001	
3/25/2009			<0.001						
7/7/2009	<0.001		<0.001	<0.001				<0.001	
7/8/2009		<0.001			<0.001	<0.001	<0.001		<0.001
9/14/2009			<0.001						
12/20/2009	<0.001		<0.001	<0.001		<0.001			
12/21/2009		<0.001			<0.001		<0.001	<0.001	<0.001
3/4/2010			<0.001						
6/20/2010	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
6/21/2010							<0.001		
9/14/2010			<0.001						
1/6/2011		<0.001		<0.001					<0.001
1/7/2011	<0.001		<0.001		<0.001	<0.001	<0.001	<0.001	
4/15/2011			<0.001						
7/7/2011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
7/8/2011							<0.001		
9/25/2011			<0.001						
1/17/2012	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001
1/18/2012							<0.001	<0.001	
4/4/2012			<0.001						
7/9/2012	<0.001	<0.001		<0.001	<0.001	<0.001			<0.001
7/10/2012			<0.001				<0.001	<0.001	
10/9/2012			<0.001						
1/17/2013		<0.001		<0.001	<0.001				<0.001
1/18/2013	<0.001		<0.001			<0.001	<0.001	<0.001	

# Prediction Limit

Constituent: Lead (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-11	GWA-8 (bg)	GWC-1	GWC-12	GWC-15	GWC-17	GWB-6R	GWC-13
4/5/2013			<0.001						
7/16/2013		<0.001		<0.001	<0.001				<0.001
7/17/2013	<0.001		<0.001			<0.001	<0.001	<0.001	
10/11/2013			<0.001						
1/13/2014	0.013	<0.001		<0.001	0.004	<0.001			<0.001
1/14/2014			<0.001				<0.001	<0.001	
4/3/2014			<0.001						
7/8/2014		<0.001			<0.001				<0.001
7/9/2014	0.0076 (J)		<0.001	<0.001		<0.001	<0.001	<0.001	
7/10/2014									
10/24/2014			<0.001						
1/12/2015									
1/13/2015	0.0057 (J)	<0.001		<0.001	<0.001	<0.001			<0.001
1/14/2015			<0.001				<0.001	<0.001	
5/10/2015			<0.001						
5/11/2015									
7/16/2015	0.009 (J)	<0.001		<0.001	0.0044 (J)	<0.001			<0.001
7/17/2015			<0.001					<0.001	
7/18/2015							<0.001		
10/6/2015			<0.001						
1/17/2016				<0.001		<0.001			
1/18/2016	0.0094 (J)		<0.001		0.0034 (J)		<0.001	<0.001	<0.001
1/19/2016		<0.001							
4/26/2016			<0.001						
7/26/2016		0.0001 (J)							<0.001
7/27/2016	0.0058			<0.001	0.0001 (J)	<0.001			
7/28/2016			<0.001					<0.001	
7/29/2016							<0.001		
8/30/2016			<0.001	<0.001				<0.001	
8/31/2016		0.0002 (J)			0.0001 (J)				<0.001
9/1/2016	0.0663 (O)					<0.001	<0.001		
10/24/2016			<0.001						
10/25/2016	0.0003 (J)			<0.001		<0.001			
10/26/2016		0.0001 (J)			0.0001 (J)		<0.001	<0.001	<0.001
10/27/2016									
1/3/2017			0.0001 (J)						
1/4/2017		0.0002 (J)		<0.001	<0.001				
1/5/2017						<0.001	<0.001	0.0003 (J)	0.0002 (J)
1/6/2017	0.006								
4/3/2017			0.0002 (J)			0.0003 (J)			
4/4/2017				<0.001					
4/5/2017					0.0003 (J)		0.0009 (J)		
4/6/2017	0.0109	0.0003 (J)						0.0002 (J)	0.0005 (J)
7/10/2017					0.0003 (J)				
7/11/2017		0.0002 (J)	0.0001 (J)			0.0001 (J)			
7/12/2017				<0.001				0.0002 (J)	0.0005 (J)
7/13/2017	0.007						<0.001		
10/2/2017			0.0001 (J)			0.0002 (J)			
10/3/2017		0.0003 (J)		<0.001				0.0001 (J)	
10/4/2017	0.0042 (J)				0.0001 (J)		0.0001 (J)		0.0007 (J)
1/9/2018	0.0098		0.0001 (J)			0.0002 (J)		0.0003 (J)	
1/10/2018				0.0001 (J)					0.0009 (J)

# Prediction Limit

Constituent: Lead (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-11	GWA-8 (bg)	GWC-1	GWC-12	GWC-15	GWC-17	GWB-6R	GWC-13
1/11/2018		0.0003 (J)			0.0002 (J)		0.0001 (J)		
7/9/2018			<0.001						
7/10/2018				<0.001		<0.001		<0.001	
7/11/2018	0.0028 (J)	<0.001			<0.001		<0.001		0.0015 (J)
1/16/2019	<0.025 (O)		<0.001	<0.001			<0.001	<0.001	0.00061 (J)
1/17/2019		0.00028 (J)			<0.001	<0.001			
1/18/2019									
1/21/2019									
3/25/2019	0.0019 (J)		<0.001						
3/26/2019				<0.001		<0.001	<0.001	<0.001	<0.001
3/27/2019		0.00029 (J)			<0.001				
7/30/2019									
8/26/2019	0.013 (J)		<0.001						
8/27/2019		0.00021 (J)		<0.001	<0.001	0.00033 (J)		0.0011 (J)	0.0001 (J)
8/28/2019							<0.001		
10/7/2019			<0.001						
10/8/2019	0.0098 (J)	0.00028 (J)				0.00012 (J)			0.00013 (J)
10/9/2019				<0.001	6.6E-05 (J)		0.00015 (J)	0.00033 (J)	
4/6/2020	0.0024 (J)		0.0001 (J)						
4/7/2020		0.00036 (J)		0.00012 (J)	8.1E-05 (J)	8.6E-05 (J)		0.00063 (J)	
4/8/2020							8.4E-05 (J)		0.00017 (J)
8/17/2020			<0.001		4.9E-05 (J)				7.6E-05 (J)
8/18/2020		0.00035 (J)				9E-05 (J)	0.00014 (J)		
8/19/2020	0.0044 (J)			<0.001				0.00014 (J)	
9/28/2020	0.0043 (J)		<0.001	4.3E-05 (J)					6.4E-05 (J)
9/29/2020		0.00032 (J)			3.7E-05 (J)				
9/30/2020						4.7E-05 (J)	6E-05 (J)	8E-05 (J)	
10/1/2020									
3/10/2021		0.00042 (J)		0.0001 (J)	6.8E-05 (J)			9.6E-05 (J)	
3/11/2021	0.0079						0.00019 (J)		
3/12/2021			9.3E-05 (J)			5.3E-05 (J)			
3/15/2021									0.00013 (J)
3/16/2021									
9/21/2021	<0.001	<0.001	<0.001		<0.001			<0.001	<0.001
9/22/2021							<0.001		
9/23/2021				<0.001		<0.001			
1/31/2022	<0.001		<0.001						
2/1/2022							<0.001		
2/2/2022								<0.001	
2/3/2022		<0.001		<0.001	<0.001	<0.001			<0.001

# Prediction Limit

Constituent: Lead (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWC-16	GWC-14	GWC-9	GWB-5R	GWC-2	GWC-22	GWC-20	GWC-21
9/29/2000	0.0083	<0.001	<0.001	<0.001	0.017 (O)				
11/21/2000	0.0052	<0.001	<0.001	<0.001	<0.001	0.0069			
1/20/2001	<0.001	<0.001	<0.001	<0.001	0.011	<0.001			
3/14/2001	<0.001	<0.001	<0.001	<0.001	0.026 (O)	<0.001			
7/16/2001	0.011	<0.001	<0.001	<0.001	0.043 (O)	<0.001			
11/1/2001	<0.001	<0.001	<0.001	<0.001	0.075 (O)	<0.001			
4/25/2002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
11/20/2002	0.018 (O)	<0.001	0.011 (O)	0.0086 (O)	0.057 (O)	<0.001			
6/6/2003	0.015 (O)	0.099 (O)	<0.001	<0.001	0.16 (O)	<0.001			
12/12/2003	0.0072	0.017 (O)	<0.001	<0.001	<0.001	<0.001			
5/26/2004	0.0055	<0.001	<0.001	<0.001	0.011	<0.001			
12/7/2004	<0.001	<0.001	<0.001	0.0051	0.038 (O)	<0.001			
6/21/2005	<0.001	<0.001	<0.001	<0.001	0.036 (O)	<0.001			
12/12/2005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
4/4/2006		<0.001	<0.001						
6/27/2006	0.024 (O)	<0.001	<0.001	<0.001	<0.001	<0.001			
8/30/2006		<0.001	<0.001						
12/4/2006	0.023 (O)	<0.001	<0.001	<0.001	<0.001	<0.001			
2/15/2007		<0.001	<0.001						
6/23/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
9/11/2007		<0.001	<0.001						
12/11/2007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
3/11/2008		<0.001	<0.001						
6/23/2008				<0.001					
6/24/2008	0.02 (O)	<0.001	<0.001		<0.001	<0.001			
11/3/2008		<0.001	<0.001						
12/4/2008			<0.001	<0.001		<0.001			
12/5/2008	<0.001	<0.001			<0.001				
3/25/2009		<0.001	<0.001						
7/7/2009	<0.001				<0.001				
7/8/2009		<0.001	<0.001	<0.001		<0.001			
9/14/2009		<0.001	<0.001						
12/20/2009		<0.001	<0.001			<0.001			
12/21/2009	<0.001			<0.001	<0.001				
3/4/2010		<0.001	<0.001						
6/20/2010			<0.001	<0.001	<0.001	<0.001			
6/21/2010	<0.001	<0.001					<0.001	<0.001	<0.001
9/14/2010		<0.001	<0.001						
1/6/2011					<0.001	<0.001			
1/7/2011	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
4/15/2011		<0.001	<0.001						
7/7/2011		<0.001	<0.001		<0.001			<0.001	
7/8/2011	<0.001			<0.001			<0.001	<0.001	<0.001
9/25/2011		<0.001	<0.001						
1/17/2012			<0.001		<0.001	<0.001			
1/18/2012	<0.001	<0.001		<0.001			<0.001	<0.001	<0.001
4/4/2012		<0.001	<0.001						
7/9/2012			<0.001		<0.001	<0.001			
7/10/2012	<0.001	<0.001		<0.001			<0.001	<0.001	<0.001
10/9/2012		<0.001	<0.001						
1/17/2013					<0.001	<0.001			
1/18/2013	<0.001	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001



# Prediction Limit

Constituent: Lead (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWC-16	GWC-14	GWC-9	GWB-5R	GWC-2	GWC-22	GWC-20	GWC-21
4/5/2013		<0.001	<0.001						
7/16/2013					<0.001				
7/17/2013	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	<0.001
10/11/2013		<0.001	<0.001						
1/13/2014					<0.001	<0.001			
1/14/2014	0.005	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
4/3/2014		<0.001	<0.001						
7/8/2014									
7/9/2014	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			<0.001
7/10/2014							<0.001	<0.001	
10/24/2014		<0.001	<0.001						
1/12/2015	<0.001							<0.001	
1/13/2015					<0.001	<0.001			
1/14/2015		<0.001	<0.001	<0.001			<0.001		<0.001
5/10/2015			<0.001						
5/11/2015		<0.001							
7/16/2015	<0.001	<0.001			<0.001	<0.001			
7/17/2015			<0.001	<0.001					<0.001
7/18/2015							<0.001	<0.001	
10/6/2015									
1/17/2016		<0.001	<0.001			<0.001		<0.001	<0.001
1/18/2016	0.0055 (J)			<0.001	<0.001		<0.001		
1/19/2016									
4/26/2016		<0.001	<0.001						
7/26/2016									
7/27/2016			<0.001		<0.001	<0.001			
7/28/2016		<0.001		<0.001				<0.001	<0.001
7/29/2016	0.003 (J)						0.0004 (J)		
8/30/2016					<0.001				
8/31/2016				0.0007 (J)		<0.001	0.0003 (J)		
9/1/2016	0.0166 (O)	<0.001	<0.001					<0.001	<0.001
10/24/2016									
10/25/2016		0.0002 (J)	<0.001					0.0001 (J)	<0.001
10/26/2016	0.0057				0.0002 (J)	<0.001	0.0003 (J)		
10/27/2016				<0.001					
1/3/2017					0.0001 (J)				
1/4/2017		0.0001 (J)					0.0003 (J)	<0.001	<0.001
1/5/2017			<0.001			<0.001			
1/6/2017	0.0053			<0.001					
4/3/2017									
4/4/2017	0.0092		0.0001 (J)			0.0002 (J)		7E-05 (J)	9E-05 (J)
4/5/2017		0.0002 (J)							
4/6/2017				0.0001 (J)	0.0003 (J)		0.0003 (J)		
7/10/2017									
7/11/2017			8E-05 (J)				0.0002 (J)	<0.001	
7/12/2017	0.006	0.0001 (J)		<0.001	0.0002 (J)				
7/13/2017						0.0003 (J)			7E-05 (J)
10/2/2017			0.0001 (J)					<0.001	
10/3/2017		0.0001 (J)			0.0002 (J)	<0.001			0.0001 (J)
10/4/2017	0.0057			9E-05 (J)			0.0008 (J)		
1/9/2018			<0.001						9E-05 (J)
1/10/2018		0.0002 (J)			0.0003 (J)	8E-05 (J)		0.0002 (J)	

# Prediction Limit

Constituent: Lead (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWC-16	GWC-14	GWC-9	GWB-5R	GWC-2	GWC-22	GWC-20	GWC-21
1/11/2018	0.0085			0.0002 (J)			0.0009 (J)		
7/9/2018			<0.001					<0.001	
7/10/2018		<0.001			<0.001	<0.001			<0.001
7/11/2018	0.0029 (J)			<0.001			0.001 (J)		
1/16/2019	<0.001		<0.001		<0.001				
1/17/2019		<0.001							<0.001
1/18/2019				<0.001			0.0012 (J)		
1/21/2019						<0.001		<0.001	
3/25/2019	<0.001							<0.001	
3/26/2019		<0.001	<0.001		<0.001				<0.001
3/27/2019				<0.001			0.00047 (J)		
7/30/2019						0.0002 (J)			
8/26/2019									
8/27/2019	0.001 (J)		0.00051 (J)			<0.001	0.003 (J)		
8/28/2019		0.0001 (J)		6.1E-05 (J)	0.0011 (J)			6.5E-05 (J)	0.00018 (J)
10/7/2019									
10/8/2019		0.0001 (J)	<0.001						0.00016 (J)
10/9/2019	0.00041 (J)			<0.001	0.0025 (J)	6.4E-05 (J)	0.00032 (J)	0.00018 (J)	
4/6/2020									
4/7/2020	0.00073 (J)	0.00023 (J)	<0.001		0.0014 (J)		0.00067 (J)		<0.001
4/8/2020				0.00021 (J)		<0.001		<0.001	
8/17/2020									
8/18/2020		0.00017 (J)	<0.001			<0.001	0.00072 (J)	<0.001	0.00027 (J)
8/19/2020	0.00048 (J)			9.6E-05 (J)	7.9E-05 (J)				
9/28/2020									
9/29/2020			<0.001			<0.001			
9/30/2020		9.1E-05 (J)			0.0012 (J)		0.00023 (J)	<0.001	5.4E-05 (J)
10/1/2020	0.00026 (J)			3.8E-05 (J)					
3/10/2021	0.0003 (J)			0.00012 (J)	5.2E-05 (J)		0.00016 (J)		
3/11/2021									
3/12/2021								<0.001	
3/15/2021									
3/16/2021		7.3E-05 (J)	<0.001						<0.001
9/21/2021	<0.001				<0.001		<0.001		
9/22/2021		<0.001	<0.001	<0.001		<0.001		<0.001	<0.001
9/23/2021									
1/31/2022									
2/1/2022		<0.001						<0.001	<0.001
2/2/2022	<0.001		<0.001	<0.001		<0.001			
2/3/2022					<0.001		<0.001		

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWA-8 (bg)	GWC-14	GWC-15
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.052	<0.005
1/20/2001	<0.005	<0.005	<0.005	0.017	<0.005	<0.005	<0.005	0.053	<0.005
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.049	<0.005
7/16/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.038	<0.005
11/1/2001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.022	<0.005
4/25/2002	<0.005	<0.005	<0.005	0.012	<0.005	<0.005	<0.005	0.1 (O)	<0.005
11/20/2002		0.0064	0.008	0.19 (O)	<0.005	<0.005	<0.005	0.018	0.0094
6/6/2003	<0.005	0.011	0.0066	0.32 (O)	<0.005	<0.005	<0.005	<0.005	0.021 (O)
12/12/2003	<0.005	<0.005	0.0056	0.013	<0.005	<0.005	<0.005	<0.005	0.016 (O)
5/26/2004	<0.005	0.007	0.0084	0.017	<0.005	<0.005	<0.005	0.023	<0.005
12/7/2004	<0.005	<0.005	<0.005	0.011	<0.005	<0.005	<0.005	0.019	<0.005
6/21/2005	<0.005	0.0063	0.0062	0.0088	<0.005	<0.005	<0.005	0.019	<0.005
12/12/2005	<0.005	<0.005	<0.005	0.011	<0.005	<0.005	<0.005	0.0095	<0.005
4/4/2006							<0.005	0.033	
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/30/2006							<0.005	<0.005	
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.032	<0.005
2/15/2007							<0.005	0.034	
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
9/11/2007							<0.005	0.022	
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.045	<0.005
3/11/2008							<0.005	0.02	
6/23/2008	<0.005				<0.005	<0.005	<0.005		
6/24/2008		<0.005	<0.005	<0.005				<0.005	<0.005
11/3/2008							<0.005	0.052	
12/4/2008	<0.005				<0.005	<0.005	<0.005	0.054	
12/5/2008		<0.005	<0.005	<0.005					<0.005
3/25/2009							<0.005	0.072	
7/7/2009	<0.005	<0.005	<0.005	<0.005			<0.005		
7/8/2009					<0.005	<0.005		0.021	<0.005
9/14/2009							<0.005	0.015	
12/20/2009	<0.005			<0.005			<0.005	0.072	<0.005
12/21/2009		<0.005	<0.005		<0.005	<0.005			
3/4/2010							<0.005	0.083	
6/20/2010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.1	<0.005
6/21/2010									
9/14/2010							<0.005	0.085	
1/6/2011		<0.005		<0.005	<0.005				
1/7/2011	<0.005		<0.005			<0.005	<0.005	0.028	<0.005
4/15/2011							<0.005	<0.005	
7/7/2011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
7/8/2011									
9/25/2011							<0.005	0.02	
1/17/2012	<0.005	<0.005		<0.005	0.023	<0.005	<0.005	0.016	<0.005
1/18/2012			<0.005						
4/4/2012							<0.005	0.0156	
7/9/2012	<0.005	<0.005		<0.005	0.016	<0.005	<0.005	<0.005	0.066 (O)
7/10/2012			<0.005				<0.005		
10/9/2012							<0.005	0.0094	
1/17/2013		<0.005		<0.005	0.033	<0.005			
1/18/2013	0.009		<0.005				<0.005	0.0067	0.04 (O)

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWA-8 (bg)	GWC-14	GWC-15
4/5/2013							<0.005	0.0077	
7/16/2013		<0.005		0.012	0.0068	<0.005			
7/17/2013	0.011		<0.005				<0.005	0.01	<0.005
10/11/2013							<0.005	0.0087	
1/13/2014	0.012	<0.005		<0.005	0.036	<0.005			<0.005
1/14/2014			<0.005				<0.005	0.012	
4/3/2014							<0.005	0.022	
7/8/2014					0.017	<0.005			
7/9/2014	0.011	<0.005	<0.005	<0.005			<0.005	0.0089	<0.005
7/10/2014									
10/24/2014							<0.005	0.017	
1/12/2015									
1/13/2015	0.0092	<0.005		<0.005	0.027	<0.005			<0.005
1/14/2015			<0.005				<0.005	<0.005	
5/10/2015							<0.005	<0.005	
5/11/2015									
7/16/2015	0.014	<0.005		<0.005	<0.005	<0.005			<0.005
7/17/2015			<0.005				<0.005	<0.005	
7/18/2015									
10/6/2015							<0.005	<0.005	
1/17/2016				0.023				<0.005	<0.005
1/18/2016	0.023	<0.005	<0.005			<0.005	<0.005		
1/19/2016					0.023				
4/26/2016							<0.005	0.00428 (J)	
7/26/2016					0.0056 (J)				
7/27/2016	0.0323	<0.005		0.002 (J)		0.0025 (J)		0.0038 (J)	<0.005
7/28/2016			<0.005				0.001 (J)		
7/29/2016									
8/30/2016		<0.005	<0.005	0.002 (J)			<0.005		
8/31/2016					0.0084 (J)	0.0019 (J)			
9/1/2016	0.0438							0.0056 (J)	<0.005
10/24/2016							0.0013 (J)		
10/25/2016	0.031			0.0022 (J)				0.0023 (J)	<0.005
10/26/2016		<0.005	<0.005		0.0052 (J)	0.002 (J)			
10/27/2016									
1/3/2017		<0.005					<0.005		
1/4/2017				0.0016 (J)	0.0062 (J)	<0.005			
1/5/2017			0.0014 (J)					0.0038 (J)	<0.005
1/6/2017	0.0324								
4/3/2017		<0.005					<0.005		<0.005
4/4/2017				0.0052 (J)				0.0064 (J)	
4/5/2017						<0.005			
4/6/2017	0.0188 (J)	<0.005	<0.005		0.0195				
7/10/2017						<0.005			
7/11/2017					<0.005		<0.005	0.0044 (J)	<0.005
7/12/2017		<0.005	<0.005	0.0024 (J)					
7/13/2017	0.0118								
10/2/2017							<0.005	0.004 (J)	<0.005
10/3/2017		<0.005	<0.005	<0.005	0.0079 (J)				
10/4/2017	0.0195					<0.005			
1/9/2018	<0.005		<0.005				<0.005	0.0019 (J)	0.0019 (J)
1/10/2018		<0.005		0.0018 (J)					

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12	GWA-8 (bg)	GWC-14	GWC-15
1/11/2018					0.0054 (J)	<0.005			
7/9/2018							<0.005	0.0029 (J)	
7/10/2018		0.0018 (J)	0.0016 (J)	0.0026 (J)					0.0086 (J)
7/11/2018	<0.005				0.0022 (J)	<0.005			
1/16/2019	0.0071 (J)	<0.005	<0.005	0.0018 (J)			<0.005	0.0016 (J)	
1/17/2019					<0.005	<0.005			0.0029 (J)
1/18/2019									
1/21/2019									
3/25/2019	<0.005						<0.005		
3/26/2019		<0.005	0.05 (J)	0.0023 (J)				0.0022 (J)	0.0074 (J)
3/27/2019					0.01 (J)	<0.005			
7/30/2019									
8/26/2019	<0.005						<0.005		
8/27/2019			0.0033 (J)	0.0016 (J)	<0.005	<0.005		0.0035 (J)	0.0092 (J)
8/28/2019		0.0033 (J)							
10/7/2019							<0.005		
10/8/2019	0.0072 (J)				<0.005			0.0026 (J)	0.014
10/9/2019		0.0073 (J)	<0.005	0.0024 (J)		<0.005			
4/6/2020	0.0078 (J)						<0.005		
4/7/2020		<0.005	<0.005	0.0013 (J)	0.0021 (J)	<0.005		0.005 (J)	0.0029 (J)
4/8/2020									
8/17/2020						<0.005	<0.005		
8/18/2020					0.0028 (J)			0.0029 (J)	0.0022 (J)
8/19/2020	<0.005	<0.005	<0.005	0.002 (J)					
9/28/2020	0.01 (J)			<0.005			<0.005		
9/29/2020					0.0024 (J)	<0.005		0.0051 (J)	
9/30/2020		<0.005	0.0023 (J)						<0.005
10/1/2020									
3/10/2021		0.006	0.0049 (J)	0.0026 (J)	0.0044 (J)	0.003 (J)			
3/11/2021	<0.005								
3/12/2021							<0.005		0.0064
3/15/2021									
3/16/2021								0.0034 (J)	
9/21/2021	<0.005	<0.005	0.0016 (J)		0.0038 (J)	<0.005	<0.005		
9/22/2021								0.0034 (J)	
9/23/2021				0.0018 (J)					0.0016 (J)
1/31/2022	<0.005						<0.005		
2/1/2022									
2/2/2022			0.0017 (J)					0.0038 (J)	
2/3/2022		<0.005		0.0022 (J)	0.019	<0.005			0.0031 (J)

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWC-9	GWB-4R	GWC-2	GWC-22	GWC-20	GWC-21
9/29/2000	<0.005	<0.005	<0.005	<0.005	<0.005			
11/21/2000	<0.005	<0.005	<0.005	<0.005	<0.005			
1/20/2001	<0.005	<0.005	<0.005	0.014 (O)	<0.005			
3/14/2001	<0.005	<0.005	<0.005	<0.005	<0.005			
7/16/2001	<0.005	<0.005	<0.005	0.015 (O)	<0.005			
11/1/2001	<0.005	<0.005	<0.005	0.012 (O)	<0.005			
4/25/2002	<0.005	<0.005	<0.005	0.01	<0.005			
11/20/2002	<0.005	<0.005	<0.005	0.026 (O)	<0.005			
6/6/2003	0.021 (O)	<0.005	<0.005	0.022 (O)	<0.005			
12/12/2003	0.0078	<0.005	<0.005	0.028 (O)	<0.005			
5/26/2004	0.0053	<0.005	<0.005	0.012 (O)	0.005			
12/7/2004	<0.005	<0.005	<0.005	0.0073	<0.005			
6/21/2005	<0.005	<0.005	0.0062	0.0087	<0.005			
12/12/2005	<0.005	<0.005	<0.005	0.013 (O)	<0.005			
4/4/2006	<0.005							
6/27/2006	<0.005	<0.005	<0.005	<0.005	<0.005			
8/30/2006	<0.005							
12/4/2006	<0.005	<0.005	<0.005	<0.005	<0.005			
2/15/2007	<0.005							
6/23/2007	<0.005	<0.005	<0.005	<0.005	<0.005			
9/11/2007	<0.005							
12/11/2007	<0.005	<0.005	<0.005	<0.005	<0.005			
3/11/2008	<0.005							
6/23/2008			<0.005					
6/24/2008	<0.005	<0.005		<0.005	<0.005			
11/3/2008	<0.005							
12/4/2008			<0.005		<0.005			
12/5/2008	<0.005	<0.005		<0.005				
3/25/2009	<0.005							
7/7/2009				<0.005				
7/8/2009	<0.005	<0.005	<0.005		<0.005			
9/14/2009	<0.005							
12/20/2009	<0.005				<0.005			
12/21/2009		<0.005	<0.005	<0.005				
3/4/2010	<0.005							
6/20/2010			<0.005		<0.005			
6/21/2010	<0.005	<0.005		<0.005		<0.005	<0.005	0.048
9/14/2010	<0.005							
1/6/2011					<0.005			
1/7/2011	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	0.014
4/15/2011	<0.005							
7/7/2011	<0.005						<0.005	
7/8/2011		<0.005	<0.005	<0.005		<0.005	<0.005	0.018
9/25/2011	<0.005							
1/17/2012					<0.005			
1/18/2012	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005
4/4/2012	<0.005							
7/9/2012					<0.005			
7/10/2012	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	0.02
10/9/2012	<0.005							
1/17/2013					<0.005			
1/18/2013	<0.005	<0.005	<0.005	<0.005		<0.005	0.005	0.015

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWC-9	GWB-4R	GWC-2	GWC-22	GWC-20	GWC-21
4/5/2013	<0.005							
7/16/2013								
7/17/2013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.037
10/11/2013	0.0069							
1/13/2014					<0.005			
1/14/2014	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	0.043
4/3/2014	<0.005							
7/8/2014								
7/9/2014	0.005	<0.005	<0.005	<0.005	<0.005			0.023
7/10/2014						<0.005	<0.005	
10/24/2014	<0.005							
1/12/2015				<0.005			<0.005	
1/13/2015					<0.005			
1/14/2015	<0.005	<0.005	<0.005			<0.005		0.022
5/10/2015								
5/11/2015	<0.005							
7/16/2015	<0.005			<0.005	<0.005			
7/17/2015			<0.005					0.033
7/18/2015		<0.005				<0.005	<0.005	
10/6/2015	0.0073							
1/17/2016	0.0031 (J)				<0.005		<0.005	0.021
1/18/2016		<0.005	<0.005	<0.005		<0.005		
1/19/2016								
4/26/2016	0.00497 (J)							
7/26/2016								
7/27/2016					0.002 (J)			
7/28/2016	0.0076 (J)		<0.005				<0.005	0.0341
7/29/2016		0.0011 (J)		0.0036 (J)		0.0022 (J)		
8/30/2016								
8/31/2016			<0.005		<0.005	0.0014 (J)		
9/1/2016	0.0052 (J)	0.0012 (J)		0.0067 (J)			<0.005	0.0297
10/24/2016								
10/25/2016	0.0085 (J)						0.0014 (J)	0.0095 (J)
10/26/2016		0.0013 (J)		0.0042 (J)	0.0035 (J)	0.001 (J)		
10/27/2016			<0.005					
1/3/2017								
1/4/2017	0.0048 (J)					<0.005	0.0014 (J)	0.022
1/5/2017		0.0012 (J)			<0.005			
1/6/2017			<0.005	0.0042 (J)				
4/3/2017								
4/4/2017				0.0043 (J)	<0.005		<0.005	0.0236
4/5/2017	0.0068 (J)	<0.005						
4/6/2017			<0.005			<0.005		
7/10/2017								
7/11/2017						<0.005	<0.005	
7/12/2017	0.0048 (J)		<0.005	0.0033 (J)				
7/13/2017		0.0018 (J)			<0.005			0.013
10/2/2017						<0.005		
10/3/2017	0.0051 (J)				<0.005			0.01 (J)
10/4/2017		0.0042 (J)	<0.005	0.0038 (J)		0.0023 (J)		
1/9/2018								0.0162
1/10/2018	0.0018 (J)				<0.005		<0.005	

# Prediction Limit

Constituent: Selenium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-16	GWC-17	GWC-9	GWB-4R	GWC-2	GWC-22	GWC-20	GWC-21
1/11/2018		<0.005	<0.005	0.0029 (J)		<0.005		
7/9/2018							<0.005	
7/10/2018	0.0045 (J)				<0.005			0.016
7/11/2018		0.0016 (J)	<0.005	0.0015 (J)		<0.005		
1/16/2019		<0.005		<0.005				
1/17/2019	0.0031 (J)							0.011
1/18/2019			<0.005			<0.005		
1/21/2019					<0.005		0.0014 (J)	
3/25/2019				<0.005			<0.005	
3/26/2019	0.0033 (J)	<0.005						0.022
3/27/2019			<0.005			<0.005		
7/30/2019					<0.005			
8/26/2019								
8/27/2019				<0.005	<0.005	<0.005		
8/28/2019	0.004 (J)	<0.005	<0.005				0.0014 (J)	0.019
10/7/2019								
10/8/2019	0.0023 (J)							0.019
10/9/2019		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
4/6/2020								
4/7/2020	<0.005			0.0025 (J)		<0.005		0.012
4/8/2020		<0.005	<0.005		<0.005		0.0013 (J)	
8/17/2020								
8/18/2020	0.0058 (J)	0.002 (J)			<0.005	<0.005	<0.005	0.013
8/19/2020			<0.005	<0.005				
9/28/2020								
9/29/2020					<0.005			
9/30/2020	0.0037 (J)	<0.005				<0.005	<0.005	0.0061 (J)
10/1/2020			<0.005	<0.005				
3/10/2021			<0.005	0.0021 (J)		<0.005		
3/11/2021		0.0016 (J)						
3/12/2021							<0.005	
3/15/2021					<0.005			
3/16/2021	0.0044 (J)							0.0055
9/21/2021				<0.005		<0.005		
9/22/2021	0.0031 (J)	<0.005	<0.005		<0.005		0.0024 (J)	0.0027 (J)
9/23/2021								
1/31/2022								
2/1/2022	0.0024 (J)	<0.005					<0.005	0.0054
2/2/2022			<0.005	<0.005	<0.005			
2/3/2022						<0.005		



# Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWC-1	GWC-17	GWC-11	GWB-4R	GWC-12	GWC-9	GWC-16
9/29/2000	<0.01	0.038	<0.01	<0.01	<0.01	0.06	<0.01	<0.01	<0.01
11/21/2000	<0.01	0.013	<0.01	<0.01	<0.01	0.068	<0.01	<0.01	<0.01
1/20/2001	<0.01	0.038	<0.01	<0.01	<0.01	0.12	<0.01	<0.01	<0.01
3/14/2001	<0.01	0.077 (O)	<0.01	<0.01	<0.01	0.08	<0.01	<0.01	<0.01
7/16/2001	<0.01	0.12 (O)	<0.01	<0.01	<0.01	0.11	<0.01	<0.01	<0.01
11/1/2001	<0.01	0.21 (O)	<0.01	<0.01	<0.01	0.079	<0.01	<0.01	<0.01
4/25/2002	<0.01	0.086 (O)	<0.01	<0.01	<0.01	0.11	<0.01	<0.01	<0.01
11/20/2002		0.14 (O)	0.0069	<0.01	0.0071	0.15	<0.01	0.014	0.0069
6/6/2003	0.047	0.12 (O)	0.16 (O)	<0.01	0.0098	0.12	<0.01	<0.01	0.082 (O)
12/12/2003	0.0086	0.014	<0.01	<0.01	0.0074	0.13	<0.01	<0.01	0.012
5/26/2004	<0.01	0.06 (O)	<0.01	<0.01	<0.01	0.095	<0.01	<0.01	<0.01
12/7/2004	<0.01	0.054	<0.01	<0.01	<0.01	0.067	<0.01	<0.01	<0.01
6/21/2005	<0.01	0.038	<0.01	<0.01	<0.01	0.062	<0.01	<0.01	<0.01
12/12/2005	<0.01	0.0056	<0.01	<0.01	<0.01	0.09	<0.01	<0.01	<0.01
4/4/2006									<0.01
6/27/2006	<0.01	0.0043	0.0029	0.0025	<0.01	0.083	<0.01	<0.01	<0.01
8/30/2006									<0.01
12/4/2006	0.0027	0.0044	0.0047	<0.01	<0.01	0.084	<0.01	<0.01	0.0031
2/15/2007									0.0025
6/23/2007	0.0027	0.0039	0.0029	<0.01	0.0036	0.081	<0.01	<0.01	0.0032
9/11/2007									<0.01
12/11/2007	0.0033	0.0029	<0.01	<0.01	<0.01	0.067	<0.01	<0.01	<0.01
3/11/2008									<0.01
6/23/2008	0.0074				<0.01		<0.01	<0.01	
6/24/2008		0.003	<0.01	<0.01		0.059			<0.01
11/3/2008									0.0032
12/4/2008	0.0084				<0.01		<0.01	<0.01	
12/5/2008		<0.01	<0.01	<0.01		0.054			<0.01
3/25/2009									<0.01
7/7/2009	0.023	<0.01	<0.01			0.038			
7/8/2009				<0.01	0.0026		<0.01	0.0029	0.0036
9/14/2009									0.0026
12/20/2009	0.007		<0.01						0.0031
12/21/2009		<0.01		<0.01	<0.01	0.06	<0.01	<0.01	
3/4/2010									<0.01
6/20/2010	0.0047	<0.01	0.0037		<0.01		<0.01	<0.01	
6/21/2010				<0.01		0.036			0.0025
9/14/2010									0.0035
1/6/2011		0.0067	<0.01		0.003				
1/7/2011	0.018			<0.01		0.043	<0.01	<0.01	0.0036
4/15/2011									<0.01
7/7/2011	0.019	0.019	0.0045		0.004		<0.01		0.003
7/8/2011				0.0031		0.044		<0.01	
9/25/2011									0.0037
1/17/2012	0.0298	0.021	<0.01		<0.01		<0.01		
1/18/2012				<0.01		0.045		<0.01	<0.01
4/4/2012									<0.01
7/9/2012	0.14	0.032	0.0026		0.005		<0.01		
7/10/2012				<0.01		0.048		<0.01	0.0026
10/9/2012									0.007
1/17/2013		0.034	<0.01		0.005		<0.01		
1/18/2013	0.21			<0.01		0.049		<0.01	<0.01

# Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWC-1	GWC-17	GWC-11	GWB-4R	GWC-12	GWC-9	GWC-16
4/5/2013									<0.01
7/16/2013		0.021	<0.01		<0.01		<0.01		
7/17/2013	0.18			<0.01		0.05		<0.01	<0.01
10/11/2013									<0.01
1/13/2014	0.24	0.008	<0.01		<0.01		<0.01		
1/14/2014				<0.01		0.067		<0.01	<0.01
4/3/2014									0.0032 (J)
7/8/2014					0.0024 (J)		0.0034 (J)		
7/9/2014	0.22	0.0052	0.0041 (J)	0.0012 (J)		0.055		0.0016 (J)	0.0031 (J)
7/10/2014									
10/24/2014									0.0028 (J)
1/12/2015						0.066			
1/13/2015	0.19	0.0036 (J)	0.0029 (J)		0.0023 (J)		<0.01		
1/14/2015				0.002 (J)				<0.01	0.0034 (J)
5/10/2015									
5/11/2015									0.0026 (J)
7/16/2015	0.23	0.004 (J)	0.0034 (J)		0.002 (J)	0.045	0.0049 (J)		0.0028 (J)
7/17/2015								0.0029 (J)	
7/18/2015				<0.01					
10/6/2015									0.0016 (J)
1/17/2016			0.0046 (J)						0.0029 (J)
1/18/2016	0.41	0.0069		0.0019 (J)		0.049	0.0058	<0.01	
1/19/2016					0.0025 (J)				
4/26/2016									0.00296 (J)
7/26/2016					0.0027 (J)				
7/27/2016	0.397	0.0046 (J)	0.0064 (J)				0.0058 (J)		
7/28/2016								<0.01	0.0026 (J)
7/29/2016				0.0031 (J)		0.0388			
10/24/2016									
10/25/2016	0.425								<0.01
1/3/2017		<0.01							
1/4/2017			<0.01		<0.01		<0.01		<0.01
1/5/2017				<0.01					
1/6/2017	0.41					0.0341		<0.01	
4/3/2017									
4/4/2017			0.0061 (J)			0.0371			
4/5/2017				0.0029 (J)			0.0039 (J)		0.0033 (J)
4/6/2017	0.297	0.0063 (J)			0.0025 (J)			<0.01	
7/10/2017							0.0062 (J)		
7/11/2017					0.0027 (J)				
7/12/2017		0.0064 (J)	0.0067 (J)			0.0399		0.0013 (J)	0.0037 (J)
7/13/2017	0.194			0.0037 (J)					
10/2/2017									
10/3/2017									0.0036 (J)
10/4/2017	0.316								
1/9/2018	0.194								
1/10/2018		0.0077 (J)	0.0056 (J)						0.0029 (J)
1/11/2018				0.0026 (J)	0.0019 (J)	0.0327	0.0025 (J)	<0.01	
7/9/2018									
7/10/2018		0.016	0.0056 (J)						0.0025 (J)
7/11/2018	0.15			0.0032 (J)	0.0021 (J)	0.02	0.0059 (J)	<0.01	
1/16/2019	0.16	0.0033 (J)	0.0043 (J)	<0.01		0.0022 (J)			

# Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWB-5R	GWC-1	GWC-17	GWC-11	GWB-4R	GWC-12	GWC-9	GWC-16
1/17/2019					0.0021 (J)		<0.01		0.0021 (J)
1/18/2019								<0.01	
1/21/2019									
3/25/2019	0.18					0.004 (J)			
3/26/2019		0.0058 (J)	0.0051 (J)	0.0024 (J)					0.0038 (J)
3/27/2019					0.0023 (J)		0.0049 (J)	<0.01	
7/30/2019									
10/7/2019									
10/8/2019	0.11				<0.01				<0.01
10/9/2019		0.033 (J)	<0.01	<0.01		<0.01	0.0021 (J)	<0.01	
4/6/2020	0.12								
4/7/2020		0.0053 (J)	0.0015 (J)		<0.01	0.0037 (J)	0.0024 (J)		<0.01
4/8/2020				<0.01				0.0015 (J)	
9/28/2020	0.1		0.0042 (J)						
9/29/2020					0.0023 (J)		0.0046 (J)		
9/30/2020		0.0037 (J)		<0.01					0.0028 (J)
10/1/2020						0.0047 (J)		<0.01	
3/10/2021		0.0026 (J)	0.005 (J)		0.0023 (J)	0.0054 (J)	0.0055 (J)	<0.01	
3/11/2021	0.14			<0.01					
3/12/2021									
3/15/2021									
3/16/2021									0.0034 (J)
9/21/2021	0.096	0.0039 (J)			0.002 (J)	0.0027 (J)	0.0051 (J)		
9/22/2021				<0.01				<0.01	0.0025 (J)
9/23/2021			0.0042 (J)						
1/31/2022	0.1								
2/1/2022				0.0022 (J)					0.0021 (J)
2/2/2022						0.0031 (J)		<0.01	
2/3/2022		0.0046 (J)	0.0028 (J)		0.0031 (J)		0.0052 (J)		

# Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWA-8 (bg)	GWC-15	GWC-14	GWB-6R	GWC-2	GWC-22	GWC-21	GWC-20
9/29/2000	<0.01	<0.01	<0.01	<0.01	0.12				
11/21/2000	<0.01		<0.01	<0.01	0.13	<0.01			
1/20/2001	<0.01	<0.01	<0.01	<0.01	0.14	<0.01			
3/14/2001	<0.01	<0.01	<0.01	<0.01	0.13	<0.01			
7/16/2001	<0.01	<0.01	<0.01	<0.01	0.18	<0.01			
11/1/2001	<0.01	<0.01	<0.01	<0.01	0.12	<0.01			
4/25/2002	<0.01	<0.01	<0.01	<0.01	0.15	<0.01			
11/20/2002	<0.01	<0.01	0.0099	0.03	0.15	<0.01			
6/6/2003	0.0063	0.017	0.019 (O)	0.0065	0.11	<0.01			
12/12/2003	<0.01	0.011	0.018 (O)	0.0052	0.089	<0.01			
5/26/2004	<0.01	<0.01	<0.01	<0.01	0.09	<0.01			
12/7/2004	<0.01	<0.01	<0.01	0.0074	0.072	<0.01			
6/21/2005	<0.01	<0.01	<0.01	0.01	0.04	<0.01			
12/12/2005	<0.01	<0.01	<0.01	<0.01	0.021	<0.01			
4/4/2006		<0.01		0.013					
6/27/2006	<0.01	<0.01	<0.01	<0.01	0.02	<0.01			
8/30/2006		<0.01		0.0039					
12/4/2006	<0.01	<0.01	<0.01	0.016	0.022	<0.01			
2/15/2007		<0.01		0.017					
6/23/2007	<0.01	<0.01	<0.01	0.0076	0.027	<0.01			
9/11/2007		<0.01		0.012					
12/11/2007	<0.01	<0.01	<0.01	0.017	0.017	<0.01			
3/11/2008		<0.01		0.012					
6/23/2008	<0.01	<0.01							
6/24/2008			<0.01	0.0069	0.053	<0.01			
11/3/2008		<0.01		0.016					
12/4/2008	<0.01	<0.01		0.013		<0.01			
12/5/2008			<0.01		0.0078				
3/25/2009		<0.01		0.014					
7/7/2009		<0.01			0.012				
7/8/2009	<0.01		<0.01	0.014		<0.01			
9/14/2009		<0.01		0.0072					
12/20/2009		<0.01	<0.01	0.02		<0.01			
12/21/2009	<0.01				0.011				
3/4/2010		<0.01		0.023					
6/20/2010	<0.01	<0.01	<0.01	0.017	0.0083	<0.01			
6/21/2010							<0.01	<0.01	<0.01
9/14/2010		<0.01		0.018					
1/6/2011	0.0028					<0.01			
1/7/2011		<0.01	<0.01	0.019	0.0079		<0.01	0.0031	0.0029
4/15/2011		<0.01		0.019					
7/7/2011	<0.01	<0.01	0.0036	0.014	0.007				<0.01
7/8/2011							<0.01	0.0048	0.0046
9/25/2011		<0.01		0.015					
1/17/2012	<0.01	<0.01	<0.01	0.021		<0.01			
1/18/2012					0.0116		<0.01	<0.01	<0.01
4/4/2012		<0.01		0.0191					
7/9/2012	<0.01		0.0059	0.026		<0.01			
7/10/2012		<0.01			0.0096		<0.01	<0.01	0.0081
10/9/2012		<0.01		0.049					
1/17/2013	<0.01					<0.01			
1/18/2013		<0.01	<0.01	0.036	<0.01		<0.01	<0.01	0.0063

# Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWA-8 (bg)	GWC-15	GWC-14	GWB-6R	GWC-2	GWC-22	GWC-21	GWC-20
4/5/2013		<0.01		0.04					
7/16/2013	<0.01								
7/17/2013		<0.01	<0.01	0.062	<0.01	<0.01	<0.01	<0.01	<0.01
10/11/2013		<0.01		0.032					
1/13/2014	<0.01		<0.01			<0.01			
1/14/2014		<0.01		0.044	<0.01		<0.01	0.006	<0.01
4/3/2014		0.0015 (J)		0.077 (O)					
7/8/2014	0.002 (J)								
7/9/2014		0.0012 (J)	0.0012 (J)	0.032	0.0039 (J)	<0.01		0.0019 (J)	
7/10/2014							0.0053		0.0026 (J)
10/24/2014		<0.01		0.045					
1/12/2015									0.0031 (J)
1/13/2015	0.0015 (J)		0.0013 (J)			<0.01			
1/14/2015		<0.01		0.031	0.005		0.0013 (J)	0.0037 (J)	
5/10/2015		<0.01		0.013					
5/11/2015									
7/16/2015	<0.01		<0.01			<0.01			
7/17/2015		<0.01		0.028	0.0045 (J)			0.0028 (J)	
7/18/2015							0.0043 (J)		0.003 (J)
10/6/2015		0.0012 (J)		0.02					
1/17/2016			0.0013 (J)	0.028		<0.01		0.0039 (J)	0.0025 (J)
1/18/2016	0.0011 (J)	0.00079 (J)			0.0044 (J)		<0.01		
1/19/2016									
4/26/2016		<0.01		0.0181					
7/26/2016	<0.01								
7/27/2016			<0.01	0.0189		<0.01			
7/28/2016		<0.01			0.0038 (J)			0.0022 (J)	0.0024 (J)
7/29/2016							0.0052 (J)		
10/24/2016		<0.01							
10/25/2016			<0.01	0.0206					<0.01
1/3/2017		<0.01							
1/4/2017							<0.01	<0.01	<0.01
1/5/2017	<0.01		<0.01	0.0172	0.0077 (J)	<0.01			
1/6/2017									
4/3/2017		<0.01	0.002 (J)						
4/4/2017				0.0235		<0.01		0.003 (J)	0.0024 (J)
4/5/2017									
4/6/2017	<0.01				0.0069 (J)		<0.01		
7/10/2017									
7/11/2017		<0.01	0.0022 (J)	0.0136			0.0016 (J)		0.003 (J)
7/12/2017	0.0016 (J)				0.0098 (J)				
7/13/2017						<0.01		0.0019 (J)	
10/2/2017		<0.01	0.0022 (J)	0.0175					0.0028 (J)
10/3/2017									
10/4/2017									
1/9/2018		0.0014 (J)	0.0021 (J)	0.0103	0.0086 (J)			0.0046 (J)	
1/10/2018	0.0019 (J)					<0.01			0.0026 (J)
1/11/2018							0.0012 (J)		
7/9/2018		<0.01		0.0078 (J)					<0.01
7/10/2018			0.0025 (J)		0.0098 (J)	<0.01		0.0031 (J)	
7/11/2018	0.0097 (J)						0.0025 (J)		
1/16/2019	<0.01	<0.01		0.0043 (J)	0.077				

