

# Water Quality Monitoring Report First 2020 Semi-Annual Event

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## Trail Ridge Landfill

Trail Ridge Landfill, Inc.



May 18, 2020

### PREPARED FOR:

Trail Ridge Landfill, Inc.  
5110 US Highway 301  
Baldwin, FL 32234

### PREPARED BY:



Carlson Environmental Consultants  
305 South Main Street  
Monroe, North Carolina 28112

**STATEMENT OF GEOLOGIC REVIEW**

In general accordance with Chapter 62-701, Florida Administrative Code (F.A.C.), Solid Waste Management Facilities, this Groundwater Monitoring Report – Semi-Annual Monitoring Event – February 2020 for the Trail Ridge Landfill, located in Baldwin, Florida, has been reviewed, signed and sealed by a registered Professional Geologist in the State of Florida, and is consistent with standard principles related to groundwater monitoring

  
Ken E. Guilbeault, P.G.  
Florida License # 2907



**CEC**

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# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

DEP Form # 62-701 900(31), F.A.C.

Form Title Water Quality Monitoring Certification

Effective Date January 6, 2010

Incorporated in Rule 62-701 510(9), F.A.C.

## WATER QUALITY MONITORING CERTIFICATION

### PART I GENERAL INFORMATION

(1) Facility Name Trailridge Landfill, Inc.

Address 5110 U.S. Highway 301

City Baldwin, FL

Zip 32234

County Duval

Telephone Number ( )

(2) WACS Facility ID 33628

(3) DEP Permit Number 0013495-025-SO-01

(4) Authorized Representative's Name Eric Parker

Title Environmental Manager

Address 5110 U.S. Highway 301

City Baldwin, FL

Zip 32234

County Duval

Telephone Number (904 ) 748-6006

Email address (if available) eparker1@wm.com

### CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submission of false information including the possibility of fine and imprisonment.

5/18/20  
(Date)

[Signature]  
(Owner or Authorized Representative's Signature)

### PART II QUALITY ASSURANCE REQUIREMENTS

Sampling Organization Professional Tech Support Service (Pro Tech)

Analytical Lab NELAC / HRS Certification # Florida E87052

Lab Name Advanced Environmental Laboratories, Inc. (AEL)

Address 6681 Southpoint Parkway, Jacksonville, FL 32216

Phone Number (904 ) 363-9350

Email address (if available) jallen@aellab.com

Northwest District  
160 Government Center  
Pensacola, FL 32501-5794  
850-595-8360

Northeast District  
7825 Baymeadows Way, Ste. 200 B  
Jacksonville, FL 32256-7590  
904-807-3300

Central District  
3319 Maguire Blvd., Ste. 232  
Orlando, FL 32803-3767  
407-894-7555

Southwest District  
13051 N. Telecom Pky.  
Temple Terrace, FL  
813-632-7600

South District  
2295 Victoria Ave., Ste. 364  
Fort Myers, FL 33902-2549  
239-332-6975

Southeast District  
400 North Congress Ave.  
West Palm Beach, FL 33401  
561-681-6600

## **1 INTRODUCTION**

The Trail Ridge Landfill (Site) is owned by the City of Jacksonville and operated by Trail Ridge Landfill, Inc. (a Waste Management Company) in accordance with Florida Department of Environmental Protection (FDEP) Operation Permit Number 0013493-025-SO-01 issued June 16, 2014 and minor mods 0013493-028-SO-MM and 0013493-029-SO-MM issued April 5, 2019 and September 16, 2019 respectively. The Permit expires on June 16, 2034. The Site is an active municipal solid waste landfill that serves the City of Jacksonville, Duval County, and Northeast Florida.

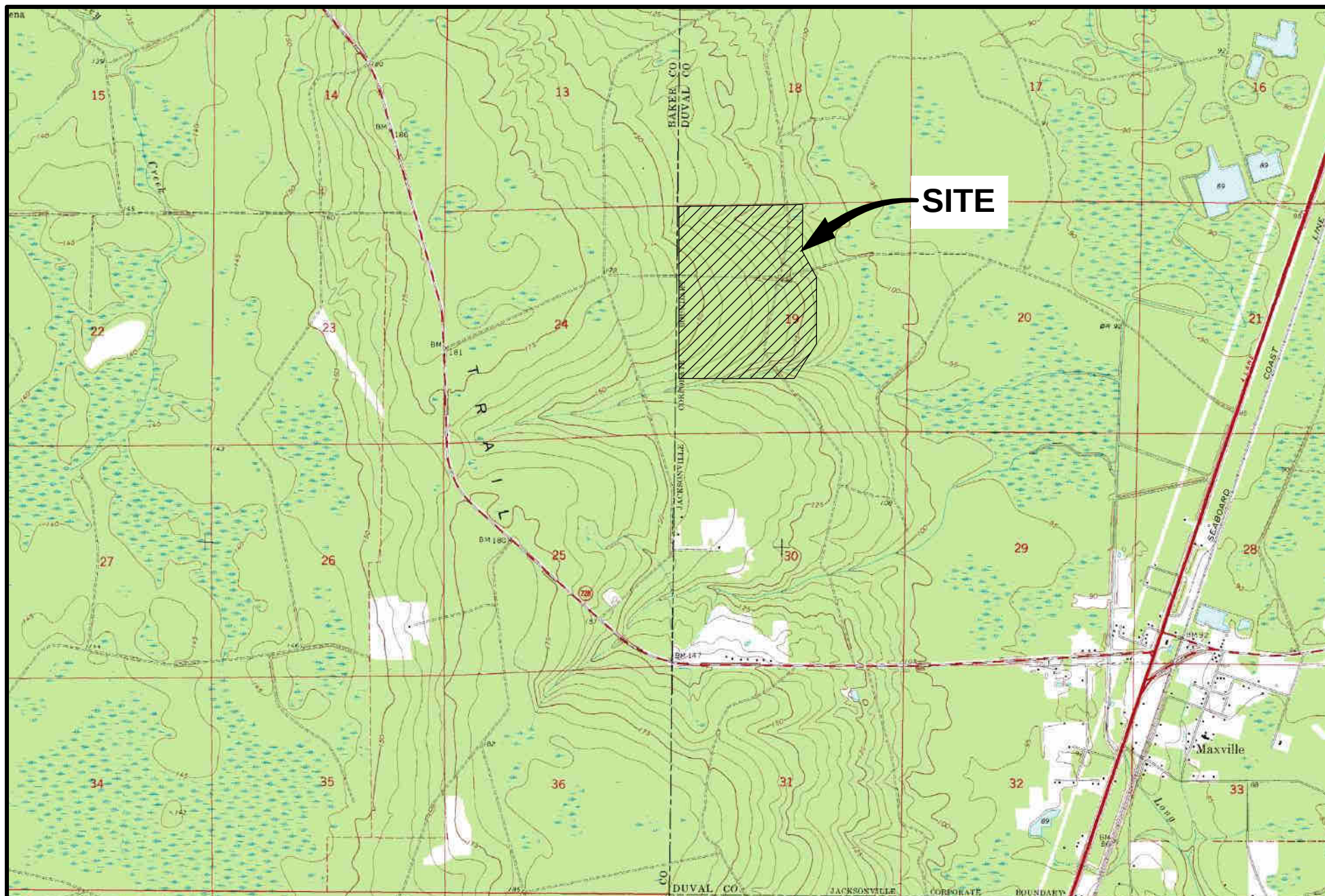
Carlson Environmental Consultants, PC (CEC) has been retained to report the results of semi-annual groundwater and surface water monitoring at the Site in accordance with the Water Quality Monitoring Plan (Appendix 3) of the referenced permit.

This report presents the methods and findings of the first 2020 semi-annual groundwater monitoring event conducted on February 26 27, 28, and March 2, 2020 with a limited resample event conducted March 31, 2020 (Appendix A). An electronic data deliverable (EDD) of the results in "ADaPT format" is attached as Appendix B. This EDD has been verified as uploadable into the latest version of ADaPT.

The following sections include general information concerning the Site history and setting, an evaluation of surficial aquifer groundwater flow, and groundwater and surface water quality conditions at the Site. Laboratory analytical data are summarized, evaluated, and compared to historical data where appropriate.

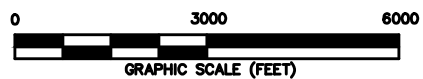
### **1.1 Site Location and Description**

The Site is located near the town of Baldwin approximately five miles southwest of the intersection of US-301 and I-10 in southwestern Duval County along the border with Baker County, Florida (Figure 1). The Facility is an active municipal solid waste landfill with a total disposal area of approximately 427 acres that accepts waste from the City of Jacksonville and Duval County. The Facility operates a waste tire processing facility and active gas collection system, and the Facility design includes wetland mitigation, a stormwater management system, and environmental monitoring systems for groundwater, surface water, and methane gas (Figure 2). As of this report, waste has been placed in Phases 1-6 only. The stormwater management system for Phases 6-14 has been completed, although vegetation is still filling in for this area. A site location map is provided in Figure 1.



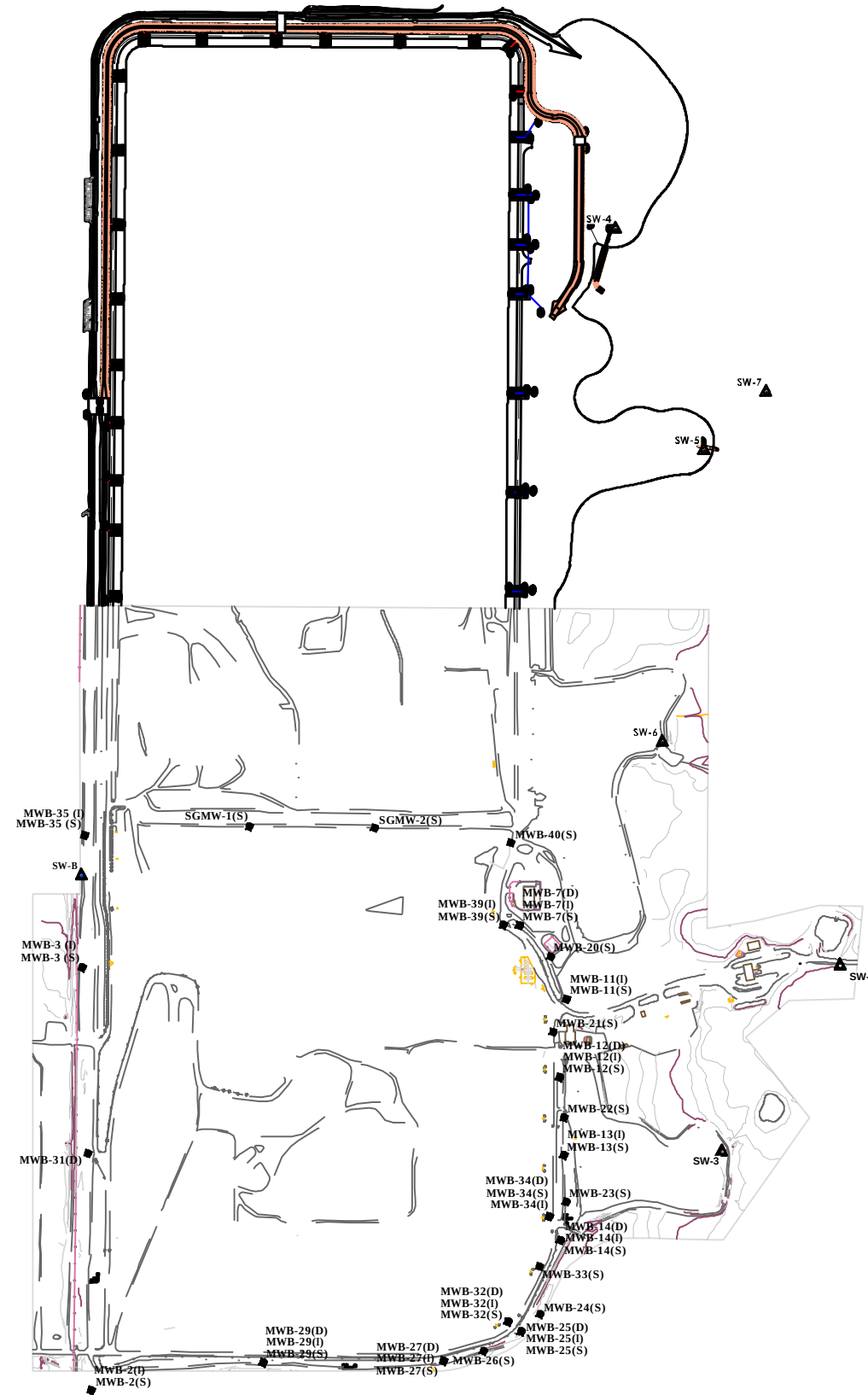
NOTES:

1. BACKGROUND IMAGE FROM USGS 7.5 MINUTE QUADRANGLE;  
MAXVILLE, FL 1970 (PHOTOINSPECTED 1984.)



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**FIGURE 1:  
SITE LOCATION  
TRAIL RIDGE LANDFILL  
JACKSONVILLE, FL**

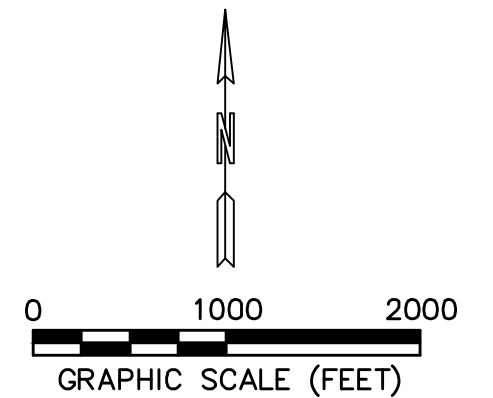


## LEGEND

- 2' CONTOURS
- 10' CONTOURS
- ◆ MWB-3 GROUNDWATER MONITORING WELL
  - (S) SHALLOW LEVEL WELL
  - (I) INTERMEDIATE LEVEL WELL
  - (D) DEEP LEVEL WELL
- ▲ SW-B SURFACE WATER SAMPLING POINT

## NOTES:

1. THE TOPOGRAPHIC MAP WAS PREPARED BY SOUTHERN RESOURCES MAPPING CORPORATION FROM A PHOTOGRAPHIC FLY OVER COMPLETED JANUARY 25, 2017 AND WAS COMPILED IN FEBRUARY 2017.
2. BASE MAP OF NORTHERN PORTION OF EXPANSION AREA PROVIDED BY CDM AND IS BASED ON CONFORMED CONSTRUCTION DRAWINGS FOR THE EXPANSION AREA RETENTION PONDS. THIS PORTION OF THE MAP IS NOT AN AS-BUILT AND LOCATIONS ARE APPROXIMATE.



CEC

**FIGURE 2:**  
SITE LAYOUT AND SAMPLING LOCATIONS  
TRAIL RIDGE LANDFILL  
JACKSONVILLE, FL

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## **2 GROUNDWATER ELEVATION DATA**

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For this semi-annual report, CEC performed the groundwater flow assessment of the surficial aquifer using groundwater depth to water measurements obtained on February 26, 2020. ProTech field personnel measured water levels in Site monitoring wells prior to purging and sampling activities in accordance with procedures described in the facility permit. Water levels were measured at active groundwater monitoring wells at the Site within a 24-hour period to evaluate static groundwater conditions across the entire Site. Field personnel opened the monitoring wells to allow groundwater levels to equilibrate to atmospheric conditions, and then measured the depth to groundwater to within 0.01 feet relative to the top of the inner PVC well casing using an electronic water level indicator. CEC calculated water table elevations at each well to evaluate the general direction of groundwater flow in the uppermost aquifer underlying the Site. The calculations were performed by taking the difference between the measured depth to groundwater and the top of casing elevation surveyed for each well. Table 1 lists the monitoring locations, depths to water, and groundwater elevations.

