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October 21, 2021

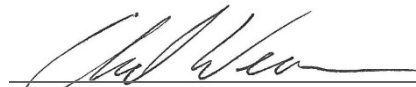
Mr. Scott Martin, Remedial Project Manager  
United States Environmental Protection Agency - Region 4  
Atlanta Federal Center  
61 Forsyth Street  
Atlanta, Georgia 30303

**Subject: Groundwater Assessment Report**  
**Hercules 009 Landfill**  
**Brunswick, Glynn County, Georgia**  
**EPA Identification No. GAD980556906**

Dear Mr. Martin;

On behalf of Hercules LLC (formerly Hercules Incorporated), Antea®Group is pleased to provide the following Groundwater Assessment Report for the Hercules 009 Landfill in Brunswick, Georgia. If you have any questions, please contact Tim Hassett +1 302 995 3456 or me at +1 704 247 6536.

Sincerely,



---

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Senior Professional  
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Antea Group

cc: Tim Hassett – Hercules LLC, Wilmington, DE  
Jocelyn Carver – GA EPD, Atlanta, GA  
Rachel Thompson – Glynn County Environmental Coalition, Brunswick, GA



# Groundwater Assessment Report

Hercules 009 Landfill  
Brunswick, Glynn County, Georgia  
EPA Identification No. GAD980556906

Antea®Group

Understanding today.  
Improving tomorrow.

## PREPARED FOR

Hercules LLC  
Ashland Hercules Research Center  
500 Hercules Road  
Wilmington, Delaware 19808

October 21, 2021

[us.anteagroup.com](http://us.anteagroup.com)

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# Groundwater Assessment Report

*Hercules 009 Landfill*

*Brunswick, Glynn County, Georgia*

*EPA Identification No. GAD980556906*

## 1.0 INTRODUCTION

On behalf of Hercules LLC (Hercules), Antea®Group is pleased to present this report summarizing the recent groundwater assessment activities conducted at the Hercules 009 Landfill (the site) located along Highway 25 in Brunswick, Glynn County, Georgia (**Figure 1**).

The objective of the assessment activities was to investigate the nature and extent of benzene in groundwater in the vicinity of monitoring well N-5. As a result, assessment activities were conducted on the adjacent properties located to the east of the landfill.

## 2.0 BACKGROUND

In 2010, EPA asked Hercules to assess the benzene downgradient from well N-5 on property then owned by Ameris Bank. Hercules installed temporary wells and collected 26 groundwater samples from shallow temporary wells and 12 samples from deep temporary wells on the Ameris property. Benzene was detected at concentrations above the EPA MCL in six of the shallow temporary well samples and in four of the deep temporary well samples. Subsequently, Hercules proposed to install permanent wells on the Ameris Bank property to be incorporated into the monitoring program and sought permission from the owner in early 2012. In February 2012, Ameris Bank declined Hercules' request. Hercules notified the EPA that it was unable to reach an agreement to install these wells and the EPA agreed that Hercules could continue with the current monitoring program.

In 2019, Hercules was granted access to the eastern adjoining property downgradient of well N-5 (240 Merchants Way). A workplan for assessment of off-site benzene impacts was submitted to the EPA on August 19, 2019. On December 5, 2019, EPA issued comments and a revised workplan was submitted to EPA on January 24, 2020. The scope of the revised workplan was as follows:

- Advancement of five temporary monitoring wells.
  - Two deep temporary wells
  - Three shallow horizontal wells
- Field screening of groundwater samples at 10 ft intervals for field analyses of benzene using a portable gas chromatograph.
- Conversion of one deep and the three shallow temporary wells into conventional monitoring wells for sampling of benzene in groundwater using a fixed base laboratory.

Approval to proceed with the revised workplan was issued by EPA on February 13, 2020.

## 3.0 FIELD SCREENING

Field screening was conducted over the course of three separate mobilizations in May, August, and September of 2020 when eight temporary monitoring wells (TW-N5D, and TW-27 through TW-33) were installed off-site to depths between 32 and 52 feet below grade. Field screening was completed by advancing temporary monitoring

wells utilizing a combination of direct push technology and hollow stem auger drilling techniques. Sample collection was completed using a combination of decontaminated stainless-steel push rods and well screens, and by installing one-inch polyvinyl chloride (PVC) temporary monitoring wells completed with a sand pack and bentonite. Groundwater samples were collected at approximately 10-foot intervals beginning at approximately 10 feet below grade. Prior to sample collection, each interval was pumped to clarity using a peristaltic pump with new Teflon-lined tubing. New nitrile gloves were worn during sampling of each interval to minimize the potential for cross-contamination during the sampling process. Groundwater samples were collected from the eight temporary monitoring wells and immediately analyzed on-site for benzene using a field portable gas chromatograph (FROG-4000™). Prior to each mobilization, the FROG-4000™ was pre-calibrated for a benzene concentration range of 1 microgram per liter (µg/L) to 160 µg/L by the equipment manufacturer (Defiant Technologies). The field screening locations relative to other site features are shown on **Figure 2**. Field screening results are summarized on **Table 1**. Boring logs for each of the temporary monitoring wells are included as **Appendix A**.

Field screening results provided a vertical profile of benzene concentrations at each field screening location. Results indicate that benzene concentrations generally increase with depth from the water table (approximately 5 to 8 feet below grade) and peak at a depth of approximately 30 feet below grade before decreasing to levels below 5 µg/L at approximately 50 feet below grade. Soil cores were collected from one location (TW-N5D) during assessment activities. An approximate one-foot thick interval of clay was observed at this location at approximately 33 feet below grade, the depth beneath which concentrations of benzene were observed to begin decreasing at each of the eight field screening locations.

## 4.0 MONITORING WELL INSTALLATION

Seven of the temporary monitoring wells were converted to conventional monitoring wells. Two additional shallow water table wells were installed at the downgradient edge of the area assessed. Monitoring wells were installed by a Georgia licensed well driller in accordance with technical guidance issued by EPA titled Design and Installation of Monitoring Wells (SOP SESDGUID-101-R1). The monitoring wells were constructed of 2-inch diameter Schedule 40 PVC casing with 2-inch diameter, 0.010-slot PVC well screen. Screened interval depths were selected for each new monitoring well based on field screening results to add vertical and horizontal definition to the off-site benzene plume. New monitoring well N-5D (screened from 43 to 48 feet below grade) was paired with existing monitoring well N-5 (screened from 20 to 25 feet below grade). New monitoring well N-16D (screened from 45 to 50 feet below grade) was installed to provide vertical plume delineation in the downgradient direction. New monitoring well N-18 was installed to improve intra-plume definition while wells N-17, N-19, N-20, and N-21 were installed to improve horizontal plume definition in the downgradient direction. Monitoring wells N-20S and N-21S are paired with wells N-20 and N-21 and are screened across the water table. Well completion details are summarized on the boring logs included in **Appendix A**.

After well construction was completed, pump and surge methods were used for well development to remove fine-grained sediments from the monitoring wells to produce groundwater samples with turbidity as low as possible. The monitoring wells were developed using a submersible pump which was decontaminated in accordance with EPA's Field Equipment Cleaning and Decontamination Procedures (SOP SESDPROC-205-R3) prior to deployment in each monitoring well. Wells were developed until groundwater was free of visible sediment. Approximately 10 well volumes of water were removed from each monitoring well during development.

Upon completion of the installation of the new monitoring wells, the horizontal locations and elevations of the newly installed monitoring wells were surveyed by Shupe Surveying Company of Brunswick, Georgia, under the direction of one of the company's Georgia registered land surveyors. The surveying was completed on November 23, 2020. The horizontal location and vertical elevation of the ground surface and top of well casing for each monitoring well was surveyed to the nearest 0.01-foot. Top of casing elevations, aquifer zone classifications, well screened intervals, and total depths of the existing and newly installed monitoring wells are summarized on **Table 2**.

## 5.0 GROUNDWATER MONITORING

Groundwater monitoring of the newly installed monitoring wells was conducted over the course of two sampling events conducted in September and October of 2020. During the September 2020 sampling event, Antea Group collected depth to water measurements and groundwater samples from monitoring wells N-5, N-5D, N-16D, N-17, N-18, N-19, and N-20. During the October 2020 sampling event, Antea Group collected groundwater samples from monitoring wells N-5, N-5D, N-6DR, N-7, N-10, N-12, N-15S, N-15D, N-16D, N-17, N-18, N-19, N-20S, N-20, N-21, and N-21S. Prior to the October 2020 sampling event, Antea Group gauged depth to groundwater in each of the monitoring wells associated with the site. A potentiometric surface map based on water levels collected from the shallow aquifer zone on October 28, 2020 (**Table 2**) is included as **Figure 3**. Groundwater flow direction is generally towards the east-northeast, consistent with historic site conditions.

During the September 2020 and October 2020 sampling events, low-flow sampling techniques were used to purge each of the wells until field parameters stabilized. Purge water was containerized in labeled 55-gallon steel drums and staged on site for eventual disposal. New nitrile gloves were worn during sampling of each well to minimize the potential for cross-contamination during the sampling process. Field measurements of pH, specific conductivity, dissolved oxygen, oxygen reduction potential, turbidity, and temperature were collected during sampling activities. Groundwater sampling records summarizing the field measurements are included in **Appendix B**.

Following purging of the monitoring wells, groundwater samples were collected in laboratory-supplied containers, placed into an ice-filled cooler, and transported under chain of custody to a Georgia certified laboratory. Each of the groundwater samples were analyzed for benzene by SW-846 Method 8260B. During the October 2020 sampling event, samples from monitoring wells N-5, N-6DR, N-7, N-10, N-12, N-15S, N-15D, and N-18 were also analyzed for toxaphene by SW-846 Method 8081B, and total suspended solids (TSS) by Standard Method (SM) 2540D. Samples collected from monitoring well N-18 were also analyzed for gasoline range organics and diesel range organics by SW-846 Method 8015B, methane and carbon dioxide by RSK-175, total and dissolved iron and total and dissolved manganese by SW-846 Method 6010C, nitrate and nitrite by method 353.2, sulfate by method 375.4, sulfide by method 376.1, chemical oxygen demand by method 410.4, and biochemical oxygen demand by method 5210B. Duplicate groundwater samples were collected from monitoring well N-20 during the September 2020 sampling event and from N-5 during the October 2020 sampling event. An equipment blank was collected for benzene analysis during both the September 2020 and the October 2020 sampling events. Groundwater sampling procedures, analytical methods and quality assurance/quality control (QA/QC) was conducted consistent with applicable EPA Region 4 guidance. The laboratory analytical reports and chain-of-custody records for the groundwater samples are included in **Appendix C** and the laboratory results are summarized in **Tables 3** and **4**.

Results from the September 2 and 3, 2020 sampling event indicate that benzene was detected in each of the groundwater samples, with the exception of the sample collected from monitoring well N-16D. Benzene

concentrations ranged from 8.3 µg/L at monitoring well N-19, to 210 µg/L at monitoring well N-18. During the October 28 and 29, 2020 sampling event, benzene was detected in the sample collected from monitoring well N-5 at a concentration of 36 µg/L (Duplicate N-5, 50 µg/L). Benzene was not detected in any of the other on-site monitoring wells. Benzene detections in the off-site monitoring wells sampled during the October 28 and 29, 2020 sampling event ranged from 3.6 µg/L in monitoring well N-19 near the downgradient extent of the expanded well network to 190 µg/L in monitoring well N-18, located along the downgradient site boundary approximately half-way between monitoring well N-5 and the northern boundary of the site. Monitoring wells N-20 (screened 22 to 32 feet below grade) and N-21 (screened 30 to 40 feet below grade) are also located near the downgradient extent of the expanded well network and contained benzene concentrations of 86 µg/L and 110 µg/L, respectively. Monitoring wells N-20S and N-21S (both screened 4 to 10 feet below grade) are paired adjacent to monitoring wells N-20 and N-21 and were installed to assess benzene impacts at the water table at these locations. Benzene was not detected in monitoring wells N-20S and N-21S during the October 28 and 29, 2020 sampling event. Benzene concentrations measured during the October 28 and 29, 2020 sampling event are depicted on **Figure 4**.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the field activities and laboratory analytical results, Antea Group concludes that:

- Groundwater flows away from the site in a generally east-northeasterly direction.
- Off-site concentrations of benzene during the most recent sampling event ranged from non-detect to 190 µg/L.
- The results of field screening and conventional monitoring well sampling indicate that the off-site benzene plume is concentrated in the surficial aquifer at a depth between approximately 20 and 30 feet below grade (or 15 to 25 feet below the water table).
  - Benzene was not detected in water table monitoring wells at the downgradient extent of the area assessed during field activities conducted in 2020.
  - Benzene was not detected in monitoring well N-16D (screened 45 to 50 feet below grade), located approximately 300 feet east of the site.

Based on the above conclusions, Antea Group recommends:

- Continue to monitor groundwater conditions on and off-site on an annual schedule in accordance with the monitored natural attenuation strategy presented in the 1993 Record of Decision. The new conventional monitoring wells installed in 2020 will be included in the site monitoring program.
- Hercules is evaluating additional pilot scale treatment options that would focus on the area of monitoring well N-18. A work plan will be submitted to EPA for approval in 2021 that describes the selected technology and outlines the pilot study goals and methodology.

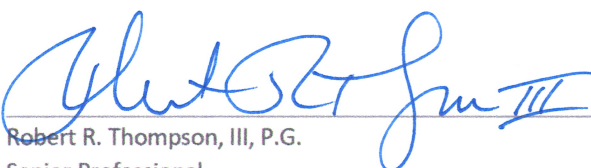
## 7.0 REMARKS

The recommendations contained in this report represent Antea USA, Inc.'s professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the client. The contract between Antea USA, Inc. and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea USA, Inc.'s client and anyone else specifically identified in writing by Antea USA, Inc. as a user of this report. Antea USA, Inc. will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea USA, Inc. makes no express or implied warranty as to the contents of this report.



Chad Weaver  
Senior Professional

October 21, 2021



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Senior Professional  
Georgia Registered Geologist No. 1889



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## 8.0 CONTACT INFORMATION

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## Tables

Table 1 – Field Screening Results

Table 2 - Groundwater Elevation Data

Table 3 - Groundwater Analytical Data

Table 4 - Additional Groundwater Data

**Table 1**  
**Field Screening Results**  
**Hercules 009 Landfill**  
**Brunswick, GA**  
**EPA ID No. GAD980556906**

| Chemical Name |               |                   | Benzene    |
|---------------|---------------|-------------------|------------|
| Report Units  |               |                   | ug/L       |
| Location ID   | Sampling Date | Screened Interval |            |
| N-5D (TW-N5D) | 5/19/2020     | 8 - 12            | 1.91       |
| N-5D (TW-N5D) | 5/19/2020     | 18 - 22           | 8.33       |
| N-5D (TW-N5D) | 5/19/2020     | 28 - 32           | Non-Detect |
| N-5D (TW-N5D) | 5/19/2020     | 35 - 40           | Non-Detect |
| N-5D (TW-N5D) | 5/20/2020     | 43 - 48           | 2.55       |
| N-16D (TW-29) | 5/18/2020     | 8 - 12            | 1.88       |
| N-16D (TW-29) | 5/18/2020     | 18 - 22           | 112.49     |
| N-16D (TW-29) | 5/18/2020     | 28 - 32           | 18.18      |
| N-16D (TW-29) | 5/18/2020     | 38 - 42           | 9.20       |
| N-16D (TW-29) | 5/19/2020     | 47 - 52           | 1.82       |
| N-17 (TW-27)  | 5/21/2020     | 8 - 12            | 4.24       |
| N-17 (TW-27)  | 5/21/2020     | 18 - 22           | 9.43       |
| N-17 (TW-27)  | 5/21/2020     | 28 - 32           | 2.44       |
| N-18 (TW-30)  | 5/26/2020     | 8 - 12            | 38.65      |
| N-18 (TW-30)  | 5/26/2020     | 18 - 22           | 115.34     |
| N-18 (TW-30)  | 5/27/2020     | 27 - 32           | 123.42     |
| N-18 (TW-30)  | 5/27/2020     | 36.5 - 39.5       | 1.97       |
| N-19 (TW-31)  | 9/1/2020      | 8 - 12            | Non-Detect |
| N-19 (TW-31)  | 9/1/2020      | 18 - 22           | 10         |
| N-19 (TW-31)  | 9/1/2020      | 27 - 32           | 1          |
| N-20 (TW-33)  | 8/31/2020     | 8 - 12            | Non-Detect |
| N-20 (TW-33)  | 8/31/2020     | 18 - 22           | 38         |
| N-20 (TW-33)  | 9/1/2020      | 28 - 32           | 363        |
| N-20 (TW-33)  | 9/1/2020      | 37 - 41           | 24         |
| N-21 (TW-32)  | 9/21/2020     | 8 - 12            | Non-Detect |
| N-21 (TW-32)  | 9/21/2020     | 18 - 22           | Non-Detect |
| N-21 (TW-32)  | 9/21/2020     | 28 - 32           | 61         |
| N-21 (TW-32)  | 9/21/2020     | 38 - 42           | 44         |
| N-21 (TW-32)  | 9/21/2020     | 47 - 52           | 2          |
| TW-28         | 5/19/2020     | 8 - 12            | 4.52       |
| TW-28         | 5/19/2020     | 18 - 22           | 31.05      |
| TW-28         | 5/19/2020     | 28 - 32           | 3.12       |

**Notes:**

ug/L - micrograms/liter

Screen Interval - Measured in feet below ground surface

**Table 2**  
**Groundwater Elevation Data**  
**Hercules 009 Landfill**  
**Brunswick, GA**  
**EPA ID No. GAD980556906**

| Well ID | Aquifer Zone          | Date       | Well Screen Interval (FT BGS) | TOC Elevation (FT MSL) | Total Depth (FT TOC) | Water Level Depth (FT TOC) | Water Level Elevation (FT MSL) |
|---------|-----------------------|------------|-------------------------------|------------------------|----------------------|----------------------------|--------------------------------|
| N-2     | Shallow               | 10/28/2020 | 20 - 25                       | 23.40                  | 25                   | 7.98                       | 15.42                          |
| N-3     | Shallow               | 10/28/2020 | 30 - 35                       | 25.00                  | 35                   | 8.03                       | 16.97                          |
| N-5     | Shallow               | 9/2/2020   | 20 - 25                       | 24.41                  | 25                   | 8.19                       | 16.22                          |
|         |                       | 10/28/2020 |                               |                        |                      | 7.86                       | 16.55                          |
| N-5D    | Deep                  | 9/2/2020   | 43 - 48                       | 21.24                  | 48                   | 7.55                       | 13.69                          |
|         |                       | 10/28/2020 |                               |                        |                      | 7.22                       | 14.02                          |
| N-6SR   | Shallow               | 10/28/2020 | 24 - 29                       | 20.10                  | 29                   | 5.65                       | 14.45                          |
| N-6DR   | Deep                  | 10/28/2020 | 77 - 88                       | 20.20                  | 88                   | 9.23                       | 10.97                          |
| N-7     | Deep                  | 10/28/2020 | 85 - 90                       | 22.92                  | 90                   | 10.99                      | 11.93                          |
| N-8     | Deep                  | 10/28/2020 | 81 - 83                       | 22.56                  | 83                   | 10.74                      | 11.82                          |
| N-9S    | Shallow               | 10/28/2020 | Unknown                       | 22.10                  | 35                   | 6.24                       | 15.86                          |
| N-9D    | Deep                  | 10/28/2020 | Unknown                       | 21.92                  | 88                   | 10.26                      | 11.66                          |
| N-10    | Deep                  | 10/28/2020 | 85 - 87                       | 21.90                  | 87                   | 10.45                      | 11.45                          |
| N-11    | Shallow               | 10/28/2020 | 22 - 32                       | 22.40                  | 32                   | 6.28                       | 16.12                          |
| N-12    | Shallow (Water Table) | 9/2/2020   | 6 - 16                        | 25.33                  | 16                   | 9.89                       | 15.44                          |
|         |                       | 10/28/2020 |                               |                        |                      | 9.10                       | 16.23                          |
| N-13    | Shallow               | 10/28/2020 | 22 - 32                       | 24.70                  | 32                   | 7.12                       | 17.58                          |
| N-14S   | Shallow               | 10/28/2020 | 7 - 17                        | 19.26                  | 17                   | 3.54                       | 15.72                          |
| N-14D   | Deep                  | 10/28/2020 | 78 - 88                       | 19.61                  | 88                   | 8.22                       | 11.39                          |
| N-15S   | Shallow               | 9/2/2020   | 7 - 17                        | 20.17                  | 17                   | 2.30                       | 17.87                          |
|         |                       | 10/28/2020 |                               |                        |                      | 2.38                       | 17.79                          |
| N-15D   | Deep                  | 10/28/2020 | 69 - 79                       | 21.12                  | 79                   | 6.68                       | 14.44                          |
| N-16D   | Deep                  | 9/2/2020   | 45 - 50                       | 19.90                  | 50                   | 7.72                       | 13.40                          |
|         |                       | 10/28/2020 |                               |                        |                      | 8.73                       | 12.39                          |
| N-17    | Shallow               | 9/2/2020   | 15 - 25                       | 20.53                  | 25                   | 6.93                       | 13.60                          |
|         |                       | 10/28/2020 |                               |                        |                      | 6.89                       | 13.64                          |
| N-18    | Shallow               | 9/2/2020   | 20 - 30                       | 20.82                  | 30                   | 6.70                       | 14.12                          |
|         |                       | 10/28/2020 |                               |                        |                      | 6.52                       | 14.30                          |
| N-19    | Shallow               | 9/2/2020   | 15 - 25                       | 17.17                  | 25                   | 4.13                       | 13.04                          |
|         |                       | 10/28/2020 |                               |                        |                      | 4.07                       | 13.10                          |
| N-20    | Shallow               | 9/2/2020   | 22 - 32                       | 18.16                  | 32                   | 5.20                       | 12.96                          |
|         |                       | 10/28/2020 |                               |                        |                      | 4.92                       | 13.24                          |
| N-20S   | Shallow (Water Table) | 10/28/2020 | 4 - 10                        | 18.17                  | 10                   | 5.54                       | 12.63                          |
| N-21    | Shallow               | 10/28/2020 | 30 - 40                       | 21.52                  | 40                   | 8.61                       | 12.91                          |
| N-21S   | Shallow (Water Table) | 10/28/2020 | 4 - 10                        | 21.43                  | 10                   | 8.50                       | 12.93                          |

**Gauging Notes:**

FT BGS - Feet below Ground Surface (BGS)

FT TOC - Feet below Top of Casing (TOC)

FT MSL - Feet above Mean Sea Level (MSL)

**Table 3**  
**Groundwater Analytical Data**  
**Hercules 009 Landfill**  
**Brunswick, GA**  
**EPA ID No. GAD980556906**

| Chemical Name    |               | Benzene    | Total Suspended Solids | Toxaphene  |
|------------------|---------------|------------|------------------------|------------|
| <b>MCL</b>       |               | <b>5.0</b> | --                     | <b>3.0</b> |
| Report Units:    |               | ug/L       | mg/L                   | ug/L       |
| Well ID          | Sampling Date |            |                        |            |
| N-5              | 09/02/2020    | <b>83</b>  | --                     | --         |
|                  | 10/28/2020    | <b>36</b>  | 1.2                    | <0.19      |
| N-5D             | 09/02/2020    | <b>22</b>  | --                     | --         |
|                  | 10/28/2020    | <b>9.9</b> | --                     | --         |
| N-6DR            | 10/28/2020    | <0.43      | <1                     | <0.19      |
| N-7              | 10/28/2020    | <0.43      | 1.3                    | <0.19      |
| N-10             | 10/28/2020    | <0.43      | <1                     | <0.19      |
| N-12             | 10/29/2020    | <0.43      | <1                     | <0.19      |
| N-15S            | 10/29/2020    | <0.43      | 2.1                    | <0.19      |
| N-15D            | 10/29/2020    | <0.43      | 24                     | <0.19      |
| N-16D            | 9/2/2020      | <0.43      | --                     | --         |
|                  | 10/28/2020    | <0.43      | --                     | --         |
| N-17             | 9/2/2020      | <b>83</b>  | --                     | --         |
|                  | 10/28/2020    | <b>80</b>  | --                     | --         |
| N-18             | 9/2/2020      | <b>210</b> | --                     | --         |
|                  | 10/29/2020    | <b>190</b> | 1.5                    | <0.19      |
| N-19             | 9/2/2020      | <b>8.3</b> | --                     | --         |
|                  | 10/28/2020    | 3.6        | --                     | --         |
| N-20             | 9/3/2020      | <b>18</b>  | --                     | --         |
|                  | 10/28/2020    | <b>86</b>  | --                     | --         |
| N-20S            | 10/28/2020    | <0.43      | --                     | --         |
| N-21             | 10/28/2020    | <b>110</b> | --                     | --         |
| N-21S            | 10/28/2020    | <0.43      | --                     | --         |
| Duplicate (N-5)  | 10/28/2020    | <b>50</b>  | 2.6                    | <0.19 H    |
| Duplicate (N-20) | 09/03/2020    | <b>18</b>  | --                     | --         |
|                  | 10/29/2020    | <0.43      | --                     | --         |
| Equipment Blank  | 09/03/2020    | <0.43      | --                     | --         |
|                  | 10/28/2020    | <0.43      | --                     | --         |
| Trip Blank       | 09/03/2020    | <0.43      | --                     | --         |
|                  | 10/28/2020    | <0.43      | --                     | --         |

**Notes:**

MCL - Maximum Contaminant Level (National Primary Drinking Water Standards)

Results in Bold exceed MCL

< - Not detected at or above indicated laboratory reporting limit

UG/L - micrograms/liter

NA - MCL Standard not established

**Table 4**  
**Additional Groundwater Data**  
**Hercules 009 Landfill**  
**Brunswick, GA**  
**EPA ID No. GAD980556906**

| Chemical Name |               | Gasoline Range<br>Organics<br>(C6-C10) | Diesel Range<br>Organics<br>(C10-C28) | Carbon<br>Dioxide | Methane | Total Iron | Dissolved<br>Iron | Total<br>Manganese | Dissolved<br>Manganese | Nitrate | Nitrite | Sulfate | Sulfide | Chemical<br>Oxygen<br>Demand | Biochemical<br>Oxygen<br>Demand |
|---------------|---------------|----------------------------------------|---------------------------------------|-------------------|---------|------------|-------------------|--------------------|------------------------|---------|---------|---------|---------|------------------------------|---------------------------------|
| Well ID       | Sampling Date |                                        |                                       |                   |         |            |                   |                    |                        |         |         |         |         |                              |                                 |
| N-18          | 10/29/2020    | 1.9                                    | 3.6                                   | 310               | 6.4     | 1.6        | 1.8               | 0.043 B            | 0.046                  | <0.010  | <0.010  | 2.9 J   | 2.6 F1  | 88                           | 38                              |

**Notes:**

< - Not detected at or above indicated laboratory reporting limit

All results reported in milligrams/liter (mg/L)

J - Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

B - Compound was found in the blank and sample.

F1 - Matrix spike and/or matrix spike duplicate recovery exceeds control limits.

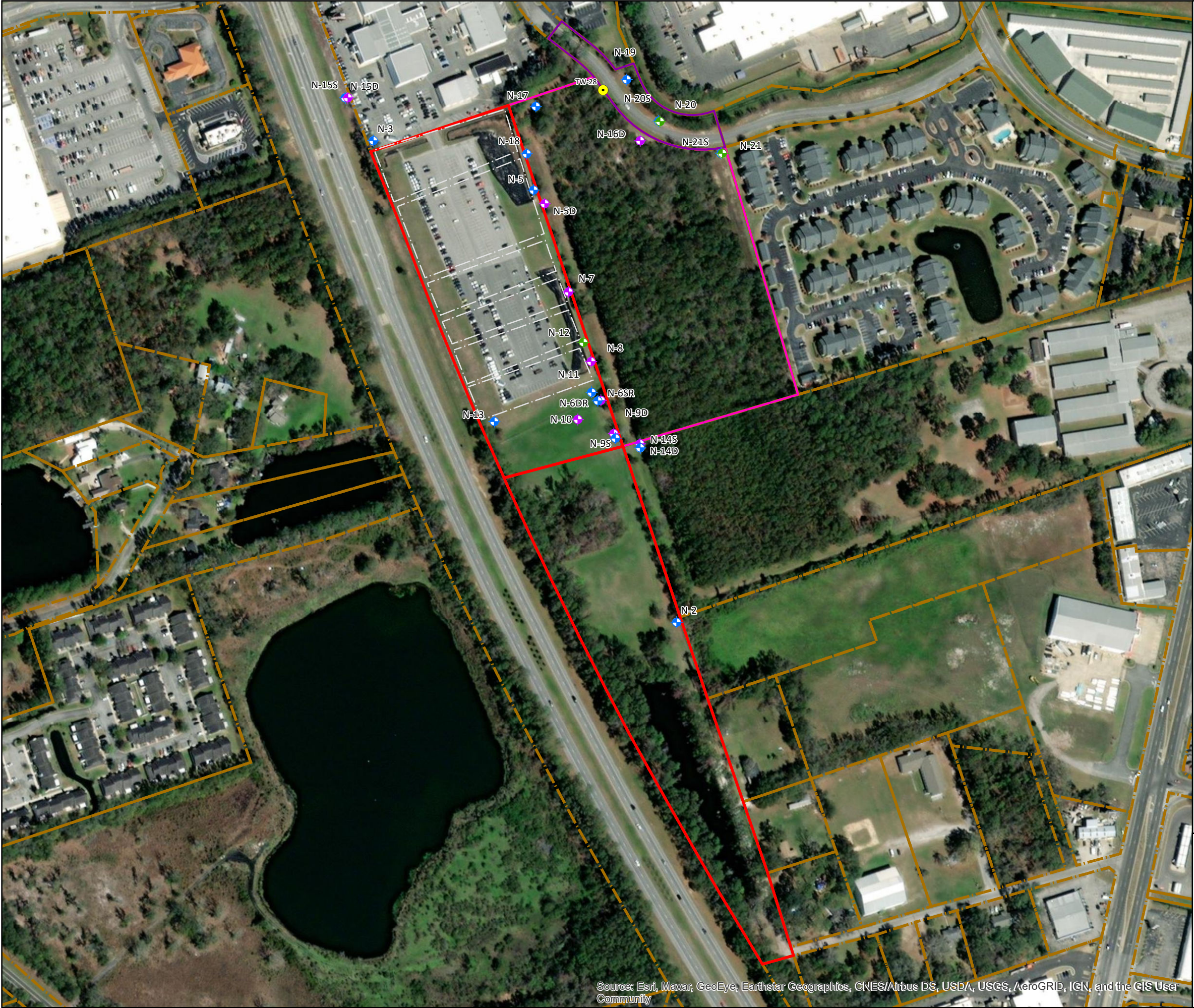
## Figures

Figure 1 - Site Map

Figure 2 - Benzene Field Screening Map

Figure 3 - Groundwater Contour Map October 28, 2020

Figure 4 - Benzene Isoconcentration Contour Map



- Legend**
- Shallow Monitoring Well
  - Shallow Monitoring Well (Well Screen Brackets Water Table)
  - Deep Monitoring Well
  - Soil Boring
  - Former Landfill Cells
  - Hercules 009 Boundary
  - 232 Merchants Way Parcel Boundary
  - 240 Merchants Way Parcel Boundary
  - Parcel Boundary

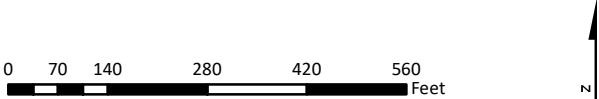
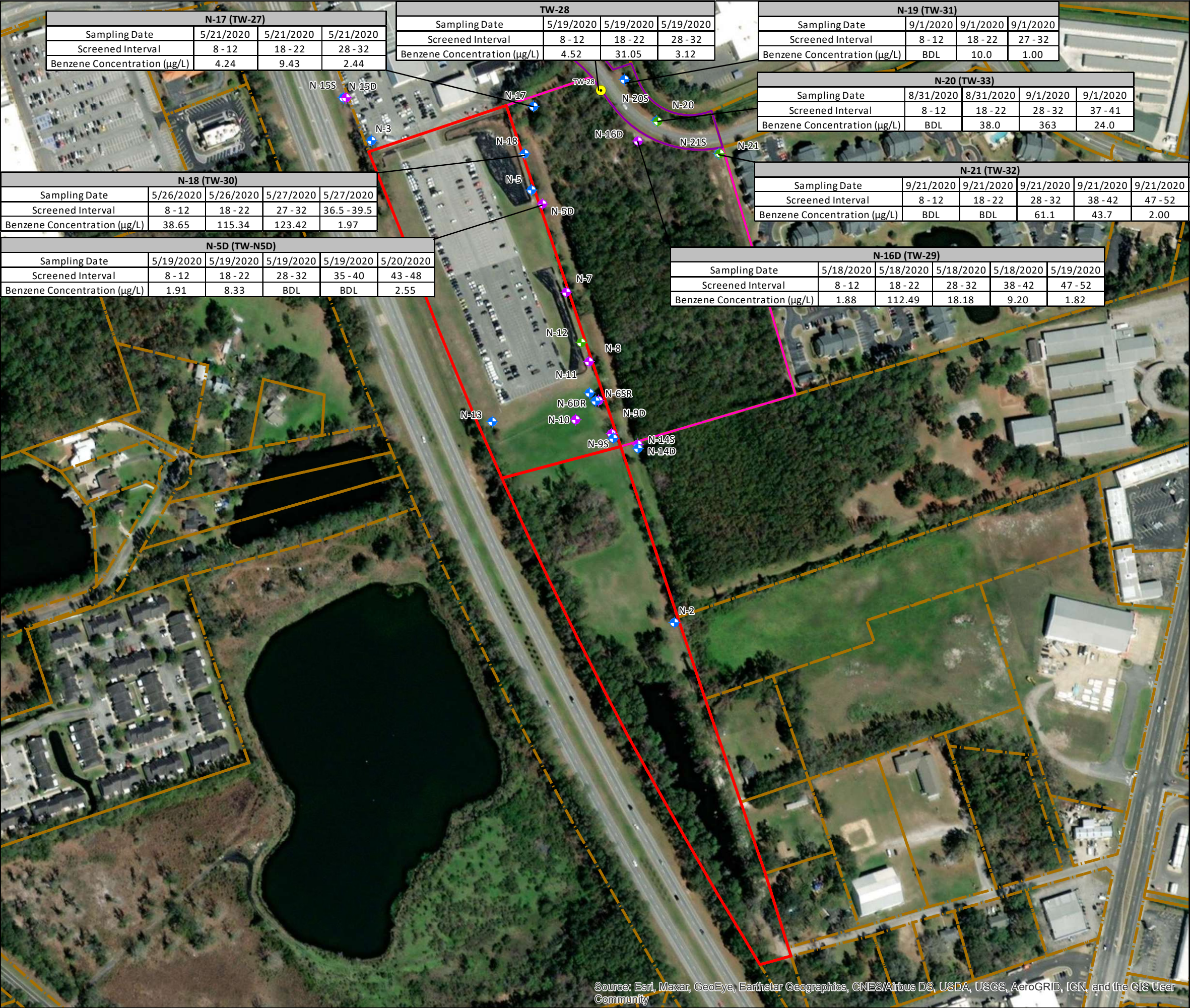


**FIGURE 1**

SITE MAP  
HERCULES 009 LANDFILL  
BRUNSWICK, GA

|                          |                    |                                |                                                                                       |
|--------------------------|--------------------|--------------------------------|---------------------------------------------------------------------------------------|
| PROJECT NO.<br>009LF2020 | PREPARED BY<br>MSS | REF SCALE<br>1:3,240           |  |
| DATE<br>10/14/2021       | REVIEWED BY<br>CW  | MAP SCALE<br>1 INCH = 270 FEET |                                                                                       |

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



**Legend**

- Shallow Monitoring Well
- Shallow Monitoring Well (Well Screen Brackets Water Table)
- Deep Monitoring Well
- Soil Boring
- Hercules 009 Boundary
- 232 Merchants Way Parcel Boundary
- 240 Merchants Way Parcel Boundary
- Parcel Boundary

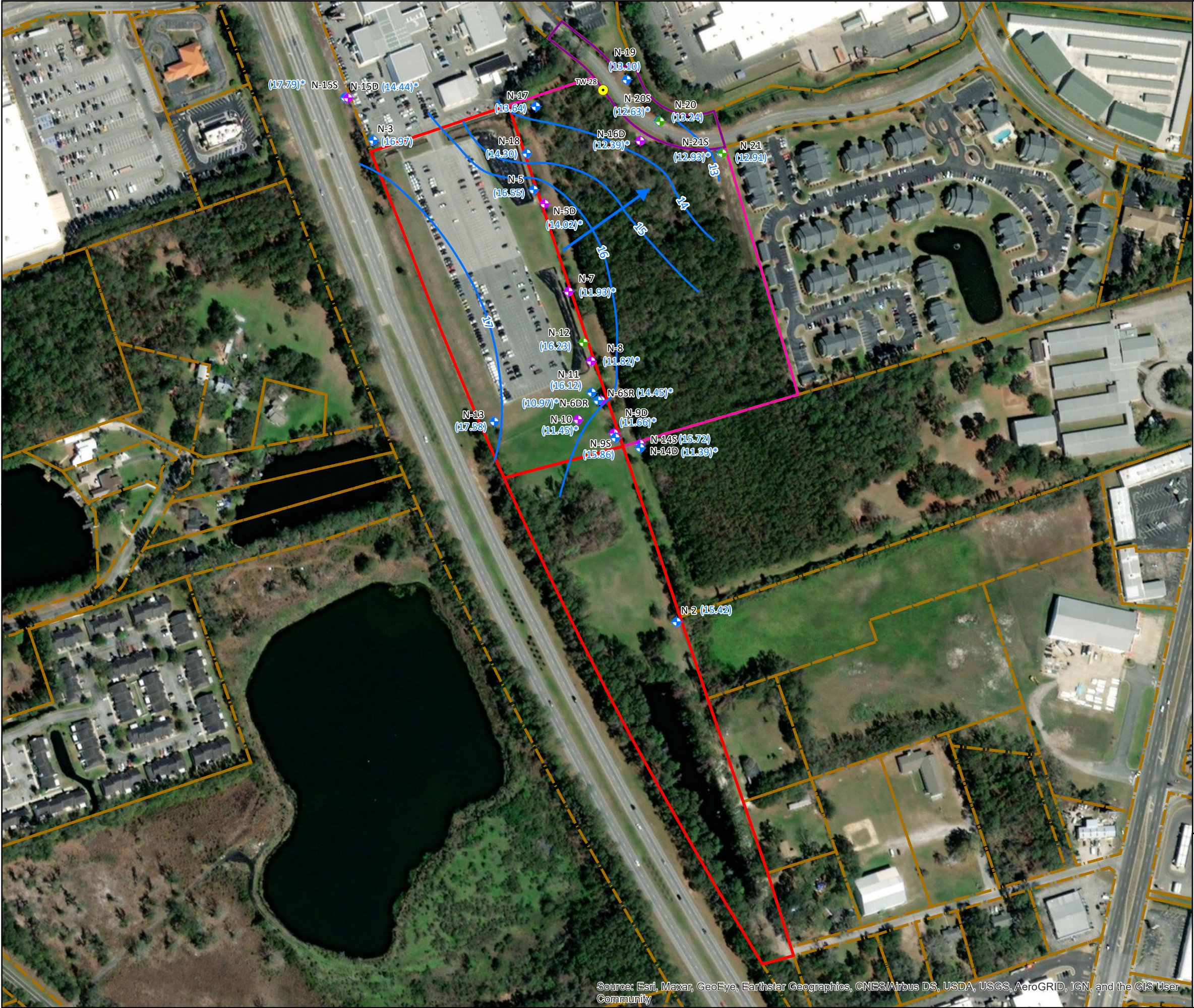
**Notes:**

ft bgs - Feet Below Ground Surface  
Screened intervals are all feet below ground surface  
µg/L - Micrograms per Liter  
All concentrations are in (µg/L)

**FIGURE 2**

BENZENE FIELD SCREENING MAP  
HERCULES 009 LANDFILL  
BRUNSWICK, GA

|                          |                    |                                |                                                                                       |
|--------------------------|--------------------|--------------------------------|---------------------------------------------------------------------------------------|
| PROJECT NO.<br>009LF2020 | PREPARED BY<br>MSS | REF SCALE<br>1:3,240           |  |
| DATE<br>10/14/2021       | REVIEWED BY<br>CW  | MAP SCALE<br>1 INCH = 270 FEET |                                                                                       |



- Legend**
- Shallow Monitoring Well
  - Shallow Monitoring Well (Well Screen Brackets Water Table)
  - Deep Monitoring Well
  - Temporary Monitoring Well
  - Inferred Groundwater Flow Direction
  - Groundwater Elevation Contour (ft)
  - Hercules 009 Boundary
  - 232 Merchants Way Parcel Boundary
  - 240 Merchants Way Parcel Boundary
  - Parcel Boundary

**Note:**  
\* - Indicates elevation was not used in potentiometric interpretation.

Only shallow monitoring well elevations are used in potentiometric interpretation.