# Prediction Limit

Constituent: Vanadium (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWA-8 (bg)	GWC-15	GWC-14	GWB-6R	GWC-2	GWC-22	GWC-21	GWC-20
1/17/2019			<0.01					0.0022 (J)	
1/18/2019							<0.01		
1/21/2019						0.0024 (J)			0.0031 (J)
3/25/2019		<0.01							0.0024 (J)
3/26/2019	0.0029 (J)		0.0026 (J)	0.0063 (J)	0.086			0.0041 (J)	
3/27/2019							0.002 (J)		
7/30/2019						<0.01			
10/7/2019		<0.01							
10/8/2019	<0.01		<0.01	<0.01				<0.01	
10/9/2019					0.018 (J)	<0.01	<0.01		<0.01
4/6/2020		<0.01							
4/7/2020			<0.01	0.0026 (J)	0.041 (J)		0.0014 (J)	<0.01	
4/8/2020	<0.01					<0.01			<0.01
9/28/2020	<0.01	<0.01							
9/29/2020				<0.01		<0.01			
9/30/2020			0.0028 (J)		0.018		<0.01	0.0029 (J)	0.0029 (J)
10/1/2020									
3/10/2021					0.027		<0.01		
3/11/2021									
3/12/2021		<0.01	0.0037 (J)						0.0038 (J)
3/15/2021	<0.01					<0.01			
3/16/2021				<0.01				0.003 (J)	
9/21/2021	<0.01	<0.01			0.015		<0.01		
9/22/2021				0.0052 (J)		<0.01		<0.01	0.0033 (J)
9/23/2021			0.0022 (J)						
1/31/2022		<0.01							
2/1/2022								0.0036 (J)	0.0039 (J)
2/2/2022				0.004 (J)	0.0099 (J)	<0.01			
2/3/2022	<0.01		0.0023 (J)				<0.01		

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-1	GWC-11	GWC-13	GWC-14	GWC-15	GWA-8 (bg)	GWC-16	GWC-17
9/29/2000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
11/21/2000	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1/20/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.025	<0.01	<0.01
3/14/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7/16/2001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
11/1/2001	<0.01	<0.01	<0.01	0.044 (O)	<0.01	<0.01	<0.01	<0.01	<0.01
4/25/2002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
11/20/2002		<0.01	<0.01	0.023	<0.01	<0.01	0.016	<0.01	0.014
6/6/2003	0.69 (O)	0.011	<0.01	<0.01	<0.01	<0.01	0.032	0.035 (O)	0.012
12/12/2003	0.12	<0.01	0.013	<0.01	<0.01	<0.01	0.019	<0.01	<0.01
5/26/2004	0.013	<0.01	<0.01	0.035	<0.01	<0.01	<0.01	<0.01	<0.01
12/7/2004	<0.01	<0.01	0.028 (O)	0.018	<0.01	<0.01	<0.01	<0.01	<0.01
6/21/2005	<0.01	<0.01	<0.01	0.014	<0.01	<0.01	<0.01	<0.01	<0.01
12/12/2005	0.014	<0.01	<0.01	0.023	0.011	0.064 (O)	0.01	<0.01	<0.01
4/4/2006					<0.01		<0.01	<0.01	
6/27/2006	0.01	<0.01	0.0028	0.023	0.0045	0.011	0.0043	0.077 (O)	0.0046
8/30/2006					<0.01		0.017	0.0027	
12/4/2006	0.0065	<0.01	0.0028	0.046 (O)	<0.01	0.0033	0.0053	<0.01	0.0071
2/15/2007					<0.01		0.0045	0.0032	
6/23/2007	0.0049	<0.01	0.0063	0.036	<0.01	0.0029	0.0043	0.0058	0.005
9/11/2007					<0.01		0.004	0.0033	
12/11/2007	0.0043	<0.01	<0.01	0.011	<0.01	<0.01	0.0048	<0.01	0.0033
3/11/2008					<0.01		0.0043	<0.01	
6/23/2008	0.0025		<0.01	0.0091			0.0037		
6/24/2008		<0.01			<0.01	<0.01		<0.01	0.0037
11/3/2008					<0.01		0.0032	0.0025	
12/4/2008	0.0025		<0.01	0.0038	<0.01		0.0029		
12/5/2008		<0.01				<0.01		<0.01	0.0027
3/25/2009					<0.01		0.0055	0.0025	
7/7/2009	<0.01	<0.01					0.0028		
7/8/2009			<0.01	<0.01	<0.01	<0.01		<0.01	0.0048
9/14/2009					<0.01		0.0027	<0.01	
12/20/2009	0.0031	<0.01			<0.01	<0.01	0.0029	<0.01	
12/21/2009			<0.01	0.0032					0.0032
3/4/2010					<0.01		0.0042	<0.01	
6/20/2010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0027		
6/21/2010								<0.01	0.0028
9/14/2010					<0.01		<0.01	<0.01	
1/6/2011		<0.01	<0.01	0.004					
1/7/2011	<0.01				<0.01	<0.01	0.0032	<0.01	0.003
4/15/2011					<0.01		<0.01	<0.01	
7/7/2011	0.0031	0.0025	<0.01	0.0037	<0.01	<0.01	0.005	<0.01	
7/8/2011									0.0034
9/25/2011					<0.01		0.0041	0.0028	
1/17/2012	0.004	<0.01	0.0043	0.0031	<0.01	<0.01	0.0043		
1/18/2012								0.0029	0.0049
4/4/2012					<0.01		<0.01	<0.01	
7/9/2012	0.0096	<0.01	<0.01	0.003	<0.01	<0.01			
7/10/2012							0.0028	<0.01	0.0039
10/9/2012					<0.01		0.0033	0.0027	
1/17/2013		<0.01	0.0025	<0.01					
1/18/2013	0.051				<0.01	<0.01	0.0038	<0.01	0.0043

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-1	GWC-11	GWC-13	GWC-14	GWC-15	GWA-8 (bg)	GWC-16	GWC-17
4/5/2013					<0.01		0.0026	<0.01	
7/16/2013		<0.01	<0.01	0.0029					
7/17/2013	0.042				<0.01	<0.01	<0.01	<0.01	0.0035
10/11/2013					<0.01		0.0046	<0.01	
1/13/2014	0.0025	0.0025	0.0025	0.0025		0.0025			
1/14/2014					0.0025		0.0025	0.0025	0.0025
4/3/2014					0.0014 (J)		0.0029	0.0015 (J)	
7/8/2014			0.0011 (J)	0.0018 (J)					
7/9/2014	0.064	<0.01			0.00086 (J)	<0.01	0.002 (J)	0.0012 (J)	0.0033
7/10/2014									
10/24/2014					0.00083 (J)		0.0031	0.0013 (J)	
1/12/2015									
1/13/2015	0.066	0.0025	0.0021 (J)	0.0028		<0.01			
1/14/2015					<0.01		0.003	0.0017 (J)	0.0067
5/10/2015					<0.01		0.0028		
5/11/2015								0.0015 (J)	
7/16/2015	0.036	<0.01	<0.01	0.0018 (J)		<0.01		<0.01	
7/17/2015					<0.01		0.0018 (J)		
7/18/2015									<0.01
10/6/2015					<0.01		0.0018 (J)	<0.01	
1/17/2016		<0.01			<0.01	<0.01		<0.01	
1/18/2016	0.035			0.0017 (J)			0.0028		0.012
1/19/2016			0.0029						
4/26/2016					<0.01		<0.01	<0.01	
7/26/2016			<0.01	0.0028 (J)					
7/27/2016	0.0529	<0.01			<0.01	<0.01			
7/28/2016							0.0018 (J)	<0.01	
7/29/2016									0.0086 (J)
10/24/2016							0.0024 (J)		
10/25/2016	0.0035 (J)				<0.01	<0.01		<0.01	
1/3/2017							0.0035 (J)		
1/4/2017		<0.01	<0.01					0.0025 (J)	
1/5/2017				0.0021 (J)	<0.01	<0.01			0.016
1/6/2017	0.0235								
4/3/2017						<0.01	0.0041 (J)		
4/4/2017		<0.01			<0.01				
4/5/2017								0.0025 (J)	0.0175
4/6/2017	0.0829		0.004 (J)	0.0027 (J)					
7/10/2017									
7/11/2017			<0.01		<0.01	<0.01	0.0029 (J)		
7/12/2017		<0.01		0.0043 (J)				0.002 (J)	
7/13/2017	0.0853								0.0126
10/2/2017					0.0026 (J)	<0.01	0.0026 (J)		
10/3/2017								<0.01	
10/4/2017	0.0263								
1/9/2018	0.0665				0.0018 (J)	<0.01	0.0035 (J)		
1/10/2018		0.0014 (J)		0.0021 (J)				0.0016 (J)	
1/11/2018			0.0018 (J)						0.012
7/9/2018					<0.01		0.0022 (J)		
7/10/2018		0.0021 (J)				<0.01		0.0031 (J)	
7/11/2018	0.02 (J)		<0.01	0.0039 (J)					0.011
1/16/2019	0.014 (J)	<0.01		0.047	<0.01		0.0037 (J)		0.0094 (J)



# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-7 (bg)	GWC-1	GWC-11	GWC-13	GWC-14	GWC-15	GWA-8 (bg)	GWC-16	GWC-17
1/17/2019			<0.01			<0.01		<0.01	
1/18/2019									
1/21/2019									
3/25/2019	<0.05 (O)						<0.01		
3/26/2019		<0.01		0.03	<0.01	<0.01		<0.01	0.0057 (J)
3/27/2019			<0.01						
7/30/2019									
10/7/2019							0.0077 (J)		
10/8/2019	0.095		0.0061 (J)	0.053	0.0052 (J)	0.0051 (J)		0.01	
10/9/2019		0.0057 (J)							0.011
4/6/2020	<0.01						<0.01		
4/7/2020		<0.01	<0.01		<0.01	<0.01		<0.01	
4/8/2020				0.023					<0.01
9/28/2020	0.16	0.0092 (J)		0.016			0.0092 (J)		
9/29/2020			0.0031 (J)		<0.01				
9/30/2020						0.032		0.0051 (J)	0.0043 (J)
10/1/2020									
3/10/2021		<0.01	<0.01						
3/11/2021	0.054								0.0056 (J)
3/12/2021						<0.01	0.0028 (J)		
3/15/2021				0.039					
3/16/2021					<0.01			<0.01	
9/21/2021	<0.01		<0.01	0.036			<0.01		
9/22/2021					0.01			<0.01	<0.01
9/23/2021		<0.01				<0.01			
1/31/2022	<0.01						<0.01		
2/1/2022								<0.01	0.011
2/2/2022					<0.01				
2/3/2022		<0.01	<0.01	0.037		<0.01			

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWB-4R	GWB-5R	GWC-2	GWC-12	GWB-6R	GWC-20	GWC-22	GWC-21
9/29/2000	<0.01	<0.01	0.026 (O)		0.38 (O)	<0.02 (O)			
11/21/2000	<0.01	<0.01	<0.01	0.021 (O)	0.077 (O)	0.024 (O)			
1/20/2001	<0.01	0.041	0.031 (O)	<0.01	0.23 (O)	<0.02 (O)			
3/14/2001	<0.01	<0.01	0.063 (O)	<0.01	0.24 (O)	<0.02 (O)			
7/16/2001	<0.01	0.059	0.08 (O)	<0.01	0.053 (O)	<0.02 (O)			
11/1/2001	<0.01	<0.01	0.16 (O)	<0.01	0.022 (O)	<0.02 (O)			
4/25/2002	<0.01	<0.01	<0.01	<0.01	1.2 (O)	<0.02 (O)			
11/20/2002	0.033 (O)	0.061	0.14 (O)	<0.01	0.045 (O)	0.028 (O)			
6/6/2003	<0.01	0.041	0.51 (O)	<0.01	0.042 (O)	0.032 (O)			
12/12/2003	<0.01	0.012	<0.01	<0.01	<0.01	<0.01 (O)			
5/26/2004	<0.01	0.016	0.036 (O)	<0.01	<0.01	<0.01 (O)			
12/7/2004	<0.01	<0.01	0.069 (O)	<0.01	<0.01	0.012 (O)			
6/21/2005	<0.01	<0.01	0.076 (O)	<0.01	<0.01	<0.01 (O)			
12/12/2005	0.032 (O)	0.017	<0.01	0.012	<0.01	<0.01 (O)			
4/4/2006									
6/27/2006	0.018 (O)	0.11	0.01	<0.01	0.012 (O)	0.0071			
8/30/2006									
12/4/2006	0.0044	0.086	0.0035	<0.01	0.0067	0.0096			
2/15/2007									
6/23/2007	0.0041	0.076	0.0032	<0.01	0.025 (O)	0.094 (O)			
9/11/2007									
12/11/2007	0.0039	0.087	0.0079	<0.01	0.0038	0.042 (O)			
3/11/2008									
6/23/2008	<0.01				0.0051				
6/24/2008		0.062	<0.01	<0.01		0.098 (O)			
11/3/2008									
12/4/2008	0.0039			<0.01	<0.01				
12/5/2008		0.014	<0.01			0.047 (O)			
3/25/2009									
7/7/2009		0.052	<0.01			0.024 (O)			
7/8/2009	<0.01			<0.01	<0.01				
9/14/2009									
12/20/2009				<0.01					
12/21/2009	0.004	0.046	<0.01		0.013 (O)	0.049 (O)			
3/4/2010									
6/20/2010	<0.01		<0.01	<0.01	<0.01	0.045 (O)			
6/21/2010		0.045					<0.01	<0.01	0.04 (O)
9/14/2010									
1/6/2011			<0.01	<0.01					
1/7/2011	0.0032	0.024			0.004	0.0044	<0.01	0.019	<0.01
4/15/2011									
7/7/2011			0.0027		0.0028	0.003	<0.01		
7/8/2011	0.0025	0.023					0.086 (JO)	0.1 (O)	0.0044
9/25/2011									
1/17/2012			0.0039	<0.01	0.0043				
1/18/2012	0.0045	0.011				0.0048	<0.01	0.0051	<0.01
4/4/2012									
7/9/2012			<0.01	<0.01	<0.01				
7/10/2012	<0.01	0.024				<0.01	<0.01	0.01	<0.01
10/9/2012									
1/17/2013			<0.01	<0.01	0.0033				
1/18/2013	0.0029	0.011				0.0028	0.0032	0.0036	<0.01

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWB-4R	GWB-5R	GWC-2	GWC-12	GWB-6R	GWC-20	GWC-22	GWC-21
4/5/2013									
7/16/2013			0.0032		0.0028				
7/17/2013	<0.01	0.0029		<0.01		<0.01	<0.01	0.0025	<0.01
10/11/2013									
1/13/2014			0.0025	0.0025	0.0025				
1/14/2014	0.0025	0.0025				0.0025	0.0025	0.0025	0.0025
4/3/2014									
7/8/2014					0.002 (J)				
7/9/2014	0.0016 (J)	0.0051	0.00076 (J)	0.00058 (J)		0.00093 (J)			0.00084 (J)
7/10/2014							<0.01	0.024	
10/24/2014									
1/12/2015		0.0023 (J)					<0.01		
1/13/2015			0.0036	0.0024 (J)	0.0079				
1/14/2015	0.0024 (J)					0.0023 (J)		0.0016 (J)	0.0018 (J)
5/10/2015									
5/11/2015									
7/16/2015		0.0021 (J)	<0.01	<0.01	0.0026				
7/17/2015	0.0031					<0.01			<0.01
7/18/2015							<0.01	0.014	
10/6/2015									
1/17/2016				<0.01			<0.01		<0.01
1/18/2016	0.0059	0.0092	<0.01		0.0025	0.0029		<0.01	
1/19/2016									
4/26/2016									
7/26/2016									
7/27/2016			0.0015 (J)	0.0018 (J)	0.0021 (J)				
7/28/2016	0.0019 (J)					<0.01	<0.01		<0.01
7/29/2016		0.003 (J)						0.0129	
10/24/2016									
10/25/2016							<0.01		
1/3/2017			<0.01						
1/4/2017					0.0025 (J)		<0.01	0.006 (J)	<0.01
1/5/2017				<0.01		<0.01			
1/6/2017	0.0026 (J)	0.0104							
4/3/2017									
4/4/2017		0.0132		0.0015 (J)			<0.01		0.0015 (J)
4/5/2017					0.0026 (J)				
4/6/2017	0.0047 (J)		0.0023 (J)			0.0032 (J)		0.0031 (J)	
7/10/2017					0.0023 (J)				
7/11/2017							<0.01	0.0029 (J)	
7/12/2017	0.003 (J)	0.0046 (J)	<0.01			0.002 (J)			
7/13/2017				0.0014 (J)					0.002 (J)
10/2/2017							<0.01		
10/3/2017									
10/4/2017									
1/9/2018						0.0036 (J)			0.0016 (J)
1/10/2018			0.0022 (J)	<0.01			0.0034 (J)		
1/11/2018	0.0046 (J)	0.0095 (J)			0.0031 (J)			0.0106	
7/9/2018							<0.01		
7/10/2018			<0.01	<0.01		0.0055 (J)			<0.01
7/11/2018	0.0033 (J)	0.0028 (J)			0.0036 (J)			0.0057 (J)	
1/16/2019		0.0052 (J)	<0.01			<0.01			

# Prediction Limit

Constituent: Zinc (mg/L) Analysis Run 4/13/2022 2:07 PM View: Appendix I  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-9	GWB-4R	GWB-5R	GWC-2	GWC-12	GWB-6R	GWC-20	GWC-22	GWC-21
1/17/2019					0.0032 (J)				<0.01
1/18/2019	0.0025 (J)							0.0024 (J)	
1/21/2019				<0.01			<0.01		
3/25/2019		0.0078 (J)					<0.01		
3/26/2019			<0.01			<0.01			<0.01
3/27/2019	0.0026 (J)				0.0031 (J)			<0.01	
7/30/2019				0.0067 (J)					
10/7/2019									
10/8/2019									0.0071 (J)
10/9/2019	0.0054 (J)	0.0064 (J)	0.0081 (J)	0.005 (J)	0.0057 (J)	0.016 (J)	0.0049 (J)	0.0079 (J)	
4/6/2020									
4/7/2020		<0.01	<0.01		<0.01	<0.01		<0.01	<0.01
4/8/2020	<0.01			<0.01			<0.01		
9/28/2020									
9/29/2020				0.056	0.0074 (J)				
9/30/2020			<0.01			<0.01	0.031	<0.01	0.0096 (J)
10/1/2020	0.025	0.0064 (J)							
3/10/2021	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	
3/11/2021									
3/12/2021							<0.01		
3/15/2021				<0.01					
3/16/2021									<0.01
9/21/2021		<0.01	<0.01		<0.01	<0.01		<0.01	
9/22/2021	<0.01			<0.01			<0.01		<0.01
9/23/2021									
1/31/2022									
2/1/2022							<0.01		<0.01
2/2/2022	<0.01	<0.01		<0.01		<0.01			
2/3/2022			<0.01		<0.01			<0.01	

FIGURE E.

# Appendix I Trend Tests - Prediction Limit Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:11 PM

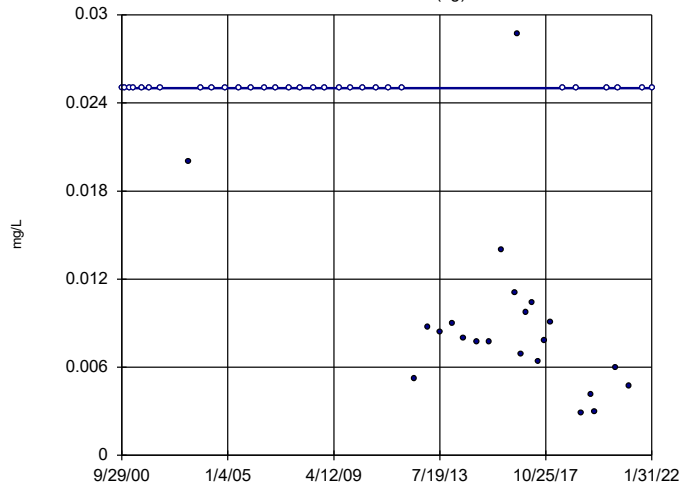
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWA-7 (bg)	0	-3.792	-2.58	Yes	52	57.69	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	-2.899	-2.58	Yes	73	91.78	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-15	0.004915	8.212	2.58	Yes	53	47.17	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-16	-0.001082	-2.68	-2.58	Yes	72	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWA-8 (bg)	-0.002919	-8.887	-2.58	Yes	72	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWC-16	0.001647	3.607	2.58	Yes	69	0	n/a	n/a	0.01	NP
Barium (mg/L)	GWC-20	0.01405	306	161	Yes	32	0	n/a	n/a	0.01	NP

# Appendix I Trend Tests - Prediction Limit Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:11 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Arsenic (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>0</b>	<b>-3.792</b>	<b>-2.58</b>	<b>Yes</b>	<b>52</b>	<b>57.69</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>GWA-8 (bg)</b>	<b>0</b>	<b>-2.899</b>	<b>-2.58</b>	<b>Yes</b>	<b>73</b>	<b>91.78</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.004915</b>	<b>8.212</b>	<b>2.58</b>	<b>Yes</b>	<b>53</b>	<b>47.17</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
<b>Arsenic (mg/L)</b>	<b>GWC-16</b>	<b>-0.001082</b>	<b>-2.68</b>	<b>-2.58</b>	<b>Yes</b>	<b>72</b>	<b>0</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
Arsenic (mg/L)	GWC-20	0.006766	88	161	No	32	3.125	<i>n/a</i>	<i>n/a</i>	0.01	NP
Barium (mg/L)	GWA-7 (bg)	-0.0004935	-0.5778	-2.58	No	51	0	<i>n/a</i>	<i>n/a</i>	0.01	NP
<b>Barium (mg/L)</b>	<b>GWA-8 (bg)</b>	<b>-0.002919</b>	<b>-8.887</b>	<b>-2.58</b>	<b>Yes</b>	<b>72</b>	<b>0</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
<b>Barium (mg/L)</b>	<b>GWC-16</b>	<b>0.001647</b>	<b>3.607</b>	<b>2.58</b>	<b>Yes</b>	<b>69</b>	<b>0</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
<b>Barium (mg/L)</b>	<b>GWC-20</b>	<b>0.01405</b>	<b>306</b>	<b>161</b>	<b>Yes</b>	<b>32</b>	<b>0</b>	<i>n/a</i>	<i>n/a</i>	<b>0.01</b>	<b>NP</b>
Barium (mg/L)	GWC-21	-0.002852	-80	-152	No	31	0	<i>n/a</i>	<i>n/a</i>	0.01	NP

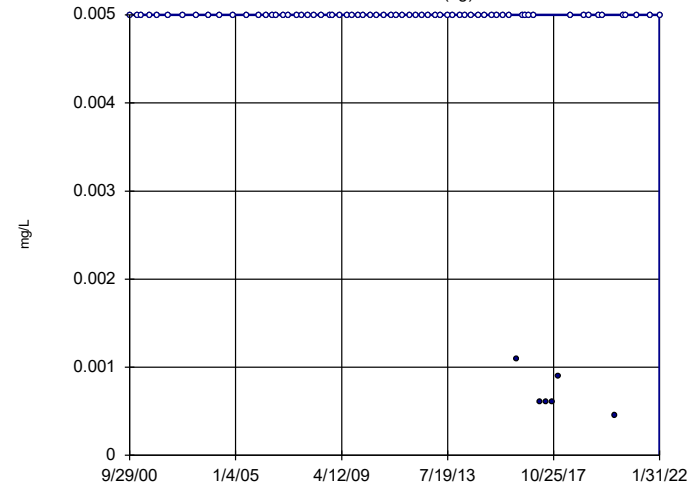
Sen's Slope Estimator  
GWA-7 (bg)



n = 52  
Slope = 0  
units per year.  
Mann-Kendall  
normal approx. =  
-3.792  
critical = -2.58  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Arsenic Analysis Run 4/13/2022 2:10 PM View: Appendix I - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

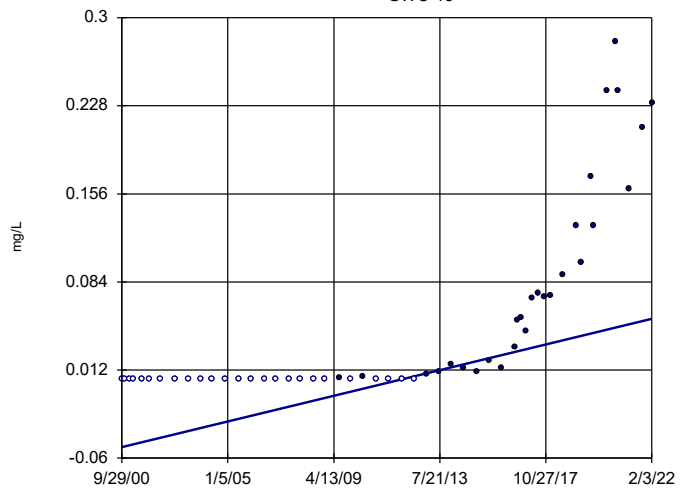
Sen's Slope Estimator  
GWA-8 (bg)



n = 73  
Slope = 0  
units per year.  
Mann-Kendall  
normal approx. =  
-2.899  
critical = -2.58  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Arsenic Analysis Run 4/13/2022 2:10 PM View: Appendix I - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

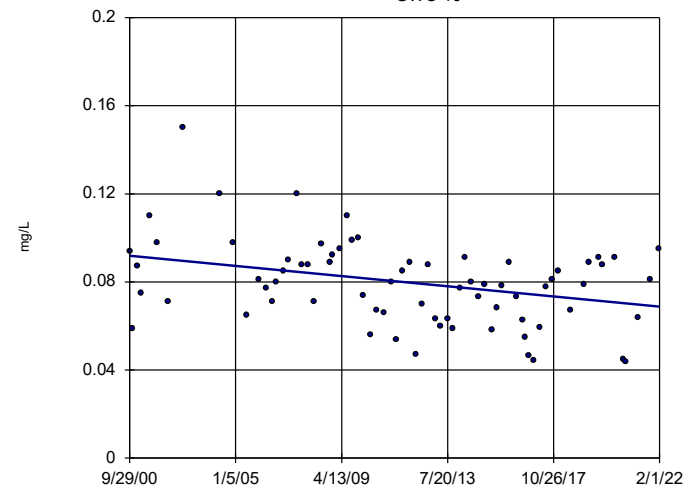
Sen's Slope Estimator  
GWC-15



n = 53  
Slope = 0.004915  
units per year.  
Mann-Kendall  
normal approx. =  
8.212  
critical = 2.58  
Increasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Arsenic Analysis Run 4/13/2022 2:10 PM View: Appendix I - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-16

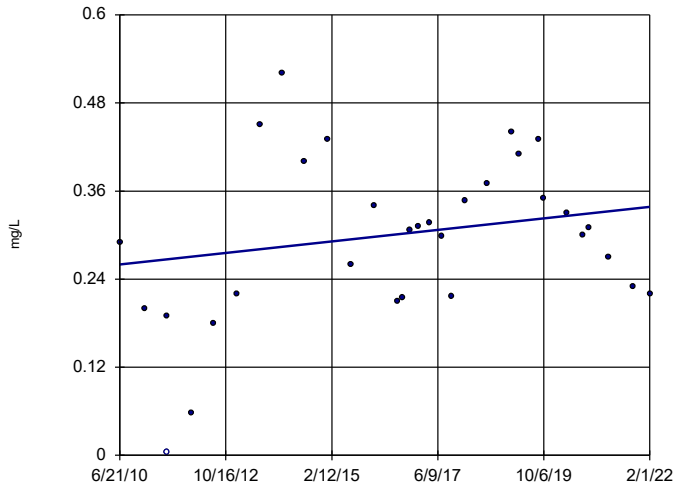


n = 72  
Slope = -0.001082  
units per year.  
Mann-Kendall  
normal approx. =  
-2.68  
critical = -2.58  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Arsenic Analysis Run 4/13/2022 2:10 PM View: Appendix I - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



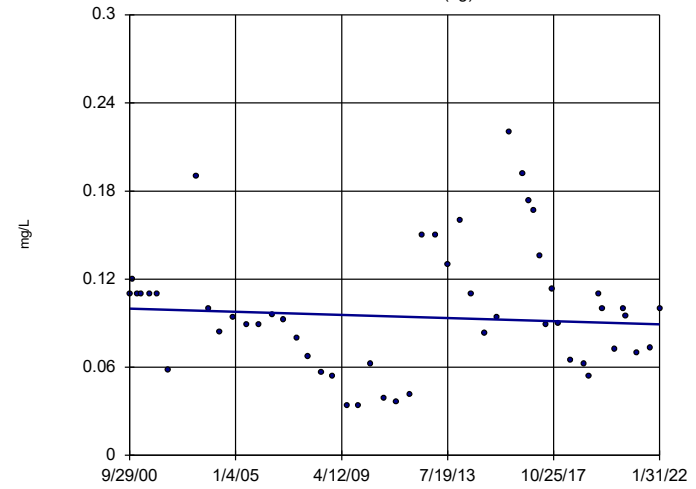
Sen's Slope Estimator  
 GWC-20



n = 32  
 Slope = 0.006766  
 units per year.  
 Mann-Kendall  
 statistic = 88  
 critical = 161  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Arsenic Analysis Run 4/13/2022 2:10 PM View: Appendix I - Trend Tests  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

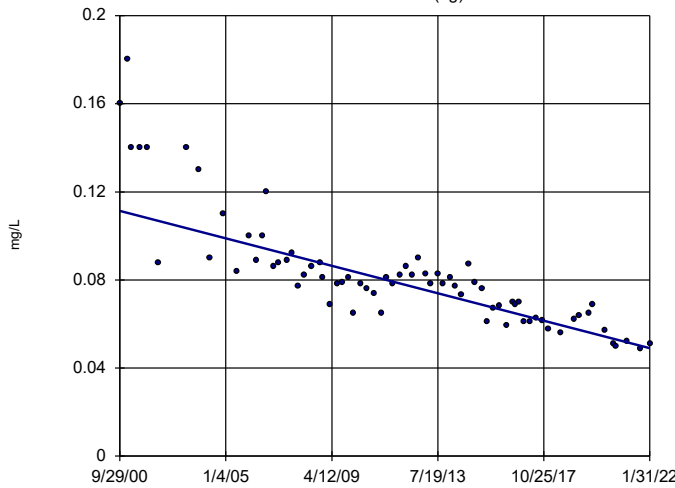
Sen's Slope Estimator  
 GWA-7 (bg)



n = 51  
 Slope = -0.0004935  
 units per year.  
 Mann-Kendall  
 normal approx. =  
 -0.5778  
 critical = -2.58  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Barium Analysis Run 4/13/2022 2:10 PM View: Appendix I - Trend Tests  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

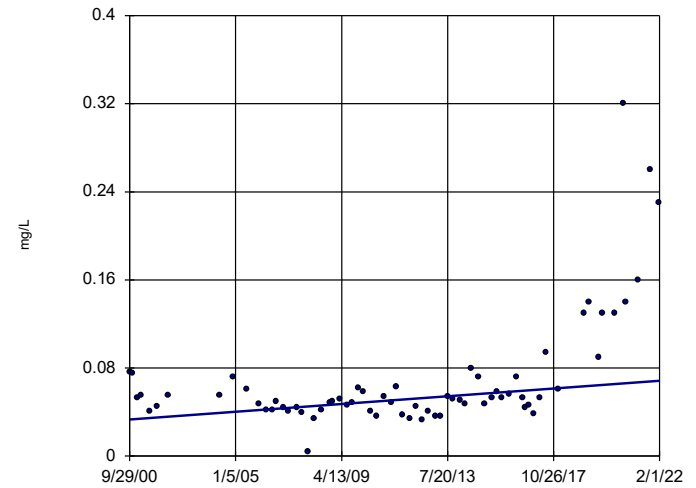
Sen's Slope Estimator  
 GWA-8 (bg)



n = 72  
 Slope = -0.002919  
 units per year.  
 Mann-Kendall  
 normal approx. =  
 -8.887  
 critical = -2.58  
 Decreasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Barium Analysis Run 4/13/2022 2:10 PM View: Appendix I - Trend Tests  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

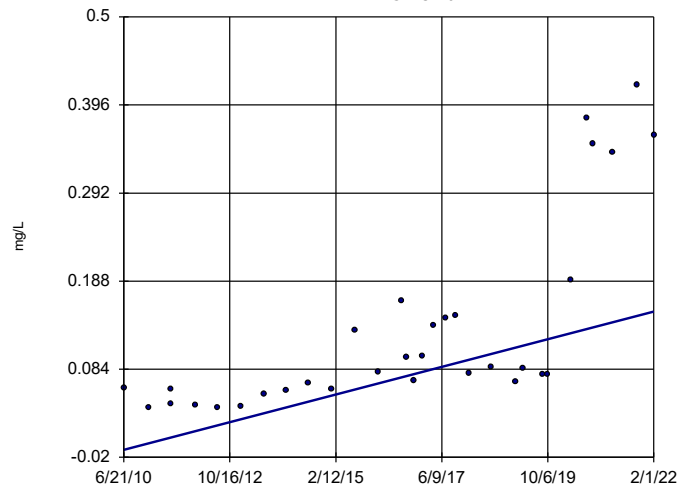
Sen's Slope Estimator  
 GWC-16



n = 69  
 Slope = 0.001647  
 units per year.  
 Mann-Kendall  
 normal approx. =  
 3.607  
 critical = 2.58  
 Increasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

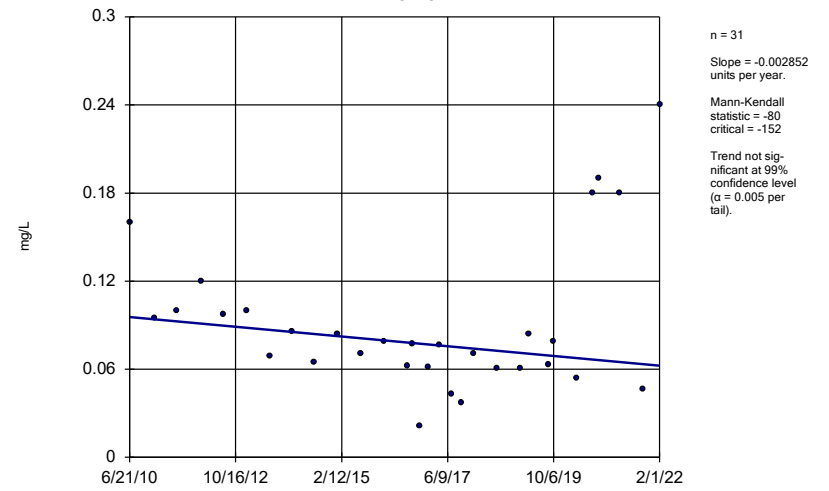
Constituent: Barium Analysis Run 4/13/2022 2:10 PM View: Appendix I - Trend Tests  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-20



Constituent: Barium Analysis Run 4/13/2022 2:10 PM View: Appendix I - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-21



Constituent: Barium Analysis Run 4/13/2022 2:10 PM View: Appendix I - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

FIGURE F.

# Appendix III Interwell Prediction Limits - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:21 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Calcium (mg/L)	GWB-4R	35.8	n/a	2/2/2022	98.2	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-5R	35.8	n/a	2/3/2022	130	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWB-6R	35.8	n/a	2/2/2022	293	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-1	35.8	n/a	2/3/2022	58.2	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-11	35.8	n/a	2/3/2022	65.4	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-12	35.8	n/a	2/3/2022	63.7	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-14	35.8	n/a	2/2/2022	245	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-15	35.8	n/a	2/3/2022	144	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-16	35.8	n/a	2/1/2022	267	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-17	35.8	n/a	2/1/2022	90.8	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-20	35.8	n/a	2/1/2022	259	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-21	35.8	n/a	2/1/2022	125	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-17	260	n/a	2/1/2022	549	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWC-17	0.4391	n/a	2/1/2022	0.68	Yes	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
pH (SU)	GWC-12	6.43	4.23	2/3/2022	4.04	Yes	34	n/a	n/a	n/a	0	n/a	n/a	0.002907 NP Inter (normality) 1 of 2
pH (SU)	GWC-15	6.43	4.23	2/3/2022	6.61	Yes	34	n/a	n/a	n/a	0	n/a	n/a	0.002907 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-4R	160	n/a	2/2/2022	338	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-5R	160	n/a	2/3/2022	797	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWB-6R	160	n/a	2/2/2022	1460	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-11	160	n/a	2/3/2022	347	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-12	160	n/a	2/3/2022	333	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-14	160	n/a	2/2/2022	589	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-16	160	n/a	2/1/2022	1010	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-17	160	n/a	2/1/2022	416	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-20	160	n/a	2/1/2022	862	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-21	160	n/a	2/1/2022	374	Yes	32	n/a	n/a	n/a	0	n/a	n/a	0.001622 NP Inter (normality) 1 of 2

# Appendix III Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:21 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Obsv.	Sig.	Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GWB-4R	21.8	n/a	2/2/2022	6.2	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-5R	21.8	n/a	2/3/2022	4.9	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWB-6R	21.8	n/a	2/2/2022	6.2	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-1	21.8	n/a	2/3/2022	0.59	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-11	21.8	n/a	2/3/2022	0.1	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-12	21.8	n/a	2/3/2022	7.5	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-13	21.8	n/a	2/3/2022	0.37	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-14	21.8	n/a	2/2/2022	0.044	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-15	21.8	n/a	2/3/2022	0.71	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-16	21.8	n/a	2/1/2022	16	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-17	21.8	n/a	2/1/2022	1.8	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-2	21.8	n/a	2/2/2022	0.023J	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-20	21.8	n/a	2/1/2022	15.7	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-21	21.8	n/a	2/1/2022	4.4	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-22	21.8	n/a	2/3/2022	0.18	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Boron (mg/L)	GWC-9	21.8	n/a	2/2/2022	0.011J	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWB-4R</b>	<b>35.8</b>	<b>n/a</b>	<b>2/2/2022</b>	<b>98.2</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWB-5R</b>	<b>35.8</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>130</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWB-6R</b>	<b>35.8</b>	<b>n/a</b>	<b>2/2/2022</b>	<b>293</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-1</b>	<b>35.8</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>58.2</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-11</b>	<b>35.8</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>65.4</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-12</b>	<b>35.8</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>63.7</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-13	35.8	n/a	2/3/2022	2.7	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-14</b>	<b>35.8</b>	<b>n/a</b>	<b>2/2/2022</b>	<b>245</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-15</b>	<b>35.8</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>144</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-16</b>	<b>35.8</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>267</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-17</b>	<b>35.8</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>90.8</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-2	35.8	n/a	2/2/2022	0.16J	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GWC-20</b>	<b>35.8</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>259</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>GWC-21</b>	<b>35.8</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>125</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GWC-22	35.8	n/a	2/3/2022	14.6	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Calcium (mg/L)	GWC-9	35.8	n/a	2/2/2022	4.6	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-4R	260	n/a	2/2/2022	14.5	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-5R	260	n/a	2/3/2022	38.5	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWB-6R	260	n/a	2/2/2022	42.3	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-1	260	n/a	2/3/2022	8	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-11	260	n/a	2/3/2022	83.4	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-12	260	n/a	2/3/2022	57	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-13	260	n/a	2/3/2022	8.8	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-14	260	n/a	2/2/2022	29.6	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-15	260	n/a	2/3/2022	5.1	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-16	260	n/a	2/1/2022	61.5	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
<b>Chloride (mg/L)</b>	<b>GWC-17</b>	<b>260</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>549</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	GWC-2	260	n/a	2/2/2022	6.9	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-20	260	n/a	2/1/2022	33.4	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-21	260	n/a	2/1/2022	29.3	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-22	260	n/a	2/3/2022	10.8	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Chloride (mg/L)	GWC-9	260	n/a	2/2/2022	17.5	No	32	n/a	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Fluoride (mg/L)	GWB-4R	0.4391	n/a	2/2/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWB-5R	0.4391	n/a	2/3/2022	0.081J	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWB-6R	0.4391	n/a	2/2/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-1	0.4391	n/a	2/3/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-11	0.4391	n/a	2/3/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-12	0.4391	n/a	2/3/2022	0.36	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-13	0.4391	n/a	2/3/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	
Fluoride (mg/L)	GWC-14	0.4391	n/a	2/2/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2	

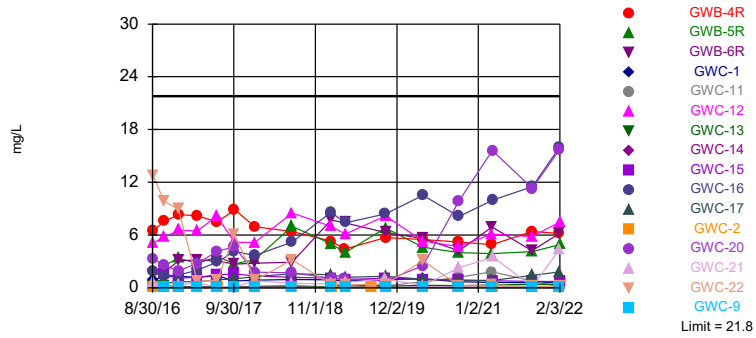
# Appendix III Interwell Prediction Limits - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:21 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	NBq	Mean	Std. Dev.	%NDs	ND Adj.	TransformAlpha	Method
Fluoride (mg/L)	GWC-15	0.4391	n/a	2/3/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-16	0.4391	n/a	2/1/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
<b>Fluoride (mg/L)</b>	<b>GWC-17</b>	<b>0.4391</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>0.68</b>	<b>Yes</b>	<b>36</b>	<b>-2.301</b>	<b>0.667</b>	<b>25</b>	<b>Kaplan-Meier</b>	<b>ln(x)</b>	<b>0.0004702</b>	<b>Param Inter 1 of 2</b>
Fluoride (mg/L)	GWC-2	0.4391	n/a	2/2/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-20	0.4391	n/a	2/1/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-21	0.4391	n/a	2/1/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-22	0.4391	n/a	2/3/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
Fluoride (mg/L)	GWC-9	0.4391	n/a	2/2/2022	0.1ND	No	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.0004702	Param Inter 1 of 2
pH (SU)	GWB-4R	6.43	4.23	2/2/2022	5.71	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
pH (SU)	GWB-5R	6.43	4.23	2/3/2022	4.48	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
pH (SU)	GWB-6R	6.43	4.23	2/2/2022	5.75	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
pH (SU)	GWC-1	6.43	4.23	2/3/2022	5.89	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
pH (SU)	GWC-11	6.43	4.23	2/3/2022	4.98	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GWC-12</b>	<b>6.43</b>	<b>4.23</b>	<b>2/3/2022</b>	<b>4.04</b>	<b>Yes</b>	<b>34</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002907</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GWC-13	6.43	4.23	2/3/2022	4.97	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
pH (SU)	GWC-14	6.43	4.23	2/2/2022	5.98	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
<b>pH (SU)</b>	<b>GWC-15</b>	<b>6.43</b>	<b>4.23</b>	<b>2/3/2022</b>	<b>6.61</b>	<b>Yes</b>	<b>34</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.002907</b>	<b>NP Inter (normality) 1 of 2</b>
pH (SU)	GWC-16	6.43	4.23	2/1/2022	5.57	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
pH (SU)	GWC-17	6.43	4.23	2/1/2022	4.53	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
pH (SU)	GWC-2	6.43	4.23	2/2/2022	4.79	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
pH (SU)	GWC-20	6.43	4.23	2/1/2022	5.9	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
pH (SU)	GWC-21	6.43	4.23	2/1/2022	5.76	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
pH (SU)	GWC-22	6.43	4.23	2/3/2022	4.63	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
pH (SU)	GWC-9	6.43	4.23	2/2/2022	4.66	No	34	n/a	n/a	0	n/a	n/a	0.002907	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWB-4R</b>	<b>160</b>	<b>n/a</b>	<b>2/2/2022</b>	<b>338</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWB-5R</b>	<b>160</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>797</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWB-6R</b>	<b>160</b>	<b>n/a</b>	<b>2/2/2022</b>	<b>1460</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-1	160	n/a	2/3/2022	49.2	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-11</b>	<b>160</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>347</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWC-12</b>	<b>160</b>	<b>n/a</b>	<b>2/3/2022</b>	<b>333</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-13	160	n/a	2/3/2022	32.1	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-14</b>	<b>160</b>	<b>n/a</b>	<b>2/2/2022</b>	<b>589</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-15	160	n/a	2/3/2022	102	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-16</b>	<b>160</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>1010</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWC-17</b>	<b>160</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>416</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-2	160	n/a	2/2/2022	9	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
<b>Sulfate (mg/L)</b>	<b>GWC-20</b>	<b>160</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>862</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>GWC-21</b>	<b>160</b>	<b>n/a</b>	<b>2/1/2022</b>	<b>374</b>	<b>Yes</b>	<b>32</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.001622</b>	<b>NP Inter (normality) 1 of 2</b>
Sulfate (mg/L)	GWC-22	160	n/a	2/3/2022	46.2	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GWC-9	160	n/a	2/2/2022	31.5	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-4R	3660	n/a	2/2/2022	654	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-5R	3660	n/a	2/3/2022	1240	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWB-6R	3660	n/a	2/2/2022	2440	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-1	3660	n/a	2/3/2022	315	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-11	3660	n/a	2/3/2022	538	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-12	3660	n/a	2/3/2022	566	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-13	3660	n/a	2/3/2022	72	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-14	3660	n/a	2/2/2022	1130	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-15	3660	n/a	2/3/2022	516	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-16	3660	n/a	2/1/2022	1990	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-17	3660	n/a	2/1/2022	1580	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-2	3660	n/a	2/2/2022	43	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-20	3660	n/a	2/1/2022	1580	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-21	3660	n/a	2/1/2022	783	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-22	3660	n/a	2/3/2022	89	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	GWC-9	3660	n/a	2/2/2022	96	No	32	n/a	n/a	0	n/a	n/a	0.001622	NP Inter (normality) 1 of 2

Within Limit

Prediction Limit  
Interwell Non-parametric

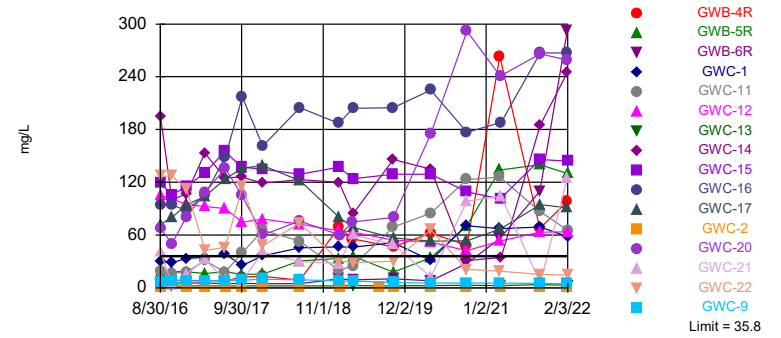


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. Annual per-constituent alpha = 0.05063. Individual comparison alpha = 0.001622 (1 of 2). Comparing 16 points to limit.

Constituent: Boron Analysis Run 4/13/2022 2:13 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWB-4R, GWB-5R, GWB-6R, GWC-1, GWC-11, GWC-12, GWC-14, GWC-15, GWC-16, GWC-17, GWC-20,...

Prediction Limit  
Interwell Non-parametric

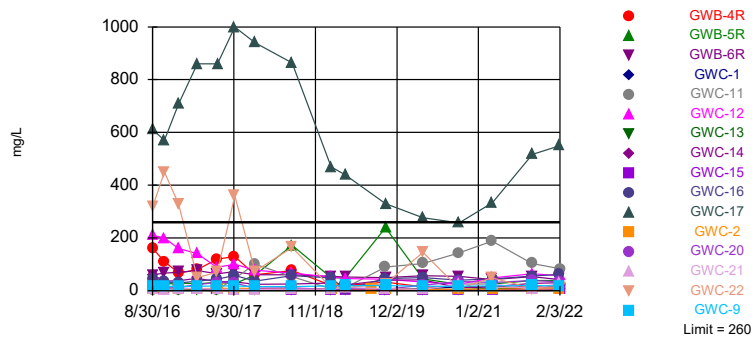


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. Annual per-constituent alpha = 0.05063. Individual comparison alpha = 0.001622 (1 of 2). Comparing 16 points to limit.

Constituent: Calcium Analysis Run 4/13/2022 2:13 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWC-17

Prediction Limit  
Interwell Non-parametric

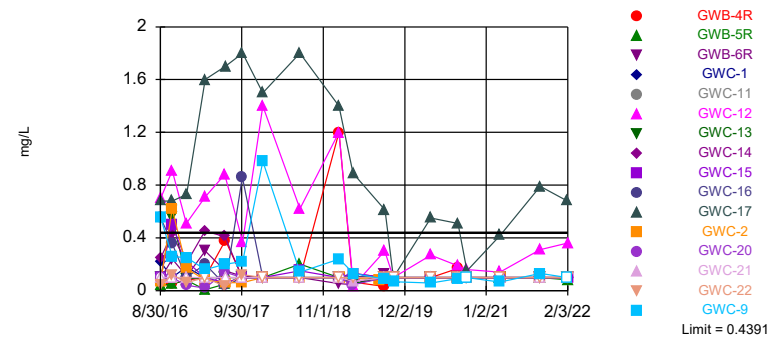


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. Annual per-constituent alpha = 0.05063. Individual comparison alpha = 0.001622 (1 of 2). Comparing 16 points to limit.

Constituent: Chloride Analysis Run 4/13/2022 2:13 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWC-17

Prediction Limit  
Interwell Parametric



Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-2.301, Std. Dev.=0.667, n=36, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9133, critical = 0.912. Kappa = 2.216 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004702. Comparing 16 points to limit.