### **2.1 Groundwater Elevations and Flow Directions**

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CEC calculated groundwater elevations based on water levels measured on February 26, 2020, and top of well casing elevations surveyed relative to the National Geodetic Vertical Datum (NGVD) (Table 2). Figures 3, 4, and 5 show shallow, intermediate, and deep potentiometric contours for the surficial aquifer, respectively. Horizontal groundwater flow beneath the Site in the uppermost aquifer is to the east at shallow, intermediate, and deep depths. The vertical groundwater flow is slightly downward on the western side (high ground) and slightly upward on the east side (low ground). The direction of groundwater flow is consistent with measurements from previous monitoring events.

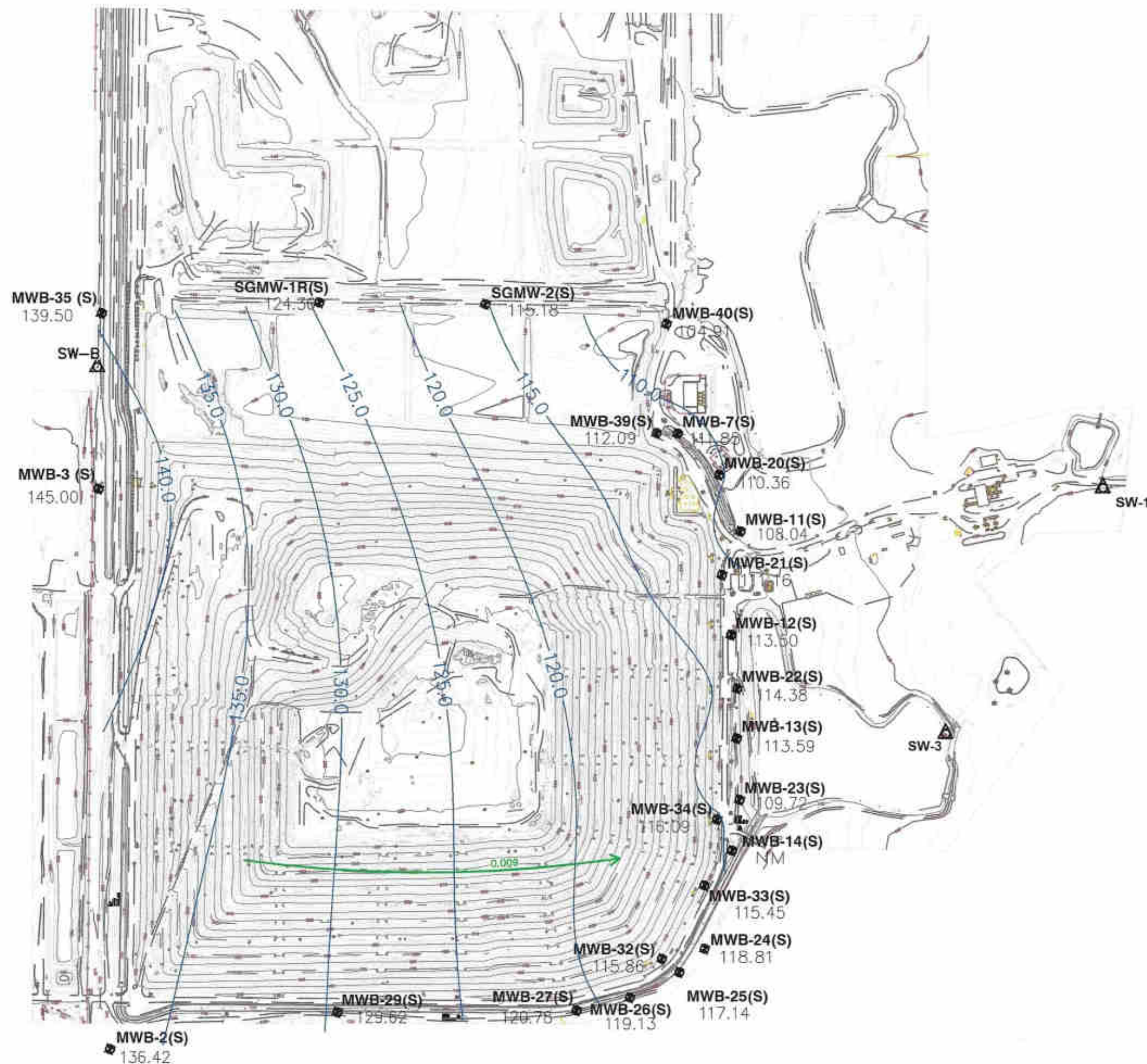
**Table 1 - Water Level Measurements**  
**Trail Ridge Landfill, Jacksonville, Florida**  
**February 2020**

| Well ID                   | TOC<br>Elevation | Depth to Water | Groundwater<br>Elevation |
|---------------------------|------------------|----------------|--------------------------|
|                           | (ft MSL)         | (ft BTOC)      | (ft MSL)                 |
| <b>Shallow Wells</b>      |                  |                |                          |
| MWB-2(S)                  | 146.64           | 10.22          | 136.42                   |
| MWB-3(S)                  | 154.38           | 9.38           | 145.00                   |
| MWB-7(S)                  | 123.29           | 11.44          | 111.85                   |
| MWB-11(S)                 | 120.81           | 12.77          | 108.04                   |
| MWB-12(S)                 | 124.63           | 11.13          | 113.50                   |
| MWB-13(S)                 | 126.05           | 12.46          | 113.59                   |
| MWB-14(S)                 | 126.05           | NM             | NM                       |
| MWB-20(S)                 | 121.01           | 10.65          | 110.36                   |
| MWB-21(S)                 | 122.84           | 11.68          | 111.16                   |
| MWB-22(S)                 | 126.97           | 12.59          | 114.38                   |
| MWB-23(S)                 | 125.34           | 15.62          | 109.72                   |
| MWB-24(S)                 | 126.04           | 7.23           | 118.81                   |
| MWB-25(S)                 | 125.22           | 8.08           | 117.14                   |
| MWB-26(S)                 | 126.55           | 7.42           | 119.13                   |
| MWB-27(S)                 | 128.42           | 7.64           | 120.78                   |
| MWB-29(S)                 | 138.02           | 8.4            | 129.62                   |
| MWB-32(S)                 | 124.64           | 8.78           | 115.86                   |
| MWB-33(S)                 | 125.90           | 10.45          | 115.45                   |
| MWB-34(S)                 | 125.78           | 9.69           | 116.09                   |
| MWB-35(S)                 | 147.79           | 8.29           | 139.50                   |
| MWB-39(S)                 | 126.85           | 14.76          | 112.09                   |
| MWB-40(S)                 | 115.41           | 10.50          | 104.91                   |
| SGMW-1(S)R                | 140.30           | 15.94          | 124.36                   |
| SGMW-2(S)                 | 130.55           | 15.37          | 115.18                   |
| <b>Intermediate Wells</b> |                  |                |                          |
| MWB-2(I)                  | 145.73           | 12.73          | 133.00                   |
| MWB-3(I)                  | 151.86           | 15.4           | 136.46                   |
| MWB-7(I)                  | 121.53           | 8.2            | 113.33                   |
| MWB-11(IR)                | 120.43           | 15.65          | 104.78                   |
| MWB-12(I)                 | 124.62           | 10             | 114.62                   |
| MWB-13(I)                 | 125.98           | 17.7           | 108.28                   |
| MWB-14(I)                 | 125.92           | 11.40          | 114.52                   |
| MWB-25(I)                 | 124.03           | 7.41           | 116.62                   |
| MWB-27(I)                 | 128.63           | 8.83           | 119.80                   |
| MWB-29(I)                 | 138.08           | 9.28           | 128.80                   |
| MWB-32(I)                 | 124.79           | 9.02           | 115.77                   |
| MWB-34(I)                 | 125.80           | 10.12          | 115.68                   |
| MWB-35(I)                 | 147.93           | 10.26          | 137.67                   |
| MWB-39(I)                 | 126.76           | 13.1           | 113.66                   |
| <b>Deep Wells</b>         |                  |                |                          |
| MWB-7(D)                  | 121.65           | 4.61           | 117.04                   |
| MWB-12(D)                 | 124.56           | 8.02           | 116.54                   |
| MWB-14(D)                 | 125.87           | 11.43          | 114.44                   |
| MWB-25(D)                 | 124.64           | 8              | 116.64                   |
| MWB-27(D)                 | 128.88           | 9.21           | 119.67                   |
| MWB-29(D)                 | 138.18           | 9.39           | 128.79                   |
| MWB-31(D)                 | 156.15           | 20.01          | 136.14                   |
| MWB-32(D)                 | 124.93           | 9.19           | 115.74                   |
| MWB-34(D)                 | 125.92           | 10.31          | 115.61                   |

**Notes:**

TOC - top of casing; ft BTOC - feet below top of casing; ft MSL - feet above mean sea level; NM - Not Measured

Depth to water measurements collected by ProTech on February 26, 2020. Top of casing elevations based on groundwater well survey data provided in August 2017 by Golder, CDM, and Pro-Tech and CEC 2018.



# LEGEND

- 2' CONTOURS
- 10' CONTOURS
- POTENTIOMETRIC CONTOURS AT 5 FOOT ELEVATION INTERVALS
- 0.01 → GROUNDWATER FLOW DIRECTION WITH HORIZONTAL FLOW GRADIENT
- MWB-3(S) GROUNDWATER MONITORING WELL  
148.17 WATERTABLE ELEVATION (IN FEET AMSL)
- SW-B SURFACE WATER SAMPLING POINT

## NOTES:

1. THE TOPOGRAPHIC MAP WAS PREPARED BY SOUTHERN RESOURCES MAPPING CORPORATION FROM A PHOTOGRAPHIC FLY OVER COMPLETED JANUARY 25, 2017 AND WAS COMPILED IN FEBRUARY 2017.
2. MWB-14(S)\* WAS UNABLE TO BE READ DUE TO A PUMP IN THE MONITORING WELL AT OR ABOVE THE WATER TABLE.

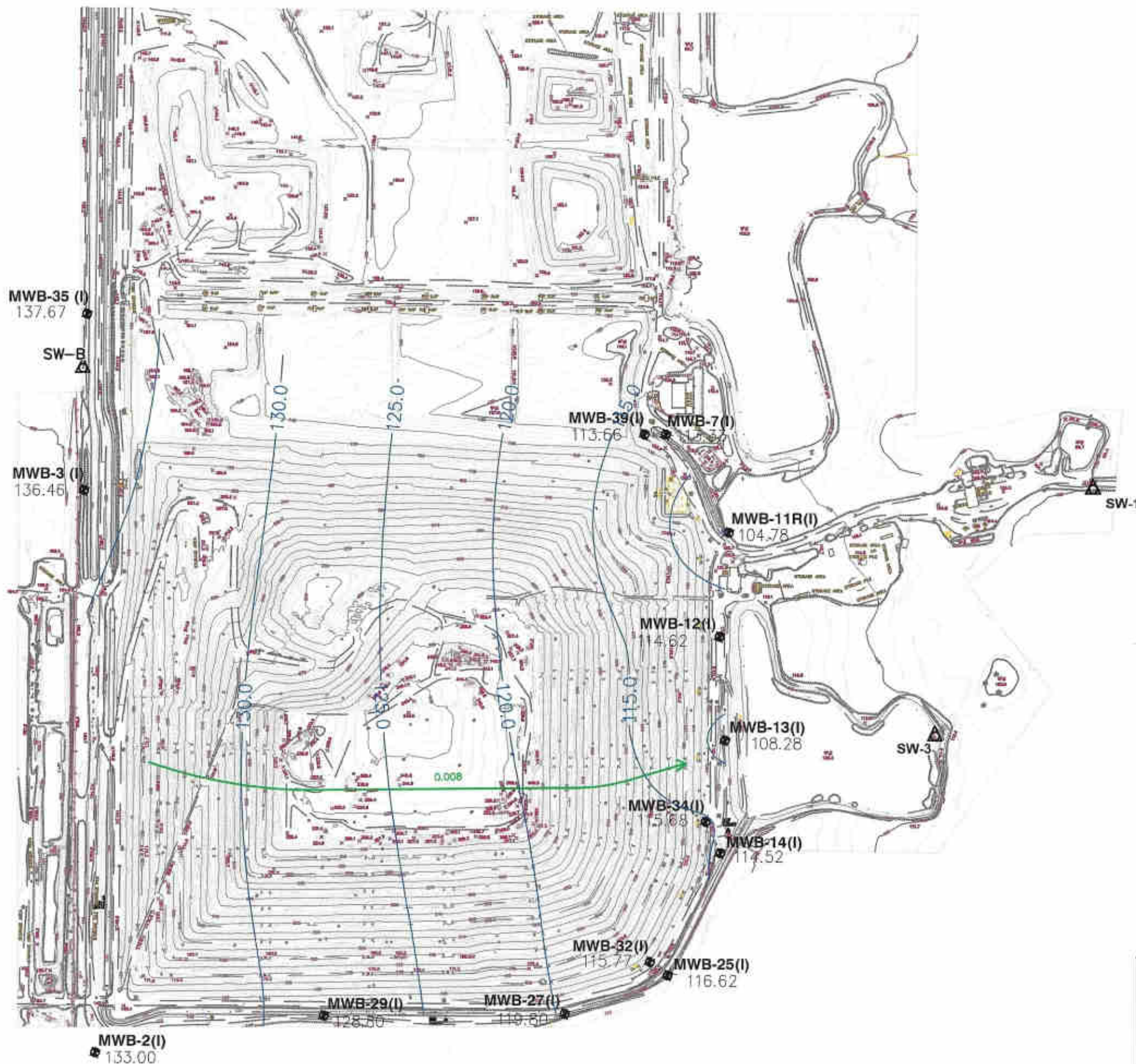


0 500 1000  
GRAPHIC SCALE (FEET)



**CEC**

**FIGURE 3:**  
**SHALLOW WELLS**  
**POTENTIOMETRIC MAP 02/26/2020**  
**TRAIL RIDGE LANDFILL**  
**JACKSONVILLE, FL**



# LEGEND

- 2' CONTOURS
- 10' CONTOURS
- POTENTIOMETRIC CONTOURS AT 5 FOOT ELEVATION INTERVALS
- 0.01 → GROUNDWATER FLOW DIRECTION WITH HORIZONTAL FLOW GRADIENT
- MWB-3(I) 148.17 GROUNDWATER MONITORING WELL WATERTABLE ELEVATION (IN FEET AMSL)
- △ SW-B SURFACE WATER SAMPLING POINT

## NOTES:

1. THE TOPOGRAPHIC MAP WAS PREPARED BY SOUTHERN RESOURCES MAPPING CORPORATION FROM A PHOTOGRAPHIC FLY OVER COMPLETED JANUARY 25, 2017 AND WAS COMPILED IN FEBRUARY 2017.