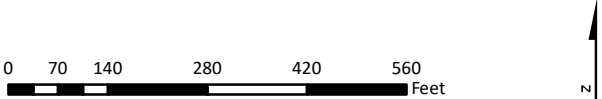
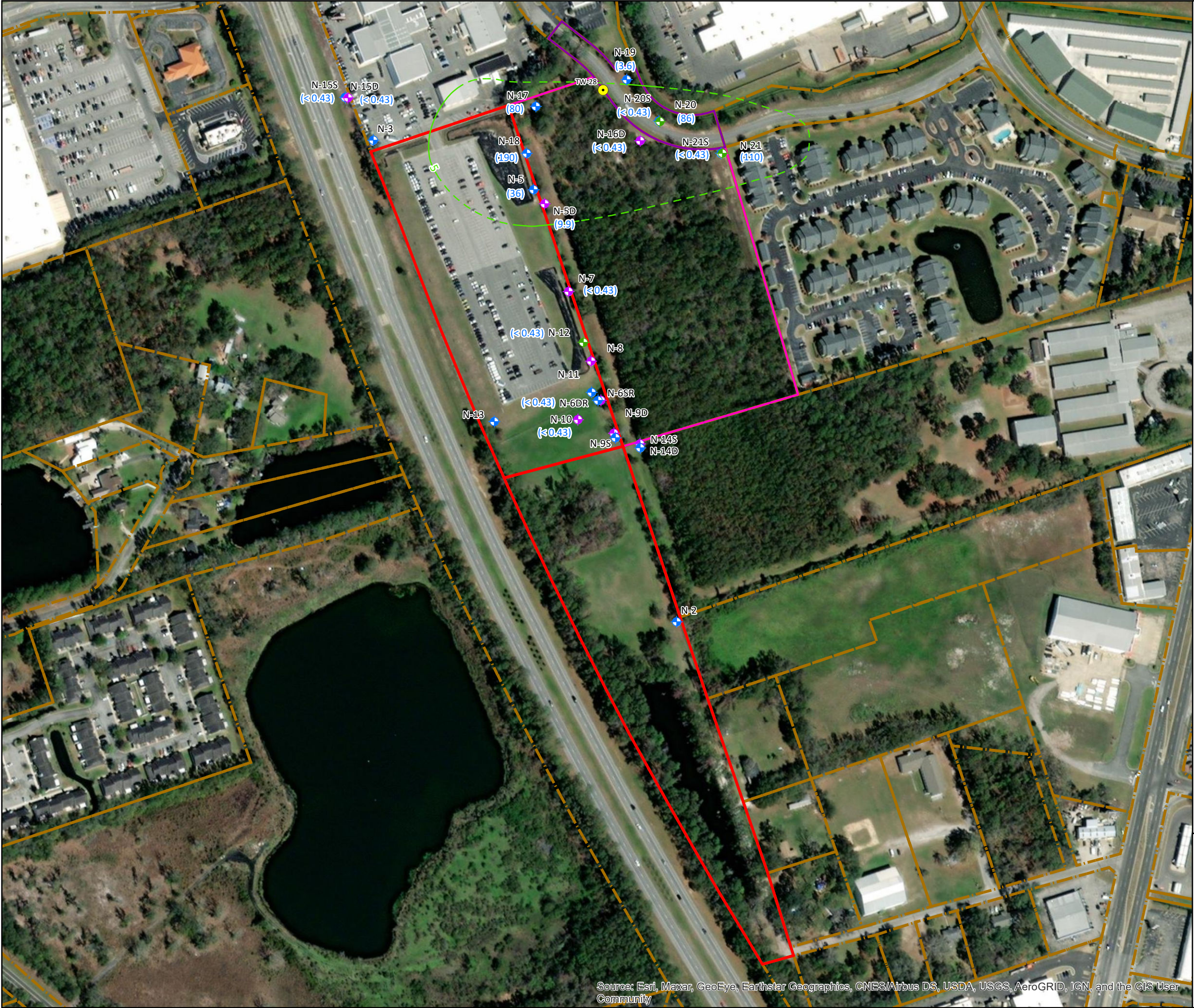


**FIGURE 3**  
GROUNDWATER CONTOUR MAP  
OCTOBER 28 & 29, 2020  
HERCULES 009 LANDFILL  
BRUNSWICK, GA

|                          |                    |                                |                                                                                       |
|--------------------------|--------------------|--------------------------------|---------------------------------------------------------------------------------------|
| PROJECT NO.<br>009LF2020 | PREPARED BY<br>MSS | REF SCALE<br>1:3,240           |  |
| DATE<br>10/14/2021       | REVIEWED BY<br>CW  | MAP SCALE<br>1 INCH = 270 FEET |                                                                                       |

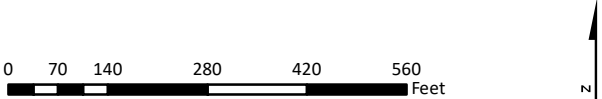
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



**Legend**

- Shallow Monitoring Well
- Shallow Monitoring Well (Well Screen Brackets Water Table)
- Deep Monitoring Well
- Temporary Monitoring Well
- 5 µg/L Benzene Isoncentration Contour
- Inferred 5 µg/L Benzene Isoncentration Contour
- Hercules 009 Landfill Boundary
- 232 Merchants Way Parcel Boundary
- 240 Merchants Way Parcel Boundary
- Parcel Boundary

Notes:  
All Concentrations are in µg/L  
Wells without corresponding results were not sampled



| FIGURE 4                             |             |                   |                                                                                       |
|--------------------------------------|-------------|-------------------|---------------------------------------------------------------------------------------|
| BENZENE ISOCONCENTRATION CONTOUR MAP |             |                   |                                                                                       |
| OCTOBER 28 & 29, 2020                |             |                   |                                                                                       |
| HERCULES 009 LANDFILL                |             |                   |                                                                                       |
| BRUNSWICK, GA                        |             |                   |                                                                                       |
| PROJECT NO.                          | PREPARED BY | REF SCALE         |  |
| 009LF2020                            | MSS         | 1:3,240           |                                                                                       |
| DATE                                 | REVIEWED BY | MAP SCALE         |                                                                                       |
| 10/14/2021                           | CW          | 1 INCH = 270 FEET |                                                                                       |

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

## Appendix A - Boring Logs

| Project Name                                                  |  |                                    |  | Well Number               |  |
|---------------------------------------------------------------|--|------------------------------------|--|---------------------------|--|
| Hercules 009 Landfill                                         |  |                                    |  | N-5D (TW-N5D)             |  |
| Address<br><br>Brunswick, Georgia<br><br>EPA ID: GAD980556906 |  | Drilling Contractor / Driller Name |  | Ground Surface Elevation: |  |
|                                                               |  | SAEDACCO / Brian Ewing             |  | 18.15 ft msl              |  |
|                                                               |  | Drilling Method                    |  | Top of Casing Elevation:  |  |
| Hand Auger/Direct Push/Hollow Stem                            |  | Headspace Monitoring Device        |  | Well Screen Interval      |  |
| PID                                                           |  | 43 - 48 ft                         |  | Slot Size                 |  |
| 0.01                                                          |  | Well Depth                         |  | Well Casing Diameter      |  |
| 48 ft.                                                        |  | 2" SCH 40 PVC                      |  |                           |  |
| Antea Group Project Number                                    |  | Boring Depth                       |  | Boring Diameter           |  |
| Hercules Brunswick GA FY21                                    |  | 48 ft.                             |  | 7.5 in.                   |  |
| Macrocore                                                     |  | Sampling Equipment                 |  | Date of Drilling          |  |
| 5/19/2020 - 5/20/2020                                         |  |                                    |  |                           |  |

### LITHOLOGY

### SAMPLING DATA

| Elevation | Depth | Graphic Log | Visual Description                                                                              | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample | Benzene (µg/L) | Water Level | Well Diagram | Well Details                                     | Depth |
|-----------|-------|-------------|-------------------------------------------------------------------------------------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|--------------------------------------------------|-------|
| 0         |       |             | Grass at surface                                                                                | --              | 0 - 5                | HA          | 0            |                    |                |             |              | Stickup Well                                     | 0     |
|           |       |             | Hand Auger; did not observe cuttings                                                            |                 |                      |             |              |                    |                |             |              | 2" SCH 40 PVC<br>Blank Casing:<br>-3.09 - 43 ft. |       |
|           |       |             |                                                                                                 |                 |                      |             |              |                    |                |             |              | Cement:<br>0 - 40 ft.                            |       |
| 15        | 5     |             | Fine SAND; trace silt, dark brown, loose, damp to wet                                           | 4.5             | 5 - 10               | DP          | 100          |                    |                |             |              |                                                  | 5     |
|           |       |             |                                                                                                 | 9.1             | 8 - 12               | SP          | --           |                    | 1.91           |             |              |                                                  |       |
| 10        | 10    |             |                                                                                                 | 5.8             | 10 - 15              | DP          | 100          |                    |                |             |              |                                                  | 10    |
|           |       |             |                                                                                                 | 9.1             |                      |             |              |                    |                |             |              |                                                  |       |
| 5         | 15    |             | Fine to medium SAND; trace silt, medium brown, becoming more dense, damp                        | 8.5             | 15 - 20              | DP          | 67           |                    |                |             |              |                                                  | 15    |
|           |       |             |                                                                                                 | 6.5             | 18 - 22              | SP          | --           |                    | 8.33           |             |              |                                                  |       |
| 0         | 20    |             | Medium SAND; trace silt, brown, loose, wet<br>@16.5'-17': organic staining or mineral variation | 6.8             | 20 - 25              | DP          | 100          |                    |                |             |              |                                                  | 20    |
|           |       |             | as above; noticeable chemical odor                                                              |                 |                      |             |              |                    |                |             |              |                                                  |       |
| 20        | 25    |             | @22.5': as above; thin ( 2 in.) organic horizon or mineralogical variation                      | 6.1             |                      |             |              |                    |                |             |              |                                                  | 25    |
|           |       |             | Medium to coarse SAND; some silt, greenish grey, wet, odor                                      |                 |                      |             |              |                    |                |             |              |                                                  |       |

HA = Hand Auger / MC = Macrocore / HS = Hollow Stem Auger / ND = Not Detected  
 Soil samples were not collected for laboratory analysis.  
 Groundwater samples were collected using a screen point sampler (SP)  
 and analyzed with FROG for benzene concentrations.

| Project Name                                                  |  |                                    |  | Well Number                          |  |
|---------------------------------------------------------------|--|------------------------------------|--|--------------------------------------|--|
| Hercules 009 Landfill                                         |  |                                    |  | N-5D (TW-N5D)                        |  |
| Address<br><br>Brunswick, Georgia<br><br>EPA ID: GAD980556906 |  | Drilling Contractor / Driller Name |  | Ground Surface Elevation:            |  |
|                                                               |  | SAEDACCO / Brian Ewing             |  | 18.15 ft msl                         |  |
|                                                               |  | Drilling Method                    |  | Top of Casing Elevation:             |  |
| EPA ID: GAD980556906                                          |  | Hand Auger/Direct Push/Hollow Stem |  | Well Screen Interval      Slot Size  |  |
| Logged By      Approved By                                    |  | Drilling Equipment                 |  | Well Depth      Well Casing Diameter |  |
| C. Weaver      R. Thompson                                    |  | Geoprobe 7822 DT                   |  | 48 ft.      2" SCH 40 PVC            |  |
| Antea Group Project Number                                    |  | Boring Depth      Boring Diameter  |  | Sampling Equipment                   |  |
| Hercules Brunswick GA FY21                                    |  | 48 ft.      7.5 in.                |  | Macrocore                            |  |
|                                                               |  |                                    |  | Date of Drilling                     |  |
|                                                               |  |                                    |  | 5/19/2020 - 5/20/2020                |  |

**LITHOLOGY**
**SAMPLING DATA**

| Elevation | Depth | Graphic Log | Visual Description                                                                                                | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample | Benzene (µg/L) | Water Level | Well Diagram | Well Details | Depth |
|-----------|-------|-------------|-------------------------------------------------------------------------------------------------------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|--------------|-------|
|           |       |             | @ 24": as above; no noticeable odor                                                                               | 5.9             | 25 - 30              | DP          | 100          |                    |                |             |              |              |       |
| -10       |       |             | Fine to coarse SAND; trace to no silt, medium grey, loose, wet, no odor                                           | 5.9             | 28 - 32              | SP          | --           |                    | ND             |             |              |              |       |
| -30       |       |             |                                                                                                                   | 3.1             | 30 - 35              | DP          | 100          |                    |                |             |              |              | 30    |
| -15       |       |             | CLAY; little fine sand, soft, grey, wet, no odor                                                                  | 2.8             |                      |             |              |                    |                |             |              |              |       |
| -35       |       |             | Medium to coarse SAND; trace silt, dense, grey, damp to wet                                                       | 6.1             | 35 - 40              | DP<br>SP    | 70           |                    | ND             |             |              |              | 35    |
| -20       |       |             |                                                                                                                   | 21.5            |                      |             |              |                    |                |             |              |              |       |
| -40       |       |             | Medium SAND; trace silt, grey, loose, wet, no odor                                                                | --              | 40 - 45              | DP          | 0            |                    |                |             |              |              | 40    |
| -25       |       |             |                                                                                                                   |                 | 43 - 48              | SP          | --           |                    | 2.55           |             |              |              |       |
| -45       |       |             | Tooling repeated fouled by sandy formation; soil sampling completed. Drilling continued using hollow stem augers. | --              | 45 - 48              | HS          | 0            |                    |                |             |              |              | 45    |
| -30       |       |             | Boring refusal at 48 ft. bgs. Conventional well set at 48 ft. bgs.                                                |                 |                      |             |              |                    |                |             |              |              |       |
| 50        |       |             |                                                                                                                   |                 |                      |             |              |                    |                |             |              |              | 50    |

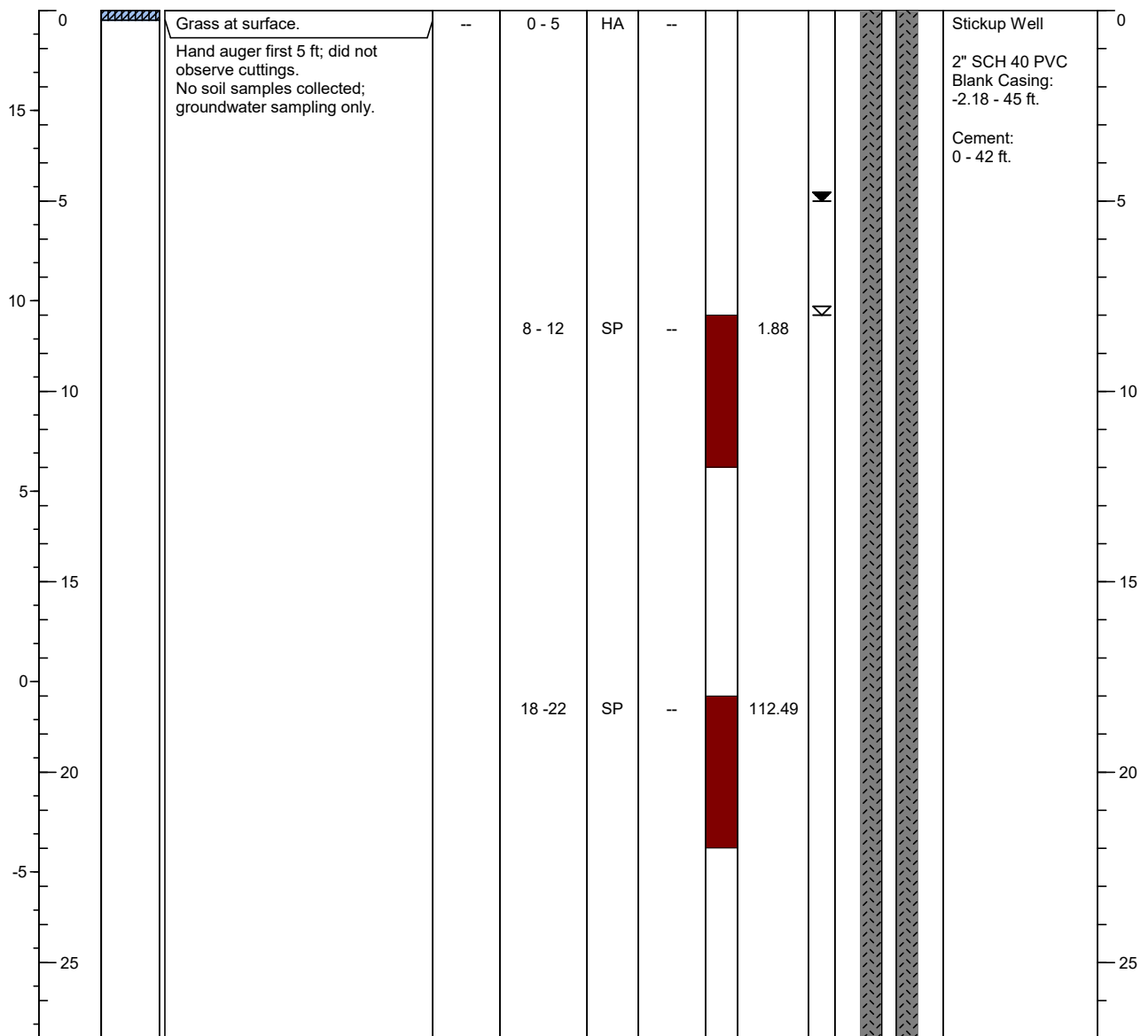
HA = Hand Auger / MC = Macrocore / HS = Hollow Stem Auger / ND = Not Detected  
 Soil samples were not collected for laboratory analysis.  
 Groundwater samples were collected using a screen point sampler (SP)  
 and analyzed with FROG for benzene concentrations.

| Project Name                                                  |             |                                    |                 | Well Number                         |                                      |
|---------------------------------------------------------------|-------------|------------------------------------|-----------------|-------------------------------------|--------------------------------------|
| Hercules 009 Landfill                                         |             |                                    |                 | N-16D (TW-29)                       |                                      |
| Address<br><br>Brunswick, Georgia<br><br>EPA ID: GAD980556906 |             | Drilling Contractor / Driller Name |                 | Ground Surface Elevation:           |                                      |
|                                                               |             | SAEDACCO / Brian Ewing             |                 | 17.62 ft msl                        |                                      |
|                                                               |             | Drilling Method                    |                 | Top of Casing Elevation:            |                                      |
| Hand Auger/Direct Push/Hollow Stem                            |             | Headspace Monitoring Device        |                 | Well Screen Interval      Slot Size |                                      |
| Not Applicable                                                |             | 45 - 50 ft.                        |                 | 0.01                                |                                      |
| Logged By                                                     | Approved By | Drilling Equipment                 |                 | Sampling Method                     | Well Depth      Well Casing Diameter |
| C. Weaver                                                     | R. Thompson | Geoprobe 7822 DT                   |                 | Groundwater Sample                  | 50 ft.      2" SCH 40 PVC            |
| Antea Group Project Number                                    |             | Boring Depth                       | Boring Diameter | Sampling Equipment                  | Date of Drilling                     |
| Hercules Brunswick GA FY21                                    |             | 52 ft.                             | 7.5 in.         | Screen Point Sampler                | 5/19/2020 - 5/20/2020                |

# LITHOLOGY

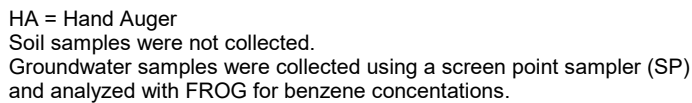
# SAMPLING DATA

| Elevation | Depth | Graphic Log | Visual Description | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample | Benzene (µg/L) | Water Level | Well Diagram | Well Details | Depth |
|-----------|-------|-------------|--------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|--------------|-------|
|-----------|-------|-------------|--------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|--------------|-------|

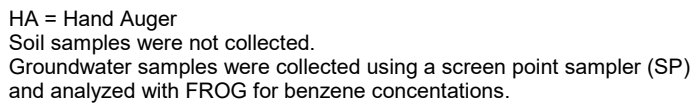


HA = Hand Auger  
Soil samples were not collected.  
Groundwater samples were collected using a screen point sampler (SP)  
and analyzed with FROG for benzene concentrations.

| Elevation | Depth | Graphic Log | Visual Description | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample | Benzene (µg/L) | Water Level | Well Diagram | Well Details | Depth |
|-----------|-------|-------------|--------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|--------------|-------|
|-----------|-------|-------------|--------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|--------------|-------|



| Elevation | Depth | Graphic Log | Visual Description | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample | Benzene (µg/L) | Water Level | Well Diagram | Well Details | Depth |
|-----------|-------|-------------|--------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|--------------|-------|
|-----------|-------|-------------|--------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|--------------|-------|



| Project Name                                                  |                            |                                                             |                                               | Well Number                                |                                           |
|---------------------------------------------------------------|----------------------------|-------------------------------------------------------------|-----------------------------------------------|--------------------------------------------|-------------------------------------------|
| Hercules 009 Landfill                                         |                            |                                                             |                                               | N-18 (TW-30)                               |                                           |
| Address<br><br>Brunswick, Georgia<br><br>EPA ID: GAD980556906 |                            | Drilling Contractor / Driller Name<br>SAEDACCO / Scott Hunt | Ground Surface Elevation:<br>18.27 ft msl     | Top of Casing Elevation:<br>20.82 ft msl   |                                           |
|                                                               |                            | Drilling Method<br>Hand Auger/Direct Push/Hollow Stem       | Headspace Monitoring Device<br>Not Applicable | Well Screen Interval<br>15 - 25 ft.        | Slot Size<br>0.01                         |
| Logged By<br>D. Pile                                          | Approved By<br>R. Thompson | Drilling Equipment<br>Geoprobe 7822 DT                      | Sampling Method<br>Groundwater Sample         | Well Depth<br>25 ft.                       | Well Casing Diameter<br>2" SCH 40 PVC     |
| Antea Group Project Number<br>Hercules Brunswick GA FY21      |                            | Boring Depth<br>39 ft.                                      | Boring Diameter<br>7.5 in.                    | Sampling Equipment<br>Screen Point Sampler | Date of Drilling<br>5/26/2020 - 5/27/2020 |

### LITHOLOGY

### SAMPLING DATA

| Elevation | Depth | Graphic Log                                                                       | Visual Description                                                                                                                                                    | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample | Benzene (µg/L) | Water Level | Well Diagram | Well Details                                                                                                  | Depth |
|-----------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|---------------------------------------------------------------------------------------------------------------|-------|
| 0         |       |  | Grass at surface.<br>Sand; silt, dark brown, loose, damp<br>Hand auger first 5 ft; did not observe cuttings.<br>No soil samples collected; groundwater sampling only. | --              | 0 - 5                | HA          | --           |                    |                |             |              | Stickup Well<br>2" SCH 40 PVC<br>Blank Casing:<br>-2.55 - 20 ft.<br>Cement:<br>0 - 15 ft.                     | 0     |
| 15        |       |                                                                                   |                                                                                                                                                                       |                 |                      |             |              |                    |                |             |              |                                                                                                               |       |
| 5         |       |                                                                                   |                                                                                                                                                                       |                 |                      |             |              |                    |                |             |              |                                                                                                               |       |
| 10        |       |                                                                                   |                                                                                                                                                                       |                 | 8 - 12               | SP          | --           |                    | 38.65          |             |              |                                                                                                               |       |
| 10        |       |                                                                                   |                                                                                                                                                                       |                 |                      |             |              |                    |                |             |              |                                                                                                               |       |
| 5         |       |                                                                                   |                                                                                                                                                                       |                 |                      |             |              |                    |                |             |              |                                                                                                               |       |
| 15        |       |                                                                                   |                                                                                                                                                                       |                 |                      |             |              |                    |                |             |              |                                                                                                               |       |
| 0         |       |                                                                                   |                                                                                                                                                                       |                 | 18 - 22              | SP          | --           |                    | 115.34         |             |              | Bentonite:<br>15 - 18 ft.<br>No. 2 Silica:<br>18 - 30 ft.<br>2" SCH40 PVC<br>with 0.01 Screen:<br>20 - 30 ft. | 15    |
| 20        |       |                                                                                   |                                                                                                                                                                       |                 |                      |             |              |                    |                |             |              |                                                                                                               |       |
| -5        |       |                                                                                   |                                                                                                                                                                       |                 |                      |             |              |                    |                |             |              |                                                                                                               |       |
| 25        |       |                                                                                   |                                                                                                                                                                       |                 |                      |             |              |                    |                |             |              |                                                                                                               | 25    |

HA = Hand Auger  
Soil samples were not collected.  
Groundwater samples were collected using a screen point sampler (SP)  
and analyzed with FROG for benzene concentrations.

| Project Name                                                  |  |                                    |  | Well Number                 |  |
|---------------------------------------------------------------|--|------------------------------------|--|-----------------------------|--|
| Hercules 009 Landfill                                         |  |                                    |  | N-18 (TW-30)                |  |
| Address<br><br>Brunswick, Georgia<br><br>EPA ID: GAD980556906 |  | Drilling Contractor / Driller Name |  | Ground Surface Elevation:   |  |
|                                                               |  | SAEDACCO / Scott Hunt              |  | 18.27 ft msl                |  |
|                                                               |  | Drilling Method                    |  | Top of Casing Elevation:    |  |
| EPA ID: GAD980556906                                          |  | Hand Auger/Direct Push/Hollow Stem |  | Headspace Monitoring Device |  |
| Not Applicable                                                |  | Well Screen Interval               |  | Slot Size                   |  |
| 15 - 25 ft.                                                   |  | 0.01                               |  |                             |  |
| Logged By                                                     |  | Approved By                        |  | Drilling Equipment          |  |
| D. Pile                                                       |  | R. Thompson                        |  | Geoprobe 7822 DT            |  |
| Sampling Method                                               |  | Well Depth                         |  | Well Casing Diameter        |  |
| Groundwater Sample                                            |  | 25 ft.                             |  | 2" SCH 40 PVC               |  |
| Antea Group Project Number                                    |  | Boring Depth                       |  | Boring Diameter             |  |
| Hercules Brunswick GA FY21                                    |  | 39 ft.                             |  | 7.5 in.                     |  |
| Sampling Equipment                                            |  | Date of Drilling                   |  |                             |  |
| Screen Point Sampler                                          |  | 5/26/2020 - 5/27/2020              |  |                             |  |

# LITHOLOGY

# SAMPLING DATA

| Elevation | Depth | Graphic Log | Visual Description                                                       | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample | Benzene (µg/L) | Water Level | Well Diagram | Well Details | Depth |
|-----------|-------|-------------|--------------------------------------------------------------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|--------------|-------|
| -10       | 30    |             |                                                                          |                 | 27 - 32              | SP          | -            |                    | 123.42         |             |              |              | 30    |
| -15       | 35    |             |                                                                          |                 | 36 - 39              | SP          | --           |                    | 1.97           |             |              |              | 35    |
| -20       | 40    |             | Boring terminated at 39 ft. bgs.<br>Conventional well set at 30 ft. bgs. |                 |                      |             |              |                    |                |             |              |              | 40    |
| -25       | 45    |             |                                                                          |                 |                      |             |              |                    |                |             |              |              | 45    |
| -30       | 50    |             |                                                                          |                 |                      |             |              |                    |                |             |              |              | 50    |

HA = Hand Auger  
Soil samples were not collected.  
Groundwater samples were collected using a screen point sampler (SP)  
and analyzed with FROG for benzene concentrations.

| Project Name                                                  |                            |                                                              |                                               | Well Number                                |                                         |
|---------------------------------------------------------------|----------------------------|--------------------------------------------------------------|-----------------------------------------------|--------------------------------------------|-----------------------------------------|
| Hercules 009 Landfill                                         |                            |                                                              |                                               | N-19 (TW-31)                               |                                         |
| Address<br><br>Brunswick, Georgia<br><br>EPA ID: GAD980556906 |                            | Drilling Contractor / Driller Name<br>SAEDACCO / Brian Ewing | Ground Surface Elevation:<br>17.40 ft msl     | Top of Casing Elevation:<br>17.17 ft msl   |                                         |
|                                                               |                            | Drilling Method<br>Hand Auger/Direct Push/Hollow Stem        | Headspace Monitoring Device<br>Not Applicable | Well Screen Interval<br>15 - 25 ft.        | Slot Size<br>0.01                       |
| Logged By<br>D. Pile                                          | Approved By<br>R. Thompson | Drilling Equipment<br>Geoprobe 7822 DT                       | Sampling Method<br>Groundwater Sample         | Well Depth<br>25 ft.                       | Well Casing Diameter<br>2" SCH 40 PVC   |
| Antea Group Project Number<br>Hercules Brunswick GA FY21      |                            | Boring Depth<br>32 ft.                                       | Boring Diameter<br>7.5 in.                    | Sampling Equipment<br>Screen Point Sampler | Date of Drilling<br>9/1/2020 - 9/2/2020 |

### LITHOLOGY

### SAMPLING DATA

| Elevation | Depth | Graphic Log                                                                       | Visual Description                                                                                        | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample                                                                  | Benzene (µg/L) | Water Level | Well Diagram                                                                        | Well Details                                                                              | Depth |
|-----------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------|----------------------|-------------|--------------|-------------------------------------------------------------------------------------|----------------|-------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------|
| 0         |       |  | Fine SAND; grey-brown, loose, damp                                                                        | --              | 0 - 5                | HA          | --           |                                                                                     |                |             |  | Flush Mount Well<br>2" SCH 40 PVC<br>Blank Casing:<br>0 - 15 ft.<br>Cement:<br>0 - 11 ft. | 0     |
| 15        |       |                                                                                   | Hand auger first 5 ft; did not observe cuttings.<br>No soil samples collected; groundwater sampling only. |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           |       |
| 5         |       |                                                                                   |                                                                                                           |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           |       |
| 10        |       |                                                                                   |                                                                                                           |                 | 8 - 12               | SP          | --           |    | ND             |             |                                                                                     |                                                                                           |       |
| 10        |       |                                                                                   |                                                                                                           |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           |       |
| 5         |       |                                                                                   |                                                                                                           |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           |       |
| 15        |       |                                                                                   |                                                                                                           |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           |       |
| 0         |       |                                                                                   |                                                                                                           |                 | 18 - 22              | SP          | --           |  | 10             |             |                                                                                     | Bentonite:<br>11 - 13 ft.<br>No. 2 Silica:<br>13 - 25 ft.                                 |       |
| 20        |       |                                                                                   |                                                                                                           |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           |       |
| 20        |       |                                                                                   |                                                                                                           |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           |       |
| -5        |       |                                                                                   |                                                                                                           |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           |       |
| 25        |       |                                                                                   |                                                                                                           |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           |       |
| 25        |       |                                                                                   |                                                                                                           |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           |       |
| -10       |       |                                                                                   |                                                                                                           |                 | 28 - 32              | SP          | --           |  | 1              |             |                                                                                     | 2" SCH40 PVC with 0.01 Screen:<br>15 - 25 ft.                                             |       |
| 30        |       |                                                                                   |                                                                                                           |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           |       |
| 30        |       |                                                                                   |                                                                                                           |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           |       |
| -15       |       |                                                                                   |                                                                                                           |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           |       |
| 35        |       |                                                                                   | Boring terminated at 32 ft. bgs.<br>Conventional well set at 25 ft. bgs.                                  |                 |                      |             |              |                                                                                     |                |             |                                                                                     |                                                                                           | 35    |

HA = Hand Auger / ND = Not Detected  
Soil samples were not collected.  
Groundwater samples were collected using a screen point sampler (SP)  
and analyzed with FROG for benzene concentrations.

| Project Name                                                  |                            |                                                              |                                               | Well Number                                |                                          |
|---------------------------------------------------------------|----------------------------|--------------------------------------------------------------|-----------------------------------------------|--------------------------------------------|------------------------------------------|
| Hercules 009 Landfill                                         |                            |                                                              |                                               | N-20 (TW-30)                               |                                          |
| Address<br><br>Brunswick, Georgia<br><br>EPA ID: GAD980556906 |                            | Drilling Contractor / Driller Name<br>SAEDACCO / Brian Ewing | Ground Surface Elevation:<br>18.56 ft msl     | Top of Casing Elevation:<br>18.16 ft msl   |                                          |
|                                                               |                            | Drilling Method<br>Hand Auger/Direct Push/Hollow Stem        | Headspace Monitoring Device<br>Not Applicable | Well Screen Interval<br>22 - 32 ft.        | Slot Size<br>0.01                        |
| Logged By<br>D. Pile                                          | Approved By<br>R. Thompson | Drilling Equipment<br>Geoprobe 7822 DT                       | Sampling Method<br>Groundwater Sample         | Well Depth<br>32 ft.                       | Well Casing Diameter<br>2" SCH 40 PVC    |
| Antea Group Project Number<br>Hercules Brunswick GA FY21      |                            | Boring Depth<br>41 ft.                                       | Boring Diameter<br>7.5 in.                    | Sampling Equipment<br>Screen Point Sampler | Date of Drilling<br>8/31/2020 - 9/2/2020 |

### LITHOLOGY

### SAMPLING DATA

| Elevation | Depth | Graphic Log                                                                       | Visual Description                                                                                        | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample | Benzene (µg/L) | Water Level | Well Diagram                                                                         | Well Details                                                                                               | Depth |
|-----------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------|
| 0         |       |  | Sand; light tan, loose, dry                                                                               | --              | 0 - 5                | HA          | --           |                    |                |             |  | Flush Mount Well<br>2" SCH 40 PVC<br>Blank Casing:<br>0 - 22 ft.<br>Cement:<br>0 - 18 ft.                  | 0     |
| 15        |       |                                                                                   | Hand auger first 5 ft; did not observe cuttings.<br>No soil samples collected; groundwater sampling only. |                 |                      |             |              |                    |                |             |                                                                                      |                                                                                                            |       |
| -5        |       |                                                                                   |                                                                                                           |                 |                      |             |              |                    |                |             |                                                                                      |                                                                                                            |       |
| -10       |       |                                                                                   |                                                                                                           |                 | 8 - 12               | SP          | --           |                    | ND             |             |                                                                                      |                                                                                                            |       |
| -15       |       |                                                                                   |                                                                                                           |                 |                      |             |              |                    |                |             |                                                                                      |                                                                                                            |       |
| -20       |       |                                                                                   |                                                                                                           |                 | 18 - 22              | SP          | --           |                    | 38             |             |                                                                                      | Bentonite:<br>18 - 20 ft.<br>No. 2 Silica:<br>20 - 32 ft.<br>2" SCH40 PVC with 0.01 Screen:<br>22 - 33 ft. |       |
| -25       |       |                                                                                   |                                                                                                           |                 |                      |             |              |                    |                |             |                                                                                      |                                                                                                            |       |

HA = Hand Auger  
Soil samples were not collected.  
Groundwater samples were collected using a screen point sampler (SP)  
and analyzed with FROG for benzene concentrations.

| Project Name                                                  |                            |                                                              |                                               | Well Number                                |                                          |
|---------------------------------------------------------------|----------------------------|--------------------------------------------------------------|-----------------------------------------------|--------------------------------------------|------------------------------------------|
| Hercules 009 Landfill                                         |                            |                                                              |                                               | N-20 (TW-30)                               |                                          |
| Address<br><br>Brunswick, Georgia<br><br>EPA ID: GAD980556906 |                            | Drilling Contractor / Driller Name<br>SAEDACCO / Brian Ewing | Ground Surface Elevation:<br>18.56 ft msl     | Top of Casing Elevation:<br>18.16 ft msl   |                                          |
|                                                               |                            | Drilling Method<br>Hand Auger/Direct Push/Hollow Stem        | Headspace Monitoring Device<br>Not Applicable | Well Screen Interval<br>22 - 32 ft.        | Slot Size<br>0.01                        |
| Logged By<br>D. Pile                                          | Approved By<br>R. Thompson | Drilling Equipment<br>Geoprobe 7822 DT                       | Sampling Method<br>Groundwater Sample         | Well Depth<br>32 ft.                       | Well Casing Diameter<br>2" SCH 40 PVC    |
| Antea Group Project Number<br>Hercules Brunswick GA FY21      |                            | Boring Depth<br>41 ft.                                       | Boring Diameter<br>7.5 in.                    | Sampling Equipment<br>Screen Point Sampler | Date of Drilling<br>8/31/2020 - 9/2/2020 |

# LITHOLOGY

# SAMPLING DATA

| Elevation | Depth | Graphic Log | Visual Description                                                       | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample | Benzene (µg/L) | Water Level | Well Diagram | Well Details | Depth |
|-----------|-------|-------------|--------------------------------------------------------------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|--------------|-------|
| -10       | 30    |             |                                                                          |                 | 28 - 32              | SP          | -            |                    | 363            |             |              |              | 30    |
| -15       | 35    |             |                                                                          |                 |                      |             |              |                    |                |             |              |              | 35    |
| -20       | 40    |             |                                                                          |                 | 37 - 41              | SP          | -            |                    | 24             |             |              |              | 40    |
| -25       | 45    |             | Boring terminated at 41 ft. bgs.<br>Conventional well set at 32 ft. bgs. |                 |                      |             |              |                    |                |             |              |              | 45    |
| -30       |       |             |                                                                          |                 |                      |             |              |                    |                |             |              |              |       |
| -50       |       |             |                                                                          |                 |                      |             |              |                    |                |             |              |              | 50    |

HA = Hand Auger  
Soil samples were not collected.  
Groundwater samples were collected using a screen point sampler (SP)  
and analyzed with FROG for benzene concentrations.

| Project Name                                                  |                            |                                                              |                                               | Well Number                                |                                       |
|---------------------------------------------------------------|----------------------------|--------------------------------------------------------------|-----------------------------------------------|--------------------------------------------|---------------------------------------|
| Hercules 009 Landfill                                         |                            |                                                              |                                               | N-20S                                      |                                       |
| Address<br><br>Brunswick, Georgia<br><br>EPA ID: GAD980556906 |                            | Drilling Contractor / Driller Name<br>CASCADE / Corey Greene | Ground Surface Elevation:<br>18.46 ft msl     | Top of Casing Elevation:<br>18.17 ft msl   |                                       |
|                                                               |                            | Drilling Method<br>Hand Auger / Hollow Stem Auger            | Headspace Monitoring Device<br>Not Applicable | Well Screen Interval<br>4 - 10 ft.         | Slot Size<br>0.01                     |
| Logged By<br>D. Pile                                          | Approved By<br>R. Thompson | Drilling Equipment<br>Geoprobe 7822 DT                       | Sampling Method<br>Groundwater Sample         | Well Depth<br>10 ft.                       | Well Casing Diameter<br>2" SCH 40 PVC |
| Antea Group Project Number<br>Hercules Brunswick GA FY21      |                            | Boring Depth<br>10 ft.                                       | Boring Diameter<br>7.5 in.                    | Sampling Equipment<br>Screen Point Sampler | Date of Drilling<br>9/22/2021         |

# LITHOLOGY

# SAMPLING DATA

| Elevation | Depth | Graphic Log | Visual Description                                                                            | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample | Benzene (µg/L) | Water Level | Well Diagram | Well Details                                    | Depth |
|-----------|-------|-------------|-----------------------------------------------------------------------------------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|-------------------------------------------------|-------|
| 0         |       |             | Grass at surface.                                                                             | --              | 0 - 5                | HA          | --           |                    |                |             |              | Flush Mount Well<br>Cement:<br>0.5 - 2 ft.      | 0     |
|           |       |             | Hand auger first 5 ft; did not observe cuttings.<br>No soil or groundwater samples collected. |                 |                      |             |              |                    |                |             |              | Bentonite:<br>2 - 3 ft.                         |       |
| 15        |       |             |                                                                                               |                 |                      |             |              |                    |                |             |              | 2" SCH 40 PVC<br>Blank Casing:<br>0 - 4 ft.     | 5     |
| -5        |       |             |                                                                                               |                 |                      |             |              |                    |                |             |              | No. 2 Silica:<br>3 - 10 ft.                     |       |
|           |       |             |                                                                                               |                 |                      |             |              |                    |                |             |              | 2" SCH40 PVC<br>with 0.01 Screen:<br>4 - 10 ft. | 10    |
| 10        |       |             | Boring terminated at 10 ft. bgs.<br>Conventional well set at 10 ft. bgs.                      |                 |                      |             |              |                    |                |             |              |                                                 |       |
|           |       |             |                                                                                               |                 |                      |             |              |                    |                |             |              |                                                 |       |
| 5         |       |             |                                                                                               |                 |                      |             |              |                    |                |             |              |                                                 |       |
| 15        |       |             |                                                                                               |                 |                      |             |              |                    |                |             |              |                                                 |       |
| 0         |       |             |                                                                                               |                 |                      |             |              |                    |                |             |              |                                                 |       |
| 20        |       |             |                                                                                               |                 |                      |             |              |                    |                |             |              |                                                 |       |
| -5        |       |             |                                                                                               |                 |                      |             |              |                    |                |             |              |                                                 |       |
| 25        |       |             |                                                                                               |                 |                      |             |              |                    |                |             |              |                                                 | 25    |

HA = Hand Auger  
Soil samples were not collected.  
Groundwater samples were not collected.