Constituent: Fluoride Analysis Run 4/13/2022 2:13 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-5R	GWB-6R	GWC-1	GWA-8 (bg)	GWC-12	GWC-11	GWC-22	GWC-2	GWC-13
8/30/2016	1.09	1.41	0.875	0.117					
8/31/2016					5.1	0.0688 (J)	12.8	0.0196 (J)	0.261
9/1/2016									
10/24/2016				0.126					
10/25/2016			1.22						
10/26/2016	2.5	1.83			5.74	0.083 (J)	9.81	0.05 (J)	0.211
10/27/2016									
1/3/2017	3.39			0.124					
1/4/2017			1.3		6.56	0.0738	8.94		
1/5/2017		3.07						0.0162 (J)	0.179
1/6/2017									
4/3/2017				0.105					
4/4/2017			1.19					0.019 (J)	
4/5/2017					6.49				
4/6/2017	2.76	3.19				0.0754	0.733		0.112
7/10/2017					8.13				
7/11/2017				0.136		0.0614	0.852		
7/12/2017	3.55	3.06	1.37						0.0882
7/13/2017								0.023 (J)	
10/2/2017				0.107					
10/3/2017	2.72	2.69	0.765			0.0838		0.0266 (J)	
10/4/2017					5.18		6.05		0.116
1/9/2018		2.81		0.123					
1/10/2018	3.21		0.876					0.0203 (J)	0.101
1/11/2018					5.16	0.169	0.838		
7/9/2018				0.11					
7/10/2018	7	2.9	0.94					0.026 (J)	
7/11/2018					8.5	0.3	3.2		0.098
1/16/2019	5	7.7	0.91	0.13					0.11
1/17/2019					7	0.065			
1/18/2019							0.37		
1/21/2019								0.018 (J)	
3/25/2019				0.098					
3/26/2019	4	7.4	0.77						0.35
3/27/2019					6.1	0.089	0.37		
7/30/2019								0.02 (J)	
10/7/2019				0.12					
10/8/2019						0.22			0.18
10/9/2019	6.8	6.3	0.93		8.2		0.39	0.024 (J)	
4/6/2020				0.14					
4/7/2020	4.6	5.6	1		5.3	0.67	3.1		
4/8/2020								0.031 (J)	0.28
9/28/2020			0.69	0.15					0.24
9/29/2020					4.7	1.2		0.024 (J)	
9/30/2020	4	4.2					0.25		
10/1/2020									
3/10/2021	3.9	6.9	0.63		6.1	1.8	0.32		
3/11/2021									
3/12/2021				0.11					
3/15/2021								0.084	0.31
3/16/2021									
9/21/2021	4.1	4.2		0.13	5.8	0.8	0.19		0.38



# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWB-5R	GWB-6R	GWC-1	GWA-8 (bg)	GWC-12	GWC-11	GWC-22	GWC-2	GWC-13
9/22/2021								0.017 (J)	
9/23/2021			0.59						
1/31/2022				0.13					
2/1/2022									
2/2/2022		6.2						0.023 (J)	
2/3/2022	4.9		0.59		7.5	0.1	0.18		0.37

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-21	GWB-4R	GWC-20	GWA-7 (bg)	GWC-16	GWC-17	GWC-14	GWC-15	GWC-9
8/30/2016									
8/31/2016									0.096 (JO)
9/1/2016	0.62	6.48	3.34	11.6	1.82	0.408	0.071 (J)	9.01 (O)	
10/24/2016									
10/25/2016	0.0658 (J)		2.54	21.4	1.26		0.0819 (J)	1.66	
10/26/2016		7.57				0.5			
10/27/2016									0.0281 (J)
1/3/2017									
1/4/2017	0.36		1.91		1.46				
1/5/2017						0.676	0.0813	1.1	
1/6/2017		8.34		20.1					0.0189 (J)
4/3/2017								1.21	
4/4/2017	0.509	8.18	2.77				0.0723		
4/5/2017					2	0.69			
4/6/2017				21.8					0.0181 (J)
7/10/2017									
7/11/2017			4.14				0.0734	1.44	
7/12/2017		7.51			2.95				0.0211 (J)
7/13/2017	0.126			16.3		0.888			
10/2/2017			4.65				0.0748	1.59	
10/3/2017	0.1				4.15				
10/4/2017		8.88		21.5		1.02			0.0254 (J)
1/9/2018	0.783			13.9			0.0679	1.35	
1/10/2018			1.79		3.68				
1/11/2018		6.95				1.28			0.018 (J)
7/9/2018			1.7				0.061		
7/10/2018	0.5				5.2			1.2	
7/11/2018		6.4		11.7		1.6			0.02 (J)
1/16/2019		5.3		9.3		1.5	0.046		
1/17/2019	0.43				8.6			1.1	
1/18/2019									0.018 (J)
1/21/2019			1.1						
3/25/2019		4.4	1	8.5					
3/26/2019	0.61				7.4	1.2	0.037 (J)	0.95	
3/27/2019									0.016 (J)
7/30/2019									
10/7/2019									
10/8/2019	1			6.4	8.4		0.048	1.1	
10/9/2019		5.7	0.79			1.3			0.019 (J)
4/6/2020				6.1					
4/7/2020	0.24	5.5			10.5		0.061 (J)	0.96	
4/8/2020			2.5			0.99			0.023 (J)
9/28/2020				4.6					
9/29/2020							0.053		
9/30/2020	2.3		9.9		8.1	0.86		0.86	
10/1/2020		5.2							0.028 (J)
3/10/2021		4.9							0.022 (J)
3/11/2021				8		0.85			
3/12/2021			15.6					0.81	
3/15/2021									
3/16/2021	3.5				10		0.08		
9/21/2021		6.4		4.4					



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-1	GWB-6R	GWB-5R	GWA-8 (bg)	GWC-11	GWC-12	GWC-9	GWC-13	GWC-22
8/30/2016	29.4	4.68	14.3	23.8					
8/31/2016					18.8	105	6.9	2.77	127
9/1/2016									
10/24/2016				22.5					
10/25/2016	28.3								
10/26/2016		5.45	18.6		16.6	101		2.25	127
10/27/2016							8.2		
1/3/2017			18.1	22.1					
1/4/2017	33.4				17.6	94.9			113
1/5/2017		5.35						2.27	
1/6/2017							7.97		
4/3/2017				24.6 (J)					
4/4/2017	34.6								
4/5/2017						92.5			
4/6/2017		5.41	16.2		30.9		7.95	2.04	42.7
7/10/2017						90.3			
7/11/2017				23.5	17.7				46
7/12/2017	38	4.81	18.1				8.37	2.25	
7/13/2017									
10/2/2017				22.7					
10/3/2017	25.5	5.17	15.2		39.8				
10/4/2017						74.6	8.57	2.19	115
1/9/2018		4.73		23.2					
1/10/2018	36.5		15.5					2.28	
1/11/2018					65.6	78.1	9.78		47.6
7/9/2018				24.6 (J)					
7/10/2018	45.5	4.5	30.6						
7/11/2018					53	72.2	9.2	2.3	73.7
1/16/2019	46.5	10.1	33.3	27.7				2.3	
1/17/2019					19.8 (J)	64.7			
1/18/2019							8.1		30.6
1/21/2019									
3/25/2019				31.7					
3/26/2019	46.3	9	36.1					2.4	
3/27/2019					25.1	63.1	7.7		28.8
7/30/2019									
10/7/2019				31.6					
10/8/2019					69.2			2.3	
10/9/2019	51.2	10.1	17.7			54.2	6		30.1
4/6/2020				35.8					
4/7/2020	31.1	7.8	34.1		84.7	52.1			65.7
4/8/2020							5.3	2.5	
9/28/2020	70.7			25.6				2.9	
9/29/2020					123	42			
9/30/2020		27.5	70.4						20.9
10/1/2020							5.5		
3/10/2021	67.2	55.9	134		126	53.1	5.3		18.7
3/11/2021									
3/12/2021				21.4					
3/15/2021								2.4	
3/16/2021									
9/21/2021		110	140	18.5	87	63.4		3.6	15.3

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-1	GWB-6R	GWB-5R	GWA-8 (bg)	GWC-11	GWC-12	GWC-9 5	GWC-13	GWC-22
9/22/2021									
9/23/2021	69.1								
1/31/2022				17.2					
2/1/2022									
2/2/2022		293					4.6		
2/3/2022	58.2		130		65.4	63.7		2.7	14.6

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-2	GWC-14	GWC-15	GWC-16	GWB-4R	GWC-17	GWC-20	GWA-7 (bg)	GWC-21
8/30/2016									
8/31/2016	0.371 (J)								
9/1/2016		194	119	93.8	9.91	71.9	67.2	5.59	40.5
10/24/2016									
10/25/2016		100	106	94.1			50.1	6.43	3.91
10/26/2016	5.84				8.56	80.3			
10/27/2016									
1/3/2017									
1/4/2017				88.2			80.4		15.2
1/5/2017	0.379 (J)	107	115			94.4			
1/6/2017					8.18			8.13	
4/3/2017			131						
4/4/2017	0.993	153			8.12		108		32.3
4/5/2017				106		104			
4/6/2017								7.72	
7/10/2017									
7/11/2017		125	155				136		
7/12/2017				149	8				
7/13/2017	0.388 (J)					124		4.57	8.92
10/2/2017		126	137				105		
10/3/2017	0.251 (J)			217					7.88
10/4/2017					12.5	136		6.41	
1/9/2018		119	135					4.68	40.5
1/10/2018	0.177 (J)			161			60.1		
1/11/2018					12.9	139			
7/9/2018		123					75.9		
7/10/2018	0.17 (J)		129	205					29.8
7/11/2018					8.6	122		3.9	
1/16/2019		120			68.8	80.5		4.3	
1/17/2019			137	187					27.6
1/18/2019									
1/21/2019	0.19 (J)						60		
3/25/2019					55.6		74.8	3.9	
3/26/2019		84.2	124	204		68.8			60.1
3/27/2019									
7/30/2019	0.43								
10/7/2019									
10/8/2019		146	129	205				3.5	49.5
10/9/2019	0.18				46.7	56.6	80.1		
4/6/2020								3.1	
4/7/2020		135	129	225	62.1				12.5
4/8/2020	0.24 (J)					53.1	175		
9/28/2020								3.3	
9/29/2020	0.18 (J)	30.8							
9/30/2020			109	177		53.5	292		98.4
10/1/2020					48.4				
3/10/2021					263				
3/11/2021						67		2.4	
3/12/2021			101				241		
3/15/2021	0.22 (J)								
3/16/2021		34.4		188					104
9/21/2021					67.5			2.7	

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-2	GWC-14	GWC-15	GWC-16	GWB-4R	GWC-17	GWC-20	GWA-7 (bg)	GWC-21
9/22/2021	0.19 (J)	185		267		94.6	266		5.8
9/23/2021			146						
1/31/2022								3.4	
2/1/2022				267		90.8	259		125
2/2/2022	0.16 (J)	245			98.2				
2/3/2022			144						

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-1	GWB-6R	GWB-5R	GWA-8 (bg)	GWC-11	GWC-12	GWC-9	GWC-13	GWC-22
8/30/2016	5.5	60	31	15					
8/31/2016					3.5	210	17	4.3	320
9/1/2016									
10/24/2016				13					
10/25/2016	5.1								
10/26/2016		67	24		2.5	200		4.9	450
10/27/2016							17		
1/3/2017			29	13					
1/4/2017	6.9				3.8	160			330
1/5/2017		70						4.1	
1/6/2017							16		
4/3/2017				14					
4/4/2017	6.5								
4/5/2017						140			
4/6/2017		76	27		7.1		17	3.7	50
7/10/2017						88			
7/11/2017				13	3.1				70
7/12/2017	6.5	64	31				18	2.6	
7/13/2017									
10/2/2017				15					
10/3/2017	4.5	73	27		46				
10/4/2017						100	18	3	360
1/9/2018		61		13					
1/10/2018	6.9		59					3.4	
1/11/2018					100	78	16		74
7/9/2018				15.4					
7/10/2018	6.2	60.2	172						
7/11/2018					53.7	66.9	16.2	3.2	164
1/16/2019	6.6	54.1	49.7	16				3.8	
1/17/2019					6.6	52			
1/18/2019							17.5		11
1/21/2019									
3/25/2019				17.7					
3/26/2019	7	51.8	47.9					3.2	
3/27/2019					11.9	45.6	18.9		11.5
7/30/2019									
10/7/2019				18					
10/8/2019					89			4	
10/9/2019	7.2	49.7	239			44.1	19		25.3
4/6/2020				13.5					
4/7/2020	7.7	56.4	44.3		103	32.5			146
4/8/2020							16.9	4.5	
9/28/2020	13.8			13.7				4.3	
9/29/2020					143	24.3			
9/30/2020		53.9	24.1						8.5
10/1/2020							16.8		
3/10/2021	8.5	42.4	25.7		188	48.7	18.3		48.2
3/11/2021									
3/12/2021				14.1					
3/15/2021								7.6	
3/16/2021									
9/21/2021		53.8	38.8	12.2	103	63.8		7.9	9.4



# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-1	GWB-6R	GWB-5R	GWA-8 (bg)	GWC-11	GWC-12	GWC-9	GWC-13	GWC-22
9/22/2021							19.3		
9/23/2021	8.8								
1/31/2022				11.2					
2/1/2022									
2/2/2022		42.3					17.5		
2/3/2022	8		38.5		83.4	57		8.8	10.8

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-2	GWC-14	GWC-15	GWC-16	GWB-4R	GWC-17	GWC-20	GWA-7 (bg)	GWC-21
8/30/2016									
8/31/2016	7.8								
9/1/2016		60	10	43	160	610	16	190	5.9
10/24/2016									
10/25/2016		36	6.5	34			8.1	175 (D)	4.4
10/26/2016	12				110	570			
10/27/2016									
1/3/2017									
1/4/2017				29			13		7.7
1/5/2017	7.4	37	10			710			
1/6/2017					67			180	
4/3/2017			7.3						
4/4/2017	8.7	47			80		23		8
4/5/2017				36		860			
4/6/2017								200	
7/10/2017									
7/11/2017		34	5.7				31		
7/12/2017				44	120				
7/13/2017	8.3					860		200	5.4
10/2/2017		34	4.4				30		
10/3/2017	9			58					4.4
10/4/2017					130	1000		260	
1/9/2018		24	5.7					210	4.4
1/10/2018	8.2			36			9.7		
1/11/2018					60	940			
7/9/2018		25.9					10.8		
7/10/2018	7.3		3.1	57					6.3
7/11/2018					75.9	864		177	
1/16/2019		29.2			20.2	469		165	
1/17/2019			3.2	48.9					5.4
1/18/2019									
1/21/2019	6.9						5.1		
3/25/2019					19.7		9.4	147	
3/26/2019		21.1	3	5.1		439			11.9
3/27/2019									
7/30/2019	7.1								
10/7/2019									
10/8/2019		40.2	2.9	46.4				125	7.8
10/9/2019	7				32.1	330	5.4		
4/6/2020								30.2	
4/7/2020		41.6	3.4	49.3	14.5				4.7
4/8/2020	5.2					277	20.2		
9/28/2020								113	
9/29/2020	5.4	10.6							
9/30/2020			1.7	39.6		257	34.9		23.7
10/1/2020					15.7				
3/10/2021					16				
3/11/2021						334		96.7	
3/12/2021			2.3				31.9		
3/15/2021	6.4								
3/16/2021		15.8		44.9					25.3
9/21/2021					13.9			92.2	

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-2	GWC-14	GWC-15	GWC-16	GWB-4R	GWC-17	GWC-20	GWA-7 (bg)	GWC-21
9/22/2021	7.4	28		55.8		517	38.9		6
9/23/2021			7.1						
1/31/2022								83.4	
2/1/2022				61.5		549	33.4		29.3
2/2/2022	6.9	29.6			14.5				
2/3/2022			5.1						

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-8 (bg)	GWC-1	GWB-5R	GWB-6R	GWC-22	GWC-2	GWC-9	GWC-13	GWC-12
8/30/2016	0.1 (J)	0.22 (J)	0.04 (J)	0.09 (J)					
8/31/2016					0.04 (J)	0.07 (J)	0.55	<0.1	0.7
9/1/2016									
10/24/2016	0.18 (J)								
10/25/2016		<0.1							
10/26/2016			0.05 (J)	0.24 (J)	0.12 (J)	0.62		0.55	0.91
10/27/2016							0.26 (J)		
1/3/2017	0.18 (J)		0.08 (J)						
1/4/2017		0.18 (J)			0.06 (J)				0.51
1/5/2017				0.11 (J)		0.17 (J)		0.09 (J)	
1/6/2017							0.25 (J)		
4/3/2017	0.12 (J)								
4/4/2017		<0.1				0.08 (J)			
4/5/2017									0.71
4/6/2017			0.006 (J)	0.3	<0.1		0.16 (J)	<0.1	
7/10/2017									0.88
7/11/2017	0.39				0.03 (J)				
7/12/2017		0.04 (J)	0.05 (J)	0.15 (J)			0.2 (J)	<0.1	
7/13/2017						0.06 (J)			
10/2/2017	0.12 (J)								
10/3/2017		<0.1	0.11 (J)	0.11 (J)		0.06 (J)			
10/4/2017					0.12 (J)		0.22 (J)	<0.1	0.37
1/9/2018	0.21 (J)			<0.1					
1/10/2018		<0.1	<0.1			<0.1		<0.1	
1/11/2018					<0.1		0.98		1.4
7/9/2018	0.04 (J)								
7/10/2018		<0.1	0.2 (J)	<0.1		<0.1			
7/11/2018					<0.1		0.14 (J)	<0.1	0.62
1/16/2019	<0.1	<0.1	<0.1	0.053 (J)				<0.1	
1/17/2019									1.2
1/18/2019					<0.1		0.24 (J)		
1/21/2019						<0.1			
3/25/2019	0.082 (J)								
3/26/2019		0.051 (J)	<0.1	0.046 (J)				0.052 (J)	
3/27/2019					<0.1		0.13 (J)		0.036 (J)
7/30/2019						0.083 (J)			
8/26/2019	0.13								
8/27/2019		<0.1		0.13 (J)	0.1	<0.1		<0.1	0.3
8/28/2019			0.097 (J)				0.088 (J)		
10/7/2019	<0.1								
10/8/2019								<0.1	
10/9/2019		<0.1	<0.1	<0.1	<0.1	<0.1	0.068 (J)		<0.1
4/6/2020	0.089 (J)								
4/7/2020		<0.1	<0.1	<0.1	<0.1				0.27 (J)
4/8/2020						<0.1	0.058 (J)	<0.1	
8/17/2020	0.079 (J)							<0.1	0.19
8/18/2020					<0.1	<0.1			
8/19/2020		<0.1	<0.1	<0.1			0.092 (J)		
9/28/2020	<0.1	<0.1						<0.1	
9/29/2020						<0.1			0.16
9/30/2020			<0.1	<0.1	<0.1				
10/1/2020							<0.1		

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-8 (bg)	GWC-1	GWB-5R	GWB-6R	GWC-22	GWC-2	GWC-9	GWC-13	GWC-12
3/10/2021		<0.1	<0.1	<0.1	<0.1		0.066 (J)		0.14
3/11/2021									
3/12/2021	0.087 (J)								
3/15/2021						<0.1		<0.1	
3/16/2021									
9/21/2021	0.068 (J)		<0.1	<0.1	<0.1			<0.1	0.31
9/22/2021						<0.1	0.13		
9/23/2021		<0.1							
1/31/2022	0.09 (J)								
2/1/2022									
2/2/2022				<0.1		<0.1	<0.1		
2/3/2022		<0.1	0.081 (J)		<0.1			<0.1	0.36

# Prediction Limit

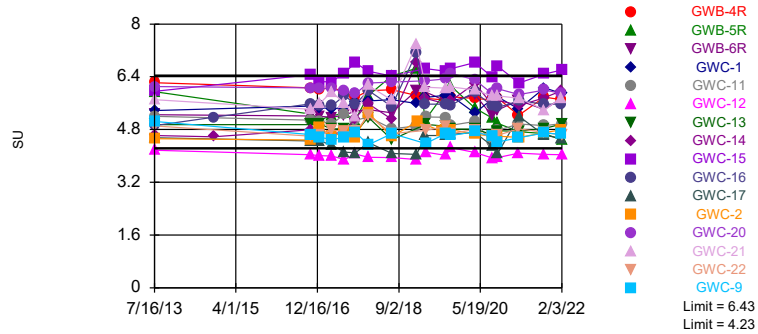
Constituent: Fluoride (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-11	GWC-16	GWC-21	GWC-14	GWC-17	GWB-4R	GWC-20	GWC-15	GWA-7 (bg)
8/30/2016									
8/31/2016	<0.1								
9/1/2016		0.55	<0.1	0.25 (J)	0.68	<0.1	<0.1	<0.1	<0.1
10/24/2016									
10/25/2016		0.36	<0.1	0.43			<0.1	0.5	0.07 (J)
10/26/2016	<0.1				0.68	0.05 (J)			
10/27/2016									
1/3/2017									
1/4/2017	<0.1	0.1 (J)	<0.1				0.04 (J)		
1/5/2017				0.21 (J)	0.73			0.22 (J)	
1/6/2017						0.08 (J)			0.2 (J)
4/3/2017								<0.1	
4/4/2017			<0.1	0.45		<0.1	0.02 (J)		
4/5/2017		0.2 (J)			1.6				
4/6/2017	<0.1								0.05 (J)
7/10/2017									
7/11/2017	<0.1			0.41			0.14 (J)	0.06 (J)	
7/12/2017		0.04 (J)				0.38			
7/13/2017			<0.1		1.7				0.41
10/2/2017				<0.1			<0.1	<0.1	
10/3/2017	<0.1	0.86	<0.1						
10/4/2017					1.8	<0.1			0.04 (J)
1/9/2018			<0.1	<0.1				<0.1	0.46
1/10/2018		<0.1					<0.1		
1/11/2018	<0.1				1.5	<0.1			
7/9/2018				<0.1			<0.1		
7/10/2018		<0.1	<0.1					0.15 (J)	
7/11/2018	<0.1				1.8	<0.1			<0.1
1/16/2019				<0.1	1.4	1.2			0.49
1/17/2019	<0.1	<0.1	<0.1					<0.1	
1/18/2019									
1/21/2019							<0.1		
3/25/2019						0.064 (J)	0.043 (J)		0.21 (J)
3/26/2019		0.11 (J)	0.071 (J)	0.13 (J)	0.89			0.13 (J)	
3/27/2019	<0.1								
7/30/2019									
8/26/2019									<0.1
8/27/2019	<0.1			<0.1		0.031 (J)		<0.1	
8/28/2019		<0.1	<0.1		0.61		<0.1		
10/7/2019									
10/8/2019	<0.1	<0.1	<0.1	<0.1				<0.1	<0.1
10/9/2019					<0.1	<0.1	<0.1		
4/6/2020									0.13 (J)
4/7/2020	<0.1	<0.1	<0.1	<0.1		<0.1		<0.1	
4/8/2020					0.55		<0.1		
8/17/2020									
8/18/2020	<0.1	<0.1	<0.1	<0.1	0.51		<0.1	<0.1	
8/19/2020						0.17			0.21
9/28/2020									0.069 (J)
9/29/2020	<0.1			<0.1					
9/30/2020		<0.1	<0.1		0.15		<0.1	<0.1	
10/1/2020						<0.1			



Exceeds Limits: GWC-12, GWC-15

Prediction Limit  
Interwell Non-parametric

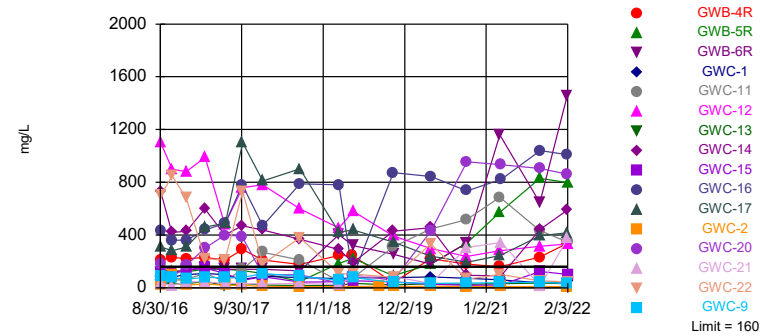


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 34 background values. Annual per-constituent alpha = 0.09095. Individual comparison alpha = 0.002907 (1 of 2). Comparing 16 points to limit.

Constituent: pH Analysis Run 4/13/2022 2:13 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Exceeds Limit: GWC-4R, GWC-5R, GWC-6R, GWC-11, GWC-12, GWC-14, GWC-16, GWC-17, GWC-20, GWC-21

Prediction Limit  
Interwell Non-parametric

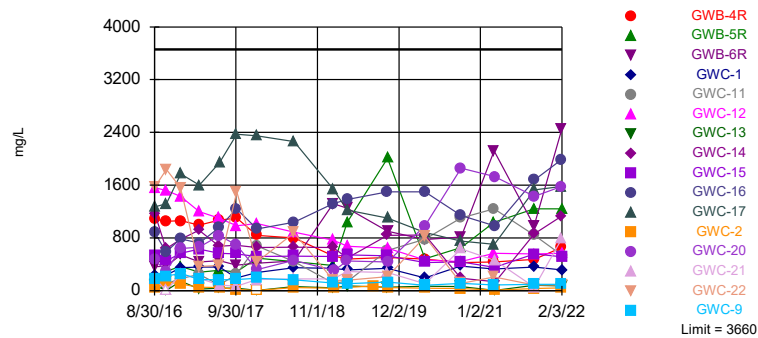


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. Annual per-constituent alpha = 0.05063. Individual comparison alpha = 0.001622 (1 of 2). Comparing 16 points to limit.

Constituent: Sulfate Analysis Run 4/13/2022 2:13 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Within Limit

Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 32 background values. Annual per-constituent alpha = 0.05063. Individual comparison alpha = 0.001622 (1 of 2). Comparing 16 points to limit.

Constituent: Total Dissolved Solids Analysis Run 4/13/2022 2:13 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



# Prediction Limit

Constituent: pH (SU) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13	GWC-15	GWB-5R	GWC-16
7/16/2013	4.62	5.25	5.38	5.2	4.17	4.95	5.96	5.95	4.92
10/11/2014	4.58								5.17
10/24/2016									
10/25/2016	4.79		5.51				6.46		5.58
10/26/2016		5.21		5.08	4.04	4.95		5.27	
10/27/2016									
1/3/2017								5.09	
1/4/2017			5.46	5.06	4.01				5.51
1/5/2017	4.73	5.2				4.97	6.25		
1/6/2017									
4/3/2017							6.25		
4/4/2017	4.68		5.43						
4/5/2017					4	4.81			5.51
4/6/2017		5.17		4.97				5.22	
7/10/2017					3.89				
7/11/2017	4.72			5.26			6.5		
7/12/2017		5.24	5.46			4.83		5.29	5.84
7/13/2017									
10/2/2017	5.13						6.83		
10/3/2017		5.36	5.65	5.07				5.08	5.55
10/4/2017					4.06	4.71			
1/9/2018	5.59	5.4					6.57		
1/10/2018			5.67			5.17		5.83	5.99
1/11/2018				5.18	3.96				
7/9/2018	5.11								
7/10/2018		5.31	5.71				6.42	6.42	5.5
7/11/2018				4.82	3.95	4.49			
1/16/2019	6.82	5.99	5.59			6.45 (O)		6.66	
1/17/2019				4.91	3.89		8.44 (O)		7.13
1/18/2019									
1/21/2019									
3/25/2019									
3/26/2019	5.74	5.94	5.77			4.96	6.65	5.1	5.57
3/27/2019				5.18	4.11				
7/30/2019									
8/26/2019									
8/27/2019	5.58	5.67	5.84	5.17	4.02	4.9	6.57		
8/28/2019								5.95	5.57
10/7/2019									
10/8/2019	5.68			4.93		4.81	6.65		5.54
10/9/2019		5.66	5.82		4.25			6.11	
4/6/2020									
4/7/2020	6.2	5.86	5.3	5.05	4.1		6.83	5.45	5.94
4/8/2020						4.81			
8/17/2020					3.94	4.65			
8/18/2020	5.56			4.41			6.39		5.52
8/19/2020		5.21	5.73					5.14 (D)	
9/28/2020			5.79			4.76			
9/29/2020	5.69			4.77	3.95				
9/30/2020		5.39					6.71	4.99	5.47
10/1/2020									
3/10/2021		5.69	5.42	4.97	4.08			4.73	

# Prediction Limit

Constituent: pH (SU) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-14	GWB-6R	GWC-1	GWC-11	GWC-12	GWC-13	GWC-15	GWB-5R	GWC-16
3/11/2021									
3/12/2021							6.21		
3/15/2021						4.74			
3/16/2021	5.53								5.67
9/21/2021		5.4		4.92	4.05	4.83		4.68	
9/22/2021	5.76								5.57
9/23/2021			6.06				6.48		
1/31/2022									
2/1/2022									5.57
2/2/2022	5.98	5.75							
2/3/2022			5.89	4.98	4.04	4.97	6.61	4.48	

# Prediction Limit

Constituent: pH (SU) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9	GWA-8 (bg)	GWA-7 (bg)
7/16/2013	6.22	4.55	4.52	6.1	5.71	4.91	5.05		
10/11/2014								4.42	
10/24/2016								4.36	
10/25/2016				6.06	5.41				6.17
10/26/2016	6.06	4.45	4.48			4.6			
10/27/2016							4.65		
1/3/2017								4.28	
1/4/2017				6.05	5.6	4.63			
1/5/2017		4.45	4.85						
1/6/2017	6.02						4.56		6.16
4/3/2017								4.29	
4/4/2017	6.08		4.58	6.03	5.94				
4/5/2017		4.33							
4/6/2017						4.79	4.5		6.26
7/10/2017									
7/11/2017				5.96		4.73		4.35	
7/12/2017	5.93						4.56		
7/13/2017		4.11	4.74		5.6				5.99
10/2/2017				5.88				4.32	
10/3/2017			4.57		5.18				
10/4/2017	5.77	4.09				4.74	4.72		6.16
1/9/2018					6.14			4.44	6.43
1/10/2018			5.31	6.21					
1/11/2018	5.98	4.4				5.22	4.34		
7/9/2018				6.24				4.4	
7/10/2018			4.58		5.7				
7/11/2018	6.01	4.07				4.68	4.68		6.1
1/16/2019	5.83	4.05						6.16 (O)	6.05
1/17/2019					7.39				
1/18/2019						6.98 (O)	6.87 (O)		
1/21/2019			5.05	7.73 (O)					
3/25/2019	5.74			6.28				4.4	6.06
3/26/2019		4.62			6.08				
3/27/2019						4.77	4.38		
7/30/2019			4.74						
8/26/2019								4.26	5.91
8/27/2019	5.7		4.77			4.89			
8/28/2019		4.62		6.34	6.05		4.68		
10/7/2019								4.24	
10/8/2019					6.09				5.74
10/9/2019	5.79	4.66	4.79	6.5		4.68	4.62		
4/6/2020								4.52	6.02
4/7/2020	5.74				6	4.8			
4/8/2020		4.71	4.66	6.31			4.73		
8/17/2020								4.23	
8/18/2020		4.31	4.6	5.89	5.82	4.52			
8/19/2020	5.7						4.58		5.81 (D)
9/28/2020								4.41	5.86
9/29/2020			4.6						
9/30/2020		4.08		6.04	5.82	4.63			
10/1/2020	5.75						4.42		
3/10/2021	5.23					4.82	4.55		

# Prediction Limit

Constituent: pH (SU) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWC-17	GWC-2	GWC-20	GWC-21	GWC-22	GWC-9	GWA-8 (bg)	GWA-7 (bg)
3/11/2021		5.2							5.85
3/12/2021				5.86				4.54	
3/15/2021			4.56						
3/16/2021					5.74				
9/21/2021	5.78					4.72		4.44	6.03
9/22/2021		4.63	4.71	6	5.39		4.7		
9/23/2021									
1/31/2022								4.39	5.94
2/1/2022		4.53		5.9	5.76				
2/2/2022	5.71		4.79				4.66		
2/3/2022						4.63			

# Prediction Limit

Constituent: Sulfate (mg/L)    Analysis Run 4/13/2022 2:21 PM    View: Appendix III  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWC-1	GWB-6R	GWB-5R	GWA-8 (bg)	GWC-11	GWC-12	GWC-9	GWC-13	GWC-22
8/30/2016	87	120	100	140					
8/31/2016					64	1100	84	43	700
9/1/2016									
10/24/2016				160					
10/25/2016	83								
10/26/2016		120	130		56	900		29	850
10/27/2016							76		
1/3/2017			120	140					
1/4/2017	99				65	880			680
1/5/2017		130						32	
1/6/2017							66		
4/3/2017				140					
4/4/2017	110								
4/5/2017						990			
4/6/2017		150	140		110		79	49	220
7/10/2017						480			
7/11/2017				130	49				210
7/12/2017	100	140	140				75	16	
7/13/2017									
10/2/2017				150					
10/3/2017	63	140	130		140				
10/4/2017						760	78	33	730
1/9/2018		140		120					
1/10/2018	86		110					22	
1/11/2018					270	780	110		180
7/9/2018				123					
7/10/2018	77.7	128	48.1						
7/11/2018					211	598	87.4	17.8	381
1/16/2019	71.2	402	184	129				20.2	
1/17/2019					50.3	454			
1/18/2019							56.9		107
1/21/2019									
3/25/2019				152					
3/26/2019	73.8	319	222					33.6	
3/27/2019					76.8	579	76.2		103
7/30/2019									
10/7/2019				156					
10/8/2019					310			22	
10/9/2019	76.3	255	90.8			392	41.1		80.2
4/6/2020				123					
4/7/2020	83	180	180		446	297			333
4/8/2020							34.2	30.7	
9/28/2020	71.6			93.6				25.6	
9/29/2020					516	237			
9/30/2020		339	339						65.5
10/1/2020							35		
3/10/2021	61.2	1160	572		687	282	38.7		101
3/11/2021									
3/12/2021				103					
3/15/2021								30.6	
3/16/2021									
9/21/2021		645	829	96.5	433	315		36.6	52.4

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-1	GWB-6R	GWB-5R	GWA-8 (bg)	GWC-11	GWC-12	GWC-9	GWC-13	GWC-22
9/22/2021							42.7		
9/23/2021	37.3								
1/31/2022				89.7					
2/1/2022									
2/2/2022		1460					31.5		
2/3/2022	49.2		797		347	333		32.1	46.2

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-2	GWC-14	GWC-15	GWC-16	GWB-4R	GWC-17	GWC-20	GWA-7 (bg)	GWC-21
8/30/2016									
8/31/2016	21								
9/1/2016		730	120	430	210	310	180	73	36
10/24/2016									
10/25/2016		420	100	360			79	26	16
10/26/2016	100				230	280			
10/27/2016									
1/3/2017									
1/4/2017				360			170		45
1/5/2017	22	430	140			310			
1/6/2017					220			23	
4/3/2017			150						
4/4/2017	29	600			230		300		46
4/5/2017				440		460			
4/6/2017								25	
7/10/2017									
7/11/2017		400	110				400		
7/12/2017				490	210				
7/13/2017	20					490		65	33
10/2/2017		470	56				390		
10/3/2017	20			780					34
10/4/2017					290	1100		13	
1/9/2018		440	84					45	29
1/10/2018	9.5			470			99		
1/11/2018					210	810			
7/9/2018		369					99.2		
7/10/2018	8.5		43	787					33.2
7/11/2018					177	902		37.7	
1/16/2019		291			244	422		24.5	
1/17/2019			45.2	780					24.1
1/18/2019									
1/21/2019	10.2						35.5		
3/25/2019					245		95.6	14.7	
3/26/2019		192	54	87.9		439			83.9
3/27/2019									
7/30/2019	12.3								
10/7/2019									
10/8/2019		428	45.8	872				32.8	85.6
10/9/2019	10.1				38.5	346	58.5		
4/6/2020								20.3	
4/7/2020		456	26.9	844	221				33.2
4/8/2020	12.9					239	428		
9/28/2020								20	
9/29/2020	8.6	93.5							
9/30/2020			18.5	736		193	956		306
10/1/2020					178				
3/10/2021					160				
3/11/2021						244		12	
3/12/2021			21.1				933		
3/15/2021	10								
3/16/2021		92		821					343
9/21/2021					232			11.1	

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-2	GWC-14	GWC-15	GWC-16	GWB-4R	GWC-17	GWC-20	GWA-7 (bg)	GWC-21
9/22/2021	10.3	444		1040		394	905		14.6
9/23/2021			124						
1/31/2022								15	
2/1/2022				1010		416	862		374
2/2/2022	9	589			338				
2/3/2022			102						



# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWA-8 (bg)	GWB-5R	GWB-6R	GWC-1	GWC-9	GWC-22	GWC-2	GWC-11	GWC-12
8/30/2016	234	224	365	225					
8/31/2016					173	1570	39	119	1560
9/1/2016									
10/24/2016	216								
10/25/2016				230					
10/26/2016		297	373			1840	135	108	1520
10/27/2016					221				
1/3/2017	333	366							
1/4/2017				349		1560		182	1430
1/5/2017			543				99		
1/6/2017					259				
4/3/2017	288								
4/4/2017				356			54		
4/5/2017									1200
4/6/2017		279	434		169	368		248	
7/10/2017									1100
7/11/2017	188					383		88	
7/12/2017		308	454	357	163				
7/13/2017							50		
10/2/2017	210								
10/3/2017		288	389	192			18 (J)	248	
10/4/2017					168	1500			986
1/9/2018	118		415						
1/10/2018		493		277			<10		
1/11/2018					190	438		681	1020
7/9/2018	235								
7/10/2018		1730 (O)	453	349			49		
7/11/2018					165	876		440	888
1/16/2019	219	382	1320	341					
1/17/2019								118	765
1/18/2019					118	154			
1/21/2019							39		
3/25/2019	240								
3/26/2019		1040	1250	317					
3/27/2019					104	158		138	673
7/30/2019							70		
10/7/2019	275								
10/8/2019								613	
10/9/2019		2010	903	338	128	211	46		647
4/6/2020	214								
4/7/2020		483	775	195		819		780	464
4/8/2020					80		38		
9/28/2020	175			373					
9/29/2020							33	1100	440
9/30/2020		652	816			113			
10/1/2020					111				
3/10/2021		1040	2120	329	89	210		1240	566
3/11/2021									
3/12/2021	163								
3/15/2021							11		
3/16/2021									
9/21/2021	145	1240	985			87		842	558

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWA-8 (bg)	GWB-5R	GWB-6R	GWC-1	GWC-9	GWC-22	GWC-2	GWC-11	GWC-12
9/22/2021					94		33		
9/23/2021				360					
1/31/2022	153								
2/1/2022									
2/2/2022			2440		96		43		
2/3/2022		1240		315		89		538	566

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWB-4R	GWA-7 (bg)	GWC-14
8/30/2016									
8/31/2016	77								
9/1/2016		539	878	1270	470	184	1080	3660	1170
10/24/2016									
10/25/2016		449	585		289	<10		3560	633
10/26/2016	<10			1320			1050		
10/27/2016									
1/3/2017									
1/4/2017			783		639	242			
1/5/2017	146	565		1770					781
1/6/2017							1060	3490	
4/3/2017		632							
4/4/2017					660	187	994		916
4/5/2017			722	1600					
4/6/2017	23 (J)							3170	
7/10/2017									
7/11/2017		569			836				675
7/12/2017	39		962				1070		
7/13/2017				1940		86		2280	
10/2/2017		559			698				689
10/3/2017			1240			66			
10/4/2017	38			2370			1100	3350	
1/9/2018		520				167		2640	653
1/10/2018	<10		935		322				
1/11/2018				2350			838		
7/9/2018					461				659
7/10/2018		524	1040			180			
7/11/2018	63			2260			799	2200	
1/16/2019	44			1540			530	2100	656
1/17/2019		518 (D)	1320			178			
1/18/2019									
1/21/2019					307				
3/25/2019					449		479	2100	
3/26/2019	72	541	1380	1220		292			496
3/27/2019									
7/30/2019									
10/7/2019									
10/8/2019	51	526	1500			278		1840	841
10/9/2019				1100	434		502		
4/6/2020								1670	
4/7/2020		428	1500			106	482		843
4/8/2020	65			881	986				
9/28/2020	60							1450	
9/29/2020									187
9/30/2020		434	1140	752	1860	634			
10/1/2020							424		
3/10/2021							434		
3/11/2021				705				1220	
3/12/2021		353			1730				
3/15/2021	<10								
3/16/2021			980			454			137
9/21/2021	83						476	1210	

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 4/13/2022 2:21 PM View: Appendix III  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-13	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21	GWB-4R	GWA-7 (bg)	GWC-14
9/22/2021			1680	1530	1430	51			864
9/23/2021		556							
1/31/2022								1260	
2/1/2022			1990	1580	1580	783			
2/2/2022							654		1130
2/3/2022	72	516							

FIGURE G.

# Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:27 PM

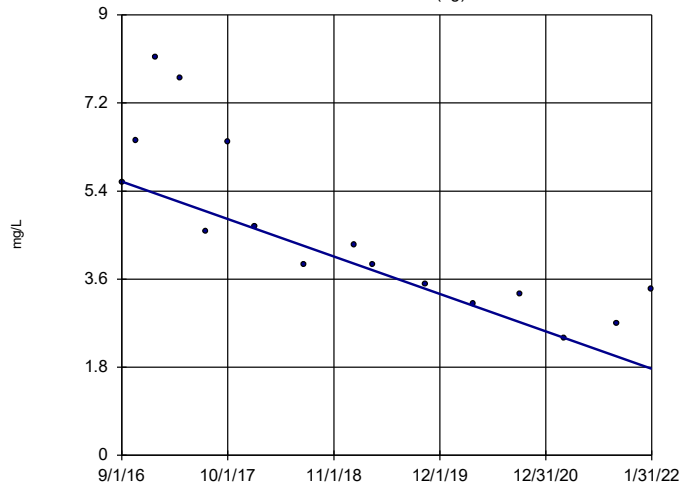
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	GWA-7 (bg)	-0.7049	-89	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-4R	14.64	74	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-5R	12.87	77	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWB-6R	3.681	71	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-1	7.538	78	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-11	17.66	78	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-12	-12.48	-92	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-16	27.28	78	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-7 (bg)	-23.13	-75	-58	Yes	16	0	n/a	n/a	0.01	NP
pH (SU)	GWA-7 (bg)	-0.05633	-71	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-7 (bg)	-4.311	-62	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWA-8 (bg)	-9.36	-60	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-5R	60.14	64	58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWB-6R	81.33	84	58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-11	87.44	72	58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-12	-150.1	-88	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-16	109	72	58	Yes	16	0	n/a	n/a	0.01	NP

# Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 2:27 PM

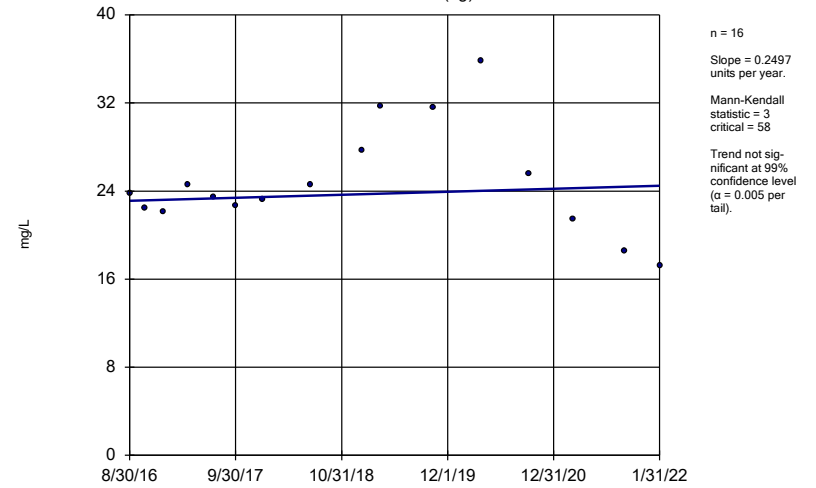
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
<b>Calcium (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-0.7049</b>	<b>-89</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GWA-8 (bg)	0.2497	3	58	No	16	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GWB-4R</b>	<b>14.64</b>	<b>74</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>GWB-5R</b>	<b>12.87</b>	<b>77</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>GWB-6R</b>	<b>3.681</b>	<b>71</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>GWC-1</b>	<b>7.538</b>	<b>78</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>GWC-11</b>	<b>17.66</b>	<b>78</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>GWC-12</b>	<b>-12.48</b>	<b>-92</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GWC-14	2.28	2	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-15	1.953	10	58	No	16	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GWC-16</b>	<b>27.28</b>	<b>78</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GWC-17	-5.074	-24	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-20	35.25	56	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GWC-21	14.68	41	58	No	16	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-23.13</b>	<b>-75</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	GWA-8 (bg)	0	-1	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWC-17	-80.44	-41	-58	No	16	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-7 (bg)	0	-5	-68	No	18	33.33	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWA-8 (bg)	-0.01215	-65	-68	No	18	16.67	n/a	n/a	0.01	NP
Fluoride (mg/L)	GWC-17	-0.1299	-53	-68	No	18	5.556	n/a	n/a	0.01	NP
<b>pH (SU)</b>	<b>GWA-7 (bg)</b>	<b>-0.05633</b>	<b>-71</b>	<b>-63</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH (SU)	GWA-8 (bg)	0.01437	18	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	GWC-12	0	0	68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	GWC-15	0.05228	36	63	No	17	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWA-7 (bg)</b>	<b>-4.311</b>	<b>-62</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>GWA-8 (bg)</b>	<b>-9.36</b>	<b>-60</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWB-4R	0	2	58	No	16	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWB-5R</b>	<b>60.14</b>	<b>64</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>GWB-6R</b>	<b>81.33</b>	<b>84</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>GWC-11</b>	<b>87.44</b>	<b>72</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Sulfate (mg/L)</b>	<b>GWC-12</b>	<b>-150.1</b>	<b>-88</b>	<b>-58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWC-14	-49.22	-30	-58	No	16	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GWC-16</b>	<b>109</b>	<b>72</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GWC-17	-14.68	-17	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-20	132.4	34	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GWC-21	17.24	33	58	No	16	0	n/a	n/a	0.01	NP

Sen's Slope Estimator  
GWA-7 (bg)



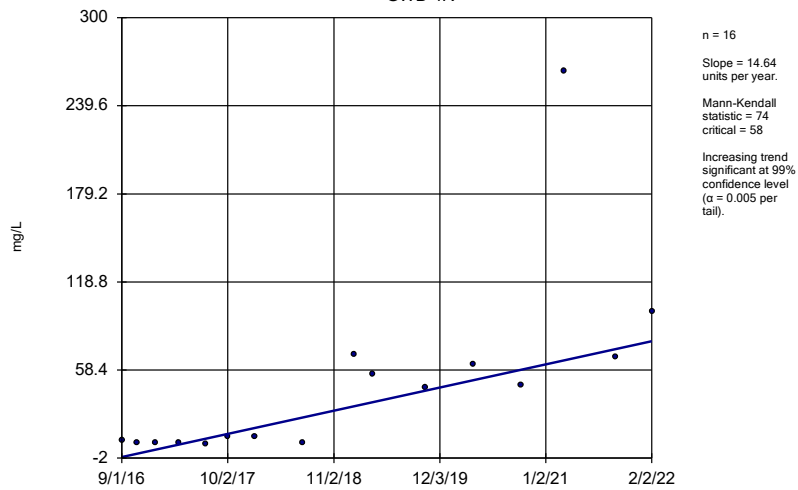
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWA-8 (bg)



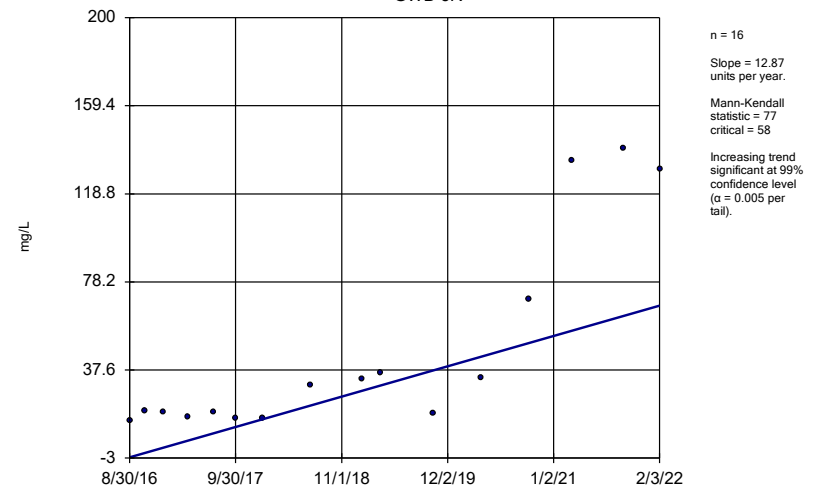
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWB-4R