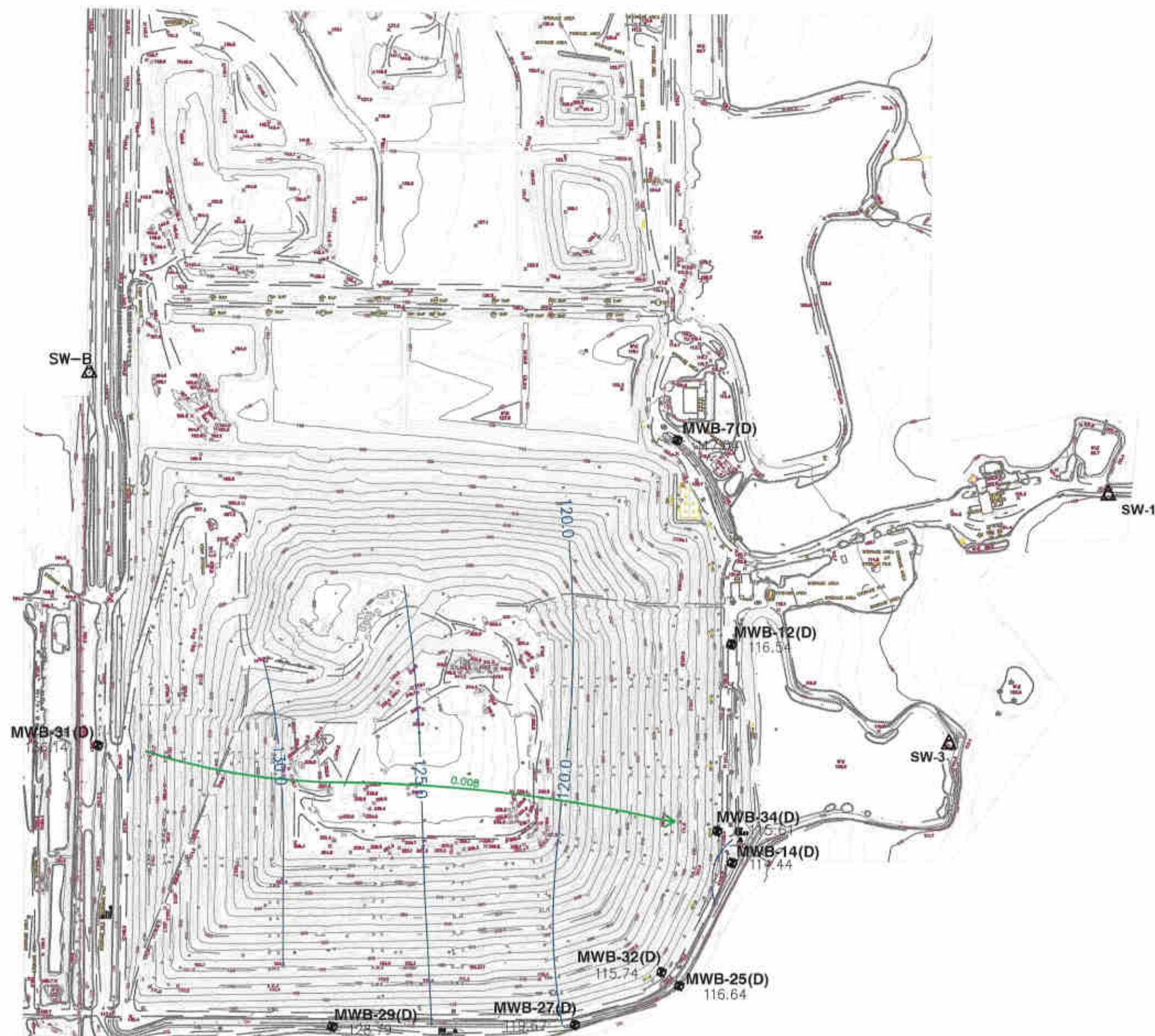


0 500 1000  
GRAPHIC SCALE (FEET)



**CEC**

**FIGURE 4:**  
**INTERMEDIATE WELLS**  
**POTENTIOMETRIC MAP 02/26/2020**  
**TRAIL RIDGE LANDFILL**  
**JACKSONVILLE, FL**



# LEGEND

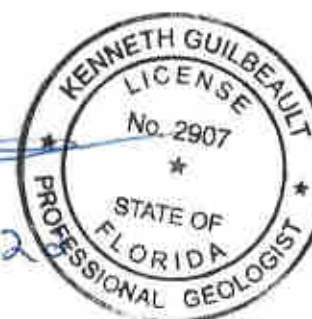
- 2' CONTOURS
- 10' CONTOURS
- POTENTIOMETRIC CONTOURS AT 5 FOOT ELEVATION INTERVALS
- 0.01 → GROUNDWATER FLOW DIRECTION WITH HORIZONTAL FLOW GRADIENT
- MWB-7(D) GROUNDWATER MONITORING WELL
- 148.17 WATERTABLE ELEVATION (IN FEET AMSL)
- SW-B SURFACE WATER SAMPLING POINT

## NOTES:

1. THE TOPOGRAPHIC MAP WAS PREPARED BY SOUTHERN RESOURCES MAPPING CORPORATION FROM A PHOTOGRAPHIC FLY OVER COMPLETED JANUARY 25, 2017 AND WAS COMPILED IN FEBRUARY 2017.



0 500 1000  
GRAPHIC SCALE (FEET)



*Handwritten signature and date:*  
5/18/202

**CEC**

**FIGURE 5:**  
**DEEP WELLS**  
**POTENTIOMETRIC MAP 02/26/2020**  
**TRAIL RIDGE LANDFILL**  
**JACKSONVILLE, FL**

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### **3 MONITORING PROGRAM**

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Groundwater and surface water monitoring events are conducted concurrently on a semi-annual basis prior to March 30<sup>th</sup> and September 30<sup>th</sup> of each year. Figure 2 shows the Site layout and groundwater monitoring well and surface water sampling locations. Semi-annual reporting of the results of groundwater and surface water sampling is performed in accordance with the Site's solid waste permit, water quality monitoring plan, and rule 62-701.510 (8)(a).

#### **3.1 Groundwater Monitoring Program**

---

The current Site groundwater monitoring system consists of twenty-nine (29) groundwater monitoring wells screened at shallow (S) and intermediate (I) depths within the uppermost, surficial aquifer. Additionally, there are eighteen (18) piezometers screened at the shallow (S), intermediate (I), and deep (D) depths within the uppermost surficial aquifer used for monitoring groundwater levels at the site. The background and compliance wells are listed in Table 2. Table 3 lists the construction detail summary for the monitoring wells and piezometers comprising the monitoring system.

Table 2 Active Surficial Aquifer Monitoring Wells  
at the Trail Ridge Landfill

| Upper Surficial<br>Aquifer Zone              | Intermediate Surficial<br>Aquifer Zone | Deep Surficial<br>Aquifer Zone |
|----------------------------------------------|----------------------------------------|--------------------------------|
| <b>Background Monitoring Wells</b>           |                                        |                                |
| MWB-2S                                       | MWB-2I                                 |                                |
| MWB-3S                                       | MWB-3I                                 |                                |
| <b>Compliance/Detection Monitoring Wells</b> |                                        |                                |
| MWB-11S                                      | MWB-11IR                               |                                |
| MWB-12S                                      | MWB-12I                                |                                |
| MWB-13S                                      | MWB-13I                                |                                |
| MWB-20S                                      |                                        |                                |
| MWB-21S                                      |                                        |                                |
| MWB-22S                                      |                                        |                                |
| MWB-27S                                      | MWB-27I                                |                                |
| MWB-29S                                      | MWB-29I                                |                                |
| MWB-32S                                      | MWB-32I                                |                                |
| MWB-33S                                      |                                        |                                |
| MWB-34S                                      | MWB-34I                                |                                |
| MWB-35S                                      | MWB-35I                                |                                |
| MWB-39S                                      | MWB-39I                                |                                |
| MWB-40S                                      |                                        |                                |
| SGMW-1SR                                     |                                        |                                |
| SGMW-2S                                      |                                        |                                |
| <b>Piezometers (Water Level Only)</b>        |                                        |                                |
| MWB-7S                                       | MWB-7I                                 | MWB-7D                         |
|                                              |                                        | MWB-12D                        |
| MWB-14S                                      | MWB-14I                                | MWB-14D                        |
| MWB-23S                                      |                                        |                                |
| MWB-24S                                      |                                        |                                |
| MWB-25S                                      | MWB-25I                                | MWB-25I                        |
| MWB-26S                                      |                                        |                                |
|                                              |                                        | MWB-27D                        |
|                                              |                                        | MWB-29D                        |
|                                              |                                        | MWB-31D                        |
|                                              |                                        | MWB-32D                        |
|                                              |                                        | MWB-34D                        |

Notes:

1. Wells listed on a single row of the table are located in a single cluster of wells.

**Table 3 - Existing Monitoring Well Details**  
**Trail Ridge Landfill, Jacksonville, FL**

| Well ID    | Well Designation <sup>1</sup> | Monitored Phase <sup>1</sup> | Approximate State Plane Coordinates (ft) <sup>1</sup> |               | Well Diameter <sup>1</sup> | Total Well Depth <sup>1</sup> | Top of Casing Elevation (ft TOC) <sup>2</sup> | Well Screen Interval <sup>3</sup> |
|------------|-------------------------------|------------------------------|-------------------------------------------------------|---------------|----------------------------|-------------------------------|-----------------------------------------------|-----------------------------------|
|            |                               |                              | Eastings (X)                                          | Northings (Y) |                            |                               |                                               |                                   |
| MWB-2(S)   | Background                    | Phases 3/4/5                 | 324,826                                               | 2,141,385     | 2                          | 17.5                          | 146.64                                        | 5.04-20.4                         |
| MWB-3(S)   | Background                    | Phases 1/2                   | 324,772                                               | 2,143,945     | 2                          | 18                            | 154.38                                        | 5.54-20.54                        |
| MWB-7(S)   | Water Levels Only             |                              | 327,418                                               | 2,144,201     | 2                          | 16.5                          | 123.29                                        | 4.19-19.19                        |
| MWB-11(S)  | Compliance                    | Phase I                      | 327,704                                               | 2,143,755     | 2                          | 18                            | 120.81                                        | 5.31-20.31                        |
| MWB-12(S)  | Compliance                    | Phase I                      | 327,662                                               | 2,143,281     | 2                          | 25                            | 124.63                                        | 11.73-26.73                       |
| MWB-13(S)  | Compliance                    | Phase 3/4                    | 327,688                                               | 2,142,808     | 2                          | 24.6                          | 126.05                                        | 11.56-26.56                       |
| MWB-14(S)  | Water Levels Only             |                              | 327,667                                               | 2,142,295     | 2                          | 16.5                          | 126.05                                        | 4.15-19.15                        |
| MWB-20(S)  | Compliance                    | Phase I                      | 327,608                                               | 2,144,012     | 2                          | 18                            | 121.01                                        | 5.11-20.11                        |
| MWB-21(S)  | Compliance                    | Phase I                      | 327,621                                               | 2,143,556     | 2                          | 18                            | 122.84                                        | 4.84-19.84                        |
| MWB-22(S)  | Compliance                    | Phase I                      | 327,690                                               | 2,143,036     | 2                          | 25                            | 126.97                                        | 12.47-27.47                       |
| MWB-23(S)  | Water Levels Only             |                              | 327,701                                               | 2,142,527     | 2                          | 25                            | 125.34                                        | 12.84-27.84                       |
| MWB-24(S)  | Water Levels Only             |                              | 327,543                                               | 2,141,846     | 2                          | 16.5                          | 126.04                                        | 5.34-20.34                        |
| MWB-25(S)  | Water Levels Only             |                              | 327,428                                               | 2,141,740     | 2                          | 17.2                          | 125.22                                        | 5.32-20.32                        |
| MWB-26(S)  | Water Levels Only             |                              | 327,201                                               | 2,141,623     | 2                          | 16.5                          | 126.55                                        | 3.65-18.65                        |
| MWB-27(S)  | Compliance                    | Phase 5                      | 326,960                                               | 2,141,564     | 2                          | 16.3                          | 128.42                                        | 3.32-18.32                        |
| MWB-29(S)  | Compliance                    | Phase 5                      | 325,866                                               | 2,141,554     | 2                          | 16.5                          | 138.02                                        | 4.02-19.02                        |
| MWB-32(S)  | Detection                     | Phase 5                      | 327,348                                               | 2,141,801     | 2                          | 22.0                          | 124.64                                        | 14.90 to 19.90                    |
| MWB-33(S)  | Detection                     | Phase 3/4                    | 327,541                                               | 2,142,136     | 2                          | 22.3                          | 125.90                                        | 10.30 to 20.30                    |
| MWB-34(S)  | Detection                     | Phase 3/4                    | 327,599                                               | 2,142,438     | 2                          | 20.0                          | 125.78                                        | 13.36 to 18.36                    |
| MWB-35(S)  | Background                    | Phases 6/7                   | 324,786                                               | 2,144,747     | 2                          | 15                            | 147.79                                        | 10.00 to 15.00                    |
| MWB-39(S)  | Detection                     | Phase 6                      | 327,321                                               | 2,144,202     | 2                          | 21                            | 126.85                                        | 11.00 to 21.00                    |
| MWB-40(S)  | Detection                     | Phase 6                      | 327,367                                               | 2,144,702     | 2                          | 21                            | 115.41                                        | 11.00 to 21.00                    |
| SGMW-1(S)R | Temp. Detection               | Phase 6                      | 325,783                                               | 2,144,798     | 2                          | 15                            | 140.30                                        | 5.00 to 15.00                     |
| SGMW-2(S)  | Temp. Detection               | Phase 6                      | 326,540                                               | 2,144,792     | 2                          | 15                            | 130.55                                        | 5.00 to 15.00                     |
| MWB-2(I)   | Background                    | Phases 3/4/5                 | 324,812                                               | 2,141,383     | 2                          | 59.8                          | 145.73                                        | 56.19-61.69                       |
| MWB-3(I)   | Background                    | Phases 1/2                   | 324,788                                               | 2,143,973     | 2                          | 60                            | 151.86                                        | 55.56-60.86                       |
| MWB-7(I)   | Water Levels Only             |                              | 327,425                                               | 2,144,196     | 2                          | 63.3                          | 121.53                                        | 59.82-65.12                       |
| MWB-11(I)  | Compliance                    | Phase I                      | 327,687                                               | 2,143,758     | 2                          | 60                            | 120.43                                        | 56.4-61.9                         |
| MWB-12(I)  | Compliance                    | Phase I                      | 327,664                                               | 2,143,273     | 2                          | 69.6                          | 124.62                                        | 65.92-71.42                       |
| MWB-13(I)  | Compliance                    | Phase 3/4                    | 327,687                                               | 2,142,802     | 2                          | 58.6                          | 125.98                                        | 55.48-60.48                       |
| MWB-14(I)  | Water Levels Only             |                              | 327,668                                               | 2,142,306     | 2                          | 60                            | 125.92                                        | 57.52-62.52                       |
| MWB-25(I)  | Water Levels Only             |                              | 327,442                                               | 2,141,746     | 2                          | 58.3                          | 124.03                                        | 55.23-60.23                       |
| MWB-27(I)  | Compliance                    | Phase 5                      | 326,945                                               | 2,141,567     | 2                          | 60.1                          | 128.63                                        | 57.23-62.23                       |
| MWB-29(I)  | Compliance                    | Phase 5                      | 325,871                                               | 2,141,554     | 2                          | 60                            | 138.08                                        | 57.68-62.68                       |
| MWB-32(I)  | Detection                     | Phase 5                      | 327,393                                               | 2,141,831     | 2                          | 62.2                          | 124.79                                        | 54.56 to 64.56                    |
| MWB-34(I)  | Detection                     | Phase 3/4                    | 327,598                                               | 2,142,433     | 2                          | 60                            | 125.80                                        | 43.95 to 53.95                    |
| MWB-35(I)  | Background                    | Phases 6/7                   | 324,786                                               | 2,144,747     | 2                          | 60                            | 147.93                                        | 50.00 to 60.00                    |
| MWB-39(I)  | Detection                     | Phase 6                      | 327,321                                               | 2,144,202     | 2                          | 60                            | 126.76                                        | 55.00 to 60.00                    |
| MWB-7(D)   | Water Levels Only             |                              |                                                       |               |                            | 130.32 <sup>3</sup>           | 121.65                                        | 111.63-116.63                     |
| MWB-12(D)  | Water Levels Only             |                              |                                                       |               |                            |                               | 124.56                                        | 109.28-114.68                     |
| MWB-14(D)  | Water Levels Only             |                              |                                                       |               |                            | 111.47 <sup>3</sup>           | 125.87                                        | 103.47-108.47                     |
| MWB-25(D)  | Water Levels Only             |                              |                                                       |               |                            |                               | 124.64                                        | 103.54-108.54                     |
| MWB-27(D)  | Water Levels Only             |                              |                                                       |               |                            |                               | 128.88                                        | 104.78-109.78                     |
| MWB-29(D)  | Water Levels Only             |                              |                                                       |               |                            |                               | 138.18                                        | 106.78-111.78                     |
| MWB-31(D)  | Water Levels Only             |                              |                                                       |               |                            |                               | 156.15                                        | 126.65-131.65                     |
| MWB-32(D)  | Water Levels Only             |                              |                                                       |               |                            |                               | 124.93                                        | 98.81 to 108.81                   |
| MWB-34(D)  | Water Levels Only             |                              |                                                       |               |                            |                               | 125.92                                        | 90.78 to 100.78                   |

1. From Appendix G, Water Quality Monitoring Program for the Trail Ridge Landfill, CDM 2014 unless otherwise noted.
2. From February 2017 Event - Semiannual Groundwater and Surface Water Monitoring Report, Golder, 2017.
3. From Pro-Tech, provided August 2017.