| Project Name                                                  |  |                                                              |  | Well Number                               |  |
|---------------------------------------------------------------|--|--------------------------------------------------------------|--|-------------------------------------------|--|
| Hercules 009 Landfill                                         |  |                                                              |  | N-21 (TW-32)                              |  |
| Address<br><br>Brunswick, Georgia<br><br>EPA ID: GAD980556906 |  | Drilling Contractor / Driller Name<br>CASCADE / Corey Greene |  | Ground Surface Elevation:<br>18.80 ft msl |  |
|                                                               |  | Drilling Method<br>Hand Auger/Direct Push/Hollow Stem        |  | Top of Casing Elevation:<br>21.52 ft msl  |  |
| Logged By<br>D. Pile                                          |  | Approved By<br>R. Thompson                                   |  | Well Screen Interval<br>30 - 40 ft.       |  |
| Drilling Equipment<br>Geoprobe 7822 DT                        |  | Headspace Monitoring Device<br>Not Applicable                |  | Slot Size<br>0.01                         |  |
| Well Depth<br>40 ft.                                          |  | Well Casing Diameter<br>2" SCH 40 PVC                        |  |                                           |  |
| Antea Group Project Number<br>Hercules Brunswick GA FY21      |  | Boring Depth<br>52 ft.                                       |  | Boring Diameter<br>7.5 in.                |  |
| Sampling Equipment<br>Screen Point Sampler                    |  | Date of Drilling<br>9/21/2021 - 9/22/2021                    |  |                                           |  |

**LITHOLOGY**
**SAMPLING DATA**

| Elevation | Depth | Graphic Log                                                                       | Visual Description                                                                                     | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample                                                                  | Benzene (µg/L) | Water Level                                                                           | Well Diagram | Well Details                               | Depth |
|-----------|-------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------|----------------------|-------------|--------------|-------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------|--------------|--------------------------------------------|-------|
| 0         |       |  | Sand; silt, dark brown, loose, damp                                                                    | --              | 0 - 5                | HA          | --           |                                                                                     |                |                                                                                       |              | Stickup Well                               | 0     |
|           |       |                                                                                   | Hand auger first 5 ft; did not observe cuttings. No soil samples collected; groundwater sampling only. |                 |                      |             |              |                                                                                     |                |                                                                                       |              | 2" SCH 40 PVC Blank Casing: -2.72 - 30 ft. |       |
|           |       |                                                                                   |                                                                                                        |                 |                      |             |              |                                                                                     |                |                                                                                       |              | Cement: 0 - 26 ft.                         |       |
| 15        | 5     |                                                                                   |                                                                                                        |                 |                      |             |              |                                                                                     |                |                                                                                       |              |                                            | 5     |
|           |       |                                                                                   |                                                                                                        |                 | 8 - 12               | SP          | --           |   | ND             |  |              |                                            | 10    |
| 10        | 10    |                                                                                   |                                                                                                        |                 |                      |             |              |                                                                                     |                |                                                                                       |              |                                            |       |
|           |       |                                                                                   |                                                                                                        |                 | 18 - 22              | SP          | --           |  | ND             |                                                                                       |              |                                            | 15    |
| 5         | 15    |                                                                                   |                                                                                                        |                 |                      |             |              |                                                                                     |                |                                                                                       |              |                                            |       |
|           |       |                                                                                   |                                                                                                        |                 |                      |             |              |                                                                                     |                |                                                                                       |              |                                            | 20    |
| 0         | 20    |                                                                                   |                                                                                                        |                 |                      |             |              |                                                                                     |                |                                                                                       |              |                                            |       |
|           |       |                                                                                   |                                                                                                        |                 |                      |             |              |                                                                                     |                |                                                                                       |              |                                            | 25    |
| -5        | 25    |                                                                                   |                                                                                                        |                 |                      |             |              |                                                                                     |                |                                                                                       |              |                                            |       |
|           |       |                                                                                   |                                                                                                        |                 |                      |             |              |                                                                                     |                |                                                                                       |              | Bentonite: 26 - 28 ft.                     |       |
|           |       |                                                                                   |                                                                                                        |                 |                      |             |              |                                                                                     |                |                                                                                       |              |                                            | 25    |

HA = Hand Auger / ND = Not Detected  
Soil samples were not collected.  
Groundwater samples were collected using a screen point sampler (SP)  
and analyzed with FROG for benzene concentrations.

| Project Name                                                  |  |                                                              |  | Well Number                               |  |
|---------------------------------------------------------------|--|--------------------------------------------------------------|--|-------------------------------------------|--|
| Hercules 009 Landfill                                         |  |                                                              |  | N-21 (TW-32)                              |  |
| Address<br><br>Brunswick, Georgia<br><br>EPA ID: GAD980556906 |  | Drilling Contractor / Driller Name<br>CASCADE / Corey Greene |  | Ground Surface Elevation:<br>18.80 ft msl |  |
|                                                               |  | Drilling Method<br>Hand Auger/Direct Push/Hollow Stem        |  | Top of Casing Elevation:<br>21.52 ft msl  |  |
| Logged By<br>D. Pile                                          |  | Approved By<br>R. Thompson                                   |  | Well Screen Interval<br>30 - 40 ft.       |  |
| Drilling Equipment<br>Geoprobe 7822 DT                        |  | Headspace Monitoring Device<br>Not Applicable                |  | Slot Size<br>0.01                         |  |
| Well Depth<br>40 ft.                                          |  | Well Casing Diameter<br>2" SCH 40 PVC                        |  |                                           |  |
| Antea Group Project Number<br>Hercules Brunswick GA FY21      |  | Boring Depth<br>52 ft.                                       |  | Boring Diameter<br>7.5 in.                |  |
| Sampling Equipment<br>Screen Point Sampler                    |  | Date of Drilling<br>9/21/2021 - 9/22/2021                    |  |                                           |  |

**LITHOLOGY**
**SAMPLING DATA**

| Elevation | Depth | Graphic Log | Visual Description                                                       | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample | Benzene (µg/L) | Water Level | Well Diagram | Well Details                                                                         | Depth |
|-----------|-------|-------------|--------------------------------------------------------------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|--------------------------------------------------------------------------------------|-------|
| -10       | 30    |             |                                                                          |                 | 28 - 32              | SP          | -            |                    | 61.1           |             |              | No. 2 Silica:<br>28 - 40 ft.<br><br>2" SCH40 PVC<br>with 0.01 Screen:<br>30 - 40 ft. | 30    |
| -15       | 35    |             |                                                                          |                 | 38 - 42              | SP          | --           |                    | 43.7           |             |              |                                                                                      | 35    |
| -20       | 40    |             |                                                                          |                 | 48 - 52              | SP          | --           |                    | 1.84           |             |              |                                                                                      | 40    |
| -25       | 45    |             |                                                                          |                 |                      |             |              |                    |                |             |              |                                                                                      | 45    |
| -30       | 50    |             |                                                                          |                 |                      |             |              |                    |                |             |              |                                                                                      | 50    |
| -35       |       |             | Boring terminated at 52 ft. bgs.<br>Conventional well set at 50 ft. bgs. |                 |                      |             |              |                    |                |             |              |                                                                                      |       |

HA = Hand Auger / ND = Not Detected  
 Soil samples were not collected.  
 Groundwater samples were collected using a screen point sampler (SP)  
 and analyzed with FROG for benzene concentrations.

| Project Name                                                  |  |                                                              |  | Well Number                                              |  |
|---------------------------------------------------------------|--|--------------------------------------------------------------|--|----------------------------------------------------------|--|
| Hercules 009 Landfill                                         |  |                                                              |  | N-21S                                                    |  |
| Address<br><br>Brunswick, Georgia<br><br>EPA ID: GAD980556906 |  | Drilling Contractor / Driller Name<br>CASCADE / Corey Greene |  | Ground Surface Elevation:<br>18.60 ft msl                |  |
|                                                               |  | Drilling Method<br>Hand Auger / Hollow Stem Auger            |  | Top of Casing Elevation:<br>21.46 ft msl                 |  |
| Logged By<br>D. Pile                                          |  | Approved By<br>R. Thompson                                   |  | Well Screen Interval<br>4 - 10 ft.                       |  |
| Drilling Equipment<br>Geoprobe 7822 DT                        |  | Headspace Monitoring Device<br>Not Applicable                |  | Slot Size<br>0.01                                        |  |
| Well Depth<br>10 ft.                                          |  | Well Casing Diameter<br>2" SCH 40 PVC                        |  | Antea Group Project Number<br>Hercules Brunswick GA FY21 |  |
| Boring Depth<br>10 ft.                                        |  | Boring Diameter<br>7.5 in.                                   |  | Sampling Equipment<br>Screen Point Sampler               |  |
| Date of Drilling<br>9/22/2021                                 |  |                                                              |  |                                                          |  |

# LITHOLOGY

# SAMPLING DATA

| Elevation | Depth | Graphic Log | Visual Description                                                                         | Headspace (ppm) | Sample Interval (ft) | Sample Type | Recovery (%) | Groundwater Sample | Benzene (µg/L) | Water Level | Well Diagram | Well Details                              | Depth |
|-----------|-------|-------------|--------------------------------------------------------------------------------------------|-----------------|----------------------|-------------|--------------|--------------------|----------------|-------------|--------------|-------------------------------------------|-------|
| 0         |       |             | Grass at surface.                                                                          | --              | 0 - 5                | HA          | --           |                    |                |             |              | Stickup Well Cement: 0 - 2 ft.            | 0     |
|           |       |             | Hand auger first 5 ft; did not observe cuttings. No soil or groundwater samples collected. |                 |                      |             |              |                    |                |             |              | Bentonite: 2 - 3 ft.                      |       |
| 15        |       |             |                                                                                            |                 |                      |             |              |                    |                |             |              | 2" SCH 40 PVC Blank Casing: 0 - 4 ft.     | 5     |
| -5        |       |             |                                                                                            |                 |                      |             |              |                    |                |             |              | No. 2 Silica: 3 - 10 ft.                  |       |
|           |       |             |                                                                                            |                 |                      |             |              |                    |                |             |              | 2" SCH40 PVC with 0.01 Screen: 4 - 10 ft. | 10    |
| 10        |       |             | Boring terminated at 10 ft. bgs. Conventional well set at 10 ft. bgs.                      |                 |                      |             |              |                    |                |             |              |                                           |       |
|           |       |             |                                                                                            |                 |                      |             |              |                    |                |             |              |                                           |       |
| 5         |       |             |                                                                                            |                 |                      |             |              |                    |                |             |              |                                           |       |
| -15       |       |             |                                                                                            |                 |                      |             |              |                    |                |             |              |                                           |       |
|           |       |             |                                                                                            |                 |                      |             |              |                    |                |             |              |                                           |       |
| 0         |       |             |                                                                                            |                 |                      |             |              |                    |                |             |              |                                           |       |
| -20       |       |             |                                                                                            |                 |                      |             |              |                    |                |             |              |                                           |       |
|           |       |             |                                                                                            |                 |                      |             |              |                    |                |             |              |                                           |       |
| -5        |       |             |                                                                                            |                 |                      |             |              |                    |                |             |              |                                           |       |
| 25        |       |             |                                                                                            |                 |                      |             |              |                    |                |             |              |                                           | 25    |

HA = Hand Auger  
Soil samples were not collected.  
Groundwater samples were not collected.

## Appendix B - Groundwater Sampling Records

# GROUNDWATER SAMPLING LOG

|                                                                                          |                                     |
|------------------------------------------------------------------------------------------|-------------------------------------|
| SITE NAME: <u>003 / an / fill</u><br><u>Hercules LLC / Pinova Inc Brunswick Facility</u> | SITE LOCATION: <u>Brunswick, GA</u> |
| WELL ID: <u>N-65</u>                                                                     | DATE: <u>9/2/20</u>                 |

## PURGING DATA

|                                                                                                                                                                                                                                                           |                                                                                                        |                                           |                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| WELL DIAMETER (inches): <u>2</u>                                                                                                                                                                                                                          | TOTAL WELL DEPTH: <u>28.4</u> feet<br>WELL SCREEN INTERVAL DEPTH: <u>23.4</u> feet to <u>28.4</u> feet | STATIC DEPTH TO WATER (feet): <u>8.19</u> | PURGE PUMP TYPE OR BAILER (circle one):<br><input checked="" type="radio"/> Peristaltic <input type="radio"/> Stainless Submersible / Bailer |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable) = <u>0.3</u> liters + ( <u>.02</u> liters/foot X <u>28.4</u> feet) + <u>10</u> liters = <u>1.97</u> liters |                                                                                                        |                                           |                                                                                                                                              |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable) = ( <u>      </u> feet - <u>      </u> feet ) X <u>      </u> gallons/foot = <u>      </u> gallons                         |                                                                                                        |                                           |                                                                                                                                              |

| TIME | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters) | PURGE RATE (L/min) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (mS/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
|------|------------------------|-------------------------------|--------------------|-----------------------|---------------------|------------|---------------|----------------|---------------------|------------------|---------------------------------|
| 1105 | 2.00                   | 2.00                          | 0.125              | 8.55                  | 4.85                | 28.09      | 0.133         | 0.1            | 1.90                | 6.05             | -96                             |
| 1109 | 0.5                    | 2.50                          | 0.125              | 8.59                  | 5.00                | 27.53      | 0.141         | 0.1            | 1.77                | 4.20             | -110                            |
| 1113 | 0.5                    | 3.0                           | 0.125              | 8.59                  | 5.09                | 27.44      | 0.140         | 0.1            | 1.56                | 4.12             | -121                            |
| 1117 | 0.5                    | 3.5                           | 0.125              | 8.59                  | 5.10                | 26.25      | 0.144         | 0.1            | 1.45                | 4.95             | -123                            |
| 1121 | 0.5                    | 4.0                           | 0.125              | 8.59                  | 5.08                | 26.62      | 0.144         | 0.1            | 1.40                | 5.13             | -125                            |
|      |                        |                               |                    | <u>8.4008</u>         |                     |            |               |                |                     |                  |                                 |
|      |                        |                               |                    |                       |                     |            |               |                |                     |                  |                                 |
|      |                        |                               |                    |                       |                     |            |               |                |                     |                  |                                 |
|      |                        |                               |                    |                       |                     |            |               |                |                     |                  |                                 |
|      |                        |                               |                    |                       |                     |            |               |                |                     |                  |                                 |

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603  
 WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

## SAMPLING DATA

|                                                                 |           |                |                                                                                                          |  |                                                                                                                                                                                         |
|-----------------------------------------------------------------|-----------|----------------|----------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SAMPLED BY (PRINT) / AFFILIATION: <u>Carter Zellers / Amtek</u> |           |                | SAMPLER(S) SIGNATURES: <u>[Signature]</u>                                                                |  | SAMPLING TIME: <u>1125</u>                                                                                                                                                              |
| FIELD DECONTAMINATION: <input checked="" type="radio"/> N       |           |                | FIELD-FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/> FILTER SIZE: <u>      </u> µm |  | DUPLICATE: Y <input type="radio"/> N <input checked="" type="radio"/>                                                                                                                   |
| SAMPLE CONTAINER SPECS                                          |           |                | SAMPLE PRESERVATION                                                                                      |  | INTENDED ANALYSIS AND/OR METHOD<br><u>8260B - Select VOC</u> <u>Beherne</u><br>8081B, 8082A - PST-TOX<br>8270D - Select SVOC<br>6020A - Select Metals<br>8315 - FORM<br>376.1 - Sulfide |
| Included for analyses?                                          | # Bottles | VOLUME         |                                                                                                          |  |                                                                                                                                                                                         |
|                                                                 | <u>3</u>  | <u>40ml</u>    | <u>Hydrochloric Acid</u>                                                                                 |  |                                                                                                                                                                                         |
|                                                                 | 2         | 250 mL Amber   | None                                                                                                     |  |                                                                                                                                                                                         |
|                                                                 | 2         | 1L Amber       | None                                                                                                     |  |                                                                                                                                                                                         |
|                                                                 | 1         | 250mL plastic  | Nitric Acid                                                                                              |  |                                                                                                                                                                                         |
|                                                                 | 2         | 125mL Amber    | None                                                                                                     |  |                                                                                                                                                                                         |
|                                                                 | 2         | 250 mL plastic | Zinc Acetate and Sodium Hydroxide                                                                        |  |                                                                                                                                                                                         |
| REMARKS:                                                        |           |                |                                                                                                          |  |                                                                                                                                                                                         |

NOTES: 1.

### STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

|                       |                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------|
| Turbidity:            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| pH:                   | <0.1 SU                                                                                           |
| Specific Conductance: | 5%                                                                                                |
| Drawdown:             | <0.5 ft from Initial                                                                              |
| Dissolved Oxygen:     | <0.2 mg/L or 10%, whichever is greater                                                            |

# GROUNDWATER SAMPLING LOG

|                                                                                  |                              |                     |
|----------------------------------------------------------------------------------|------------------------------|---------------------|
| SITE NAME: <u>008 Landfill</u><br>(Heretofore LLC / Pinova Inc Brunswick County) | SITE LOCATION: Brunswick, GA | DATE: <u>9/2/20</u> |
| WELL ID: <u>N-50</u>                                                             |                              |                     |

## PURGING DATA

|                                                                                                                                                                                                                                                          |                                                                                                  |                                           |                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------------------|
| WELL DIAMETER (inches): <u>2</u>                                                                                                                                                                                                                         | TOTAL WELL DEPTH: <u>48</u> feet<br>WELL SCREEN INTERVAL DEPTH: <u>43</u> feet to <u>48</u> feet | STATIC DEPTH TO WATER (feet): <u>7.61</u> | PURGE PUMP TYPE OR BAILER (circle one):<br>Peristaltic / <u>Stainless Submersible</u> / Bailer |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable) = <u>0.3</u> liters + ( <u>.02</u> liters/foot X <u>48</u> feet) + <u>0.5</u> liters = <u>2.26</u> liters |                                                                                                  |                                           |                                                                                                |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable) = ( <u>48</u> feet - <u>7.61</u> feet ) X <u>        </u> gallons/foot = <u>        </u> gallons                          |                                                                                                  |                                           |                                                                                                |

| TIME | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters) | PURGE RATE (L/min) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (m S/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
|------|------------------------|-------------------------------|--------------------|-----------------------|---------------------|------------|----------------|----------------|---------------------|------------------|---------------------------------|
| 1813 | 2.50                   | 2.50                          | 0.125              | 7.62                  | 5.29                | 22.06      | 0.060          | 0.0            | 0.10                | 23.6             | -72                             |
| 1817 | 0.50                   | 3.00                          | 0.125              | 7.71                  | 4.78                | 26.48      | 0.063          | 0.0            | 0.00                | 20.0             | -61                             |
| 1821 | 0.50                   | 3.50                          | 0.125              | 7.68                  | 4.97                | 26.55      | 0.066          | 0.0            | 0.00                | 14.0             | -48                             |
| 1825 | 0.50                   | 4.00                          | 0.125              | 7.68                  | 4.86                | 25.87      | 0.067          | 0.0            | 0.00                | 6.33             | -50                             |
| 1829 | 0.50                   | 4.50                          | 0.125              | 7.68                  | 5.05                | 25.59      | 0.068          | 0.0            | 0.00                | 3.00             | -73                             |
| 1833 | 0.50                   | 5.00                          | 0.125              | 7.62                  | 5.08                | 25.43      | 0.068          | 0.0            | 0.00                | 4.52             | -78                             |
| 1837 | 0.50                   | 5.50                          | 0.125              | 7.62                  | 5.11                | 25.32      | 0.068          | 0.0            | 0.00                | 6.05             | -72                             |

|                                                                                                                                                     |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|
| TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603 |  |  |  |  |  |  |  |  |  |  |  |
| WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88          |  |  |  |  |  |  |  |  |  |  |  |

## SAMPLING DATA

|                                                              |           |                |                                                            |  |                                                                                                                                                                                    |
|--------------------------------------------------------------|-----------|----------------|------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SAMPLED BY (PRINT) / AFFILIATION: <u>Carter Zivi / Antec</u> |           |                | SAMPLER(S) SIGNATURES: <u>[Signature]</u>                  |  | SAMPLING TIME: <u>1840</u>                                                                                                                                                         |
| FIELD DECONTAMINATION: <u>0</u> N                            |           |                | FIELD-FILTERED: Y <u>0</u> FILTER SIZE: <u>        </u> µm |  | DUPLICATE: Y <u>0</u>                                                                                                                                                              |
| SAMPLE CONTAINER SPECS                                       |           |                | SAMPLE PRESERVATION                                        |  | INTENDED ANALYSIS AND/OR METHOD<br><u>8060B - Select Metals Penzere</u><br>8081B_8082A - PST-TOX<br>8270D - Select SVOC<br>6020A - Select Metals<br>8315 - FORM<br>376.1 - Sulfide |
| Included for analyses?                                       | # Bottles | VOLUME         |                                                            |  |                                                                                                                                                                                    |
|                                                              | <u>3</u>  | <u>0mL</u>     | <u>Hydrochloric Acid</u>                                   |  |                                                                                                                                                                                    |
|                                                              | 2         | 250 mL Amber   | None                                                       |  |                                                                                                                                                                                    |
|                                                              | 2         | 1L Amber       | None                                                       |  |                                                                                                                                                                                    |
|                                                              | 1         | 250mL plastic  | Nitric Acid                                                |  |                                                                                                                                                                                    |
|                                                              | 2         | 125mL Amber    | None                                                       |  |                                                                                                                                                                                    |
|                                                              | 2         | 250 mL plastic | Zinc Acetate and Sodium Hydroxide                          |  |                                                                                                                                                                                    |
| REMARKS:                                                     |           |                |                                                            |  |                                                                                                                                                                                    |

- NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS
- Turbidity: <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume
  - pH: <0.1 SU
  - Specific Conductance: 5%
  - Drawdown: <0.5 ft from Initial
  - Dissolved Oxygen: <0.2 mg/L or 10%, whichever is greater

# GROUNDWATER SAMPLING LOG

|                                                                                |                              |
|--------------------------------------------------------------------------------|------------------------------|
| SITE NAME: <u>008 Landfill</u><br>Hercules LLC / Pinova Inc Brunswick Facility | SITE LOCATION: Brunswick, GA |
| WELL ID: <u>N-16D</u>                                                          | DATE: <u>9/2/20</u>          |

## PURGING DATA

|                                                                                                                                                                                                                                                     |                                                                                                  |                                                                        |                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| WELL DIAMETER (inches): <u>2</u>                                                                                                                                                                                                                    | TOTAL WELL DEPTH: <u>50</u> feet<br>WELL SCREEN INTERVAL DEPTH: <u>45</u> feet to <u>50</u> feet | STATIC DEPTH TO WATER (feet): <u>7.90</u><br><del>8.50</del> <u>62</u> | PURGE PUMP TYPE OR BAILER (circle one):<br>Peristaltic / <u>Stainless Submersible</u> / Bailer |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable) = <u>0.2</u> liters + ( <u>0.02</u> liters/foot X <u>50</u> feet) + _____ liters = <u>2.3</u> liters |                                                                                                  |                                                                        |                                                                                                |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable) = ( _____ feet - _____ feet ) X _____ gallons/foot = _____ gallons                                                   |                                                                                                  |                                                                        |                                                                                                |

| TIME | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters) | PURGE RATE (L/min) | DEPTH TO WATER (feet) | pH (standard units)          | TEMP. (°C)                    | COND. (mS/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
|------|------------------------|-------------------------------|--------------------|-----------------------|------------------------------|-------------------------------|---------------|----------------|---------------------|------------------|---------------------------------|
| 1456 | 2.5                    | 2.5                           | 0.125              | 8.92                  | <del>28.97</del> <u>4.55</u> | <del>28.37</del> <u>28.37</u> | 0.062         | 0.0            | 4.88                | 16.8             | -24                             |
| 1459 | 0.5                    | 3.0                           | 0.125              | 8.70                  | <del>28.06</del> <u>4.68</u> | <del>29.08</del> <u>29.08</u> | 0.062         | 0.0            | 4.38                | 33.3             | -37                             |
| 1503 | 0.5                    | 3.5                           | 0.125              | 8.40                  | 4.52                         | 29.01                         | 0.063         | 0.0            | 4.08                | 41.4             | -40                             |
| 1507 | 0.5                    | 4.0                           | 0.125              | 8.31                  | 4.42                         | 29.02                         | 0.062         | 0.0            | 3.89                | 72.1             | -32                             |
| 1511 | 0.5                    | 4.5                           | 0.125              | 8.30                  | 4.43                         | 28.96                         | 0.062         | 0.0            | 3.62                | 87.5             | -35                             |
| 1515 | 0.5                    | 5.0                           | 0.125              | 8.29                  | 4.24                         | 28.77                         | 0.062         | 0.0            | 3.33                | 89.6             | -29                             |
| 1519 | 0.5                    | 5.5                           | 0.125              | 8.28                  | 4.38                         | 28.60                         | 0.063         | 0.0            | 3.10                | 86.2             | -36                             |
| 1523 | 0.5                    | 6.0                           | 0.125              | 8.29                  | 4.59                         | 28.41                         | 0.063         | 0.0            | 2.86                | 86.2             | -55                             |

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603  
 WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

## SAMPLING DATA

| SAMPLED BY (PRINT) / AFFILIATION: <u>Curtis Z. Liers / Amtec</u> |           |                | SAMPLER(S) SIGNATURES: _____                                                         |  | SAMPLING TIME: <u>1610</u>       |
|------------------------------------------------------------------|-----------|----------------|--------------------------------------------------------------------------------------|--|----------------------------------|
| FIELD DECONTAMINATION: <u>Y</u> N                                |           |                | FIELD-FILTERED: Y <u>Y</u> FILTER SIZE: _____ µm<br>Filtration Equipment Type: _____ |  | DUPLICATE: Y <u>Y</u>            |
| SAMPLE CONTAINER SPECS                                           |           |                | SAMPLE PRESERVATION                                                                  |  | INTENDED ANALYSIS AND/OR METHOD  |
| Included for analyses?                                           | # Bottles | VOLUME         |                                                                                      |  |                                  |
|                                                                  | <u>3</u>  | <u>40mL</u>    | <u>Hydrochloric Acid</u>                                                             |  | <u>260B - Select VOC Benzene</u> |
|                                                                  | 2         | 250 mL Amber   | None                                                                                 |  | 8081B_8082A - PST-TOX            |
|                                                                  | 2         | 1L Amber       | None                                                                                 |  | 8270D - Select SVOC              |
|                                                                  | 1         | 250mL plastic  | Nitric Acid                                                                          |  | 6020A - Select Metals            |
|                                                                  | 2         | 125mL Amber    | None                                                                                 |  | 8315 - FORM                      |
|                                                                  | 2         | 250 mL plastic | Zinc Acetate and Sodium Hydroxide                                                    |  | 376.1 - Sulfide                  |
| REMARKS:                                                         |           |                |                                                                                      |  |                                  |

### NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

- Turbidity: <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume
- pH: <0.1 SU
- Specific Conductance: 5%
- Drawdown: <0.5 ft from Initial
- Dissolved Oxygen: <0.2 mg/L or 10%, whichever is greater

# GROUNDWATER SAMPLING LOG

|                                                                                                  |                                                       |
|--------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| SITE NAME: <u>009 (Carter 2 W Pers / Ankeny)</u><br>Hercules LLC / Pinova Inc Brunswick Facility | SITE LOCATION: Brunswick, GA<br>DATE: <u>11-21-20</u> |
| WELL ID: <u>N-160</u>                                                                            |                                                       |

## PURGING DATA

|                                  |                                                              |                                           |                                                                                                |
|----------------------------------|--------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------------------|
| WELL DIAMETER (inches): <u>2</u> | TOTAL WELL DEPTH: <u>50</u> feet                             | STATIC DEPTH TO WATER (feet): <u>7.90</u> | PURGE PUMP TYPE OR BAILER (circle one):<br>Peristaltic / <u>Stainless Submersible</u> / Bailer |
|                                  | WELL SCREEN INTERVAL DEPTH: <u>45</u> feet to <u>50</u> feet |                                           |                                                                                                |

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME  
 (only fill out if applicable)  
 = 0.030 liters + (0.02 liters/foot X 50 feet) + 1.0 liters = 2.3 liters

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY  
 (only fill out if applicable)  
 = (        feet -        feet ) X        gallons/foot =        gallons

| TIME | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters) | PURGE RATE (L/min) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (mS/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
|------|------------------------|-------------------------------|--------------------|-----------------------|---------------------|------------|---------------|----------------|---------------------|------------------|---------------------------------|
| 1527 | 0.5                    | 6.5                           | 0.125              | 8.32                  | 4.58                | 28.29      | 0.064         | 0.0            | 2.64                | 75.6             | -55                             |
| 1531 | 0.5                    | 7.0                           | 0.125              | 8.30                  | 4.47                | 28.29      | 0.064         | 0.0            | 2.47                | 72.4             | -48                             |
| 1535 | 0.5                    | 7.5                           | 0.125              | 8.30                  | 4.46                | 28.21      | 0.063         | 0.0            | 2.21                | 68.1             | -51                             |
| 1539 | 0.5                    | 8.0                           | 0.125              | 8.30                  | 4.50                | 28.09      | 0.064         | 0.0            | 2.07                | 59.4             | -59                             |
| 1543 | 0.5                    | 8.5                           | 0.125              | 8.30                  | 4.43                | 28.07      | 0.063         | 0.0            | 1.88                | 55.7             | -57                             |
| 1547 | 0.5                    | 9.0                           | 0.125              | 8.31                  | 4.45                | 28.00      | 0.063         | 0.0            | 1.72                | 50.7             | -58                             |
| 1551 | 0.5                    | 9.5                           | 0.125              | 8.32                  | 4.50                | 27.92      | 0.063         | 0.0            | 1.57                | 44.9             | -62                             |
| 1554 | 0.5                    | 10                            | 0.125              | 8.32                  | 4.42                | 27.87      | 0.063         | 0.0            | 1.47                | 43.4             | -54                             |

TUBING INSIDE DIA. CAPACITY (Liters/Ft): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

## SAMPLING DATA

|                                                                                         |           |                |                                                                                                                |  |                                                                             |
|-----------------------------------------------------------------------------------------|-----------|----------------|----------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------|
| SAMPLED BY (PRINT) / AFFILIATION:<br><u>Carter 2 W Pers / Ankeny</u>                    |           |                | SAMPLER(S) SIGNATURES:<br><u>[Signature]</u>                                                                   |  | SAMPLING TIME: <u>1610</u>                                                  |
| FIELD DECONTAMINATION: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |           |                | FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> FILTER SIZE: <u>      </u> µm |  | DUPLICATE: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> |
| SAMPLE CONTAINER SPECS                                                                  |           |                | SAMPLE PRESERVATION                                                                                            |  | INTENDED ANALYSIS AND/OR METHOD                                             |
| Included for analyses?                                                                  | # Bottles | VOLUME         |                                                                                                                |  |                                                                             |
|                                                                                         | <u>3</u>  | <u>40mL</u>    | <u>Hydrochloric Acid</u>                                                                                       |  | <u>8260B - Select VOCs Benzene</u>                                          |
|                                                                                         | 2         | 250 mL Amber   | None                                                                                                           |  | 8081B_8082A - PST-TOX                                                       |
|                                                                                         | 2         | 1L Amber       | None                                                                                                           |  | 8270D - Select SVOC                                                         |
|                                                                                         | 1         | 250mL plastic  | Nitric Acid                                                                                                    |  | 6020A - Select Metals                                                       |
|                                                                                         | 2         | 125mL Amber    | None                                                                                                           |  | 8315 - FORM                                                                 |
|                                                                                         | 2         | 250 mL plastic | Zinc Acetate and Sodium Hydroxide                                                                              |  | 376.1 - Sulfide                                                             |
| REMARKS:                                                                                |           |                |                                                                                                                |  |                                                                             |

NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

- Turbidity: <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume
- pH: <0.1 SU
- Specific Conductance: 5%
- Drawdown: <0.5 ft from Initial
- Dissolved Oxygen: <0.2 mg/L or 10%, whichever is greater

002 (undk)!!

N-16 D

## PURGING DATA

|                                                                                                                                                                                                                                                             |                                                                                                  |                                              |                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------|
| WELL DIAMETER (inches):<br><b>2</b>                                                                                                                                                                                                                         | TOTAL WELL DEPTH: <b>50</b> feet<br>WELL SCREEN INTERVAL DEPTH: <b>45</b> feet to <b>50</b> feet | STATIC DEPTH TO WATER (feet):<br><b>7.90</b> | PURGE PUMP TYPE OR BAILER (circle one):<br>Peristaltic / <b>Stainless Submersible</b> / Bailer |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable)<br>= <b>0.3</b> liters + ( <b>0.02</b> liters/foot X <b>50</b> feet) + <b>1.0</b> liters = <b>2.3</b> liters |                                                                                                  |                                              |                                                                                                |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable)<br>= ( _____ feet - _____ feet) X _____ gallons/foot = _____ gallons                                                         |                                                                                                  |                                              |                                                                                                |

[illegible]

## SAMPLING DATA

|                                                                    |            |                |                                                    |  |                                   |  |
|--------------------------------------------------------------------|------------|----------------|----------------------------------------------------|--|-----------------------------------|--|
| SAMPLED BY (PRINT) / AFFILIATION:<br><i>Lester Z. Wier / Antea</i> |            |                | SAMPLER(S) SIGNATURES:<br><i>[Signature]</i>       |  | SAMPLING TIME:<br><i>1610</i>     |  |
| FIELD DECONTAMINATION: <i>(Y)</i> N                                |            |                | FIELD-FILTERED: Y <i>(N)</i> FILTER SIZE: _____ µm |  | DUPLICATE: Y <i>(N)</i>           |  |
| SAMPLE CONTAINER SPECS                                             |            |                | SAMPLE PRESERVATION                                |  | INTENDED ANALYSIS AND/OR METHOD   |  |
| Included for analyses?                                             | # Bottles  | VOLUME         |                                                    |  |                                   |  |
|                                                                    | <i>(3)</i> | <i>(40mL)</i>  | <i>Hydrochloric Acid</i>                           |  | <i>(8260B - Select VOC Ben z)</i> |  |
|                                                                    | 2          | 250 mL Amber   | None                                               |  | 8081B_8082A - PST-TOX             |  |
|                                                                    | 2          | 1L Amber       | None                                               |  | 8270D - Select SVOC               |  |
|                                                                    | 1          | 250mL plastic  | Nitric Acid                                        |  | 6020A - Select Metals             |  |
|                                                                    | 2          | 125mL Amber    | None                                               |  | 8315 - FORM                       |  |
|                                                                    | 2          | 250 mL plastic | Zinc Acetate and Sodium Hydroxide                  |  | 376.1 - Sulfide                   |  |
| REMARKS:                                                           |            |                |                                                    |  |                                   |  |

NOTES: 1.

STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

|                       |                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------|
| Turbidity:            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| pH:                   | <0.1 SU                                                                                           |
| Specific Conductance: | 5%                                                                                                |
| Drawdown:             | <0.5 ft from Initial                                                                              |
| Dissolved Oxygen:     | <0.2 mg/L or 10%, whichever is greater                                                            |

# GROUNDWATER SAMPLING LOG

|                                                                                   |                              |
|-----------------------------------------------------------------------------------|------------------------------|
| SITE NAME: <u>009 Landfill</u><br>Hercules I.I.C. / Pinova Inc Brunswick Facility | SITE LOCATION: Brunswick, GA |
| WELL ID: <u>N-17</u>                                                              | DATE: <u>9/2/20</u>          |

## PURGING DATA

|                                                                                                                                                                                                                                                          |                                                                                                  |                                           |                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------------------|
| WELL DIAMETER (inches): <u>2</u>                                                                                                                                                                                                                         | TOTAL WELL DEPTH: <u>25</u> feet<br>WELL SCREEN INTERVAL DEPTH: <u>15</u> feet to <u>25</u> feet | STATIC DEPTH TO WATER (feet): <u>6.98</u> | PURGE PUMP TYPE OR BAILER (circle one):<br>Peristaltic / <u>Stainless Submersible</u> / Bailer |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable) = <u>0.3</u> liters + ( <u>0.02</u> liters/foot X <u>25</u> feet) + <u>1.0</u> liters = <u>1.8</u> liters |                                                                                                  |                                           |                                                                                                |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable) = ( <u>      </u> feet - <u>      </u> feet ) X <u>      </u> gallons/foot = <u>      </u> gallons                        |                                                                                                  |                                           |                                                                                                |

| TIME | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters) | PURGE RATE (L/min) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (mS/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
|------|------------------------|-------------------------------|--------------------|-----------------------|---------------------|------------|---------------|----------------|---------------------|------------------|---------------------------------|
| 1651 | 2.0                    | 2.0                           | 0.125              | 7.21                  | 4.11                | 26.11      | 0.260         | 0.1            | 0.08                | 0.00             | -35                             |
| 1655 | 0.5                    | 2.5                           | 0.125              | 7.21                  | 4.11                | 25.37      | 0.262         | 0.1            | 0.00                | 0.00             | -38                             |
| 1659 | 0.5                    | 3.0                           | 0.125              | 7.21                  | 3.89                | 25.05      | 0.263         | 0.1            | 0.00                | 0.00             | -30                             |
| 1703 | 0.5                    | 3.5                           | 0.125              | 7.21                  | 3.88                | 24.81      | 0.264         | 0.1            | 0.00                | 0.00             | -27                             |
| 1707 | 0.5                    | 4.0                           | 0.125              | 7.21                  | 3.95                | 24.61      | 0.266         | 0.1            | 0.00                | 4.02             | -28                             |
|      |                        |                               |                    |                       |                     |            |               |                |                     |                  |                                 |
|      |                        |                               |                    |                       |                     |            |               |                |                     |                  |                                 |
|      |                        |                               |                    |                       |                     |            |               |                |                     |                  |                                 |
|      |                        |                               |                    |                       |                     |            |               |                |                     |                  |                                 |

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

## SAMPLING DATA

|                                                                |           |                |                                                                                                                                 |  |                                                  |
|----------------------------------------------------------------|-----------|----------------|---------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------|
| SAMPLED BY (PRINT) / AFFILIATION: <u>Carter Zwiers / Antey</u> |           |                | SAMPLER(S) SIGNATURES: <u>[Signature]</u> <u>[Signature]</u>                                                                    |  | SAMPLING TIME: <u>1710</u>                       |
| FIELD DECONTAMINATION: <input checked="" type="checkbox"/> N   |           |                | FIELD-FILTERED: Y <input checked="" type="checkbox"/> FILTER SIZE: <u>      </u> µm<br>Filtration Equipment Type: <u>      </u> |  | DUPLICATE: Y <input checked="" type="checkbox"/> |
| SAMPLE CONTAINER SPECS                                         |           |                | SAMPLE PRESERVATION                                                                                                             |  | INTENDED ANALYSIS AND/OR METHOD                  |
| Included for analyses?                                         | # Bottles | VOLUME         |                                                                                                                                 |  |                                                  |
|                                                                | <u>3</u>  | 40mL           | Hydrochloric Acid                                                                                                               |  | <u>8260B - Select <del>non</del> Benzene</u>     |
|                                                                | 2         | 250 mL Amber   | None                                                                                                                            |  | 8081B_8082A - PST-TOX                            |
|                                                                | 2         | 1L Amber       | None                                                                                                                            |  | 8270D - Select SVOC                              |
|                                                                | 1         | 250mL plastic  | Nitric Acid                                                                                                                     |  | 6020A - Select Metals                            |
|                                                                | 2         | 125mL Amber    | None                                                                                                                            |  | 8315 - FORM                                      |
|                                                                | 2         | 250 mL plastic | Zinc Acetate and Sodium Hydroxide                                                                                               |  | 376.1 - Sulfide                                  |
| REMARKS:                                                       |           |                |                                                                                                                                 |  |                                                  |

### STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

- NOTES: 1.      Turbidity: <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume
- pH: <0.1 SU
- Specific Conductance: 5%
- Drawdown: <0.5 ft from Initial
- Dissolved Oxygen: <0.2 mg/L or 10%, whichever is greater

# GROUNDWATER SAMPLING LOG

|                                                                    |                              |
|--------------------------------------------------------------------|------------------------------|
| SITE NAME: <del>Hercules LLC / Provia Inc Brunswick Facility</del> | SITE LOCATION: Brunswick, GA |
| WELL ID: N-18                                                      | DATE: 9/3/20                 |

## PURGING DATA

|                                                                                                                                                     |                        |                               |                    |                       |                               |            |                                         |                                              |                     |                  |                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------|--------------------|-----------------------|-------------------------------|------------|-----------------------------------------|----------------------------------------------|---------------------|------------------|---------------------------------|
| WELL DIAMETER (inches):                                                                                                                             | 2                      | TOTAL WELL DEPTH:             | 30                 | feet                  | STATIC DEPTH TO WATER (feet): | 6.90       | PURGE PUMP TYPE OR BAILER (circle one): | Peristaltic / Stainless Submersible / Bailer |                     |                  |                                 |
|                                                                                                                                                     |                        | WELL SCREEN INTERVAL DEPTH:   | 20                 | feet to               | 30                            | feet       |                                         |                                              |                     |                  |                                 |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)         |                        |                               |                    |                       |                               |            |                                         |                                              |                     |                  |                                 |
| = 0.3 liters + (.02 liters/foot X 30 feet) + 0.5 liters = 1.9 liters                                                                                |                        |                               |                    |                       |                               |            |                                         |                                              |                     |                  |                                 |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)                         |                        |                               |                    |                       |                               |            |                                         |                                              |                     |                  |                                 |
| = ( 30 feet - 6.90 feet ) X _____ gallons/foot = _____ gallons                                                                                      |                        |                               |                    |                       |                               |            |                                         |                                              |                     |                  |                                 |
| TIME                                                                                                                                                | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters) | PURGE RATE (L/min) | DEPTH TO WATER (feet) | pH (standard units)           | TEMP. (°C) | COND. (mS/cm)                           | SALINITY (PPT)                               | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
| 8:00                                                                                                                                                | 2.0                    | 2.0                           | 0.125              | 6.85                  | 4.97                          | 26.76      | 0.182                                   | 0.1                                          | 1.07                | 2.45             | -71                             |
| 8:14                                                                                                                                                | 0.5                    | 2.5                           | 0.125              | 6.93                  | 4.98                          | 26.44      | 0.172                                   | 0.1                                          | 0.80                | 3.19             | -79                             |
| 8:18                                                                                                                                                | 0.5                    | 3.0                           | 0.125              | 6.93                  | 4.93                          | 26.37      | 0.171                                   | 0.1                                          | 0.73                | 3.03             | -91                             |
| 8:22                                                                                                                                                | 0.5                    | 3.5                           | 0.125              | 6.93                  | 4.91                          | 26.43      | 0.169                                   | 0.1                                          | 0.68                | 2.39             | -75                             |
|                                                                                                                                                     |                        |                               |                    |                       |                               |            |                                         |                                              |                     |                  |                                 |
|                                                                                                                                                     |                        |                               |                    |                       |                               |            |                                         |                                              |                     |                  |                                 |
|                                                                                                                                                     |                        |                               |                    |                       |                               |            |                                         |                                              |                     |                  |                                 |
|                                                                                                                                                     |                        |                               |                    |                       |                               |            |                                         |                                              |                     |                  |                                 |
|                                                                                                                                                     |                        |                               |                    |                       |                               |            |                                         |                                              |                     |                  |                                 |
| TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603 |                        |                               |                    |                       |                               |            |                                         |                                              |                     |                  |                                 |
| WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88          |                        |                               |                    |                       |                               |            |                                         |                                              |                     |                  |                                 |

## SAMPLING DATA

|                                                                                   |           |                       |                                                                                                                  |  |                                                                         |  |
|-----------------------------------------------------------------------------------|-----------|-----------------------|------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------|--|
| SAMPLED BY (PRINT) / AFFILIATION:<br><i>Carter Zmiers / Antey</i>                 |           |                       | SAMPLER(S) SIGNATURES:<br>    |  | SAMPLING TIME:<br><i>825</i>                                            |  |
| FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N |           |                       | FIELD-FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/> Y<br>Filtration Equipment Type: _____ |  | DUPLICATE: Y <input checked="" type="radio"/> N <input type="radio"/> Y |  |
| SAMPLE CONTAINER SPECS                                                            |           |                       | SAMPLE PRESERVATION                                                                                              |  | INTENDED ANALYSIS AND/OR METHOD                                         |  |
| Included for analyses?                                                            | # Bottles | VOLUME                |                                                                                                                  |  |                                                                         |  |
|                                                                                   | <i>3</i>  | <i>40mL</i>           | <i>Hydrochloric Acid</i>                                                                                         |  | <i>8260B - Select VOC Benzene</i>                                       |  |
|                                                                                   | <i>2</i>  | <i>250 mL Amber</i>   | <i>None</i>                                                                                                      |  | <i>8081B_8062A - PST-TOX</i>                                            |  |
|                                                                                   | <i>2</i>  | <i>1L Amber</i>       | <i>None</i>                                                                                                      |  | <i>8270D - Select SVOC</i>                                              |  |
|                                                                                   | <i>1</i>  | <i>250mL plastic</i>  | <i>Nitric Acid</i>                                                                                               |  | <i>6020A - Select Metals</i>                                            |  |
|                                                                                   | <i>2</i>  | <i>125mL Amber</i>    | <i>None</i>                                                                                                      |  | <i>8315 - FORM</i>                                                      |  |
|                                                                                   | <i>2</i>  | <i>250 mL plastic</i> | <i>Zinc Acetate and Sodium Hydroxide</i>                                                                         |  | <i>376.1 - Sulfide</i>                                                  |  |
| REMARKS:                                                                          |           |                       |                                                                                                                  |  |                                                                         |  |

NOTES: 1.

### STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

|                              |                                                                                                   |
|------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Turbidity:</b>            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| <b>pH:</b>                   | <0.1 SU                                                                                           |
| <b>Specific Conductance:</b> | 5%                                                                                                |
| <b>Drawdown:</b>             | <0.5 ft from Initial                                                                              |
| <b>Dissolved Oxygen:</b>     | <0.2 mg/L or 10%, whichever is greater                                                            |

# GROUNDWATER SAMPLING LOG

|                                                                             |                                     |
|-----------------------------------------------------------------------------|-------------------------------------|
| SITE NAME: <u>009 Landfill Hercules LLC / Pinova Inc Brunswick Facility</u> | SITE LOCATION: <u>Brunswick, GA</u> |
| WELL ID: <u>11-19</u>                                                       | DATE: <u>9/2/20</u>                 |

## PURGING DATA

|                                                                                                                                                                                                                                                           |                                                                                                  |                                           |                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| WELL DIAMETER (Inches): <u>2</u>                                                                                                                                                                                                                          | TOTAL WELL DEPTH: <u>25</u> feet<br>WELL SCREEN INTERVAL DEPTH: <u>15</u> feet to <u>25</u> feet | STATIC DEPTH TO WATER (feet): <u>4.32</u> | PURGE PUMP TYPE OR BAILER (circle one):<br><input checked="" type="radio"/> Peristaltic <input type="radio"/> Stainless Submersible / Bailer |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable) = <u>0.3</u> liters + ( <u>0.02</u> liters/foot X <u>25</u> feet) + <u>1.0</u> liters = <u>1.01</u> liters |                                                                                                  |                                           |                                                                                                                                              |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable) = ( <u>25</u> feet - <u>4.32</u> feet ) X <u>          </u> gallons/foot = <u>          </u> gallons                       |                                                                                                  |                                           |                                                                                                                                              |

| TIME | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters) | PURGE RATE (L/min) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (mS/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
|------|------------------------|-------------------------------|--------------------|-----------------------|---------------------|------------|---------------|----------------|---------------------|------------------|---------------------------------|
| 1237 | 2.0                    | 2.0                           | 0.125              | 4.45                  | 4.20                | 25.93      | 0.082         | 0.0            | 0.73                | 559              | -7                              |
| 1241 | 0.5                    | 2.5                           | 0.125              | 4.42                  | 4.08                | 25.64      | 0.080         | 0.0            | 0.38                | 514              | -6                              |
| 1245 | 0.5                    | 3.0                           | 0.125              | 4.49                  | 4.09                | 25.54      | 0.080         | 0.0            | 0.27                | 349              | -7                              |
| 1249 | 0.5                    | 3.5                           | 0.125              | 4.45                  | 4.15                | 25.61      | 0.086         | 0.0            | 0.21                | 289              | -17                             |
| 1253 | 0.5                    | 4.0                           | 0.125              | 4.43                  | 4.37                | 25.63      | 0.080         | 0.0            | 0.18                | 239              | -29                             |
| 1257 | 0.5                    | 4.5                           | 0.125              | 4.43                  | 4.57                | 25.67      | 0.080         | 0.0            | 0.17                | 216              | -50                             |
| 1301 | 0.5                    | 5.0                           | 0.125              | 4.43                  | 4.20                | 25.72      | 0.080         | 0.0            | 0.17                | 207              | -63                             |
| 1305 | 0.5                    | 5.5                           | 0.125              | 4.43                  | 4.21                | 25.77      | 0.086         | 0.0            | 0.16                | 153              | -68                             |

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603  
 WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

## SAMPLING DATA

| SAMPLED BY (PRINT) / AFFILIATION: <u>Carter Zwiers / Anteq</u> |           |                | SAMPLER(S) SIGNATURES: <u>[Signature]</u>                                                                                            |  | SAMPLING TIME: <u>1315</u>                    |
|----------------------------------------------------------------|-----------|----------------|--------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------|
| FIELD DECONTAMINATION: <input checked="" type="radio"/> N      |           |                | FIELD-FILTERED: Y <input checked="" type="radio"/> FILTER SIZE: <u>          </u> µm<br>Filtration Equipment Type: <u>          </u> |  | DUPLICATE: <input checked="" type="radio"/> N |
| SAMPLE CONTAINER SPECS                                         |           |                | SAMPLE PRESERVATION                                                                                                                  |  | INTENDED ANALYSIS AND/OR METHOD               |
| Included for analyses?                                         | # Bottles | VOLUME         |                                                                                                                                      |  |                                               |
| <input checked="" type="checkbox"/>                            | <u>3</u>  | <u>40mL</u>    | <u>Hydrochloric Acid</u>                                                                                                             |  | <u>8260B - Select VOC</u>                     |
|                                                                | 2         | 250 mL Amber   | None                                                                                                                                 |  | 8081B-8082A - PST-TOX                         |
|                                                                | 2         | 1L Amber       | None                                                                                                                                 |  | 8270D - Select SVOC                           |
|                                                                | 1         | 250mL plastic  | Nitric Acid                                                                                                                          |  | 6020A - Select Metals                         |
|                                                                | 2         | 125mL Amber    | None                                                                                                                                 |  | 8315 - FORM                                   |
|                                                                | 2         | 250 mL plastic | Zinc Acetate and Sodium Hydroxide                                                                                                    |  | 376.1 - Sulfide                               |
| REMARKS:                                                       |           |                |                                                                                                                                      |  |                                               |

- NOTES: 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS
- Turbidity: <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume
  - pH: <0.1 SU
  - Specific Conductance: 5%
  - Drawdown: <0.5 ft from Initial
  - Dissolved Oxygen: <0.2 mg/L or 10%, whichever is greater

# GROUNDWATER SAMPLING LOG

|                                                                                       |  |                                     |                     |
|---------------------------------------------------------------------------------------|--|-------------------------------------|---------------------|
| SITE NAME: <u>009 Landfill</u><br><u>Heracles LEO / Pinova Inc Brunswick Facility</u> |  | SITE LOCATION: <u>Brunswick, GA</u> |                     |
| WELL ID: <u>N-19</u>                                                                  |  |                                     | DATE: <u>9/2/20</u> |

## PURGING DATA

[illegible]

## SAMPLING DATA

| SAMPLED BY (PRINT) / AFFILIATION:                                                                                                                                              |           |                | SAMPLER(S) SIGNATURES:                                                                                            |  | SAMPLING TIME:                                                                         |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------|-------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------|--|
| Carter Zwiars / Antec                                                                                                                                                          |           |                | <i>[Signature]</i>                                                                                                |  | 1315                                                                                   |  |
| FIELD DECONTAMINATION: <input checked="" type="checkbox"/> O <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> E |           |                | FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> FILTER SIZE: _____ µm |  | DUPLICATE: Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> |  |
| SAMPLE CONTAINER SPECS                                                                                                                                                         |           |                | SAMPLE PRESERVATION                                                                                               |  | INTENDED ANALYSIS AND/OR METHOD                                                        |  |
| Included for analyses?                                                                                                                                                         | # Bottles | VOLUME         |                                                                                                                   |  |                                                                                        |  |
|                                                                                                                                                                                | 3         | 40ml           | Hydrochloric Acid                                                                                                 |  | Benzene                                                                                |  |
|                                                                                                                                                                                | 2         | 250 mL Amber   | None                                                                                                              |  | 8260B - Select VOC                                                                     |  |
|                                                                                                                                                                                | 2         | 1L Amber       | None                                                                                                              |  | 8081B_8082A - PST-TOX                                                                  |  |
|                                                                                                                                                                                | 1         | 250mL plastic  | Nitric Acid                                                                                                       |  | 8270D - Select SVOC                                                                    |  |
|                                                                                                                                                                                | 2         | 125mL Amber    | None                                                                                                              |  | 6020A - Select Metals                                                                  |  |
|                                                                                                                                                                                | 2         | 250 mL plastic | Zinc Acetate and Sodium Hydroxide                                                                                 |  | 8315 - FORM                                                                            |  |
| REMARKS:                                                                                                                                                                       |           |                |                                                                                                                   |  | 376.1 - Sulfide                                                                        |  |

NOTES: 1.

STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

| STABILIZATION CRITERIA FOR THREE CONSECUTIVE WELLS |                                                                                                   |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Turbidity:                                         | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| pH:                                                | <0.1 SU                                                                                           |
| Specific Conductance:                              | 5%                                                                                                |
| Drawdown:                                          | <0.5 ft from Initial                                                                              |
| Dissolved Oxygen:                                  | <0.2 mg/L or 10%, whichever is greater                                                            |

# GROUNDWATER SAMPLING LOG

|            |              |                |               |
|------------|--------------|----------------|---------------|
| SITE NAME: | 009 Landfill | SITE LOCATION: | Brunswick, GA |
| WELL ID:   | N-20         | DATE:          | 9/13/20       |

## PURGING DATA

|                                        |                                                                                                  |                                                 |                                                                                                |
|----------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------|
| WELL<br>DIAMETER<br>(inches): <b>2</b> | TOTAL WELL DEPTH: <b>32</b> feet<br>WELL SCREEN INTERVAL DEPTH: <b>22</b> feet to <b>32</b> feet | STATIC DEPTH<br>TO WATER<br>(feet): <b>5.21</b> | PURGE PUMP TYPE OR BAILER (circle one):<br><b>Peristaltic</b> / Stainless Submersible / Bailer |
|----------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------|

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME  
(only fill out if applicable)

= 0.3 liters + (.03 liters/foot X 32 feet) + 10 liters = 1.84 liters

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY  
(only fill out if applicable)

= ( \_\_\_\_\_ feet - \_\_\_\_\_ feet ) X \_\_\_\_\_ gallons/foot = \_\_\_\_\_ gallons

| TIME | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters) | PURGE RATE (L/min) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (mS/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
|------|------------------------|-------------------------------|--------------------|-----------------------|---------------------|------------|---------------|----------------|---------------------|------------------|---------------------------------|
| 936  | 2.0                    | 2.0                           | 0.125              | 5.26                  | 6.30                | 29.04      | 0.161         | 0.1            | 2.31                | 4.16             | -67                             |
| 940  | 0.5                    | 2.5                           | 0.125              | 5.25                  | 6.34                | 29.20      | 0.160         | 0.1            | 1.48                | 5.70             | -66                             |
| 944  | 0.5                    | 3.0                           | 0.125              | 5.25                  | 6.37                | 29.29      | 0.154         | 0.1            | 1.27                | 7.34             | -67                             |
| 948  | 0.5                    | 3.5                           | 0.125              | 5.27                  | 6.38                | 29.36      | 0.153         | 0.1            | 1.04                | 8.34             | -66                             |
| 952  | 0.5                    | 4.0                           | 0.125              | 5.29                  | 6.41                | 29.42      | 0.155         | 0.1            | 0.88                | 8.78             | -69                             |
| 956  | 0.5                    | 4.5                           | 0.125              | 5.29                  | 6.44                | 29.44      | 0.152         | 0.1            | 0.81                | 8.38             | -67                             |
| 9000 | 0.5                    | 5.0                           | 0.125              | 5.29                  | 6.44                | 29.44      | 0.153         | 0.1            | 0.76                | 8.45             | -69                             |

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

## SAMPLING DATA

|                                                              |           |        |                                                                                                               |  |                                                        |  |
|--------------------------------------------------------------|-----------|--------|---------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------|--|
| SAMPLED BY (PRINT) / AFFILIATION:<br>Carter Zimmers/Antec    |           |        | SAMPLER(S) SIGNATURES:<br> |  | SAMPLING TIME: 1000                                    |  |
| FIELD DECONTAMINATION: <input checked="" type="checkbox"/> N |           |        | FIELD-FILTERED: Y <input checked="" type="checkbox"/> FILTER SIZE: _____ µm                                   |  | DUPLICATE: <input checked="" type="checkbox"/> N Dup 1 |  |
| SAMPLE CONTAINER SPECS.                                      |           |        | SAMPLE PRESERVATION                                                                                           |  | INTENDED ANALYSIS AND/OR METHOD                        |  |
| Included for analyses?                                       | # Bottles | VOLUME |                                                                                                               |  |                                                        |  |
| <input checked="" type="checkbox"/>                          | 3         | 40 ml  | HCL                                                                                                           |  | 8260P - Benzene                                        |  |
|                                                              |           |        |                                                                                                               |  |                                                        |  |
|                                                              |           |        |                                                                                                               |  |                                                        |  |
|                                                              |           |        |                                                                                                               |  |                                                        |  |
|                                                              |           |        |                                                                                                               |  |                                                        |  |
|                                                              |           |        |                                                                                                               |  |                                                        |  |
|                                                              |           |        |                                                                                                               |  |                                                        |  |
|                                                              |           |        |                                                                                                               |  |                                                        |  |
| REMARKS:                                                     |           |        |                                                                                                               |  |                                                        |  |

NOTES: 1.

### STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

|                              |                                                                                                   |
|------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Turbidity:</b>            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| <b>pH:</b>                   | <0.1 SU                                                                                           |
| <b>Specific Conductance:</b> | 5%                                                                                                |
| <b>Drawdown:</b>             | <0.5 ft from Initial                                                                              |
| <b>Dissolved Oxygen:</b>     | <0.2 mg/L or 10%, whichever is greater                                                            |

# GROUNDWATER SAMPLING LOG

|                         |                              |                  |
|-------------------------|------------------------------|------------------|
| SITE NAME: 009 Landfill | SITE LOCATION: Brunswick, GA | DATE: 10-28-2020 |
| WELL ID: N-05           |                              |                  |

## PURGING DATA

|                                                                                                                                                                                                                         |                                            |                                    |                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------|
| WELL DIAMETER (inches): 2"                                                                                                                                                                                              | TOTAL WELL DEPTH: 25 feet                  | STATIC DEPTH TO WATER (feet): 7.86 | PURGE PUMP TYPE OR BAILER (circle one): <u>Stainless Submersible</u> / Peristaltic / Bailer |
|                                                                                                                                                                                                                         | WELL SCREEN INTERVAL DEPTH: feet to 2 feet |                                    |                                                                                             |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable) = 0.2 liters + (0.0386 liters/foot X 25 feet) + 0.5 liters = 1.66 liters |                                            |                                    |                                                                                             |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable) = (25 feet - 7.86 feet) X gallons/foot = gallons                                         |                                            |                                    |                                                                                             |

| TIME | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters) | PURGE RATE (L/min) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (µS/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
|------|------------------------|-------------------------------|--------------------|-----------------------|---------------------|------------|---------------|----------------|---------------------|------------------|---------------------------------|
| 1605 | 1.7                    | 1.7                           | 0.125              | 7.97                  | 4.95                | 27.83      | 0.387         | 0.19           | 4.45                | 1.2              | -11                             |
| 1609 | 0.5                    | 2.2                           | 0.125              | 8.04                  | 5.28                | 28.66      | 0.581         | 0.28           | 1.17                | 0.7              | -43                             |
| 1613 | 0.5                    | 2.7                           | 0.125              | 8.07                  | 5.33                | 28.88      | 0.697         | 0.34           | 1.03                | 0.8              | -50                             |
| 1617 | 0.5                    | 3.2                           | 0.125              | 8.09                  | 5.33                | 29.27      | 0.755         | 0.37           | 0.95                | 0.5              | -56                             |
| 1621 | 0.5                    | 3.7                           | 0.125              | 8.11                  | 5.36                | 29.42      | 0.796         | 0.39           | 0.91                | 0.5              | -59                             |
| 1625 | 0.5                    | 4.2                           | 0.125              | 8.11                  | 5.35                | 29.65      | 0.811         | 0.40           | 0.86                | 0.5              | -60                             |
| 1629 | 0.5                    | 4.7                           | 0.125              | 8.13                  | 5.35                | 29.72      | 0.819         | 0.40           | 0.84                | 0.5              | -62                             |

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

## SAMPLING DATA

|                                                              |           |        |                                                       |                 |                                                                                    |
|--------------------------------------------------------------|-----------|--------|-------------------------------------------------------|-----------------|------------------------------------------------------------------------------------|
| SAMPLED BY (PRINT) / AFFILIATION: Jeff S. Antea Group        |           |        | SAMPLER(S) SIGNATURES: <i>[Signature]</i>             |                 | SAMPLING TIME: 1633                                                                |
| FIELD DECONTAMINATION: <input checked="" type="checkbox"/> N |           |        | FIELD FILTERED: <input checked="" type="checkbox"/> N | FILTER SIZE: µm | DUPLICATE: <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> |
| SAMPLE CONTAINER SPECS                                       |           |        | SAMPLE PRESERVATION                                   |                 | INTENDED ANALYSIS AND/OR METHOD                                                    |
| Included for analyses?                                       | # Bottles | VOLUME |                                                       |                 |                                                                                    |
| ✓                                                            | 3         | 40 mL  | HCL                                                   |                 | 8260 Benzene only                                                                  |
| ✓                                                            | 2         | 1L     | None                                                  |                 | 8081B Toxaphene                                                                    |
| ✓                                                            | 1         | 1L     | None                                                  |                 | 2540DT SS                                                                          |
| REMARKS: Dup -1 taken here                                   |           |        |                                                       |                 |                                                                                    |

### STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

- NOTES: 1.
- Turbidity: <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume
  - pH: <0.1 SU
  - Specific Conductance: 5%
  - Drawdown: <0.5 ft from Initial
  - Dissolved Oxygen: <0.2 mg/L or 10%, whichever is greater

$\frac{1}{2}$ 

## PURGING DATA

## SAMPLING DATA

NOTES: 1.

STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

|                              |                                                                                                   |
|------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Turbidity:</b>            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| <b>pH:</b>                   | <0.1 SU                                                                                           |
| <b>Specific Conductance:</b> | 5%                                                                                                |
| <b>Drawdown:</b>             | <0.5 ft from Initial                                                                              |
| <b>Dissolved Oxygen:</b>     | <0.2 mg/L or 10%, whichever is greater                                                            |

$\frac{2}{2}$ 

## PURGING DATA

## SAMPLING DATA

NOTES: 1.

STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

|                              |                                                                                                   |
|------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Turbidity:</b>            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| <b>pH:</b>                   | <0.1 SU                                                                                           |
| <b>Specific Conductance:</b> | 5%                                                                                                |
| <b>Drawdown:</b>             | <0.5 ft from Initial                                                                              |
| <b>Dissolved Oxygen:</b>     | <0.2 mg/L or 10%, whichever is greater                                                            |

# GROUNDWATER SAMPLING LOG

|                         |  |                              |
|-------------------------|--|------------------------------|
| SITE NAME: 009 Landfill |  | SITE LOCATION: Brunswick, GA |
| WELL ID: N-6PR          |  | DATE: 10/28/21               |

## PURGING DATA

| TIME | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters) | PURGE RATE (L/min) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (µm S/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
|------|------------------------|-------------------------------|--------------------|-----------------------|---------------------|------------|-----------------|----------------|---------------------|------------------|---------------------------------|
| 1722 | 2.5                    | 2.5                           | 0.100              | 11.38                 | 5.44                | 28.42      | 0.245           | 0.11           | 0.86                | 0.8              | 20                              |
| 1726 | 0.4                    | 2.9                           | 0.100              | 11.25                 | 5.33                | 27.99      | 0.240           | 0.11           | 1.09                | 0.5              | 18                              |
| 1730 | 0.4                    | 3.3                           | 0.100              | 11.29                 | 5.30                | 27.72      | 0.238           | 0.11           | 0.78                | 0.0              | 14                              |
| 1734 | 0.4                    | 3.7                           | 0.100              | 11.21                 | 5.29                | 27.68      | 0.238           | 0.11           | 0.72                | 0.0              | 12                              |
| 1738 | 0.4                    | 4.1                           | 0.100              | 11.28                 | 5.29                | 27.65      | 0.239           | 0.11           | 0.68                | 0.0              | 10                              |
|      |                        |                               |                    |                       |                     |            |                 |                |                     |                  |                                 |
|      |                        |                               |                    |                       |                     |            |                 |                |                     |                  |                                 |
|      |                        |                               |                    |                       |                     |            |                 |                |                     |                  |                                 |
|      |                        |                               |                    |                       |                     |            |                 |                |                     |                  |                                 |

WELL DIAMETER (inches): 2

TOTAL WELL DEPTH: 65.6 feet

WELL SCREEN INTERVAL DEPTH: 55.6 feet to 65.6 feet

STATIC DEPTH TO WATER (feet): 11.19

PURGE PUMP TYPE OR BAILER (circle one): Peristaltic / Stainless Submersible / Bailer

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)

= 0.3 liters + 0.0097 liters/foot X 65.6 feet + 05 liters = 2.22 liters

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)

= ( 54.4 feet - 11.19 feet ) X 0.0097 gallons/foot = 0.45 gallons

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

## SAMPLING DATA

|                                                                                                                                           |           |        |                                                                                                                                 |  |                                 |  |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------|--|
| SAMPLED BY (PRINT) / AFFILIATION:<br>C. Carter / ZWIS / Anteq                                                                             |           |        | SAMPLER(S) SIGNATURES:<br><i>[Signature]</i>                                                                                    |  | SAMPLING TIME: 1745             |  |
| FIELD DECONTAMINATION: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/> CZ |           |        | FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/><br>Filtration Equipment Type: _____ |  | FILTER SIZE: _____ µm           |  |
| SAMPLE CONTAINER SPECS                                                                                                                    |           |        | SAMPLE PRESERVATION                                                                                                             |  | INTENDED ANALYSIS AND/OR METHOD |  |
| Included for analyses?                                                                                                                    | # Bottles | VOLUME |                                                                                                                                 |  |                                 |  |
| <input checked="" type="checkbox"/>                                                                                                       | 3         | 40 ml  | HCL<br>NOVA                                                                                                                     |  | Benzene<br>Toxaphene            |  |
| <input checked="" type="checkbox"/>                                                                                                       | 2         | 1L     |                                                                                                                                 |  |                                 |  |
| <input checked="" type="checkbox"/>                                                                                                       | 1         | 1L     | NOVA                                                                                                                            |  | TSS                             |  |
|                                                                                                                                           |           |        |                                                                                                                                 |  |                                 |  |
| REMARKS:                                                                                                                                  |           |        |                                                                                                                                 |  |                                 |  |

NOTES: 1.

| STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS |                                                                                                   |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Turbidity:                                                          | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| pH:                                                                 | <0.1 SU                                                                                           |
| Specific Conductance:                                               | 5%                                                                                                |
| Drawdown:                                                           | <0.5 ft from Initial                                                                              |
| Dissolved Oxygen:                                                   | <0.2 mg/L or 10%, whichever is greater                                                            |



# GROUNDWATER SAMPLING LOG

|            |              |                |               |
|------------|--------------|----------------|---------------|
| SITE NAME: | 009 Landfill | SITE LOCATION: | Brunswick, GA |
| WELL ID:   | W-10         | DATE:          | 10/28/20      |

## PURGING DATA

|                                                                                                                                                                                                                       |                        |                                                |                    |                                     |                     |                                                                                         |               |                |                     |                  |                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------|--------------------|-------------------------------------|---------------------|-----------------------------------------------------------------------------------------|---------------|----------------|---------------------|------------------|---------------------------------|
| WELL DIAMETER (inches): 2                                                                                                                                                                                             |                        | TOTAL WELL DEPTH: 82 feet                      |                    | STATIC DEPTH TO WATER (feet): 10.45 |                     | PURGE PUMP TYPE OR BAILER (circle one): Peristaltic <u>Stainless Submersible</u> Bailer |               |                |                     |                  |                                 |
|                                                                                                                                                                                                                       |                        | WELL SCREEN INTERVAL DEPTH: 82 feet to 87 feet |                    |                                     |                     |                                                                                         |               |                |                     |                  |                                 |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable) = 0.3 liters + (.020 liters/foot X 87 feet) + 0.5 liters = 2.69 liters |                        |                                                |                    |                                     |                     |                                                                                         |               |                |                     |                  |                                 |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable) = ( feet - feet) X gallons/foot = gallons                                              |                        |                                                |                    |                                     |                     |                                                                                         |               |                |                     |                  |                                 |
| TIME                                                                                                                                                                                                                  | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters)                  | PURGE RATE (L/min) | DEPTH TO WATER (feet)               | pH (standard units) | TEMP. (°C)                                                                              | COND. (µS/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
| 1418                                                                                                                                                                                                                  | 2.7                    | 2.7                                            | 0.100              | 10.42                               | 5.11                | 27.84                                                                                   | 0.174         | 0.08           | 1.13                | 0.4              | 58                              |
| 1612                                                                                                                                                                                                                  | 0.4                    | 3.1                                            | 0.100              | 10.49                               | 5.10                | 27.85                                                                                   | 0.171         | 0.08           | 0.90                | 0.40             | 58                              |
| 1621                                                                                                                                                                                                                  | 0.4                    | 3.5                                            | 0.100              | 10.49                               | 5.09                | 27.91                                                                                   | 0.121         | 0.08           | 0.87                | 0.4              | 60                              |
| 1625                                                                                                                                                                                                                  | 0.4                    | 3.9                                            | 0.100              | 10.54                               | 5.05                | 27.40                                                                                   | 0.123         | 0.08           | 1.01                | 0.1              | 61                              |
|                                                                                                                                                                                                                       |                        |                                                |                    |                                     |                     |                                                                                         |               |                |                     |                  |                                 |
|                                                                                                                                                                                                                       |                        |                                                |                    |                                     |                     |                                                                                         |               |                |                     |                  |                                 |
|                                                                                                                                                                                                                       |                        |                                                |                    |                                     |                     |                                                                                         |               |                |                     |                  |                                 |
|                                                                                                                                                                                                                       |                        |                                                |                    |                                     |                     |                                                                                         |               |                |                     |                  |                                 |
|                                                                                                                                                                                                                       |                        |                                                |                    |                                     |                     |                                                                                         |               |                |                     |                  |                                 |
|                                                                                                                                                                                                                       |                        |                                                |                    |                                     |                     |                                                                                         |               |                |                     |                  |                                 |
|                                                                                                                                                                                                                       |                        |                                                |                    |                                     |                     |                                                                                         |               |                |                     |                  |                                 |
| TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603                                                                   |                        |                                                |                    |                                     |                     |                                                                                         |               |                |                     |                  |                                 |
| WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88                                                                            |                        |                                                |                    |                                     |                     |                                                                                         |               |                |                     |                  |                                 |

## SAMPLING DATA

| SAMPLED BY (PRINT) / AFFILIATION:                                                 |           |        | SAMPLER(S) SIGNATURES:                                                                           |  | SAMPLING TIME:                                                        |
|-----------------------------------------------------------------------------------|-----------|--------|--------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------|
| C. R. Z. / Antea                                                                  |           |        |                                                                                                  |  | 1630                                                                  |
| FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N |           |        | FIELD-FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/> FILTER SIZE: _____ µm |  | DUPLICATE: Y <input type="radio"/> N <input checked="" type="radio"/> |
| SAMPLE CONTAINER SPECS                                                            |           |        | SAMPLE PRESERVATION                                                                              |  | INTENDED ANALYSIS AND/OR METHOD                                       |
| Included for analyses?                                                            | # Bottles | VOLUME |                                                                                                  |  |                                                                       |
| <input checked="" type="checkbox"/>                                               | 3         | 400 mL | HCL                                                                                              |  | Benzene                                                               |
| <input checked="" type="checkbox"/>                                               | 2         | 1 L    | NONE                                                                                             |  | Totaphene                                                             |
| <input checked="" type="checkbox"/>                                               | 1         | 1 L    | NONE                                                                                             |  | TSS                                                                   |
| REMARKS:                                                                          |           |        |                                                                                                  |  |                                                                       |

NOTES: 1.

STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

|                              |                                                                                                   |
|------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Turbidity:</b>            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| <b>pH:</b>                   | <0.1 SU                                                                                           |
| <b>Specific Conductance:</b> | 5%                                                                                                |
| <b>Drawdown:</b>             | <0.5 ft from Initial                                                                              |
| <b>Dissolved Oxygen:</b>     | <0.2 mg/L or 10%, whichever is greater                                                            |

# GROUNDWATER SAMPLING LOG

|            |              |                |               |
|------------|--------------|----------------|---------------|
| SITE NAME: | 009 Landfill | SITE LOCATION: | Brunswick, GA |
| WELL ID:   | N-12         | DATE:          | 10-29-2020    |

## PURGING DATA

| WELL DIAMETER (inches): <u>2"</u>                                                                                                                                                                                                                        |                        | TOTAL WELL DEPTH: <u>16.12</u> feet |                    | WELL SCREEN INTERVAL DEPTH: <u>6</u> feet to <u>16</u> feet |                     | STATIC DEPTH TO WATER (feet): <u>9.10</u> |               | PUMP TYPE OR BAILER (circle one): <u>Peristaltic</u> / Stainless Submersible / Bailer |                     |                  |                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------|--------------------|-------------------------------------------------------------|---------------------|-------------------------------------------|---------------|---------------------------------------------------------------------------------------|---------------------|------------------|---------------------------------|
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable) = <u>0</u> liters + ( <u>0.0024</u> liters/foot X <u>18</u> feet) + <u>0.5</u> liters = <u>0.8</u> liters |                        |                                     |                    |                                                             |                     |                                           |               |                                                                                       |                     |                  |                                 |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable) = ( <u>      </u> feet - <u>      </u> feet) X <u>      </u> gallons/foot = <u>      </u> gallons                         |                        |                                     |                    |                                                             |                     |                                           |               |                                                                                       |                     |                  |                                 |
| TIME                                                                                                                                                                                                                                                     | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters)       | PURGE RATE (L/min) | DEPTH TO WATER (feet)                                       | pH (standard units) | TEMP. (°C)                                | COND. (mS/cm) | SALINITY (PPT)                                                                        | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
| 1025                                                                                                                                                                                                                                                     | 0.8                    | 0.8                                 | 0.125              | 9.15                                                        | 6.03                | 26.68                                     | 0.435         | 0.21                                                                                  | 6.39                | 3.1              | 57                              |
| 1029                                                                                                                                                                                                                                                     | 0.5                    | 1.3                                 | 0.125              | 9.13                                                        | 5.97                | 26.69                                     | 0.445         | 0.21                                                                                  | 6.64                | 2.3              | 65                              |
| 1033                                                                                                                                                                                                                                                     | 0.5                    | 1.8                                 | 0.125              | 9.14                                                        | 5.95                | 26.72                                     | 0.448         | 0.21                                                                                  | 6.59                | 2.1              | 60                              |
| 1037                                                                                                                                                                                                                                                     | 0.5                    | 2.3                                 | 0.125              | 9.13                                                        | 5.99                | 26.74                                     | 0.445         | 0.21                                                                                  | 6.51                | 2.0              | 55                              |
| 1041                                                                                                                                                                                                                                                     | 0.5                    | 2.8                                 | 0.125              | 9.13                                                        | 5.97                | 26.78                                     | 0.447         | 0.21                                                                                  | 6.49                | 2.1              | 51                              |
|                                                                                                                                                                                                                                                          |                        |                                     |                    |                                                             |                     |                                           |               |                                                                                       |                     |                  |                                 |
|                                                                                                                                                                                                                                                          |                        |                                     |                    |                                                             |                     |                                           |               |                                                                                       |                     |                  |                                 |
|                                                                                                                                                                                                                                                          |                        |                                     |                    |                                                             |                     |                                           |               |                                                                                       |                     |                  |                                 |
|                                                                                                                                                                                                                                                          |                        |                                     |                    |                                                             |                     |                                           |               |                                                                                       |                     |                  |                                 |
| TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603                                                                                                      |                        |                                     |                    |                                                             |                     |                                           |               |                                                                                       |                     |                  |                                 |
| WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88                                                                                                               |                        |                                     |                    |                                                             |                     |                                           |               |                                                                                       |                     |                  |                                 |

## SAMPLING DATA

| SAMPLE CONTAINER SPECS |           |        | SAMPLE PRESERVATION | INTENDED ANALYSIS AND/OR METHOD       |
|------------------------|-----------|--------|---------------------|---------------------------------------|
| Included for analyses? | # Bottles | VOLUME |                     |                                       |
| ✓                      | 3         | 40ml   | HCL                 | 8260 Benzene only<br>Toxaphene<br>TSS |
| ✓                      | 2         | 1L     | None                |                                       |
| ✓                      | 1         | 1L     | None                |                                       |
|                        |           |        |                     |                                       |
|                        |           |        |                     |                                       |
|                        |           |        |                     |                                       |
|                        |           |        |                     |                                       |
|                        |           |        |                     |                                       |
| REMARKS:               |           |        |                     |                                       |

NOTES: 1.

| STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS |                                                                                                   |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Turbidity:                                                          | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| pH:                                                                 | <0.1 SU                                                                                           |
| Specific Conductance:                                               | 5%                                                                                                |
| Drawdown:                                                           | <0.5 ft from Initial                                                                              |
| Dissolved Oxygen:                                                   | <0.2 mg/L or 10%, whichever is greater                                                            |

# GROUNDWATER SAMPLING LOG

|                         |                              |                  |
|-------------------------|------------------------------|------------------|
| SITE NAME: 009 Landfill | SITE LOCATION: Brunswick, GA | DATE: 10-29-2020 |
| WELL ID: N-153          |                              |                  |

## PURGING DATA

|                                                                                                                                                                                                                    |                             |                                                   |                                    |                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------|
| WELL DIAMETER (inches): 2"                                                                                                                                                                                         | TOTAL WELL DEPTH: 16.8 feet | WELL SCREEN INTERVAL DEPTH: 6.8 feet to 16.8 feet | STATIC DEPTH TO WATER (feet): 2.38 | PURGE PUMP TYPE OR BAILER (circle one): <u>Peristaltic</u> / Stainless Submersible / Bailer |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable) = 0 liters + (0.0024 liters/foot X 20 feet) + 0.5 liters = 1 liters |                             |                                                   |                                    |                                                                                             |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable) = (16.8 feet - 2.38 feet) X _____ gallons/foot = _____ gallons                      |                             |                                                   |                                    |                                                                                             |

| TIME | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters) | PURGE RATE (L/min) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (µm S/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
|------|------------------------|-------------------------------|--------------------|-----------------------|---------------------|------------|-----------------|----------------|---------------------|------------------|---------------------------------|
| 0820 | 1.0                    | 1.0                           | 0.125              | 2.46                  | 5.05                | 26.52      | 0.065           | 0.03           | 7.74                | 0.6              | 214                             |
| 0824 | 0.5                    | 1.5                           | 0.125              | 2.53                  | 5.12                | 25.83      | 0.188           | 0.09           | 2.26                | 0.2              | 177                             |
| 0828 | 0.5                    | 2.0                           | 0.125              | 2.56                  | 5.04                | 25.81      | 0.124           | 0.06           | 1.56                | 0.0              | 184                             |
| 0832 | 0.5                    | 2.5                           | 0.125              | 2.48                  | 4.98                | 25.80      | 0.100           | 0.05           | 1.46                | 0.2              | 187                             |
| 0836 | 0.5                    | 3.0                           | 0.125              | 2.46                  | 4.91                | 25.80      | 0.076           | 0.03           | 0.92                | 0.0              | 191                             |
| 0840 | 0.5                    | 3.5                           | 0.125              | 2.45                  | 4.78                | 25.88      | 0.058           | 0.03           | 0.68                | 0.0              | 200                             |
| 0844 | 0.5                    | 4.0                           | 0.125              | 2.45                  | 4.73                | 25.79      | 0.055           | 0.03           | 0.63                | 0.0              | 203                             |
| 0848 | 0.5                    | 4.5                           | 0.125              | 2.46                  | 4.72                | 25.80      | 0.054           | 0.03           | 0.61                | 0.0              | 205                             |

TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

## SAMPLING DATA

|                                                      |  |  |                                                    |  |                         |  |
|------------------------------------------------------|--|--|----------------------------------------------------|--|-------------------------|--|
| SAMPLED BY (PRINT) / AFFILIATION: Jeff S Antea Group |  |  | SAMPLER(S) SIGNATURES: <i>[Signature]</i>          |  | SAMPLING TIME: 0851     |  |
| FIELD DECONTAMINATION: <u>(Y)</u> N                  |  |  | FIELD FILTERED: Y <u>(N)</u> FILTER SIZE: _____ µm |  | DUPLICATE: Y <u>(N)</u> |  |
| Filtration Equipment Type: _____                     |  |  |                                                    |  |                         |  |

| SAMPLE CONTAINER SPECS |           |        | SAMPLE PRESERVATION | INTENDED ANALYSIS AND/OR METHOD |
|------------------------|-----------|--------|---------------------|---------------------------------|
| Included for analyses? | # Bottles | VOLUME |                     |                                 |
| ✓                      | 3         | 40ml   | HCL                 | 8260 Benzene only               |
| ✓                      | 2         | 1L     | none                | Toxaphene                       |
| ✓                      | 1         | 1L     | none                | TSS                             |
|                        |           |        |                     |                                 |
|                        |           |        |                     |                                 |
|                        |           |        |                     |                                 |
|                        |           |        |                     |                                 |
|                        |           |        |                     |                                 |
|                        |           |        |                     |                                 |

REMARKS:

### STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

- NOTES: 1. Turbidity: <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume
- pH: <0.1 SU
- Specific Conductance: 5%
- Drawdown: <0.5 ft from Initial
- Dissolved Oxygen: <0.2 mg/L or 10%, whichever is greater



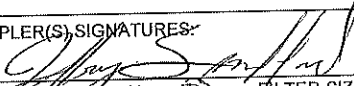
# GROUNDWATER SAMPLING LOG

|            |              |                |               |
|------------|--------------|----------------|---------------|
| SITE NAME: | 009 Landfill | SITE LOCATION: | Brunswick, GA |
| WELL ID:   | N-16D        | DATE:          | 10/28/2020    |

## PURGING DATA

| WELL DIAMETER (inches):                                                                                                                             |                        | TOTAL WELL DEPTH: _____ feet  |                    | STATIC DEPTH TO WATER (feet): |                     | PURGE PUMP TYPE OR BAILER (circle one):      |               |                |                     |                  |                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------|--------------------|-------------------------------|---------------------|----------------------------------------------|---------------|----------------|---------------------|------------------|---------------------------------|
| 2"                                                                                                                                                  |                        | 45 feet to 50 feet            |                    | 8.73                          |                     | Peristaltic / Stainless Submersible / Bailer |               |                |                     |                  |                                 |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)         |                        |                               |                    |                               |                     |                                              |               |                |                     |                  |                                 |
| = 0 liters + (0.0024 liters/foot X 53 feet) + 0.5 liters = 0.7 liters                                                                               |                        |                               |                    |                               |                     |                                              |               |                |                     |                  |                                 |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)                         |                        |                               |                    |                               |                     |                                              |               |                |                     |                  |                                 |
| = ( _____ feet - _____ feet) X _____ gallons/foot = _____ gallons                                                                                   |                        |                               |                    |                               |                     |                                              |               |                |                     |                  |                                 |
| TIME                                                                                                                                                | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters) | PURGE RATE (L/min) | DEPTH TO WATER (feet)         | pH (standard units) | TEMP. (°C)                                   | COND. (mS/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
| 1252                                                                                                                                                | 0.7                    | 0.7                           | 0.125              | 9.03                          | 4.18                | 23.55                                        | 0.113         | 0.05           | 1.83                | 0.2              | 13                              |
| 1256                                                                                                                                                | 0.5                    | 1.2                           | 0.125              | 8.92                          | 4.14                | 23.61                                        | 0.113         | 0.05           | 0.77                | 0.1              | 9                               |
| 1300                                                                                                                                                | 0.5                    | 1.7                           | 0.125              | 8.89                          | 4.13                | 23.41                                        | 0.113         | 0.05           | 0.60                | 0.1              | 6                               |
| 1304                                                                                                                                                | 0.5                    | 2.2                           | 0.125              | 8.85                          | 4.12                | 23.31                                        | 0.113         | 0.05           | 0.52                | 0.0              | 3                               |
| 1308                                                                                                                                                | 0.5                    | 2.7                           | 0.125              | 8.83                          | 4.12                | 23.33                                        | 0.113         | 0.05           | 0.49                | 0.0              | 2                               |
|                                                                                                                                                     |                        |                               |                    |                               |                     |                                              |               |                |                     |                  |                                 |
|                                                                                                                                                     |                        |                               |                    |                               |                     |                                              |               |                |                     |                  |                                 |
|                                                                                                                                                     |                        |                               |                    |                               |                     |                                              |               |                |                     |                  |                                 |
| TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603 |                        |                               |                    |                               |                     |                                              |               |                |                     |                  |                                 |
| WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88          |                        |                               |                    |                               |                     |                                              |               |                |                     |                  |                                 |

## SAMPLING DATA

|                                                                                   |                |                |                                                                                                               |  |                                                                       |  |
|-----------------------------------------------------------------------------------|----------------|----------------|---------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------|--|
| SAMPLED BY (PRINT) / AFFILIATION:<br>Jeff S Antec Group                           |                |                | SAMPLER(S) SIGNATURES:<br> |  | SAMPLING TIME: 1312                                                   |  |
| FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N |                |                | FIELD FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/> FILTER SIZE: _____ µm              |  | DUPLICATE: Y <input type="radio"/> N <input checked="" type="radio"/> |  |
| SAMPLE CONTAINER SPECS                                                            |                |                | SAMPLE PRESERVATION                                                                                           |  | INTENDED ANALYSIS AND/OR METHOD                                       |  |
| Included for analyses?<br><input checked="" type="checkbox"/>                     | # Bottles<br>3 | VOLUME<br>40mL | HCL                                                                                                           |  | 8260 Benzene Only                                                     |  |
|                                                                                   |                |                |                                                                                                               |  |                                                                       |  |
|                                                                                   |                |                |                                                                                                               |  |                                                                       |  |
|                                                                                   |                |                |                                                                                                               |  |                                                                       |  |
|                                                                                   |                |                |                                                                                                               |  |                                                                       |  |
|                                                                                   |                |                |                                                                                                               |  |                                                                       |  |
| REMARKS:                                                                          |                |                |                                                                                                               |  |                                                                       |  |
| ADDITIONAL WATER QUALITY READINGS                                                 |                |                |                                                                                                               |  |                                                                       |  |

NOTES: 1.

STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

| STABILIZATION CRITERIA FOR THREE CONSECUTIVE READINGS |                                                                                                   |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Turbidity:                                            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| pH:                                                   | <0.1 SU                                                                                           |
| Specific Conductance:                                 | 5%                                                                                                |
| Drawdown:                                             | <0.5 ft from Initial                                                                              |
| Dissolved Oxygen:                                     | <0.2 mg/L or 10%, whichever is greater                                                            |

GROUNDWATER

A-17

## PURGING DATA

2

= PUMP  
 0

\_\_\_\_\_

|      | (liters) | (liters) | (cm <sup>3</sup> ) |      |      |       |       |      |       |     |    |
|------|----------|----------|--------------------|------|------|-------|-------|------|-------|-----|----|
| 1437 | 0.8      | 0.8      | 0.100              | 7.15 | 4.48 | 25.57 | 0.455 | 0.22 | 1.02L | 1.3 | 62 |
| 1441 | 0.4      | 1.2      | 0.100              | 7.17 | 4.48 | 25.53 | 0.457 | 0.22 | 0.52  | 1.3 | 62 |
| 1445 | 0.4      | 1.6      | 0.100              | 7.15 | 4.48 | 25.47 | 0.460 | 0.22 | 0.41  | 1.1 | 61 |
| 1449 | 0.4      | 2.0      | 0.100              | 7.15 | 4.48 | 25.40 | 0.456 | 0.22 | 0.37  | 1.0 | 60 |

TUBIN  
0.0603

## SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:  
CARL R ZWIS/ANTEN

NOTES: 1.

**Specific Conductance:**

**Dissolved Oxygen:** <0.2 mg/L or 10%, whichever is greater

# GROUNDWATER SAMPLING LOG

|            |              |                |               |       |            |
|------------|--------------|----------------|---------------|-------|------------|
| SITE NAME: | 009 Landfill | SITE LOCATION: | Brunswick, GA | DATE: | 10-29-2020 |
| WELL ID:   | N-18         |                |               |       |            |

## PURGING DATA

|                                                                                                                                                                                                                                                             |                                                                                                               |                                                                |                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| WELL DIAMETER<br>(inches):<br><br>2"                                                                                                                                                                                                                        | TOTAL WELL DEPTH:<br><u>33.52</u> feet<br><br>WELL SCREEN INTERVAL DEPTH:<br><u>20</u> feet to <u>30</u> feet | STATIC DEPTH TO WATER<br>(feet):<br><u>6.59</u><br><u>6.59</u> | PURGE PUMP TYPE OR BAILER (circle one):<br>Peristaltic / Stainless Submersible / Bailer |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable)<br>= <u>0</u> liters + ( <u>0.0024</u> liters/foot X <u>35</u> feet) + <u>0.5</u> liters = <u>0.6</u> liters |                                                                                                               |                                                                |                                                                                         |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable)<br>= ( _____ feet - _____ feet ) X _____ gallons/foot = _____ gallons                                                        |                                                                                                               |                                                                |                                                                                         |

| TIME | VOLUME PURGED<br>(liters) | CUMUL.<br>VOLUME PURGED<br>(liters) | PURGE RATE<br>(L/min) | DEPTH TO WATER<br>(feet) | pH<br>(standard units) | TEMP.<br>(°C) | COND.<br>(mS/cm) | SALINITY<br>(PPT) | DISS. OXYGEN<br>(mg/L) | TURBIDITY<br>(NTUs) | OXYGEN REDUCTION POTENTIAL<br>(mV) |
|------|---------------------------|-------------------------------------|-----------------------|--------------------------|------------------------|---------------|------------------|-------------------|------------------------|---------------------|------------------------------------|
| 1147 | 0.6                       | 0.6                                 | 0.130                 | 6.73                     | 4.71                   | 27.30         | 0.313            | 0.15              | 0.90                   | 1.0                 | 40                                 |
| 1151 | 0.5                       | 1.1                                 | 0.125                 | 6.73                     | 4.63                   | 27.21         | 0.312            | 0.15              | 0.45                   | 0.8                 | 31                                 |
| 1155 | 0.56                      | 1.66                                | 0.140                 | 6.73                     | 4.59                   | 27.00         | 0.312            | 0.15              | 0.34                   | 0.6                 | 24                                 |
| 1159 | 0.54                      | 2.20                                | 0.135                 | 6.73                     | 4.57                   | 26.89         | 0.311            | 0.15              | 0.28                   | 0.7                 | 18                                 |
| 1203 | 0.512                     | 2.71                                | 0.128                 | 6.73                     | 4.56                   | 26.82         | 0.311            | 0.15              | 0.26                   | 1.0                 | 15                                 |
|      |                           |                                     |                       |                          |                        |               |                  |                   |                        |                     |                                    |
|      |                           |                                     |                       |                          |                        |               |                  |                   |                        |                     |                                    |
|      |                           |                                     |                       |                          |                        |               |                  |                   |                        |                     |                                    |
|      |                           |                                     |                       |                          |                        |               |                  |                   |                        |                     |                                    |
|      |                           |                                     |                       |                          |                        |               |                  |                   |                        |                     |                                    |

1/8" = 0.0024;    3/16" = 0.0054;    1/4" = 0.0097;    5/16" = 0.0151;    3/8" = 0.0217;    1/2" = 0.0386;    5/8" = 0.0603

WEL CAPACITY (Gallons Per Foot): 0.75" = 0.02;    1" = 0.04;    1.25" = 0.06;    2" = 0.16;    3" = 0.37;    4" = 0.65;    5" = 1.02;    6" = 1.47;    12" = 5.88

## SAMPLING DATA

| SAMPLE CONTAINER SPECS |           |        | SAMPLE PRESERVATION | INTENDED ANALYSIS AND/OR METHOD |
|------------------------|-----------|--------|---------------------|---------------------------------|
| Included for analyses? | # Bottles | VOLUME |                     |                                 |
|                        |           |        | See COC             |                                 |
|                        |           |        |                     |                                 |
|                        |           |        |                     |                                 |
|                        |           |        |                     |                                 |
|                        |           |        |                     |                                 |
|                        |           |        |                     |                                 |
|                        |           |        |                     |                                 |
|                        |           |        |                     |                                 |
| REMARKS:               |           |        |                     |                                 |

## STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

NOTES: 1.

STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

|                       |                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------|
| Turbidity:            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| pH:                   | <0.1 SU                                                                                           |
| Specific Conductance: | 5%                                                                                                |
| Drawdown:             | <0.5 ft from Initial                                                                              |
| Dissolved Oxygen:     | <0.2 mg/L or 10%, whichever is greater                                                            |

# GROUNDWATER SAMPLING LOG

|            |              |                |               |
|------------|--------------|----------------|---------------|
| SITE NAME: | 009 Landfill | SITE LOCATION: | Brunswick, GA |
| WELL ID:   | N-12         | DATE:          | 10/28/20      |

## PURGING DATA

| WELL DIAMETER<br>(inches): <u>2</u>                                                                                                                                                                                                                       |                           | TOTAL WELL DEPTH: <u>25</u> feet                                |                       | STATIC DEPTH TO WATER<br>(feet): <u>4.02</u> |                        | PURGE PUMP TYPE OR BAILER (circle one):<br><u>Peristaltic</u> / Stainless Submersible / Bailer |                   |                   |                        |                     |                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------|-----------------------|----------------------------------------------|------------------------|------------------------------------------------------------------------------------------------|-------------------|-------------------|------------------------|---------------------|---------------------------------------|
|                                                                                                                                                                                                                                                           |                           | WELL SCREEN INTERVAL DEPTH:<br><u>15</u> feet to <u>25</u> feet |                       |                                              |                        |                                                                                                |                   |                   |                        |                     |                                       |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable)<br>= <u>0</u> liters + <u>0.0097</u> liters/foot X <u>25</u> feet + <u>0.5</u> liters = <u>0.74</u> liters |                           |                                                                 |                       |                                              |                        |                                                                                                |                   |                   |                        |                     |                                       |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable)<br>= ( <u>      </u> feet - <u>      </u> feet ) X <u>      </u> gallons/foot = <u>      </u> gallons                      |                           |                                                                 |                       |                                              |                        |                                                                                                |                   |                   |                        |                     |                                       |
| TIME                                                                                                                                                                                                                                                      | VOLUME PURGED<br>(liters) | CUMUL.<br>VOLUME PURGED<br>(liters)                             | PURGE RATE<br>(L/min) | DEPTH TO WATER<br>(feet)                     | pH<br>(standard units) | TEMP.<br>(°C)                                                                                  | COND.<br>(µmS/cm) | SALINITY<br>(PPT) | DISS. OXYGEN<br>(mg/L) | TURBIDITY<br>(NTUs) | OXYGEN REDUCTION<br>POTENTIAL<br>(mV) |
| 1257                                                                                                                                                                                                                                                      | 0.8                       | 0.8                                                             | 0.100                 | 4.20                                         | 4.98                   | 26.87                                                                                          | 0.123             | 0.06              | 2.25                   | 0.6                 | 48                                    |
| 1301                                                                                                                                                                                                                                                      | 0.4                       | 1.2                                                             | 0.100                 | 4.20                                         | 4.98                   | 27.06                                                                                          | 0.121             | 0.06              | 0.60                   | 0.2                 | 40                                    |
| 1305                                                                                                                                                                                                                                                      | 0.4                       | 1.6                                                             | 0.100                 | 4.20                                         | 4.98                   | 26.61                                                                                          | 0.122             | 0.06              | 0.53                   | 0.0                 | 38                                    |
| 1307                                                                                                                                                                                                                                                      | 0.4                       | 2.0                                                             | 0.100                 | 4.20                                         | 4.98                   | 26.53                                                                                          | 0.122             | 0.06              | 0.46                   | 0.0                 | 37                                    |
|                                                                                                                                                                                                                                                           |                           |                                                                 |                       |                                              |                        |                                                                                                |                   |                   |                        |                     |                                       |
|                                                                                                                                                                                                                                                           |                           |                                                                 |                       |                                              |                        |                                                                                                |                   |                   |                        |                     |                                       |
|                                                                                                                                                                                                                                                           |                           |                                                                 |                       |                                              |                        |                                                                                                |                   |                   |                        |                     |                                       |
|                                                                                                                                                                                                                                                           |                           |                                                                 |                       |                                              |                        |                                                                                                |                   |                   |                        |                     |                                       |
|                                                                                                                                                                                                                                                           |                           |                                                                 |                       |                                              |                        |                                                                                                |                   |                   |                        |                     |                                       |
|                                                                                                                                                                                                                                                           |                           |                                                                 |                       |                                              |                        |                                                                                                |                   |                   |                        |                     |                                       |
| TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; <u>1/4" = 0.0097</u> ; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0803                                                                                               |                           |                                                                 |                       |                                              |                        |                                                                                                |                   |                   |                        |                     |                                       |
| WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88                                                                                                                |                           |                                                                 |                       |                                              |                        |                                                                                                |                   |                   |                        |                     |                                       |

## SAMPLING DATA

|                                                                                   |           |        |                                                                                                               |  |                                                                       |                                 |  |  |
|-----------------------------------------------------------------------------------|-----------|--------|---------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------|---------------------------------|--|--|
| SAMPLED BY (PRINT) / AFFILIATION:<br>Carter Zwiers / Antea                        |           |        | SAMPLER(S) SIGNATURES:<br> |  | SAMPLING TIME:<br>1311                                                |                                 |  |  |
| FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N |           |        | FIELD-FILTERED: Y <input checked="" type="radio"/> N<br>Filtration Equipment Type:                            |  | FILTER SIZE: _____ µm                                                 |                                 |  |  |
|                                                                                   |           |        |                                                                                                               |  | DUPLICATE: Y <input type="radio"/> <input checked="" type="radio"/> N |                                 |  |  |
| SAMPLE CONTAINER SPECS                                                            |           |        | SAMPLE PRESERVATION                                                                                           |  |                                                                       | INTENDED ANALYSIS AND/OR METHOD |  |  |
| Included for analyses?                                                            | # Bottles | VOLUME |                                                                                                               |  |                                                                       |                                 |  |  |
| <input checked="" type="checkbox"/>                                               | 3         | 40ml   | HCL                                                                                                           |  |                                                                       | VOCs                            |  |  |
|                                                                                   |           |        |                                                                                                               |  |                                                                       |                                 |  |  |
|                                                                                   |           |        |                                                                                                               |  |                                                                       |                                 |  |  |
|                                                                                   |           |        |                                                                                                               |  |                                                                       |                                 |  |  |
|                                                                                   |           |        |                                                                                                               |  |                                                                       |                                 |  |  |
|                                                                                   |           |        |                                                                                                               |  |                                                                       |                                 |  |  |
|                                                                                   |           |        |                                                                                                               |  |                                                                       |                                 |  |  |
| REMARKS:                                                                          |           |        |                                                                                                               |  |                                                                       |                                 |  |  |
|                                                                                   |           |        |                                                                                                               |  |                                                                       |                                 |  |  |

NOTES: 1.

### STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

|                              |                                                                                                   |
|------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Turbidity:</b>            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| <b>pH:</b>                   | <0.1 SU                                                                                           |
| <b>Specific Conductance:</b> | 5%                                                                                                |
| <b>Drawdown:</b>             | <0.5 ft from Initial                                                                              |
| <b>Dissolved Oxygen:</b>     | <0.2 mg/L or 10%, whichever is greater                                                            |

# GROUNDWATER SAMPLING LOG

|            |              |                |               |
|------------|--------------|----------------|---------------|
| SITE NAME: | 009 Landfill | SITE LOCATION: | Brunswick, GA |
| WELL ID:   | N-20         | DATE:          | 10/28/20      |

## PURGING DATA

| WELL DIAMETER (inches): <u>2</u>                                                                                                                                                                                                                                                          |                        | TOTAL WELL DEPTH: <u>32</u> feet                             |                    | STATIC DEPTH TO WATER (feet): <u>4.82</u> |                     | PURGE PUMP TYPE OR BAILER (circle one): <u>Peristaltic</u> / Stainless Submersible / Bailer |               |                |                     |                  |                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------|--------------------|-------------------------------------------|---------------------|---------------------------------------------------------------------------------------------|---------------|----------------|---------------------|------------------|---------------------------------|
|                                                                                                                                                                                                                                                                                           |                        | WELL SCREEN INTERVAL DEPTH: <u>22</u> feet to <u>32</u> feet |                    |                                           |                     |                                                                                             |               |                |                     |                  |                                 |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)<br>$0 = 0.27 \text{ L/min} + (0.0097 \text{ L/ft} \times 32 \text{ feet}) + 0.5 \text{ liters} = 0.81 \text{ liters}$                         |                        |                                                              |                    |                                           |                     |                                                                                             |               |                |                     |                  |                                 |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)<br>= ( <u>                    </u> feet - <u>                    </u> feet ) X <u>                    </u> gallons/foot = <u>                    </u> gallons |                        |                                                              |                    |                                           |                     |                                                                                             |               |                |                     |                  |                                 |
| TIME                                                                                                                                                                                                                                                                                      | VOLUME PURGED (liters) | CUMUL. VOLUME PURGED (liters)                                | PURGE RATE (L/min) | DEPTH TO WATER (feet)                     | pH (standard units) | TEMP. (°C)                                                                                  | COND. (µS/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
| 10:07                                                                                                                                                                                                                                                                                     | 1.00                   | 1.00                                                         | 0.125              | 4.92                                      | 5.00                | 26.72                                                                                       | 0.225         | 1.84           | 1.71                | 0.2              | 41                              |
| 10:15                                                                                                                                                                                                                                                                                     | 0.4                    | 1.40                                                         | 0.125              | 5.02                                      | 4.98                | 26.82                                                                                       | 0.290         | 0.14           | 0.74                | 0.0              | 37                              |
| 10:29                                                                                                                                                                                                                                                                                     | 0.4                    | 1.80                                                         | 0.125              | 5.00                                      | 4.93                | 26.82                                                                                       | 0.285         | 0.13           | 0.52                | 0.0              | 35                              |
| 10:38                                                                                                                                                                                                                                                                                     | 0.4                    | 2.20                                                         | 0.125              | 5.01                                      | 4.92                | 26.94                                                                                       | 0.285         | 0.13           | 0.55                | 0.0              | 35                              |
| 11:57                                                                                                                                                                                                                                                                                     | 0.4                    | 2.40                                                         | 0.125              | 5.02                                      | 4.89                | 26.95                                                                                       | 0.284         | 0.13           | 0.51                | 0.0              | 35                              |
|                                                                                                                                                                                                                                                                                           |                        |                                                              |                    |                                           |                     |                                                                                             |               |                |                     |                  |                                 |
|                                                                                                                                                                                                                                                                                           |                        |                                                              |                    |                                           |                     |                                                                                             |               |                |                     |                  |                                 |
|                                                                                                                                                                                                                                                                                           |                        |                                                              |                    |                                           |                     |                                                                                             |               |                |                     |                  |                                 |
|                                                                                                                                                                                                                                                                                           |                        |                                                              |                    |                                           |                     |                                                                                             |               |                |                     |                  |                                 |
| TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; <u>1/4" = 0.0097</u> ; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603                                                                                                                               |                        |                                                              |                    |                                           |                     |                                                                                             |               |                |                     |                  |                                 |
| WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88                                                                                                                                                |                        |                                                              |                    |                                           |                     |                                                                                             |               |                |                     |                  |                                 |

## SAMPLING DATA

|                                                             |           |        |                                                                                                               |  |                                 |  |
|-------------------------------------------------------------|-----------|--------|---------------------------------------------------------------------------------------------------------------|--|---------------------------------|--|
| SAMPLED BY (PRINT) / AFFILIATION:<br>CARRIZO WILSON / Anteq |           |        | SAMPLER(S) SIGNATURES:<br> |  | SAMPLING TIME: 1110             |  |
| FIELD DECONTAMINATION: Y N                                  |           |        | FIELD-FILTERED: Y N<br>Filtration Equipment Type: _____                                                       |  | DUPLICATE: Y N                  |  |
| SAMPLE CONTAINER SPECS                                      |           |        | SAMPLE PRESERVATION                                                                                           |  | INTENDED ANALYSIS AND/OR METHOD |  |
| Included for analyses?                                      | # Bottles | VOLUME |                                                                                                               |  |                                 |  |
| Yes 8260                                                    | 3         | 40 ml  | HCL                                                                                                           |  | VOCs 18260                      |  |
|                                                             |           |        |                                                                                                               |  |                                 |  |
|                                                             |           |        |                                                                                                               |  |                                 |  |
|                                                             |           |        |                                                                                                               |  |                                 |  |
|                                                             |           |        |                                                                                                               |  |                                 |  |
|                                                             |           |        |                                                                                                               |  |                                 |  |
|                                                             |           |        |                                                                                                               |  |                                 |  |
| REMARKS:                                                    |           |        |                                                                                                               |  |                                 |  |
|                                                             |           |        |                                                                                                               |  |                                 |  |

NOTES: 1.

## STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

|                              |                                                                                                   |
|------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Turbidity:</b>            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| <b>pH:</b>                   | <0.1 SU                                                                                           |
| <b>Specific Conductance:</b> | 5%                                                                                                |
| <b>Drawdown:</b>             | <0.5 ft from Initial                                                                              |
| <b>Dissolved Oxygen:</b>     | <0.2 mg/L or 10%, whichever is greater                                                            |



$$\frac{1}{2}$$

## PURGING DATA

## SAMPLING DATA

**NOTES:** 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

|                       |                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------|
| Turbidity:            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| pH:                   | <0.1 SU                                                                                           |
| Specific Conductance: | 5%                                                                                                |
| Drawdown:             | <0.5 ft from Initial                                                                              |
| Dissolved Oxygen:     | <0.2 mg/L or 10%, whichever is greater                                                            |

$$\frac{2}{2}$$

## PURGING DATA

## SAMPLING DATA

**NOTES:** 1. STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

|                       |                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------|
| Turbidity:            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| pH:                   | <0.1 SU                                                                                           |
| Specific Conductance: | 5%                                                                                                |
| Drawdown:             | <0.5 ft from Initial                                                                              |
| Dissolved Oxygen:     | <0.2 mg/L or 10%, whichever is greater                                                            |

# GROUNDWATER SAMPLING LOG

|            |              |                |               |
|------------|--------------|----------------|---------------|
| SITE NAME: | 009 Landfill | SITE LOCATION: | Brunswick, GA |
| WELL ID:   | N-215        | DATE:          | 10/28/2020    |

## PURGING DATA

|                                                                                                                                                                                                                        |                                                                            |                                           |                                                                                         |                       |                     |            |                 |                |                     |                  |                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------|---------------------|------------|-----------------|----------------|---------------------|------------------|---------------------------------|
| WELL DIAMETER (inches):<br><br>2"                                                                                                                                                                                      | TOTAL WELL DEPTH: 10 feet<br>WELL SCREEN INTERVAL DEPTH: 4 feet to 10 feet | STATIC DEPTH TO WATER (feet):<br><br>8.50 | PURGE PUMP TYPE OR BAILER (circle one):<br>Peristaltic / Stainless Submersible / Bailer |                       |                     |            |                 |                |                     |                  |                                 |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable)<br>= 0 liters + (0.024 liters/foot X 12 feet) + 0.5 liters = 0.6 liters |                                                                            |                                           |                                                                                         |                       |                     |            |                 |                |                     |                  |                                 |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable)<br>= ( ) feet - ( ) feet X ( ) gallons/foot = ( ) gallons                               |                                                                            |                                           |                                                                                         |                       |                     |            |                 |                |                     |                  |                                 |
| TIME                                                                                                                                                                                                                   | VOLUME PURGED (liters)                                                     | CUMUL. VOLUME PURGED (liters)             | PURGE RATE (L/min)                                                                      | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (µm S/cm) | SALINITY (PPT) | DISS. OXYGEN (mg/L) | TURBIDITY (NTUs) | OXYGEN REDUCTION POTENTIAL (mV) |
| 1140                                                                                                                                                                                                                   | 0.6                                                                        | 0.6                                       | 0.125                                                                                   | 9.26                  | 3.70                | 25.78      | 0.044           | 0.02           | 2.14                | 2.0              | 191                             |
| 1144                                                                                                                                                                                                                   | 0.5                                                                        | 1.1                                       | 0.125                                                                                   | 9.31                  | 3.72                | 25.64      | 0.047           | 0.02           | 0.92                | 2.6              | 199                             |
| 1148                                                                                                                                                                                                                   | 0.5                                                                        | 1.6                                       | 0.125                                                                                   | 9.34                  | 3.74                | 25.81      | 0.049           | 0.02           | 0.77                | 2.7              | 167                             |
| 1152                                                                                                                                                                                                                   | 0.5                                                                        | 2.1                                       | 0.125                                                                                   | 9.36                  | 3.76                | 25.84      | 0.050           | 0.02           | 0.73                | 2.5              | 142                             |
| 1156                                                                                                                                                                                                                   | 0.5                                                                        | 2.6                                       | 0.125                                                                                   | 9.40                  | 3.77                | 25.87      | 0.050           | 0.02           | 0.71                | 2.3              | 133                             |
| 1200                                                                                                                                                                                                                   | 0.5                                                                        | 3.1                                       | 0.125                                                                                   | 9.41                  | 3.77                | 25.89      | 0.050           | 0.02           | 0.72                | 2.5              | 124                             |
|                                                                                                                                                                                                                        |                                                                            |                                           |                                                                                         |                       |                     |            |                 |                |                     |                  |                                 |
|                                                                                                                                                                                                                        |                                                                            |                                           |                                                                                         |                       |                     |            |                 |                |                     |                  |                                 |
| TUBING INSIDE DIA. CAPACITY (Liters/Ft.): 1/8" = 0.0024; 3/16" = 0.0054; 1/4" = 0.0097; 5/16" = 0.0151; 3/8" = 0.0217; 1/2" = 0.0386; 5/8" = 0.0603                                                                    |                                                                            |                                           |                                                                                         |                       |                     |            |                 |                |                     |                  |                                 |
| WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88                                                                             |                                                                            |                                           |                                                                                         |                       |                     |            |                 |                |                     |                  |                                 |

## SAMPLING DATA

|                                                                                   |           |        |                                                                                                                |  |                                 |  |
|-----------------------------------------------------------------------------------|-----------|--------|----------------------------------------------------------------------------------------------------------------|--|---------------------------------|--|
| SAMPLED BY (PRINT) / AFFILIATION:<br>Jeff S Antea Group                           |           |        | SAMPLER(S) SIGNATURES:<br>  |  | SAMPLING TIME:<br>1204          |  |
| FIELD DECONTAMINATION: <input checked="" type="radio"/> Y <input type="radio"/> N |           |        | FIELD FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/><br>Filtration Equipment Type: _____ |  | FILTER SIZE: _____ $\mu$ m      |  |
| SAMPLE CONTAINER SPECS                                                            |           |        | SAMPLE PRESERVATION                                                                                            |  | INTENDED ANALYSIS AND/OR METHOD |  |
| Included for analyses?                                                            | # Bottles | VOLUME |                                                                                                                |  |                                 |  |
| <input checked="" type="checkbox"/>                                               | 3         | 40ml   | HCL                                                                                                            |  | 8260 Benzene only               |  |
|                                                                                   |           |        |                                                                                                                |  |                                 |  |
|                                                                                   |           |        |                                                                                                                |  |                                 |  |
|                                                                                   |           |        |                                                                                                                |  |                                 |  |
|                                                                                   |           |        |                                                                                                                |  |                                 |  |
|                                                                                   |           |        |                                                                                                                |  |                                 |  |
|                                                                                   |           |        |                                                                                                                |  |                                 |  |
| REMARKS:                                                                          |           |        |                                                                                                                |  |                                 |  |

NOTES: 1.

### STABILIZATION CRITERIA FOR THREE CONSECUTIVE WATER QUALITY READINGS

|                              |                                                                                                   |
|------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Turbidity:</b>            | <10 NTU or 3 Consecutive readings within 10% of each other following removal of additional volume |
| <b>pH:</b>                   | <0.1 SU                                                                                           |
| <b>Specific Conductance:</b> | 5%                                                                                                |
| <b>Drawdown:</b>             | <0.5 ft from Initial                                                                              |
| <b>Dissolved Oxygen:</b>     | <0.2 mg/L or 10%, whichever is greater                                                            |

## Appendix C - Laboratory Analytical Reports

## ANALYTICAL REPORT

Eurofins TestAmerica, Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404  
Tel: (912)354-7858

Laboratory Job ID: 680-188351-1  
Client Project/Site: Brunswick 009 Landfill

**For:**

Ashland LLC  
Ashland Hercules Research Center  
500 Hercules Rd Bldg 8145  
Wilmington, Delaware 19808

Attn: Timothy Hassett



Authorized for release by:  
9/11/2020 11:28:04 AM

Eddie Barnett, Project Manager I  
(912)250-0280  
[Eddie.Barnett@Eurofinset.com](mailto:Eddie.Barnett@Eurofinset.com)

### LINKS

Review your project  
results through  
**TotalAccess**

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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

## Definitions/Glossary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-188351-1

### Glossary

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

# Sample Summary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-188351-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 680-188351-1  | N-05D            | Water  | 09/02/20 18:40 | 09/04/20 10:30 |          |
| 680-188351-2  | N-16D            | Water  | 09/02/20 16:10 | 09/04/20 10:30 |          |
| 680-188351-3  | N-17             | Water  | 09/02/20 13:10 | 09/04/20 10:30 |          |
| 680-188351-4  | N-18             | Water  | 09/03/20 08:25 | 09/04/20 10:30 |          |
| 680-188351-5  | N-19             | Water  | 09/02/20 13:15 | 09/04/20 10:30 |          |
| 680-188351-6  | N-20             | Water  | 09/03/20 10:00 | 09/04/20 10:30 |          |
| 680-188351-7  | DUP-1            | Water  | 09/03/20 00:00 | 09/04/20 10:30 |          |
| 680-188351-8  | Equipment Blank  | Water  | 09/03/20 08:55 | 09/04/20 10:30 |          |
| 680-188351-9  | Trip Blank       | Water  | 09/03/20 00:00 | 09/04/20 10:30 |          |
| 680-188351-10 | N-05             | Water  | 09/02/20 11:25 | 09/04/20 10:30 |          |

# Case Narrative

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-188351-1

**Job ID: 680-188351-1**

**Laboratory: Eurofins TestAmerica, Savannah**

## Narrative

### **CASE NARRATIVE** **Client: Ashland LLC** **Project: Brunswick 009 Landfill**

**Report Number: 680-188351-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

#### **RECEIPT**

The samples were received on 09/04/2020; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 0.3° C.

#### **VOLATILE ORGANIC COMPOUNDS (GC-MS)**

Samples N-05D (680-188351-1), N-16D (680-188351-2), N-17 (680-188351-3), N-18 (680-188351-4), N-19 (680-188351-5), N-20 (680-188351-6), DUP-1 (680-188351-7), Equipment Blank (680-188351-8), Trip Blank (680-188351-9) and N-05 (680-188351-10) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 09/08/2020 and 09/10/2020.

Samples N-20 (680-188351-6) and DUP-1 (680-188351-7) were collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The samples were analyzed within the 7-day holding time specified for unpreserved samples.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batches 680-633411 and 680-633692.

Samples N-18 (680-188351-4)[5X] and N-05 (680-188351-10)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

# Client Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-188351-1

**Client Sample ID: N-05D**

**Date Collected: 09/02/20 18:40**

**Date Received: 09/04/20 10:30**

**Lab Sample ID: 680-188351-1**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | 22     |           | 1.0 | 0.43 | ug/L |   |          | 09/08/20 20:45 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 103       |           | 80 - 120 |          | 09/08/20 20:45 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 88        |           | 73 - 131 |          | 09/08/20 20:45 | 1       |
| Dibromofluoromethane (Surr)  | 103       |           | 80 - 122 |          | 09/08/20 20:45 | 1       |
| 4-Bromofluorobenzene (Surr)  | 104       |           | 80 - 120 |          | 09/08/20 20:45 | 1       |

**Client Sample ID: N-16D**

**Date Collected: 09/02/20 16:10**

**Date Received: 09/04/20 10:30**

**Lab Sample ID: 680-188351-2**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | <0.43  |           | 1.0 | 0.43 | ug/L |   |          | 09/08/20 21:08 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 102       |           | 80 - 120 |          | 09/08/20 21:08 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 89        |           | 73 - 131 |          | 09/08/20 21:08 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 80 - 122 |          | 09/08/20 21:08 | 1       |
| 4-Bromofluorobenzene (Surr)  | 104       |           | 80 - 120 |          | 09/08/20 21:08 | 1       |

**Client Sample ID: N-17**

**Date Collected: 09/02/20 13:10**

**Date Received: 09/04/20 10:30**

**Lab Sample ID: 680-188351-3**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | 83     |           | 1.0 | 0.43 | ug/L |   |          | 09/08/20 21:31 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 102       |           | 80 - 120 |          | 09/08/20 21:31 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 89        |           | 73 - 131 |          | 09/08/20 21:31 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 80 - 122 |          | 09/08/20 21:31 | 1       |
| 4-Bromofluorobenzene (Surr)  | 104       |           | 80 - 120 |          | 09/08/20 21:31 | 1       |

**Client Sample ID: N-18**

**Date Collected: 09/03/20 08:25**

**Date Received: 09/04/20 10:30**

**Lab Sample ID: 680-188351-4**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Benzene | 210    |           | 5.0 | 2.2 | ug/L |   |          | 09/10/20 21:05 | 5       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 111       |           | 80 - 120 |          | 09/10/20 21:05 | 5       |
| 1,2-Dichloroethane-d4 (Surr) | 129       |           | 73 - 131 |          | 09/10/20 21:05 | 5       |
| Dibromofluoromethane (Surr)  | 121       |           | 80 - 122 |          | 09/10/20 21:05 | 5       |
| 4-Bromofluorobenzene (Surr)  | 116       |           | 80 - 120 |          | 09/10/20 21:05 | 5       |

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# Client Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-188351-1

**Client Sample ID: N-19**

**Date Collected: 09/02/20 13:15**

**Date Received: 09/04/20 10:30**

**Lab Sample ID: 680-188351-5**

**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | 8.3       |           | 1.0      | 0.43 | ug/L |   |          | 09/10/20 19:29 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 112       |           | 80 - 120 |      |      |   |          | 09/10/20 19:29 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 130       |           | 73 - 131 |      |      |   |          | 09/10/20 19:29 | 1       |
| Dibromofluoromethane (Surr)  | 121       |           | 80 - 122 |      |      |   |          | 09/10/20 19:29 | 1       |
| 4-Bromofluorobenzene (Surr)  | 115       |           | 80 - 120 |      |      |   |          | 09/10/20 19:29 | 1       |

**Client Sample ID: N-20**

**Date Collected: 09/03/20 10:00**

**Date Received: 09/04/20 10:30**

**Lab Sample ID: 680-188351-6**

**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | 18        |           | 1.0      | 0.43 | ug/L |   |          | 09/08/20 22:41 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 102       |           | 80 - 120 |      |      |   |          | 09/08/20 22:41 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 89        |           | 73 - 131 |      |      |   |          | 09/08/20 22:41 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 80 - 122 |      |      |   |          | 09/08/20 22:41 | 1       |
| 4-Bromofluorobenzene (Surr)  | 104       |           | 80 - 120 |      |      |   |          | 09/08/20 22:41 | 1       |

**Client Sample ID: DUP-1**

**Date Collected: 09/03/20 00:00**

**Date Received: 09/04/20 10:30**

**Lab Sample ID: 680-188351-7**

**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | 18        |           | 1.0      | 0.43 | ug/L |   |          | 09/08/20 23:04 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 102       |           | 80 - 120 |      |      |   |          | 09/08/20 23:04 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 88        |           | 73 - 131 |      |      |   |          | 09/08/20 23:04 | 1       |
| Dibromofluoromethane (Surr)  | 104       |           | 80 - 122 |      |      |   |          | 09/08/20 23:04 | 1       |
| 4-Bromofluorobenzene (Surr)  | 103       |           | 80 - 120 |      |      |   |          | 09/08/20 23:04 | 1       |

**Client Sample ID: Equipment Blank**

**Date Collected: 09/03/20 08:55**

**Date Received: 09/04/20 10:30**

**Lab Sample ID: 680-188351-8**

**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | <0.43     |           | 1.0      | 0.43 | ug/L |   |          | 09/08/20 16:30 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 103       |           | 80 - 120 |      |      |   |          | 09/08/20 16:30 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 88        |           | 73 - 131 |      |      |   |          | 09/08/20 16:30 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 80 - 122 |      |      |   |          | 09/08/20 16:30 | 1       |
| 4-Bromofluorobenzene (Surr)  | 104       |           | 80 - 120 |      |      |   |          | 09/08/20 16:30 | 1       |

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# Client Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-188351-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 680-188351-9**

**Date Collected: 09/03/20 00:00**

**Matrix: Water**

**Date Received: 09/04/20 10:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | <0.43  |           | 1.0 | 0.43 | ug/L |   |          | 09/08/20 16:53 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 103       |           | 80 - 120 |          | 09/08/20 16:53 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 89        |           | 73 - 131 |          | 09/08/20 16:53 | 1       |
| Dibromofluoromethane (Surr)  | 105       |           | 80 - 122 |          | 09/08/20 16:53 | 1       |
| 4-Bromofluorobenzene (Surr)  | 103       |           | 80 - 120 |          | 09/08/20 16:53 | 1       |

**Client Sample ID: N-05**

**Lab Sample ID: 680-188351-10**

**Date Collected: 09/02/20 11:25**

**Matrix: Water**

**Date Received: 09/04/20 10:30**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Benzene | 83     |           | 5.0 | 2.2 | ug/L |   |          | 09/10/20 20:41 | 5       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 111       |           | 80 - 120 |          | 09/10/20 20:41 | 5       |
| 1,2-Dichloroethane-d4 (Surr) | 130       |           | 73 - 131 |          | 09/10/20 20:41 | 5       |
| Dibromofluoromethane (Surr)  | 122       |           | 80 - 122 |          | 09/10/20 20:41 | 5       |
| 4-Bromofluorobenzene (Surr)  | 117       |           | 80 - 120 |          | 09/10/20 20:41 | 5       |

# QC Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-188351-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-633411/9

Matrix: Water

Analysis Batch: 633411

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                      | MB Result | MB Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|--------------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | <0.43     |              | 1.0      | 0.43 | ug/L |   |          | 09/08/20 15:52 | 1       |
| Surrogate                    | %Recovery | MB Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 103       |              | 80 - 120 |      |      |   |          | 09/08/20 15:52 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 88        |              | 73 - 131 |      |      |   |          | 09/08/20 15:52 | 1       |
| Dibromofluoromethane (Surr)  | 104       |              | 80 - 122 |      |      |   |          | 09/08/20 15:52 | 1       |
| 4-Bromofluorobenzene (Surr)  | 103       |              | 80 - 120 |      |      |   |          | 09/08/20 15:52 | 1       |