Constituent: Calcium Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

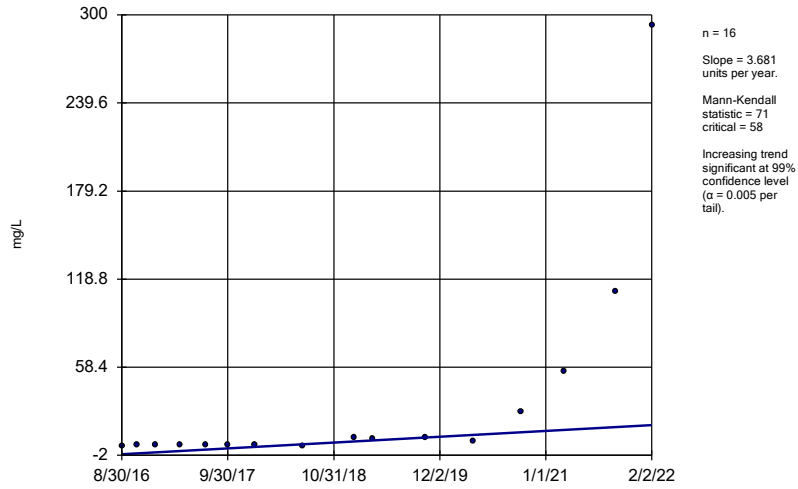
Sen's Slope Estimator  
GWB-5R



Constituent: Calcium Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

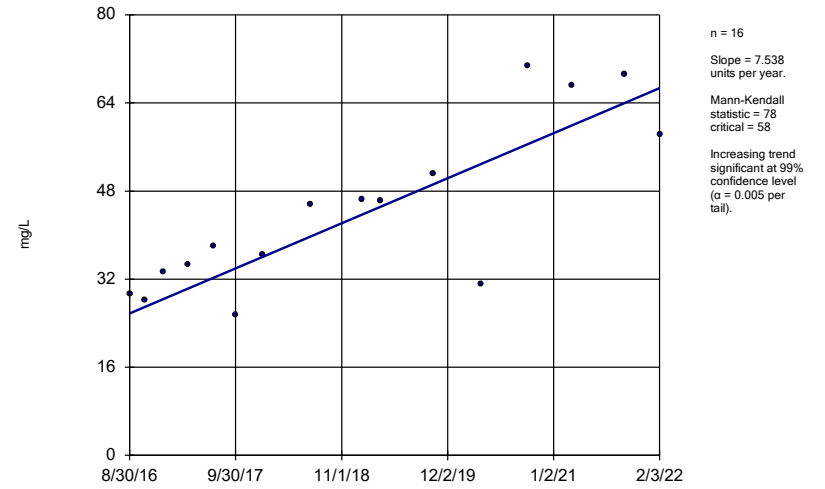


Sen's Slope Estimator  
GWB-6R



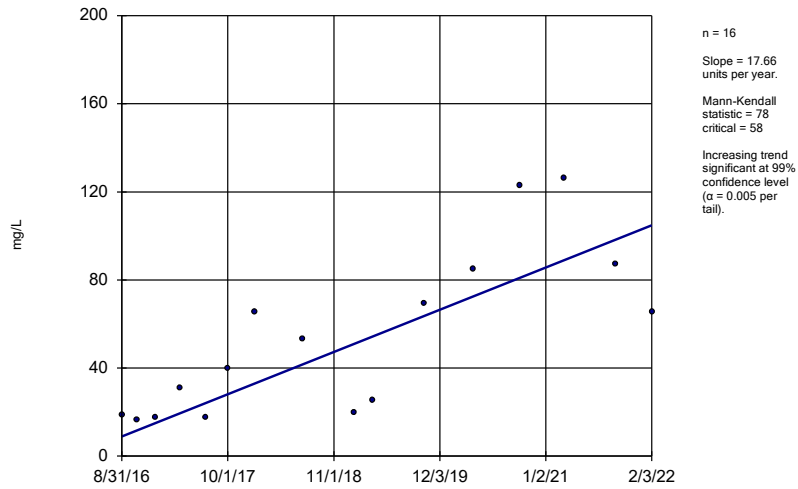
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-1



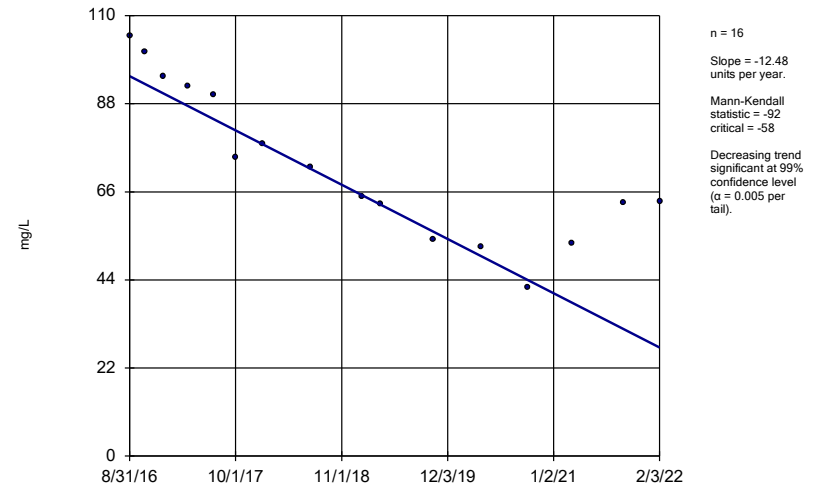
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Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-11



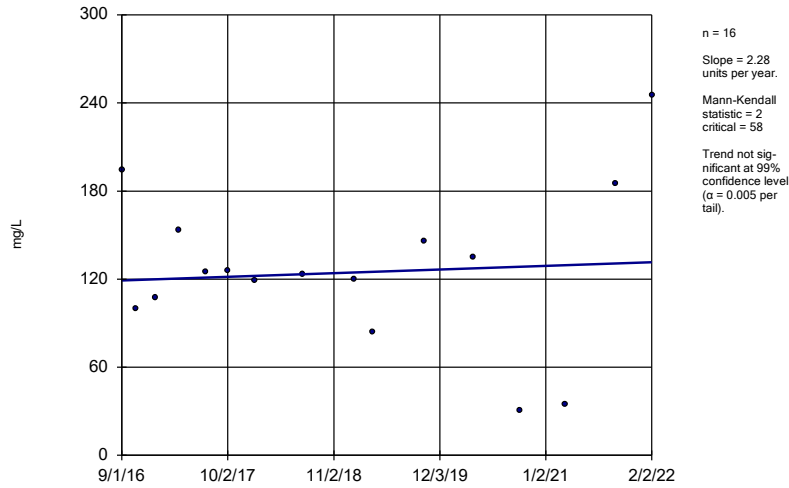
Constituent: Calcium Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-12



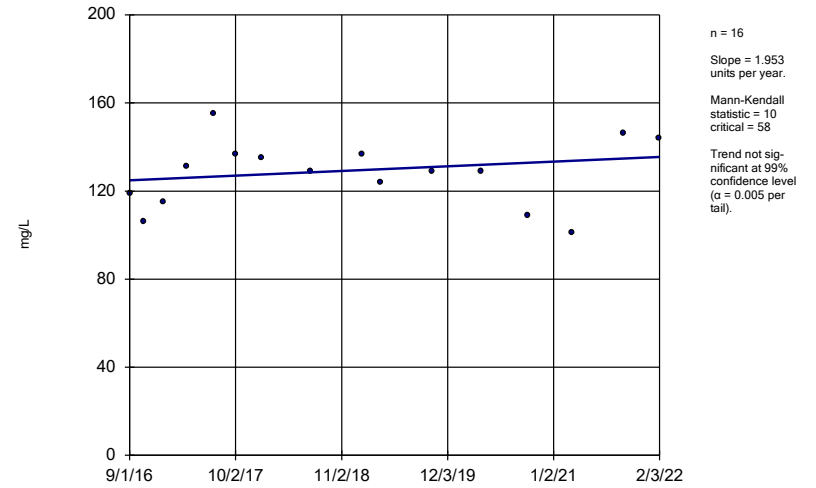
Constituent: Calcium Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-14



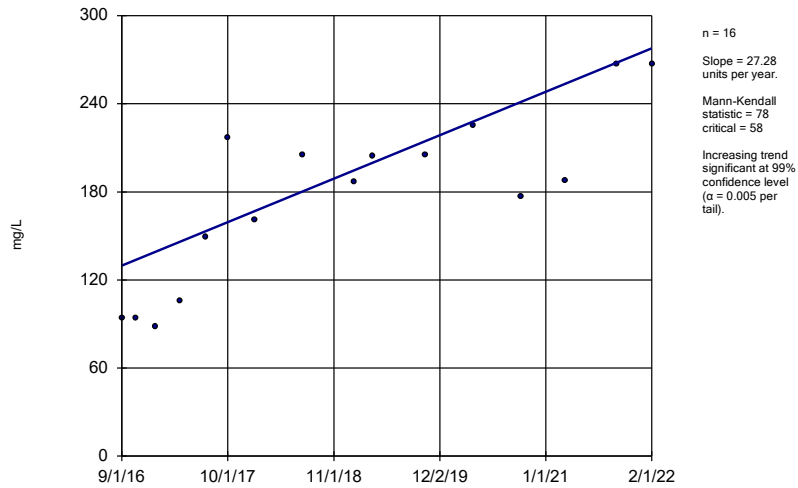
Constituent: Calcium Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-15



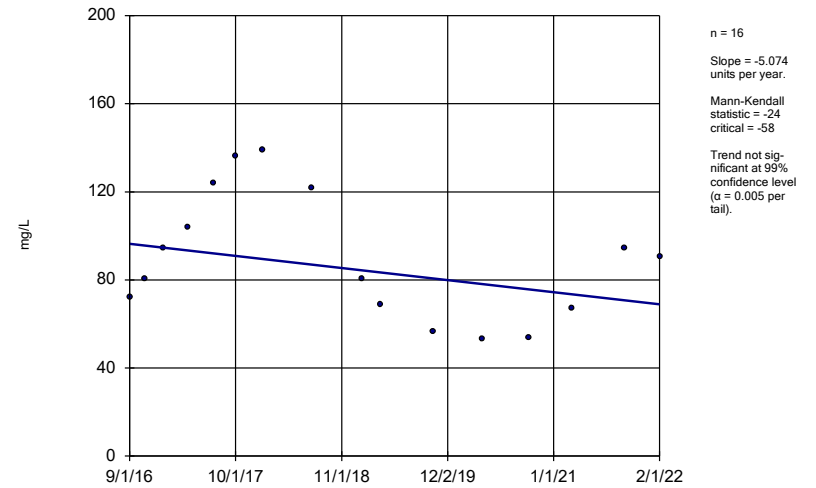
Constituent: Calcium Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-16



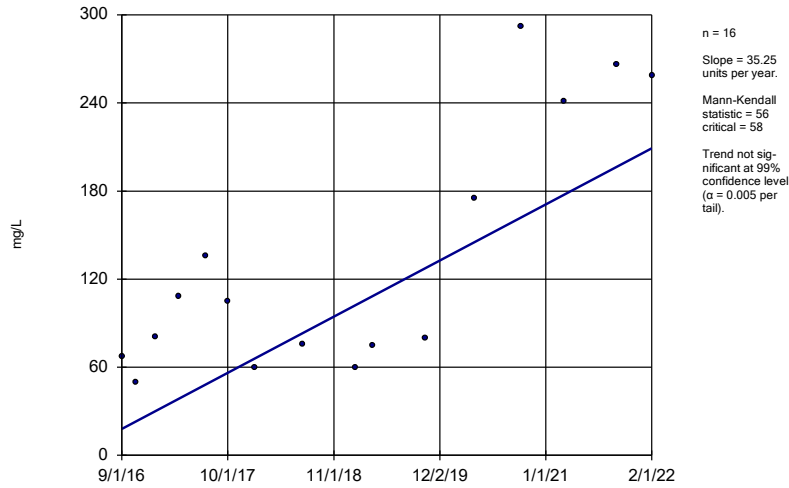
Constituent: Calcium Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-17



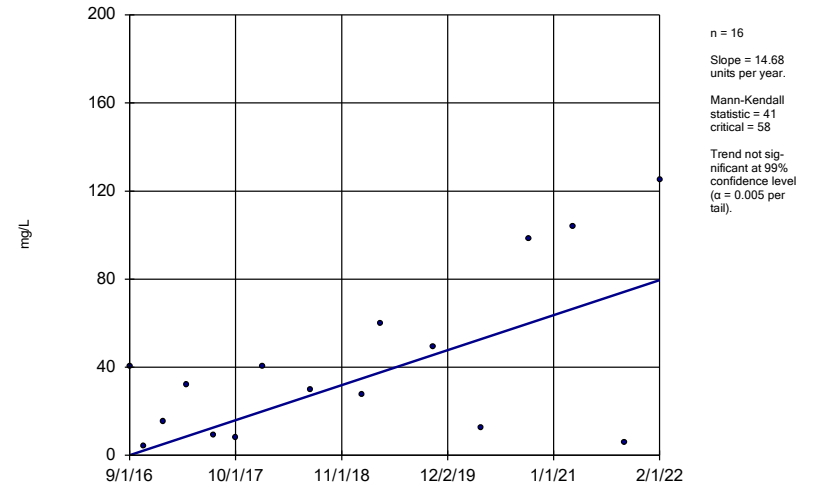
Constituent: Calcium Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-20



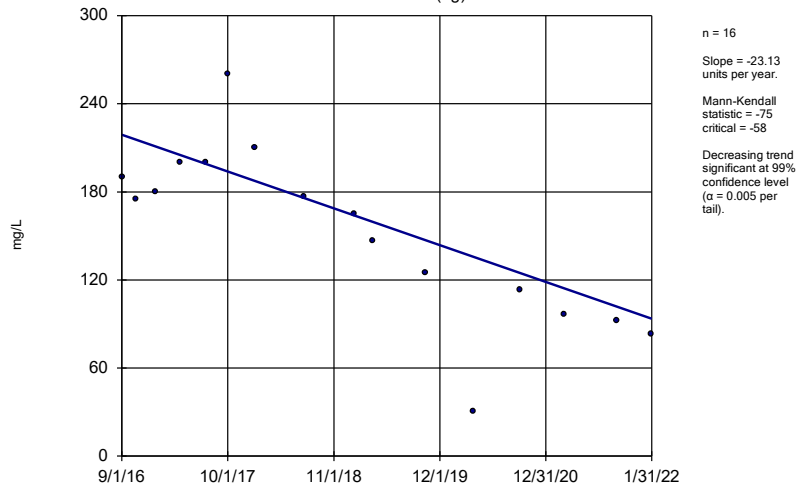
Constituent: Calcium Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-21



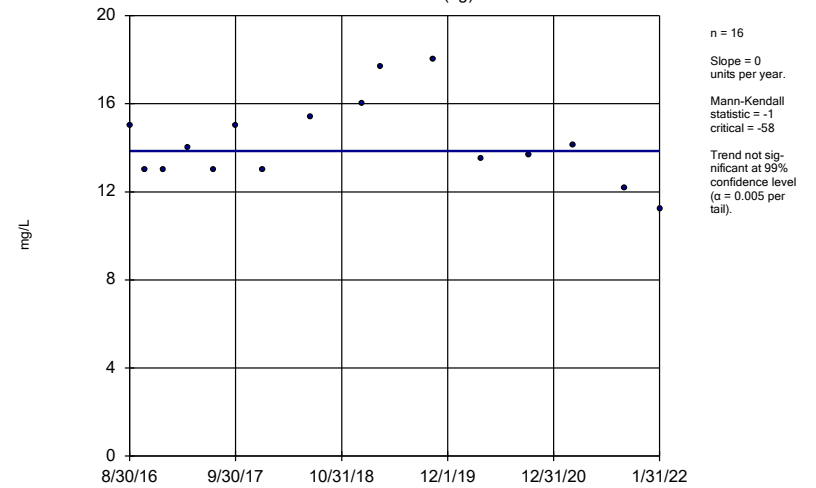
Constituent: Calcium Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWA-7 (bg)



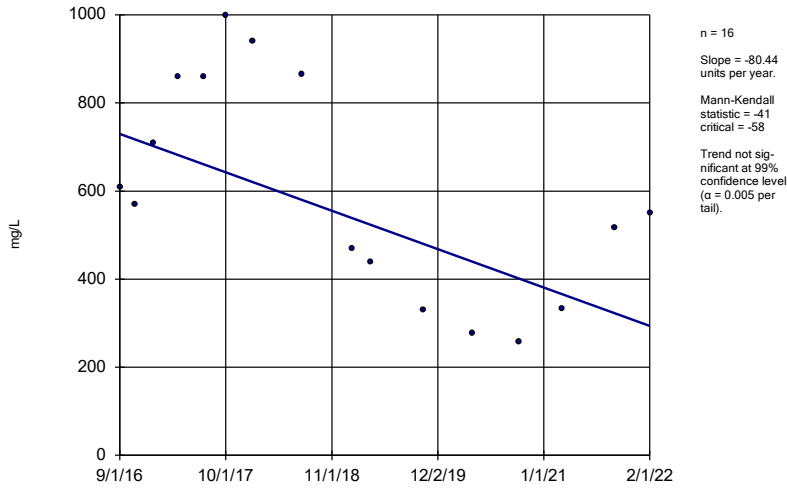
Constituent: Chloride Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWA-8 (bg)



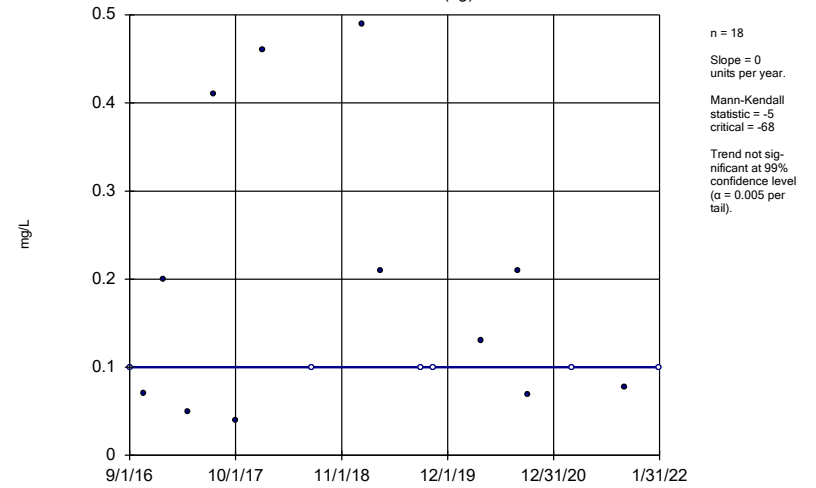
Constituent: Chloride Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-17



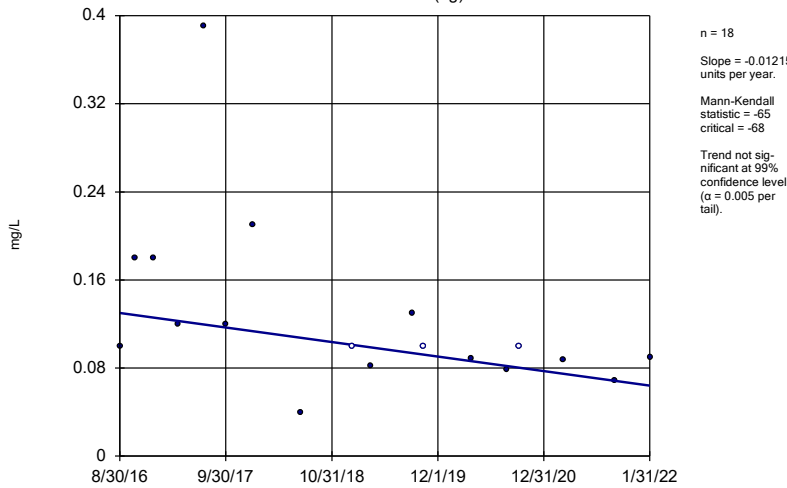
Constituent: Chloride Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWA-7 (bg)



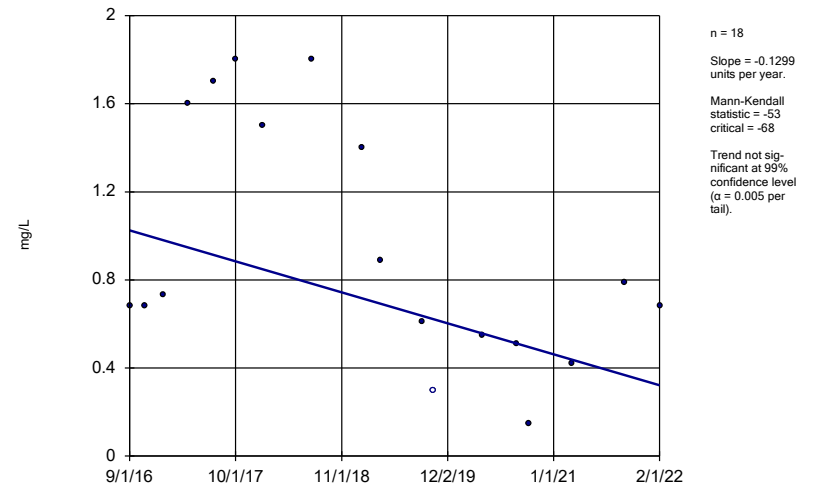
Constituent: Fluoride Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWA-8 (bg)



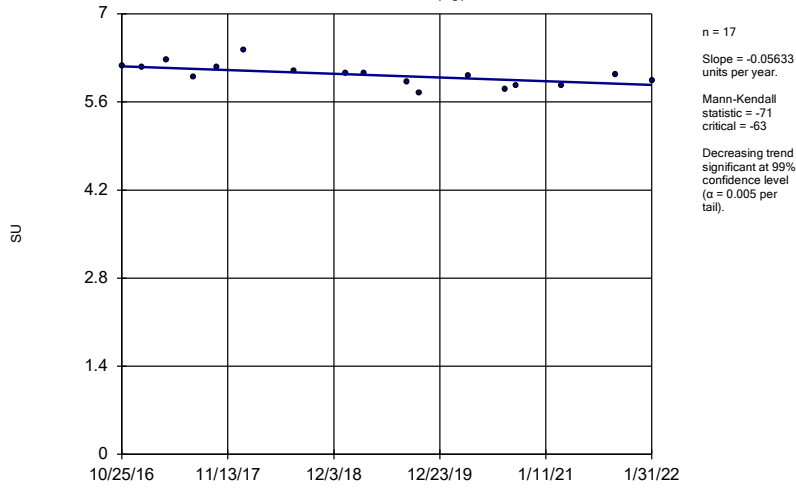
Constituent: Fluoride Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-17



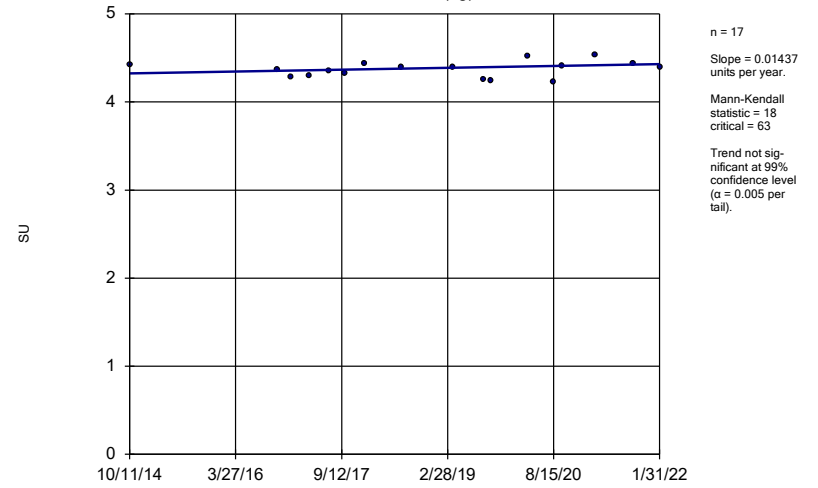
Constituent: Fluoride Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWA-7 (bg)



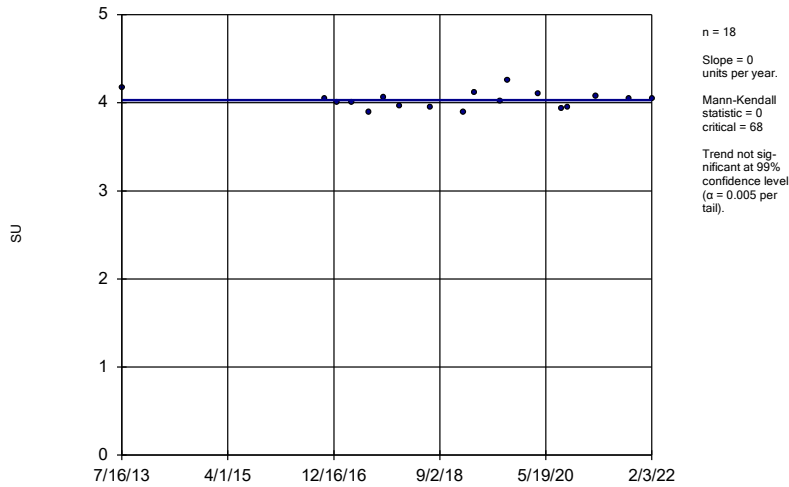
Constituent: pH Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWA-8 (bg)



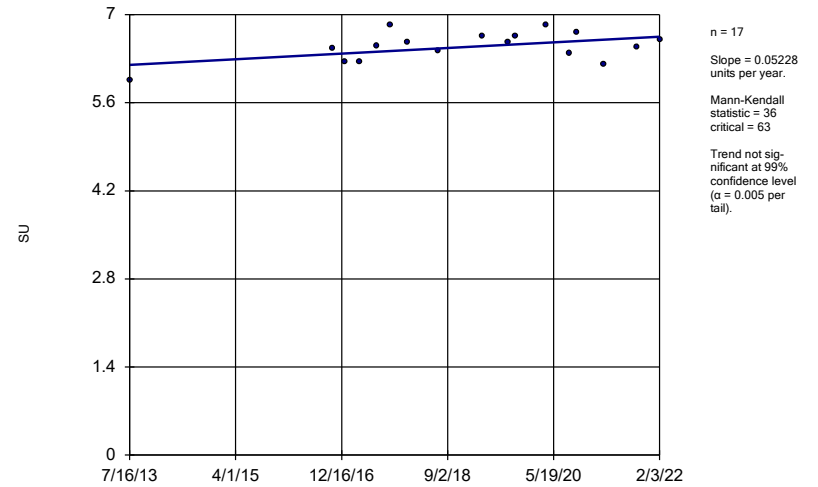
Constituent: pH Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-12



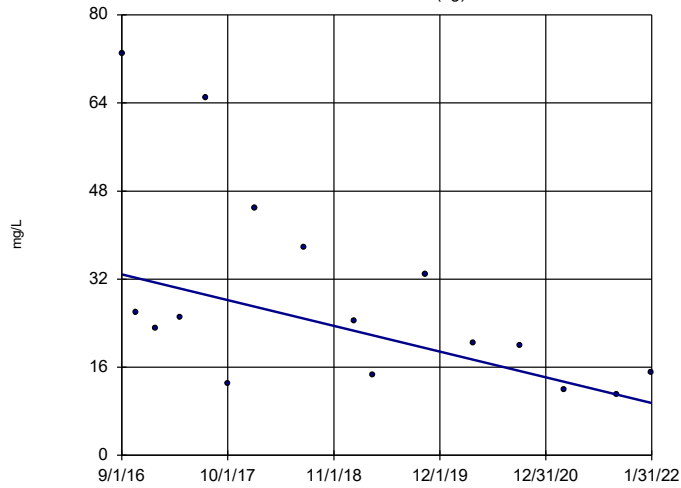
Constituent: pH Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-15



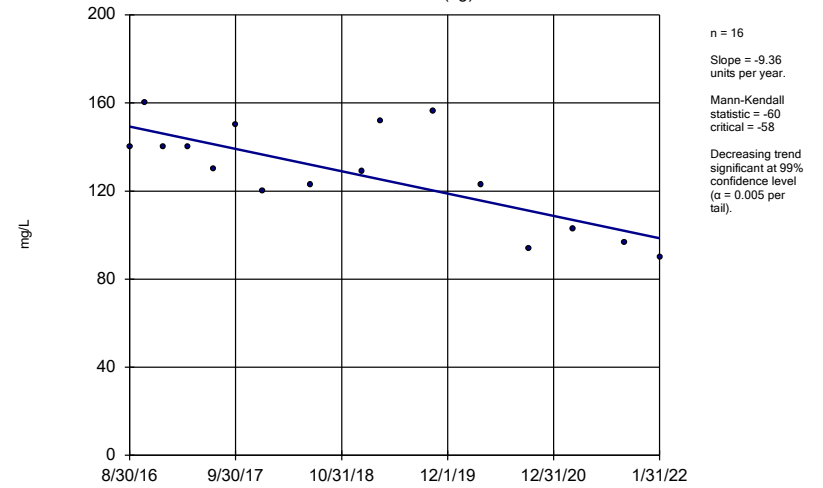
Constituent: pH Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWA-7 (bg)



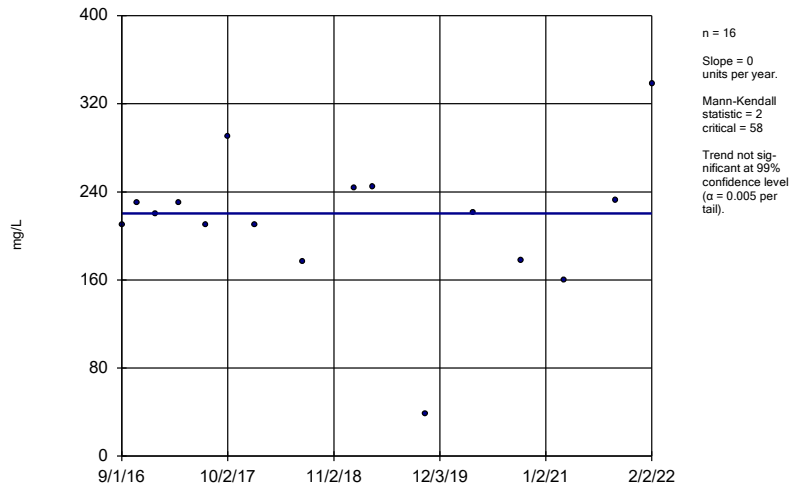
Constituent: Sulfate Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWA-8 (bg)



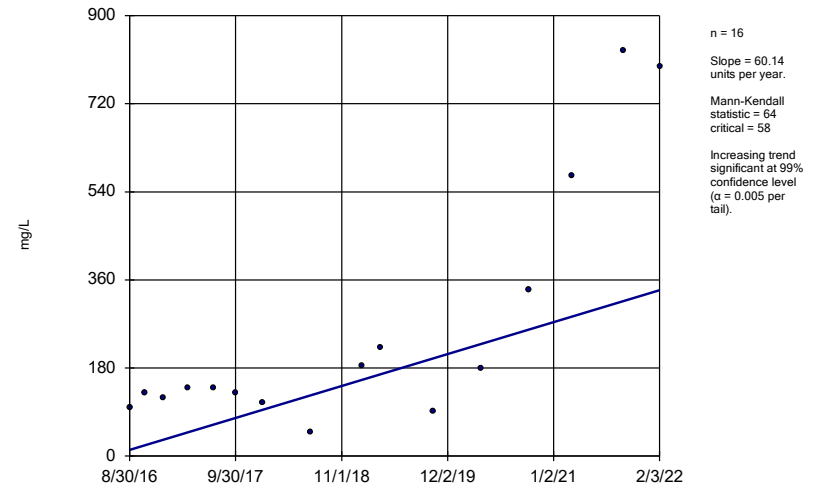
Constituent: Sulfate Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWB-4R



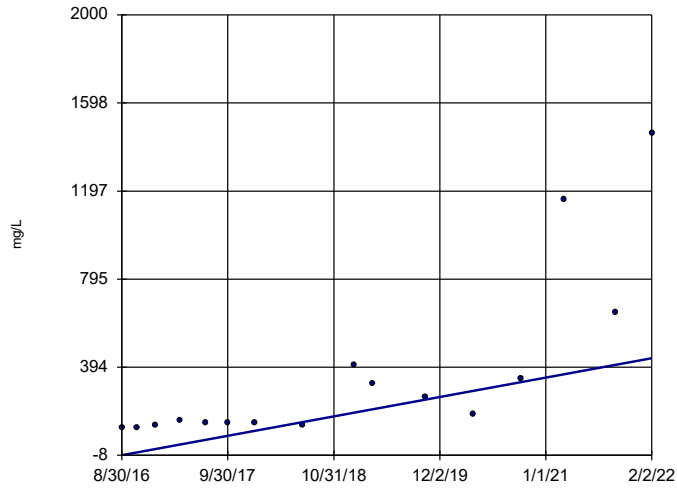
Constituent: Sulfate Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWB-5R



Constituent: Sulfate Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

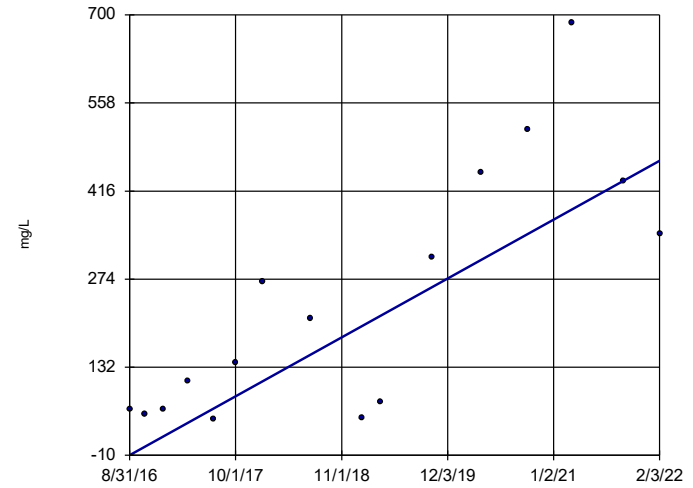
Sen's Slope Estimator  
GWB-6R



n = 16  
Slope = 81.33  
units per year.  
Mann-Kendall  
statistic = 84  
critical = 58  
Increasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Sulfate Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

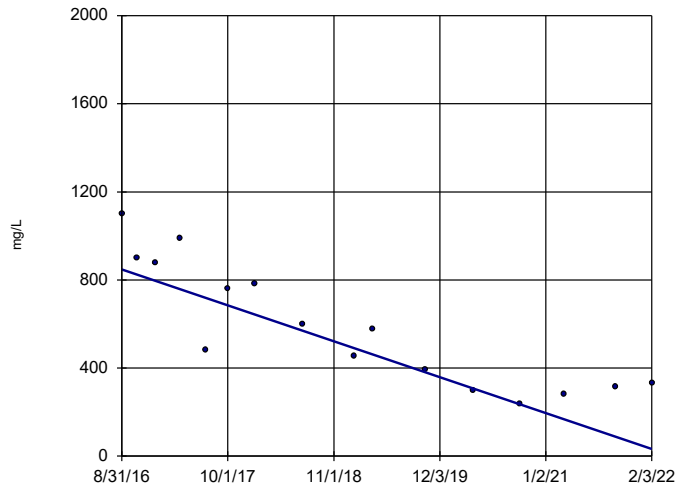
Sen's Slope Estimator  
GWC-11



n = 16  
Slope = 87.44  
units per year.  
Mann-Kendall  
statistic = 72  
critical = 58  
Increasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Sulfate Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

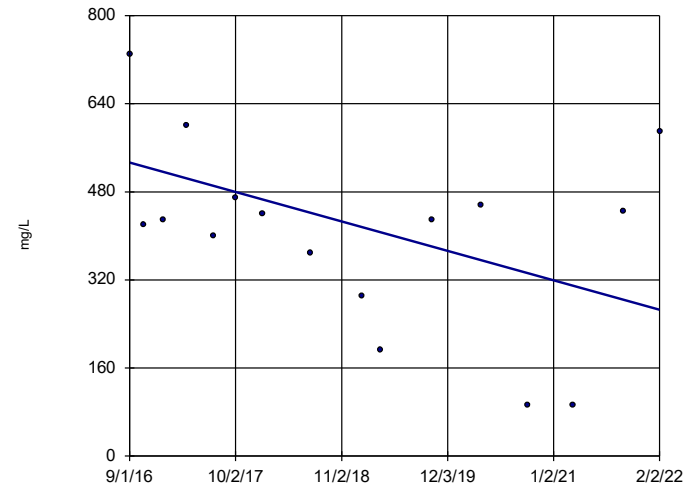
Sen's Slope Estimator  
GWC-12



n = 16  
Slope = -150.1  
units per year.  
Mann-Kendall  
statistic = -88  
critical = -58  
Decreasing trend  
significant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

Constituent: Sulfate Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

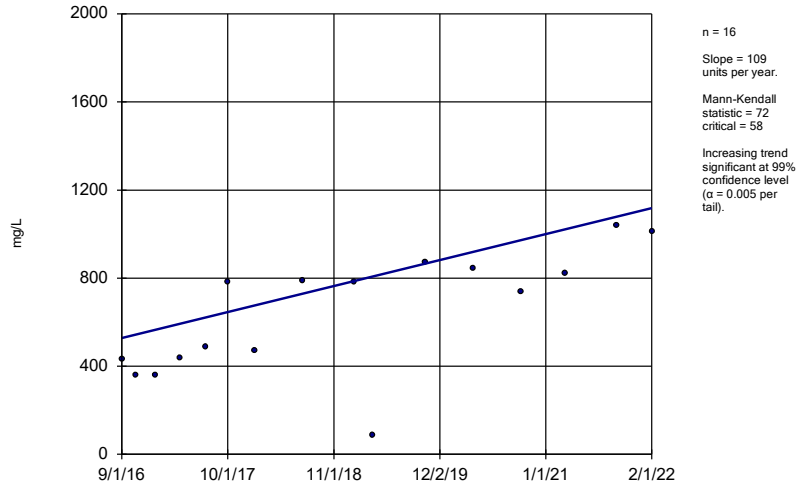
Sen's Slope Estimator  
GWC-14



n = 16  
Slope = -49.22  
units per year.  
Mann-Kendall  
statistic = -30  
critical = -58  
Trend not sig-  
nificant at 99%  
confidence level  
( $\alpha = 0.005$  per  
tail).

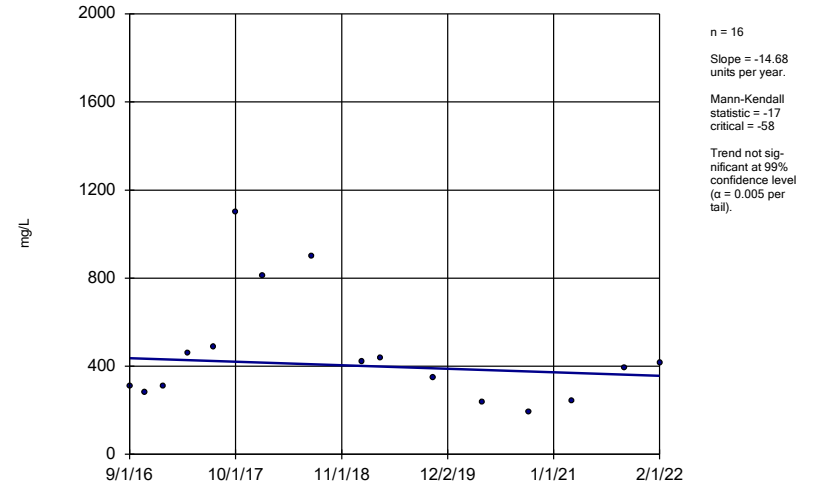
Constituent: Sulfate Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-16



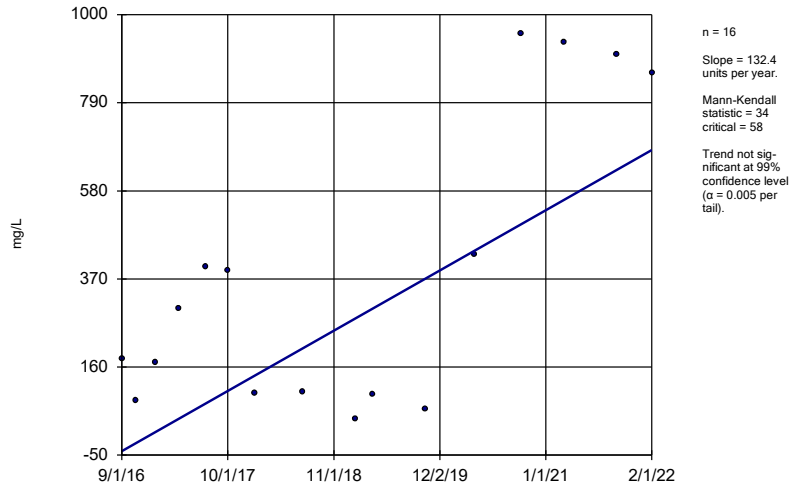
Constituent: Sulfate Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-17



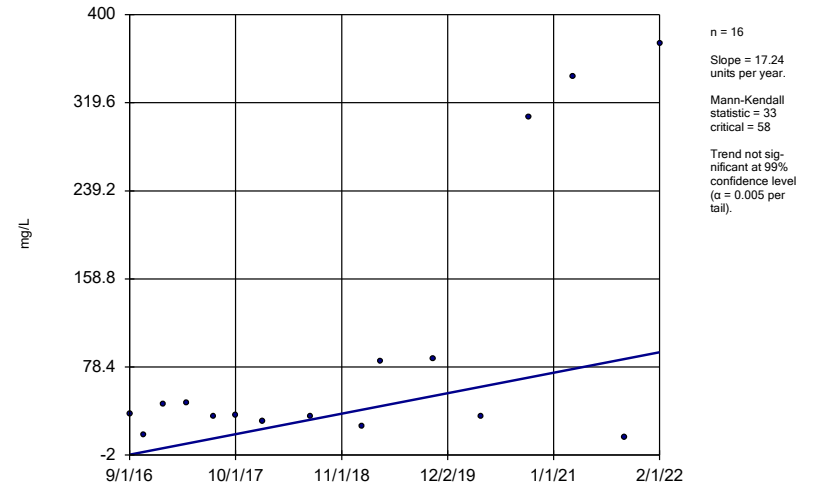
Constituent: Sulfate Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-20



Constituent: Sulfate Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Sen's Slope Estimator  
GWC-21



Constituent: Sulfate Analysis Run 4/13/2022 2:23 PM View: Appendix III - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



FIGURE H.

# Upper Tolerance Limits Summary Table

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/18/2022, 4:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	n/a	125	n/a	n/a	95.2	n/a	n/a	0.001642	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0287	n/a	n/a	n/a	n/a	125	n/a	n/a	77.6	n/a	n/a	0.001642	NP Inter(NDs)
Barium (mg/L)	n/a	0.22	n/a	n/a	n/a	n/a	123	n/a	n/a	0	n/a	n/a	0.00182	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	45	n/a	n/a	51.11	n/a	n/a	0.09944	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0007	n/a	n/a	n/a	n/a	43	n/a	n/a	95.35	n/a	n/a	0.1102	NP Inter(NDs)
Chromium (mg/L)	n/a	0.068	n/a	n/a	n/a	n/a	124	n/a	n/a	62.1	n/a	n/a	0.001729	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.0102	n/a	n/a	n/a	n/a	44	n/a	n/a	52.27	n/a	n/a	0.1047	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	12.78	n/a	n/a	n/a	n/a	29	1.981	0.7129	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.4224	n/a	n/a	n/a	n/a	36	-2.301	0.667	25	Kaplan-Meier	ln(x)	0.05	Inter
Lead (mg/L)	n/a	0.013	n/a	n/a	n/a	n/a	121	n/a	n/a	76.03	n/a	n/a	0.002016	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	n/a	32	n/a	n/a	71.88	n/a	n/a	0.1937	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	n/a	26	n/a	n/a	80.77	n/a	n/a	0.2635	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	n/a	32	n/a	n/a	90.63	n/a	n/a	0.1937	NP Inter(NDs)
Selenium (mg/L)	n/a	0.0438	n/a	n/a	n/a	n/a	125	n/a	n/a	84	n/a	n/a	0.001642	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	n/a	64	n/a	n/a	93.75	n/a	n/a	0.03752	NP Inter(NDs)
Vanadium (mg/L)	n/a	0.425	n/a	n/a	n/a	n/a	119	n/a	n/a	63.03	n/a	n/a	0.002234	NP Inter(NDs)
Zinc (mg/L)	n/a	0.16	n/a	n/a	n/a	n/a	117	n/a	n/a	28.21	n/a	n/a	0.002475	NP Inter(normality)

FIGURE I.

<b>GRUMMAN ROAD LANDFILL GWPS</b>				
<b>Constituent Name</b>	<b>MCL</b>	<b>CCR-Rule Specified</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.029	0.029
Barium, Total (mg/L)	2		0.22	2
Beryllium, Total (mg/L)	0.004		0.0025	0.004
Cadmium, Total (mg/L)	0.005		0.0007	0.005
Chromium, Total (mg/L)	0.1		0.068	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.0102	0.0102
Combined Radium, Total (pCi/L)	5		12.78	12.78
Fluoride, Total (mg/L)	4		0.42	4
Lead, Total (mg/L)	n/a	0.015	0.013	0.015
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.044	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002
Vanadium, Total (mg/L)	n/a		0.43	0.43
Zinc, Total (mg/L)	n/a		0.16	0.16

*\*Highlighted cells indicated Background is higher than MCLs*

*\*MCL = Maximum Contaminant Level*

*\*CCR = Coal Combustion Residuals*

*\*GWPS = Groundwater Protection Standard*

FIGURE J.

# Confidence Intervals - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 5/17/2022, 3:05 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	GWC-15	0.169	0.07776	0.029	Yes	20	0.1234	0.08035	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-16	0.0814	0.06221	0.029	Yes	21	0.0718	0.01739	0	None	No	0.01	Param.
Arsenic (mg/L)	GWC-20	0.3509	0.2712	0.029	Yes	20	0.3111	0.07018	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-16	0.2115	0.1274	0.1	Yes	16	0.1695	0.0646	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-20	0.357	0.1282	0.1	Yes	16	0.26	0.2006	0	None	sqrt(x)	0.01	Param.