The current permit requires semi-annual sampling of the background and detection shallow zone monitoring wells for the field and laboratory parameters listed below.

**Field Parameters**

- Static Water Level (before purging)
- Specific Conductivity
- pH
- Dissolved Oxygen
- Turbidity
- Temperature
- Color and sheens by observation
- ORP

**Laboratory Parameters**

- Chlorides
- Nitrate
- Total Dissolved Solids (TDS)
- Iron
- Sodium
- Mercury
- Ammonia – N, Total
- Parameters listed in the 1991 version of 40 CFR 258, Appendix I

The current permit requires semi-annual sampling of the background and detection intermediate zone monitoring wells for the field and laboratory parameters listed below.

**Field Parameters**

- Static Water Level (before purging)
- Specific Conductivity
- pH
- Dissolved Oxygen
- Turbidity
- Temperature
- ORP

**Laboratory Parameters**

- Chlorides
- Nitrate
- Total Dissolved Solids (TDS)
- Iron
- Sodium
- Ammonia – N, Total

If the results of the analysis for the intermediate zone monitoring wells indicates that leachate is impacting groundwater (elevated concentrations of the sampled constituents), then the well(s) in question will be sampled in the next sampling event for the parameters listed in 62-701-510 (7)(a), FAC.

### 3.2 Surface Water Monitoring Program

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The Site surface water monitoring system consists of seven surface water monitoring locations: SW-1, SW-3, SW-4, SW-5, SW-6, SW-7 and SW-B (Figure 2). SW-4 monitors the new retention pond associated with an interceptor ditch which is designed to capture shallow groundwater and surface water migrating on to the Trail Ridge property from the west. SW-5 and SW-6 monitor the new retention pond that captures runoff from the expansion areas (Phases 6-14). SW-7 is a point that is further downgradient of the ponds. SW-B is intended to be a background water quality sampling point and is located in the outer interceptor ditch on the southwestern side of the expansion area.

The current permit requires semi-annual sampling of the surface water locations for the field and laboratory parameters listed below.

#### Field Parameters

- Static Water Level (before purging)
- Specific Conductivity
- pH
- Dissolved Oxygen
- Turbidity
- Temperature
- Color and sheens by observation
- ORP

#### Laboratory Parameters

- Unionized Ammonia as N
- Total Hardness as CaCO<sub>3</sub>
- Biochemical Oxygen Demand (BOD<sub>5</sub>)
- Copper
- Iron
- Mercury
- Nitrate/Nitrogen
- Zinc
- Total Dissolved Solids (TDS)
- Total Organic Carbon (TOC)
- Fecal Coliform
- Total Phosphorus
- Chlorophyll-a
- Total Nitrogen
- Chemical Oxygen Demand (COD)
- Total Suspended Solids (TSS)
- Parameters listed in the 1991 version of 40 CFR 258, Appendix I

### 3.3 Sample Collection Analysis

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Groundwater and surface water sampling was conducted in accordance with F.A.C. Chapter 62-160 and FDEP's Standard Operating Procedures for Field Activities (DEP-SOP-001/01). ProTech field personnel collected groundwater and surface water samples for laboratory analysis from monitoring locations listed in Sections 3.1 and 3.2 on February 26, 27, 28, and March 2, 2020, with a limited resample event conducted March 31, 2020.

Groundwater monitoring wells that were sampled were purged with dedicated QED bladder pumps with Teflon-lined tubing extending to the top of the well casing. Wells were purged using low-flow sampling methods; a minimum of one well volume was purged prior to stabilization for wells where the water table is located within the well screen. Field parameters including static water level, pH, specific conductance, temperature, turbidity, dissolved oxygen, oxidation-reduction potential and color/sheen (by observation) were recorded during purging and prior to sampling. Once purging was complete, ProTech field personnel collected groundwater samples from the dedicated pumps and tubing in laboratory-provided containers, and placed the samples in coolers with ice. On March 2, 2020, surface water samples were collected from the surface water monitoring points using a laboratory-provided container. Instrument calibration records (FD 9000-8) and completed groundwater sampling logs (FD 9000-24) are provided along with the laboratory report in Appendix A.

Advanced Environmental Laboratories, Inc. (AEL), a Florida-certified laboratory (DOH Certification #E82001[AEL-G] and #E82574[AEL-JAX] [FL NELAC Certification]) analyzed groundwater and surface water samples collected in February 26, 27, 28, and March 2, 2020, with a limited resample event conducted on March 31, 2020 for the parameters identified in Section II and Section III, respectively, of the facility permit Water Quality Monitoring Plan.

## 4 WATER QUALITY MONITORING RESULTS

This section summarizes the results of the groundwater and surface water quality sampling for the first semi-annual sampling event performed February 26, 27, 28, and March 2, 2020 with a limited resample event conducted March 31, 2020.

### 4.1 Quality Assurance and Quality Control (QA/QC) Results

ProTech field personnel submitted the samples with trip blanks in coolers containing volatile organic compound (VOC) samples to AEL for analysis. The samples were received in good condition, properly preserved, and at proper temperatures. The laboratory provided additional QA/QC including analysis of method blanks, surrogates, laboratory control samples/laboratory control sample duplicates (LCS/LCSD), and matrix spike/matrix spike duplicates (MS/MSD). The QA/QC results for the laboratory reports associated with groundwater and surface water monitoring points from AEL Report J2002766 are summarized below:

- Several analytes were detected between method detection limits (MDLs) and practical quantitation limits (PQLs); these detections were qualified with an "I."
- Due to background analytes present in the matrix, the proper quantitation of the Scandium and Yttrium internal standards in J200266021 were obstructed. In order to separate out and return the internal standards to within acceptance limits, this sample was analyzed at a dilution.
- The matrix spike (MS) recoveries of Barium, Calcium, and Magnesium for J2002766022 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) and Matrix Spike Duplicate (MSD) were acceptable, which indicates the analytical batch was in control. . No further corrective action is required.
- The matrix spike recovery of NH<sub>3</sub> for J2002766004 and J2002766029 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), Matrix Spike Duplicate (MSD) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was required.
- The relative percent difference (RPD) for the following analyte(s) in the replicate matrix spike analyses of J2002766018 was outside control criteria: NH<sub>3</sub>. Failing RPD indicates inconsistency in the parent sample matrix. All spike recoveries in the MSD and associated LCS were within acceptable limits, indicating the analytical batch was in control. No further corrective action was needed.
- The matrix spike recovery of NH<sub>3</sub> for J2002766018 and J2002766040 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was required.
- The matrix spike recoveries of Chloride and Nitrate for J2002766006 were outside control criteria due. Recoveries in the Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential high bias in this matrix. The affected sample is qualified accordingly.
- Other QA/QC issues were not identified; therefore, the remaining results from the February 2020 event are considered acceptable without qualification.

## 4.2 Surficial Aquifer Groundwater Quality

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The groundwater quality detections and exceedances of the primary or secondary drinking water standards are summarized in Tables 4 and 5. In accordance with Chapter 62-701, FAC, groundwater results were compared to their respective PDWS or secondary drinking water standard (SDWS) established in Chapter 62-550, FAC and incorporated via reference in Chapter 62-520, FAC. For this routine groundwater monitoring report, groundwater cleanup target levels (GCTLs) in Rule 62-777, FAC, were used for constituents that do not have a PDWS or SDWS to evaluate if a parameter is significantly above background levels. GCTLs are used as a screening tool for potential anomalies in the concentration data that may require further consideration or review. Appendix A includes the laboratory analytical data and field forms.

### 4.2.1 Metals Exceedances

Iron at some wells exceeded the applicable standards. These parameters are discussed below.

#### 4.2.1.1 Iron

The concentration of iron in the groundwater at the Site in the shallow and intermediate surficial aquifer ranged from non-detected to 4,200 micrograms per liter ( $\mu\text{g/L}$ ) during the first 2020 semi-annual sampling event. Detectable iron concentrations exceeded the SDWS of 300  $\mu\text{g/L}$  in

- Background monitoring wells MWB-2S, MWB-2I, MWB-3S, and MWB-3I
- Shallow Wells: MWB-11S, MWB-12S, MWB-13S, MW-21S, MWB-32S, MWB-33S, MWB-34S, MWB-39S, MWB-40S, SGMW-1SR, and SGMW-2S
- Intermediate Wells: MWB-13I, MWB-27I, MWB-29I, MWB-34I, and MWB-35I

The iron exceedances during the February 2020 sampling event were consistent with historical data. Based on this data, it appears that the presence of iron in the groundwater at most wells is not directly related to the landfill operations, but is related to the dissolution of naturally-occurring iron from the soil.

#### 4.2.1.1 Vanadium

Vanadium was detected in detection well MWB-13S (57  $\mu\text{g/L}$ ). The detection at MWB-13S was consistent with historical concentrations.

### 4.2.2 Inorganic Parameters Exceedances

TDS and pH at some wells exceeded the applicable standards. These parameters are discussed below.

#### 4.2.2.1 TDS

The FDEP SDWS of 500 mg/L for TDS was exceeded at detection well MWB-34S (540 mg/L). The SDWS exceedance for total dissolved solids (TDS) has been historically detected and reported to FDEP.

**Table 4. Summary of Shallow Groundwater Quality Analytical Results (Detected Parameters Only)**  
Trail Ridge Landfill, February 2020