Lab Sample ID: LCS 680-633411/4

Matrix: Water

Analysis Batch: 633411

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                      | Spike Added | LCS Result    | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------|-------------|---------------|---------------|------|---|------|--------------|
| Benzene                      | 50.0        | 50.7          |               | ug/L |   | 101  | 80 - 120     |
| Surrogate                    | %Recovery   | LCS Qualifier | Limits        |      |   |      |              |
| Toluene-d8 (Surr)            | 103         |               | 80 - 120      |      |   |      |              |
| 1,2-Dichloroethane-d4 (Surr) | 87          |               | 73 - 131      |      |   |      |              |
| Dibromofluoromethane (Surr)  | 104         |               | 80 - 122      |      |   |      |              |
| 4-Bromofluorobenzene (Surr)  | 95          |               | 80 - 120      |      |   |      |              |

Lab Sample ID: LCSD 680-633411/5

Matrix: Water

Analysis Batch: 633411

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                      | Spike Added | LCSD Result    | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------|-------------|----------------|----------------|------|---|------|--------------|-----|-----------|
| Benzene                      | 50.0        | 49.3           |                | ug/L |   | 99   | 80 - 120     | 3   | 20        |
| Surrogate                    | %Recovery   | LCSD Qualifier | Limits         |      |   |      |              |     |           |
| Toluene-d8 (Surr)            | 100         |                | 80 - 120       |      |   |      |              |     |           |
| 1,2-Dichloroethane-d4 (Surr) | 82          |                | 73 - 131       |      |   |      |              |     |           |
| Dibromofluoromethane (Surr)  | 100         |                | 80 - 122       |      |   |      |              |     |           |
| 4-Bromofluorobenzene (Surr)  | 94          |                | 80 - 120       |      |   |      |              |     |           |

Lab Sample ID: MB 680-633692/8

Matrix: Water

Analysis Batch: 633692

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                      | MB Result | MB Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|--------------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | <0.43     |              | 1.0      | 0.43 | ug/L |   |          | 09/10/20 13:42 | 1       |
| Surrogate                    | %Recovery | MB Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 112       |              | 80 - 120 |      |      |   |          | 09/10/20 13:42 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 128       |              | 73 - 131 |      |      |   |          | 09/10/20 13:42 | 1       |
| Dibromofluoromethane (Surr)  | 119       |              | 80 - 122 |      |      |   |          | 09/10/20 13:42 | 1       |
| 4-Bromofluorobenzene (Surr)  | 114       |              | 80 - 120 |      |      |   |          | 09/10/20 13:42 | 1       |

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# QC Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-188351-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-633692/3

Matrix: Water

Analysis Batch: 633692

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                      | Spike Added   | LCS Result    | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------|---------------|---------------|---------------|------|---|------|--------------|
| Benzene                      | 50.0          | 48.3          |               | ug/L |   | 97   | 80 - 120     |
| Surrogate                    | LCS %Recovery | LCS Qualifier | Limits        |      |   |      |              |
| Toluene-d8 (Surr)            | 104           |               | 80 - 120      |      |   |      |              |
| 1,2-Dichloroethane-d4 (Surr) | 121           |               | 73 - 131      |      |   |      |              |
| Dibromofluoromethane (Surr)  | 116           |               | 80 - 122      |      |   |      |              |
| 4-Bromofluorobenzene (Surr)  | 103           |               | 80 - 120      |      |   |      |              |

Lab Sample ID: LCSD 680-633692/4

Matrix: Water

Analysis Batch: 633692

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                      | Spike Added    | LCSD Result    | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------|----------------|----------------|----------------|------|---|------|--------------|-----|-----------|
| Benzene                      | 50.0           | 47.7           |                | ug/L |   | 95   | 80 - 120     | 1   | 20        |
| Surrogate                    | LCSD %Recovery | LCSD Qualifier | Limits         |      |   |      |              |     |           |
| Toluene-d8 (Surr)            | 105            |                | 80 - 120       |      |   |      |              |     |           |
| 1,2-Dichloroethane-d4 (Surr) | 121            |                | 73 - 131       |      |   |      |              |     |           |
| Dibromofluoromethane (Surr)  | 113            |                | 80 - 122       |      |   |      |              |     |           |
| 4-Bromofluorobenzene (Surr)  | 106            |                | 80 - 120       |      |   |      |              |     |           |

# QC Association Summary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-188351-1

## GC/MS VOA

### Analysis Batch: 633411

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 680-188351-1      | N-05D                  | Total/NA  | Water  | 8260B  |            |
| 680-188351-2      | N-16D                  | Total/NA  | Water  | 8260B  |            |
| 680-188351-3      | N-17                   | Total/NA  | Water  | 8260B  |            |
| 680-188351-6      | N-20                   | Total/NA  | Water  | 8260B  |            |
| 680-188351-7      | DUP-1                  | Total/NA  | Water  | 8260B  |            |
| 680-188351-8      | Equipment Blank        | Total/NA  | Water  | 8260B  |            |
| 680-188351-9      | Trip Blank             | Total/NA  | Water  | 8260B  |            |
| MB 680-633411/9   | Method Blank           | Total/NA  | Water  | 8260B  |            |
| LCS 680-633411/4  | Lab Control Sample     | Total/NA  | Water  | 8260B  |            |
| LCSD 680-633411/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260B  |            |

### Analysis Batch: 633692

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 680-188351-4      | N-18                   | Total/NA  | Water  | 8260B  |            |
| 680-188351-5      | N-19                   | Total/NA  | Water  | 8260B  |            |
| 680-188351-10     | N-05                   | Total/NA  | Water  | 8260B  |            |
| MB 680-633692/8   | Method Blank           | Total/NA  | Water  | 8260B  |            |
| LCS 680-633692/3  | Lab Control Sample     | Total/NA  | Water  | 8260B  |            |
| LCSD 680-633692/4 | Lab Control Sample Dup | Total/NA  | Water  | 8260B  |            |

# Lab Chronicle

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-188351-1

**Client Sample ID: N-05D**

**Lab Sample ID: 680-188351-1**

**Date Collected: 09/02/20 18:40**

**Matrix: Water**

**Date Received: 09/04/20 10:30**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 633411       | 09/08/20 20:45       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-16D**

**Lab Sample ID: 680-188351-2**

**Date Collected: 09/02/20 16:10**

**Matrix: Water**

**Date Received: 09/04/20 10:30**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 633411       | 09/08/20 21:08       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-17**

**Lab Sample ID: 680-188351-3**

**Date Collected: 09/02/20 13:10**

**Matrix: Water**

**Date Received: 09/04/20 10:30**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 633411       | 09/08/20 21:31       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-18**

**Lab Sample ID: 680-188351-4**

**Date Collected: 09/03/20 08:25**

**Matrix: Water**

**Date Received: 09/04/20 10:30**

| Prep Type            | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA             | Analysis   | 8260B        |     | 5          | 5 mL           | 5 mL         | 633692       | 09/10/20 21:05       | P1C     | TAL SAV |
| Instrument ID: CMSO2 |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-19**

**Lab Sample ID: 680-188351-5**

**Date Collected: 09/02/20 13:15**

**Matrix: Water**

**Date Received: 09/04/20 10:30**

| Prep Type            | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA             | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 633692       | 09/10/20 19:29       | P1C     | TAL SAV |
| Instrument ID: CMSO2 |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-20**

**Lab Sample ID: 680-188351-6**

**Date Collected: 09/03/20 10:00**

**Matrix: Water**

**Date Received: 09/04/20 10:30**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 633411       | 09/08/20 22:41       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

Eurofins TestAmerica, Savannah

# Lab Chronicle

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-188351-1

**Client Sample ID: DUP-1**

**Date Collected: 09/03/20 00:00**

**Date Received: 09/04/20 10:30**

**Lab Sample ID: 680-188351-7**

**Matrix: Water**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 633411       | 09/08/20 23:04       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: Equipment Blank**

**Date Collected: 09/03/20 08:55**

**Date Received: 09/04/20 10:30**

**Lab Sample ID: 680-188351-8**

**Matrix: Water**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 633411       | 09/08/20 16:30       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: Trip Blank**

**Date Collected: 09/03/20 00:00**

**Date Received: 09/04/20 10:30**

**Lab Sample ID: 680-188351-9**

**Matrix: Water**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 633411       | 09/08/20 16:53       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-05**

**Date Collected: 09/02/20 11:25**

**Date Received: 09/04/20 10:30**

**Lab Sample ID: 680-188351-10**

**Matrix: Water**

| Prep Type            | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|----------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA             | Analysis   | 8260B        |     | 5          | 5 mL           | 5 mL         | 633692       | 09/10/20 20:41       | P1C     | TAL SAV |
| Instrument ID: CMSO2 |            |              |     |            |                |              |              |                      |         |         |

## Laboratory References:

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

# Accreditation/Certification Summary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-188351-1

## Laboratory: Eurofins TestAmerica, Savannah

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

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| Georgia   | State   | E87052                | 06-30-21        |

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

## Method Summary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-188351-1

| Method | Method Description                 | Protocol | Laboratory |
|--------|------------------------------------|----------|------------|
| 8260B  | Volatile Organic Compounds (GC/MS) | SW846    | TAL SAV    |
| 5030B  | Purge and Trap                     | SW846    | TAL SAV    |

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Savannah

5102 LaRoche Avenue

Savannah, GA 31404

Phone 912.354.7858 Fax 912.352.0165

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## Chain of Custody Record

TestAmerica Laboratories, Inc.

| Client Contact                                                                                                                                                                                                                                                                                                             |             | Project Manager: Chad Weaver<br>Tel/Fax: 704.324.7051                                                                                                                        |             | Site Contact: Tim Hassett<br>Lab Contact: Eddie Barnett |            | Date: _____<br>Carrier: _____   |                       | COC No. _____ of _____ COCs |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------|------------|---------------------------------|-----------------------|-----------------------------|--|
| Hercules, LLC                                                                                                                                                                                                                                                                                                              |             |                                                                                                                                                                              |             |                                                         |            |                                 |                       | Job No. _____               |  |
| Project Name: 009 Landfill                                                                                                                                                                                                                                                                                                 |             | Analysis Turnaround Time                                                                                                                                                     |             |                                                         |            |                                 |                       | SDG No. _____               |  |
| Site: 009 Landfill, Brunswick, GA                                                                                                                                                                                                                                                                                          |             | Calendar (C) or Work Days (W)                                                                                                                                                |             |                                                         |            |                                 |                       |                             |  |
| P.O.# _____                                                                                                                                                                                                                                                                                                                |             | <input type="checkbox"/> 1 day<br><input type="checkbox"/> 2 days<br><input type="checkbox"/> 1 week<br><input type="checkbox"/> 2 weeks<br><input type="checkbox"/> 1 month |             | TAT (if different from below) _____<br>Standard _____   |            |                                 |                       |                             |  |
| Sample Identification                                                                                                                                                                                                                                                                                                      | Sample Date | Sample Time                                                                                                                                                                  | Sample Type | Matrix                                                  | # of Cont. | Filtered Sample                 | Sample Specific Notes |                             |  |
| N-05D                                                                                                                                                                                                                                                                                                                      | 9/2/20      | 1840                                                                                                                                                                         | Grab        | Water                                                   | 3          | X                               |                       |                             |  |
| N-16D                                                                                                                                                                                                                                                                                                                      | 9/2/20      | 1610                                                                                                                                                                         | Grab        | Water                                                   | 1          | X                               |                       |                             |  |
| N-17                                                                                                                                                                                                                                                                                                                       | 9/2/20      | 1710                                                                                                                                                                         | Grab        | Water                                                   | 1          | X                               |                       |                             |  |
| N-18                                                                                                                                                                                                                                                                                                                       | 9/2/20      | 825                                                                                                                                                                          | Grab        | Water                                                   | 1          | X                               |                       |                             |  |
| N-19                                                                                                                                                                                                                                                                                                                       | 9/2/20      | 1315                                                                                                                                                                         | Grab        | Water                                                   | 1          | X                               |                       |                             |  |
| N-20                                                                                                                                                                                                                                                                                                                       | 9/2/20      | 1000                                                                                                                                                                         | Grab        | Water                                                   | 1          | X                               |                       |                             |  |
| DUP-1                                                                                                                                                                                                                                                                                                                      |             |                                                                                                                                                                              | Grab        | Water                                                   | 1          | X                               |                       |                             |  |
| Equipment Blank                                                                                                                                                                                                                                                                                                            | 9/2/20      | 855                                                                                                                                                                          | Grab        | Water                                                   | 3          | X                               |                       |                             |  |
| Trip Blank                                                                                                                                                                                                                                                                                                                 | 9/2/20      | 1125                                                                                                                                                                         | Grab        | Water                                                   | 2          | X                               |                       |                             |  |
| N-05                                                                                                                                                                                                                                                                                                                       | 9/2/20      | 1125                                                                                                                                                                         | Grab        | Water                                                   | 3          | X                               |                       |                             |  |
| Preservation Used: 1= Ice, 2= HCI, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other _____<br>Possible Hazard Identification<br><input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Non-Instant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> |             |                                                                                                                                                                              |             |                                                         |            |                                 |                       |                             |  |
| Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)<br><input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months                                                                                                |             |                                                                                                                                                                              |             |                                                         |            |                                 |                       |                             |  |
| TASK 400                                                                                                                                                                                                                                                                                                                   |             |                                                                                                                                                                              |             |                                                         |            |                                 |                       |                             |  |
| Relinquished by: <i>Loth 2</i>                                                                                                                                                                                                                                                                                             |             | Company: <i>Arky Global</i>                                                                                                                                                  |             | Date/Time: <i>9/2/20 1430</i>                           |            | Received by: <i>[Signature]</i> |                       | Company: <i>SAW</i>         |  |
| Relinquished by:                                                                                                                                                                                                                                                                                                           |             | Company:                                                                                                                                                                     |             | Date/Time:                                              |            | Received by:                    |                       | Company:                    |  |
| Relinquished by:                                                                                                                                                                                                                                                                                                           |             | Company:                                                                                                                                                                     |             | Date/Time:                                              |            | Received by:                    |                       | Company:                    |  |



680-188351 Chain of Custody

0.1/0.3

Date/Time: 9-4-2020/1030

## Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 680-188351-1

**Login Number: 188351**

**List Source: Eurofins TestAmerica, Savannah**

**List Number: 1**

**Creator: Mookan, Darmal**

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

## ANALYTICAL REPORT

Eurofins TestAmerica, Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404  
Tel: (912)354-7858

Laboratory Job ID: 680-190730-1  
Client Project/Site: Brunswick 009 Landfill

For:  
Ashland LLC  
Ashland Hercules Research Center  
500 Hercules Rd Bldg 8145  
Wilmington, Delaware 19808

Attn: Timothy Hassett



Authorized for release by:  
11/12/2020 6:38:48 AM

Eddie Barnett, Project Manager I  
(912)250-0280  
[Eddie.Barnett@Eurofinset.com](mailto:Eddie.Barnett@Eurofinset.com)

### LINKS

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*The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

# Definitions/Glossary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Qualifiers

### GC Semi VOA

| Qualifier | Qualifier Description                                                                                     |
|-----------|-----------------------------------------------------------------------------------------------------------|
| H         | Sample was prepped or analyzed beyond the specified holding time                                          |
| p         | The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported. |
| X         | Surrogate recovery exceeds control limits                                                                 |

### Metals

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| B         | Compound was found in the blank and sample.                                                                    |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### General Chemistry

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| F1        | MS and/or MSD recovery exceeds control limits.                                                                 |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

## Glossary

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

# Sample Summary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 680-190730-1  | N-05             | Water  | 10/28/20 16:33 | 10/29/20 16:38 |          |
| 680-190730-2  | N-05D            | Water  | 10/28/20 15:29 | 10/29/20 16:38 |          |
| 680-190730-3  | N-06DR           | Water  | 10/28/20 17:45 | 10/29/20 16:38 |          |
| 680-190730-4  | N-07             | Water  | 10/28/20 17:42 | 10/29/20 16:38 |          |
| 680-190730-5  | N-10             | Water  | 10/28/20 16:30 | 10/29/20 16:38 |          |
| 680-190730-6  | N-12             | Water  | 10/29/20 10:45 | 10/29/20 16:38 |          |
| 680-190730-7  | N-15S            | Water  | 10/29/20 08:51 | 10/29/20 16:38 |          |
| 680-190730-8  | N-15D            | Water  | 10/29/20 09:45 | 10/29/20 16:38 |          |
| 680-190730-9  | N-16D            | Water  | 10/28/20 13:12 | 10/29/20 16:38 |          |
| 680-190730-10 | N-17             | Water  | 10/28/20 14:55 | 10/29/20 16:38 |          |
| 680-190730-11 | N-18             | Water  | 10/29/20 12:09 | 10/29/20 16:38 |          |
| 680-190730-12 | N-19             | Water  | 10/28/20 13:11 | 10/29/20 16:38 |          |
| 680-190730-13 | N-20             | Water  | 10/28/20 11:10 | 10/29/20 16:38 |          |
| 680-190730-14 | N-20S            | Water  | 10/28/20 11:50 | 10/29/20 16:38 |          |
| 680-190730-15 | N-21             | Water  | 10/28/20 11:30 | 10/29/20 16:38 |          |
| 680-190730-16 | N-21S            | Water  | 10/28/20 12:04 | 10/29/20 16:38 |          |
| 680-190730-17 | DUP-1            | Water  | 10/28/20 00:00 | 10/29/20 16:38 |          |
| 680-190730-18 | Equipment Blank  | Water  | 10/29/20 12:45 | 10/29/20 16:38 |          |
| 680-190730-19 | Trip Blank       | Water  | 10/28/20 00:00 | 10/29/20 16:38 |          |

# Case Narrative

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

**Job ID: 680-190730-1**

**Laboratory: Eurofins TestAmerica, Savannah**

## Narrative

**CASE NARRATIVE**  
**Client: Ashland LLC**  
**Project: Brunswick 009 Landfill**  
**Report Number: 680-190730-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

### RECEIPT

The samples were received on 10/29/2020; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 3.4° C, 3.6° C, 3.8° C and 3.9° C.

### VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples N-05 (680-190730-1), N-05D (680-190730-2), N-06DR (680-190730-3), N-07 (680-190730-4), N-10 (680-190730-5), N-12 (680-190730-6), N-15S (680-190730-7), N-15D (680-190730-8), N-16D (680-190730-9), N-17 (680-190730-10), N-18 (680-190730-11), N-19 (680-190730-12), N-20 (680-190730-13), N-20S (680-190730-14), N-21 (680-190730-15), N-21S (680-190730-16), DUP-1 (680-190730-17), Equipment Blank (680-190730-18) and Trip Blank (680-190730-19) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 11/04/2020 and 11/05/2020.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-642235.

Samples N-05 (680-190730-1)[5X] and N-18 (680-190730-11)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

### GASOLINE RANGE ORGANICS (GRO)

Sample N-18 (680-190730-11) was analyzed for gasoline range organics (GRO) in accordance with EPA SW-846 Method 8015B. The sample was analyzed on 11/09/2020.

Due to the nature of this analysis which involves a total area sum over the entire retention time range, manual integrations are routinely performed for target analytes and surrogates to ensure consistent integration.

Sample N-18 (680-190730-11)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

### DISSOLVED GASES

Sample N-18 (680-190730-11) was analyzed for dissolved gases in accordance with RSK-175. The sample was analyzed on 11/06/2020.

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

### CARBON DIOXIDE

Sample N-18 (680-190730-11) was analyzed for carbon dioxide in accordance with RSK-175 (CO<sub>2</sub>). The sample was analyzed on 11/02/2020.

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

# Case Narrative

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Job ID: 680-190730-1 (Continued)

### Laboratory: Eurofins TestAmerica, Savannah (Continued)

#### DIESEL AND MOTOR OIL RANGE ORGANICS

Sample N-18 (680-190730-11) was analyzed for diesel and motor oil range organics in accordance with EPA SW-846 Method 8015C. The sample was prepared on 11/02/2020 and analyzed on 11/03/2020.

Due to the nature of this analysis which involves a total area sum over the entire retention time range, manual integrations are routinely performed for target analytes and surrogates to ensure consistent integration.

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

#### ORGANOCHLORINE PESTICIDES (GC)

Samples N-05 (680-190730-1), N-06DR (680-190730-3), N-07 (680-190730-4), N-10 (680-190730-5), N-12 (680-190730-6), N-15S (680-190730-7), N-15D (680-190730-8), N-18 (680-190730-11) and DUP-1 (680-190730-17) were analyzed for Organochlorine Pesticides (GC) in accordance with EPA SW-846 Method 8081B. The samples were prepared on 11/04/2020, 11/05/2020 and 11/10/2020 and analyzed on 11/05/2020, 11/06/2020 and 11/11/2020.

Two surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: N-07 (680-190730-4). These results have been reported and qualified.

Surrogate recovery for the following sample was outside of acceptance limits: DUP-1 (680-190730-17). There was insufficient sample to perform a re-extraction; therefore, the data has been reported. The original extract was broken before it could be analyzed. Refer to the QC report for details.

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

#### METALS (ICP) - DISSOLVED

Sample N-18 (680-190730-11) was analyzed for Metals (ICP) - Dissolved in accordance with EPA SW-846 Method 6010C. The sample was prepared on 11/05/2020 and analyzed on 11/06/2020.

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

#### METALS (ICP)

Sample N-18 (680-190730-11) was analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The sample was prepared on 11/04/2020 and analyzed on 11/05/2020.

Manganese was detected in method blank MB 680-642376/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

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

#### TOTAL SUSPENDED SOLIDS

Samples N-05 (680-190730-1), N-06DR (680-190730-3), N-07 (680-190730-4), N-10 (680-190730-5), N-12 (680-190730-6), N-15S (680-190730-7), N-15D (680-190730-8), N-18 (680-190730-11) and DUP-1 (680-190730-17) were analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 11/02/2020 and 11/03/2020.

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

#### NITRATE-NITRITE AS NITROGEN

Sample N-18 (680-190730-11) was analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The sample was analyzed on 10/30/2020.

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

#### SULFATE

## Case Narrative

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

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### Job ID: 680-190730-1 (Continued)

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#### Laboratory: Eurofins TestAmerica, Savannah (Continued)

Sample N-18 (680-190730-11) was analyzed for sulfate in accordance with EPA Method 375.4. The sample was analyzed on 10/31/2020.

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

#### SULFIDE

Sample N-18 (680-190730-11) was analyzed for sulfide in accordance with EPA Method 376.1. The sample was analyzed on 11/02/2020.

Sulfide recovered high for the MS of sample N-18MS (680-190730-11) and MSD of sample N-18MSD (680-190730-11) in batch 680-641877. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. Refer to the QC report for details.

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

#### CHEMICAL OXYGEN DEMAND

Sample N-18 (680-190730-11) was analyzed for chemical oxygen demand in accordance with EPA Method 410.4. The sample was analyzed on 10/30/2020.

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

#### BIOCHEMICAL OXYGEN DEMAND

Sample N-18 (680-190730-11) was analyzed for Biochemical Oxygen Demand in accordance with SM 5210B. The sample was analyzed on 10/30/2020.

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

# Client Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

**Client Sample ID: N-05**

**Date Collected: 10/28/20 16:33**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-1**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| Benzene                      | 36        |           | 5.0      | 2.2 | ug/L |   |          | 11/04/20 20:44 | 5       |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 92        |           | 80 - 120 |     |      |   |          | 11/04/20 20:44 | 5       |
| 1,2-Dichloroethane-d4 (Surr) | 94        |           | 73 - 131 |     |      |   |          | 11/04/20 20:44 | 5       |
| Dibromofluoromethane (Surr)  | 92        |           | 80 - 122 |     |      |   |          | 11/04/20 20:44 | 5       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 80 - 120 |     |      |   |          | 11/04/20 20:44 | 5       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Toxaphene              | <0.19     |           | 2.4      | 0.19 | ug/L |   | 11/04/20 19:10 | 11/05/20 19:09 | 1       |
| Surrogate              | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| Tetrachloro-m-xylene   | 64        | p         | 40 - 130 |      |      |   | 11/04/20 19:10 | 11/05/20 19:09 | 1       |
| DCB Decachlorobiphenyl | 29        |           | 14 - 130 |      |      |   | 11/04/20 19:10 | 11/05/20 19:09 | 1       |

## General Chemistry

| Analyte                | Result | Qualifier | RL  | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | 1.2    |           | 1.0 | 1.0 | mg/L |   |          | 11/02/20 08:18 | 1       |

**Client Sample ID: N-05D**

**Date Collected: 10/28/20 15:29**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-2**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | 9.9       |           | 1.0      | 0.43 | ug/L |   |          | 11/04/20 14:57 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 92        |           | 80 - 120 |      |      |   |          | 11/04/20 14:57 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 90        |           | 73 - 131 |      |      |   |          | 11/04/20 14:57 | 1       |
| Dibromofluoromethane (Surr)  | 90        |           | 80 - 122 |      |      |   |          | 11/04/20 14:57 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 80 - 120 |      |      |   |          | 11/04/20 14:57 | 1       |

**Client Sample ID: N-06DR**

**Date Collected: 10/28/20 17:45**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-3**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | <0.43     |           | 1.0      | 0.43 | ug/L |   |          | 11/04/20 15:20 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 92        |           | 80 - 120 |      |      |   |          | 11/04/20 15:20 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 91        |           | 73 - 131 |      |      |   |          | 11/04/20 15:20 | 1       |
| Dibromofluoromethane (Surr)  | 91        |           | 80 - 122 |      |      |   |          | 11/04/20 15:20 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 80 - 120 |      |      |   |          | 11/04/20 15:20 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte   | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| Toxaphene | <0.19  |           | 2.4 | 0.19 | ug/L |   | 11/04/20 19:10 | 11/05/20 19:23 | 1       |

Eurofins TestAmerica, Savannah

# Client Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

**Client Sample ID: N-06DR**

**Date Collected: 10/28/20 17:45**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-3**

**Matrix: Water**

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 61        |           | 40 - 130 | 11/04/20 19:10 | 11/05/20 19:23 | 1       |
| DCB Decachlorobiphenyl | 36        |           | 14 - 130 | 11/04/20 19:10 | 11/05/20 19:23 | 1       |

## General Chemistry

| Analyte                | Result | Qualifier | RL  | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | <1.0   |           | 1.0 | 1.0 | mg/L |   |          | 11/02/20 08:18 | 1       |

**Client Sample ID: N-07**

**Date Collected: 10/28/20 17:42**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-4**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | <0.43  |           | 1.0 | 0.43 | ug/L |   |          | 11/04/20 15:43 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 90        |           | 80 - 120 |          | 11/04/20 15:43 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 91        |           | 73 - 131 |          | 11/04/20 15:43 | 1       |
| Dibromofluoromethane (Surr)  | 90        |           | 80 - 122 |          | 11/04/20 15:43 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 80 - 120 |          | 11/04/20 15:43 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte   | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| Toxaphene | <0.19  |           | 2.4 | 0.19 | ug/L |   | 11/04/20 19:10 | 11/05/20 19:37 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 55        |           | 40 - 130 | 11/04/20 19:10 | 11/05/20 19:37 | 1       |
| DCB Decachlorobiphenyl | 13        | X         | 14 - 130 | 11/04/20 19:10 | 11/05/20 19:37 | 1       |

## General Chemistry

| Analyte                | Result | Qualifier | RL  | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | 1.3    |           | 1.0 | 1.0 | mg/L |   |          | 11/02/20 08:18 | 1       |

**Client Sample ID: N-10**

**Date Collected: 10/28/20 16:30**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-5**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | <0.43  |           | 1.0 | 0.43 | ug/L |   |          | 11/04/20 16:06 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 91        |           | 80 - 120 |          | 11/04/20 16:06 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 91        |           | 73 - 131 |          | 11/04/20 16:06 | 1       |
| Dibromofluoromethane (Surr)  | 90        |           | 80 - 122 |          | 11/04/20 16:06 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 80 - 120 |          | 11/04/20 16:06 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte   | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| Toxaphene | <0.19  |           | 2.4 | 0.19 | ug/L |   | 11/04/20 19:10 | 11/05/20 19:52 | 1       |

| Surrogate            | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene | 52        |           | 40 - 130 | 11/04/20 19:10 | 11/05/20 19:52 | 1       |

Eurofins TestAmerica, Savannah

# Client Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

**Client Sample ID: N-10**

**Date Collected: 10/28/20 16:30**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-5**

**Matrix: Water**

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl | 20        |           | 14 - 130 | 11/04/20 19:10 | 11/05/20 19:52 | 1       |

## General Chemistry

| Analyte                | Result | Qualifier | RL  | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | <1.0   |           | 1.0 | 1.0 | mg/L |   |          | 11/02/20 08:18 | 1       |

**Client Sample ID: N-12**

**Date Collected: 10/29/20 10:45**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-6**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | <0.43  |           | 1.0 | 0.43 | ug/L |   |          | 11/04/20 16:29 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 91        |           | 80 - 120 |          | 11/04/20 16:29 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 92        |           | 73 - 131 |          | 11/04/20 16:29 | 1       |
| Dibromofluoromethane (Surr)  | 91        |           | 80 - 122 |          | 11/04/20 16:29 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 80 - 120 |          | 11/04/20 16:29 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte   | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| Toxaphene | <0.19  |           | 2.4 | 0.19 | ug/L |   | 11/05/20 19:58 | 11/06/20 21:49 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 71        |           | 40 - 130 | 11/05/20 19:58 | 11/06/20 21:49 | 1       |
| DCB Decachlorobiphenyl | 41        |           | 14 - 130 | 11/05/20 19:58 | 11/06/20 21:49 | 1       |

## General Chemistry

| Analyte                | Result | Qualifier | RL  | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | <1.0   |           | 1.0 | 1.0 | mg/L |   |          | 11/02/20 09:16 | 1       |

**Client Sample ID: N-15S**

**Date Collected: 10/29/20 08:51**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-7**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | <0.43  |           | 1.0 | 0.43 | ug/L |   |          | 11/04/20 16:52 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 91        |           | 80 - 120 |          | 11/04/20 16:52 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 91        |           | 73 - 131 |          | 11/04/20 16:52 | 1       |
| Dibromofluoromethane (Surr)  | 91        |           | 80 - 122 |          | 11/04/20 16:52 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 80 - 120 |          | 11/04/20 16:52 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte   | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| Toxaphene | <0.19  |           | 2.4 | 0.19 | ug/L |   | 11/05/20 19:58 | 11/06/20 22:04 | 1       |

| Surrogate            | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene | 80        |           | 40 - 130 | 11/05/20 19:58 | 11/06/20 22:04 | 1       |

Eurofins TestAmerica, Savannah

# Client Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Client Sample ID: N-15S

Date Collected: 10/29/20 08:51

Date Received: 10/29/20 16:38

## Lab Sample ID: 680-190730-7

Matrix: Water

### Method: 8081B - Organochlorine Pesticides (GC) (Continued)

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| DCB Decachlorobiphenyl | 48        |           | 14 - 130 | 11/05/20 19:58 | 11/06/20 22:04 | 1       |

### General Chemistry

| Analyte                | Result | Qualifier | RL  | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | 2.1    |           | 1.0 | 1.0 | mg/L |   |          | 11/02/20 09:16 | 1       |

## Client Sample ID: N-15D

Date Collected: 10/29/20 09:45

Date Received: 10/29/20 16:38

## Lab Sample ID: 680-190730-8

Matrix: Water

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | <0.43  |           | 1.0 | 0.43 | ug/L |   |          | 11/04/20 17:15 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 92        |           | 80 - 120 |          | 11/04/20 17:15 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 92        |           | 73 - 131 |          | 11/04/20 17:15 | 1       |
| Dibromofluoromethane (Surr)  | 90        |           | 80 - 122 |          | 11/04/20 17:15 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 80 - 120 |          | 11/04/20 17:15 | 1       |

### Method: 8081B - Organochlorine Pesticides (GC)

| Analyte   | Result | Qualifier | RL  | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|-----|------|------|---|----------------|----------------|---------|
| Toxaphene | <0.19  |           | 2.4 | 0.19 | ug/L |   | 11/05/20 19:58 | 11/06/20 22:18 | 1       |

| Surrogate              | %Recovery | Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|----------------|----------------|---------|
| Tetrachloro-m-xylene   | 70        |           | 40 - 130 | 11/05/20 19:58 | 11/06/20 22:18 | 1       |
| DCB Decachlorobiphenyl | 27        |           | 14 - 130 | 11/05/20 19:58 | 11/06/20 22:18 | 1       |

### General Chemistry

| Analyte                | Result | Qualifier | RL  | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | 24     |           | 3.5 | 3.5 | mg/L |   |          | 11/02/20 09:16 | 1       |

## Client Sample ID: N-16D

Date Collected: 10/28/20 13:12

Date Received: 10/29/20 16:38

## Lab Sample ID: 680-190730-9

Matrix: Water

### Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | <0.43  |           | 1.0 | 0.43 | ug/L |   |          | 11/04/20 17:38 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 91        |           | 80 - 120 |          | 11/04/20 17:38 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 91        |           | 73 - 131 |          | 11/04/20 17:38 | 1       |
| Dibromofluoromethane (Surr)  | 91        |           | 80 - 122 |          | 11/04/20 17:38 | 1       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 80 - 120 |          | 11/04/20 17:38 | 1       |

# Client Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

Client Sample ID: N-17

Lab Sample ID: 680-190730-10

Date Collected: 10/28/20 14:55

Matrix: Water

Date Received: 10/29/20 16:38

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | 80        |           | 1.0      | 0.43 | ug/L |   |          | 11/04/20 18:02 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 91        |           | 80 - 120 |      |      |   |          | 11/04/20 18:02 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 92        |           | 73 - 131 |      |      |   |          | 11/04/20 18:02 | 1       |
| Dibromofluoromethane (Surr)  | 90        |           | 80 - 122 |      |      |   |          | 11/04/20 18:02 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 80 - 120 |      |      |   |          | 11/04/20 18:02 | 1       |

Client Sample ID: N-18

Lab Sample ID: 680-190730-11

Date Collected: 10/29/20 12:09

Matrix: Water

Date Received: 10/29/20 16:38

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result    | Qualifier | RL       | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| Benzene                      | 190       |           | 5.0      | 2.2 | ug/L |   |          | 11/04/20 21:07 | 5       |
| Surrogate                    | %Recovery | Qualifier | Limits   |     |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 92        |           | 80 - 120 |     |      |   |          | 11/04/20 21:07 | 5       |
| 1,2-Dichloroethane-d4 (Surr) | 91        |           | 73 - 131 |     |      |   |          | 11/04/20 21:07 | 5       |
| Dibromofluoromethane (Surr)  | 90        |           | 80 - 122 |     |      |   |          | 11/04/20 21:07 | 5       |
| 4-Bromofluorobenzene (Surr)  | 95        |           | 80 - 120 |     |      |   |          | 11/04/20 21:07 | 5       |

## Method: 8015B - Gasoline Range Organics - (GC)

| Analyte                              | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | 1.9       |           | 0.50     | 0.25 | mg/L |   |          | 11/09/20 15:15 | 5       |
| Surrogate                            | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| a,a,a-Trifluorotoluene               | 90        |           | 70 - 130 |      |      |   |          | 11/09/20 15:15 | 5       |

## Method: RSK-175 - Dissolved Gases (GC)

| Analyte        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Carbon dioxide | 310000 |           | 5000 | 4000 | ug/L |   |          | 11/02/20 21:59 | 1       |
| Methane (TCD)  | 6400   |           | 390  | 39   | ug/L |   |          | 11/06/20 19:41 | 1       |

## Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

| Analyte                         | Result    | Qualifier | RL       | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|-----------|----------|-------|------|---|----------------|----------------|---------|
| Diesel Range Organics [C10-C28] | 3.6       |           | 0.096    | 0.048 | mg/L |   | 11/02/20 10:12 | 11/03/20 17:10 | 1       |
| Surrogate                       | %Recovery | Qualifier | Limits   |       |      |   | Prepared       | Analyzed       | Dil Fac |
| o-Terphenyl (Surr)              | 75        |           | 43 - 130 |       |      |   | 11/02/20 10:12 | 11/03/20 17:10 | 1       |

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Toxaphene              | <0.19     |           | 2.4      | 0.19 | ug/L |   | 11/05/20 19:58 | 11/06/20 22:32 | 1       |
| Surrogate              | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| Tetrachloro-m-xylene   | 102       |           | 40 - 130 |      |      |   | 11/05/20 19:58 | 11/06/20 22:32 | 1       |
| DCB Decachlorobiphenyl | 17        |           | 14 - 130 |      |      |   | 11/05/20 19:58 | 11/06/20 22:32 | 1       |

## Method: 6010C - Metals (ICP) - Total Recoverable

| Analyte     | Result | Qualifier | RL | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------|--------|-----------|----|-----|------|---|----------------|----------------|---------|
| Iron, Total | 1600   |           | 50 | 17  | ug/L |   | 11/04/20 17:56 | 11/05/20 15:37 | 1       |

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# Client Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

Client Sample ID: N-18

Date Collected: 10/29/20 12:09

Date Received: 10/29/20 16:38

Lab Sample ID: 680-190730-11

Matrix: Water

## Method: 6010C - Metals (ICP) - Total Recoverable (Continued)

| Analyte   | Result | Qualifier | RL | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------|--------|-----------|----|-----|------|---|----------------|----------------|---------|
| Manganese | 43     | B         | 10 | 1.0 | ug/L |   | 11/04/20 17:56 | 11/05/20 15:37 | 1       |

## Method: 6010C - Metals (ICP) - Dissolved

| Analyte              | Result | Qualifier | RL | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|----|-----|------|---|----------------|----------------|---------|
| Iron, Dissolved      | 1800   |           | 50 | 17  | ug/L |   | 11/05/20 12:53 | 11/06/20 08:16 | 1       |
| Manganese, Dissolved | 46     |           | 10 | 1.0 | ug/L |   | 11/05/20 12:53 | 11/06/20 08:16 | 1       |

## General Chemistry

| Analyte                   | Result | Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------|--------|-----------|-------|-------|------|---|----------|----------------|---------|
| Nitrate as N              | <0.010 |           | 0.050 | 0.010 | mg/L |   |          | 10/30/20 12:43 | 1       |
| Nitrite as N              | <0.010 |           | 0.050 | 0.010 | mg/L |   |          | 10/30/20 12:43 | 1       |
| Sulfate                   | 2.9    | J         | 5.0   | 2.5   | mg/L |   |          | 10/31/20 15:26 | 1       |
| Chemical Oxygen Demand    | 88     |           | 10    | 5.0   | mg/L |   |          | 10/30/20 10:24 | 1       |
| Analyte                   | Result | Qualifier | RL    | RL    | Unit | D | Prepared | Analyzed       | Dil Fac |
| Sulfide                   | 2.6    | F1        | 0.81  | 0.81  | mg/L |   |          | 11/02/20 10:46 | 1       |
| Biochemical Oxygen Demand | 38     |           | 2.0   | 2.0   | mg/L |   |          | 10/30/20 11:29 | 1       |
| Total Suspended Solids    | 1.5    |           | 1.0   | 1.0   | mg/L |   |          | 11/02/20 09:16 | 1       |

Client Sample ID: N-19

Date Collected: 10/28/20 13:11

Date Received: 10/29/20 16:38

Lab Sample ID: 680-190730-12

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | 3.6    |           | 1.0 | 0.43 | ug/L |   |          | 11/04/20 18:25 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 91        |           | 80 - 120 |          | 11/04/20 18:25 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 91        |           | 73 - 131 |          | 11/04/20 18:25 | 1       |
| Dibromofluoromethane (Surr)  | 91        |           | 80 - 122 |          | 11/04/20 18:25 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |           | 80 - 120 |          | 11/04/20 18:25 | 1       |

Client Sample ID: N-20

Date Collected: 10/28/20 11:10

Date Received: 10/29/20 16:38

Lab Sample ID: 680-190730-13

Matrix: Water

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL  | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | 86     |           | 1.0 | 0.43 | ug/L |   |          | 11/04/20 18:48 | 1       |

| Surrogate                    | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| Toluene-d8 (Surr)            | 92        |           | 80 - 120 |          | 11/04/20 18:48 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 91        |           | 73 - 131 |          | 11/04/20 18:48 | 1       |
| Dibromofluoromethane (Surr)  | 90        |           | 80 - 122 |          | 11/04/20 18:48 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98        |           | 80 - 120 |          | 11/04/20 18:48 | 1       |

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# Client Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

**Client Sample ID: N-20S**

**Date Collected: 10/28/20 11:50**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-14**

**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | <0.43     |           | 1.0      | 0.43 | ug/L |   |          | 11/04/20 19:11 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 91        |           | 80 - 120 |      |      |   |          | 11/04/20 19:11 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 92        |           | 73 - 131 |      |      |   |          | 11/04/20 19:11 | 1       |
| Dibromofluoromethane (Surr)  | 90        |           | 80 - 122 |      |      |   |          | 11/04/20 19:11 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 80 - 120 |      |      |   |          | 11/04/20 19:11 | 1       |

**Client Sample ID: N-21**

**Date Collected: 10/28/20 11:30**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-15**

**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte                      | Result     | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|------------|-----------|----------|------|------|---|----------|----------------|---------|
| <b>Benzene</b>               | <b>110</b> |           | 1.0      | 0.43 | ug/L |   |          | 11/04/20 19:34 | 1       |
| Surrogate                    | %Recovery  | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 92         |           | 80 - 120 |      |      |   |          | 11/04/20 19:34 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 91         |           | 73 - 131 |      |      |   |          | 11/04/20 19:34 | 1       |
| Dibromofluoromethane (Surr)  | 89         |           | 80 - 122 |      |      |   |          | 11/04/20 19:34 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96         |           | 80 - 120 |      |      |   |          | 11/04/20 19:34 | 1       |