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 5/17/2022, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	GWB-4R	0.003	0.0003	0.006	No	20	0.002865	0.0006037	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWB-5R	0.003	0.0013	0.006	No	20	0.002657	0.0008547	85	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWB-6R	0.003	0.00059	0.006	No	20	0.002744	0.0007895	90	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-1	0.003	0.0016	0.006	No	20	0.002563	0.0009235	80	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-11	0.003	0.0006	0.006	No	20	0.001803	0.001233	50	None	No	0.01	NP (normality)
Antimony (mg/L)	GWC-12	0.003	0.0003	0.006	No	20	0.002865	0.0006037	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-13	0.003	0.0006	0.006	No	20	0.00288	0.0005367	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-15	0.003	0.0018	0.006	No	20	0.00294	0.0002683	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-17	0.003	0.0014	0.006	No	20	0.00279	0.0006683	90	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-2	0.003	0.0016	0.006	No	20	0.002845	0.0004796	90	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-20	0.003	0.0019	0.006	No	20	0.002828	0.0005683	90	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-21	0.003	0.00033	0.006	No	20	0.002867	0.000597	95	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-22	0.003	0.0022	0.006	No	20	0.002507	0.0009543	75	None	No	0.01	NP (NDs)
Antimony (mg/L)	GWC-9	0.003	0.0016	0.006	No	20	0.002797	0.0006594	90	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWB-4R	0.003197	0.001968	0.029	No	20	0.002582	0.001083	10	None	No	0.01	Param.
Arsenic (mg/L)	GWB-5R	0.00192	0.001006	0.029	No	20	0.002535	0.001771	25	Kaplan-Meier	x^(1/3)	0.01	Param.
Arsenic (mg/L)	GWB-6R	0.00382	0.001396	0.029	No	20	0.003541	0.002282	25	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	GWC-1	0.005225	0.002264	0.029	No	19	0.004716	0.005656	0	None	ln(x)	0.01	Param.
Arsenic (mg/L)	GWC-12	0.005	0.0016	0.029	No	20	0.004195	0.001661	80	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-13	0.005	0.0025	0.029	No	20	0.004434	0.001428	85	None	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-14	0.002873	0.001834	0.029	No	21	0.002501	0.001173	14.29	None	ln(x)	0.01	Param.
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.169</b>	<b>0.07776</b>	<b>0.029</b>	<b>Yes</b>	<b>20</b>	<b>0.1234</b>	<b>0.08035</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>GWC-16</b>	<b>0.0814</b>	<b>0.06221</b>	<b>0.029</b>	<b>Yes</b>	<b>21</b>	<b>0.0718</b>	<b>0.01739</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GWC-17	0.005	0.0011	0.029	No	20	0.002746	0.001904	40	None	No	0.01	NP (normality)
Arsenic (mg/L)	GWC-2	0.005	0.00094	0.029	No	20	0.004346	0.001599	85	None	No	0.01	NP (NDs)
<b>Arsenic (mg/L)</b>	<b>GWC-20</b>	<b>0.3509</b>	<b>0.2712</b>	<b>0.029</b>	<b>Yes</b>	<b>20</b>	<b>0.3111</b>	<b>0.07018</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GWC-21	0.005085	0.002722	0.029	No	20	0.00523	0.003903	35	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	GWC-22	0.005	0.0011	0.029	No	20	0.003278	0.002012	55	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	GWC-9	0.005	0.00084	0.029	No	20	0.004792	0.0009302	95	Kaplan-Meier	No	0.01	NP (NDs)
Arsenic (mg/L)	MW-25D	0.005	0.00092	0.029	No	4	0.00398	0.00204	75	Kaplan-Meier	No	0.0625	NP (NDs)
Barium (mg/L)	GWB-4R	0.095	0.076	2	No	20	0.09025	0.02253	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWB-5R	0.1466	0.09033	2	No	20	0.1218	0.05546	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWB-6R	0.106	0.014	2	No	20	0.06945	0.04169	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-1	0.05694	0.05085	2	No	20	0.0539	0.005362	0	None	No	0.01	Param.
Barium (mg/L)	GWC-11	0.1219	0.07175	2	No	20	0.09685	0.04419	0	None	No	0.01	Param.
Barium (mg/L)	GWC-12	0.0197	0.017	2	No	20	0.01945	0.004345	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-13	0.02826	0.02125	2	No	20	0.02476	0.006164	0	None	No	0.01	Param.
Barium (mg/L)	GWC-14	0.067	0.025	2	No	21	0.04272	0.02696	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-15	0.0498	0.03961	2	No	20	0.04471	0.00897	0	None	No	0.01	Param.
Barium (mg/L)	GWC-16	0.1526	0.07009	2	No	19	0.1183	0.07909	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWC-17	0.1039	0.04807	2	No	20	0.08119	0.05544	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	GWC-2	0.054	0.049	2	No	19	0.05305	0.007435	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-20	0.34	0.0788	2	No	20	0.1728	0.1223	0	None	No	0.01	NP (normality)
Barium (mg/L)	GWC-21	0.1091	0.05411	2	No	20	0.08835	0.05916	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	GWC-22	0.09165	0.05784	2	No	20	0.07475	0.02978	0	None	No	0.01	Param.
Barium (mg/L)	GWC-9	0.2501	0.1813	2	No	20	0.2157	0.06061	0	None	No	0.01	Param.
Beryllium (mg/L)	GWB-4R	0.0005	0.0001	0.004	No	16	0.0003688	0.0001887	62.5	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWB-5R	0.0001715	0.00008308	0.004	No	16	0.0002276	0.0001561	18.75	Kaplan-Meier	sqrt(x)	0.01	Param.
Beryllium (mg/L)	GWB-6R	0.0005	0.00005	0.004	No	16	0.0004435	0.0001544	87.5	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-11	0.0005	0.000047	0.004	No	16	0.0004717	0.0001133	93.75	Kaplan-Meier	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-12	0.0009	0.00046	0.004	No	16	0.0006506	0.0002228	0	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-13	0.0005	0.000058	0.004	No	16	0.0004724	0.0001105	93.75	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-14	0.0005	0.0001	0.004	No	16	0.000422	0.0001678	81.25	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-16	0.0005	0.000068	0.004	No	16	0.0002397	0.0002086	37.5	None	No	0.01	NP (normality)
Beryllium (mg/L)	GWC-17	0.002568	0.001574	0.004	No	16	0.002156	0.0008824	0	None	ln(x)	0.01	Param.

# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 5/17/2022, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Beryllium (mg/L)	GWC-2	0.0005	0.000088	0.004	No	17	0.0003634	0.0001976	64.71	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-22	0.0005	0.00009	0.004	No	16	0.0003335	0.0001982	56.25	None	No	0.01	NP (NDs)
Beryllium (mg/L)	GWC-9	0.0003	0.00019	0.004	No	16	0.0002375	0.00005209	0	None	No	0.01	NP (normality)
Cadmium (mg/L)	GWB-4R	0.0005	0.0002	0.005	No	16	0.0004113	0.0001613	75	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-1	0.0005	0.0001	0.005	No	16	0.0004481	0.0001419	87.5	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-11	0.0005613	0.0002612	0.005	No	16	0.0004113	0.0002306	6.25	None	No	0.01	Param.
Cadmium (mg/L)	GWC-14	0.0005	0.00017	0.005	No	16	0.0003556	0.0001712	56.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-20	0.0005	0.0002	0.005	No	16	0.0004381	0.0001337	81.25	None	No	0.01	NP (NDs)
Cadmium (mg/L)	GWC-22	0.0005	0.00012	0.005	No	16	0.0003156	0.0001801	37.5	None	No	0.01	NP (normality)
Chromium (mg/L)	GWB-4R	0.0101	0.0022	0.1	No	20	0.00634	0.004478	0	None	No	0.01	NP (normality)
Chromium (mg/L)	GWB-5R	0.003596	0.000977	0.1	No	20	0.0068	0.01561	25	Kaplan-Meier	ln(x)	0.01	Param.
Chromium (mg/L)	GWB-6R	0.006595	0.002265	0.1	No	20	0.005255	0.00512	0	None	x^(1/3)	0.01	Param.
Chromium (mg/L)	GWC-1	0.0023	0.0017	0.1	No	20	0.002325	0.001187	5	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-11	0.005	0.00091	0.1	No	20	0.002803	0.002569	35	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-12	0.0028	0.00091	0.1	No	20	0.001982	0.00161	20	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-13	0.005	0.00077	0.1	No	20	0.003163	0.0021	55	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-14	0.005	0.0008	0.1	No	21	0.00265	0.002095	42.86	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-15	0.005	0.0013	0.1	No	20	0.00256	0.001698	30	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-16	0.005	0.00099	0.1	No	21	0.002984	0.002523	38.1	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-17	0.005	0.0009	0.1	No	20	0.002475	0.001967	30	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-2	0.005	0.0008	0.1	No	20	0.003306	0.002132	60	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-20	0.005	0.0009	0.1	No	20	0.002554	0.001933	35	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-21	0.005	0.00067	0.1	No	20	0.003112	0.002685	45	None	No	0.01	NP (normality)
Chromium (mg/L)	GWC-22	0.005	0.0006	0.1	No	20	0.003019	0.002248	55	None	No	0.01	NP (NDs)
Chromium (mg/L)	GWC-9	0.005	0.0011	0.1	No	20	0.002584	0.00185	35	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-4R	0.0027	0.00072	0.0102	No	16	0.001638	0.00144	12.5	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-5R	0.0057	0.00056	0.0102	No	16	0.005518	0.005577	43.75	None	No	0.01	NP (normality)
Cobalt (mg/L)	GWB-6R	0.07	0.0049	0.0102	No	16	0.008767	0.01637	81.25	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-11	0.005	0.00055	0.0102	No	16	0.003879	0.002007	75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-12	0.001267	0.0007859	0.0102	No	16	0.001026	0.0003694	0	None	No	0.01	Param.
Cobalt (mg/L)	GWC-14	0.005	0.0003	0.0102	No	16	0.004706	0.001175	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-17	0.005578	0.002845	0.0102	No	16	0.00435	0.002136	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	GWC-2	0.005	0.00036	0.0102	No	17	0.003669	0.002132	70.59	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-22	0.005	0.00077	0.0102	No	16	0.003402	0.002134	62.5	None	No	0.01	NP (NDs)
Cobalt (mg/L)	GWC-9	0.0017	0.00096	0.0102	No	16	0.001344	0.0004015	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWB-4R	5	2.32	12.78	No	16	3.336	1.161	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWB-5R	3.82	2.256	12.78	No	16	3.128	1.405	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWB-6R	4.891	2.802	12.78	No	16	3.847	1.605	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-1	2.194	1.509	12.78	No	16	1.852	0.5265	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-11	6.44	3.219	12.78	No	16	4.83	2.476	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-12	2.792	1.652	12.78	No	16	2.222	0.8754	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-13	1.418	0.8356	12.78	No	16	1.127	0.4476	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-14	1.301	0.6827	12.78	No	16	0.9918	0.4752	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-15	1.746	1.022	12.78	No	16	1.384	0.5563	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-16	2.776	1.766	12.78	No	16	2.319	0.858	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-17	3.922	2.701	12.78	No	16	3.311	0.9385	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-2	0.9759	0.6638	12.78	No	16	0.8198	0.2399	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-20	4.736	2.168	12.78	No	16	3.452	1.973	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-21	2.43	1.246	12.78	No	16	1.838	0.9099	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GWC-22	7.57	2.53	12.78	No	16	4.934	2.364	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	GWC-9	3.723	2.017	12.78	No	16	2.984	1.597	0	None	x^(1/3)	0.01	Param.
Fluoride (mg/L)	GWB-4R	0.17	0.08	4	No	18	0.1708	0.267	61.11	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWB-5R	0.11	0.05	4	No	18	0.08967	0.0394	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWB-6R	0.13	0.09	4	No	18	0.1183	0.06059	50	None	No	0.01	NP (normality)
Fluoride (mg/L)	GWC-1	0.18	0.051	4	No	18	0.1051	0.03936	77.78	None	No	0.01	NP (NDs)



# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 5/17/2022, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	GWC-12	0.7455	0.273	4	No	18	0.5092	0.3904	5.556	None	No	0.01	Param.
Fluoride (mg/L)	GWC-13	0.55	0.09	4	No	18	0.1218	0.1075	83.33	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-14	0.25	0.1	4	No	18	0.1711	0.1265	66.67	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-15	0.13	0.06	4	No	18	0.1311	0.09761	72.22	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-16	0.2	0.1	4	No	18	0.1844	0.2077	61.11	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-17	1.208	0.5244	4	No	18	0.9217	0.5599	5.556	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	GWC-2	0.17	0.08	4	No	18	0.1246	0.1258	61.11	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-20	0.14	0.043	4	No	18	0.09128	0.02816	77.78	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-21	0.1	0.071	4	No	18	0.09839	0.006835	94.44	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-22	0.12	0.1	4	No	18	0.09278	0.02421	66.67	None	No	0.01	NP (NDs)
Fluoride (mg/L)	GWC-9	0.2439	0.09963	4	No	18	0.2129	0.2237	11.11	None	ln(x)	0.01	Param.
Fluoride (mg/L)	MW-25D	0.1431	0.05842	4	No	4	0.1008	0.01864	0	None	No	0.01	Param.
Lead (mg/L)	GWB-4R	0.002866	0.0006427	0.015	No	19	0.003104	0.00295	21.05	Kaplan-Meier	ln(x)	0.01	Param.
Lead (mg/L)	GWB-5R	0.0005318	0.00008789	0.015	No	20	0.0007816	0.0006054	40	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	GWB-6R	0.001	0.0002	0.015	No	20	0.0006238	0.0004129	45	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-1	0.001	0.00012	0.015	No	20	0.0008182	0.0003734	80	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-11	0.0002673	0.000145	0.015	No	20	0.0004105	0.0003125	20	Kaplan-Meier	ln(x)	0.01	Param.
Lead (mg/L)	GWC-12	0.0001677	0.00005339	0.015	No	20	0.0005951	0.0007867	35	Kaplan-Meier	ln(x)	0.01	Param.
Lead (mg/L)	GWC-13	0.0005781	0.0001494	0.015	No	20	0.000629	0.0004372	35	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	GWC-14	0.001	0.00051	0.015	No	21	0.0008471	0.0003329	80.95	Kaplan-Meier	No	0.01	NP (NDs)
Lead (mg/L)	GWC-15	0.001	0.0001	0.015	No	20	0.0005763	0.0004402	50	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-16	0.001	0.0001	0.015	No	21	0.0005078	0.0004388	42.86	None	No	0.01	NP (normality)
Lead (mg/L)	GWC-17	0.001	0.00014	0.015	No	20	0.0006862	0.0004293	60	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-2	0.001	0.0002	0.015	No	20	0.0007443	0.0004042	70	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-20	0.001	0.0002	0.015	No	20	0.0007808	0.0003907	75	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-21	0.001	0.0001	0.015	No	20	0.0006507	0.0004411	60	None	No	0.01	NP (NDs)
Lead (mg/L)	GWC-22	0.0008934	0.0003663	0.015	No	20	0.0007135	0.000634	15	None	x^(1/3)	0.01	Param.
Lead (mg/L)	GWC-9	0.001	0.0001	0.015	No	20	0.0006308	0.0004391	55	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWB-4R	0.014	0.0041	0.04	No	16	0.009394	0.004749	0	None	No	0.01	NP (normality)
Lithium (mg/L)	GWB-5R	0.03	0.0031	0.04	No	16	0.01854	0.01344	56.25	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-12	0.03	0.00091	0.04	No	16	0.01186	0.01451	37.5	None	No	0.01	NP (normality)
Lithium (mg/L)	GWC-13	0.03	0.00087	0.04	No	16	0.02635	0.009967	87.5	None	No	0.01	NP (NDs)
Lithium (mg/L)	GWC-17	0.006743	0.005019	0.04	No	16	0.005881	0.001325	0	None	No	0.01	Param.
Lithium (mg/L)	GWC-9	0.002053	0.001761	0.04	No	15	0.001907	0.0002154	0	None	No	0.01	Param.
Mercury (mg/L)	GWB-4R	0.0002	0.0001	0.002	No	13	0.0001807	0.00004827	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWB-5R	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWB-6R	0.0002	0.0001	0.002	No	13	0.0001802	0.00004964	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-1	0.0002	0.0001	0.002	No	13	0.00018	0.00005033	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-11	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-12	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-13	0.0002	0.00013	0.002	No	13	0.0001869	0.0000325	84.62	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-14	0.0002	0.00011	0.002	No	13	0.0001931	0.00002496	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-15	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-16	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-17	0.0002	0.00011	0.002	No	13	0.0001931	0.00002496	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-2	0.0002	0.0001	0.002	No	14	0.0001929	0.00002673	92.86	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-20	0.0002	0.00011	0.002	No	13	0.0001931	0.00002496	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-21	0.0002	0.00011	0.002	No	13	0.0001931	0.00002496	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-22	0.0002	0.0001	0.002	No	13	0.0001923	0.00002774	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	GWC-9	0.0002	0.00011	0.002	No	13	0.0001815	0.0000467	84.62	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWB-4R	0.13	0.0237	0.1	No	16	0.07454	0.05311	0	None	No	0.01	NP (normality)
Molybdenum (mg/L)	GWB-5R	0.01	0.0012	0.1	No	16	0.00945	0.0022	93.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWB-6R	0.01	0.001	0.1	No	16	0.007295	0.00416	68.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-1	0.1518	0.06523	0.1	No	16	0.1085	0.06651	0	None	No	0.01	Param.
Molybdenum (mg/L)	GWC-11	0.01	0.0018	0.1	No	16	0.008911	0.002983	87.5	None	No	0.01	NP (NDs)

# Confidence Intervals - All Results

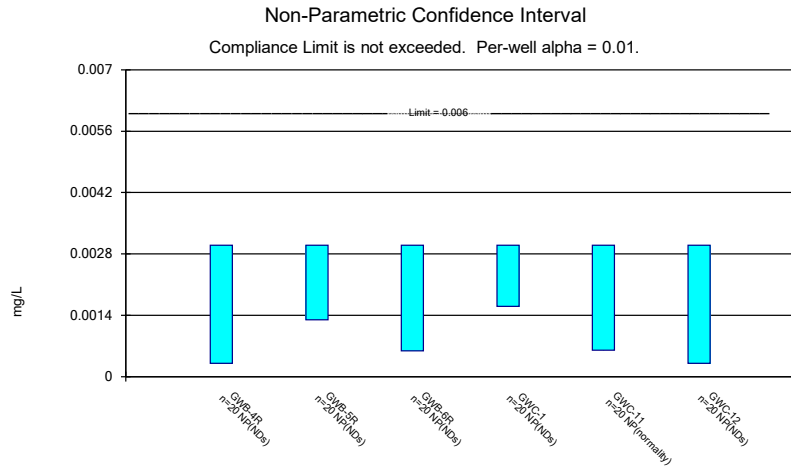
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 5/17/2022, 3:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Molybdenum (mg/L)	GWC-13	0.01	0.0056	0.1	No	16	0.009725	0.0011	93.75	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	GWC-14	0.013	0.00363	0.1	No	16	0.01056	0.009834	0	None	ln(x)	0.01	Param.
Molybdenum (mg/L)	GWC-15	0.1105	0.09103	0.1	No	16	0.1008	0.01495	0	None	No	0.01	Param.
<b>Molybdenum (mg/L)</b>	<b>GWC-16</b>	<b>0.2115</b>	<b>0.1274</b>	<b>0.1</b>	<b>Yes</b>	<b>16</b>	<b>0.1695</b>	<b>0.0646</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Molybdenum (mg/L)	GWC-17	0.01	0.003	0.1	No	16	0.006695	0.003528	50	None	No	0.01	NP (normality)
<b>Molybdenum (mg/L)</b>	<b>GWC-20</b>	<b>0.357</b>	<b>0.1282</b>	<b>0.1</b>	<b>Yes</b>	<b>16</b>	<b>0.26</b>	<b>0.2006</b>	<b>0</b>	<b>None</b>	<b>sqrt(x)</b>	<b>0.01</b>	<b>Param.</b>
Molybdenum (mg/L)	GWC-21	0.0578	0.01917	0.1	No	16	0.03848	0.02969	0	None	No	0.01	Param.
Molybdenum (mg/L)	MW-24D	0.004758	0.0004922	0.1	No	4	0.002625	0.0009394	0	None	No	0.01	Param.
Molybdenum (mg/L)	MW-25D	0.01	0.0011	0.1	No	4	0.00565	0.005026	50	None	No	0.0625	NP (normality)
Selenium (mg/L)	GWB-4R	0.003949	0.002614	0.05	No	20	0.004205	0.001249	45	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	GWB-5R	0.006	0.0033	0.05	No	20	0.00492	0.001008	80	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWB-6R	0.005	0.0023	0.05	No	20	0.00634	0.01038	60	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-1	0.0026	0.0018	0.05	No	20	0.00354	0.004724	10	None	No	0.01	NP (normality)
Selenium (mg/L)	GWC-11	0.008658	0.003486	0.05	No	20	0.007395	0.006036	20	Kaplan-Meier	x^(1/3)	0.01	Param.
Selenium (mg/L)	GWC-12	0.005	0.003	0.05	No	20	0.00447	0.001106	80	Kaplan-Meier	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-14	0.004404	0.003013	0.05	No	21	0.003709	0.00126	4.762	None	No	0.01	Param.
Selenium (mg/L)	GWC-15	0.005132	0.002166	0.05	No	20	0.00526	0.002897	45	Kaplan-Meier	sqrt(x)	0.01	Param.
Selenium (mg/L)	GWC-16	0.005435	0.003543	0.05	No	21	0.004489	0.001715	4.762	None	No	0.01	Param.
Selenium (mg/L)	GWC-17	0.005	0.0016	0.05	No	20	0.00355	0.001758	55	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-2	0.005	0.0035	0.05	No	20	0.004775	0.000734	90	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-20	0.005	0.0024	0.05	No	20	0.003965	0.001636	70	None	No	0.01	NP (NDs)
Selenium (mg/L)	GWC-21	0.02027	0.01081	0.05	No	20	0.01554	0.008331	0	None	No	0.01	Param.
Selenium (mg/L)	GWC-22	0.005	0.0023	0.05	No	20	0.004345	0.001367	80	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWB-4R	0.001	0.00007	0.002	No	16	0.0008838	0.0003177	87.5	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWB-5R	0.001	0.00031	0.002	No	16	0.0008979	0.0002827	87.5	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-1	0.001	0.000054	0.002	No	16	0.0008224	0.0003819	81.25	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-11	0.001	0.000098	0.002	No	16	0.0005699	0.0004464	50	None	No	0.01	NP (normality)
Thallium (mg/L)	GWC-12	0.001	0.00014	0.002	No	16	0.0005925	0.0004228	50	None	No	0.01	NP (normality)
Thallium (mg/L)	GWC-14	0.001	0.00007	0.002	No	16	0.0008831	0.0003194	87.5	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-16	0.001	0.00006	0.002	No	16	0.0008819	0.0003228	87.5	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-17	0.001	0.000076	0.002	No	16	0.0006561	0.0004586	62.5	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-2	0.001	0.00011	0.002	No	17	0.0009476	0.0002159	94.12	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-21	0.001	0.00005	0.002	No	16	0.0009406	0.0002375	93.75	None	No	0.01	NP (NDs)
Thallium (mg/L)	GWC-22	0.001	0.000086	0.002	No	16	0.0007176	0.0004333	68.75	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWB-4R	0.0388	0.0031	0.43	No	15	0.01916	0.01733	6.667	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWB-5R	0.009707	0.004051	0.43	No	15	0.008007	0.00766	6.667	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWB-6R	0.02741	0.007652	0.43	No	15	0.02286	0.02574	0	None	ln(x)	0.01	Param.
Vanadium (mg/L)	GWC-1	0.007015	0.003932	0.43	No	15	0.005473	0.002275	13.33	None	No	0.01	Param.
Vanadium (mg/L)	GWC-11	0.01	0.0021	0.43	No	15	0.0039	0.003172	20	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-12	0.006895	0.003758	0.43	No	15	0.005327	0.002315	13.33	None	No	0.01	Param.
Vanadium (mg/L)	GWC-13	0.01	0.0019	0.43	No	15	0.007813	0.003724	66.67	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-14	0.0165	0.007166	0.43	No	18	0.01266	0.007364	16.67	Kaplan-Meier	No	0.01	Param.
Vanadium (mg/L)	GWC-15	0.01	0.0021	0.43	No	17	0.005053	0.003795	35.29	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-16	0.0038	0.0025	0.43	No	18	0.004509	0.003059	22.22	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-17	0.01	0.0024	0.43	No	15	0.006133	0.003767	46.67	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-2	0.01	0.0024	0.43	No	15	0.009493	0.001962	93.33	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-20	0.01	0.0025	0.43	No	17	0.005006	0.003351	29.41	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-21	0.01	0.0022	0.43	No	15	0.004967	0.003223	26.67	None	No	0.01	NP (normality)
Vanadium (mg/L)	GWC-22	0.01	0.0016	0.43	No	15	0.006927	0.003996	60	None	No	0.01	NP (NDs)
Vanadium (mg/L)	GWC-9	0.01	0.0015	0.43	No	15	0.008853	0.003026	86.67	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWB-4R	0.008706	0.004532	0.16	No	15	0.0079	0.003035	26.67	Kaplan-Meier	No	0.01	Param.
Zinc (mg/L)	GWB-5R	0.01	0.0023	0.16	No	15	0.008273	0.003287	73.33	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWB-6R	0.016	0.0032	0.16	No	15	0.008213	0.003873	60	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-1	0.01	0.0057	0.16	No	15	0.00856	0.002981	73.33	Kaplan-Meier	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-11	0.01	0.0031	0.16	No	15	0.00786	0.003249	66.67	Kaplan-Meier	No	0.01	NP (NDs)

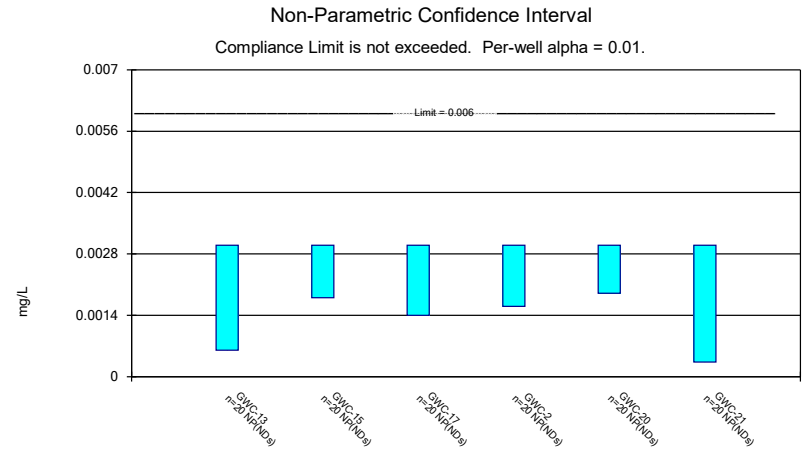
# Confidence Intervals - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 5/17/2022, 3:05 PM

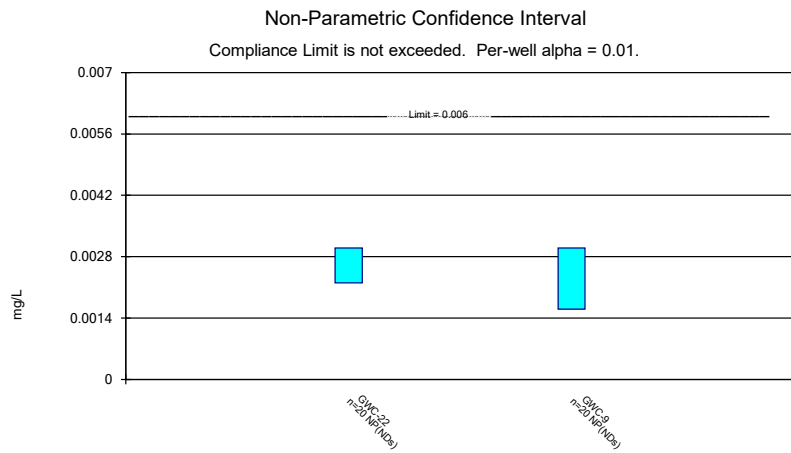
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Zinc (mg/L)	GWC-12	0.01	0.0025	0.16	No	15	0.005207	0.003295	26.67	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-13	0.039	0.0021	0.16	No	15	0.02004	0.01876	0	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-14	0.01	0.0052	0.16	No	18	0.008867	0.002678	77.78	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-15	0.032	0.0051	0.16	No	17	0.01101	0.005539	88.24	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-16	0.01	0.0025	0.16	No	18	0.0076	0.003556	61.11	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-17	0.01287	0.008019	0.16	No	15	0.01045	0.003582	13.33	None	No	0.01	Param.
Zinc (mg/L)	GWC-2	0.056	0.0018	0.16	No	15	0.01083	0.01297	60	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-20	0.031	0.0049	0.16	No	17	0.01055	0.005621	82.35	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-21	0.01	0.002	0.16	No	15	0.00812	0.003405	66.67	None	No	0.01	NP (NDs)
Zinc (mg/L)	GWC-22	0.0106	0.0031	0.16	No	15	0.0081	0.003266	46.67	None	No	0.01	NP (normality)
Zinc (mg/L)	GWC-9	0.006583	0.002375	0.16	No	15	0.006767	0.005908	26.67	Kaplan-Meier	x^(1/3)	0.01	Param.



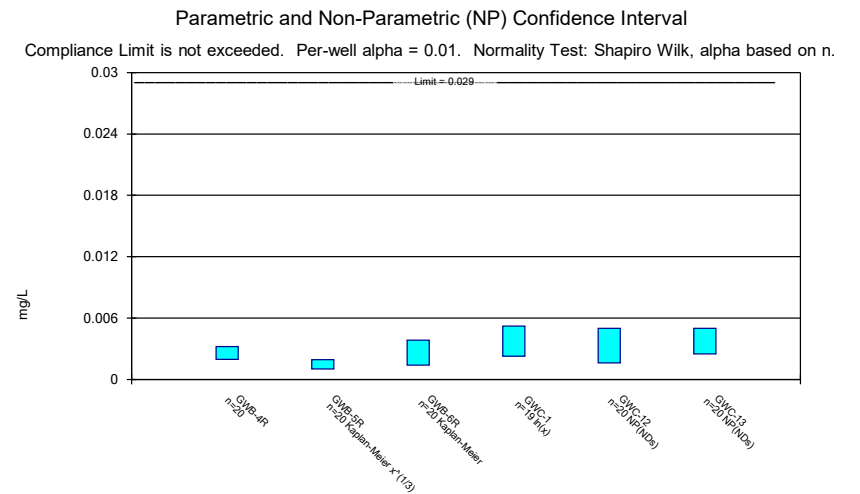
Constituent: Antimony Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



Constituent: Antimony Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



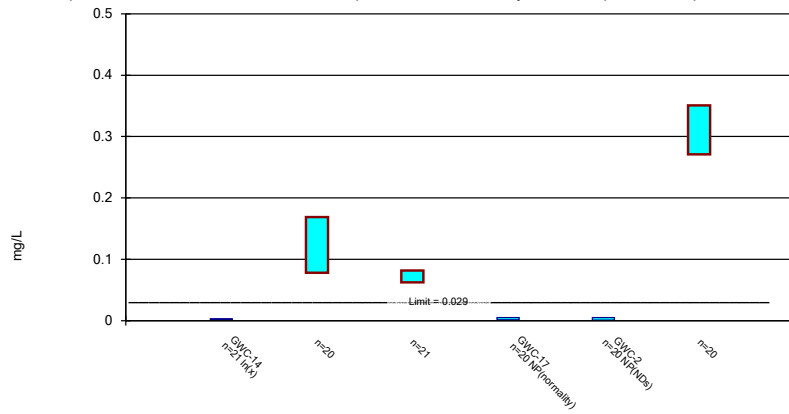
Constituent: Antimony Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



Constituent: Arsenic Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

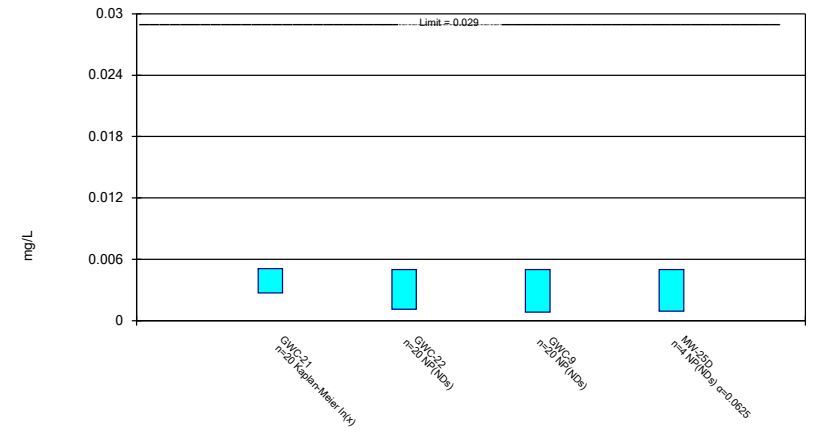
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

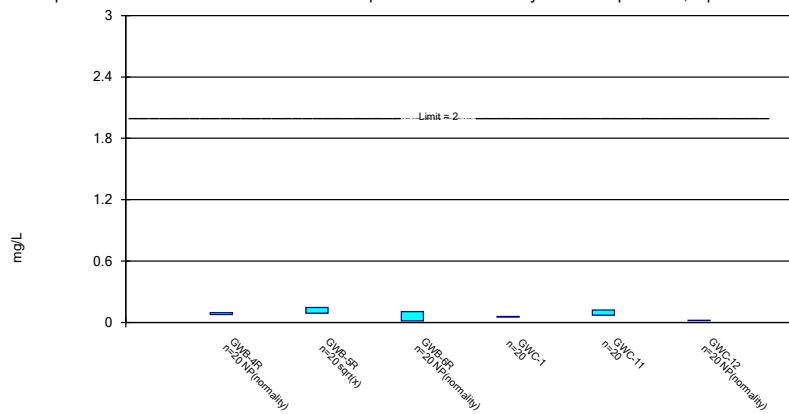
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Constituent: Arsenic Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

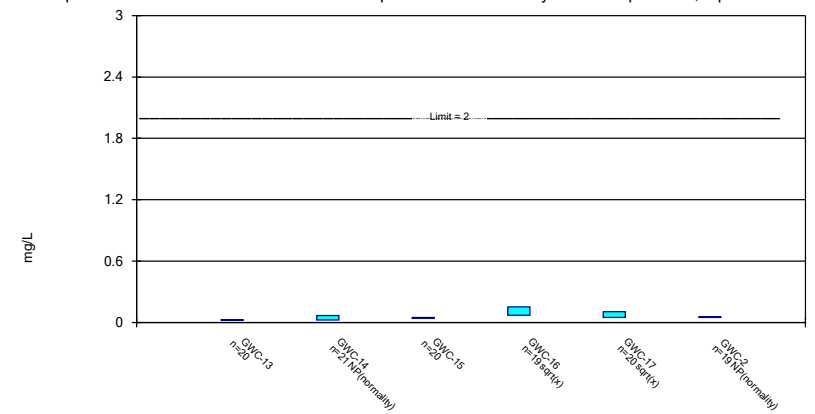
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Constituent: Barium Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

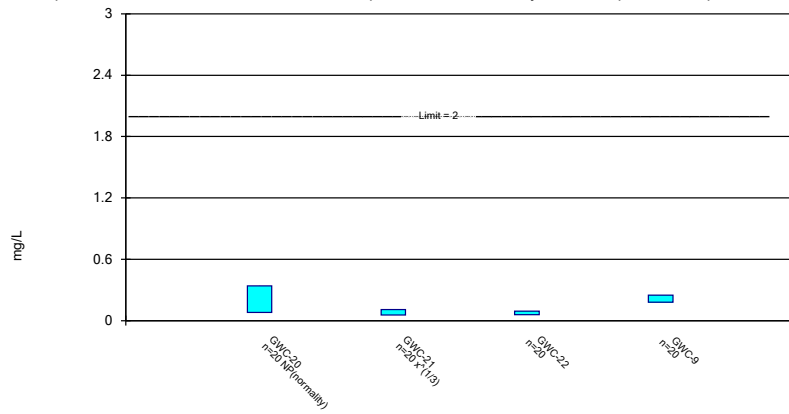
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Constituent: Barium Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

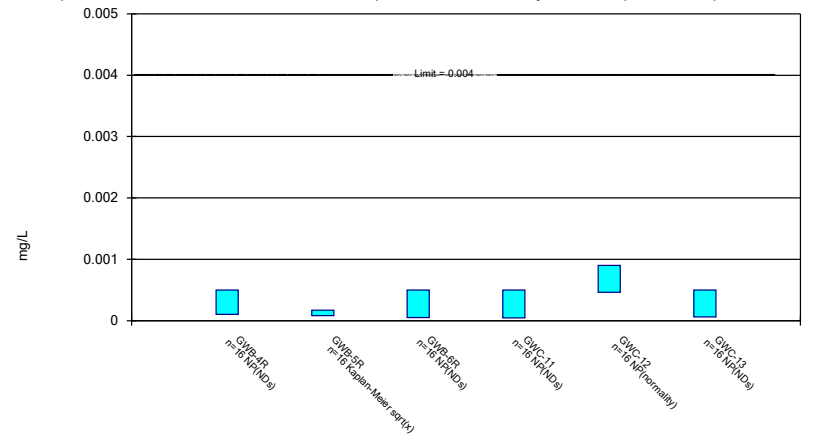
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Constituent: Barium Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

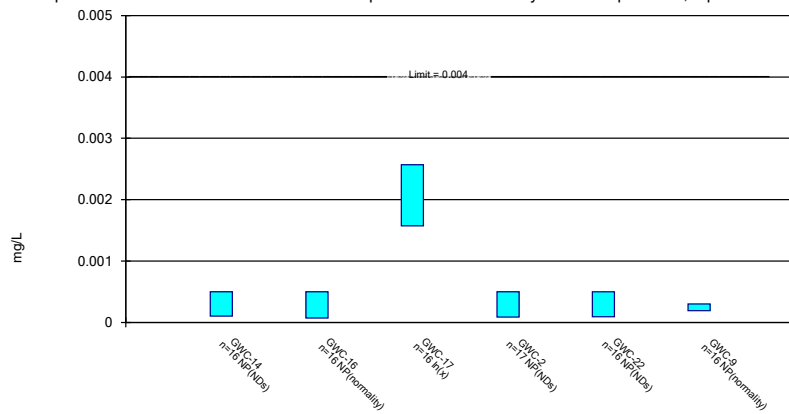
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Constituent: Beryllium Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

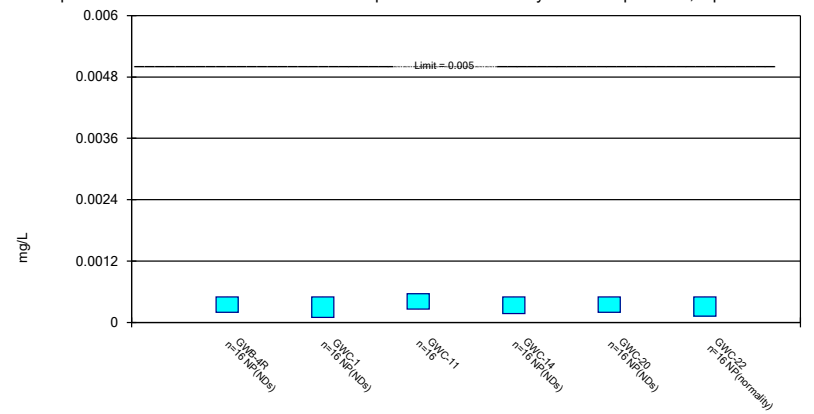
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Constituent: Beryllium Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

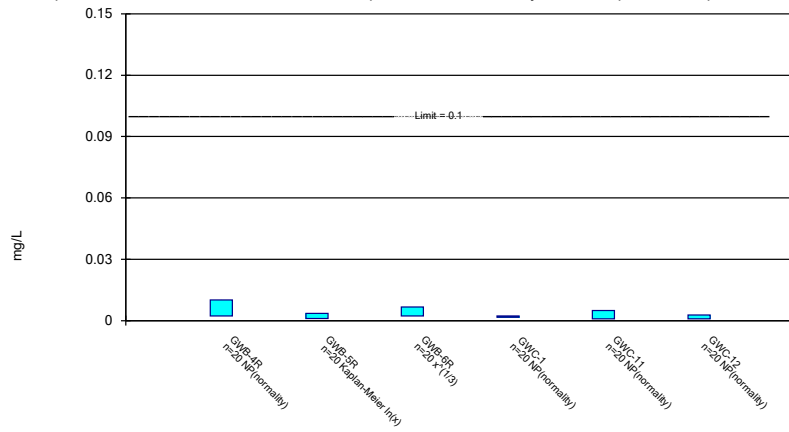
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Constituent: Cadmium Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

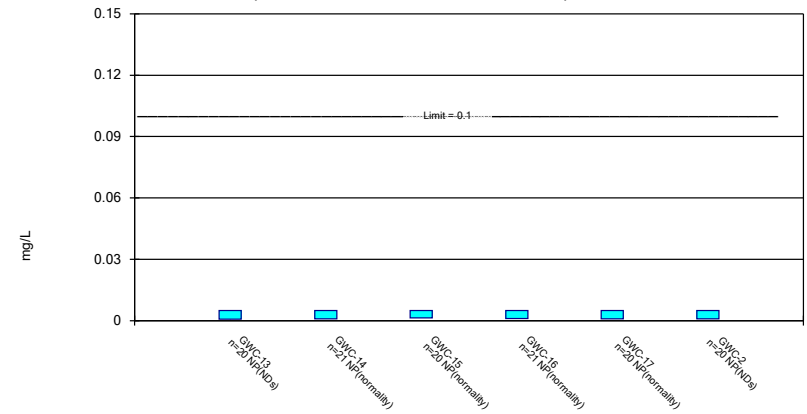
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Constituent: Chromium Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Non-Parametric Confidence Interval

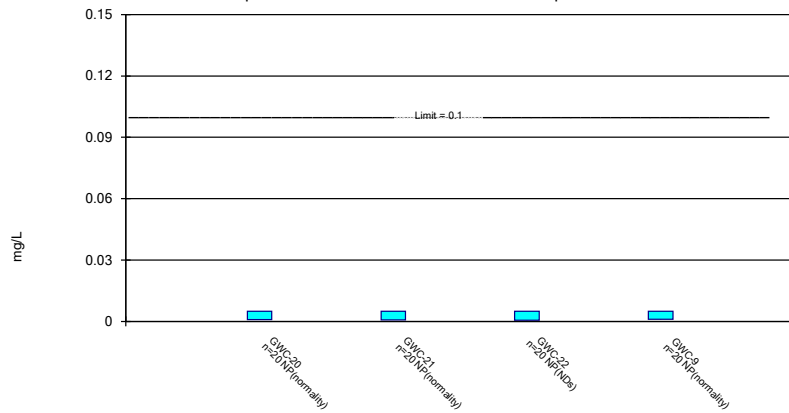
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Constituent: Chromium Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Non-Parametric Confidence Interval

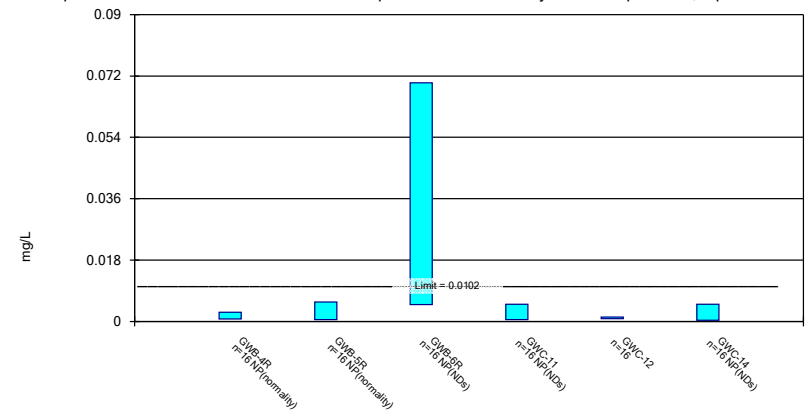
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Constituent: Chromium Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

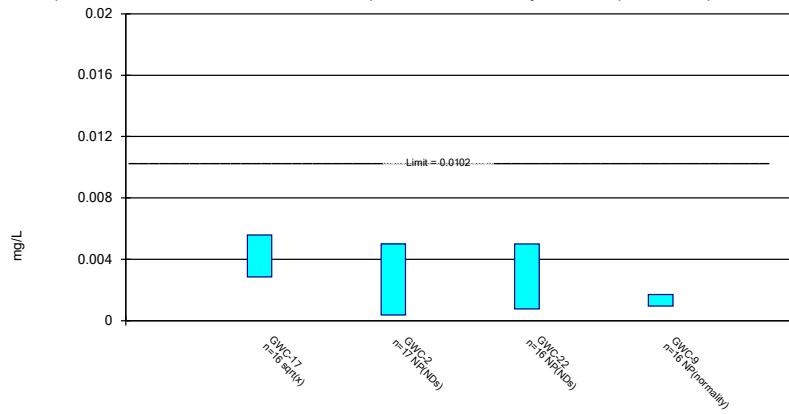
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

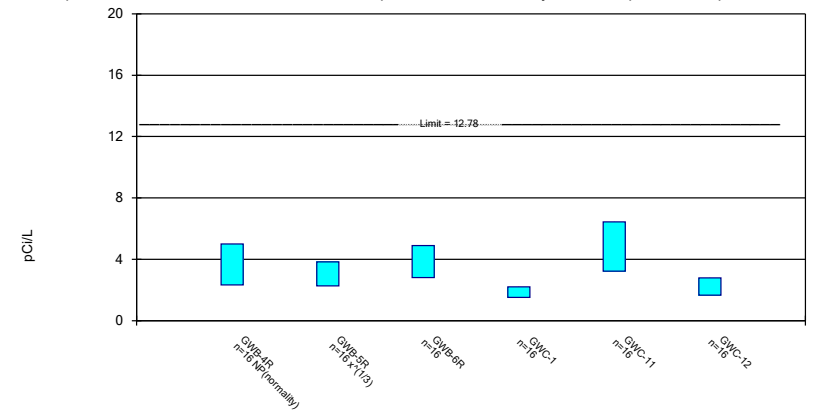
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

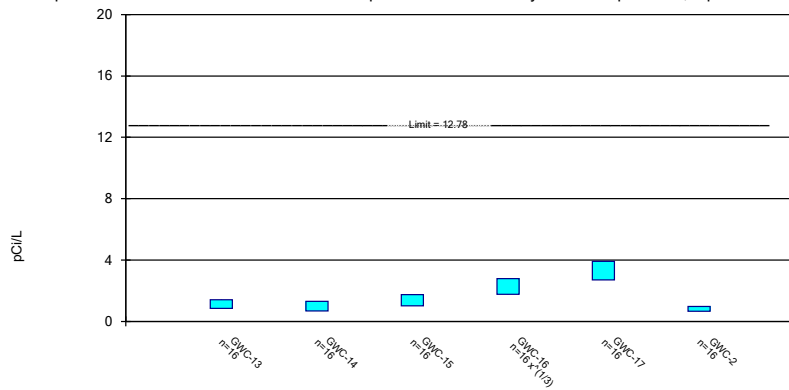
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confiden  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric Confidence Interval

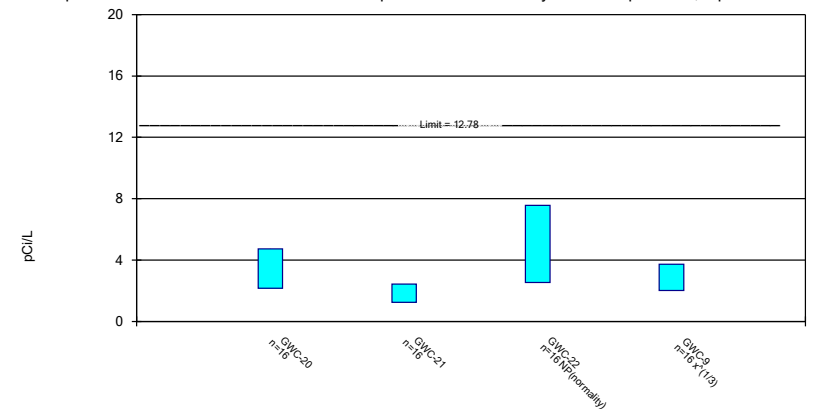
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confiden  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

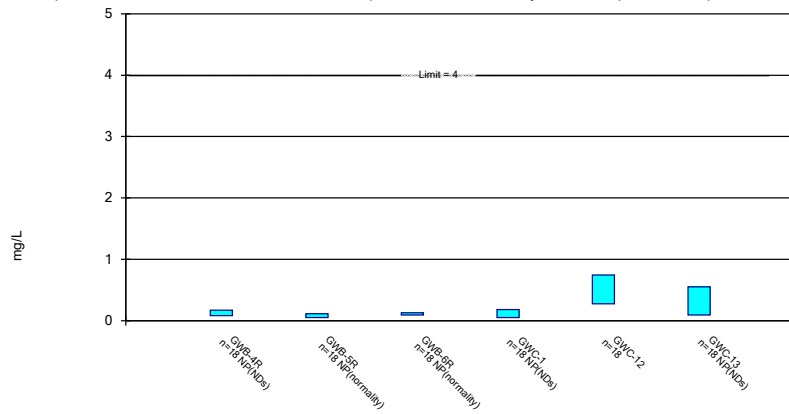


Constituent: Combined Radium 226 + 228 Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confiden  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill



Parametric and Non-Parametric (NP) Confidence Interval

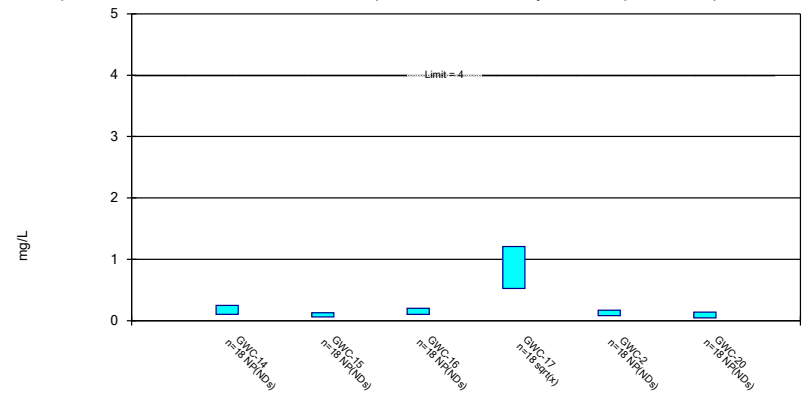
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

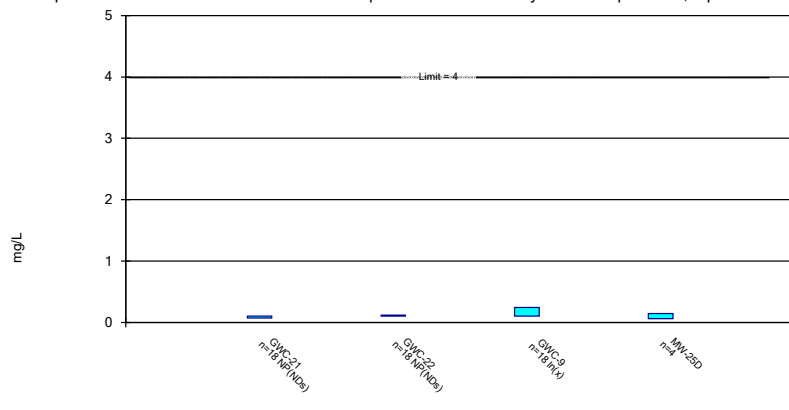
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