| Parameter                         | MCL  | Standard | Units    | MWB2S   | MWB-3S  | MWB-11S | MWB12S  | MWB13S  | MWB20S  | MWB21S  | MWB22S  | MWB27S  | MWB29S  | MWB-32S | MWB-33S | MWB-34S | MWB-35S | MWB-39S | MWB-39S  | MWB-40S | SGMW-1SR | SGMW-2S |
|-----------------------------------|------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|---------|----------|---------|
| <b>Volatile Organic Compounds</b> |      |          |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | Resample |         |          |         |
| 2-Hexanone                        | 280  | GCTL     | ug/L     | 0.71 U  | 0.71 U  | 0.71 U  | 0.71 U  | 0.71 U  | 0.71 U  | 0.71 U  | 0.71 U  | 0.71 U  | 0.71 U  | 0.71 U  | 0.71 U  | 0.71 U  | 0.71 U  | 0.71 U  | ---      | 9.5     | 0.71 U   | 0.71 U  |
| 4-Methyl-2-pentanone              | 560  | GCTL     | ug/L     | 0.47 U  | 0.47 U  | 0.47 U  | 0.47 U  | 0.47 U  | 0.47 U  | 0.47 U  | 0.47 U  | 0.47 U  | 0.47 U  | 0.47 U  | 0.47 U  | 0.47 U  | 0.47 U  | 0.47 U  | ---      | 1.4     | 0.47 U   | 0.47 U  |
| Benzene                           | 1    | PDWS     | ug/L     | 0.16 U  | 0.16 U  | 0.16 U  | 0.16 U  | 0.16 U  | 0.16 U  | 0.16 U  | 0.16 U  | 0.16 U  | 0.16 U  | 0.16 U  | 0.16 U  | 0.16 U  | 0.16 U  | 0.76 I  | ---      | 0.16 U  | 0.16 U   | 0.16 U  |
| Chloromethane                     | 2.7  | GCTL     | ug/L     | 2.3     | 0.21 U  | 0.21 U  | 0.21 U  | 0.21 U  | 0.21 U  | 0.21 U  | 0.21 U  | 0.21 U  | 0.21 U  | 0.21 U  | 0.21 U  | 0.21 U  | 0.21 U  | 0.21 U  | ---      | 0.21 U  | 0.21 U   | 0.21 U  |
| cis-1,2-Dichloroethene            | 70   | PDWS     | ug/L     | 0.24 U  | 0.24 U  | 0.24 U  | 0.24 U  | 0.24 U  | 0.24 U  | 0.24 U  | 0.24 U  | 0.24 U  | 0.24 U  | 0.24 U  | 0.24 U  | 0.24 U  | 0.24 U  | 0.6 I   | ---      | 0.24 U  | 0.24 U   | 0.24 U  |
| Toluene                           | 40   | SDWS     | ug/L     | 0.23 U  | 0.23 U  | 0.23 U  | 0.23 U  | 0.23 U  | 0.23 U  | 0.23 U  | 0.23 U  | 0.23 U  | 0.23 U  | 0.23 U  | 0.23 U  | 0.23 U  | 0.23 U  | 0.23 U  | ---      | 7       | 0.23 U   | 0.23 U  |
| Vinyl Chloride                    | 1    | PDWS     | ug/L     | 0.2 U   | 0.2 U   | 0.2 U   | 0.2 U   | 0.2 U   | 0.2 U   | 0.2 U   | 0.2 U   | 0.2 U   | 0.2 U   | 0.2 U   | 0.2 U   | 0.2 U   | 0.2 U   | 1.1     | 0.20 U   | 0.2 U   | 0.2 U    | 0.2 U   |
| <b>Metals</b>                     |      |          |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |          |         |
| Antimony                          | 6    | PDWS     | ug/L     | 0.17 I  | 0.11 U  | 0.12 I  | 0.46 I  | 0.35 I  | 0.25 I  | 0.14 I  | 0.24 I  | 0.46 I  | 0.35 I  | 0.27 I  | 0.24 I  | 0.59 I  | 0.11 U  | 0.11 U  | ---      | 0.42 I  | 0.11 U   | 0.11 U  |
| Barium                            | 2000 | PDWS     | ug/L     | 7.7 I   | 12      | 43      | 5.3 I   | 11 I    | 4.5 I   | 28      | 3 U     | 8 I     | 7.2 I   | 13      | 4.1     | 2.6 I   | 1 U     | 15      | ---      | 54      | 140      | 86      |
| Chromium                          | 100  | PDWS     | ug/L     | 5 U     | 2 U     | 2 U     | 5 U     | 40      | 5.9 I   | 5 U     | 5 U     | 5 U     | 5 U     | 2.6 I   | 2 U     | 2 U     | 2 U     | 2 U     | ---      | 2 U     | 9.4      | 7.4 I   |
| Copper                            | 1000 | SDWS     | ug/L     | 10 U    | 4 U     | 4 U     | 10 U    | 10 U    | 10 U    | 10 U    | 10 U    | 10 U    | 10 U    | 4 U     | 4.4 I   | 5.5 I   | 4 U     | 4 U     | ---      | 4 U     | 4.1 I    | 4 U     |
| Iron                              | 300  | SDWS     | ug/L     | 800     | 410     | 910     | 700 I   | 4200    | 200 U   | 430 I   | 200 U   | 200 U   | 270 I   | 460     | 350 I   | 440     | 100 U   | 580     | ---      | 790     | 2600     | 770     |
| Lead                              | 15   | PDWS     | ug/L     | 15      | 3 U     | 3 U     | 3 U     | 3.1 I   | 3.1 I   | 5.5 I   | 3 U     | 3 I     | 3 U     | 3 U     | 3 U     | 3 U     | 3 U     | 3 U     | ---      | 3 U     | 3 U      | 3 U     |
| Mercury                           | 2    | PDWS     | ug/L     | 0.077 I | 0.011 U | 0.011 U | 0.021 I | 0.037 I | 0.033 I | 0.011 U | 0.011 U | 0.011 U | 0.011 U | 0.011 U | 0.011 U | 0.011 U | 0.011 U | 0.011 U | ---      | 0.011 U | 0.011 U  | 0.017 I |
| Nickel                            | 100  | PDWS     | ug/L     | 10 U    | 6 U     | 6 U     | 10 U    | 10 U    | 10 U    | 10 U    | 10 U    | 10 U    | 10 U    | 6 U     | 6 U     | 6 U     | 6 U     | 6 U     | ---      | 6.5 I   | 14 I     | 6 U     |
| Selenium                          | 50   | PDWS     | ug/L     | 0.58 U  | 0.58 U  | 0.58 U  | 16      | 5.5     | 1.7 I   | 0.58 U  | 0.58 U  | 1.1 I   | 0.58 U  | 1.9 I   | 2.3 I   | 3.6 I   | 0.58 U  | 0.58 U  | ---      | 0.63 I  | 0.58 U   | 2.9 U   |
| Sodium                            | 160  | PDWS     | mg/L     | 1.9 I   | 3       | 18      | 17      | 68      | 45      | 8.6     | 59      | 31      | 16      | 5.4     | 8.6     | 68      | 2.1     | 32      | ---      | 42      | 14       | 3.7     |
| Thallium                          | 2    | PDWS     | ug/L     | 0.057 U | 0.057 U | 0.057 U | 0.057 U | 0.085 I | 0.057 U | 0.066 I | 0.057 U | 0.057 U | 0.15 I  | 0.057 U | 0.057 U | 0.057 U | 0.057 U | 0.057 U | ---      | 0.057 U | 0.057 U  | 0.057 U |
| Vanadium                          | 49   | GCTL     | ug/L     | 3.3 I   | 1 U     | 1.7 I   | 30      | 57      | 14      | 2 U     | 3.9 I   | 17      | 6.8 I   | 8.8     | 15      | 36      | 1 U     | 1.2 I   | ---      | 6.6     | 4.3      | 16      |
| <b>General Chemistry</b>          |      |          |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |          |         |
| Ammonia (N)                       | 2.8  | GCTL     | mg/L     | 0.04 U  | 0.04 U  | 0.04 U  | 0.04 U  | 0.04 U  | 0.82    | 1.7     | 0.04 U  | 0.12    | 0.04 U  | 0.38    | 0.4     | 2.6     | 0.04 U  | 1.7     | ---      | 2.6 I   | 0.04 U   | 0.04 U  |
| Chloride                          | 250  | SDWS     | mg/L     | 1.3 I   | 5.5     | 35      | 28      | 190     | 85      | 19      | 98      | 49      | 24      | 9.9     | 16      | 160     | 3.1 I   | 71      | ---      | 74      | 51       | 5 I     |
| Methane                           | NS   | NS       | ug/L     | ---     | ---     | ---     | ---     | ---     | ---     | ---     | ---     | ---     | ---     | ---     | ---     | ---     | ---     | ---     | 2330     | ---     | ---      | ---     |
| Nitrate (N)                       | 10   | PDWS     | mg/L     | 0.18 I  | 0.12 I  | 0.14 I  | 0.2 I   | 0.32 I  | 1       | 0.31 I  | 0.12 I  | 0.18 I  | 0.16 I  | 0.15 I  | 0.53    | 0.76    | 0.12 I  | 0.12 I  | ---      | 0.18 I  | 0.12 I   | 0.12 I  |
| Residues- Filterable (TDS)        | 500  | SDWS     | mg/L     | 93      | 45      | 130     | 220     | 470     | 260     | 93      | 370     | 300     | 130     | 120     | 130     | 540     | 55      | 250     | ---      | 210     | 180      | 46      |
| <b>Field Parameters</b>           |      |          |          |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |         |          |         |
| Dissolved Oxygen                  |      |          | mg/L     | 2       | 0.7     | 0.3     | 1.3     | 1.3     | 0.3     | 0.6     | 0.2     | 0.4     | 0.8     | 0.1     | 0.1     | 0.1     | 0.1     | 0.3     | 0.5      | 0.1     | 1.3      | 0.3     |
| pH                                |      |          | SU       | 4.67    | 4.3     | 4.2     | 5.72    | 5.82    | 4.66    | 4.82    | 6.09    | 5.54    | 4.55    | 5.33    | 5.57    | 6.36    | 4.61    | 5.33    | 5.47     | 4.65    | 5.87     | 4.95    |
| Specific Conductance              |      |          | umhos/cm | 35      | 60      | 184     | 238     | 774     | 401     | 130     | 532     | 417     | 149     | 133     | 169     | 847     | 43      | 365     | 379      | 292     | 151      | 54      |
| Temperature, Water                |      |          | Deg C    | 19.1    | 19.3    | 19.9    | 21.7    | 20.8    | 22.4    | 22.7    | 22.6    | 19      | 18.7    | 18      | 18.8    | 19.3    | 20.1    | 20      | 20.8     | 20.3    | 19.2     | 19.4    |
| Turbidity                         |      |          | NTU      | 74.83   | 4.41    | 4.82    | 30.44   | 15.83   | 17.87   | 3.09    | 3.74    | 4.46    | 3.94    | 13.46   | 4.6     | 3.42    | 5.01    | 4.08    | 6.12     | 4.17    | 36.73    | 9.71    |

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. Groundwater Clean-Up Target Level (62-777 F.A.C.) are used for screening purposes only to evaluate if a parameter is significantly above background levels.
4. NS = No numeric standard has been set for this analyte.
5. mg/L = milligrams per liter
6. ug/L = micrograms per liter
7. NTU = nephelometric turbidity units
8. umhos/cm = micromhos per centimeter
9. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
10. deg C = degrees Celsius
11. U = Analyte concentration was below the laboratory detection limit (value shown).
12. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
13. V = Analyte was detected in the sample and associated method blank.

**Table 5. Summary of Intermediate Groundwater Quality Analytical Results (Detected Parameters Only)**  
**Trail Ridge Landfill, February 2020**

| Parameter                         | MCL     | Standard | Units    | MWB-2I | MWB-3I | MWB-11I (R) | MWB-12I | MWB-13I  | MWB-27I  | MWB-29I | MWB-32I | MWB-34I  | MWB-35I | MWB-39I |
|-----------------------------------|---------|----------|----------|--------|--------|-------------|---------|----------|----------|---------|---------|----------|---------|---------|
| <b>Volatile Organic Compounds</b> |         |          |          |        |        |             |         |          |          |         |         |          |         |         |
| 2-Hexanone                        | NS      | NS       | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| 4-Methyl-2-pentanone              | NS      | NS       | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| Benzene                           | 1       | PDWS     | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| Chloromethane                     | NS      | NS       | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| cis-1,2-Dichloroethene            | 70      | PDWS     | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| Toluene                           | 40      | SDWS     | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| Vinyl Chloride                    | 1       | PDWS     | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| <b>Metals</b>                     |         |          |          |        |        |             |         |          |          |         |         |          |         |         |
| Antimony                          | 6       | PDWS     | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| Barium                            | 2000    | PDWS     | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| Chromium                          | 100     | PDWS     | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| Copper                            | 1000    | SDWS     | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| Iron                              | 300     | SDWS     | ug/L     | 330 I  | 700    | 280 I       | 240 I   | 310 I    | 380 I    | 380 I   | 300 I   | 330 I    | 430     | 130 I   |
| Lead                              | 15      | PDWS     | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| Mercury                           | 2       | PDWS     | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| Nickel                            | 100     | PDWS     | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| Selenium                          | 50      | PDWS     | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| Sodium                            | 160     | PDWS     | mg/L     | 4.4    | 3.3    | 2.9 I       | 3.1 I   | 3.4      | 3.5      | 3.7     | 3.1     | 3.1      | 2.1     | 3       |
| Thallium                          | 2       | PDWS     | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| Vanadium                          | NS      | NS       | ug/L     | ---    | ---    | ---         | ---     | ---      | ---      | ---     | ---     | ---      | ---     | ---     |
| <b>General Chemistry</b>          |         |          |          |        |        |             |         |          |          |         |         |          |         |         |
| Ammonia (N)                       | NS      | NS       | mg/L     | 0.04 U | 0.04 U | 0.04 U      | 0.04 U  | 0.04 U,J | 0.04 U   | 0.04 U  | 0.04 U  | 0.04 U,J | 0.04 U  | 0.04 U  |
| Chloride                          | 250     | SDWS     | mg/L     | 7      | 6.1    | 4.9 I       | 4.8 I   | 4.8 I    | 5.2 J    | 6.3     | 4.5 I   | 4.7 I    | 3.1 I   | 5.8     |
| Nitrate (N)                       | 10      | PDWS     | mg/L     | 0.12 I | 0.13 I | 0.05 U      | 0.05 U  | 0.12 I   | 0.16 I,J | 0.16 I  | 0.14 I  | 0.12 I   | 0.14 I  | 0.12 I  |
| Residues- Filterable (TDS)        | 500     | SDWS     | mg/L     | 40     | 39     | 50          | 48      | 46       | 54       | 42      | 50      | 53       | 38      | 58      |
| <b>Field Parameters</b>           |         |          |          |        |        |             |         |          |          |         |         |          |         |         |
| Dissolved Oxygen                  | NS      | NS       | mg/L     | 0.2    | 0.5    | 0.1         | 0.1     | 0.2      | 0.2      | 0.5     | 0.1     | 0.3      | 0.1     | 0.1     |
| pH                                | 6.5-8.5 | SDWS     | SU       | 4.55   | 4.36   | 4.69        | 4.92    | 4.9      | 5.19     | 4.79    | 5.14    | 5.01     | 4.51    | 5.1     |
| Specific Conductance              | NS      | NS       | umhos/cm | 47     | 48     | 43          | 49      | 46       | 58       | 49      | 48      | 48       | 48      | 47      |
| Temperature, Water                | NS      | NS       | Deg C    | 20.8   | 21.4   | 23.7        | 25.7    | 26       | 20.8     | 23.7    | 18.1    | 21.4     | 21.6    | 21.7    |
| Turbidity                         | NS      | NS       | NTU      | 2.26   | 3.53   | 3.01        | 3.01    | 4.21     | 4.1      | 9.86    | 6.14    | 3.99     | 3.73    | 2.93    |

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. Groundwater Clean-Up Target Level (62-777 F.A.C.) are used for screening purposes only to evaluate if a parameter is significantly above background levels.
4. NS = No numeric standard has been set for this analyte.
5. mg/L = milligrams per liter
6. ug/L = micrograms per liter
7. NTU = nephelometric turbidity units
8. umhos/cm = micromhos per centimeter
9. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
10. deg C = degrees Celsius
11. U = Analyte concentration was below the laboratory detection limit (value shown).
12. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
13. V = Analyte was detected in the sample and associated method blank.

The TDS concentration in MWB-34S continued an overall decreasing trend since 2017. This well continues to show minor impacts with elevated TDS that exceed the SDWS. The prior exceedances and detections were attributed to a leachate release that occurred in January 2017 which was quickly repaired. Additional information was provided in previous semiannual monitoring reports. There is no evidence this release has affected any other wells at this time, including the intermediate well MWB-34I in the same location, and thus the impacts remain contained to a small area. TRL proposes to monitor MWB-34S to ensure no other wells are impacted and concentrations continue to decline.

#### *4.2.2.2 pH*

The FDEP SDWS range of 6.5 units to 8.5 units for pH was not met at background monitoring wells or detection monitoring wells during the first semi-annual 2020 sampling event.

Low groundwater pH in this region is the result of low pH in precipitation, rapid recharge, and little buffering capacity of the surficial sands. The pH levels observed at the Site are characteristic of the groundwater in this region of Florida.

### **4.2.3 Organic Parameters Exceedances**

#### *4.2.3.1 Vinyl chloride*

The vinyl chloride concentration in detection well MWB-39S (1.1 µg/L) exceeded the PDWS of 1 µg/L during the February 2020 monitoring event. This concentration was not consistent with historical concentrations and the well was scheduled to be re-sample to verify the detection. On March 31, 2020, detection well MWB-39S was resampled for Vinyl chloride. Vinyl chloride was not detected during the resample event at MWB-39S (0.2 U µg/L). The results of the initial monitoring event were not confirmed.

#### *4.2.3.1 Other Detected Volatile Organic Compounds*

During the first semi-annual 2020 monitoring event there were some low level volatile organic compound (VOC) detections below FDEP water quality standards for the following parameters: 2-hexanone, 4-methyl-2-pentanone, benzene, chloromethane, cis-1,2-dichloroethene, and toluene (see Table 4). These compounds will continue to be monitored to confirm that concentrations remain below their respective regulatory standards.

## **4.3 Surface Water Quality**

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Surface water analytical results were compared to Class III WQS. Standards are provided in Tables 6 and 7. In some cases, F.A.C. Chapter 62-302.530 requires calculations for Class III standards based on sample hardness.