**Client Sample ID: N-21S**

**Date Collected: 10/28/20 12:04**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-16**

**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | <0.43     |           | 1.0      | 0.43 | ug/L |   |          | 11/04/20 19:57 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 91        |           | 80 - 120 |      |      |   |          | 11/04/20 19:57 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 93        |           | 73 - 131 |      |      |   |          | 11/04/20 19:57 | 1       |
| Dibromofluoromethane (Surr)  | 91        |           | 80 - 122 |      |      |   |          | 11/04/20 19:57 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 80 - 120 |      |      |   |          | 11/04/20 19:57 | 1       |

**Client Sample ID: DUP-1**

**Date Collected: 10/28/20 00:00**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-17**

**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| <b>Benzene</b>               | <b>50</b> |           | 1.0      | 0.43 | ug/L |   |          | 11/04/20 20:21 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 91        |           | 80 - 120 |      |      |   |          | 11/04/20 20:21 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 90        |           | 73 - 131 |      |      |   |          | 11/04/20 20:21 | 1       |
| Dibromofluoromethane (Surr)  | 89        |           | 80 - 122 |      |      |   |          | 11/04/20 20:21 | 1       |
| 4-Bromofluorobenzene (Surr)  | 96        |           | 80 - 120 |      |      |   |          | 11/04/20 20:21 | 1       |

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# Client Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

**Client Sample ID: DUP-1**

**Date Collected: 10/28/20 00:00**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-17**

**Matrix: Water**

## Method: 8081B - Organochlorine Pesticides (GC)

| Analyte                | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Toxaphene              | <0.19     | H         | 2.4      | 0.19 | ug/L |   | 11/10/20 14:00 | 11/11/20 20:05 | 1       |
| Surrogate              | %Recovery | Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| Tetrachloro-m-xylene   | 32        | p X       | 40 - 130 |      |      |   | 11/10/20 14:00 | 11/11/20 20:05 | 1       |
| DCB Decachlorobiphenyl | 12        | X         | 14 - 130 |      |      |   | 11/10/20 14:00 | 11/11/20 20:05 | 1       |

## General Chemistry

| Analyte                | Result | Qualifier | RL  | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | 2.6    |           | 1.0 | 1.0 | mg/L |   |          | 11/03/20 12:34 | 1       |

**Client Sample ID: Equipment Blank**

**Date Collected: 10/29/20 12:45**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-18**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | <0.43     |           | 1.0      | 0.43 | ug/L |   |          | 11/04/20 14:10 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 89        |           | 80 - 120 |      |      |   |          | 11/04/20 14:10 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 85        |           | 73 - 131 |      |      |   |          | 11/04/20 14:10 | 1       |
| Dibromofluoromethane (Surr)  | 87        |           | 80 - 122 |      |      |   |          | 11/04/20 14:10 | 1       |
| 4-Bromofluorobenzene (Surr)  | 98        |           | 80 - 120 |      |      |   |          | 11/04/20 14:10 | 1       |

**Client Sample ID: Trip Blank**

**Date Collected: 10/28/20 00:00**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-19**

**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

| Analyte                      | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | <0.43     |           | 1.0      | 0.43 | ug/L |   |          | 11/05/20 15:34 | 1       |
| Surrogate                    | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 98        |           | 80 - 120 |      |      |   |          | 11/05/20 15:34 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 99        |           | 73 - 131 |      |      |   |          | 11/05/20 15:34 | 1       |
| Dibromofluoromethane (Surr)  | 98        |           | 80 - 122 |      |      |   |          | 11/05/20 15:34 | 1       |
| 4-Bromofluorobenzene (Surr)  | 118       |           | 80 - 120 |      |      |   |          | 11/05/20 15:34 | 1       |

# QC Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-642235/8  
Matrix: Water  
Analysis Batch: 642235

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

| Analyte                      | MB Result | MB Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|--------------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | <0.43     |              | 1.0      | 0.43 | ug/L |   |          | 11/04/20 13:13 | 1       |
| Surrogate                    | %Recovery | MB Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 91        |              | 80 - 120 |      |      |   |          | 11/04/20 13:13 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 93        |              | 73 - 131 |      |      |   |          | 11/04/20 13:13 | 1       |
| Dibromofluoromethane (Surr)  | 90        |              | 80 - 122 |      |      |   |          | 11/04/20 13:13 | 1       |
| 4-Bromofluorobenzene (Surr)  | 97        |              | 80 - 120 |      |      |   |          | 11/04/20 13:13 | 1       |

Lab Sample ID: LCS 680-642235/3  
Matrix: Water  
Analysis Batch: 642235

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

| Analyte                      | Spike Added | LCS Result    | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------|-------------|---------------|---------------|------|---|------|--------------|
| Benzene                      | 50.0        | 45.2          |               | ug/L |   | 90   | 80 - 120     |
| Surrogate                    | %Recovery   | LCS Qualifier | Limits        |      |   |      |              |
| Toluene-d8 (Surr)            | 93          |               | 80 - 120      |      |   |      |              |
| 1,2-Dichloroethane-d4 (Surr) | 90          |               | 73 - 131      |      |   |      |              |
| Dibromofluoromethane (Surr)  | 91          |               | 80 - 122      |      |   |      |              |
| 4-Bromofluorobenzene (Surr)  | 91          |               | 80 - 120      |      |   |      |              |

Lab Sample ID: LCSD 680-642235/4  
Matrix: Water  
Analysis Batch: 642235

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

| Analyte                      | Spike Added | LCSD Result    | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------|-------------|----------------|----------------|------|---|------|--------------|-----|-----------|
| Benzene                      | 50.0        | 45.1           |                | ug/L |   | 90   | 80 - 120     | 0   | 20        |
| Surrogate                    | %Recovery   | LCSD Qualifier | Limits         |      |   |      |              |     |           |
| Toluene-d8 (Surr)            | 93          |                | 80 - 120       |      |   |      |              |     |           |
| 1,2-Dichloroethane-d4 (Surr) | 91          |                | 73 - 131       |      |   |      |              |     |           |
| Dibromofluoromethane (Surr)  | 91          |                | 80 - 122       |      |   |      |              |     |           |
| 4-Bromofluorobenzene (Surr)  | 89          |                | 80 - 120       |      |   |      |              |     |           |

Lab Sample ID: MB 680-642475/9  
Matrix: Water  
Analysis Batch: 642475

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

| Analyte                      | MB Result | MB Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------------|-----------|--------------|----------|------|------|---|----------|----------------|---------|
| Benzene                      | <0.43     |              | 1.0      | 0.43 | ug/L |   |          | 11/05/20 14:48 | 1       |
| Surrogate                    | %Recovery | MB Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| Toluene-d8 (Surr)            | 98        |              | 80 - 120 |      |      |   |          | 11/05/20 14:48 | 1       |
| 1,2-Dichloroethane-d4 (Surr) | 96        |              | 73 - 131 |      |      |   |          | 11/05/20 14:48 | 1       |
| Dibromofluoromethane (Surr)  | 98        |              | 80 - 122 |      |      |   |          | 11/05/20 14:48 | 1       |
| 4-Bromofluorobenzene (Surr)  | 119       |              | 80 - 120 |      |      |   |          | 11/05/20 14:48 | 1       |

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# QC Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-642475/4

Matrix: Water

Analysis Batch: 642475

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                      | Spike Added | LCS Result    | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------------|-------------|---------------|---------------|------|---|------|--------------|
| Benzene                      | 50.0        | 48.2          |               | ug/L |   | 96   | 80 - 120     |
| Surrogate                    | %Recovery   | LCS Qualifier | Limits        |      |   |      |              |
| Toluene-d8 (Surr)            | 97          |               | 80 - 120      |      |   |      |              |
| 1,2-Dichloroethane-d4 (Surr) | 95          |               | 73 - 131      |      |   |      |              |
| Dibromofluoromethane (Surr)  | 98          |               | 80 - 122      |      |   |      |              |
| 4-Bromofluorobenzene (Surr)  | 93          |               | 80 - 120      |      |   |      |              |

Lab Sample ID: LCSD 680-642475/5

Matrix: Water

Analysis Batch: 642475

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                      | Spike Added | LCSD Result    | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------------|-------------|----------------|----------------|------|---|------|--------------|-----|-----------|
| Benzene                      | 50.0        | 48.1           |                | ug/L |   | 96   | 80 - 120     | 0   | 20        |
| Surrogate                    | %Recovery   | LCSD Qualifier | Limits         |      |   |      |              |     |           |
| Toluene-d8 (Surr)            | 97          |                | 80 - 120       |      |   |      |              |     |           |
| 1,2-Dichloroethane-d4 (Surr) | 98          |                | 73 - 131       |      |   |      |              |     |           |
| Dibromofluoromethane (Surr)  | 99          |                | 80 - 122       |      |   |      |              |     |           |
| 4-Bromofluorobenzene (Surr)  | 92          |                | 80 - 120       |      |   |      |              |     |           |

## Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 680-643093/6

Matrix: Water

Analysis Batch: 643093

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                              | MB Result | MB Qualifier | RL       | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------------|-----------|--------------|----------|-------|------|---|----------|----------------|---------|
| Gasoline Range Organics (GRO)-C6-C10 | <0.050    |              | 0.10     | 0.050 | mg/L |   |          | 11/09/20 13:01 | 1       |
| Surrogate                            | %Recovery | MB Qualifier | Limits   |       |      |   |          |                |         |
| a,a,a-Trifluorotoluene               | 89        |              | 70 - 130 |       |      |   |          |                |         |
|                                      |           |              |          |       |      |   | Prepared | Analyzed       | Dil Fac |
|                                      |           |              |          |       |      |   |          | 11/09/20 13:01 | 1       |

Lab Sample ID: LCS 680-643093/4

Matrix: Water

Analysis Batch: 643093

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                              | Spike Added | LCS Result    | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------------------------------|-------------|---------------|---------------|------|---|------|--------------|
| Gasoline Range Organics (GRO)-C6-C10 | 0.500       | 0.520         |               | mg/L |   | 104  | 70 - 148     |
| Surrogate                            | %Recovery   | LCS Qualifier | Limits        |      |   |      |              |
| a,a,a-Trifluorotoluene               | 104         |               | 70 - 130      |      |   |      |              |

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# QC Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCSD 680-643093/5

Matrix: Water

Analysis Batch: 643093

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                              | Spike Added    | LCSD Result    | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------------------------------|----------------|----------------|----------------|------|---|------|--------------|-----|-----------|
| Gasoline Range Organics (GRO)-C6-C10 | 0.500          | 0.508          |                | mg/L |   | 102  | 70 - 148     | 2   | 50        |
| Surrogate                            | LCSD %Recovery | LCSD Qualifier | Limits         |      |   |      |              |     |           |
| a,a,a-Trifluorotoluene               | 101            |                | 70 - 130       |      |   |      |              |     |           |

## Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 200-160720/4

Matrix: Water

Analysis Batch: 160720

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte        | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------|-----------|--------------|------|------|------|---|----------|----------------|---------|
| Carbon dioxide | <4000     |              | 5000 | 4000 | ug/L |   |          | 11/02/20 19:37 | 1       |

Lab Sample ID: LCS 200-160720/2

Matrix: Water

Analysis Batch: 160720

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte        | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |  |  |
|----------------|-------------|------------|---------------|------|---|------|--------------|--|--|
| Carbon dioxide | 40000       | 36300      |               | ug/L |   | 91   | 70 - 130     |  |  |

Lab Sample ID: LCSD 200-160720/3

Matrix: Water

Analysis Batch: 160720

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte        | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Carbon dioxide | 40000       | 38500       |                | ug/L |   | 96   | 70 - 130     | 6   | 30        |

Lab Sample ID: MB 680-642725/8

Matrix: Water

Analysis Batch: 642725

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte       | MB Result | MB Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------|-----------|--------------|------|------|------|---|----------|----------------|---------|
| Methane       | <0.29     |              | 0.58 | 0.29 | ug/L |   |          | 11/06/20 16:37 | 1       |
| Methane (TCD) | <39       |              | 390  | 39   | ug/L |   |          | 11/06/20 16:37 | 1       |

Lab Sample ID: LCS 680-642725/3

Matrix: Water

Analysis Batch: 642725

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte       | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |  |  |
|---------------|-------------|------------|---------------|------|---|------|--------------|--|--|
| Methane (TCD) | 1920        | 1970       |               | ug/L |   | 103  | 75 - 125     |  |  |

Lab Sample ID: LCS 680-642725/6

Matrix: Water

Analysis Batch: 642725

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |  |  |
|---------|-------------|------------|---------------|------|---|------|--------------|--|--|
| Methane | 154         | 140        |               | ug/L |   | 91   | 75 - 125     |  |  |

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# QC Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: LCSD 680-642725/4  
Matrix: Water  
Analysis Batch: 642725

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

| Analyte       | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Methane (TCD) | 1920        | 1810        |                | ug/L |   | 94   | 75 - 125     | 9   | 30        |

Lab Sample ID: LCSD 680-642725/7  
Matrix: Water  
Analysis Batch: 642725

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

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Methane | 154         | 135         |                | ug/L |   | 88   | 75 - 125     | 3   | 30        |

## Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 680-641928/8-A  
Matrix: Water  
Analysis Batch: 642061

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 641928

| Analyte                         | MB Result | MB Qualifier | RL   | MDL   | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------|-----------|--------------|------|-------|------|---|----------------|----------------|---------|
| Diesel Range Organics [C10-C28] | <0.050    |              | 0.10 | 0.050 | mg/L |   | 11/02/20 10:12 | 11/03/20 16:08 | 1       |

| Surrogate          | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|--------------------|--------------|--------------|----------|----------------|----------------|---------|
| o-Terphenyl (Surr) | 71           |              | 43 - 130 | 11/02/20 10:12 | 11/03/20 16:08 | 1       |

Lab Sample ID: LCS 680-641928/9-A  
Matrix: Water  
Analysis Batch: 642061

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 641928

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|--------------|
| Diesel Range Organics [C10-C28] | 1.00        | 0.559      |               | mg/L |   | 56   | 36 - 130     |

| Surrogate          | LCS %Recovery | LCS Qualifier | Limits   |
|--------------------|---------------|---------------|----------|
| o-Terphenyl (Surr) | 67            |               | 43 - 130 |

Lab Sample ID: LCSD 680-641928/10-A  
Matrix: Water  
Analysis Batch: 642061

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 641928

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Diesel Range Organics [C10-C28] | 1.00        | 0.523       |                | mg/L |   | 52   | 36 - 130     | 7   | 50        |

| Surrogate          | LCSD %Recovery | LCSD Qualifier | Limits   |
|--------------------|----------------|----------------|----------|
| o-Terphenyl (Surr) | 66             |                | 43 - 130 |

# QC Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 680-642282/20-A

Matrix: Water

Analysis Batch: 642499

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 642282

| Analyte                | MB Result    | MB Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------------|--------------|----------|------|------|---|----------------|----------------|---------|
| Toxaphene              | <0.20        |              | 2.5      | 0.20 | ug/L |   | 11/04/20 19:10 | 11/05/20 17:00 | 1       |
| Surrogate              | MB %Recovery | MB Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| Tetrachloro-m-xylene   | 76           |              | 40 - 130 |      |      |   | 11/04/20 19:10 | 11/05/20 17:00 | 1       |
| DCB Decachlorobiphenyl | 61           |              | 14 - 130 |      |      |   | 11/04/20 19:10 | 11/05/20 17:00 | 1       |

Lab Sample ID: LCS 680-642282/25-A

Matrix: Water

Analysis Batch: 642499

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 642282

| Analyte                | Spike Added   | LCS Result    | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|---------------|---------------|---------------|------|---|------|--------------|
| Toxaphene              | 4.00          | 3.21          |               | ug/L |   | 80   | 56 - 130     |
| Surrogate              | LCS %Recovery | LCS Qualifier | Limits        |      |   |      |              |
| Tetrachloro-m-xylene   | 79            |               | 40 - 130      |      |   |      |              |
| DCB Decachlorobiphenyl | 43            |               | 14 - 130      |      |   |      |              |

Lab Sample ID: LCSD 680-642282/26-A

Matrix: Water

Analysis Batch: 642499

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 642282

| Analyte                | Spike Added    | LCSD Result    | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|----------------|----------------|----------------|------|---|------|--------------|-----|-----------|
| Toxaphene              | 4.00           | 3.00           |                | ug/L |   | 75   | 56 - 130     | 7   | 30        |
| Surrogate              | LCSD %Recovery | LCSD Qualifier | Limits         |      |   |      |              |     |           |
| Tetrachloro-m-xylene   | 72             |                | 40 - 130       |      |   |      |              |     |           |
| DCB Decachlorobiphenyl | 45             |                | 14 - 130       |      |   |      |              |     |           |

Lab Sample ID: MB 680-642598/22-A

Matrix: Water

Analysis Batch: 642794

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 642598

| Analyte                | MB Result    | MB Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|--------------|--------------|----------|------|------|---|----------------|----------------|---------|
| Toxaphene              | <0.20        |              | 2.5      | 0.20 | ug/L |   | 11/05/20 19:58 | 11/06/20 20:38 | 1       |
| Surrogate              | MB %Recovery | MB Qualifier | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| Tetrachloro-m-xylene   | 80           |              | 40 - 130 |      |      |   | 11/05/20 19:58 | 11/06/20 20:38 | 1       |
| DCB Decachlorobiphenyl | 59           |              | 14 - 130 |      |      |   | 11/05/20 19:58 | 11/06/20 20:38 | 1       |

Lab Sample ID: LCS 680-642598/29-A

Matrix: Water

Analysis Batch: 642794

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 642598

| Analyte   | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|------|---|------|--------------|
| Toxaphene | 4.00        | 3.96       |               | ug/L |   | 99   | 56 - 130     |

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# QC Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 680-642598/29-A

Matrix: Water

Analysis Batch: 642794

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 642598

|                        | LCS       | LCS       |          |
|------------------------|-----------|-----------|----------|
| Surrogate              | %Recovery | Qualifier | Limits   |
| Tetrachloro-m-xylene   | 88        |           | 40 - 130 |
| DCB Decachlorobiphenyl | 74        |           | 14 - 130 |

Lab Sample ID: LCSD 680-642598/30-A

Matrix: Water

Analysis Batch: 642794

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 642598

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Toxaphene              | 4.00        | 4.29        |                | ug/L |   | 107  | 56 - 130     | 8   | 30        |
| Surrogate              | %Recovery   | Qualifier   | Limits         |      |   |      |              |     |           |
| Tetrachloro-m-xylene   | 89          |             | 40 - 130       |      |   |      |              |     |           |
| DCB Decachlorobiphenyl | 75          |             | 14 - 130       |      |   |      |              |     |           |

Lab Sample ID: MB 680-643316/10-A

Matrix: Water

Analysis Batch: 643539

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 643316

| Analyte                | MB Result | MB Qualifier | RL       | MDL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|----------|------|------|---|----------------|----------------|---------|
| Toxaphene              | <0.20     |              | 2.5      | 0.20 | ug/L |   | 11/10/20 14:00 | 11/11/20 15:20 | 1       |
| Surrogate              | %Recovery | Qualifier    | Limits   |      |      |   | Prepared       | Analyzed       | Dil Fac |
| Tetrachloro-m-xylene   | 100       |              | 40 - 130 |      |      |   | 11/10/20 14:00 | 11/11/20 15:20 | 1       |
| DCB Decachlorobiphenyl | 43        |              | 14 - 130 |      |      |   | 11/10/20 14:00 | 11/11/20 15:20 | 1       |

Lab Sample ID: LCS 680-643316/15-A

Matrix: Water

Analysis Batch: 643539

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 643316

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |  |  |
|------------------------|-------------|------------|---------------|------|---|------|--------------|--|--|
| Toxaphene              | 4.00        | 4.38       |               | ug/L |   | 110  | 56 - 130     |  |  |
| Surrogate              | %Recovery   | Qualifier  | Limits        |      |   |      |              |  |  |
| Tetrachloro-m-xylene   | 92          |            | 40 - 130      |      |   |      |              |  |  |
| DCB Decachlorobiphenyl | 49          |            | 14 - 130      |      |   |      |              |  |  |

Lab Sample ID: LCSD 680-643316/16-A

Matrix: Water

Analysis Batch: 643539

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 643316

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Toxaphene              | 4.00        | 4.21        |                | ug/L |   | 105  | 56 - 130     | 4   | 30        |
| Surrogate              | %Recovery   | Qualifier   | Limits         |      |   |      |              |     |           |
| Tetrachloro-m-xylene   | 85          |             | 40 - 130       |      |   |      |              |     |           |
| DCB Decachlorobiphenyl | 55          |             | 14 - 130       |      |   |      |              |     |           |

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# QC Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-642376/1-A

Matrix: Water

Analysis Batch: 642624

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 642376

| Analyte     | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-------------|-----------|--------------|----|-----|------|---|----------------|----------------|---------|
| Iron, Total | <17       |              | 50 | 17  | ug/L |   | 11/04/20 17:56 | 11/05/20 14:56 | 1       |
| Manganese   | 1.70      | J            | 10 | 1.0 | ug/L |   | 11/04/20 17:56 | 11/05/20 14:56 | 1       |

Lab Sample ID: LCS 680-642376/2-A

Matrix: Water

Analysis Batch: 642624

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 642376

| Analyte     | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-------------|-------------|------------|---------------|------|---|------|--------------|
| Iron, Total | 5000        | 4610       |               | ug/L |   | 92   | 80 - 120     |
| Manganese   | 400         | 373        |               | ug/L |   | 93   | 80 - 120     |

Lab Sample ID: MB 680-642522/1-C

Matrix: Water

Analysis Batch: 642672

Client Sample ID: Method Blank

Prep Type: Dissolved

Prep Batch: 642524

| Analyte              | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|-----------|--------------|----|-----|------|---|----------------|----------------|---------|
| Iron, Dissolved      | <17       |              | 50 | 17  | ug/L |   | 11/05/20 12:53 | 11/06/20 07:43 | 1       |
| Manganese, Dissolved | <1.0      |              | 10 | 1.0 | ug/L |   | 11/05/20 12:53 | 11/06/20 07:43 | 1       |

Lab Sample ID: LCS 680-642522/2-C

Matrix: Water

Analysis Batch: 642672

Client Sample ID: Lab Control Sample

Prep Type: Dissolved

Prep Batch: 642524

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|------|---|------|--------------|
| Iron, Dissolved      | 5000        | 4840       |               | ug/L |   | 97   | 80 - 120     |
| Manganese, Dissolved | 400         | 394        |               | ug/L |   | 98   | 80 - 120     |

## Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 680-641649/14

Matrix: Water

Analysis Batch: 641649

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte      | MB Result | MB Qualifier | RL    | MDL   | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------|-----------|--------------|-------|-------|------|---|----------|----------------|---------|
| Nitrate as N | <0.010    |              | 0.050 | 0.010 | mg/L |   |          | 10/30/20 12:39 | 1       |
| Nitrite as N | <0.010    |              | 0.050 | 0.010 | mg/L |   |          | 10/30/20 12:39 | 1       |

Lab Sample ID: LCS 680-641649/17

Matrix: Water

Analysis Batch: 641649

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte              | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------------|-------------|------------|---------------|------|---|------|--------------|
| Nitrate Nitrite as N | 1.00        | 0.928      |               | mg/L |   | 93   | 90 - 110     |
| Nitrite as N         | 0.500       | 0.503      |               | mg/L |   | 101  | 90 - 110     |

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# QC Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Method: 353.2 - Nitrogen, Nitrate-Nitrite (Continued)

Lab Sample ID: 680-190730-11 MS

Matrix: Water

Analysis Batch: 641649

Client Sample ID: N-18

Prep Type: Total/NA

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|----------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Nitrate Nitrite as N | <0.010        |                  | 1.00        | 0.930     |              | mg/L |   | 93   | 90 - 110     |
| Nitrite as N         | <0.010        |                  | 0.500       | 0.495     |              | mg/L |   | 99   | 90 - 110     |

Lab Sample ID: 680-190730-11 MSD

Matrix: Water

Analysis Batch: 641649

Client Sample ID: N-18

Prep Type: Total/NA

| Analyte              | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|----------------------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Nitrate Nitrite as N | <0.010        |                  | 1.00        | 0.953      |               | mg/L |   | 95   | 90 - 110     | 2   | 10        |
| Nitrite as N         | <0.010        |                  | 0.500       | 0.499      |               | mg/L |   | 100  | 90 - 110     | 1   | 10        |

## Method: 375.4-1978 - Sulfate

Lab Sample ID: MB 680-641774/11

Matrix: Water

Analysis Batch: 641774

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL  | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Sulfate | <2.5      |              | 5.0 | 2.5 | mg/L |   |          | 10/31/20 15:11 | 1       |

Lab Sample ID: LCS 680-641774/12

Matrix: Water

Analysis Batch: 641774

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Sulfate | 20.0        | 20.3       |               | mg/L |   | 102  | 75 - 125     |

## Method: 376.1-1978 - Sulfide

Lab Sample ID: MB 680-641877/1

Matrix: Water

Analysis Batch: 641877

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL  | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Sulfide | <1.0      |              | 1.0 | 1.0 | mg/L |   |          | 11/02/20 10:46 | 1       |

Lab Sample ID: LCS 680-641877/2

Matrix: Water

Analysis Batch: 641877

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Sulfide | 10.0        | 9.31       |               | mg/L |   | 93   | 75 - 125     |

Lab Sample ID: LCSD 680-641877/3

Matrix: Water

Analysis Batch: 641877

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Sulfide | 10.0        | 9.54        |                | mg/L |   | 95   | 75 - 125     | 2   | 30        |

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# QC Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Method: 376.1-1978 - Sulfide (Continued)

Lab Sample ID: 680-190730-11 MS

Matrix: Water

Analysis Batch: 641877

Client Sample ID: N-18

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|------|--------------|
| Sulfide | 2.6           | F1               | 6.50        | 11.6      | F1           | mg/L |   | 139  | 75 - 125     |

Lab Sample ID: 680-190730-11 MSD

Matrix: Water

Analysis Batch: 641877

Client Sample ID: N-18

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|---------------|------------------|-------------|------------|---------------|------|---|------|--------------|-----|-----------|
| Sulfide | 2.6           | F1               | 6.50        | 11.6       | F1            | mg/L |   | 139  | 75 - 125     | 0   | 30        |

## Method: 410.4-1993 R2.0 - COD

Lab Sample ID: MB 680-641586/3

Matrix: Water

Analysis Batch: 641586

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|----|-----|------|---|----------|----------------|---------|
| Chemical Oxygen Demand | <5.0      |              | 10 | 5.0 | mg/L |   |          | 10/30/20 10:24 | 1       |

Lab Sample ID: LCS 680-641586/4

Matrix: Water

Analysis Batch: 641586

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Chemical Oxygen Demand | 50.0        | 48.6       |               | mg/L |   | 97   | 90 - 110     |

## Method: 5210B-2011 - BOD, 5-Day

Lab Sample ID: USB 680-641565/4

Matrix: Water

Analysis Batch: 641565

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                   | USB Result | USB Qualifier | RL  | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------|------------|---------------|-----|-----|------|---|----------|----------------|---------|
| Biochemical Oxygen Demand | <2.0       |               | 2.0 | 2.0 | mg/L |   |          | 10/30/20 11:47 | 1       |

Lab Sample ID: LCS 680-641565/5

Matrix: Water

Analysis Batch: 641565

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte                   | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------------------------|-------------|------------|---------------|------|---|------|--------------|
| Biochemical Oxygen Demand | 198         | 203        |               | mg/L |   | 102  | 85 - 115     |

Lab Sample ID: LCSD 680-641565/6

Matrix: Water

Analysis Batch: 641565

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte                   | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Biochemical Oxygen Demand | 198         | 191         |                | mg/L |   | 96   | 85 - 115     | 6   | 30        |

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# QC Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 680-641817/1  
Matrix: Water  
Analysis Batch: 641817

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

| Analyte                | MB Result | MB Qualifier | RL  | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | <1.0      |              | 1.0 | 1.0 | mg/L |   |          | 11/02/20 08:18 | 1       |

Lab Sample ID: LCS 680-641817/2  
Matrix: Water  
Analysis Batch: 641817

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

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Total Suspended Solids | 951         | 940        |               | mg/L |   | 99   | 80 - 120     |

Lab Sample ID: LCSD 680-641817/3  
Matrix: Water  
Analysis Batch: 641817

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

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Total Suspended Solids | 951         | 958         |                | mg/L |   | 101  | 80 - 120     | 2   | 25        |

Lab Sample ID: MB 680-641837/1  
Matrix: Water  
Analysis Batch: 641837

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

| Analyte                | MB Result | MB Qualifier | RL  | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | <1.0      |              | 1.0 | 1.0 | mg/L |   |          | 11/02/20 09:16 | 1       |

Lab Sample ID: LCS 680-641837/2  
Matrix: Water  
Analysis Batch: 641837

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

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Total Suspended Solids | 951         | 968        |               | mg/L |   | 102  | 80 - 120     |

Lab Sample ID: LCSD 680-641837/3  
Matrix: Water  
Analysis Batch: 641837

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

| Analyte                | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|------------------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Total Suspended Solids | 951         | 986         |                | mg/L |   | 104  | 80 - 120     | 2   | 25        |

Lab Sample ID: MB 680-642045/1  
Matrix: Water  
Analysis Batch: 642045

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

| Analyte                | MB Result | MB Qualifier | RL  | RL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|------------------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| Total Suspended Solids | <1.0      |              | 1.0 | 1.0 | mg/L |   |          | 11/03/20 12:34 | 1       |

Lab Sample ID: LCS 680-642045/2  
Matrix: Water  
Analysis Batch: 642045

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

| Analyte                | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------------------|-------------|------------|---------------|------|---|------|--------------|
| Total Suspended Solids | 951         | 1000       |               | mg/L |   | 105  | 80 - 120     |

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# QC Sample Results

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: LCSD 680-642045/3  
Matrix: Water  
Analysis Batch: 642045

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

| Analyte                | Spike<br>Added | LCSD<br>Result | LCSD<br>Qualifier | Unit | D | %Rec | %Rec.<br>Limits | RPD | RPD<br>Limit |
|------------------------|----------------|----------------|-------------------|------|---|------|-----------------|-----|--------------|
| Total Suspended Solids | 951            | 1110           |                   | mg/L |   | 117  | 80 - 120        | 11  | 25           |

# QC Association Summary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## GC/MS VOA

### Analysis Batch: 642235

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 680-190730-1      | N-05                   | Total/NA  | Water  | 8260B  |            |
| 680-190730-2      | N-05D                  | Total/NA  | Water  | 8260B  |            |
| 680-190730-3      | N-06DR                 | Total/NA  | Water  | 8260B  |            |
| 680-190730-4      | N-07                   | Total/NA  | Water  | 8260B  |            |
| 680-190730-5      | N-10                   | Total/NA  | Water  | 8260B  |            |
| 680-190730-6      | N-12                   | Total/NA  | Water  | 8260B  |            |
| 680-190730-7      | N-15S                  | Total/NA  | Water  | 8260B  |            |
| 680-190730-8      | N-15D                  | Total/NA  | Water  | 8260B  |            |
| 680-190730-9      | N-16D                  | Total/NA  | Water  | 8260B  |            |
| 680-190730-10     | N-17                   | Total/NA  | Water  | 8260B  |            |
| 680-190730-11     | N-18                   | Total/NA  | Water  | 8260B  |            |
| 680-190730-12     | N-19                   | Total/NA  | Water  | 8260B  |            |
| 680-190730-13     | N-20                   | Total/NA  | Water  | 8260B  |            |
| 680-190730-14     | N-20S                  | Total/NA  | Water  | 8260B  |            |
| 680-190730-15     | N-21                   | Total/NA  | Water  | 8260B  |            |
| 680-190730-16     | N-21S                  | Total/NA  | Water  | 8260B  |            |
| 680-190730-17     | DUP-1                  | Total/NA  | Water  | 8260B  |            |
| 680-190730-18     | Equipment Blank        | Total/NA  | Water  | 8260B  |            |
| MB 680-642235/8   | Method Blank           | Total/NA  | Water  | 8260B  |            |
| LCS 680-642235/3  | Lab Control Sample     | Total/NA  | Water  | 8260B  |            |
| LCSD 680-642235/4 | Lab Control Sample Dup | Total/NA  | Water  | 8260B  |            |

### Analysis Batch: 642475

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 680-190730-19     | Trip Blank             | Total/NA  | Water  | 8260B  |            |
| MB 680-642475/9   | Method Blank           | Total/NA  | Water  | 8260B  |            |
| LCS 680-642475/4  | Lab Control Sample     | Total/NA  | Water  | 8260B  |            |
| LCSD 680-642475/5 | Lab Control Sample Dup | Total/NA  | Water  | 8260B  |            |

## GC VOA

### Analysis Batch: 160720

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method  | Prep Batch |
|-------------------|------------------------|-----------|--------|---------|------------|
| 680-190730-11     | N-18                   | Total/NA  | Water  | RSK-175 |            |
| MB 200-160720/4   | Method Blank           | Total/NA  | Water  | RSK-175 |            |
| LCS 200-160720/2  | Lab Control Sample     | Total/NA  | Water  | RSK-175 |            |
| LCSD 200-160720/3 | Lab Control Sample Dup | Total/NA  | Water  | RSK-175 |            |

### Analysis Batch: 642725

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method  | Prep Batch |
|-------------------|------------------------|-----------|--------|---------|------------|
| 680-190730-11     | N-18                   | Total/NA  | Water  | RSK-175 |            |
| MB 680-642725/8   | Method Blank           | Total/NA  | Water  | RSK-175 |            |
| LCS 680-642725/3  | Lab Control Sample     | Total/NA  | Water  | RSK-175 |            |
| LCS 680-642725/6  | Lab Control Sample     | Total/NA  | Water  | RSK-175 |            |
| LCSD 680-642725/4 | Lab Control Sample Dup | Total/NA  | Water  | RSK-175 |            |
| LCSD 680-642725/7 | Lab Control Sample Dup | Total/NA  | Water  | RSK-175 |            |

### Analysis Batch: 643093

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| 680-190730-11   | N-18             | Total/NA  | Water  | 8015B  |            |
| MB 680-643093/6 | Method Blank     | Total/NA  | Water  | 8015B  |            |

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# QC Association Summary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## GC VOA (Continued)

### Analysis Batch: 643093 (Continued)

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| LCS 680-643093/4  | Lab Control Sample     | Total/NA  | Water  | 8015B  |            |
| LCSD 680-643093/5 | Lab Control Sample Dup | Total/NA  | Water  | 8015B  |            |

## GC Semi VOA

### Prep Batch: 641928

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 680-190730-11        | N-18                   | Total/NA  | Water  | 3520C  |            |
| MB 680-641928/8-A    | Method Blank           | Total/NA  | Water  | 3520C  |            |
| LCS 680-641928/9-A   | Lab Control Sample     | Total/NA  | Water  | 3520C  |            |
| LCSD 680-641928/10-A | Lab Control Sample Dup | Total/NA  | Water  | 3520C  |            |

### Analysis Batch: 642061

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 680-190730-11        | N-18                   | Total/NA  | Water  | 8015C  | 641928     |
| MB 680-641928/8-A    | Method Blank           | Total/NA  | Water  | 8015C  | 641928     |
| LCS 680-641928/9-A   | Lab Control Sample     | Total/NA  | Water  | 8015C  | 641928     |
| LCSD 680-641928/10-A | Lab Control Sample Dup | Total/NA  | Water  | 8015C  | 641928     |

### Prep Batch: 642282

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 680-190730-1         | N-05                   | Total/NA  | Water  | 3520C  |            |
| 680-190730-3         | N-06DR                 | Total/NA  | Water  | 3520C  |            |
| 680-190730-4         | N-07                   | Total/NA  | Water  | 3520C  |            |
| 680-190730-5         | N-10                   | Total/NA  | Water  | 3520C  |            |
| MB 680-642282/20-A   | Method Blank           | Total/NA  | Water  | 3520C  |            |
| LCS 680-642282/25-A  | Lab Control Sample     | Total/NA  | Water  | 3520C  |            |
| LCSD 680-642282/26-A | Lab Control Sample Dup | Total/NA  | Water  | 3520C  |            |

### Analysis Batch: 642499

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 680-190730-1         | N-05                   | Total/NA  | Water  | 8081B  | 642282     |
| 680-190730-3         | N-06DR                 | Total/NA  | Water  | 8081B  | 642282     |
| 680-190730-4         | N-07                   | Total/NA  | Water  | 8081B  | 642282     |
| 680-190730-5         | N-10                   | Total/NA  | Water  | 8081B  | 642282     |
| MB 680-642282/20-A   | Method Blank           | Total/NA  | Water  | 8081B  | 642282     |
| LCS 680-642282/25-A  | Lab Control Sample     | Total/NA  | Water  | 8081B  | 642282     |
| LCSD 680-642282/26-A | Lab Control Sample Dup | Total/NA  | Water  | 8081B  | 642282     |

### Prep Batch: 642598

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 680-190730-6         | N-12                   | Total/NA  | Water  | 3520C  |            |
| 680-190730-7         | N-15S                  | Total/NA  | Water  | 3520C  |            |
| 680-190730-8         | N-15D                  | Total/NA  | Water  | 3520C  |            |
| 680-190730-11        | N-18                   | Total/NA  | Water  | 3520C  |            |
| MB 680-642598/22-A   | Method Blank           | Total/NA  | Water  | 3520C  |            |
| LCS 680-642598/29-A  | Lab Control Sample     | Total/NA  | Water  | 3520C  |            |
| LCSD 680-642598/30-A | Lab Control Sample Dup | Total/NA  | Water  | 3520C  |            |

# QC Association Summary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## GC Semi VOA

### Analysis Batch: 642794

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 680-190730-6         | N-12                   | Total/NA  | Water  | 8081B  | 642598     |
| 680-190730-7         | N-15S                  | Total/NA  | Water  | 8081B  | 642598     |
| 680-190730-8         | N-15D                  | Total/NA  | Water  | 8081B  | 642598     |
| 680-190730-11        | N-18                   | Total/NA  | Water  | 8081B  | 642598     |
| MB 680-642598/22-A   | Method Blank           | Total/NA  | Water  | 8081B  | 642598     |
| LCS 680-642598/29-A  | Lab Control Sample     | Total/NA  | Water  | 8081B  | 642598     |
| LCSD 680-642598/30-A | Lab Control Sample Dup | Total/NA  | Water  | 8081B  | 642598     |

### Prep Batch: 643316

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 680-190730-17        | DUP-1                  | Total/NA  | Water  | 3520C  |            |
| MB 680-643316/10-A   | Method Blank           | Total/NA  | Water  | 3520C  |            |
| LCS 680-643316/15-A  | Lab Control Sample     | Total/NA  | Water  | 3520C  |            |
| LCSD 680-643316/16-A | Lab Control Sample Dup | Total/NA  | Water  | 3520C  |            |

### Analysis Batch: 643539

| Lab Sample ID        | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-----------|--------|--------|------------|
| 680-190730-17        | DUP-1                  | Total/NA  | Water  | 8081B  | 643316     |
| MB 680-643316/10-A   | Method Blank           | Total/NA  | Water  | 8081B  | 643316     |
| LCS 680-643316/15-A  | Lab Control Sample     | Total/NA  | Water  | 8081B  | 643316     |
| LCSD 680-643316/16-A | Lab Control Sample Dup | Total/NA  | Water  | 8081B  | 643316     |

## Metals

### Prep Batch: 642376

| Lab Sample ID      | Client Sample ID   | Prep Type         | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 680-190730-11      | N-18               | Total Recoverable | Water  | 3005A  |            |
| MB 680-642376/1-A  | Method Blank       | Total Recoverable | Water  | 3005A  |            |
| LCS 680-642376/2-A | Lab Control Sample | Total Recoverable | Water  | 3005A  |            |

### Filtration Batch: 642522

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method     | Prep Batch |
|--------------------|--------------------|-----------|--------|------------|------------|
| 680-190730-11      | N-18               | Dissolved | Water  | FILTRATION |            |
| MB 680-642522/1-C  | Method Blank       | Dissolved | Water  | FILTRATION |            |
| LCS 680-642522/2-C | Lab Control Sample | Dissolved | Water  | FILTRATION |            |

### Prep Batch: 642524

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 680-190730-11      | N-18               | Dissolved | Water  | 3005A  | 642522     |
| MB 680-642522/1-C  | Method Blank       | Dissolved | Water  | 3005A  | 642522     |
| LCS 680-642522/2-C | Lab Control Sample | Dissolved | Water  | 3005A  | 642522     |

### Analysis Batch: 642624

| Lab Sample ID      | Client Sample ID   | Prep Type         | Matrix | Method | Prep Batch |
|--------------------|--------------------|-------------------|--------|--------|------------|
| 680-190730-11      | N-18               | Total Recoverable | Water  | 6010C  | 642376     |
| MB 680-642376/1-A  | Method Blank       | Total Recoverable | Water  | 6010C  | 642376     |
| LCS 680-642376/2-A | Lab Control Sample | Total Recoverable | Water  | 6010C  | 642376     |

### Analysis Batch: 642672

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 680-190730-11 | N-18             | Dissolved | Water  | 6010C  | 642524     |

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# QC Association Summary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Metals (Continued)

### Analysis Batch: 642672 (Continued)

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 680-642522/1-C  | Method Blank       | Dissolved | Water  | 6010C  | 642524     |
| LCS 680-642522/2-C | Lab Control Sample | Dissolved | Water  | 6010C  | 642524     |