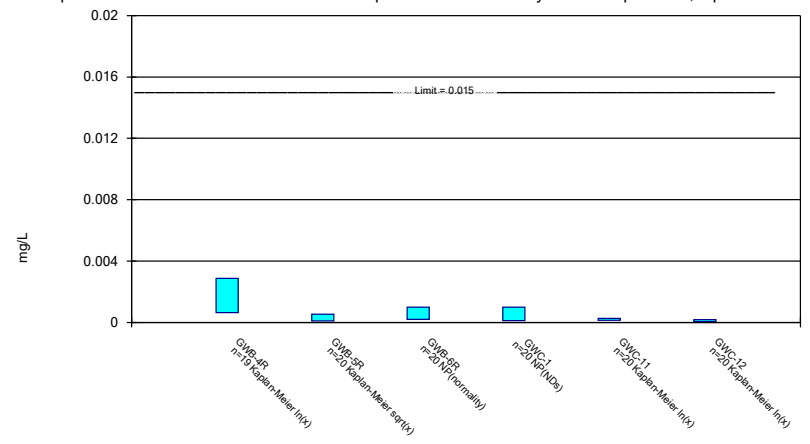
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

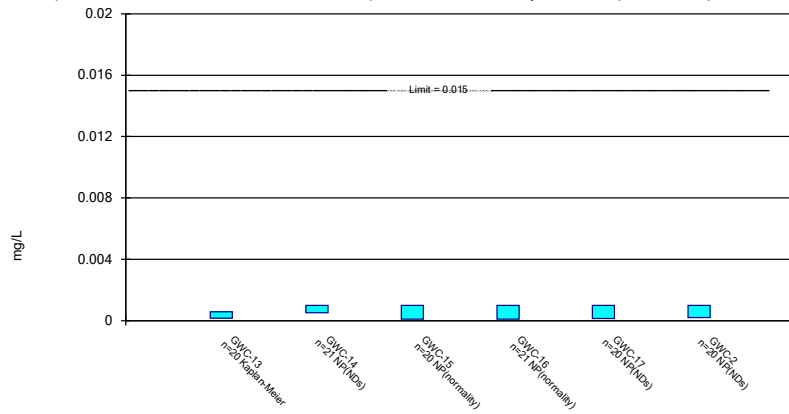
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

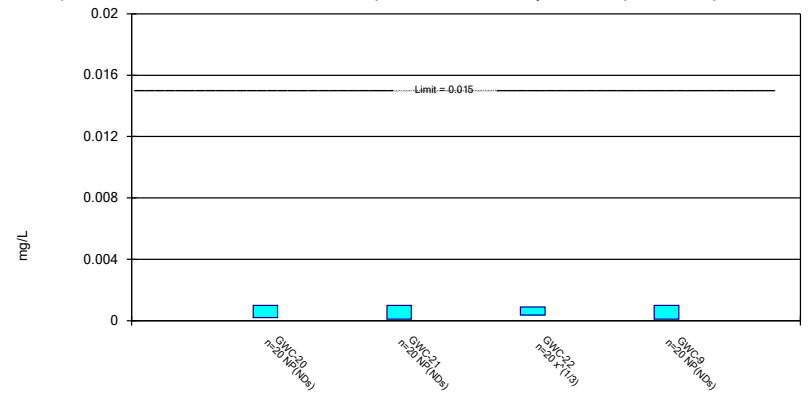
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

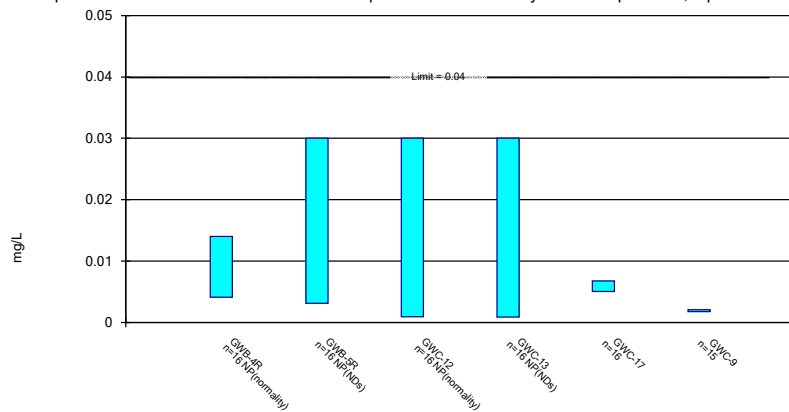
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

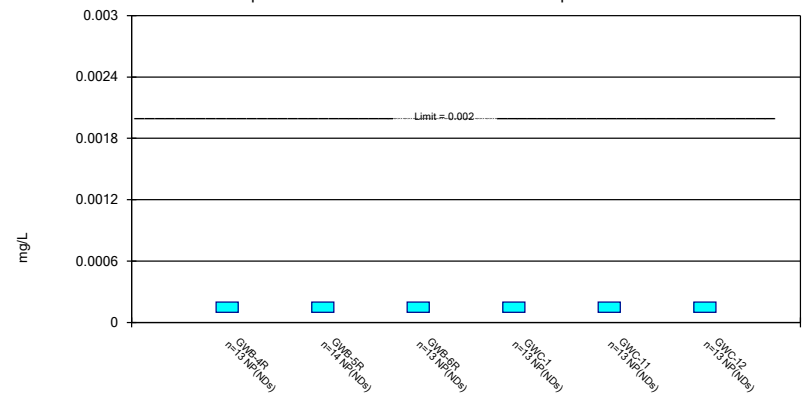
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

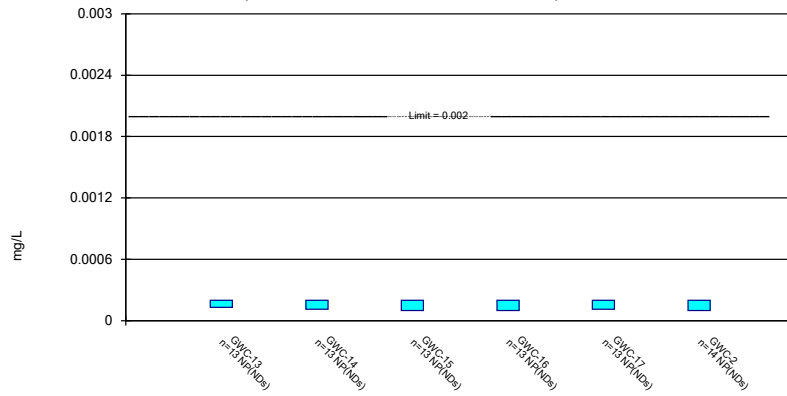
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 5/17/2022 3:01 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

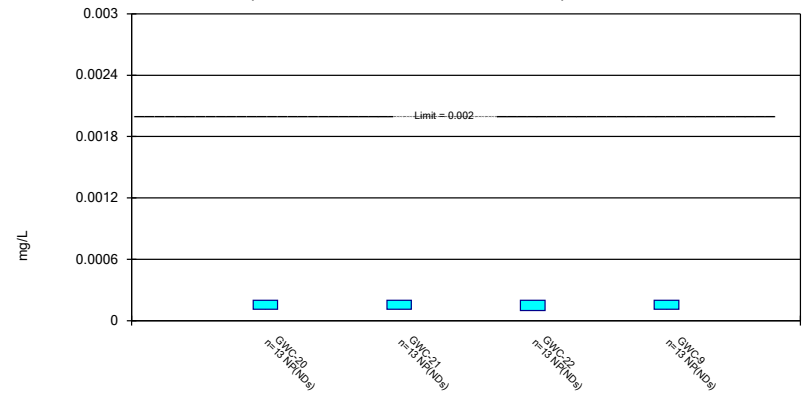
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

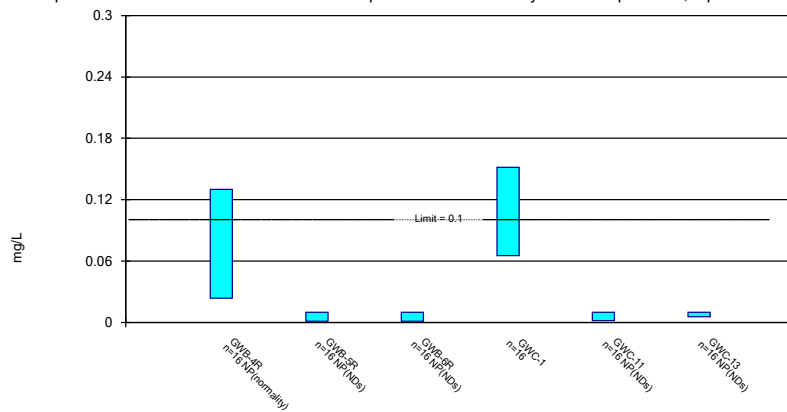
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

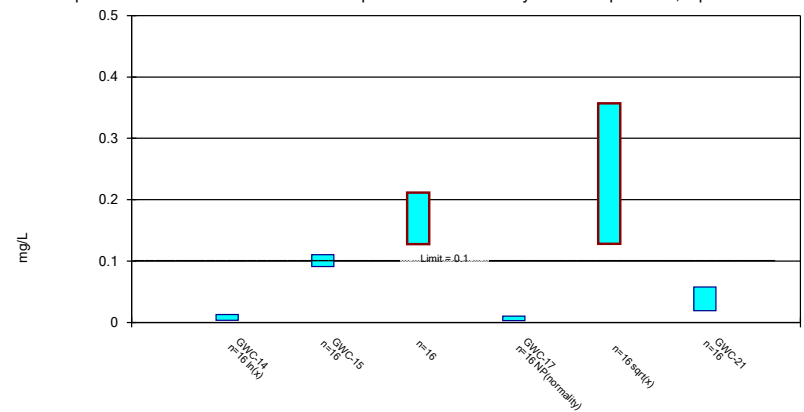
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

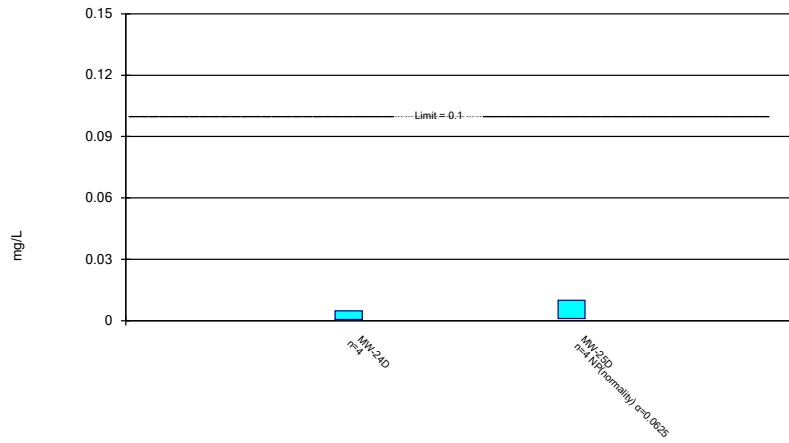
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

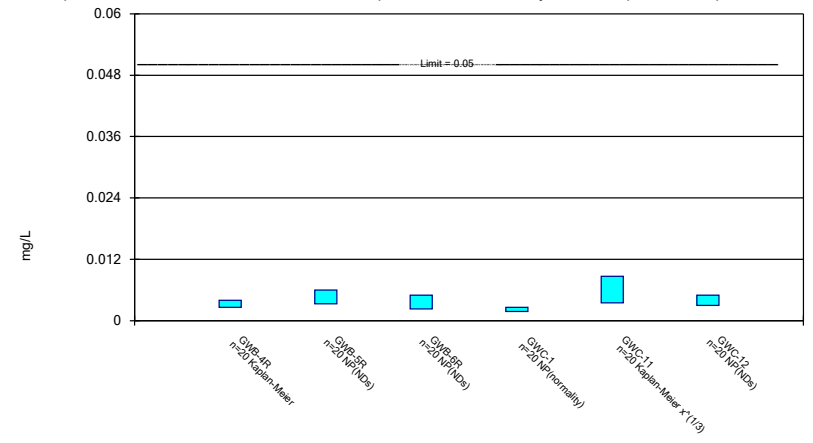
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

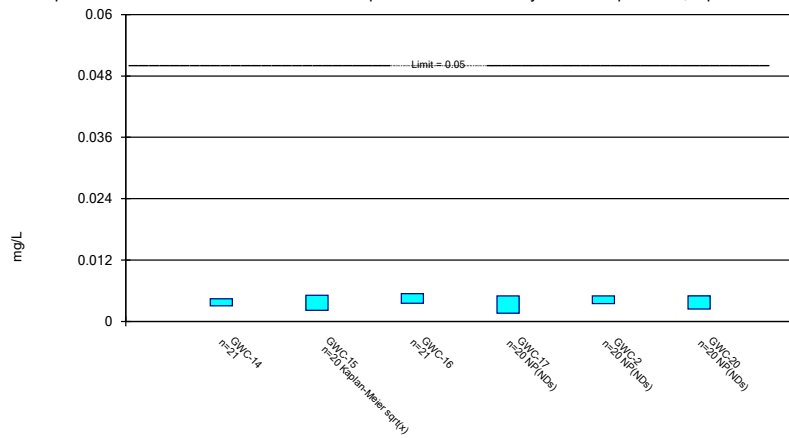
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

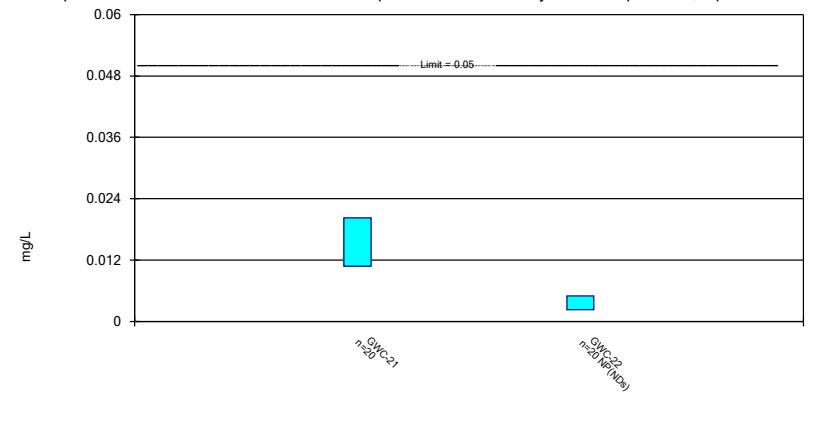
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Parametric and Non-Parametric (NP) Confidence Interval

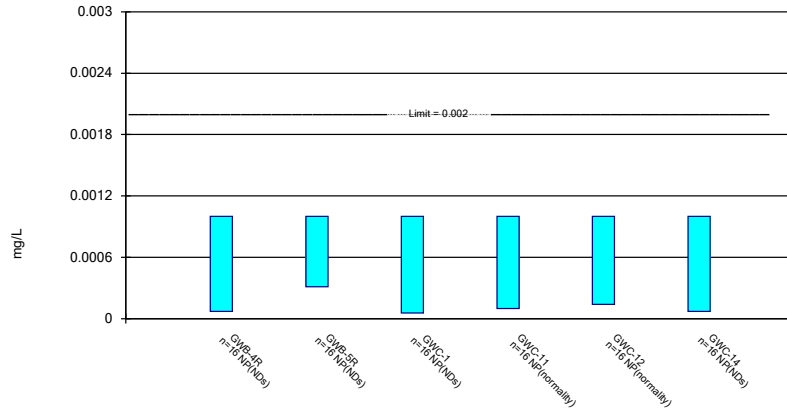
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

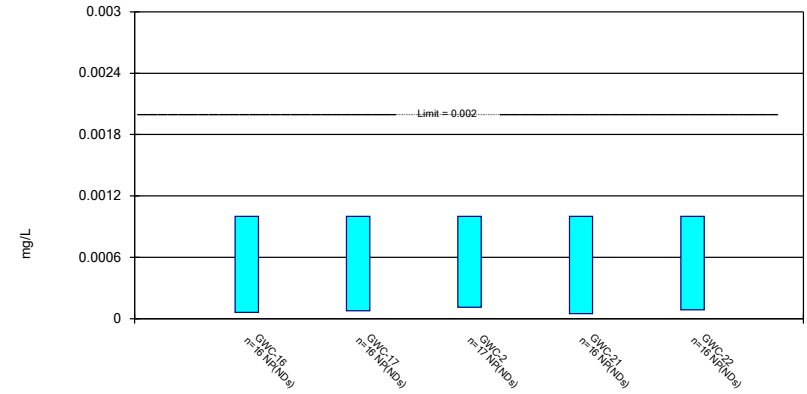
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

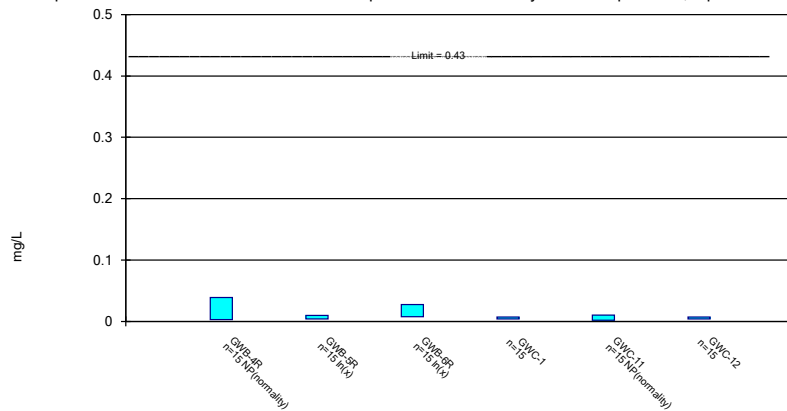
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

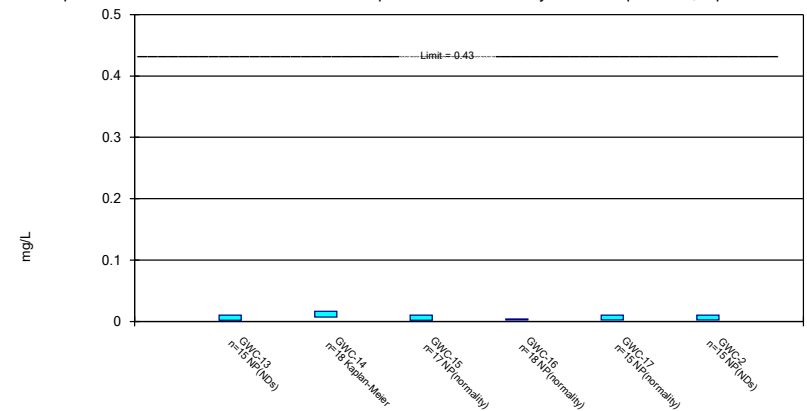
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Vanadium Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

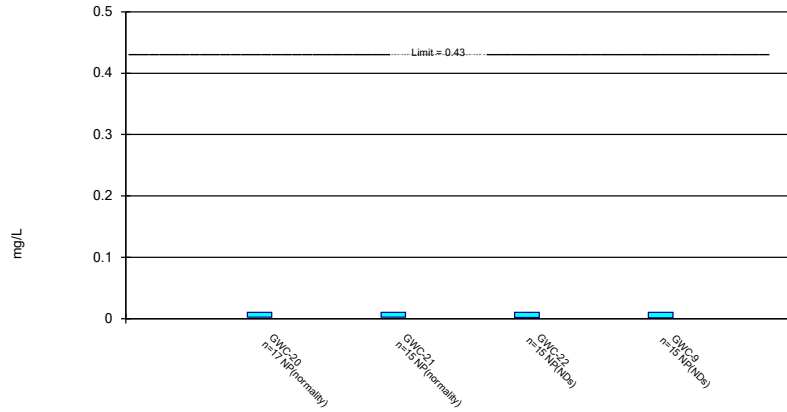
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Vanadium Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Non-Parametric Confidence Interval

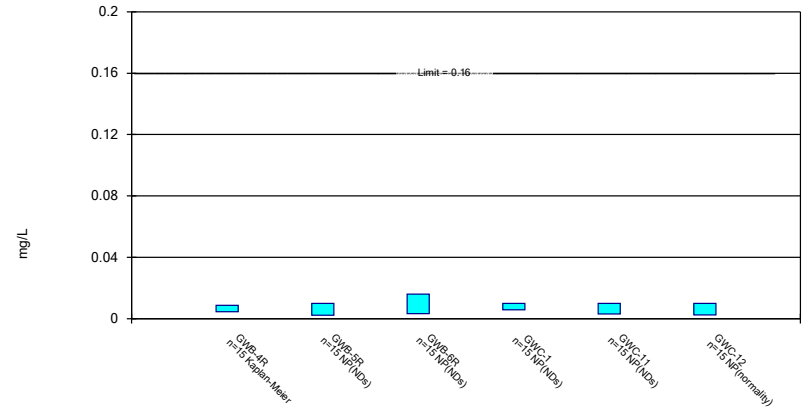
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Vanadium Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

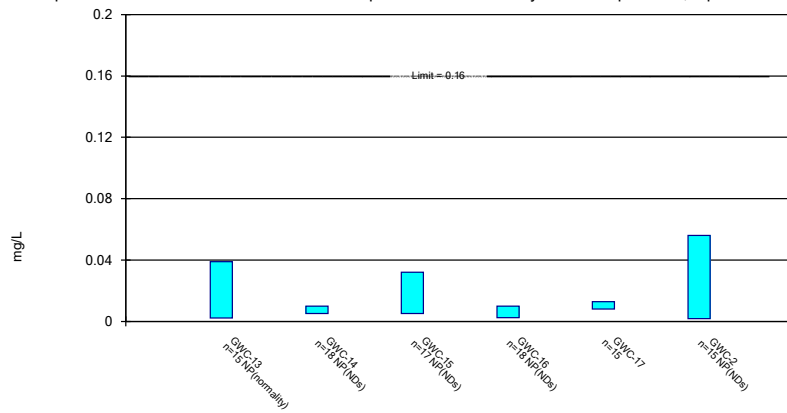
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Zinc Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

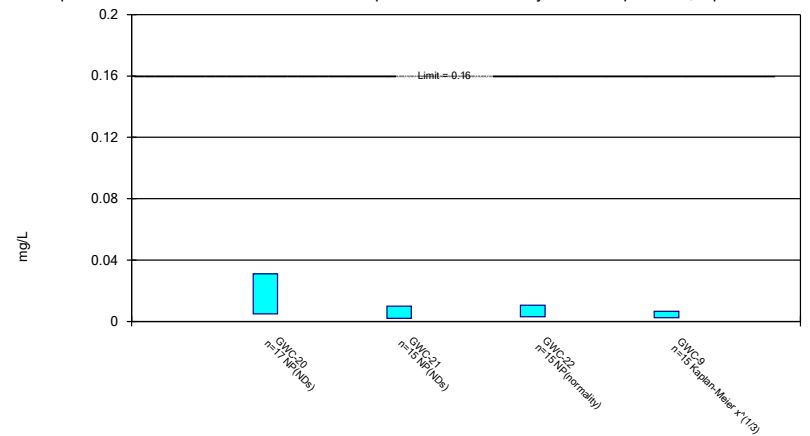
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Zinc Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Zinc Analysis Run 5/17/2022 3:02 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				<0.003		
1/18/2016	<0.003	<0.003	<0.003			<0.003
1/19/2016					<0.003	
7/26/2016					0.0005 (J)	
7/27/2016		<0.003		<0.003		<0.003
7/28/2016			<0.003			
7/29/2016	0.0003 (J)					
8/30/2016		<0.003	<0.003	<0.003		
8/31/2016					<0.003	<0.003
9/1/2016	<0.003					
10/25/2016				<0.003		
10/26/2016	<0.003	<0.003	<0.003		<0.003	<0.003
1/3/2017		<0.003				
1/4/2017				<0.003	<0.003	<0.003
1/5/2017			<0.003			
1/6/2017	<0.003					
4/4/2017	<0.003			<0.003		
4/5/2017						<0.003
4/6/2017		<0.003	<0.003		0.0006 (J)	
7/10/2017						<0.003
7/11/2017					0.0009 (J)	
7/12/2017	<0.003	<0.003	<0.003	<0.003		
10/3/2017		<0.003	<0.003	<0.003	<0.003	
10/4/2017	<0.003					<0.003
1/9/2018			<0.003			
1/10/2018		<0.003		<0.003		
1/11/2018	<0.003				0.0007 (J)	<0.003
7/10/2018		<0.003	<0.003	<0.003		
7/11/2018	<0.003				<0.003	<0.003
1/16/2019	<0.003	<0.003	<0.003	<0.003		
1/17/2019					<0.003	<0.003
3/25/2019	<0.003					
3/26/2019		<0.003	<0.003	<0.003		
3/27/2019					<0.003	<0.003
8/27/2019	<0.003		<0.003	<0.003	0.00033 (J)	<0.003
8/28/2019		0.00054 (J)				
10/8/2019					0.00046 (J)	
10/9/2019	<0.003	<0.003	<0.003	<0.003		<0.003
4/7/2020	<0.003	<0.003	<0.003	<0.003	0.00066 (J)	<0.003
8/17/2020						<0.003
8/18/2020					0.00064 (J)	
8/19/2020	<0.003	<0.003	<0.003	0.00061 (J)		
9/28/2020				0.00035 (J)		
9/29/2020					0.00051 (J)	<0.003
9/30/2020		0.0003 (J)	0.00059 (J)			
10/1/2020	<0.003					
3/10/2021	<0.003	<0.003	0.00029 (J)	0.00069 (J)	0.00076 (J)	0.0003 (J)
9/21/2021	<0.003	0.0013 (J)	<0.003		<0.003	<0.003
9/23/2021				0.0016 (J)		
2/2/2022	<0.003		<0.003			
2/3/2022		<0.003		<0.003	<0.003	<0.003
Mean	0.002865	0.002657	0.002744	0.002563	0.001803	0.002865

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
Std. Dev.	0.0006037	0.0008547	0.0007895	0.0009235	0.001233	0.0006037
Upper Lim.	0.003	0.003	0.003	0.003	0.003	0.003
Lower Lim.	0.0003	0.0013	0.00059	0.0016	0.0006	0.0003



# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-15	GWC-17	GWC-2	GWC-20	GWC-21
1/17/2016		<0.003		<0.003	<0.003	<0.003
1/18/2016	<0.003		<0.003			
7/26/2016	0.0006 (J)					
7/27/2016		<0.003		<0.003		
7/28/2016					0.0019 (J)	<0.003
7/29/2016			<0.003			
8/31/2016	<0.003			<0.003		
9/1/2016		<0.003	<0.003		<0.003	<0.003
10/25/2016		<0.003			<0.003	<0.003
10/26/2016	<0.003		<0.003	<0.003		
1/4/2017					<0.003	<0.003
1/5/2017	<0.003	<0.003	<0.003	<0.003		
4/3/2017		<0.003				
4/4/2017				<0.003	<0.003	<0.003
4/5/2017			<0.003			
4/6/2017	<0.003					
7/11/2017		<0.003			<0.003	
7/12/2017	<0.003					
7/13/2017			<0.003	<0.003		<0.003
10/2/2017		<0.003			<0.003	
10/3/2017				<0.003		<0.003
10/4/2017	<0.003		<0.003			
1/9/2018		<0.003				<0.003
1/10/2018	<0.003			<0.003	<0.003	
1/11/2018			<0.003			
7/9/2018					<0.003	
7/10/2018		<0.003		<0.003		<0.003
7/11/2018	<0.003		<0.003			
1/16/2019	<0.003		<0.003			
1/17/2019		<0.003				<0.003
1/21/2019				<0.003	<0.003	
3/25/2019					<0.003	
3/26/2019	<0.003	<0.003	<0.003			<0.003
7/30/2019				<0.003		
8/27/2019	<0.003	<0.003		<0.003		
8/28/2019			<0.003		<0.003	<0.003
10/8/2019	<0.003	<0.003				<0.003
10/9/2019			<0.003	<0.003	<0.003	
4/7/2020		<0.003				<0.003
4/8/2020	<0.003		<0.003	0.0013 (J)	<0.003	
8/17/2020	<0.003					
8/18/2020		<0.003	<0.003	<0.003	<0.003	<0.003
9/28/2020	<0.003					
9/29/2020				0.0016 (J)		
9/30/2020		<0.003	<0.003		<0.003	0.00033 (J)
3/11/2021			0.00039 (J)			
3/12/2021		0.0018 (J)			0.00065 (J)	
3/15/2021	<0.003			<0.003		
3/16/2021						<0.003
9/21/2021	<0.003					
9/22/2021			0.0014 (J)	<0.003	<0.003	<0.003
9/23/2021		<0.003				

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-13	GWC-15	GWC-17	GWC-2	GWC-20	GWC-21
2/1/2022			<0.003		<0.003	<0.003
2/2/2022				<0.003		
2/3/2022	<0.003	<0.003				
Mean	0.00288	0.00294	0.00279	0.002845	0.002828	0.002867
Std. Dev.	0.0005367	0.0002683	0.0006683	0.0004796	0.0005683	0.000597
Upper Lim.	0.003	0.003	0.003	0.003	0.003	0.003
Lower Lim.	0.0006	0.0018	0.0014	0.0016	0.0019	0.00033

# Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-22	GWC-9
1/18/2016	<0.003	<0.003
7/28/2016		<0.003
7/29/2016	<0.003	
8/31/2016	<0.003	<0.003
10/26/2016	<0.003	
10/27/2016		0.0016 (J)
1/4/2017	<0.003	
1/6/2017		<0.003
4/6/2017	<0.003	<0.003
7/11/2017	<0.003	
7/12/2017		<0.003
10/4/2017	<0.003	<0.003
1/11/2018	<0.003	<0.003
7/11/2018	<0.003	<0.003
1/18/2019	<0.003	<0.003
3/27/2019	<0.003	<0.003
8/27/2019	0.00045 (J)	
8/28/2019		<0.003
10/9/2019	<0.003	<0.003
4/7/2020	0.00049 (J)	
4/8/2020		0.00033 (J)
8/18/2020	0.0022 (J)	
8/19/2020		<0.003
9/30/2020	0.0016 (J)	
10/1/2020		<0.003
3/10/2021	0.0004 (J)	<0.003
9/21/2021	<0.003	
9/22/2021		<0.003
2/2/2022		<0.003
2/3/2022	<0.003	
Mean	0.002507	0.002797
Std. Dev.	0.0009543	0.0006594
Upper Lim.	0.003	0.003
Lower Lim.	0.0022	0.0016

# Confidence Interval

Constituent: Arsenic (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-12	GWC-13
1/17/2016				0.024 (O)		
1/18/2016	<0.005	<0.005	<0.005		<0.005	<0.005
7/26/2016						<0.005
7/27/2016		0.0008 (J)		0.0046 (J)	<0.005	
7/28/2016			0.0009 (J)			
7/29/2016	0.0014 (J)					
8/30/2016		<0.005	<0.005	0.0023 (J)		
8/31/2016					<0.005	<0.005
9/1/2016	0.0033 (J)					
10/25/2016				0.0035 (J)		
10/26/2016	0.0016 (J)	<0.005	<0.005		<0.005	<0.005
1/3/2017		<0.005				
1/4/2017				0.0018 (J)	<0.005	
1/5/2017			0.0021 (J)			<0.005
1/6/2017	<0.005					
4/4/2017	0.0021 (J)			0.0015 (J)		
4/5/2017					0.0006 (J)	
4/6/2017		0.0006 (J)	0.0011 (J)			<0.005
7/10/2017					0.0008 (J)	
7/12/2017	0.0015 (J)	0.0009 (J)	0.0014 (J)	0.0015 (J)		<0.005
10/3/2017		0.001 (J)	0.0014 (J)	0.0013 (J)		
10/4/2017	0.0018 (J)				0.0009 (J)	<0.005
1/9/2018			0.0017 (J)			
1/10/2018		0.0012 (J)		0.0023 (J)		0.0006 (J)
1/11/2018	0.0015 (J)				<0.005	
7/10/2018		0.0016 (J)	0.00063 (J)	0.0031 (J)		
7/11/2018	0.00095 (J)				<0.005	<0.005
1/16/2019	0.0024 (J)	0.0011 (J)	<0.005	0.0023 (J)		<0.005
1/17/2019					<0.005	
3/25/2019	0.0029 (J)					
3/26/2019		0.0014 (J)	0.0029 (J)	0.0032 (J)		0.00058 (J)
3/27/2019					<0.005	
8/27/2019	0.0023 (J)		0.0035 (J)	0.0022 (J)	<0.005	<0.005
8/28/2019		0.0023 (J)				
10/8/2019						<0.005
10/9/2019	0.0024 (J)	0.0053 (J)	0.0018 (J)	0.0042 (J)	<0.005	
4/7/2020	0.0027 (J)	0.0011 (J)	<0.005	0.027	<0.005	
4/8/2020						<0.005
8/17/2020					<0.005	<0.005
8/19/2020	0.0033 (J)	0.0019 (J)	0.0036 (J)	0.007		
9/28/2020				0.0058		<0.005
9/29/2020					<0.005	
9/30/2020		0.0017 (J)	0.004 (J)			
10/1/2020	0.0027 (J)					
3/10/2021	0.0025 (J)	0.0019 (J)	0.0054	0.0055	<0.005	
3/15/2021						<0.005
9/21/2021	0.0027 (J)	<0.005	0.0054		<0.005	<0.005
9/23/2021				0.0048 (J)		
2/2/2022	0.0036 (J)		0.01			
2/3/2022		0.0029 (J)		0.0057	0.0016 (J)	0.0025 (J)
Mean	0.002582	0.002535	0.003541	0.004716	0.004195	0.004434
Std. Dev.	0.001083	0.001771	0.002282	0.005656	0.001661	0.001428

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-12	GWC-13
Upper Lim.	0.003197	0.00192	0.00382	0.005225	0.005	0.005
Lower Lim.	0.001968	0.001006	0.001396	0.002264	0.0016	0.0025

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20
1/17/2016	0.002 (J)	0.014	0.089		<0.005	0.34
1/18/2016				<0.005		
4/26/2016	0.00183 (J)		0.0731			
7/27/2016	0.0021 (J)	0.0303			<0.005	
7/28/2016			0.0627			0.209
7/29/2016				0.0009 (J)		
8/31/2016					<0.005	
9/1/2016	0.0024 (J)	0.0533	0.0551	<0.005		0.215
10/25/2016	<0.005	0.0551	0.0466			0.307
10/26/2016				<0.005	<0.005	
1/4/2017			0.0444			0.311
1/5/2017	0.0024 (J)	0.0437		<0.005	<0.005	
4/3/2017		0.0713				
4/4/2017	0.003 (J)				<0.005	0.317
4/5/2017			0.0591	0.0011 (J)		
7/11/2017	0.0019 (J)	0.0745				0.299
7/12/2017			0.0776			
7/13/2017				0.0016 (J)	<0.005	
10/2/2017	0.0026 (J)	0.0723				0.216
10/3/2017			0.0813		<0.005	
10/4/2017				0.0019 (J)		
1/9/2018	0.0021 (J)	0.0731				
1/10/2018			0.085		0.0006 (J)	0.347
1/11/2018				0.0015 (J)		
7/9/2018	0.0019 (J)					0.37
7/10/2018		0.09	0.067		<0.005	
7/11/2018				0.00082 (J)		
1/16/2019	0.0016 (J)			<0.005		
1/17/2019		0.13	0.079			
1/21/2019					<0.005	0.44
3/25/2019						0.41
3/26/2019	0.0023 (J)	0.1	0.089	0.0015 (J)		
7/30/2019					0.00039 (J)	
8/27/2019	0.0017 (J)	0.17			<0.005	
8/28/2019			0.091	0.0011 (J)		0.43
10/8/2019	0.0017 (J)	0.13	0.088			
10/9/2019				0.0011 (J)	<0.005	0.35
4/7/2020	0.0018 (J)	0.24	0.091			
4/8/2020				0.0013 (J)	0.00094 (J)	0.33
8/18/2020	0.0012 (J)	0.28	0.045	<0.005	<0.005	0.3
9/29/2020	<0.005				<0.005	
9/30/2020		0.24	0.044	0.0012 (J)		0.31
3/11/2021				0.0009 (J)		
3/12/2021		0.16				0.27
3/15/2021					<0.005	
3/16/2021	<0.005		0.064			
9/22/2021	0.0014 (J)		0.081	<0.005	<0.005	0.23
9/23/2021		0.21				
2/1/2022			0.095	<0.005		0.22
2/2/2022	0.0036 (J)				<0.005	
2/3/2022		0.23				
Mean	0.002501	0.1234	0.0718	0.002746	0.004346	0.3111

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20
Std. Dev.	0.001173	0.08035	0.01739	0.001904	0.001599	0.07018
Upper Lim.	0.002873	0.169	0.0814	0.005	0.005	0.3509
Lower Lim.	0.001834	0.07776	0.06221	0.0011	0.00094	0.2712

# Confidence Interval

Constituent: Arsenic (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWC-21	GWC-22	GWC-9	MW-25D
1/17/2016	0.0065			
1/18/2016		<0.005	<0.005	
7/28/2016	<0.005		<0.005	
7/29/2016		0.002 (J)		
8/31/2016		0.0017 (J)	<0.005	
9/1/2016	0.0039 (J)			
10/25/2016	<0.005			
10/26/2016		<0.005		
10/27/2016			<0.005	
1/4/2017	<0.005	<0.005		
1/6/2017			<0.005	
4/4/2017	0.0031 (J)			
4/6/2017		0.0006 (J)	<0.005	
7/11/2017		0.0012 (J)		
7/12/2017			<0.005	
7/13/2017	<0.005			
10/3/2017	<0.005			
10/4/2017		0.0025 (J)	<0.005	
1/9/2018	0.0033 (J)			
1/11/2018		0.0006 (J)	<0.005	
7/10/2018	0.0027 (J)			
7/11/2018		0.0011 (J)	<0.005	
1/17/2019	0.0022 (J)			
1/18/2019		<0.005	<0.005	
3/26/2019	0.0045 (J)			
3/27/2019		<0.005	<0.005	
8/27/2019		0.00044 (J)		
8/28/2019	0.002 (J)		<0.005	
10/8/2019	0.0028 (J)			
10/9/2019		<0.005	<0.005	
4/7/2020	<0.005	0.00043 (J)		
4/8/2020			0.00084 (J)	
8/18/2020	0.0059	<0.005		
8/19/2020			<0.005	
9/30/2020	0.0029 (J)	<0.005		
10/1/2020			<0.005	
1/20/2021				<0.005
3/10/2021		<0.005	<0.005	
3/11/2021				0.00092 (J)
3/16/2021	0.0098			
9/21/2021		<0.005		
9/22/2021	<0.005		<0.005	
9/23/2021				<0.005
2/1/2022	0.02			
2/2/2022			<0.005	
2/3/2022		<0.005		<0.005
Mean	0.00523	0.003278	0.004792	0.00398
Std. Dev.	0.003903	0.002012	0.0009302	0.00204
Upper Lim.	0.005085	0.005	0.005	0.005
Lower Lim.	0.002722	0.0011	0.00084	0.00092



# Confidence Interval

Constituent: Barium (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				0.062		
1/18/2016	0.095	0.12	0.11			0.032
1/19/2016					0.048	
7/26/2016					0.051	
7/27/2016		0.112		0.0417		0.0191
7/28/2016			0.105			
7/29/2016	0.0883					
8/30/2016		0.135	0.106	0.0545		
8/31/2016					0.0565	0.019
9/1/2016	0.123					
10/25/2016				0.0504		
10/26/2016	0.0863	0.103	0.107		0.0591	0.0197
1/3/2017		0.118				
1/4/2017				0.0534	0.0598	0.0174
1/5/2017			0.107			
1/6/2017	0.0758					
4/4/2017	0.091			0.0549		
4/5/2017						0.0174
4/6/2017		0.162	0.111		0.0813	
7/10/2017						0.0172
7/11/2017					0.0302	
7/12/2017	0.0941	0.157	0.106	0.0614		
10/3/2017		0.127	0.105	0.0436	0.103	
10/4/2017	0.0994					0.0162
1/9/2018			0.0969			
1/10/2018		0.158		0.053		
1/11/2018	0.088				0.166	0.018
7/10/2018		0.31	0.087	0.059		
7/11/2018	0.071				0.12	0.014
1/16/2019	0.083	0.054	0.013 (J)	0.054		
1/17/2019					0.039	0.017
3/25/2019	0.077					
3/26/2019		0.057	0.012 (J)	0.055		
3/27/2019					0.053	0.017
8/27/2019	0.076		0.013	0.054	0.12	0.017
8/28/2019		0.1				
10/8/2019					0.13	
10/9/2019	0.076	0.13	0.014 (J)	0.058		0.019
4/7/2020	0.09	0.098	0.01 (J)	0.05	0.14	0.017
8/17/2020						0.018
8/18/2020					0.12	
8/19/2020	0.076	0.1	0.064	0.057		
9/28/2020				0.051		
9/29/2020					0.14	0.018
9/30/2020		0.16	0.092			
10/1/2020	0.077					
3/10/2021	0.07	0.096	0.027	0.052	0.13	0.028
9/21/2021	0.098	0.076	0.077		0.12	0.023
9/23/2021				0.062		
2/2/2022	0.17		0.026			
2/3/2022		0.062		0.051	0.17	0.025
Mean	0.09025	0.1218	0.06945	0.0539	0.09685	0.01945

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
Std. Dev.	0.02253	0.05546	0.04169	0.005362	0.04419	0.004345
Upper Lim.	0.095	0.1466	0.106	0.05694	0.1219	0.0197
Lower Lim.	0.076	0.09033	0.014	0.05085	0.07175	0.017

# Confidence Interval

Constituent: Barium (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
1/17/2016		0.038	0.048	0.056		0.049
1/18/2016	0.026				0.13	
4/26/2016		0.025		0.0721		
7/26/2016	0.0236					
7/27/2016		0.0248	0.0487			0.0796
7/28/2016				0.0534		
7/29/2016					0.181	
8/31/2016	0.0273					0.0429
9/1/2016		0.0346	0.0403	0.0445	0.203	
10/25/2016		0.0248	0.0329	0.0464		
10/26/2016	0.0238				0.177	0.113 (O)
1/4/2017				0.0379		
1/5/2017	0.0218	0.0245	0.0392		0.142	0.0526
4/3/2017			0.0439			
4/4/2017		0.0342				0.0503
4/5/2017				0.0534	0.106	
4/6/2017	0.0204					
7/11/2017		0.0276	0.051			
7/12/2017	0.0161			0.0944		
7/13/2017					0.0686	0.0529
10/2/2017		0.0274	0.047			
10/3/2017				0.135 (O)		0.057
10/4/2017	0.0185				0.0589	
1/9/2018		0.0222	0.0431			
1/10/2018	0.0166			0.0603		0.0527
1/11/2018					0.0412	
7/9/2018		0.026				
7/10/2018			0.047	0.16 (O)		0.054
7/11/2018	0.019				0.049	
1/16/2019	0.019	0.028			0.063	
1/17/2019			0.042	0.13		
1/21/2019						0.05
3/26/2019	0.026	0.034	0.047	0.14	0.025	
7/30/2019						0.052
8/27/2019	0.024	0.067	0.049			0.053
8/28/2019				0.09	0.026	
10/8/2019	0.024	0.085	0.057	0.13		
10/9/2019					0.032	0.05
4/7/2020		0.073	0.033	0.13		
4/8/2020	0.027				0.055	0.061
8/17/2020	0.024					
8/18/2020		0.028	0.03	0.32	0.074	0.05
9/28/2020	0.029					
9/29/2020		0.026				0.049
9/30/2020			0.034	0.14	0.035	
3/11/2021					0.044	
3/12/2021			0.038			
3/15/2021	0.034					0.053
3/16/2021		0.037		0.16		
9/21/2021	0.037					
9/22/2021		0.11		0.26	0.058	0.047
9/23/2021			0.062			

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
2/1/2022				0.23	0.055	
2/2/2022		0.1				0.052
2/3/2022	0.038		0.061			
Mean	0.02476	0.04272	0.04471	0.1183	0.08119	0.05305
Std. Dev.	0.006164	0.02696	0.00897	0.07909	0.05544	0.007435
Upper Lim.	0.02826	0.067	0.0498	0.1526	0.1039	0.054
Lower Lim.	0.02125	0.025	0.03961	0.07009	0.04807	0.049

# Confidence Interval

Constituent: Barium (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9
1/17/2016	0.08	0.079		
1/18/2016			0.062	0.2
7/28/2016	0.164	0.0626		0.234
7/29/2016			0.0575	
8/31/2016			0.0693	0.284
9/1/2016	0.0976	0.077		
10/25/2016	0.0702	0.0217		
10/26/2016			0.0966	
10/27/2016				0.244
1/4/2017	0.0999	0.0617	0.0975	
1/6/2017				0.305
4/4/2017	0.136	0.0761		
4/6/2017			0.064	0.249
7/11/2017	0.145		0.0778	
7/12/2017				0.256
7/13/2017		0.0428		
10/2/2017	0.148			
10/3/2017		0.0376		
10/4/2017			0.156	0.356
1/9/2018		0.0704		
1/10/2018	0.0788			
1/11/2018			0.0702	0.226
7/9/2018	0.087			
7/10/2018		0.061		
7/11/2018			0.12	0.29
1/17/2019		0.061		
1/18/2019			0.052	0.21
1/21/2019	0.069			
3/25/2019	0.085			
3/26/2019		0.084		
3/27/2019			0.057	0.19
8/27/2019			0.097	
8/28/2019	0.078	0.063		0.17
10/8/2019		0.079		
10/9/2019	0.078		0.065	0.18
4/7/2020		0.054	0.1	
4/8/2020	0.19			0.15
8/18/2020	0.38	0.18	0.085	
8/19/2020				0.17
9/30/2020	0.35	0.19	0.045	
10/1/2020				0.15
3/10/2021			0.049	0.15
3/12/2021	0.34			
3/16/2021		0.18		
9/21/2021			0.036	
9/22/2021	0.42	0.046		0.15
2/1/2022	0.36	0.24		
2/2/2022				0.15
2/3/2022			0.038	
Mean	0.1728	0.08835	0.07475	0.2157
Std. Dev.	0.1223	0.05916	0.02978	0.06061
Upper Lim.	0.34	0.1091	0.09165	0.2501

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-20	GWC-21	GWC-22	GWC-9
Lower Lim.	0.0788	0.05411	0.05784	0.1813

# Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-11	GWC-12	GWC-13
8/30/2016		0.0002 (J)	<0.0005			
8/31/2016				<0.0005	0.0011 (J)	<0.0005
9/1/2016	0.0004 (J)					
10/26/2016	0.0001 (J)	0.0001 (J)	<0.0005	<0.0005	0.0011 (J)	<0.0005
1/3/2017		0.0001 (J)				
1/4/2017				<0.0005	0.0009 (J)	
1/5/2017			<0.0005			<0.0005
1/6/2017	0.0001 (J)					
4/4/2017	0.0001 (J)					
4/5/2017					0.0008 (J)	
4/6/2017		0.0003 (J)	<0.0005	<0.0005		<0.0005
7/10/2017					0.0008 (J)	
7/11/2017				<0.0005		
7/12/2017	<0.0005	0.0002 (J)	<0.0005			<0.0005
10/3/2017		0.0002 (J)	<0.0005	<0.0005		
10/4/2017	0.0001 (J)				0.0006 (J)	<0.0005
1/9/2018			<0.0005			
1/10/2018		0.0003 (J)				<0.0005
1/11/2018	0.0001 (J)			<0.0005	0.0006 (J)	
7/10/2018		0.00028 (J)	<0.0005			
7/11/2018	<0.0005			<0.0005	0.00061 (J)	5.8E-05 (J)
8/27/2019	<0.0005		<0.0005	<0.0005	0.00047 (J)	<0.0005
8/28/2019		7.6E-05 (J)				
10/8/2019				<0.0005		<0.0005
10/9/2019	<0.0005	<0.0005	<0.0005		0.00046 (J)	
4/7/2020	<0.0005	<0.0005	<0.0005	<0.0005	0.00051 (J)	
4/8/2020						<0.0005
8/17/2020					0.00046 (J)	<0.0005
8/18/2020				<0.0005		
8/19/2020	<0.0005	<0.0005	5E-05 (J)			
9/28/2020						<0.0005
9/29/2020				<0.0005	0.00043 (J)	
9/30/2020		6.5E-05 (J)	4.6E-05 (J)			
10/1/2020	<0.0005					
3/10/2021	<0.0005	8.2E-05 (J)	<0.0005	4.7E-05 (J)	0.00054	
3/15/2021						<0.0005
9/21/2021	<0.0005	9.9E-05 (J)	<0.0005	<0.0005	0.00047 (J)	<0.0005
2/2/2022	<0.0005		<0.0005			
2/3/2022		0.00014 (J)		<0.0005	0.00056	<0.0005
Mean	0.0003688	0.0002276	0.0004435	0.0004717	0.0006506	0.0004724
Std. Dev.	0.0001887	0.0001561	0.0001544	0.0001133	0.0002228	0.0001105
Upper Lim.	0.0005	0.0001715	0.0005	0.0005	0.0009	0.0005
Lower Lim.	0.0001	8.308E-05	5E-05	4.7E-05	0.00046	5.8E-05