### **4.3.1 Metals Exceedances**

With regard to the exceedances of metal water quality standards in the expansion area sampling points SW-4 through SW-7, the initial detections occurred during the first sampling event at these new ponds in 1H 2018. The majority of these exceedances were confirmed during a confirmation resampling event conducted in April 2018. In May and June 2018, TRL conducted a source

**Table 6. Summary of Surface Water Quality Analytical Results (Detected Parameters Only)**  
**Trail Ridge Landfill, February 2020**

| Parameter                         | MCL        | Units      | SW-1      | SW-3   | SW-4   | SW-5    | SW-6   | SW-7   |
|-----------------------------------|------------|------------|-----------|--------|--------|---------|--------|--------|
| <b>Volatile Organic Compounds</b> |            |            |           |        |        |         |        |        |
| Carbon Disulfide                  | NS         | ug/L       | 0.67 U    | 0.69 I | 0.67 U | 0.67 U  | 0.67 U | 0.67 U |
| Chlorobenzene                     | NS         | ug/L       | 0.41 I    | 0.21 U | 0.21 U | 0.21 U  | 0.21 U | 0.21 U |
| Chloromethane                     | 470.8      | ug/L       | 0.21 U    | 0.94 I | 0.21 U | 0.21 U  | 0.21 U | 0.21 U |
| <b>Metals</b>                     |            |            |           |        |        |         |        |        |
| Antimony                          | 4300       | ug/L       | 0.24 I    | 2.3    | 0.23 I | 0.27 I  | 0.38 I | 0.2 I  |
| Barium                            | NS         | ug/L       | 28        | 41     | 37     | 26      | 30     | 25     |
| Chromium                          | Calculated | ug/L       | 2.1 I     | 3.9 I  | 8.4    | 2 U     | 3 I    | 4.5 I  |
| Calculated Chromium MCL           | ---        | ug/L       | 45.6      | 120.1  | 68.8   | 68.1    | 70.3   | 48     |
| Copper                            | Calculated | ug/L       | 4 U       | 9.7 I  | 4 U    | 4 U     | 4 I    | 4 U    |
| Calculated Copper MCL             | ---        | ug/L       | 4.8       | 13.2   | 7.4    | 7.3     | 7.5    | 5.1    |
| Iron                              | 1000       | ug/L       | 670       | 1300   | 1500   | 320 I   | 360 I  | 1400   |
| Lead                              | Calculated | ug/L       | 3 U       | 14     | 3 U    | 3 U     | 3 U    | 3 U    |
| Calculated Lead MCL               | ---        | ug/L       | 1.2       | 5.3    | 2.2    | 2.2     | 2.3    | 1.3    |
| Magnesium                         | NS         | mg/L       | 2.2       | 4.9    | 2.8    | 2.1     | 2.4    | 1.9    |
| Nickel                            | Calculated | ug/L       | 6 U       | 7.7 I  | 6.9 I  | 6 U     | 6 U    | 6 U    |
| Calculated Nickel MCL             | ---        | ug/L       | 27        | 73.5   | 41.4   | 40.9    | 42.3   | 28.5   |
| Selenium                          | 5          | ug/L       | 0.58 U    | 0.58 U | 0.89 I | 0.58 U  | 0.58 U | 0.58 U |
| Vanadium                          | NS         | ug/L       | 2.8 I     | 5.8    | 13     | 3.2 I   | 4.5    | 5.9    |
| <b>General Chemistry</b>          |            |            |           |        |        |         |        |        |
| Ammonia (N)                       | Calculated | mg/L       | 0.04 U, J | 0.31   | 0.04 U | 0.04 U  | 0.15   | 0.04 U |
| Calculated TAN Criteria           | ---        | mg/L       | NC        | 4.74   | NC     | NC      | 6.55   | NC     |
| BOD                               | NS         | mg/L       | 2 U       | 3.2    | 2 U    | 2 U     | 2 U    | 2 U    |
| Calcium                           | NS         | mg/L       | 15        | 54     | 26     | 26      | 27     | 17     |
| Carbon- Total Organic             | NS         | mg/L       | 30        | 19     | 8      | 7.8     | 8.7    | 17     |
| Corrected Chlorophyll A           | NS         | mg/m3      | 6.4       | 12     | 5.6    | 4.0 I   | 5      | 4.0 I  |
| COD                               | NS         | mg/L       | 120       | 77     | 50     | 26      | 43     | 82     |
| Fecal Coliform                    | 800        | MPN/100 ml | 1020      | 441    | 10 U   | 243     | 1180   | 98     |
| Nitrate (N)                       | NS         | mg/L       | 0.13 I    | 2.1    | 0.23 I | 0.56    | 0.82   | 0.13 I |
| Nitrate-Nitrite (N)               | NS         | mg/L       | 0.13 I    | 2.2    | 0.23 I | 0.56    | 0.82   | 0.13 I |
| Nitrogen- Total Kjeldahl          | NS         | mg/L       | 1.3       | 2.7    | 0.59   | 0.59    | 1.1    | 0.76   |
| Phosphorus- Total                 | NS         | mg/L       | 0.055 U   | 0.25   | 0.1    | 0.076 I | 0.16   | 0.14   |
| Residues- Filterable (TDS)        | NS         | mg/L       | 170       | 370    | 180    | 170     | 190    | 160    |
| Total Hardness (as CaCO3)         | NS         | mg/L       | 46        | 150    | 76     | 75      | 78     | 49     |
| Total Nitrogen                    | NS         | mg/L       | 1.4       | 5      | 0.82   | 1.2     | 2      | 0.89   |
| Total Suspended Solids            | NS         | mg/L       | 18        | 29     | 13     | 3.6     | 4      | 34     |
| <b>Field Parameters</b>           |            |            |           |        |        |         |        |        |
| Dissolved Oxygen                  | >5.0       | mg/L       | 6.2       | 4.2    | 6.8    | 6.9     | 6.9    | 4.8    |
| pH                                | 6.0-8.5    | SU         | 6.99      | 7.48   | 7.61   | 7.61    | 7.02   | 6.83   |
| Specific Conductance              | 1275       | umhos/cm   | 158       | 459    | 167    | 202     | 229    | 130    |
| Temperature, Water                | NS         | Deg C      | 12.9      | 15.5   | 15     | 15.1    | 14.8   | 11.6   |
| Turbidity                         | 29         | NTU        | 8.35      | 29.27  | 57.41  | 17.69   | 25.96  | 42.08  |

**Notes:**

- Parameter MCL is a Surface Water Criterion (Chapter 62-302 F.A.C.).
- I = Analyte detected below quantitation limits.
- U = Analyte concentration was below the laboratory detection limit (value shown).
- Turbidity MCL is 29 NTUs over background levels
- MCL = Maximum Contamination Level.
- Yellow shaded values indicate parameter concentrations exceed MCL
- mg/L = milligrams per liter.
- ug/L = micrograms per liter.
- umhos/cm = micromhos/centimeter
- NTU = nephelometric turbidity units.
- NS = No numeric standard has been set for this analyte.
- Parameter MCL is calculated by the following formula:  $CR < e^{(0.819 * [\ln \text{Hardness}] + 0.6848)}$ .
- Parameter MCL is calculated by the following formula:  $Cu < e^{(0.8545 * [\ln \text{Hardness}] - 1.702)}$ .
- Parameter MCL is calculated by the following formula:  $Pb < e^{(1.273 * [\ln \text{Hardness}] - 4.705)}$ .
- Parameter MCL is calculated by the following formula:  $Ni < e^{(0.846 * [\ln \text{Hardness}] + 0.0584)}$ .
- Parameter MCL is calculated by the following formula:  $Zn < e^{(0.8473 * [\ln \text{Hardness}] + 0.884)}$ .
- Parameter MCL is calculated by the following formula:  $TAN < 2.5 * (0.8876 * ((0.0278 / (1 + 10^{(7.688 - pH)})) + (1.1994 / (1 + 10^{(pH - 7.688)}))) * 2.126 * 10^{(0.028 * (20 - temp))}))$

**Table 7 - Surface Water Quality Standard Calculations  
Trail Ridge Landfill, Jacksonville, Florida  
February 2020**

| Parameter | Units | WQS Class I & Class III         | SW-1           |     | SW-3           |      | SW-4           |     | SW-5           |     | SW-6           |     | SW-7           |     | Total Hardness <sup>1</sup><br>lnH <sup>2</sup> |
|-----------|-------|---------------------------------|----------------|-----|----------------|------|----------------|-----|----------------|-----|----------------|-----|----------------|-----|-------------------------------------------------|
|           |       |                                 | 46             |     | 150            |      | 76             |     | 75             |     | 78             |     | 49             |     |                                                 |
|           |       |                                 | 3.83           |     | 5.01           |      | 4.33           |     | 4.32           |     | 4.36           |     | 3.89           |     |                                                 |
|           |       |                                 | Result (total) | Std | Result (total) | Std  | Result (total) | Std | Result (total) | Std | Result (total) | Std | Result (total) | Std |                                                 |
| Cadmium   | ug/L  | Measured ≤ e(0.7409[lnH]-4.719) | 1 U            | 0.2 | 1 U            | 0.4  | 1 U            | 0.2 | 1 U            | 0.2 | 1 U            | 0.2 | 1 U            | 0.2 |                                                 |
| Chromium  | ug/L  | Measured ≤ e(0.819[lnH]+0.6848) | 2.1 I          | 46  | 3.9 I          | 120  | 8.4            | 69  | 2 U            | 68  | 3 I            | 70  | 4.5 I          | 48  |                                                 |
| Copper    | ug/L  | Measured ≤ e(0.8545[lnH]-1.702) | 4 U            | 4.8 | 9.7 I          | 13.2 | 4 U            | 7.4 | 4 U            | 7.3 | 4 I            | 7.5 | 4 U            | 5.1 |                                                 |
| Lead      | ug/L  | Measured ≤ e(1.273[lnH]- 4.705) | 3 U            | 1.2 | 14             | 5.3  | 3 U            | 2.2 | 3 U            | 2.2 | 3 U            | 2.3 | 3 U            | 1.3 |                                                 |
| Nickel    | ug/L  | Measured ≤ e(0.846[lnH]+0.0584) | 6 U            | 27  | 7.7 I          | 74   | 6.9 I          | 41  | 6 U            | 41  | 6 U            | 42  | 6 U            | 29  |                                                 |
| Zinc      | ug/L  | Measured ≤ e(0.8473[lnH]+0.884) | 50 U           | 62  | 50 U           | 169  | 50 U           | 95  | 50 U           | 94  | 50 U           | 97  | 50 U           | 65  |                                                 |

Notes:

ug/L - micrograms per liter

WQS - Water Quality Standard, Class I (potable), Class III (freshwater) provided in FDEP Chapter 62-302

\*- According to FDEP Rule 62-302.530, if H is less than 25 than 25 shall be used in the calculations

<sup>1</sup> - Total hardness (H) is reported in mg/L of CaCO<sub>3</sub> in the laboratory report

<sup>2</sup> - "ln H" means the natural logarithm of total hardness expressed as mg/L of CaCO<sub>3</sub>

I - result is qualified because the detection was between method detection limits and practical quantitation limits.

U - Not Detected.

Bold values indicate detections above the laboratory detection limit; yellow cells indicate result exceeded WQS.

<sup>NS</sup> - Not Sampled (Dry)

investigation and submitted an Alternate Source Demonstration (ASD) to FDEP in July 2018. The ASD concluded elevated metal concentrations observed in the expansion area surface water ponds were likely associated with elevated turbidity and caused by contaminated run-on from the Chemours property and disturbance of native soils caused primarily by ongoing construction of the stormwater system. There was no evidence the exceedances were related to landfilling operations in Phase 6.

Additional sampling to evaluate run-on was conducted and TRL submitted an initial data summary to the Department on October 16, 2018. This data further supported the premise that run-on from Chemours is a significant source of sediment and contamination.

Iron and lead at some surface water locations exceeded the applicable standards. These parameters are discussed below.

#### *4.3.1.1 Iron*

Iron was detected above the Class III WQS of 1,000 µg/L at surface water location SW-3 (1,300 µg/L), SW-4 (1,500 µg/L), and SW-7 (1,400 µg/L). The iron exceedances have been previously reported to the FDEP.

#### *4.3.1.2 Lead*

Lead was detected above the calculated Class III WQS at SW-3 (14 µg/L). Lead exceedances have been previously reported to the FDEP. Lead is sporadically detected at SW-3 and has been attributed to elevated turbidity during past semi-annual monitoring events. The turbidity at SW-3 during the February 2020 monitoring event was 29.27 NTU. Turbidity at SW-3 and other locations was generally improved during this event, which could be attributed to dry conditions and/or general improvements in water quality in the expansion area. Lead was not detected in any other surface water sampling locations during this event.

### 4.3.2 General Chemistry Exceedances

Fecal Coliform, dissolved oxygen, and turbidity at some surface water locations exceeded the applicable standards. These parameters are discussed below.

#### *4.3.2.1 Fecal Coliform*

Fecal Coliform was detected above the Class III WQS of 800 MPN/100 mL at surface water locations SW-1 (1,020 MPN/100 mL) and SW-6 (1,180 MPN/100 mL). The fecal coliform at SW-6 is a first-time exceedance. Most of the surface water locations have had sporadic fecal coliform exceedances in the past. The fecal coliform concentrations do not appear to be related to the landfill and are most likely due to bird populations near the surface water locations.

#### *4.3.2.2 Dissolved Oxygen*

Dissolved oxygen was detected below the Class III WQS of greater than 5 mg/L at surface water locations SW-3 (4.2 mg/L) and SW-7 (4.8 mg/L). These concentrations are consistent with historical data. Surface water points have historically been below this threshold on a sporadic basis.

#### *4.3.2.3 Turbidity*

Turbidity was detected above the Class III WQS of not greater than 29 NTU above background at surface water locations SW-4 (57.41 NTU) and SW-7 (42.08 NTU). These concentrations are lower than or consistent with historical data.

## 5 DISCUSSION AND RECOMMENDATIONS

Except as noted, analyte detections and the exceedances observed during this event for both groundwater and surface water are consistent with historical conditions and/or background water quality.

The analytical results from analysis of the groundwater samples shows the following:

- The iron exceedances during the February 2020 sampling event were consistent with historical data. Based on this data, it appears that the presence of iron in the groundwater at most wells is not directly related to the landfill operations, but is related to the dissolution of naturally-occurring iron from the soil.
- Vanadium was detected in detection well MWB-13S. The detection at MWB-13S was consistent with historical concentrations.
- The FDEP SDWS for TDS was exceeded at detection well MWB-34S. The TDS concentration in MWB-34S continued an overall decreasing trend since 2017. The TDS exceedances and detections were attributed to a leachate release that occurred in January 2017 which was quickly repaired. There is no evidence this release has affected any other wells at this time, including the intermediate well MWB-34I in the same location, and thus the impacts remain contained to a small area.
- The FDEP SDWS range of 6.5 units to 8.5 units for pH was not met at background monitoring wells or detection monitoring wells during the first semi-annual 2020 sampling event. The low pH levels in select monitoring wells are attributed to Florida's ambient groundwater quality characteristics due to low pH rainfall, rapid recharge, and the limited buffering capability of Florida's sandy soils.
- The vinyl chloride concentration in detection well MWB-39S exceeded the PDWS during the February 2020 monitoring event. This concentration was not consistent with historical concentrations and the well was scheduled to be re-sample to verify the detection. On March 31, 2020, detection well MBW-39S was resampled for vinyl chloride. The results of the initial monitoring event were not confirmed.

The analytical results from analysis of the surface water samples shows the following:

- Iron was detected above the Class III WQS at surface water locations SW-3, SW-4, and SW-7.
- Lead was detected above the calculated Class III WQS at SW-3. Lead is sporadically detected above the Class III WQS at SW-3 and has been attributed to elevated turbidity. Turbidity at SW-3 and other locations was generally improved during this event which could be attributed to dry conditions and/or general improvements in water quality in the expansion area. Lead was not detected in any other surface water sampling locations during this event.
- Fecal Coliform was detected above the Class III WQS at surface water locations SW-1 and SW-6. The fecal coliform concentrations do not appear to be related to the landfill and are most likely due to bird populations near the surface water locations.

- Dissolved oxygen was detected below the Class III WQS at surface water locations SW-3 and SW-7. These concentrations are consistent with historical data. Surface water points have historically been below this threshold on a sporadic basis.
- Turbidity was detected above the Class III WQS at surface water locations SW-4 and SW-7. These concentrations are lower than or consistent with historical data.