## General Chemistry

### Analysis Batch: 641565

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method     | Prep Batch |
|-------------------|------------------------|-----------|--------|------------|------------|
| 680-190730-11     | N-18                   | Total/NA  | Water  | 5210B-2011 |            |
| USB 680-641565/4  | Method Blank           | Total/NA  | Water  | 5210B-2011 |            |
| LCS 680-641565/5  | Lab Control Sample     | Total/NA  | Water  | 5210B-2011 |            |
| LCSD 680-641565/6 | Lab Control Sample Dup | Total/NA  | Water  | 5210B-2011 |            |

### Analysis Batch: 641586

| Lab Sample ID    | Client Sample ID   | Prep Type | Matrix | Method          | Prep Batch |
|------------------|--------------------|-----------|--------|-----------------|------------|
| 680-190730-11    | N-18               | Total/NA  | Water  | 410.4-1993 R2.0 |            |
| MB 680-641586/3  | Method Blank       | Total/NA  | Water  | 410.4-1993 R2.0 |            |
| LCS 680-641586/4 | Lab Control Sample | Total/NA  | Water  | 410.4-1993 R2.0 |            |

### Analysis Batch: 641649

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|--------|------------|
| 680-190730-11     | N-18               | Total/NA  | Water  | 353.2  |            |
| MB 680-641649/14  | Method Blank       | Total/NA  | Water  | 353.2  |            |
| LCS 680-641649/17 | Lab Control Sample | Total/NA  | Water  | 353.2  |            |
| 680-190730-11 MS  | N-18               | Total/NA  | Water  | 353.2  |            |
| 680-190730-11 MSD | N-18               | Total/NA  | Water  | 353.2  |            |

### Analysis Batch: 641774

| Lab Sample ID     | Client Sample ID   | Prep Type | Matrix | Method     | Prep Batch |
|-------------------|--------------------|-----------|--------|------------|------------|
| 680-190730-11     | N-18               | Total/NA  | Water  | 375.4-1978 |            |
| MB 680-641774/11  | Method Blank       | Total/NA  | Water  | 375.4-1978 |            |
| LCS 680-641774/12 | Lab Control Sample | Total/NA  | Water  | 375.4-1978 |            |

### Analysis Batch: 641817

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|-------------------|------------------------|-----------|--------|----------|------------|
| 680-190730-1      | N-05                   | Total/NA  | Water  | SM 2540D |            |
| 680-190730-3      | N-06DR                 | Total/NA  | Water  | SM 2540D |            |
| 680-190730-4      | N-07                   | Total/NA  | Water  | SM 2540D |            |
| 680-190730-5      | N-10                   | Total/NA  | Water  | SM 2540D |            |
| MB 680-641817/1   | Method Blank           | Total/NA  | Water  | SM 2540D |            |
| LCS 680-641817/2  | Lab Control Sample     | Total/NA  | Water  | SM 2540D |            |
| LCSD 680-641817/3 | Lab Control Sample Dup | Total/NA  | Water  | SM 2540D |            |

### Analysis Batch: 641837

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|-------------------|------------------------|-----------|--------|----------|------------|
| 680-190730-6      | N-12                   | Total/NA  | Water  | SM 2540D |            |
| 680-190730-7      | N-15S                  | Total/NA  | Water  | SM 2540D |            |
| 680-190730-8      | N-15D                  | Total/NA  | Water  | SM 2540D |            |
| 680-190730-11     | N-18                   | Total/NA  | Water  | SM 2540D |            |
| MB 680-641837/1   | Method Blank           | Total/NA  | Water  | SM 2540D |            |
| LCS 680-641837/2  | Lab Control Sample     | Total/NA  | Water  | SM 2540D |            |
| LCSD 680-641837/3 | Lab Control Sample Dup | Total/NA  | Water  | SM 2540D |            |

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## QC Association Summary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

### General Chemistry

#### Analysis Batch: 641877

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method     | Prep Batch |
|-------------------|------------------------|-----------|--------|------------|------------|
| 680-190730-11     | N-18                   | Total/NA  | Water  | 376.1-1978 |            |
| MB 680-641877/1   | Method Blank           | Total/NA  | Water  | 376.1-1978 |            |
| LCS 680-641877/2  | Lab Control Sample     | Total/NA  | Water  | 376.1-1978 |            |
| LCSD 680-641877/3 | Lab Control Sample Dup | Total/NA  | Water  | 376.1-1978 |            |
| 680-190730-11 MS  | N-18                   | Total/NA  | Water  | 376.1-1978 |            |
| 680-190730-11 MSD | N-18                   | Total/NA  | Water  | 376.1-1978 |            |

#### Analysis Batch: 642045

| Lab Sample ID     | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|-------------------|------------------------|-----------|--------|----------|------------|
| 680-190730-17     | DUP-1                  | Total/NA  | Water  | SM 2540D |            |
| MB 680-642045/1   | Method Blank           | Total/NA  | Water  | SM 2540D |            |
| LCS 680-642045/2  | Lab Control Sample     | Total/NA  | Water  | SM 2540D |            |
| LCSD 680-642045/3 | Lab Control Sample Dup | Total/NA  | Water  | SM 2540D |            |

# Lab Chronicle

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

## Client Sample ID: N-05

Date Collected: 10/28/20 16:33

Date Received: 10/29/20 16:38

## Lab Sample ID: 680-190730-1

Matrix: Water

| Prep Type | Batch Type | Batch Method           | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|------------------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B                  |     | 5          | 5 mL           | 5 mL         | 642235       | 11/04/20 20:44       | P1C     | TAL SAV |
|           |            | Instrument ID: CMSC    |     |            |                |              |              |                      |         |         |
| Total/NA  | Prep       | 3520C                  |     |            | 1027.1 mL      | 5 mL         | 642282       | 11/04/20 19:10       | EHS     | TAL SAV |
| Total/NA  | Analysis   | 8081B                  |     | 1          |                |              | 642499       | 11/05/20 19:09       | JCK     | TAL SAV |
|           |            | Instrument ID: CSGAA   |     |            |                |              |              |                      |         |         |
| Total/NA  | Analysis   | SM 2540D               |     | 1          | 1000 mL        | 1000 mL      | 641817       | 11/02/20 08:18       | PG      | TAL SAV |
|           |            | Instrument ID: NOEQUIP |     |            |                |              |              |                      |         |         |

## Client Sample ID: N-05D

Date Collected: 10/28/20 15:29

Date Received: 10/29/20 16:38

## Lab Sample ID: 680-190730-2

Matrix: Water

| Prep Type | Batch Type | Batch Method        | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|---------------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B               |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 14:57       | P1C     | TAL SAV |
|           |            | Instrument ID: CMSC |     |            |                |              |              |                      |         |         |

## Client Sample ID: N-06DR

Date Collected: 10/28/20 17:45

Date Received: 10/29/20 16:38

## Lab Sample ID: 680-190730-3

Matrix: Water

| Prep Type | Batch Type | Batch Method           | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|------------------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B                  |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 15:20       | P1C     | TAL SAV |
|           |            | Instrument ID: CMSC    |     |            |                |              |              |                      |         |         |
| Total/NA  | Prep       | 3520C                  |     |            | 1046.4 mL      | 5 mL         | 642282       | 11/04/20 19:10       | EHS     | TAL SAV |
| Total/NA  | Analysis   | 8081B                  |     | 1          | 1 mL           | 1.0 mL       | 642499       | 11/05/20 19:23       | JCK     | TAL SAV |
|           |            | Instrument ID: CSGAA   |     |            |                |              |              |                      |         |         |
| Total/NA  | Analysis   | SM 2540D               |     | 1          | 1000 mL        | 1000 mL      | 641817       | 11/02/20 08:18       | PG      | TAL SAV |
|           |            | Instrument ID: NOEQUIP |     |            |                |              |              |                      |         |         |

## Client Sample ID: N-07

Date Collected: 10/28/20 17:42

Date Received: 10/29/20 16:38

## Lab Sample ID: 680-190730-4

Matrix: Water

| Prep Type | Batch Type | Batch Method           | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|------------------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B                  |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 15:43       | P1C     | TAL SAV |
|           |            | Instrument ID: CMSC    |     |            |                |              |              |                      |         |         |
| Total/NA  | Prep       | 3520C                  |     |            | 1043.5 mL      | 5 mL         | 642282       | 11/04/20 19:10       | EHS     | TAL SAV |
| Total/NA  | Analysis   | 8081B                  |     | 1          |                |              | 642499       | 11/05/20 19:37       | JCK     | TAL SAV |
|           |            | Instrument ID: CSGAA   |     |            |                |              |              |                      |         |         |
| Total/NA  | Analysis   | SM 2540D               |     | 1          | 1000 mL        | 1000 mL      | 641817       | 11/02/20 08:18       | PG      | TAL SAV |
|           |            | Instrument ID: NOEQUIP |     |            |                |              |              |                      |         |         |

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# Lab Chronicle

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

**Client Sample ID: N-10**

**Lab Sample ID: 680-190730-5**

**Date Collected: 10/28/20 16:30**

**Matrix: Water**

**Date Received: 10/29/20 16:38**

| Prep Type | Batch Type | Batch Method           | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|------------------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B                  |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 16:06       | P1C     | TAL SAV |
|           |            | Instrument ID: CMSC    |     |            |                |              |              |                      |         |         |
| Total/NA  | Prep       | 3520C                  |     |            | 1046.5 mL      | 5 mL         | 642282       | 11/04/20 19:10       | EHS     | TAL SAV |
| Total/NA  | Analysis   | 8081B                  |     | 1          |                |              | 642499       | 11/05/20 19:52       | JCK     | TAL SAV |
|           |            | Instrument ID: CSGAA   |     |            |                |              |              |                      |         |         |
| Total/NA  | Analysis   | SM 2540D               |     | 1          | 1000 mL        | 1000 mL      | 641817       | 11/02/20 08:18       | PG      | TAL SAV |
|           |            | Instrument ID: NOEQUIP |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-12**

**Lab Sample ID: 680-190730-6**

**Date Collected: 10/29/20 10:45**

**Matrix: Water**

**Date Received: 10/29/20 16:38**

| Prep Type | Batch Type | Batch Method           | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|------------------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B                  |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 16:29       | P1C     | TAL SAV |
|           |            | Instrument ID: CMSC    |     |            |                |              |              |                      |         |         |
| Total/NA  | Prep       | 3520C                  |     |            | 1032.3 mL      | 5 mL         | 642598       | 11/05/20 19:58       | EHS     | TAL SAV |
| Total/NA  | Analysis   | 8081B                  |     | 1          |                |              | 642794       | 11/06/20 21:49       | JCK     | TAL SAV |
|           |            | Instrument ID: CSGAA   |     |            |                |              |              |                      |         |         |
| Total/NA  | Analysis   | SM 2540D               |     | 1          | 1000 mL        | 1000 mL      | 641837       | 11/02/20 09:16       | PG      | TAL SAV |
|           |            | Instrument ID: NOEQUIP |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-15S**

**Lab Sample ID: 680-190730-7**

**Date Collected: 10/29/20 08:51**

**Matrix: Water**

**Date Received: 10/29/20 16:38**

| Prep Type | Batch Type | Batch Method           | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|------------------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B                  |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 16:52       | P1C     | TAL SAV |
|           |            | Instrument ID: CMSC    |     |            |                |              |              |                      |         |         |
| Total/NA  | Prep       | 3520C                  |     |            | 1053 mL        | 5 mL         | 642598       | 11/05/20 19:58       | EHS     | TAL SAV |
| Total/NA  | Analysis   | 8081B                  |     | 1          |                |              | 642794       | 11/06/20 22:04       | JCK     | TAL SAV |
|           |            | Instrument ID: CSGAA   |     |            |                |              |              |                      |         |         |
| Total/NA  | Analysis   | SM 2540D               |     | 1          | 1000 mL        | 1000 mL      | 641837       | 11/02/20 09:16       | PG      | TAL SAV |
|           |            | Instrument ID: NOEQUIP |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-15D**

**Lab Sample ID: 680-190730-8**

**Date Collected: 10/29/20 09:45**

**Matrix: Water**

**Date Received: 10/29/20 16:38**

| Prep Type | Batch Type | Batch Method           | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------|------------------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis   | 8260B                  |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 17:15       | P1C     | TAL SAV |
|           |            | Instrument ID: CMSC    |     |            |                |              |              |                      |         |         |
| Total/NA  | Prep       | 3520C                  |     |            | 1038.1 mL      | 5 mL         | 642598       | 11/05/20 19:58       | EHS     | TAL SAV |
| Total/NA  | Analysis   | 8081B                  |     | 1          |                |              | 642794       | 11/06/20 22:18       | JCK     | TAL SAV |
|           |            | Instrument ID: CSGAA   |     |            |                |              |              |                      |         |         |
| Total/NA  | Analysis   | SM 2540D               |     | 1          | 286 mL         | 1000 mL      | 641837       | 11/02/20 09:16       | PG      | TAL SAV |
|           |            | Instrument ID: NOEQUIP |     |            |                |              |              |                      |         |         |

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# Lab Chronicle

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

**Client Sample ID: N-16D**

**Lab Sample ID: 680-190730-9**

**Date Collected: 10/28/20 13:12**

**Matrix: Water**

**Date Received: 10/29/20 16:38**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 17:38       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-17**

**Lab Sample ID: 680-190730-10**

**Date Collected: 10/28/20 14:55**

**Matrix: Water**

**Date Received: 10/29/20 16:38**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 18:02       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-18**

**Lab Sample ID: 680-190730-11**

**Date Collected: 10/29/20 12:09**

**Matrix: Water**

**Date Received: 10/29/20 16:38**

| Prep Type               | Batch Type | Batch Method    | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-------------------------|------------|-----------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA                | Analysis   | 8260B           |     | 5          | 5 mL           | 5 mL         | 642235       | 11/04/20 21:07       | P1C     | TAL SAV |
| Instrument ID: CMSC     |            |                 |     |            |                |              |              |                      |         |         |
| Total/NA                | Analysis   | 8015B           |     | 5          | 5 mL           | 5 mL         | 643093       | 11/09/20 15:15       | DBM     | TAL SAV |
| Instrument ID: CVGWFID1 |            |                 |     |            |                |              |              |                      |         |         |
| Total/NA                | Analysis   | RSK-175         |     | 1          | 18 mL          | 18 mL        | 160720       | 11/02/20 21:59       | MJZ     | TAL BUR |
| Instrument ID: CH1031.i |            |                 |     |            |                |              |              |                      |         |         |
| Total/NA                | Analysis   | RSK-175         |     | 1          | 17 mL          | 17 mL        | 642725       | 11/06/20 19:41       | DBM     | TAL SAV |
| Instrument ID: CVGU     |            |                 |     |            |                |              |              |                      |         |         |
| Total/NA                | Prep       | 3520C           |     |            | 1044.1 mL      | 1 mL         | 641928       | 11/02/20 10:12       | EHS     | TAL SAV |
| Total/NA                | Analysis   | 8015C           |     | 1          |                |              | 642061       | 11/03/20 17:10       | JCK     | TAL SAV |
| Instrument ID: CSGAB1   |            |                 |     |            |                |              |              |                      |         |         |
| Total/NA                | Prep       | 3520C           |     |            | 1048.5 mL      | 5 mL         | 642598       | 11/05/20 19:58       | EHS     | TAL SAV |
| Total/NA                | Analysis   | 8081B           |     | 1          |                |              | 642794       | 11/06/20 22:32       | JCK     | TAL SAV |
| Instrument ID: CSGAA    |            |                 |     |            |                |              |              |                      |         |         |
| Dissolved               | Filtration | FILTRATION      |     |            | 1.0 mL         | 1.0 mL       | 642522       | 11/05/20 12:49       | BJB     | TAL SAV |
| Dissolved               | Prep       | 3005A           |     |            | 50 mL          | 50 mL        | 642524       | 11/05/20 12:53       | BJB     | TAL SAV |
| Dissolved               | Analysis   | 6010C           |     | 1          |                |              | 642672       | 11/06/20 08:16       | BCB     | TAL SAV |
| Instrument ID: ICPE     |            |                 |     |            |                |              |              |                      |         |         |
| Total Recoverable       | Prep       | 3005A           |     |            | 50 mL          | 50 mL        | 642376       | 11/04/20 17:56       | BCB     | TAL SAV |
| Total Recoverable       | Analysis   | 6010C           |     | 1          |                |              | 642624       | 11/05/20 15:37       | BCB     | TAL SAV |
| Instrument ID: ICPE     |            |                 |     |            |                |              |              |                      |         |         |
| Total/NA                | Analysis   | 353.2           |     | 1          | 2 mL           | 2 mL         | 641649       | 10/30/20 12:43       | DR      | TAL SAV |
| Instrument ID: LACHAT2  |            |                 |     |            |                |              |              |                      |         |         |
| Total/NA                | Analysis   | 375.4-1978      |     | 1          | 2 mL           | 2 mL         | 641774       | 10/31/20 15:26       | NVF     | TAL SAV |
| Instrument ID: KONELAB3 |            |                 |     |            |                |              |              |                      |         |         |
| Total/NA                | Analysis   | 376.1-1978      |     | 1          | 310 mL         | 310 mL       | 641877       | 11/02/20 10:46       | NVF     | TAL SAV |
| Instrument ID: NOEQUIP  |            |                 |     |            |                |              |              |                      |         |         |
| Total/NA                | Analysis   | 410.4-1993 R2.0 |     | 1          | 2 mL           | 2 mL         | 641586       | 10/30/20 10:24       | ALG     | TAL SAV |
| Instrument ID: SPC7     |            |                 |     |            |                |              |              |                      |         |         |

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# Lab Chronicle

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

**Client Sample ID: N-18**

**Date Collected: 10/29/20 12:09**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-11**

**Matrix: Water**

| Prep Type              | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|------------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA               | Analysis   | 5210B-2011   |     | 1          |                |              | 641565       | 10/30/20 11:29       | OLB     | TAL SAV |
| Total/NA               | Analysis   | SM 2540D     |     | 1          | 1000 mL        | 1000 mL      | 641837       | 11/02/20 09:16       | PG      | TAL SAV |
| Instrument ID: NOEQUIP |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-19**

**Date Collected: 10/28/20 13:11**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-12**

**Matrix: Water**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 18:25       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-20**

**Date Collected: 10/28/20 11:10**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-13**

**Matrix: Water**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 18:48       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-20S**

**Date Collected: 10/28/20 11:50**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-14**

**Matrix: Water**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 19:11       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-21**

**Date Collected: 10/28/20 11:30**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-15**

**Matrix: Water**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 19:34       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: N-21S**

**Date Collected: 10/28/20 12:04**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-16**

**Matrix: Water**

| Prep Type           | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|---------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA            | Analysis   | 8260B        |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 19:57       | P1C     | TAL SAV |
| Instrument ID: CMSC |            |              |     |            |                |              |              |                      |         |         |

Eurofins TestAmerica, Savannah

# Lab Chronicle

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

**Client Sample ID: DUP-1**

**Date Collected: 10/28/20 00:00**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-17**

**Matrix: Water**

| Prep Type | Batch Type             | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|------------------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis               | 8260B        |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 20:21       | P1C     | TAL SAV |
|           | Instrument ID: CMSC    |              |     |            |                |              |              |                      |         |         |
| Total/NA  | Prep                   | 3520C        |     |            | 1047.7 mL      | 5 mL         | 643316       | 11/10/20 14:00       | EHS     | TAL SAV |
| Total/NA  | Analysis               | 8081B        |     | 1          |                |              | 643539       | 11/11/20 20:05       | JCK     | TAL SAV |
|           | Instrument ID: CSGJ    |              |     |            |                |              |              |                      |         |         |
| Total/NA  | Analysis               | SM 2540D     |     | 1          | 1000 mL        | 1000 mL      | 642045       | 11/03/20 12:34       | PG      | TAL SAV |
|           | Instrument ID: NOEQUIP |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: Equipment Blank**

**Date Collected: 10/29/20 12:45**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-18**

**Matrix: Water**

| Prep Type | Batch Type          | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|---------------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis            | 8260B        |     | 1          | 5 mL           | 5 mL         | 642235       | 11/04/20 14:10       | P1C     | TAL SAV |
|           | Instrument ID: CMSC |              |     |            |                |              |              |                      |         |         |

**Client Sample ID: Trip Blank**

**Date Collected: 10/28/20 00:00**

**Date Received: 10/29/20 16:38**

**Lab Sample ID: 680-190730-19**

**Matrix: Water**

| Prep Type | Batch Type          | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab     |
|-----------|---------------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA  | Analysis            | 8260B        |     | 1          | 5 mL           | 5 mL         | 642475       | 11/05/20 15:34       | UI      | TAL SAV |
|           | Instrument ID: CMSU |              |     |            |                |              |              |                      |         |         |

## Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

## Accreditation/Certification Summary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

### Laboratory: Eurofins TestAmerica, Savannah

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

| Authority | Program | Identification Number | Expiration Date |
|-----------|---------|-----------------------|-----------------|
| Georgia   | State   | E87052                | 06-30-21        |

### Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority                         | Program               | Identification Number | Expiration Date |
|-----------------------------------|-----------------------|-----------------------|-----------------|
| ANAB                              | Dept. of Defense ELAP | L2336                 | 02-25-23        |
| Connecticut                       | State                 | PH-0751               | 09-30-21        |
| DE Haz. Subst. Cleanup Act (HSCA) | State                 | N/A                   | 05-16-21        |
| Florida                           | NELAP                 | E87467                | 06-30-21        |
| Minnesota                         | NELAP                 | 050-999-436           | 12-31-20        |
| New Hampshire                     | NELAP                 | 2006                  | 12-18-20        |
| New Jersey                        | NELAP                 | VT972                 | 06-30-21        |
| New York                          | NELAP                 | 10391                 | 04-01-21        |
| Pennsylvania                      | NELAP                 | 68-00489              | 04-30-21        |
| Rhode Island                      | State                 | LAO00298              | 12-30-20        |
| US Fish & Wildlife                | US Federal Programs   | 058448                | 07-31-21        |
| USDA                              | US Federal Programs   | P330-17-00272         | 10-30-23        |
| Vermont                           | State                 | VT4000                | 12-31-20        |
| Virginia                          | NELAP                 | 460209                | 12-14-20        |
| Wisconsin                         | State                 | 399133350             | 08-31-21        |

# Method Summary

Client: Ashland LLC  
Project/Site: Brunswick 009 Landfill

Job ID: 680-190730-1

| Method          | Method Description                                                     | Protocol | Laboratory |
|-----------------|------------------------------------------------------------------------|----------|------------|
| 8260B           | Volatile Organic Compounds (GC/MS)                                     | SW846    | TAL SAV    |
| 8015B           | Gasoline Range Organics - (GC)                                         | SW846    | TAL SAV    |
| RSK-175         | Dissolved Gases (GC)                                                   | RSK      | TAL BUR    |
| RSK-175         | Dissolved Gases (GC)                                                   | RSK      | TAL SAV    |
| 8015C           | Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics) | SW846    | TAL SAV    |
| 8081B           | Organochlorine Pesticides (GC)                                         | SW846    | TAL SAV    |
| 6010C           | Metals (ICP)                                                           | SW846    | TAL SAV    |
| 353.2           | Nitrogen, Nitrate-Nitrite                                              | MCAWW    | TAL SAV    |
| 375.4-1978      | Sulfate                                                                | MCAWW    | TAL SAV    |
| 376.1-1978      | Sulfide                                                                | MCAWW    | TAL SAV    |
| 410.4-1993 R2.0 | COD                                                                    | MCAWW    | TAL SAV    |
| 5210B-2011      | BOD, 5-Day                                                             | SM       | TAL SAV    |
| SM 2540D        | Solids, Total Suspended (TSS)                                          | SM       | TAL SAV    |
| 3005A           | Preparation, Total Recoverable or Dissolved Metals                     | SW846    | TAL SAV    |
| 3520C           | Liquid-Liquid Extraction (Continuous)                                  | SW846    | TAL SAV    |
| 5030B           | Purge and Trap                                                         | SW846    | TAL SAV    |
| FILTRATION      | Sample Filtration                                                      | None     | TAL SAV    |

## Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Savannah, GA 31404  
phone 912.354.7858 fax 912.352.0165

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING  
**TestAmerica Laboratories, Inc.**

## Chain of Custody Record

| Client Contact                    |  | Project Manager: Chad Weaver          |      | Site Contact: Tim Hassett  |       | Date: 10/29/20 |  | COC No. 1 of 2 COCs |  |
|-----------------------------------|--|---------------------------------------|------|----------------------------|-------|----------------|--|---------------------|--|
| Hercules, LLC                     |  | Tel/Fax: 704.324.7051                 |      | Lab Contact: Eddie Barnett |       | Carrier:       |  | Job No.             |  |
| PO #                              |  | Analysis Turnaround Time              |      | Sample Date                |       | Sample Time    |  | Sample Type         |  |
| Project Name: 009 Landfill        |  | Calendar (C) or Work Days (W)         |      | Sample Date                |       | Sample Time    |  | Sample Type         |  |
| Site: 009 Landfill, Brunswick, GA |  | TAT if different from Below: Standard |      | Sample Date                |       | Sample Time    |  | Sample Type         |  |
| PO #                              |  | 2 weeks                               |      | Sample Date                |       | Sample Time    |  | Sample Type         |  |
|                                   |  | 1 week                                |      | Sample Date                |       | Sample Time    |  | Sample Type         |  |
|                                   |  | 2 days                                |      | Sample Date                |       | Sample Time    |  | Sample Type         |  |
|                                   |  | 1 day                                 |      | Sample Date                |       | Sample Time    |  | Sample Type         |  |
| N-05                              |  | 10/29/20                              | 1633 | Grab                       | Water | 6              |  |                     |  |
| N-05D                             |  | 10/29/20                              | 1529 | Grab                       | Water | 3              |  |                     |  |
| N-06DR                            |  | 10/29/20                              | 1745 | Grab                       | Water | 6              |  |                     |  |
| N-07                              |  | 10/29/20                              | 1742 | Grab                       | Water | 6              |  |                     |  |
| N-10                              |  | 10/29/20                              | 1630 | Grab                       | Water | 6              |  |                     |  |
| N-12                              |  | 10/29/20                              | 1045 | Grab                       | Water | 6              |  |                     |  |
| N-15S                             |  | 10/29/20                              | 0851 | Grab                       | Water | 6              |  |                     |  |
| N-15D                             |  | 10/29/20                              | 0945 | Grab                       | Water | 6              |  |                     |  |
| N-16D                             |  | 10/29/20                              | 1312 | Grab                       | Water | 3              |  |                     |  |
| N-17                              |  | 10/29/20                              | 1455 | Grab                       | Water | 3              |  |                     |  |

| Sample Identification | Sample Date | Sample Time | Sample Type | Matrix | # of Cont. | Filtered Sample | Benzene only via 8260 | Total Suspended Solids via 2540D | Tophene via 8081 | Methane + CO2 via RSK 173 | Sulfate via EPA 375.3 | Nitrate via EPA 353.1 | Total Iron, Total Manganese via 6010C | Disolved Iron, Disolved Manganese via 6010C | Sulfide via 376.1 | Chemical Oxygen Demand via 410.1-2 | Biological Oxidant Demand via 5210B | TPH-G via 801.5 | TPH-D via 801.5 |  |
|-----------------------|-------------|-------------|-------------|--------|------------|-----------------|-----------------------|----------------------------------|------------------|---------------------------|-----------------------|-----------------------|---------------------------------------|---------------------------------------------|-------------------|------------------------------------|-------------------------------------|-----------------|-----------------|--|
| N-05                  | 10/29/20    | 1633        | Grab        | Water  | 6          |                 | X                     | X                                | X                |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |
| N-05D                 | 10/29/20    | 1529        | Grab        | Water  | 3          |                 | X                     |                                  |                  |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |
| N-06DR                | 10/29/20    | 1745        | Grab        | Water  | 6          |                 | X                     | X                                | X                |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |
| N-07                  | 10/29/20    | 1742        | Grab        | Water  | 6          |                 | X                     | X                                | X                |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |
| N-10                  | 10/29/20    | 1630        | Grab        | Water  | 6          |                 | X                     | X                                | X                |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |
| N-12                  | 10/29/20    | 1045        | Grab        | Water  | 6          |                 | X                     | X                                | X                |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |
| N-15S                 | 10/29/20    | 0851        | Grab        | Water  | 6          |                 | X                     | X                                | X                |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |
| N-15D                 | 10/29/20    | 0945        | Grab        | Water  | 6          |                 | X                     | X                                | X                |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |
| N-16D                 | 10/29/20    | 1312        | Grab        | Water  | 3          |                 | X                     |                                  |                  |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |
| N-17                  | 10/29/20    | 1455        | Grab        | Water  | 3          |                 | X                     |                                  |                  |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |

| Sample Identification | Sample Date | Sample Time | Sample Type | Matrix | # of Cont. | Filtered Sample | Benzene only via 8260 | Total Suspended Solids via 2540D | Tophene via 8081 | Methane + CO2 via RSK 173 | Sulfate via EPA 375.3 | Nitrate via EPA 353.1 | Total Iron, Total Manganese via 6010C | Disolved Iron, Disolved Manganese via 6010C | Sulfide via 376.1 | Chemical Oxygen Demand via 410.1-2 | Biological Oxidant Demand via 5210B | TPH-G via 801.5 | TPH-D via 801.5 |  |
|-----------------------|-------------|-------------|-------------|--------|------------|-----------------|-----------------------|----------------------------------|------------------|---------------------------|-----------------------|-----------------------|---------------------------------------|---------------------------------------------|-------------------|------------------------------------|-------------------------------------|-----------------|-----------------|--|
| N-05                  | 10/29/20    | 1633        | Grab        | Water  | 6          |                 | X                     | X                                | X                |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |
| N-05D                 | 10/29/20    | 1529        | Grab        | Water  | 3          |                 | X                     |                                  |                  |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |
| N-06DR                | 10/29/20    | 1745        | Grab        | Water  | 6          |                 | X                     | X                                | X                |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |
| N-07                  | 10/29/20    | 1742        | Grab        | Water  | 6          |                 | X                     | X                                | X                |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |
| N-10                  | 10/29/20    | 1630        | Grab        | Water  |            |                 |                       |                                  |                  |                           |                       |                       |                                       |                                             |                   |                                    |                                     |                 |                 |  |

Savannah  
5102 LaRoche Avenue

Savannah, GA 31404  
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TestAmerica Laboratories, Inc.

# Chain of Custody Record

|                                                                                                                                                                                  |              |                               |             |                             |                   |                 |                 |                     |                                    |                                                                                            |                   |                                               |                                       |                       |                       |                           |                   |                                  |                       |                            |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------|-------------|-----------------------------|-------------------|-----------------|-----------------|---------------------|------------------------------------|--------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------|---------------------------------------|-----------------------|-----------------------|---------------------------|-------------------|----------------------------------|-----------------------|----------------------------|--|--|--|--|
| Client Contact                                                                                                                                                                   |              | Project Manager: Chad Weaver  |             | Site Contact: Tim Hassett   |                   | Date: 10/29/20  |                 | COC No. 2 of 2 COCs |                                    |                                                                                            |                   |                                               |                                       |                       |                       |                           |                   |                                  |                       |                            |  |  |  |  |
| Hercules, LLC                                                                                                                                                                    |              | Tel/Fax: 704.324.7051         |             | Lab Contact: Eddie Barnett  |                   | Carrier:        |                 | Job No.             |                                    |                                                                                            |                   |                                               |                                       |                       |                       |                           |                   |                                  |                       |                            |  |  |  |  |
| Analysis Turnaround Time                                                                                                                                                         |              | Calendar (C) or Work Days (W) |             | TAT If different from Below |                   | Standard        |                 | SDG No.             |                                    |                                                                                            |                   |                                               |                                       |                       |                       |                           |                   |                                  |                       |                            |  |  |  |  |
|                                                                                                                                                                                  |              |                               |             |                             |                   |                 |                 |                     |                                    |                                                                                            |                   |                                               |                                       |                       |                       |                           |                   |                                  |                       |                            |  |  |  |  |
| Project Name: 009 Landfill                                                                                                                                                       |              |                               |             |                             |                   |                 |                 |                     |                                    |                                                                                            |                   |                                               |                                       |                       |                       |                           |                   |                                  |                       |                            |  |  |  |  |
| Site: 009 Landfill, Brunswick, GA                                                                                                                                                |              |                               |             |                             |                   |                 |                 |                     |                                    |                                                                                            |                   |                                               |                                       |                       |                       |                           |                   |                                  |                       |                            |  |  |  |  |
| P O #                                                                                                                                                                            |              |                               |             |                             |                   |                 |                 |                     |                                    |                                                                                            |                   |                                               |                                       |                       |                       |                           |                   |                                  |                       |                            |  |  |  |  |
| Sample Identification                                                                                                                                                            | Sample Date  | Sample Time                   | Sample Type | Matrix                      | # of Cont.        | Filtered Sample | TPH-D via 801.5 | TPH-G via 801.5     | Biological Oxygen Demand via 5210B | Chemical Oxygen Demand via 410.1-2                                                         | Sulfide via 376.1 | Dissolved Iron, Dissolved Manganese via 6010C | Total Iron, Total Manganese via 6010C | Nitrate via EPA 353.1 | Sulfate via EPA 375.3 | Methane + CO2 via RSK 175 | Toluene via 808.1 | Total Suspended Solids via 2540D | Benzene only via 8260 | Sample Specific Notes:     |  |  |  |  |
| N-18                                                                                                                                                                             | 10/29/20     | 1209                          | Grab        | Water                       | 26                | X               | X               | X                   | X                                  | X                                                                                          | X                 | X                                             | X                                     | X                     | X                     | X                         | X                 | X                                | X                     |                            |  |  |  |  |
| N-19                                                                                                                                                                             | 10/28/20     | 1311                          | Grab        | Water                       | 3                 | X               | X               | X                   | X                                  | X                                                                                          | X                 | X                                             | X                                     | X                     | X                     | X                         | X                 | X                                | X                     |                            |  |  |  |  |
| N-20                                                                                                                                                                             | ↓            | 1110                          | Grab        | Water                       | 3                 | X               | X               | X                   | X                                  | X                                                                                          | X                 | X                                             | X                                     | X                     | X                     | X                         | X                 | X                                | X                     |                            |  |  |  |  |
| N-20S                                                                                                                                                                            | ↓            | 1150                          | Grab        | Water                       | 3                 | X               | X               | X                   | X                                  | X                                                                                          | X                 | X                                             | X                                     | X                     | X                     | X                         | X                 | X                                | X                     |                            |  |  |  |  |
| N-21                                                                                                                                                                             | 10/28/20     | 1130                          | Grab        | Water                       | 3                 | X               | X               | X                   | X                                  | X                                                                                          | X                 | X                                             | X                                     | X                     | X                     | X                         | X                 | X                                | X                     |                            |  |  |  |  |
| N-21S                                                                                                                                                                            | 10/29/20     | 1204                          | Grab        | Water                       | 3                 | X               | X               | X                   | X                                  | X                                                                                          | X                 | X                                             | X                                     | X                     | X                     | X                         | X                 | X                                | X                     |                            |  |  |  |  |
| (Extra/Spate)                                                                                                                                                                    | 10/29/20     | NA                            | Grab        | Water                       | 3                 | X               | X               | X                   | X                                  | X                                                                                          | X                 | X                                             | X                                     | X                     | X                     | X                         | X                 | X                                | X                     |                            |  |  |  |  |
| DUP-1                                                                                                                                                                            | 10/29/20     | 1245                          | Grab        | Water                       | 3                 | X               | X               | X                   | X                                  | X                                                                                          | X                 | X                                             | X                                     | X                     | X                     | X                         | X                 | X                                | X                     |                            |  |  |  |  |
| Equipment Blank                                                                                                                                                                  | 10/29/20     | 1245                          | Grab        | Water                       | 3                 | X               | X               | X                   | X                                  | X                                                                                          | X                 | X                                             | X                                     | X                     | X                     | X                         | X                 | X                                | X                     |                            |  |  |  |  |
| Trip Blank                                                                                                                                                                       | Lab Provided |                               |             | Water                       | 2                 | X               | X               | X                   | X                                  | X                                                                                          | X                 | X                                             | X                                     | X                     | X                     | X                         | X                 | X                                | X                     |                            |  |  |  |  |
| Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other                                                                                                          |              |                               |             |                             |                   |                 |                 |                     |                                    | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)        |                   |                                               |                                       |                       |                       |                           |                   |                                  |                       |                            |  |  |  |  |
| Possible Hazard Identification                                                                                                                                                   |              |                               |             |                             |                   |                 |                 |                     |                                    | Return To Client                                                                           |                   |                                               |                                       |                       |                       |                           |                   |                                  |                       |                            |  |  |  |  |
| <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown |              |                               |             |                             |                   |                 |                 |                     |                                    | <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months |                   |                                               |                                       |                       |                       |                           |                   |                                  |                       |                            |  |  |  |  |
| Special Instructions/QC Requirements & Comments:                                                                                                                                 |              |                               |             |                             |                   |                 |                 |                     |                                    |                                                                                            |                   |                                               |                                       |                       |                       |                           |                   |                                  |                       |                            |  |  |  |  |
| TASK 400                                                                                                                                                                         |              |                               |             |                             |                   |                 |                 |                     |                                    |                                                                                            |                   |                                               |                                       |                       |                       |                           |                   |                                  |                       |                            |  |  |  |  |
| Relinquished by: Jeff Strickland                                                                                                                                                 |              |                               |             |                             | Company: Hercules |                 |                 |                     |                                    | Received by: Barbara DiCicco                                                               |                   |                                               |                                       |                       | Company: ERTA         |                           |                   |                                  |                       | Date/Time: 10-29-2020 1638 |  |  |  |  |
| Relinquished by:                                                                                                                                                                 |              |                               |             |                             | Company:          |                 |                 |                     |                                    | Received by:                                                                               |                   |                                               |                                       |                       | Company:              |                           |                   |                                  |                       | Date/Time:                 |  |  |  |  |
| Relinquished by:                                                                                                                                                                 |              |                               |             |                             | Company:          |                 |                 |                     |                                    | Received by:                                                                               |                   |                                               |                                       |                       | Company:              |                           |                   |                                  |                       | Date/Time:                 |  |  |  |  |



680-190730 Chain of Custody

[illegible]

ORIGIN ID: SAVA (912) 354-7858  
SHIPPING  
EUROFINS/TESTAMERICA  
5102 LA ROUCHE AVE  
SAVANNAH, GA 31404  
UNITED STATES US

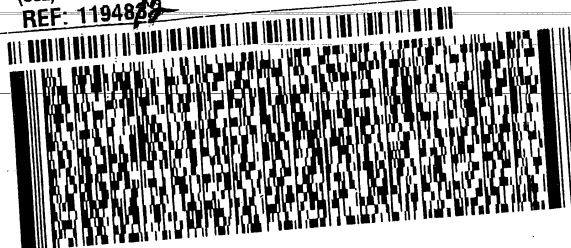
SHIP DATE: 30OCT20  
ACTWGT: 15.00 LB MAN  
CAD: 0801261/CAFE3313

BILL SENDER

TO **SAMPLE CUSTODY**  
**TESTAMERICA LABORATORIES**  
**30 COMMUNITY DRIVE**  
**SUITE 11**  
**SOUTH BURLINGTON VT 05403**

(802) 660-1990

REF: 1194882



**FedEx**  
Express



J191219082001 HV

TRK#  
0201

1328 9410 8188

**XO BTVA**

**SATURDAY 12:00P**  
**PRIORITY OVERNIGHT**

**05403**  
VT-US **BTVA**



## Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 680-190730-1

Login Number: 190730

List Source: Eurofins TestAmerica, Savannah

List Number: 1

Creator: Sims, Robert D

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

## Login Sample Receipt Checklist

Client: Ashland LLC

Job Number: 680-190730-1

Login Number: 190730

List Number: 2

Creator: Jaffe, Nat S

List Source: Eurofins TestAmerica, Burlington

List Creation: 10/31/20 12:20 PM

| Question                                                                                 | Answer | Comment                                  |
|------------------------------------------------------------------------------------------|--------|------------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.      | N/A    | Lab does not accept radioactive samples. |
| The cooler's custody seal, if present, is intact.                                        | True   | 1459747                                  |
| Sample custody seals, if present, are intact.                                            | True   |                                          |
| The cooler or samples do not appear to have been compromised or tampered with.           | True   |                                          |
| Samples were received on ice.                                                            | True   |                                          |
| Cooler Temperature is acceptable.                                                        | True   |                                          |
| Cooler Temperature is recorded.                                                          | True   | 0.9°C                                    |
| COC is present.                                                                          | True   |                                          |
| COC is filled out in ink and legible.                                                    | True   |                                          |
| COC is filled out with all pertinent information.                                        | True   |                                          |
| Is the Field Sampler's name present on COC?                                              | N/A    | Received project as a subcontract.       |
| There are no discrepancies between the containers received and the COC.                  | True   |                                          |
| Samples are received within Holding Time (excluding tests with immediate HTs)            | True   |                                          |
| Sample containers have legible labels.                                                   | True   |                                          |
| Containers are not broken or leaking.                                                    | True   |                                          |
| Sample collection date/times are provided.                                               | True   |                                          |
| Appropriate sample containers are used.                                                  | True   |                                          |
| Sample bottles are completely filled.                                                    | True   |                                          |
| Sample Preservation Verified.                                                            | True   |                                          |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs         | True   |                                          |
| Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4"). | True   |                                          |
| Multiphasic samples are not present.                                                     | True   |                                          |
| Samples do not require splitting or compositing.                                         | True   |                                          |
| Residual Chlorine Checked.                                                               | N/A    |                                          |