# Confidence Interval

Constituent: Beryllium (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWC-14	GWC-16	GWC-17	GWC-2	GWC-22	GWC-9
8/31/2016				<0.0005	0.0002 (J)	0.0003 (J)
9/1/2016	0.0001 (J)	0.0001 (J)	0.0014 (J)			
10/25/2016	<0.0005	<0.0005				
10/26/2016			0.0016 (J)	0.0003 (J)	0.0002 (J)	
10/27/2016						0.0003 (J)
1/4/2017		9E-05 (J)			0.0001 (J)	
1/5/2017	<0.0005		0.0019 (J)	<0.0005		
1/6/2017						0.0002 (J)
4/4/2017	9E-05 (J)			9E-05 (J)		
4/5/2017		9E-05 (J)	0.0024 (J)			
4/6/2017					<0.0005	0.0003 (J)
7/11/2017	<0.0005				<0.0005	
7/12/2017		<0.0005				0.0003 (J)
7/13/2017			0.0034	<0.0005		
10/2/2017	<0.0005					
10/3/2017		<0.0005		<0.0005		
10/4/2017			0.0037		0.0001 (J)	0.0002 (J)
1/9/2018	<0.0005					
1/10/2018		0.0001 (J)		<0.0005		
1/11/2018			0.0033		<0.0005	0.0003 (J)
7/9/2018	6.2E-05 (J)					
7/10/2018		6E-05 (J)		<0.0005		
7/11/2018			0.0038		7E-05 (J)	0.0003 (J)
7/30/2019				<0.0005		
8/27/2019	<0.0005			<0.0005	9E-05 (J)	
8/28/2019		8E-05 (J)	0.0017 (J)			0.00022 (J)
10/8/2019	<0.0005	9.8E-05 (J)				
10/9/2019			0.0018 (J)	<0.0005	<0.0005	0.00023 (J)
4/7/2020	<0.0005	<0.0005			<0.0005	
4/8/2020			0.0017 (J)	8.8E-05 (J)		0.00019 (J)
8/18/2020	<0.0005	6.8E-05 (J)	0.0016 (J)	5.1E-05 (J)	7.6E-05 (J)	
8/19/2020						0.00022 (J)
9/29/2020	<0.0005			7.5E-05 (J)		
9/30/2020		8.9E-05 (J)	0.0013 (J)		<0.0005	
10/1/2020						0.0002 (J)
3/10/2021					<0.0005	0.00019 (J)
3/11/2021			0.0012			
3/15/2021				7.3E-05 (J)		
3/16/2021	<0.0005	<0.0005				
9/21/2021					<0.0005	
9/22/2021	<0.0005	6E-05 (J)	0.0017	<0.0005		0.00017 (J)
2/1/2022		<0.0005	0.002			
2/2/2022	<0.0005			<0.0005		0.00018 (J)
2/3/2022					<0.0005	
Mean	0.000422	0.0002397	0.002156	0.0003634	0.0003335	0.0002375
Std. Dev.	0.0001678	0.0002086	0.0008824	0.0001976	0.0001982	5.209E-05
Upper Lim.	0.0005	0.0005	0.002568	0.0005	0.0005	0.0003
Lower Lim.	0.0001	6.8E-05	0.001574	8.8E-05	9E-05	0.00019



# Confidence Interval

Constituent: Cadmium (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWB-4R	GWC-1	GWC-11	GWC-14	GWC-20	GWC-22
8/30/2016		<0.0005				
8/31/2016			0.0002 (J)			8E-05 (J)
9/1/2016	0.0002 (J)			0.0001 (J)	<0.0005	
10/25/2016		<0.0005		0.0002 (J)	<0.0005	
10/26/2016	<0.0005		0.0001 (J)			<0.0005
1/4/2017		0.0001 (J)	0.0001 (J)		<0.0005	0.0001 (J)
1/5/2017				0.0002 (J)		
1/6/2017	9E-05 (J)					
4/4/2017	9E-05 (J)	7E-05 (J)		0.0002 (J)	<0.0005	
4/6/2017			0.0002 (J)			0.0001 (J)
7/11/2017			<0.0005	0.0002 (J)	<0.0005	<0.0005
7/12/2017	<0.0005	<0.0005				
10/2/2017				<0.0005	<0.0005	
10/3/2017		<0.0005	0.0003 (J)			
10/4/2017	<0.0005					0.0002 (J)
1/9/2018				<0.0005		
1/10/2018		<0.0005			<0.0005	
1/11/2018	0.0002 (J)		0.0006 (J)			0.0002 (J)
7/9/2018				0.00017 (J)	<0.0005	
7/10/2018		<0.0005				
7/11/2018	<0.0005		0.0004 (J)			0.00023 (J)
8/27/2019	<0.0005	<0.0005	0.00044 (J)	<0.0005		<0.0005
8/28/2019					<0.0005	
10/8/2019			0.00043 (J)	<0.0005		
10/9/2019	<0.0005	<0.0005			<0.0005	0.00012 (J)
4/7/2020	<0.0005	<0.0005	0.00051 (J)	<0.0005		0.00054 (J)
4/8/2020					<0.0005	
8/18/2020			0.00058 (J)	<0.0005	<0.0005	0.00024 (J)
8/19/2020	<0.0005	<0.0005				
9/28/2020		<0.0005				
9/29/2020			0.00077 (J)	0.00012 (J)		
9/30/2020					<0.0005	0.00024 (J)
10/1/2020	<0.0005					
3/10/2021	<0.0005	<0.0005	0.0009			<0.0005
3/12/2021					0.00018 (J)	
3/16/2021				<0.0005		
9/21/2021	<0.0005		0.00036 (J)			<0.0005
9/22/2021				<0.0005	0.00013 (J)	
9/23/2021		<0.0005				
2/1/2022					0.0002 (J)	
2/2/2022	<0.0005			<0.0005		
2/3/2022		<0.0005	0.00019 (J)			<0.0005
Mean	0.0004113	0.0004481	0.0004113	0.0003556	0.0004381	0.0003156
Std. Dev.	0.0001613	0.0001419	0.0002306	0.0001712	0.0001337	0.0001801
Upper Lim.	0.0005	0.0005	0.0005613	0.0005	0.0005	0.0005
Lower Lim.	0.0002	0.0001	0.0002612	0.00017	0.0002	0.00012

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				<0.005		
1/18/2016	0.014	<0.005	0.0011 (J)			<0.005
1/19/2016					<0.005	
7/26/2016					0.0005 (J)	
7/27/2016		0.0006 (J)		0.0016 (J)		0.0014 (J)
7/28/2016			0.001 (J)			
7/29/2016	0.0077 (J)					
8/30/2016		<0.005	0.0013 (J)	0.0015 (J)		
8/31/2016					0.001 (J)	0.0012 (J)
9/1/2016	0.015					
10/25/2016				0.0018 (J)		
10/26/2016	0.0106	<0.005	0.0014 (J)		<0.005	0.0012 (J)
1/3/2017		0.001 (J)				
1/4/2017				0.0021 (J)	<0.005	0.0012 (J)
1/5/2017			0.002 (J)			
1/6/2017	0.0098 (J)					
4/4/2017	0.0101			0.002 (J)		
4/5/2017						0.0013 (J)
4/6/2017		0.0013 (J)	0.0034 (J)		0.0007 (J)	
7/10/2017						0.0014 (J)
7/11/2017					0.0006 (J)	
7/12/2017	0.0096 (J)	0.0011 (J)	0.0024 (J)	0.0021 (J)		
10/3/2017		0.0012 (J)	0.0022 (J)	0.0014 (J)	0.0007 (J)	
10/4/2017	0.0097 (J)					0.0011 (J)
1/9/2018			0.0019 (J)			
1/10/2018		0.0016 (J)		0.0017 (J)		
1/11/2018	0.0109				0.0098 (J)	0.001 (J)
7/10/2018		0.0055 (J)	0.0023 (J)	0.0021 (J)		
7/11/2018	0.0055 (J)				<0.005	<0.005
1/16/2019	0.0024 (J)	<0.005	0.018 (J)	0.0021 (J)		
1/17/2019					<0.005	0.0028 (J)
3/25/2019	0.002 (J)					
3/26/2019		0.072	0.017 (J)	0.0018 (J)		
3/27/2019					<0.005	<0.005
8/27/2019	0.0027 (J)		0.0097 (J)	0.0062 (J)	0.00092 (J)	0.00085 (J)
8/28/2019		0.0071 (J)				
10/8/2019					0.00091 (J)	
10/9/2019	0.002 (J)	0.012 (J)	0.011 (J)	0.0019 (J)		0.00081 (J)
4/7/2020	0.0028 (J)	0.0022 (J)	0.0094 (J)	0.0015 (J)	0.00094 (J)	0.00082 (J)
8/17/2020						0.001 (J)
8/18/2020					0.0015 (J)	
8/19/2020	0.0022 (J)	0.0012 (J)	0.0037 (J)	0.0028 (J)		
9/28/2020				0.0024 (J)		
9/29/2020					0.0011 (J)	0.00085 (J)
9/30/2020		0.0018 (J)	0.0045 (J)			
10/1/2020	0.002 (J)					
3/10/2021	0.003 (J)	0.001 (J)	0.006	0.0023 (J)	0.0013 (J)	0.00091 (J)
9/21/2021	0.0018 (J)	<0.005	0.0035 (J)		<0.005	<0.005
9/23/2021				0.0023 (J)		
2/2/2022	0.003 (J)		0.0033 (J)			
2/3/2022		0.0014 (J)		0.0019 (J)	0.0011 (J)	0.0018 (J)
Mean	0.00634	0.0068	0.005255	0.002325	0.002803	0.001982

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
Std. Dev.	0.004478	0.01561	0.00512	0.001187	0.002569	0.00161
Upper Lim.	0.0101	0.003596	0.006595	0.0023	0.005	0.0028
Lower Lim.	0.0022	0.000977	0.002265	0.0017	0.00091	0.00091

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
1/17/2016		0.0012 (J)	<0.005	<0.005		<0.005
1/18/2016	<0.005				<0.005	
4/26/2016		<0.005		<0.005		
7/26/2016	<0.005					
7/27/2016		0.0008 (J)	0.0007 (J)			0.0008 (J)
7/28/2016				0.0006 (J)		
7/29/2016					0.0009 (J)	
8/31/2016	0.0011 (J)					<0.005
9/1/2016		0.0015 (J)	0.0011 (J)	0.0011 (J)	0.0011 (J)	
10/25/2016		<0.005	<0.005	<0.005		
10/26/2016	<0.005				<0.005	0.001 (J)
1/4/2017				<0.005		
1/5/2017	<0.005	0.001 (J)	<0.005		0.0012 (J)	<0.005
4/3/2017			0.0015 (J)			
4/4/2017		0.001 (J)				0.0008 (J)
4/5/2017				0.001 (J)	0.0015 (J)	
4/6/2017	0.0011 (J)					
7/11/2017		0.0008 (J)	0.0013 (J)			
7/12/2017	0.0007 (J)			0.0011 (J)		
7/13/2017					0.0012 (J)	0.0006 (J)
10/2/2017		0.0009 (J)	0.0013 (J)			
10/3/2017				0.0009 (J)		<0.005
10/4/2017	0.0008 (J)				0.0055 (J)	
1/9/2018		0.0006 (J)	0.0012 (J)			
1/10/2018	0.0007 (J)			0.0007 (J)		<0.005
1/11/2018					0.0009 (J)	
7/9/2018		<0.005				
7/10/2018			<0.005	<0.005		<0.005
7/11/2018	0.0019 (J)				<0.005	
1/16/2019	<0.005	<0.005			<0.005	
1/17/2019			<0.005	0.01 (J)		
1/21/2019						<0.005
3/26/2019	<0.005	<0.005	<0.005	<0.005	<0.005	
7/30/2019						0.00065 (J)
8/27/2019	<0.005	0.001 (J)	0.0016 (J)			<0.005
8/28/2019				0.0011 (J)	0.0013 (J)	
10/8/2019	<0.005	0.00053 (J)	0.0017 (J)	0.00099 (J)		
10/9/2019					0.00081 (J)	0.00049 (J)
4/7/2020		0.00074 (J)	0.0014 (J)	<0.005		
4/8/2020	0.00058 (J)				0.00073 (J)	0.00069 (J)
8/17/2020	0.00077 (J)					
8/18/2020		0.00059 (J)	0.0018 (J)	0.0012 (J)	0.0011 (J)	<0.005
9/28/2020	0.00062 (J)					
9/29/2020		<0.005				<0.005
9/30/2020			0.0016 (J)	0.00098 (J)	0.00096 (J)	
3/11/2021					0.0009 (J)	
3/12/2021			0.0031 (J)			
3/15/2021	<0.005					0.0011 (J)
3/16/2021		<0.005		0.0012 (J)		
9/21/2021	<0.005					
9/22/2021		<0.005		0.0018 (J)	<0.005	<0.005
9/23/2021			0.0013 (J)			

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
2/1/2022				<0.005	0.0014 (J)	
2/2/2022		<0.005				<0.005
2/3/2022	<0.005		0.0016 (J)			
Mean	0.003163	0.00265	0.00256	0.002984	0.002475	0.003306
Std. Dev.	0.0021	0.002095	0.001698	0.002523	0.001967	0.002132
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00077	0.0008	0.0013	0.00099	0.0009	0.0008

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9
1/17/2016	<0.005	<0.005		
1/18/2016			<0.005	<0.005
7/28/2016	0.0007 (J)	0.0005 (J)		0.0011 (J)
7/29/2016			0.0007 (J)	
8/31/2016			<0.005	0.0024 (J)
9/1/2016	<0.005	<0.005		
10/25/2016	<0.005	<0.005		
10/26/2016			<0.005	
10/27/2016				<0.005
1/4/2017	<0.005	<0.005	<0.005	
1/6/2017				<0.005
4/4/2017	0.0011 (J)	0.0008 (J)		
4/6/2017			0.0006 (J)	0.0019 (J)
7/11/2017	0.0009 (J)		0.0005 (J)	
7/12/2017				0.0011 (J)
7/13/2017		0.0006 (J)		
10/2/2017	0.0009 (J)			
10/3/2017		0.0005 (J)		
10/4/2017			0.0006 (J)	0.0011 (J)
1/9/2018		0.0007 (J)		
1/10/2018	0.0008 (J)			
1/11/2018			<0.005	0.001 (J)
7/9/2018	<0.005			
7/10/2018		<0.005		
7/11/2018			<0.005	<0.005
1/17/2019		0.01		
1/18/2019			<0.005	<0.005
1/21/2019	<0.005			
3/25/2019	<0.005			
3/26/2019		<0.005		
3/27/2019			<0.005	<0.005
8/27/2019			0.00057 (J)	
8/28/2019	0.00089 (J)	0.00087 (J)		0.00089 (J)
10/8/2019		0.00065 (J)		
10/9/2019	0.0011 (J)		0.00072 (J)	0.0009 (J)
4/7/2020		<0.005	0.00049 (J)	
4/8/2020	0.001 (J)			0.0015 (J)
8/18/2020	0.0011 (J)	0.0012 (J)	0.00056 (J)	
8/19/2020				0.0013 (J)
9/30/2020	0.0013 (J)	0.00067 (J)	0.00064 (J)	
10/1/2020				0.0012 (J)
3/10/2021			<0.005	0.0011 (J)
3/12/2021	0.0014 (J)			
3/16/2021		0.00075 (J)		
9/21/2021			<0.005	
9/22/2021	0.0013 (J)	<0.005		<0.005
2/1/2022	0.0036 (J)	<0.005		
2/2/2022				0.0012 (J)
2/3/2022			<0.005	
Mean	0.002554	0.003112	0.003019	0.002584
Std. Dev.	0.001933	0.002685	0.002248	0.00185
Upper Lim.	0.005	0.005	0.005	0.005

# Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-20	GWC-21	GWC-22	GWC-9
Lower Lim.	0.0009	0.00067	0.0006	0.0011

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-11	GWC-12	GWC-14
8/30/2016		<0.005	<0.005			
8/31/2016				<0.005	0.0018 (J)	
9/1/2016	0.0024 (J)					<0.005
10/25/2016						<0.005
10/26/2016	0.0011 (J)	<0.005	<0.005	<0.005	0.0016 (J)	
1/3/2017		<0.005				
1/4/2017				<0.005	0.0014 (J)	
1/5/2017			<0.005			<0.005
1/6/2017	0.001 (J)					
4/4/2017	0.001 (J)					<0.005
4/5/2017					0.0013 (J)	
4/6/2017		<0.005	<0.005	<0.005		
7/10/2017					0.0013 (J)	
7/11/2017				<0.005		0.0003 (J)
7/12/2017	0.0008 (J)	<0.005	<0.005			
10/2/2017						<0.005
10/3/2017		<0.005	<0.005	<0.005		
10/4/2017	0.001 (J)				0.0011 (J)	
1/9/2018			<0.005			<0.005
1/10/2018		0.0004 (J)				
1/11/2018	0.0008 (J)			0.0003 (J)	0.0011 (J)	
7/9/2018						<0.005
7/10/2018		0.002 (J)	<0.005			
7/11/2018	<0.005			<0.005	0.00096 (J)	
8/27/2019	0.0011 (J)		0.00038 (J)	<0.005	0.0009 (J)	<0.005
8/28/2019		0.0024 (J)				
10/8/2019				<0.005		<0.005
10/9/2019	0.0015 (J)	0.0037 (J)	<0.005		0.00094 (J)	
4/7/2020	0.0009 (J)	0.00053 (J)	<0.005	<0.005	0.00077 (J)	<0.005
8/17/2020					0.0006 (J)	
8/18/2020				0.0004 (J)		<0.005
8/19/2020	0.00072 (J)	<0.005	<0.005			
9/29/2020				0.00055 (J)	0.00057 (J)	<0.005
9/30/2020		0.00056 (J)	<0.005			
10/1/2020	0.0005 (J)					
3/10/2021	0.00069 (J)	0.0057	<0.005	0.00082 (J)	0.00071 (J)	
3/16/2021						<0.005
9/21/2021	<0.005	0.019	0.0049 (J)	<0.005	0.00065 (J)	
9/22/2021						<0.005
2/2/2022	0.0027 (J)		0.07			<0.005
2/3/2022		0.019		<0.005	0.00072 (J)	
Mean	0.001638	0.005518	0.008767	0.003879	0.001026	0.004706
Std. Dev.	0.00144	0.005577	0.01637	0.002007	0.0003694	0.001175
Upper Lim.	0.0027	0.0057	0.07	0.005	0.001267	0.005
Lower Lim.	0.00072	0.00056	0.0049	0.00055	0.0007859	0.0003



# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-17	GWC-2	GWC-22	GWC-9
8/31/2016		<0.005	0.001 (J)	0.0021 (J)
9/1/2016	0.0046 (J)			
10/26/2016	0.0046 (J)	0.0011 (J)	0.0009 (J)	
10/27/2016				0.0017 (J)
1/4/2017			0.0007 (J)	
1/5/2017	0.0062 (J)	<0.005		
1/6/2017				0.0017 (J)
4/4/2017		<0.005		
4/5/2017	0.007 (J)			
4/6/2017			<0.005	0.0017 (J)
7/11/2017			<0.005	
7/12/2017				0.0016 (J)
7/13/2017	0.0077 (J)	0.0003 (J)		
10/3/2017		0.0003 (J)		
10/4/2017	0.0073 (J)		0.0007 (J)	0.0015 (J)
1/10/2018		<0.005		
1/11/2018	0.0061 (J)		<0.005	0.0017 (J)
7/10/2018		<0.005		
7/11/2018	0.0064 (J)		<0.005	0.0017 (J)
7/30/2019		0.00032 (J)		
8/27/2019		<0.005	0.00077 (J)	
8/28/2019	0.0023 (J)			0.00099 (J)
10/9/2019	0.0024 (J)	<0.005	<0.005	0.00099 (J)
4/7/2020			0.00037 (J)	
4/8/2020	0.0024 (J)	0.00036 (J)		0.001 (J)
8/18/2020	0.0025 (J)	<0.005	<0.005	
8/19/2020				0.0011 (J)
9/29/2020		<0.005		
9/30/2020	0.0018 (J)		<0.005	
10/1/2020				0.00099 (J)
3/10/2021			<0.005	0.00096 (J)
3/11/2021	0.0019 (J)			
3/15/2021		<0.005		
9/21/2021			<0.005	
9/22/2021	0.0028 (J)	<0.005		0.00082 (J)
2/1/2022	0.0036 (J)			
2/2/2022		<0.005		0.00096 (J)
2/3/2022			<0.005	
Mean	0.00435	0.003669	0.003402	0.001344
Std. Dev.	0.002136	0.002132	0.002134	0.0004015
Upper Lim.	0.005578	0.005	0.005	0.0017
Lower Lim.	0.002845	0.00036	0.00077	0.00096

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
8/30/2016		1.81	2.19	2.36		
8/31/2016					2.2	2.61
9/1/2016	5.27					
10/25/2016				2.02		
10/26/2016	2.32	2.03	2.67		1.96	3.28
1/3/2017		1.85				
1/4/2017				2.1	1.88	3.77
1/5/2017			3.74			
1/6/2017	5.1					
4/4/2017	5			1.39 (U)		
4/5/2017						3.25
4/6/2017		2.66	2.36			
4/8/2017					0.893 (U)	
7/10/2017						1.55
7/11/2017					1.89	
7/12/2017	2.69	2.1	1.54	1.63		
10/3/2017		2	3.63	1.84	4.73	
10/4/2017	4.82					1.68
1/9/2018			2.07			
1/10/2018		2.55		2.11		
1/11/2018	4.48				7.49	2.94
7/10/2018		3.14	1.63	1.29		
7/11/2018	2.69				5.88	2.03
8/27/2019	2.97		4.63	2.41	5.09	2.09
8/28/2019		3.74				
10/8/2019					6.39	
10/9/2019	2.17	7.23	5.45	3.13		3.11
4/7/2020	2.44	3.57	6.25	1.97	7.87	2.18
8/17/2020						2.25
8/18/2020					6.76	
8/19/2020	3.1	2.49	4.53	1.91		
9/28/2020				1.29		
9/29/2020					8.3	0.845 (U)
9/30/2020		4.45	6.39			
10/1/2020	2.6					
3/10/2021	2.11	4.67	4.61	1.7	7.55	1.77
9/21/2021	2.45	3.1	5.07		4.35	1.24 (U)
9/23/2021				1.48		
2/2/2022	3.17		4.79			
2/3/2022		2.65		1	4.04	0.957
Mean	3.336	3.128	3.847	1.852	4.83	2.222
Std. Dev.	1.161	1.405	1.605	0.5265	2.476	0.8754
Upper Lim.	5	3.82	4.891	2.194	6.44	2.792
Lower Lim.	2.32	2.256	2.802	1.509	3.219	1.652

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
8/31/2016	1.23					1.01
9/1/2016		1.28	2.45	1.99	5.19	
10/25/2016		1.54	1.04 (U)	1.98		
10/26/2016	0.641 (U)				4.25	0.725 (U)
1/4/2017				1.72		
1/5/2017	0.657 (U)	0.715 (U)	1.36		3.55	0.735 (U)
4/3/2017			0.697 (U)			
4/4/2017		0.699 (U)				0.87 (U)
4/5/2017				1.72	4.39	
4/6/2017	0.439 (U)					
7/11/2017		1.12	0.754 (U)			
7/12/2017	0.414 (U)			1.11		
7/13/2017					2.44	0.42 (U)
10/2/2017		0.855 (U)	1.52			
10/3/2017				2.13		0.995 (U)
10/4/2017	1.33				4.95	
1/9/2018		0.861 (U)	1.17			
1/10/2018	1.21			1.74		0.698 (U)
1/11/2018					3.53	
7/9/2018		0.693 (U)				
7/10/2018			1.26	1.97		1.01
7/11/2018	1.4 (U)				3.13	
8/27/2019	1.27	1.32	1.75			0.787 (U)
8/28/2019				2.04	2.01	
10/8/2019	1.62	1.41	1.52	1.89		
10/9/2019					2.91	0.22 (U)
4/7/2020		1.41	1.82	4.17		
4/8/2020	1.08 (U)				2.79	1.13 (U)
8/17/2020	1.42					
8/18/2020		0.731 (U)	1.84	4.24	3.11	1.09 (U)
9/28/2020	1.28					
9/29/2020		0.331 (U)				1 (U)
9/30/2020			2.14	2.47	3.09	
3/11/2021					2.77	
3/12/2021			0.607 (U)			
3/15/2021	0.769 (U)					0.804 (U)
3/16/2021		0.0831 (U)		2.15		
9/21/2021	2.09					
9/22/2021		1.94 (U)		3.06	2.36	0.769 (U)
9/23/2021			1.64			
2/1/2022				2.73	2.51	
2/2/2022		0.881 (U)				0.854 (U)
2/3/2022	1.18		0.58 (U)			
Mean	1.127	0.9918	1.384	2.319	3.311	0.8198
Std. Dev.	0.4476	0.4752	0.5563	0.858	0.9385	0.2399
Upper Lim.	1.418	1.301	1.746	2.776	3.922	0.9759
Lower Lim.	0.8356	0.6827	1.022	1.766	2.701	0.6638

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals

Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016			5.96	3.3
9/1/2016	2.21	1.05		
10/25/2016	1.51 (U)	1.2		
10/26/2016			7.42	
10/27/2016				2.7
1/4/2017	2.56	2.11	6.07	
1/6/2017				4.45
4/4/2017	1.77	2.02		
4/6/2017			3	3.1
7/11/2017	2.76		4.2	
7/12/2017				2.73
7/13/2017		0.576 (U)		
10/2/2017	4.15			
10/3/2017		0.86		
10/4/2017			7.16	8.16
1/9/2018		1.43		
1/10/2018	1.96			
1/11/2018			3.57	2.31
7/9/2018	1.11			
7/10/2018		1.63		
7/11/2018			7.57	3.31
8/27/2019			7.04	
8/28/2019	1.13 (U)	1.4 (U)		1.91
10/8/2019		1.88		
10/9/2019	2.28		3.68	3.09
4/7/2020		1.8	7.66	
4/8/2020	4.19			1.92
8/18/2020	6.86	3.27	7.65	
8/19/2020				2.34
9/30/2020	5.62	3.83	2.79	
10/1/2020				3.3
3/10/2021			2.53	2.08
3/12/2021	5.17			
3/16/2021		2.88		
9/21/2021			1.25 (U)	
9/22/2021	6.84	0.959 (U)		2.08
2/1/2022	5.11	2.51		
2/2/2022				0.967 (U)
2/3/2022			1.4	
Mean	3.452	1.838	4.934	2.984
Std. Dev.	1.973	0.9099	2.364	1.597
Upper Lim.	4.736	2.43	7.57	3.723
Lower Lim.	2.168	1.246	2.53	2.017

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-12	GWC-13
8/30/2016		0.04 (J)	0.09 (J)	0.22 (J)		
8/31/2016					0.7	<0.1
9/1/2016	<0.1					
10/25/2016				<0.1		
10/26/2016	0.05 (J)	0.05 (J)	0.24 (J)		0.91	0.55
1/3/2017		0.08 (J)				
1/4/2017				0.18 (J)	0.51	
1/5/2017			0.11 (J)			0.09 (J)
1/6/2017	0.08 (J)					
4/4/2017	<0.1			<0.1		
4/5/2017					0.71	
4/6/2017		0.006 (J)	0.3			<0.1
7/10/2017					0.88	
7/12/2017	0.38	0.05 (J)	0.15 (J)	0.04 (J)		<0.1
10/3/2017		0.11 (J)	0.11 (J)	<0.1		
10/4/2017	<0.1				0.37	<0.1
1/9/2018			<0.1			
1/10/2018		<0.1		<0.1		<0.1
1/11/2018	<0.1				1.4	
7/10/2018		0.2 (J)	<0.1	<0.1		
7/11/2018	<0.1				0.62	<0.1
1/16/2019	1.2	<0.1	0.053 (J)	<0.1		<0.1
1/17/2019					1.2	
3/25/2019	0.064 (J)					
3/26/2019		<0.1	0.046 (J)	0.051 (J)		0.052 (J)
3/27/2019					0.036 (J)	
8/27/2019	0.031 (J)		0.13 (J)	<0.1	0.3	<0.1
8/28/2019		0.097 (J)				
10/8/2019						<0.1
10/9/2019	<0.1	<0.1	<0.1	<0.1	<0.1	
4/7/2020	<0.1	<0.1	<0.1	<0.1	0.27 (J)	
4/8/2020						<0.1
8/17/2020					0.19	<0.1
8/19/2020	0.17	<0.1	<0.1	<0.1		
9/28/2020				<0.1		<0.1
9/29/2020					0.16	
9/30/2020		<0.1	<0.1			
10/1/2020	<0.1					
3/10/2021	<0.1	<0.1	<0.1	<0.1	0.14	
3/15/2021						<0.1
9/21/2021	<0.1	<0.1	<0.1		0.31	<0.1
9/23/2021				<0.1		
2/2/2022	<0.1		<0.1			
2/3/2022		0.081 (J)		<0.1	0.36	<0.1
Mean	0.1708	0.08967	0.1183	0.1051	0.5092	0.1218
Std. Dev.	0.267	0.0394	0.06059	0.03936	0.3904	0.1075
Upper Lim.	0.17	0.11	0.13	0.18	0.7455	0.55
Lower Lim.	0.08	0.05	0.09	0.051	0.273	0.09

# Confidence Interval

Constituent: Fluoride (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20
8/31/2016					0.07 (J)	
9/1/2016	0.25 (J)	<0.1	0.55	0.68		<0.1
10/25/2016	0.43	0.5	0.36			<0.1
10/26/2016				0.68	0.62	
1/4/2017			0.1 (J)			0.04 (J)
1/5/2017	0.21 (J)	0.22 (J)		0.73	0.17 (J)	
4/3/2017		<0.1				
4/4/2017	0.45				0.08 (J)	0.02 (J)
4/5/2017			0.2 (J)	1.6		
7/11/2017	0.41	0.06 (J)				0.14 (J)
7/12/2017			0.04 (J)			
7/13/2017				1.7	0.06 (J)	
10/2/2017	<0.1	<0.1				<0.1
10/3/2017			0.86		0.06 (J)	
10/4/2017				1.8		
1/9/2018	<0.1	<0.1				
1/10/2018			<0.1		<0.1	<0.1
1/11/2018				1.5		
7/9/2018	<0.1					<0.1
7/10/2018		0.15 (J)	<0.1		<0.1	
7/11/2018				1.8		
1/16/2019	<0.1			1.4		
1/17/2019		<0.1	<0.1			
1/21/2019					<0.1	<0.1
3/25/2019						0.043 (J)
3/26/2019	0.13 (J)	0.13 (J)	0.11 (J)	0.89		
7/30/2019					0.083 (J)	
8/27/2019	<0.1	<0.1			<0.1	
8/28/2019			<0.1	0.61		<0.1
10/8/2019	<0.1	<0.1	<0.1			
10/9/2019				<0.1	<0.1	<0.1
4/7/2020	<0.1	<0.1	<0.1			
4/8/2020				0.55	<0.1	<0.1
8/18/2020	<0.1	<0.1	<0.1	0.51	<0.1	<0.1
9/29/2020	<0.1				<0.1	
9/30/2020		<0.1	<0.1	0.15		<0.1
3/11/2021				0.42		
3/12/2021		<0.1				<0.1
3/15/2021					<0.1	
3/16/2021	<0.1		<0.1			
9/22/2021	<0.1		<0.1	0.79	<0.1	<0.1
9/23/2021		<0.1				
2/1/2022			<0.1	0.68		<0.1
2/2/2022	<0.1				<0.1	
2/3/2022		<0.1				
Mean	0.1711	0.1311	0.1844	0.9217	0.1246	0.09128
Std. Dev.	0.1265	0.09761	0.2077	0.5599	0.1258	0.02816
Upper Lim.	0.25	0.13	0.2	1.208	0.17	0.14
Lower Lim.	0.1	0.06	0.1	0.5244	0.08	0.043

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-21	GWC-22	GWC-9	MW-25D
8/31/2016		0.04 (J)	0.55	
9/1/2016	<0.1			
10/25/2016	<0.1			
10/26/2016		0.12 (J)		
10/27/2016			0.26 (J)	
1/4/2017	<0.1	0.06 (J)		
1/6/2017			0.25 (J)	
4/4/2017	<0.1			
4/6/2017		<0.1	0.16 (J)	
7/11/2017		0.03 (J)		
7/12/2017			0.2 (J)	
7/13/2017	<0.1			
10/3/2017	<0.1			
10/4/2017		0.12 (J)	0.22 (J)	
1/9/2018	<0.1			
1/11/2018		<0.1	0.98	
7/10/2018	<0.1			
7/11/2018		<0.1	0.14 (J)	
1/17/2019	<0.1			
1/18/2019		<0.1	0.24 (J)	
3/26/2019	0.071 (J)			
3/27/2019		<0.1	0.13 (J)	
8/27/2019		0.1		
8/28/2019	<0.1		0.088 (J)	
10/8/2019	<0.1			
10/9/2019		<0.1	0.068 (J)	
4/7/2020	<0.1	<0.1		
4/8/2020			0.058 (J)	
8/18/2020	<0.1	<0.1		
8/19/2020			0.092 (J)	
9/30/2020	<0.1	<0.1		
10/1/2020			<0.1	
1/20/2021				0.11
3/10/2021		<0.1	0.066 (J)	
3/11/2021				0.12
3/16/2021	<0.1			
9/21/2021		<0.1		
9/22/2021	<0.1		0.13	
9/23/2021				0.096 (J)
2/1/2022	<0.1			
2/2/2022			<0.1	
2/3/2022		<0.1		0.077 (J)
Mean	0.09839	0.09278	0.2129	0.1008
Std. Dev.	0.006835	0.02421	0.2237	0.01864
Upper Lim.	0.1	0.12	0.2439	0.1431
Lower Lim.	0.071	0.1	0.09963	0.05842

# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				<0.001		
1/18/2016	0.0055 (J)	<0.001	<0.001			0.0034 (J)
1/19/2016					<0.001	
7/26/2016					0.0001 (J)	
7/27/2016		<0.001		<0.001		0.0001 (J)
7/28/2016			<0.001			
7/29/2016	0.003 (J)					
8/30/2016		<0.001	<0.001	<0.001		
8/31/2016					0.0002 (J)	0.0001 (J)
9/1/2016	0.0166 (O)					
10/25/2016				<0.001		
10/26/2016	0.0057	0.0002 (J)	<0.001		0.0001 (J)	0.0001 (J)
1/3/2017		0.0001 (J)				
1/4/2017				<0.001	0.0002 (J)	<0.001
1/5/2017			0.0003 (J)			
1/6/2017	0.0053					
4/4/2017	0.0092			<0.001		
4/5/2017						0.0003 (J)
4/6/2017		0.0003 (J)	0.0002 (J)		0.0003 (J)	
7/10/2017						0.0003 (J)
7/11/2017					0.0002 (J)	
7/12/2017	0.006	0.0002 (J)	0.0002 (J)	<0.001		
10/3/2017		0.0002 (J)	0.0001 (J)	<0.001	0.0003 (J)	
10/4/2017	0.0057					0.0001 (J)
1/9/2018			0.0003 (J)			
1/10/2018		0.0003 (J)		0.0001 (J)		
1/11/2018	0.0085				0.0003 (J)	0.0002 (J)
7/10/2018		<0.001	<0.001	<0.001		
7/11/2018	0.0029 (J)				<0.001	<0.001
1/16/2019	<0.001	<0.001	<0.001	<0.001		
1/17/2019					0.00028 (J)	<0.001
3/25/2019	<0.001					
3/26/2019		<0.001	<0.001	<0.001		
3/27/2019					0.00029 (J)	<0.001
8/27/2019	0.001 (J)		0.0011 (J)	<0.001	0.00021 (J)	<0.001
8/28/2019		0.0011 (J)				
10/8/2019					0.00028 (J)	
10/9/2019	0.00041 (J)	0.0025 (J)	0.00033 (J)	<0.001		6.6E-05 (J)
4/7/2020	0.00073 (J)	0.0014 (J)	0.00063 (J)	0.00012 (J)	0.00036 (J)	8.1E-05 (J)
8/17/2020						4.9E-05 (J)
8/18/2020					0.00035 (J)	
8/19/2020	0.00048 (J)	7.9E-05 (J)	0.00014 (J)	<0.001		
9/28/2020				4.3E-05 (J)		
9/29/2020					0.00032 (J)	3.7E-05 (J)
9/30/2020		0.0012 (J)	8E-05 (J)			
10/1/2020	0.00026 (J)					
3/10/2021	0.0003 (J)	5.2E-05 (J)	9.6E-05 (J)	0.0001 (J)	0.00042 (J)	6.8E-05 (J)
9/21/2021	<0.001	<0.001	<0.001		<0.001	<0.001
9/23/2021				<0.001		
2/2/2022	<0.001		<0.001			
2/3/2022		<0.001		<0.001	<0.001	<0.001
Mean	0.003104	0.0007816	0.0006238	0.0008182	0.0004105	0.0005951



# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
Std. Dev.	0.00295	0.0006054	0.0004129	0.0003734	0.0003125	0.0007867
Upper Lim.	0.002866	0.0005318	0.001	0.001	0.0002673	0.0001677
Lower Lim.	0.0006427	8.789E-05	0.0002	0.00012	0.000145	5.339E-05

# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
1/17/2016		<0.001	<0.001	<0.001		<0.001
1/18/2016	<0.001				<0.001	
4/26/2016		<0.001		<0.001		
7/26/2016	<0.001					
7/27/2016		<0.001	<0.001			<0.001
7/28/2016				<0.001		
7/29/2016					<0.001	
8/31/2016	<0.001					<0.001
9/1/2016		<0.001	<0.001	<0.001	<0.001	
10/25/2016		<0.001	<0.001	0.0002 (J)		
10/26/2016	<0.001				<0.001	<0.001
1/4/2017				0.0001 (J)		
1/5/2017	0.0002 (J)	<0.001	<0.001		<0.001	<0.001
4/3/2017			0.0003 (J)			
4/4/2017		0.0001 (J)				0.0002 (J)
4/5/2017				0.0002 (J)	0.0009 (J)	
4/6/2017	0.0005 (J)					
7/11/2017		8E-05 (J)	0.0001 (J)			
7/12/2017	0.0005 (J)			0.0001 (J)		
7/13/2017					<0.001	0.0003 (J)
10/2/2017		0.0001 (J)	0.0002 (J)			
10/3/2017				0.0001 (J)		<0.001
10/4/2017	0.0007 (J)				0.0001 (J)	
1/9/2018		<0.001	0.0002 (J)			
1/10/2018	0.0009 (J)			0.0002 (J)		8E-05 (J)
1/11/2018					0.0001 (J)	
7/9/2018		<0.001				
7/10/2018			<0.001	<0.001		<0.001
7/11/2018	0.0015 (J)				<0.001	
1/16/2019	0.00061 (J)	<0.001			<0.001	
1/17/2019			<0.001	<0.001		
1/21/2019						<0.001
3/26/2019	<0.001	<0.001	<0.001	<0.001	<0.001	
7/30/2019						0.0002 (J)
8/27/2019	0.0001 (J)	0.00051 (J)	0.00033 (J)			<0.001
8/28/2019				0.0001 (J)	<0.001	
10/8/2019	0.00013 (J)	<0.001	0.00012 (J)	0.0001 (J)		
10/9/2019					0.00015 (J)	6.4E-05 (J)
4/7/2020		<0.001	8.6E-05 (J)	0.00023 (J)		
4/8/2020	0.00017 (J)				8.4E-05 (J)	<0.001
8/17/2020	7.6E-05 (J)					
8/18/2020		<0.001	9E-05 (J)	0.00017 (J)	0.00014 (J)	<0.001
9/28/2020	6.4E-05 (J)					
9/29/2020		<0.001				<0.001
9/30/2020			4.7E-05 (J)	9.1E-05 (J)	6E-05 (J)	
3/11/2021					0.00019 (J)	
3/12/2021			5.3E-05 (J)			
3/15/2021	0.00013 (J)					4.1E-05 (J)
3/16/2021		<0.001		7.3E-05 (J)		
9/21/2021	<0.001					
9/22/2021		<0.001		<0.001	<0.001	<0.001
9/23/2021			<0.001			

# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
2/1/2022				<0.001	<0.001	
2/2/2022		<0.001				<0.001
2/3/2022	<0.001		<0.001			
Mean	0.000629	0.0008471	0.0005763	0.0005078	0.0006862	0.0007443
Std. Dev.	0.0004372	0.0003329	0.0004402	0.0004388	0.0004293	0.0004042
Upper Lim.	0.0005781	0.001	0.001	0.001	0.001	0.001
Lower Lim.	0.0001494	0.00051	0.0001	0.0001	0.00014	0.0002

# Confidence Interval

Constituent: Lead (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9
1/17/2016	<0.001	<0.001		
1/18/2016			<0.001	<0.001
7/28/2016	<0.001	<0.001		<0.001
7/29/2016			0.0004 (J)	
8/31/2016			0.0003 (J)	0.0007 (J)
9/1/2016	<0.001	<0.001		
10/25/2016	0.0001 (J)	<0.001		
10/26/2016			0.0003 (J)	
10/27/2016				<0.001
1/4/2017	<0.001	<0.001	0.0003 (J)	
1/6/2017				<0.001
4/4/2017	7E-05 (J)	9E-05 (J)		
4/6/2017			0.0003 (J)	0.0001 (J)
7/11/2017	<0.001		0.0002 (J)	
7/12/2017				<0.001
7/13/2017		7E-05 (J)		
10/2/2017	<0.001			
10/3/2017		0.0001 (J)		
10/4/2017			0.0008 (J)	9E-05 (J)
1/9/2018		9E-05 (J)		
1/10/2018	0.0002 (J)			
1/11/2018			0.0009 (J)	0.0002 (J)
7/9/2018	<0.001			
7/10/2018		<0.001		
7/11/2018			0.001 (J)	<0.001
1/17/2019		<0.001		
1/18/2019			0.0012 (J)	<0.001
1/21/2019	<0.001			
3/25/2019	<0.001			
3/26/2019		<0.001		
3/27/2019			0.00047 (J)	<0.001
8/27/2019			0.003 (J)	
8/28/2019	6.5E-05 (J)	0.00018 (J)		6.1E-05 (J)
10/8/2019		0.00016 (J)		
10/9/2019	0.00018 (J)		0.00032 (J)	<0.001
4/7/2020		<0.001	0.00067 (J)	
4/8/2020	<0.001			0.00021 (J)
8/18/2020	<0.001	0.00027 (J)	0.00072 (J)	
8/19/2020				9.6E-05 (J)
9/30/2020	<0.001	5.4E-05 (J)	0.00023 (J)	
10/1/2020				3.8E-05 (J)
3/10/2021			0.00016 (J)	0.00012 (J)
3/12/2021	<0.001			
3/16/2021		<0.001		
9/21/2021			<0.001	
9/22/2021	<0.001	<0.001		<0.001
2/1/2022	<0.001	<0.001		
2/2/2022				<0.001
2/3/2022			<0.001	
Mean	0.0007808	0.0006507	0.0007135	0.0006308
Std. Dev.	0.0003907	0.0004411	0.000634	0.0004391
Upper Lim.	0.001	0.001	0.0008934	0.001

# Confidence Interval

Constituent: Lead (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-20	GWC-21	GWC-22	GWC-9
Lower Lim.	0.0002	0.0001	0.0003663	0.0001

# Confidence Interval

Constituent: Lithium (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals

Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWC-12	GWC-13	GWC-17	GWC-9
8/30/2016		0.0042 (J)				
8/31/2016			<0.03	<0.03		<0.05 (O)
9/1/2016	0.0092 (J)				0.0066 (J)	
10/26/2016	0.0046 (J)	<0.03	<0.03	<0.03	0.0065 (J)	
10/27/2016						0.0023 (J)
1/3/2017		0.0024 (J)				
1/4/2017			<0.03			
1/5/2017				<0.03	0.0062 (J)	
1/6/2017	0.0042 (J)					0.0021 (J)
4/4/2017	0.0056 (J)					
4/5/2017			0.0012 (J)		0.007 (J)	
4/6/2017		0.0051 (J)		<0.03		0.0021 (J)
7/10/2017			<0.03			
7/12/2017	0.0035 (J)	0.0031 (J)		<0.03		0.0017 (J)
7/13/2017					0.0069 (J)	
10/3/2017		0.0027 (J)				
10/4/2017	0.0041 (J)		<0.03	<0.03	0.0082 (J)	0.0021 (J)
1/10/2018		0.0041 (J)		<0.03		
1/11/2018	0.0052 (J)		<0.03		0.0061 (J)	0.0022 (J)
7/10/2018		0.005 (J)				
7/11/2018	0.0039 (J)		0.00098 (J)	<0.03	0.0075 (J)	0.0019 (J)
8/27/2019	0.013 (J)		0.00094 (J)	<0.03		
8/28/2019		<0.03			0.0041 (J)	0.0018 (J)
10/8/2019				<0.03		
10/9/2019	0.013 (J)	<0.03	0.0011 (J)		0.0046 (J)	0.0018 (J)
4/7/2020	0.014 (J)	<0.03	0.00094 (J)			
4/8/2020				<0.03	0.0051 (J)	0.0018 (J)
8/17/2020			0.00091 (J)	<0.03		
8/18/2020					0.0065 (J)	
8/19/2020	0.014 (J)	<0.03				0.0019 (J)
9/28/2020				<0.03		
9/29/2020			0.00086 (J)			
9/30/2020		<0.03			0.0041 (J)	
10/1/2020	0.013 (J)					0.0019 (J)
3/10/2021	0.012 (J)	<0.03	0.00095 (J)			0.0018 (J)
3/11/2021					0.0036 (J)	
3/15/2021				<0.03		
9/21/2021	0.016 (J)	<0.03	0.00091 (J)	0.00087 (J)		
9/22/2021					0.005 (J)	0.0015 (J)
2/1/2022					0.0061 (J)	
2/2/2022	0.015 (J)					0.0017 (J)
2/3/2022		<0.03	0.001 (J)	0.00077 (J)		
Mean	0.009394	0.01854	0.01186	0.02635	0.005881	0.001907
Std. Dev.	0.004749	0.01344	0.01451	0.009967	0.001325	0.0002154
Upper Lim.	0.014	0.03	0.03	0.03	0.006743	0.002053
Lower Lim.	0.0041	0.0031	0.00091	0.00087	0.005019	0.001761



# Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
8/31/2016	<0.0002					<0.0002
9/1/2016		<0.0002	<0.0002	<0.0002	<0.0002	
10/25/2016		<0.0002	<0.0002	<0.0002		
10/26/2016	<0.0002				<0.0002	<0.0002
1/4/2017				<0.0002		
1/5/2017	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002
4/3/2017			<0.0002			
4/4/2017		<0.0002				<0.0002
4/5/2017				<0.0002	<0.0002	
4/6/2017	0.00013 (J)					
7/11/2017		<0.0002	<0.0002			
7/12/2017	<0.0002			<0.0002		
7/13/2017					<0.0002	<0.0002
10/2/2017		<0.0002	<0.0002			
10/3/2017				<0.0002		<0.0002
10/4/2017	<0.0002				<0.0002	
1/9/2018		<0.0002	<0.0002			
1/10/2018	<0.0002			<0.0002		<0.0002
1/11/2018					<0.0002	
7/9/2018		<0.0002				
7/10/2018			<0.0002	<0.0002		<0.0002
7/11/2018	<0.0002				<0.0002	
1/16/2019	<0.0002	<0.0002			<0.0002	
1/17/2019			<0.0002	<0.0002		
1/21/2019						<0.0002
7/30/2019						<0.0002
8/27/2019	<0.0002	<0.0002	<0.0002			<0.0002
8/28/2019				<0.0002	<0.0002	
8/17/2020	<0.0002					
8/18/2020		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
9/21/2021	0.0001 (J)					
9/22/2021		0.00011 (J)		0.0001 (J)	0.00011 (J)	0.0001 (J)
9/23/2021			0.0001 (J)			
2/1/2022				<0.0002	<0.0002	
2/2/2022		<0.0002				<0.0002
2/3/2022	<0.0002		<0.0002			
Mean	0.0001869	0.0001931	0.0001923	0.0001923	0.0001931	0.0001929
Std. Dev.	3.25E-05	2.496E-05	2.774E-05	2.774E-05	2.496E-05	2.673E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Lower Lim.	0.00013	0.00011	0.0001	0.0001	0.00011	0.0001



# Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9
8/31/2016			<0.0002	<0.0002
9/1/2016	<0.0002	<0.0002		
10/25/2016	<0.0002	<0.0002		
10/26/2016			<0.0002	
10/27/2016				<0.0002
1/4/2017	<0.0002	<0.0002	<0.0002	
1/6/2017				<0.0002
4/4/2017	<0.0002	<0.0002		
4/6/2017			<0.0002	<0.0002
7/11/2017	<0.0002		<0.0002	
7/12/2017				<0.0002
7/13/2017		<0.0002		
10/2/2017	<0.0002			
10/3/2017		<0.0002		
10/4/2017			<0.0002	5E-05 (J)
1/9/2018		<0.0002		
1/10/2018	<0.0002			
1/11/2018			<0.0002	<0.0002
7/9/2018	<0.0002			
7/10/2018		<0.0002		
7/11/2018			<0.0002	<0.0002
1/17/2019		<0.0002		
1/18/2019			<0.0002	<0.0002
1/21/2019	<0.0002			
8/27/2019			<0.0002	
8/28/2019	<0.0002	<0.0002		<0.0002
8/18/2020	<0.0002	<0.0002	<0.0002	
8/19/2020				<0.0002
9/21/2021			0.0001 (J)	
9/22/2021	0.00011 (J)	0.00011 (J)		0.00011 (J)
2/1/2022	<0.0002	<0.0002		
2/2/2022				<0.0002
2/3/2022			<0.0002	
Mean	0.0001931	0.0001931	0.0001923	0.0001815
Std. Dev.	2.496E-05	2.496E-05	2.774E-05	4.67E-05
Upper Lim.	0.0002	0.0002	0.0002	0.0002
Lower Lim.	0.00011	0.00011	0.0001	0.00011

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-13
8/30/2016		<0.01	<0.01	0.175		
8/31/2016					<0.01	<0.01
9/1/2016	0.035					
10/25/2016				0.242		
10/26/2016	0.0267	<0.01	<0.01		<0.01	<0.01
1/3/2017		<0.01				
1/4/2017				0.167	<0.01	
1/5/2017			<0.01			<0.01
1/6/2017	0.0278					
4/4/2017	0.0265			0.172		
4/6/2017		<0.01	<0.01		<0.01	<0.01
7/11/2017					<0.01	
7/12/2017	0.0209	<0.01	<0.01	0.182		<0.01
10/3/2017		<0.01	<0.01	0.162	<0.01	
10/4/2017	0.0181					<0.01
1/9/2018			<0.01			
1/10/2018		<0.01		0.117		<0.01
1/11/2018	0.0237				0.0018 (J)	
7/10/2018		<0.01	<0.01	0.11		
7/11/2018	0.024				<0.01	<0.01
8/27/2019	0.1		0.0026 (J)	0.06	<0.01	<0.01
8/28/2019		0.0012 (J)				
10/8/2019					<0.01	<0.01
10/9/2019	0.1	<0.01	<0.01	0.06		
4/7/2020	0.13	<0.01	<0.01	0.014	<0.01	
4/8/2020						0.0056 (J)
8/17/2020						<0.01
8/18/2020					0.00077 (J)	
8/19/2020	0.16	<0.01	0.001 (J)	0.061		
9/28/2020				0.059		<0.01
9/29/2020					<0.01	
9/30/2020		<0.01	0.00097 (J)			
10/1/2020	0.15					
3/10/2021	0.12	<0.01	0.0013 (J)	0.057	<0.01	
3/15/2021						<0.01
9/21/2021	0.12	<0.01	<0.01		<0.01	<0.01
9/23/2021				0.06		
2/2/2022	0.11		0.00085 (J)			
2/3/2022		<0.01		0.038	<0.01	<0.01
Mean	0.07454	0.00945	0.007295	0.1085	0.008911	0.009725
Std. Dev.	0.05311	0.0022	0.00416	0.06651	0.002983	0.0011
Upper Lim.	0.13	0.01	0.01	0.1518	0.01	0.01
Lower Lim.	0.0237	0.0012	0.001	0.06523	0.0018	0.0056

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-20	GWC-21
9/1/2016	0.0027 (J)	0.132	0.08	<0.01	0.296	0.0686
10/25/2016	0.0028 (J)	0.117	0.08		0.395	0.0018 (J)
10/26/2016				<0.01		
1/4/2017			0.0786		0.229	0.0222
1/5/2017	0.0022 (J)	0.109		<0.01		
4/3/2017		0.0994				
4/4/2017	0.0022 (J)				0.147	0.0476
4/5/2017			0.113	<0.01		
7/11/2017	0.0024 (J)	0.0938			0.136	
7/12/2017			0.178			
7/13/2017				<0.01		0.0105
10/2/2017	0.0025 (J)	0.103			0.13	
10/3/2017			0.201			0.0031 (J)
10/4/2017				<0.01		
1/9/2018	0.0038 (J)	0.106				0.09
1/10/2018			0.161		0.229	
1/11/2018				<0.01		
7/9/2018	0.01				0.13	
7/10/2018		0.088	0.14			0.047
7/11/2018				<0.01		
8/27/2019	0.028	0.095				
8/28/2019			0.22	0.004 (J)	0.11	0.07
10/8/2019	0.034	0.091	0.2			0.078
10/9/2019				0.0036 (J)	0.071	
4/7/2020	0.014	0.07	0.25			0.012
4/8/2020				0.0024 (J)	0.06	
8/18/2020	0.017	0.12	0.15	0.00092 (J)	0.097	0.069
9/29/2020	0.0089 (J)					
9/30/2020		0.11	0.15	0.0041 (J)	0.33	0.028
3/11/2021				0.0038 (J)		
3/12/2021		0.098			0.53	
3/16/2021	0.0054 (J)		0.31			0.024
9/22/2021	0.018		0.22	0.0053 (J)	0.5	0.0019 (J)
9/23/2021		0.094				
2/1/2022			0.18	0.003 (J)	0.77	0.042
2/2/2022	0.015					
2/3/2022		0.086				
Mean	0.01056	0.1008	0.1695	0.006695	0.26	0.03848
Std. Dev.	0.009834	0.01495	0.0646	0.003528	0.2006	0.02969
Upper Lim.	0.013	0.1105	0.2115	0.01	0.357	0.0578
Lower Lim.	0.00363	0.09103	0.1274	0.003	0.1282	0.01917

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	MW-24D	MW-25D
1/20/2021		0.0011 (J)
1/21/2021	0.0014 (J)	
3/11/2021	0.0035 (J)	0.0015 (J)
9/22/2021	0.0032 (J)	
9/23/2021		<0.01
2/1/2022	0.0024 (J)	
2/3/2022		<0.01
Mean	0.002625	0.00565
Std. Dev.	0.0009394	0.005026
Upper Lim.	0.004758	0.01
Lower Lim.	0.0004922	0.0011

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				0.023		
1/18/2016	<0.005	<0.005	<0.005			<0.005
1/19/2016					0.023	
7/26/2016					0.0056 (J)	
7/27/2016		<0.005		0.002 (J)		0.0025 (J)
7/28/2016			<0.005			
7/29/2016	0.0036 (J)					
8/30/2016		<0.005	<0.005	0.002 (J)		
8/31/2016					0.0084 (J)	0.0019 (J)
9/1/2016	0.0067 (J)					
10/25/2016				0.0022 (J)		
10/26/2016	0.0042 (J)	<0.005	<0.005		0.0052 (J)	0.002 (J)
1/3/2017		<0.005				
1/4/2017				0.0016 (J)	0.0062 (J)	<0.005
1/5/2017			0.0014 (J)			
1/6/2017	0.0042 (J)					
4/4/2017	0.0043 (J)			0.0052 (J)		
4/5/2017						<0.005
4/6/2017		<0.005	<0.005		0.0195	
7/10/2017						<0.005
7/11/2017					<0.005	
7/12/2017	0.0033 (J)	<0.005	<0.005	0.0024 (J)		
10/3/2017		<0.005	<0.005	<0.005	0.0079 (J)	
10/4/2017	0.0038 (J)					<0.005
1/9/2018			<0.005			
1/10/2018		<0.005		0.0018 (J)		
1/11/2018	0.0029 (J)				0.0054 (J)	<0.005
7/10/2018		0.0018 (J)	0.0016 (J)	0.0026 (J)		
7/11/2018	0.0015 (J)				0.0022 (J)	<0.005
1/16/2019	<0.005	<0.005	<0.005	0.0018 (J)		
1/17/2019					<0.005	<0.005
3/25/2019	<0.005					
3/26/2019		<0.005	0.05 (J)	0.0023 (J)		
3/27/2019					0.01 (J)	<0.005
8/27/2019	<0.005		0.0033 (J)	0.0016 (J)	<0.005	<0.005
8/28/2019		0.0033 (J)				
10/8/2019					<0.005	
10/9/2019	<0.005	0.0073 (J)	<0.005	0.0024 (J)		<0.005
4/7/2020	0.0025 (J)	<0.005	<0.005	0.0013 (J)	0.0021 (J)	<0.005
8/17/2020						<0.005
8/18/2020					0.0028 (J)	
8/19/2020	<0.005	<0.005	<0.005	0.002 (J)		
9/28/2020				<0.005		
9/29/2020					0.0024 (J)	<0.005
9/30/2020		<0.005	0.0023 (J)			
10/1/2020	<0.005					
3/10/2021	0.0021 (J)	0.006	0.0049 (J)	0.0026 (J)	0.0044 (J)	0.003 (J)
9/21/2021	<0.005	<0.005	0.0016 (J)		0.0038 (J)	<0.005
9/23/2021				0.0018 (J)		
2/2/2022	<0.005		0.0017 (J)			
2/3/2022		<0.005		0.0022 (J)	0.019	<0.005
Mean	0.004205	0.00492	0.00634	0.00354	0.007395	0.00447

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
Std. Dev.	0.001249	0.001008	0.01038	0.004724	0.006036	0.001106
Upper Lim.	0.003949	0.006	0.005	0.0026	0.008658	0.005
Lower Lim.	0.002614	0.0033	0.0023	0.0018	0.003486	0.003

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20
1/17/2016	<0.005	<0.005	0.0031 (J)		<0.005	<0.005
1/18/2016				<0.005		
4/26/2016	0.00428 (J)		0.00497 (J)			
7/27/2016	0.0038 (J)	<0.005			0.002 (J)	
7/28/2016			0.0076 (J)			<0.005
7/29/2016				0.0011 (J)		
8/31/2016					<0.005	
9/1/2016	0.0056 (J)	<0.005	0.0052 (J)	0.0012 (J)		<0.005
10/25/2016	0.0023 (J)	<0.005	0.0085 (J)			0.0014 (J)
10/26/2016				0.0013 (J)	0.0035 (J)	
1/4/2017			0.0048 (J)			0.0014 (J)
1/5/2017	0.0038 (J)	<0.005		0.0012 (J)	<0.005	
4/3/2017		<0.005				
4/4/2017	0.0064 (J)				<0.005	<0.005
4/5/2017			0.0068 (J)	<0.005		
7/11/2017	0.0044 (J)	<0.005				<0.005
7/12/2017			0.0048 (J)			
7/13/2017				0.0018 (J)	<0.005	
10/2/2017	0.004 (J)	<0.005				<0.005
10/3/2017			0.0051 (J)		<0.005	
10/4/2017				0.0042 (J)		
1/9/2018	0.0019 (J)	0.0019 (J)				
1/10/2018			0.0018 (J)		<0.005	<0.005
1/11/2018				<0.005		
7/9/2018	0.0029 (J)					<0.005
7/10/2018		0.0086 (J)	0.0045 (J)		<0.005	
7/11/2018				0.0016 (J)		
1/16/2019	0.0016 (J)			<0.005		
1/17/2019		0.0029 (J)	0.0031 (J)			
1/21/2019					<0.005	0.0014 (J)
3/25/2019						<0.005
3/26/2019	0.0022 (J)	0.0074 (J)	0.0033 (J)	<0.005		
7/30/2019					<0.005	
8/27/2019	0.0035 (J)	0.0092 (J)			<0.005	
8/28/2019			0.004 (J)	<0.005		0.0014 (J)
10/8/2019	0.0026 (J)	0.014	0.0023 (J)			
10/9/2019				<0.005	<0.005	<0.005
4/7/2020	0.005 (J)	0.0029 (J)	<0.005			
4/8/2020				<0.005	<0.005	0.0013 (J)
8/18/2020	0.0029 (J)	0.0022 (J)	0.0058 (J)	0.002 (J)	<0.005	<0.005
9/29/2020	0.0051 (J)				<0.005	
9/30/2020		<0.005	0.0037 (J)	<0.005		<0.005
3/11/2021				0.0016 (J)		
3/12/2021		0.0064				<0.005
3/15/2021					<0.005	
3/16/2021	0.0034 (J)		0.0044 (J)			
9/22/2021	0.0034 (J)		0.0031 (J)	<0.005	<0.005	0.0024 (J)
9/23/2021		0.0016 (J)				
2/1/2022			0.0024 (J)	<0.005		<0.005
2/2/2022	0.0038 (J)				<0.005	
2/3/2022		0.0031 (J)				
Mean	0.003709	0.00526	0.004489	0.00355	0.004775	0.003965

# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

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	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2	GWC-20
Std. Dev.	0.00126	0.002897	0.001715	0.001758	0.000734	0.001636
Upper Lim.	0.004404	0.005132	0.005435	0.005	0.005	0.005
Lower Lim.	0.003013	0.002166	0.003543	0.0016	0.0035	0.0024



# Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-21	GWC-22
1/17/2016	0.021	
1/18/2016		<0.005
7/28/2016	0.0341	
7/29/2016		0.0022 (J)
8/31/2016		0.0014 (J)
9/1/2016	0.0297	
10/25/2016	0.0095 (J)	
10/26/2016		0.001 (J)
1/4/2017	0.022	<0.005
4/4/2017	0.0236	
4/6/2017		<0.005
7/11/2017		<0.005
7/13/2017	0.013	
10/3/2017	0.01 (J)	
10/4/2017		0.0023 (J)
1/9/2018	0.0162	
1/11/2018		<0.005
7/10/2018	0.016	
7/11/2018		<0.005
1/17/2019	0.011	
1/18/2019		<0.005
3/26/2019	0.022	
3/27/2019		<0.005
8/27/2019		<0.005
8/28/2019	0.019	
10/8/2019	0.019	
10/9/2019		<0.005
4/7/2020	0.012	<0.005
8/18/2020	0.013	<0.005
9/30/2020	0.0061 (J)	<0.005
3/10/2021		<0.005
3/16/2021	0.0055	
9/21/2021		<0.005
9/22/2021	0.0027 (J)	
2/1/2022	0.0054	
2/3/2022		<0.005
Mean	0.01554	0.004345
Std. Dev.	0.008331	0.001367
Upper Lim.	0.02027	0.005
Lower Lim.	0.01081	0.0023

# Confidence Interval

Constituent: Thallium (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWC-1	GWC-11	GWC-12	GWC-14
8/30/2016		<0.001	<0.001			
8/31/2016				<0.001	<0.001	
9/1/2016	<0.001					<0.001
10/25/2016			<0.001			<0.001
10/26/2016	<0.001	<0.001		<0.001	0.0003 (J)	
1/3/2017		<0.001				
1/4/2017			<0.001	<0.001	<0.001	
1/5/2017						<0.001
1/6/2017	<0.001					
4/4/2017	7E-05 (J)		5E-05 (J)			7E-05 (J)
4/5/2017					0.0002 (J)	
4/6/2017		<0.001		6E-05 (J)		
7/10/2017					0.0002 (J)	
7/11/2017				<0.001		6E-05 (J)
7/12/2017	<0.001	<0.001	<0.001			
10/2/2017						<0.001
10/3/2017		<0.001	<0.001	7E-05 (J)		
10/4/2017	<0.001				0.0002 (J)	
1/9/2018						<0.001
1/10/2018		<0.001	<0.001			
1/11/2018	7E-05 (J)			0.0001 (J)	0.0002 (J)	
7/9/2018						<0.001
7/10/2018		<0.001	<0.001			
7/11/2018	<0.001			<0.001	<0.001	
8/27/2019	<0.001		<0.001	<0.001	0.00011 (J)	<0.001
8/28/2019		5.7E-05 (J)				
10/8/2019				9.8E-05 (J)		<0.001
10/9/2019	<0.001	0.00031 (J)	5.4E-05 (J)		0.00014 (J)	
4/7/2020	<0.001	<0.001	5.4E-05 (J)	0.00019 (J)	0.00013 (J)	<0.001
8/17/2020					<0.001	
8/18/2020				0.00021 (J)		<0.001
8/19/2020	<0.001	<0.001	<0.001			
9/28/2020			<0.001			
9/29/2020				0.00017 (J)	<0.001	<0.001
9/30/2020		<0.001				
10/1/2020	<0.001					
3/10/2021	<0.001	<0.001	<0.001	0.00022 (J)	<0.001	
3/16/2021						<0.001
9/21/2021	<0.001	<0.001		<0.001	<0.001	
9/22/2021						<0.001
9/23/2021			<0.001			
2/2/2022	<0.001					<0.001
2/3/2022		<0.001	<0.001	<0.001	<0.001	
Mean	0.0008838	0.0008979	0.0008224	0.0005699	0.0005925	0.0008831
Std. Dev.	0.0003177	0.0002827	0.0003819	0.0004464	0.0004228	0.0003194
Upper Lim.	0.001	0.001	0.001	0.001	0.001	0.001
Lower Lim.	7E-05	0.00031	5.4E-05	9.8E-05	0.00014	7E-05

# Confidence Interval

Constituent: Thallium (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWC-16	GWC-17	GWC-2	GWC-21	GWC-22
8/31/2016			<0.001		<0.001
9/1/2016	<0.001	<0.001		<0.001	
10/25/2016	<0.001			<0.001	
10/26/2016		<0.001	<0.001		<0.001
1/4/2017	<0.001			<0.001	<0.001
1/5/2017		<0.001	<0.001		
4/4/2017			<0.001	5E-05 (J)	
4/5/2017	6E-05 (J)	0.0001 (J)			
4/6/2017					<0.001
7/11/2017					<0.001
7/12/2017	<0.001				
7/13/2017		<0.001	<0.001	<0.001	
10/3/2017	<0.001		<0.001	<0.001	
10/4/2017		0.0001 (J)			0.0001 (J)
1/9/2018				<0.001	
1/10/2018	5E-05 (J)		<0.001		
1/11/2018		0.0001 (J)			6E-05 (J)
7/10/2018	<0.001		<0.001	<0.001	
7/11/2018		<0.001			<0.001
7/30/2019			0.00011 (J)		
8/27/2019			<0.001		8.6E-05 (J)
8/28/2019	<0.001	6.6E-05 (J)		<0.001	
10/8/2019	<0.001			<0.001	
10/9/2019		7.6E-05 (J)	<0.001		<0.001
4/7/2020	<0.001			<0.001	6.5E-05 (J)
4/8/2020		5.6E-05 (J)	<0.001		
8/18/2020	<0.001	<0.001	<0.001	<0.001	0.00017 (J)
9/29/2020			<0.001		
9/30/2020	<0.001	<0.001		<0.001	<0.001
3/10/2021					<0.001
3/11/2021		<0.001			
3/15/2021			<0.001		
3/16/2021	<0.001			<0.001	
9/21/2021					<0.001
9/22/2021	<0.001	<0.001	<0.001	<0.001	
2/1/2022	<0.001	<0.001		<0.001	
2/2/2022			<0.001		
2/3/2022					<0.001
Mean	0.0008819	0.0006561	0.0009476	0.0009406	0.0007176
Std. Dev.	0.0003228	0.0004586	0.0002159	0.0002375	0.0004333
Upper Lim.	0.001	0.001	0.001	0.001	0.001
Lower Lim.	6E-05	7.6E-05	0.00011	5E-05	8.6E-05

# Confidence Interval

Constituent: Vanadium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				0.0046 (J)		
1/18/2016	0.049	0.0069	0.0044 (J)			0.0058
1/19/2016					0.0025 (J)	
7/26/2016					0.0027 (J)	
7/27/2016		0.0046 (J)		0.0064 (J)		0.0058 (J)
7/28/2016			0.0038 (J)			
7/29/2016	0.0388					
1/3/2017		<0.01				
1/4/2017				<0.01	<0.01	<0.01
1/5/2017			0.0077 (J)			
1/6/2017	0.0341					
4/4/2017	0.0371			0.0061 (J)		
4/5/2017						0.0039 (J)
4/6/2017		0.0063 (J)	0.0069 (J)		0.0025 (J)	
7/10/2017						0.0062 (J)
7/11/2017					0.0027 (J)	
7/12/2017	0.0399	0.0064 (J)	0.0098 (J)	0.0067 (J)		
1/9/2018			0.0086 (J)			
1/10/2018		0.0077 (J)		0.0056 (J)		
1/11/2018	0.0327				0.0019 (J)	0.0025 (J)
7/10/2018		0.016	0.0098 (J)	0.0056 (J)		
7/11/2018	0.02				0.0021 (J)	0.0059 (J)
1/16/2019	0.0022 (J)	0.0033 (J)	0.077	0.0043 (J)		
1/17/2019					0.0021 (J)	<0.01
3/25/2019	0.004 (J)					
3/26/2019		0.0058 (J)	0.086	0.0051 (J)		
3/27/2019					0.0023 (J)	0.0049 (J)
10/8/2019					<0.01	
10/9/2019	<0.01	0.033 (J)	0.018 (J)	<0.01		0.0021 (J)
4/7/2020	0.0037 (J)	0.0053 (J)	0.041 (J)	0.0015 (J)	<0.01	0.0024 (J)
9/28/2020				0.0042 (J)		
9/29/2020					0.0023 (J)	0.0046 (J)
9/30/2020		0.0037 (J)	0.018			
10/1/2020	0.0047 (J)					
3/10/2021	0.0054 (J)	0.0026 (J)	0.027	0.005 (J)	0.0023 (J)	0.0055 (J)
9/21/2021	0.0027 (J)	0.0039 (J)	0.015		0.002 (J)	0.0051 (J)
9/23/2021				0.0042 (J)		
2/2/2022	0.0031 (J)		0.0099 (J)			
2/3/2022		0.0046 (J)		0.0028 (J)	0.0031 (J)	0.0052 (J)
Mean	0.01916	0.008007	0.02286	0.005473	0.0039	0.005327
Std. Dev.	0.01733	0.00766	0.02574	0.002275	0.003172	0.002315
Upper Lim.	0.0388	0.009707	0.02741	0.007015	0.01	0.006895
Lower Lim.	0.0031	0.004051	0.007652	0.003932	0.0021	0.003758

# Confidence Interval

Constituent: Vanadium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
1/17/2016		0.028	0.0013 (J)	0.0029 (J)		<0.01
1/18/2016	0.0011 (J)				0.0019 (J)	
4/26/2016		0.0181		0.00296 (J)		
7/26/2016	<0.01					
7/27/2016		0.0189	<0.01			<0.01
7/28/2016				0.0026 (J)		
7/29/2016					0.0031 (J)	
10/25/2016		0.0206	<0.01	<0.01		
1/4/2017				<0.01		
1/5/2017	<0.01	0.0172	<0.01		<0.01	<0.01
4/3/2017			0.002 (J)			
4/4/2017		0.0235				<0.01
4/5/2017				0.0033 (J)	0.0029 (J)	
4/6/2017	<0.01					
7/11/2017		0.0136	0.0022 (J)			
7/12/2017	0.0016 (J)			0.0037 (J)		
7/13/2017					0.0037 (J)	<0.01
10/2/2017		0.0175	0.0022 (J)			
10/3/2017				0.0036 (J)		
1/9/2018		0.0103	0.0021 (J)			
1/10/2018	0.0019 (J)			0.0029 (J)		<0.01
1/11/2018					0.0026 (J)	
7/9/2018		0.0078 (J)				
7/10/2018			0.0025 (J)	0.0025 (J)		<0.01
7/11/2018	0.0097 (J)				0.0032 (J)	
1/16/2019	<0.01	0.0043 (J)			<0.01	
1/17/2019			<0.01	0.0021 (J)		
1/21/2019						0.0024 (J)
3/26/2019	0.0029 (J)	0.0063 (J)	0.0026 (J)	0.0038 (J)	0.0024 (J)	
7/30/2019						<0.01
10/8/2019	<0.01	<0.01	<0.01	<0.01		
10/9/2019					<0.01	<0.01
4/7/2020		0.0026 (J)	<0.01	<0.01		
4/8/2020	<0.01				<0.01	<0.01
9/28/2020	<0.01					
9/29/2020		<0.01				<0.01
9/30/2020			0.0028 (J)	0.0028 (J)	<0.01	
3/11/2021					<0.01	
3/12/2021			0.0037 (J)			
3/15/2021	<0.01					<0.01
3/16/2021		<0.01		0.0034 (J)		
9/21/2021	<0.01					
9/22/2021		0.0052 (J)		0.0025 (J)	<0.01	<0.01
9/23/2021			0.0022 (J)			
2/1/2022				0.0021 (J)	0.0022 (J)	
2/2/2022		0.004 (J)				<0.01
2/3/2022	<0.01		0.0023 (J)			
Mean	0.007813	0.01266	0.005053	0.004509	0.006133	0.009493
Std. Dev.	0.003724	0.007364	0.003795	0.003059	0.003767	0.001962
Upper Lim.	0.01	0.0165	0.01	0.0038	0.01	0.01
Lower Lim.	0.0019	0.007166	0.0021	0.0025	0.0024	0.0024

# Confidence Interval

Constituent: Vanadium (mg/L) Analysis Run 5/17/2022 3:05 PM View: Appendix IV - Confidence Intervals

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9
1/17/2016	0.0025 (J)	0.0039 (J)		
1/18/2016			<0.01	<0.01
7/28/2016	0.0024 (J)	0.0022 (J)		<0.01
7/29/2016			0.0052 (J)	
10/25/2016	<0.01			
1/4/2017	<0.01	<0.01	<0.01	
1/6/2017				<0.01
4/4/2017	0.0024 (J)	0.003 (J)		
4/6/2017			<0.01	<0.01
7/11/2017	0.003 (J)		0.0016 (J)	
7/12/2017				0.0013 (J)
7/13/2017		0.0019 (J)		
10/2/2017	0.0028 (J)			
1/9/2018		0.0046 (J)		
1/10/2018	0.0026 (J)			
1/11/2018			0.0012 (J)	<0.01
7/9/2018	<0.01			
7/10/2018		0.0031 (J)		
7/11/2018			0.0025 (J)	<0.01
1/17/2019		0.0022 (J)		
1/18/2019			<0.01	<0.01
1/21/2019	0.0031 (J)			
3/25/2019	0.0024 (J)			
3/26/2019		0.0041 (J)		
3/27/2019			0.002 (J)	<0.01
10/8/2019		<0.01		
10/9/2019	<0.01		<0.01	<0.01
4/7/2020		<0.01	0.0014 (J)	
4/8/2020	<0.01			0.0015 (J)
9/30/2020	0.0029 (J)	0.0029 (J)	<0.01	
10/1/2020				<0.01
3/10/2021			<0.01	<0.01
3/12/2021	0.0038 (J)			
3/16/2021		0.003 (J)		
9/21/2021			<0.01	
9/22/2021	0.0033 (J)	<0.01		<0.01
2/1/2022	0.0039 (J)	0.0036 (J)		
2/2/2022				<0.01
2/3/2022			<0.01	
Mean	0.005006	0.004967	0.006927	0.008853
Std. Dev.	0.003351	0.003223	0.003996	0.003026
Upper Lim.	0.01	0.01	0.01	0.01
Lower Lim.	0.0025	0.0022	0.0016	0.0015

# Confidence Interval

Constituent: Zinc (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals

Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWB-4R	GWB-5R	GWB-6R	GWC-1	GWC-11	GWC-12
1/17/2016				<0.01		
1/18/2016	0.0092	<0.01	0.0029			0.0025
1/19/2016					0.0029	
7/26/2016					<0.01	
7/27/2016		0.0015 (J)		<0.01		0.0021 (J)
7/28/2016			<0.01			
7/29/2016	0.003 (J)					
1/3/2017		<0.01				
1/4/2017				<0.01	<0.01	0.0025 (J)
1/5/2017			<0.01			
1/6/2017	0.0104					
4/4/2017	0.0132			<0.01		
4/5/2017						0.0026 (J)
4/6/2017		0.0023 (J)	0.0032 (J)		0.004 (J)	
7/10/2017						0.0023 (J)
7/11/2017					<0.01	
7/12/2017	0.0046 (J)	<0.01	0.002 (J)	<0.01		
1/9/2018			0.0036 (J)			
1/10/2018		0.0022 (J)		0.0014 (J)		
1/11/2018	0.0095 (J)				0.0018 (J)	0.0031 (J)
7/10/2018		<0.01	0.0055 (J)	0.0021 (J)		
7/11/2018	0.0028 (J)				<0.01	0.0036 (J)
1/16/2019	0.0052 (J)	<0.01	<0.01	<0.01		
1/17/2019					<0.01	0.0032 (J)
3/25/2019	0.0078 (J)					
3/26/2019		<0.01	<0.01	<0.01		
3/27/2019					<0.01	0.0031 (J)
10/8/2019					0.0061 (J)	
10/9/2019	0.0064 (J)	0.0081 (J)	0.016 (J)	0.0057 (J)		0.0057 (J)
4/7/2020	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
9/28/2020				0.0092 (J)		
9/29/2020					0.0031 (J)	0.0074 (J)
9/30/2020		<0.01	<0.01			
10/1/2020	0.0064 (J)					
3/10/2021	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
9/21/2021	<0.01	<0.01	<0.01		<0.01	<0.01
9/23/2021				<0.01		
2/2/2022	<0.01		<0.01			
2/3/2022		<0.01		<0.01	<0.01	<0.01
Mean	0.0079	0.008273	0.008213	0.00856	0.00786	0.005207
Std. Dev.	0.003035	0.003287	0.003873	0.002981	0.003249	0.003295
Upper Lim.	0.008706	0.01	0.016	0.01	0.01	0.01
Lower Lim.	0.004532	0.0023	0.0032	0.0057	0.0031	0.0025

# Confidence Interval

Constituent: Zinc (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals

Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWC-13	GWC-14	GWC-15	GWC-16	GWC-17	GWC-2
1/17/2016		<0.01	<0.01	<0.01		<0.01
1/18/2016	0.0017 (J)				0.012	
4/26/2016		<0.01		<0.01		
7/26/2016	0.0028 (J)					
7/27/2016		<0.01	<0.01			0.0018 (J)
7/28/2016				<0.01		
7/29/2016					0.0086 (J)	
10/25/2016		<0.01	<0.01	<0.01		
1/4/2017				0.0025 (J)		
1/5/2017	0.0021 (J)	<0.01	<0.01		0.016	<0.01
4/3/2017			<0.01			
4/4/2017		<0.01				0.0015 (J)
4/5/2017				0.0025 (J)	0.0175	
4/6/2017	0.0027 (J)					
7/11/2017		<0.01	<0.01			
7/12/2017	0.0043 (J)			0.002 (J)		
7/13/2017					0.0126	0.0014 (J)
10/2/2017		0.0026 (J)	<0.01			
10/3/2017				<0.01		
1/9/2018		0.0018 (J)	<0.01			
1/10/2018	0.0021 (J)			0.0016 (J)		<0.01
1/11/2018					0.012	
7/9/2018		<0.01				
7/10/2018			<0.01	0.0031 (J)		<0.01
7/11/2018	0.0039 (J)				0.011	
1/16/2019	0.047	<0.01			0.0094 (J)	
1/17/2019			<0.01	<0.01		
1/21/2019						<0.01
3/26/2019	0.03	<0.01	<0.01	<0.01	0.0057 (J)	
7/30/2019						0.0067 (J)
10/8/2019	0.053	0.0052 (J)	0.0051 (J)	0.01		
10/9/2019					0.011	0.005 (J)
4/7/2020		<0.01	<0.01	<0.01		
4/8/2020	0.023				<0.01	<0.01
9/28/2020	0.016					
9/29/2020		<0.01				0.056
9/30/2020			0.032	0.0051 (J)	0.0043 (J)	
3/11/2021					0.0056 (J)	
3/12/2021			<0.01			
3/15/2021	0.039					<0.01
3/16/2021		<0.01		<0.01		
9/21/2021	0.036					
9/22/2021		0.01		<0.01	<0.01	<0.01
9/23/2021			<0.01			
2/1/2022				<0.01	0.011	
2/2/2022		<0.01				<0.01
2/3/2022	0.037		<0.01			
Mean	0.02004	0.008867	0.01101	0.0076	0.01045	0.01083
Std. Dev.	0.01876	0.002678	0.005539	0.003556	0.003582	0.01297
Upper Lim.	0.039	0.01	0.032	0.01	0.01287	0.056
Lower Lim.	0.0021	0.0052	0.0051	0.0025	0.008019	0.0018



# Confidence Interval

Constituent: Zinc (mg/L)    Analysis Run 5/17/2022 3:05 PM    View: Appendix IV - Confidence Intervals  
 Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill

	GWC-20	GWC-21	GWC-22	GWC-9
1/17/2016	<0.01	<0.01		
1/18/2016			<0.01	0.0059
7/28/2016	<0.01	<0.01		0.0019 (J)
7/29/2016			0.0129	
10/25/2016	<0.01			
1/4/2017	<0.01	<0.01	0.006 (J)	
1/6/2017				0.0026 (J)
4/4/2017	<0.01	0.0015 (J)		
4/6/2017			0.0031 (J)	0.0047 (J)
7/11/2017	<0.01		0.0029 (J)	
7/12/2017				0.003 (J)
7/13/2017		0.002 (J)		
10/2/2017	<0.01			
1/9/2018		0.0016 (J)		
1/10/2018	0.0034 (J)			
1/11/2018			0.0106	0.0046 (J)
7/9/2018	<0.01			
7/10/2018		<0.01		
7/11/2018			0.0057 (J)	0.0033 (J)
1/17/2019		<0.01		
1/18/2019			0.0024 (J)	0.0025 (J)
1/21/2019	<0.01			
3/25/2019	<0.01			
3/26/2019		<0.01		
3/27/2019			<0.01	0.0026 (J)
10/8/2019		0.0071 (J)		
10/9/2019	0.0049 (J)		0.0079 (J)	0.0054 (J)
4/7/2020		<0.01	<0.01	
4/8/2020	<0.01			<0.01
9/30/2020	0.031	0.0096 (J)	<0.01	
10/1/2020				0.025
3/10/2021			<0.01	<0.01
3/12/2021	<0.01			
3/16/2021		<0.01		
9/21/2021			<0.01	
9/22/2021	<0.01	<0.01		<0.01
2/1/2022	<0.01	<0.01		
2/2/2022				<0.01
2/3/2022			<0.01	
Mean	0.01055	0.00812	0.0081	0.006767
Std. Dev.	0.005621	0.003405	0.003266	0.005908
Upper Lim.	0.031	0.01	0.0106	0.006583
Lower Lim.	0.0049	0.002	0.0031	0.002375

FIGURE K.

# Appendix IV Trend Tests - Confidence Interval Exceedances - Significant Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 3:14 PM

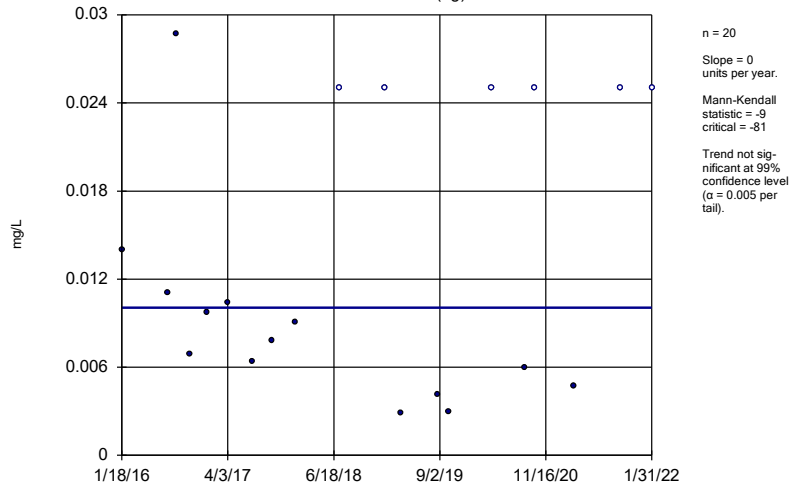
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.03428</b>	<b>154</b>	<b>81</b>	<b>Yes</b>	<b>20</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Molybdenum (mg/L)</b>	<b>GWC-16</b>	<b>0.02239</b>	<b>59</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

# Appendix IV Trend Tests - Confidence Interval Exceedances - All Results

Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill Printed 4/13/2022, 3:14 PM

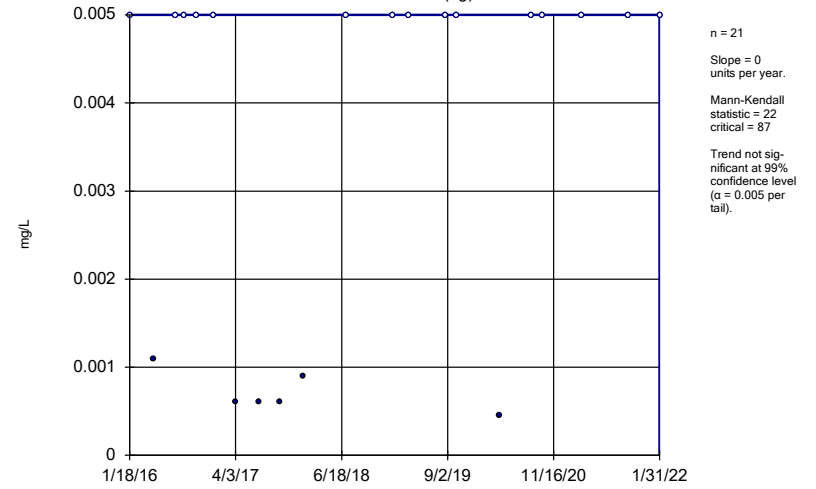
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Arsenic (mg/L)	GWA-7 (bg)	0	-9	-81	No	20	30	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWA-8 (bg)	0	22	87	No	21	71.43	n/a	n/a	0.01	NP
<b>Arsenic (mg/L)</b>	<b>GWC-15</b>	<b>0.03428</b>	<b>154</b>	<b>81</b>	<b>Yes</b>	<b>20</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Arsenic (mg/L)	GWC-16	0.003089	44	87	No	21	0	n/a	n/a	0.01	NP
Arsenic (mg/L)	GWC-20	0.0008421	4	81	No	20	0	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWA-7 (bg)	0	25	58	No	16	81.25	n/a	n/a	0.01	NP
Molybdenum (mg/L)	GWA-8 (bg)	0	0	58	No	16	100	n/a	n/a	0.01	NP
<b>Molybdenum (mg/L)</b>	<b>GWC-16</b>	<b>0.02239</b>	<b>59</b>	<b>58</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Molybdenum (mg/L)	GWC-20	-0.003017	-2	-58	No	16	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator GWA-7 (bg)



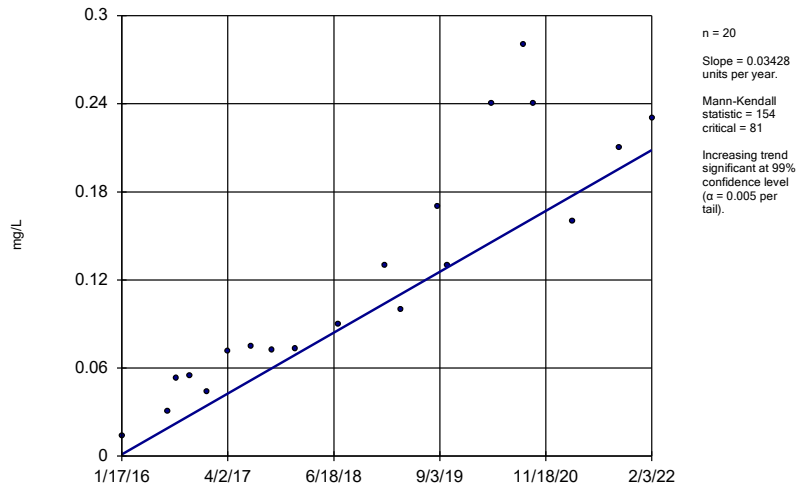
Constituent: Arsenic Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWA-8 (bg)



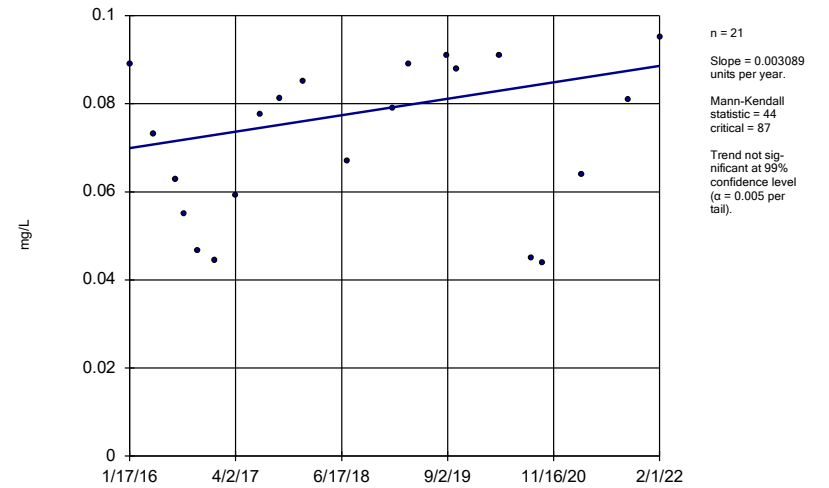
Constituent: Arsenic Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator GWC-15



Constituent: Arsenic Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

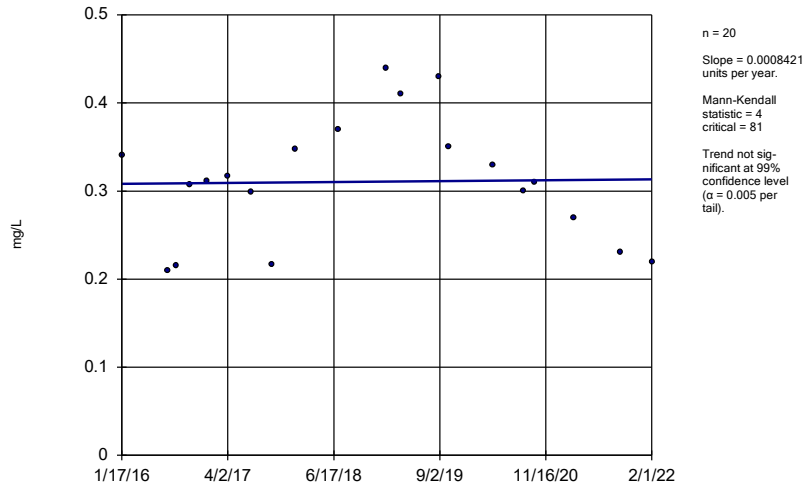
### Sen's Slope Estimator GWC-16



Constituent: Arsenic Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWC-20

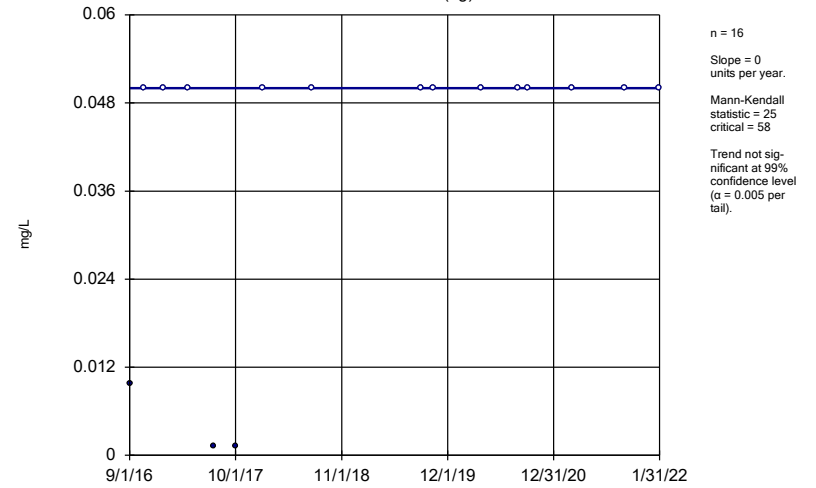


Constituent: Arsenic Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

Hollow symbols indicate censored values.

### Sen's Slope Estimator

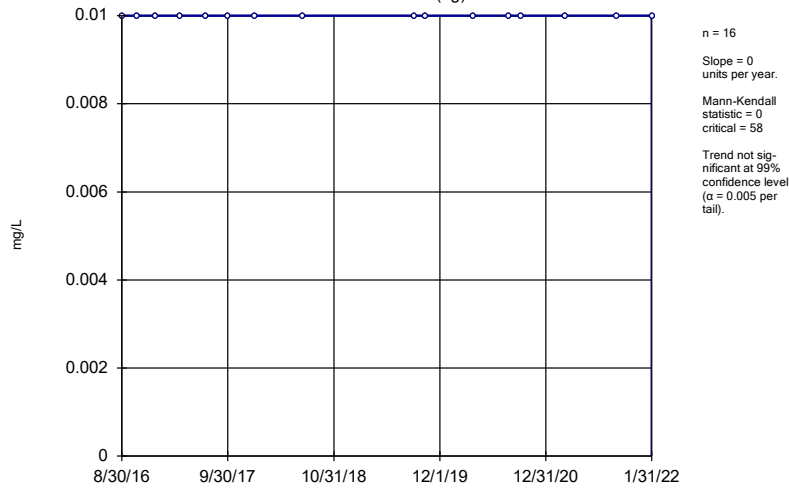
GWA-7 (bg)



Constituent: Molybdenum Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

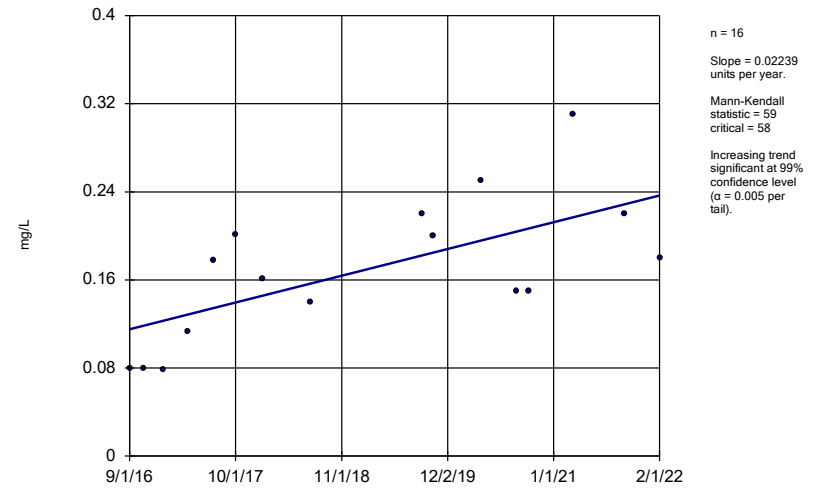
GWA-8 (bg)



Constituent: Molybdenum Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

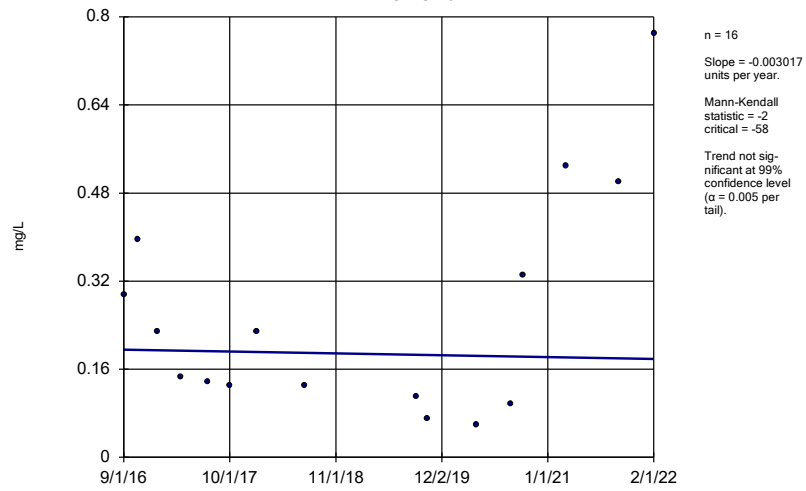
GWC-16



Constituent: Molybdenum Analysis Run 4/13/2022 3:11 PM View: Appendix IV - Trend Tests  
Grumman Road Landfill Client: Southern Company Data: Grumman Road Landfill

### Sen's Slope Estimator

GWC-20



Constituent: Molybdenum    Analysis Run 4/13/2022 3:12 PM    View: Appendix IV - Trend Tests  
Grumman Road Landfill    Client: Southern Company    Data: Grumman Road Landfill



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