Several steps remain underway to address the surface water issues. First, the City of Jacksonville contractor responsible for the stormwater system construction has completed the system construction and soil stabilization and is working to repair sections of the perimeter ditches that were damaged by heavy rains. Second, the City has attempted to contact Chemours to address the run-on. To date, Chemours has not responded to the City's request for dialogue and to implement repairs and control measures upgradient (west) of TRL to disperse and slow run-on migrating onto the TRL property. However, some improvements have been made by the City on the east side of the property boundary to mitigate the issue. Lastly, TRL currently is installing BMPs in the expansion area to reduce turbidity. These BMPs include approximately 2,300 linear feet of turbidity curtains that were installed within the stormwater ponds and approximately 40 gabion baskets to be installed within the interior and outer conveyance systems (19 have been installed and 21 baskets are scheduled to be installed the week of May 11, 2020). These BMPs have proven successful in Ponds 1 and 2 and will be implemented as needed and appropriate after construction and repair are complete. The BMPs implemented on-site will be limited in effectiveness until the ultimate source of the detections (run-on from Chemours) is addressed by the property owner and FDEP.

Detection monitoring should continue as outlined in the WQMP. The next sampling event should be conducted prior to September 30, 2020, per the facility's permit and is currently scheduled for August 2020.

# APPENDIX A

## LABORATORY ANALYTICAL RESULTS AND FIELD FORMS



Advanced Environmental Laboratories, Inc  
6681 Southpoint Pkwy Jacksonville, FL 32216  
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580  
Phone: (904)363-9350  
Fax: (904)363-9354

March 17, 2020

Eric B. Fuller  
City of Jacksonville  
214 North Hogan Street  
10th Floor  
Jacksonville, FL 32202

RE: Workorder: J2002766 Trail Ridge Landfill

Dear Eric Fuller:

Enclosed are the analytical results for sample(s) received by the laboratory between Wednesday, February 26, 2020 and Monday, March 02, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jerry Allen'.

Jerry Allen - Project Manager  
JAllen@aellab.com

Enclosures

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Payments: P.O. Box 551580 Jacksonville, FL 32255-1580  
Phone: (904)363-9350  
Fax: (904)363-9354

## SAMPLE SUMMARY

Workorder: J2002766 Trail Ridge Landfill

| Lab ID      | Sample ID          | Matrix | Date Collected  | Date Received   |
|-------------|--------------------|--------|-----------------|-----------------|
| J2002766001 | MWB11I (R)         | Water  | 2/26/2020 12:27 | 2/26/2020 15:35 |
| J2002766002 | MWB2I              | Water  | 2/26/2020 11:25 | 2/26/2020 15:35 |
| J2002766003 | MWB12I             | Water  | 2/26/2020 10:24 | 2/26/2020 15:35 |
| J2002766004 | MWB13I             | Water  | 2/26/2020 08:53 | 2/26/2020 15:35 |
| J2002766005 | MWB29I             | Water  | 2/26/2020 07:54 | 2/26/2020 15:35 |
| J2002766006 | MWB27I             | Water  | 2/26/2020 06:51 | 2/26/2020 15:35 |
| J2002766007 | MWB27S             | Water  | 2/26/2020 07:21 | 2/26/2020 15:35 |
| J2002766008 | MWB29S             | Water  | 2/26/2020 08:22 | 2/26/2020 15:35 |
| J2002766009 | MWB13S             | Water  | 2/26/2020 09:21 | 2/26/2020 15:35 |
| J2002766010 | MWB22S             | Water  | 2/26/2020 09:53 | 2/26/2020 15:35 |
| J2002766011 | MWB12S             | Water  | 2/26/2020 10:53 | 2/26/2020 15:35 |
| J2002766012 | MWB2S              | Water  | 2/26/2020 11:54 | 2/26/2020 15:35 |
| J2002766013 | MWB20S             | Water  | 2/26/2020 13:01 | 2/26/2020 15:35 |
| J2002766014 | MWB21S             | Water  | 2/26/2020 13:36 | 2/26/2020 15:35 |
| J2002766015 | Equipment Blank #1 | Water  | 2/26/2020 13:51 | 2/26/2020 15:35 |
| J2002766016 | Trip Blank #1      | Water  | 2/26/2020 07:21 | 2/26/2020 15:35 |
| J2002766017 | MWB-3S             | Water  | 2/27/2020 13:00 | 2/28/2020 07:00 |
| J2002766018 | MWB-40S            | Water  | 2/27/2020 12:23 | 2/28/2020 07:00 |
| J2002766019 | MWB-39S            | Water  | 2/27/2020 11:50 | 2/28/2020 07:00 |
| J2002766020 | MWB-35S            | Water  | 2/27/2020 14:37 | 2/28/2020 07:00 |
| J2002766021 | SGMW-2S            | Water  | 2/27/2020 15:48 | 2/28/2020 07:00 |
| J2002766022 | SGMW-15R           | Water  | 2/27/2020 15:11 | 2/28/2020 07:00 |
| J2002766023 | TRIP               | Water  | 2/27/2020 00:00 | 2/28/2020 07:00 |
| J2002766024 | MWB-39I            | Water  | 2/27/2020 11:21 | 2/28/2020 07:00 |
| J2002766025 | MWB-3I             | Water  | 2/27/2020 12:31 | 2/28/2020 07:00 |
| J2002766026 | MWB-35I            | Water  | 2/27/2020 14:06 | 2/28/2020 07:00 |
| J2002766027 | Equipment Blank #1 | Water  | 2/27/2020 16:10 | 2/28/2020 07:00 |
| J2002766028 | MWB-32I            | Water  | 2/28/2020 08:37 | 2/28/2020 11:00 |
| J2002766029 | MWB-34I            | Water  | 2/28/2020 06:56 | 2/28/2020 11:00 |
| J2002766030 | MWB-11S            | Water  | 2/28/2020 09:41 | 2/28/2020 11:00 |
| J2002766031 | MWB-32S            | Water  | 2/28/2020 09:07 | 2/28/2020 11:00 |
| J2002766032 | MWB-33S            | Water  | 2/28/2020 07:59 | 2/28/2020 11:00 |
| J2002766033 | MWB-34S            | Water  | 2/28/2020 07:25 | 2/28/2020 11:00 |
| J2002766034 | TRIP               | Water  | 2/28/2020 00:00 | 2/28/2020 11:00 |
| J2002766035 | SW-3               | Water  | 3/2/2020 08:30  | 3/2/2020 10:10  |

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Payments: P.O. Box 551580 Jacksonville, FL 32255-1580  
Phone: (904)363-9350  
Fax: (904)363-9354

## SAMPLE SUMMARY

Workorder: J2002766 Trail Ridge Landfill

| Lab ID      | Sample ID | Matrix | Date Collected | Date Received  |
|-------------|-----------|--------|----------------|----------------|
| J2002766036 | SW-6      | Water  | 3/2/2020 06:45 | 3/2/2020 10:10 |
| J2002766037 | SW-7      | Water  | 3/2/2020 07:21 | 3/2/2020 10:10 |
| J2002766038 | SW-5      | Water  | 3/2/2020 07:01 | 3/2/2020 10:10 |
| J2002766039 | SW-4      | Water  | 3/2/2020 07:42 | 3/2/2020 10:10 |
| J2002766040 | SW-1      | Water  | 3/2/2020 09:01 | 3/2/2020 10:10 |
| J2002766041 | Trip      | Water  | 3/2/2020 00:00 | 3/2/2020 10:10 |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: J2002766001

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: MWB11I (R)

Date Collected: 02/26/20 12:27

Sample Description:

Location:

| Parameters                                  | Results | Qual | Units                            | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------------------------|---------|------|----------------------------------|----|--------------|--------------|-----------------|-----|
| <b>METALS</b>                               |         |      |                                  |    |              |              |                 |     |
| Analysis Desc: SW846 6010B Analysis,Water   |         |      | Preparation Method: SW-846 3010A |    |              |              |                 |     |
|                                             |         |      | Analytical Method: SW-846 6010   |    |              |              |                 |     |
| Iron                                        | 280     | I    | ug/L                             | 1  | 800          | 200          | 3/10/2020 20:05 | J   |
| Sodium                                      | 2.9     | I    | mg/L                             | 1  | 3.2          | 0.80         | 3/10/2020 20:05 | J   |
| <b>WET CHEMISTRY</b>                        |         |      |                                  |    |              |              |                 |     |
| Analysis Desc: IC,E300.0,Water              |         |      | Analytical Method: EPA 300.0     |    |              |              |                 |     |
| Chloride                                    | 4.9     | I    | mg/L                             | 1  | 5.0          | 0.50         | 2/27/2020 16:12 | J   |
| Nitrate (as N)                              | 0.050   | U    | mg/L                             | 1  | 0.50         | 0.050        | 2/27/2020 16:12 | J   |
| Analysis Desc: Ammonia,E350.1,Water         |         |      | Analytical Method: EPA 350.1     |    |              |              |                 |     |
| Ammonia (N)                                 | 0.040   | U    | mg/L                             | 5  | 0.050        | 0.040        | 3/3/2020 14:05  | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C |         |      | Analytical Method: SM 2540 C     |    |              |              |                 |     |
| Total Dissolved Solids                      | 50      |      | mg/L                             | 1  | 10           | 10           | 2/27/2020 14:33 | J   |

Lab ID: J2002766002

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: MWB2I

Date Collected: 02/26/20 11:25

Sample Description:

Location:

| Parameters                                | Results | Qual | Units                            | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-------------------------------------------|---------|------|----------------------------------|----|--------------|--------------|-----------------|-----|
| <b>METALS</b>                             |         |      |                                  |    |              |              |                 |     |
| Analysis Desc: SW846 6010B Analysis,Water |         |      | Preparation Method: SW-846 3010A |    |              |              |                 |     |
|                                           |         |      | Analytical Method: SW-846 6010   |    |              |              |                 |     |
| Iron                                      | 330     | I    | ug/L                             | 1  | 800          | 200          | 3/10/2020 20:08 | J   |
| Sodium                                    | 4.4     |      | mg/L                             | 1  | 3.2          | 0.80         | 3/10/2020 20:08 | J   |
| <b>WET CHEMISTRY</b>                      |         |      |                                  |    |              |              |                 |     |
| Analysis Desc: IC,E300.0,Water            |         |      | Analytical Method: EPA 300.0     |    |              |              |                 |     |
| Chloride                                  | 7.0     |      | mg/L                             | 1  | 5.0          | 0.50         | 2/27/2020 14:44 | J   |
| Nitrate (as N)                            | 0.12    | I    | mg/L                             | 1  | 0.50         | 0.050        | 2/27/2020 14:44 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766002**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB21**

Date Collected: 02/26/20 11:25

Sample Description:

Location:

| Parameters                                  | Results      | Qual                         | Units       | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------------------------|--------------|------------------------------|-------------|----------|--------------|--------------|-----------------|-----|
| Analysis Desc: Ammonia,E350.1,Water         |              | Analytical Method: EPA 350.1 |             |          |              |              |                 |     |
| Ammonia (N)                                 | <b>0.040</b> | <b>U</b>                     | <b>mg/L</b> | <b>5</b> | 0.050        | 0.040        | 3/3/2020 14:07  | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C |              | Analytical Method: SM 2540 C |             |          |              |              |                 |     |
| Total Dissolved Solids                      | <b>40</b>    |                              | <b>mg/L</b> | <b>1</b> | 10           | 10           | 2/27/2020 14:33 | J   |

Lab ID: **J2002766003**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB121**

Date Collected: 02/26/20 10:24

Sample Description:

Location:

| Parameters                                | Results    | Qual                                                               | Units       | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-------------------------------------------|------------|--------------------------------------------------------------------|-------------|----------|--------------|--------------|-----------------|-----|
| Analysis Desc: SW846 6010B Analysis,Water |            | Preparation Method: SW-846 3010A<br>Analytical Method: SW-846 6010 |             |          |              |              |                 |     |
| Iron                                      | <b>240</b> | <b>I</b>                                                           | <b>ug/L</b> | <b>1</b> | 800          | 200          | 3/10/2020 20:19 | J   |
| Sodium                                    | <b>3.1</b> | <b>I</b>                                                           | <b>mg/L</b> | <b>1</b> | 3.2          | 0.80         | 3/10/2020 20:19 | J   |

### WET CHEMISTRY

|                                             |              |                              |             |          |       |       |                 |   |
|---------------------------------------------|--------------|------------------------------|-------------|----------|-------|-------|-----------------|---|
| Analysis Desc: IC,E300.0,Water              |              | Analytical Method: EPA 300.0 |             |          |       |       |                 |   |
| Chloride                                    | <b>4.8</b>   | <b>I</b>                     | <b>mg/L</b> | <b>1</b> | 5.0   | 0.50  | 2/27/2020 12:53 | J |
| Nitrate (as N)                              | <b>0.050</b> | <b>U</b>                     | <b>mg/L</b> | <b>1</b> | 0.50  | 0.050 | 2/27/2020 12:53 | J |
| Analysis Desc: Ammonia,E350.1,Water         |              | Analytical Method: EPA 350.1 |             |          |       |       |                 |   |
| Ammonia (N)                                 | <b>0.040</b> | <b>U</b>                     | <b>mg/L</b> | <b>5</b> | 0.050 | 0.040 | 3/3/2020 14:08  | G |
| Analysis Desc: Tot Dissolved Solids,SM2540C |              | Analytical Method: SM 2540 C |             |          |       |       |                 |   |
| Total Dissolved Solids                      | <b>48</b>    |                              | <b>mg/L</b> | <b>1</b> | 10    | 10    | 2/27/2020 14:33 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: J2002766004

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: MWB13I

Date Collected: 02/26/20 08:53

Sample Description:

Location:

| Parameters                                      | Results | Qual | Units                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-------------------------------------------------|---------|------|----------------------------------|----|-----------------|-----------------|-----------------|-----|
| <b>METALS</b>                                   |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 6010B                      |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Water                                 |         |      | Analytical Method: SW-846 6010   |    |                 |                 |                 |     |
| Iron                                            | 310     | I    | ug/L                             | 1  | 800             | 200             | 3/10/2020 20:23 | J   |
| Sodium                                          | 3.4     |      | mg/L                             | 1  | 3.2             | 0.80            | 3/10/2020 20:23 | J   |
| <b>WET CHEMISTRY</b>                            |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: IC,E300.0, Water                 |         |      | Analytical Method: EPA 300.0     |    |                 |                 |                 |     |
| Chloride                                        | 4.8     | I    | mg/L                             | 1  | 5.0             | 0.50            | 2/27/2020 11:25 | J   |
| Nitrate (as N)                                  | 0.12    | I    | mg/L                             | 1  | 0.50            | 0.050           | 2/27/2020 11:25 | J   |
| Analysis Desc: Ammonia,E350.1, Water            |         |      | Analytical Method: EPA 350.1     |    |                 |                 |                 |     |
| Ammonia (N)                                     | 0.040   | U,J4 | mg/L                             | 5  | 0.050           | 0.040           | 3/3/2020 14:17  | G   |
| Analysis Desc: Tot Dissolved<br>Solids, SM2540C |         |      | Analytical Method: SM 2540 C     |    |                 |                 |                 |     |
| Total Dissolved Solids                          | 46      |      | mg/L                             | 1  | 10              | 10              | 2/27/2020 14:33 | J   |

Lab ID: J2002766005

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: MWB29I

Date Collected: 02/26/20 07:54

Sample Description:

Location:

| Parameters                      | Results | Qual | Units                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|---------------------------------|---------|------|----------------------------------|----|-----------------|-----------------|-----------------|-----|
| <b>METALS</b>                   |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 6010B      |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Water                 |         |      | Analytical Method: SW-846 6010   |    |                 |                 |                 |     |
| Iron                            | 380     | I    | ug/L                             | 1  | 800             | 200             | 3/10/2020 20:26 | J   |
| Sodium                          | 3.7     |      | mg/L                             | 1  | 3.2             | 0.80            | 3/10/2020 20:26 | J   |
| <b>WET CHEMISTRY</b>            |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: IC,E300.0, Water |         |      | Analytical Method: EPA 300.0     |    |                 |                 |                 |     |
| Chloride                        | 6.3     |      | mg/L                             | 1  | 5.0             | 0.50            | 2/27/2020 10:41 | J   |
| Nitrate (as N)                  | 0.16    | I    | mg/L                             | 1  | 0.50            | 0.050           | 2/27/2020 10:41 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766005**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB29I**

Date Collected: 02/26/20 07:54

Sample Description:

Location:

| Parameters                                  | Results      | Qual                         | Units       | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------------------------|--------------|------------------------------|-------------|----------|--------------|--------------|-----------------|-----|
| Analysis Desc: Ammonia,E350.1,Water         |              | Analytical Method: EPA 350.1 |             |          |              |              |                 |     |
| Ammonia (N)                                 | <b>0.040</b> | <b>U</b>                     | <b>mg/L</b> | <b>5</b> | 0.050        | 0.040        | 3/3/2020 14:21  | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C |              | Analytical Method: SM 2540 C |             |          |              |              |                 |     |
| Total Dissolved Solids                      | <b>42</b>    |                              | <b>mg/L</b> | <b>1</b> | 10           | 10           | 2/27/2020 14:33 | J   |

Lab ID: **J2002766006**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB27I**

Date Collected: 02/26/20 06:51

Sample Description:

Location:

| Parameters                                  | Results      | Qual                                                               | Units       | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------------------------|--------------|--------------------------------------------------------------------|-------------|----------|--------------|--------------|-----------------|-----|
| <b>METALS</b>                               |              |                                                                    |             |          |              |              |                 |     |
| Analysis Desc: SW846 6010B Analysis,Water   |              | Preparation Method: SW-846 3010A<br>Analytical Method: SW-846 6010 |             |          |              |              |                 |     |
| Iron                                        | <b>380</b>   | <b>I</b>                                                           | <b>ug/L</b> | <b>1</b> | 800          | 200          | 3/10/2020 20:30 | J   |
| Sodium                                      | <b>3.5</b>   |                                                                    | <b>mg/L</b> | <b>1</b> | 3.2          | 0.80         | 3/10/2020 20:30 | J   |
| <b>WET CHEMISTRY</b>                        |              |                                                                    |             |          |              |              |                 |     |
| Analysis Desc: IC,E300.0,Water              |              | Analytical Method: EPA 300.0                                       |             |          |              |              |                 |     |
| Chloride                                    | <b>5.2</b>   | <b>J4</b>                                                          | <b>mg/L</b> | <b>1</b> | 5.0          | 0.50         | 2/27/2020 09:35 | J   |
| Nitrate (as N)                              | <b>0.16</b>  | <b>I,J4</b>                                                        | <b>mg/L</b> | <b>1</b> | 0.50         | 0.050        | 2/27/2020 09:35 | J   |
| Analysis Desc: Ammonia,E350.1,Water         |              | Analytical Method: EPA 350.1                                       |             |          |              |              |                 |     |
| Ammonia (N)                                 | <b>0.040</b> | <b>U</b>                                                           | <b>mg/L</b> | <b>5</b> | 0.050        | 0.040        | 3/3/2020 14:22  | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C |              | Analytical Method: SM 2540 C                                       |             |          |              |              |                 |     |
| Total Dissolved Solids                      | <b>54</b>    |                                                                    | <b>mg/L</b> | <b>1</b> | 10           | 10           | 2/27/2020 14:33 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766007**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB27S**

Date Collected: 02/26/20 07:21

Sample Description:

Location:

| Parameters                          | Results | Qual | Units                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-------------------------------------|---------|------|----------------------------------|----|-----------------|-----------------|-----------------|-----|
| <b>METALS</b>                       |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 6010B          |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Water                     |         |      | Analytical Method: SW-846 6010   |    |                 |                 |                 |     |
| Arsenic                             | 8.0     | U    | ug/L                             | 1  | 32              | 8.0             | 3/10/2020 20:33 | J   |
| Barium                              | 8.0     | I    | ug/L                             | 1  | 12              | 3.0             | 3/10/2020 20:33 | J   |
| Beryllium                           | 2.0     | U    | ug/L                             | 1  | 8.0             | 2.0             | 3/10/2020 20:33 | J   |
| Cadmium                             | 0.50    | U    | ug/L                             | 1  | 2.0             | 0.50            | 3/10/2020 20:33 | J   |
| Chromium                            | 5.0     | U    | ug/L                             | 1  | 20              | 5.0             | 3/10/2020 20:33 | J   |
| Cobalt                              | 1.0     | U    | ug/L                             | 1  | 4.0             | 1.0             | 3/10/2020 20:33 | J   |
| Copper                              | 10      | U    | ug/L                             | 1  | 40              | 10              | 3/10/2020 20:33 | J   |
| Iron                                | 200     | U    | ug/L                             | 1  | 800             | 200             | 3/10/2020 20:33 | J   |
| Lead                                | 3.0     | I    | ug/L                             | 1  | 12              | 3.0             | 3/10/2020 20:33 | J   |
| Nickel                              | 10      | U    | ug/L                             | 1  | 40              | 10              | 3/10/2020 20:33 | J   |
| Silver                              | 8.0     | U    | ug/L                             | 1  | 32              | 8.0             | 3/10/2020 20:33 | J   |
| Sodium                              | 31      |      | mg/L                             | 1  | 3.2             | 0.80            | 3/10/2020 20:33 | J   |
| Vanadium                            | 17      |      | ug/L                             | 1  | 8.0             | 2.0             | 3/10/2020 20:33 | J   |
| Zinc                                | 50      | U    | ug/L                             | 1  | 200             | 50              | 3/10/2020 20:33 | J   |
| <b>METALS</b>                       |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 6020B          |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Total                     |         |      | Analytical Method: SW-846 6020   |    |                 |                 |                 |     |
| Antimony                            | 0.46    | I    | ug/L                             | 1  | 0.70            | 0.11            | 3/15/2020 21:15 | J   |
| Selenium                            | 1.1     | I    | ug/L                             | 1  | 5.0             | 0.58            | 3/15/2020 21:15 | J   |
| Thallium                            | 0.057   | U    | ug/L                             | 1  | 0.20            | 0.057           | 3/15/2020 21:15 | J   |
| <b>METALS</b>                       |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 7470A          |         |      | Preparation Method: SW-846 7470A |    |                 |                 |                 |     |
| Analysis, Water                     |         |      | Analytical Method: SW-846 7470A  |    |                 |                 |                 |     |
| Mercury                             | 0.011   | U    | ug/L                             | 1  | 0.10            | 0.011           | 3/11/2020 16:01 | J   |
| <b>VOLATILES</b>                    |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: 8260B VOCs Analysis, |         |      | Preparation Method: SW-846 5030B |    |                 |                 |                 |     |
| Water                               |         |      | Analytical Method: SW-846 8260B  |    |                 |                 |                 |     |
| 1,1,1,2-Tetrachloroethane           | 0.54    | U    | ug/L                             | 1  | 1.0             | 0.54            | 3/10/2020 13:41 | J   |
| 1,1,1-Trichloroethane               | 0.22    | U    | ug/L                             | 1  | 1.0             | 0.22            | 3/10/2020 13:41 | J   |
| 1,1,2,2-Tetrachloroethane           | 0.20    | U    | ug/L                             | 1  | 1.0             | 0.20            | 3/10/2020 13:41 | J   |
| 1,1,2-Trichloroethane               | 0.30    | U    | ug/L                             | 1  | 1.0             | 0.30            | 3/10/2020 13:41 | J   |
| 1,1-Dichloroethane                  | 0.14    | U    | ug/L                             | 1  | 1.0             | 0.14            | 3/10/2020 13:41 | J   |
| 1,1-Dichloroethylene                | 0.18    | U    | ug/L                             | 1  | 1.0             | 0.18            | 3/10/2020 13:41 | J   |
| 1,2,3-Trichloropropane              | 0.91    | U    | ug/L                             | 1  | 1.0             | 0.91            | 3/10/2020 13:41 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766007**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB27S**

Date Collected: 02/26/20 07:21

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| 1,2-Dibromo-3-Chloropropane | 3.1     | U    | ug/L  | 1  | 5.0             | 3.1             | 3/10/2020 13:41 | J   |
| 1,2-Dichlorobenzene         | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 13:41 | J   |
| 1,2-Dichloroethane          | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 13:41 | J   |
| 1,2-Dichloropropane         | 0.66    | U    | ug/L  | 1  | 1.0             | 0.66            | 3/10/2020 13:41 | J   |
| 1,4-Dichlorobenzene         | 0.22    | U    | ug/L  | 1  | 1.0             | 0.22            | 3/10/2020 13:41 | J   |
| 2-Butanone (MEK)            | 0.43    | U    | ug/L  | 1  | 5.0             | 0.43            | 3/10/2020 13:41 | J   |
| 2-Hexanone                  | 0.71    | U    | ug/L  | 1  | 5.0             | 0.71            | 3/10/2020 13:41 | J   |
| 4-Methyl-2-pentanone (MIBK) | 0.47    | U    | ug/L  | 1  | 1.0             | 0.47            | 3/10/2020 13:41 | J   |
| Acetone                     | 2.1     | U    | ug/L  | 1  | 5.0             | 2.1             | 3/10/2020 13:41 | J   |
| Acrylonitrile               | 1.1     | U    | ug/L  | 1  | 10              | 1.1             | 3/10/2020 13:41 | J   |
| Benzene                     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 13:41 | J   |
| Bromochloromethane          | 0.17    | U    | ug/L  | 1  | 1.0             | 0.17            | 3/10/2020 13:41 | J   |
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/10/2020 13:41 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/10/2020 13:41 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 13:41 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/10/2020 13:41 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 13:41 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 13:41 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 13:41 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 13:41 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 13:41 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 13:41 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 13:41 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 13:41 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 13:41 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 13:41 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 13:41 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 13:41 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 13:41 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 13:41 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 13:41 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 13:41 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 13:41 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 13:41 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 13:41 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 13:41 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 13:41 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 13:41 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 13:41 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 13:41 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766007**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB27S**

Date Collected: 02/26/20 07:21

Sample Description:

Location:

| Parameters                | Results    | Qual | Units | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------|------------|------|-------|----------|--------------|--------------|-----------------|-----|
| 1,2-Dichloroethane-d4 (S) | <b>91</b>  |      | %     | <b>1</b> | 70-128       |              | 3/10/2020 13:41 |     |
| Toluene-d8 (S)            | <b>89</b>  |      | %     | <b>1</b> | 77-119       |              | 3/10/2020 13:41 |     |
| Bromofluorobenzene (S)    | <b>103</b> |      | %     | <b>1</b> | 86-123       |              | 3/10/2020 13:41 |     |

Analysis Desc: 8260B SIM Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |              |          |      |          |        |       |                 |   |
|-----------------------------|--------------|----------|------|----------|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | <b>0.11</b>  | <b>U</b> | ug/L | <b>1</b> | 0.20   | 0.11  | 3/10/2020 13:41 | J |
| Ethylene Dibromide (EDB)    | <b>0.020</b> | <b>U</b> | ug/L | <b>1</b> | 0.10   | 0.020 | 3/10/2020 13:41 | J |
| 1,2-Dichloroethane-d4 (S)   | <b>87</b>    |          | %    | <b>1</b> | 77-125 |       | 3/10/2020 13:41 |   |
| Toluene-d8 (S)              | <b>89</b>    |          | %    | <b>1</b> | 80-121 |       | 3/10/2020 13:41 |   |
| Bromofluorobenzene (S)      | <b>96</b>    |          | %    | <b>1</b> | 80-129 |       | 3/10/2020 13:41 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |             |          |      |          |      |       |                 |   |
|----------------|-------------|----------|------|----------|------|-------|-----------------|---|
| Chloride       | <b>49</b>   |          | mg/L | <b>1</b> | 5.0  | 0.50  | 2/27/2020 10:19 | J |
| Nitrate (as N) | <b>0.18</b> | <b>I</b> | mg/L | <b>1</b> | 0.50 | 0.050 | 2/27/2020 10:19 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |             |  |      |          |       |       |                |   |
|-------------|-------------|--|------|----------|-------|-------|----------------|---|
| Ammonia (N) | <b>0.12</b> |  | mg/L | <b>5</b> | 0.050 | 0.040 | 3/3/2020 14:23 | G |
|-------------|-------------|--|------|----------|-------|-------|----------------|---|

Analysis Desc: Tot Dissolved Solids,SM2540C

Analytical Method: SM 2540 C

|                        |            |  |      |          |    |    |                 |   |
|------------------------|------------|--|------|----------|----|----|-----------------|---|
| Total Dissolved Solids | <b>300</b> |  | mg/L | <b>1</b> | 10 | 10 | 2/27/2020 14:33 | J |
|------------------------|------------|--|------|----------|----|----|-----------------|---|

Lab ID: **J2002766008**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB29S**

Date Collected: 02/26/20 08:22

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed | Lab |
|------------|---------|------|-------|----|--------------|--------------|----------|-----|
|------------|---------|------|-------|----|--------------|--------------|----------|-----|

### METALS

Analysis Desc: SW846 6010B Analysis,Water

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6010

|           |            |          |      |          |     |     |                 |   |
|-----------|------------|----------|------|----------|-----|-----|-----------------|---|
| Arsenic   | <b>8.0</b> | <b>U</b> | ug/L | <b>1</b> | 32  | 8.0 | 3/10/2020 13:35 | J |
| Barium    | <b>7.2</b> | <b>I</b> | ug/L | <b>1</b> | 12  | 3.0 | 3/10/2020 13:35 | J |
| Beryllium | <b>2.0</b> | <b>U</b> | ug/L | <b>1</b> | 8.0 | 2.0 | 3/10/2020 13:35 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766008**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB29S**

Date Collected: 02/26/20 08:22

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| Cadmium    | 0.50    | U    | ug/L  | 1  | 2.0             | 0.50            | 3/10/2020 13:35 | J   |
| Chromium   | 5.0     | U    | ug/L  | 1  | 20              | 5.0             | 3/10/2020 13:35 | J   |
| Cobalt     | 1.0     | U    | ug/L  | 1  | 4.0             | 1.0             | 3/10/2020 13:35 | J   |
| Copper     | 10      | U    | ug/L  | 1  | 40              | 10              | 3/10/2020 13:35 | J   |
| Iron       | 270     | I    | ug/L  | 1  | 800             | 200             | 3/10/2020 13:35 | J   |
| Lead       | 3.0     | U    | ug/L  | 1  | 12              | 3.0             | 3/10/2020 13:35 | J   |
| Nickel     | 10      | U    | ug/L  | 1  | 40              | 10              | 3/10/2020 13:35 | J   |
| Silver     | 8.0     | U    | ug/L  | 1  | 32              | 8.0             | 3/10/2020 13:35 | J   |
| Sodium     | 16      |      | mg/L  | 1  | 3.2             | 0.80            | 3/10/2020 13:35 | J   |
| Vanadium   | 6.8     | I    | ug/L  | 1  | 8.0             | 2.0             | 3/10/2020 13:35 | J   |
| Zinc       | 50      | U    | ug/L  | 1  | 200             | 50              | 3/10/2020 13:35 | J   |

Analysis Desc: SW846 6020B  
Analysis, Total

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6020

|          |      |   |      |   |      |       |                 |   |
|----------|------|---|------|---|------|-------|-----------------|---|
| Antimony | 0.35 | I | ug/L | 1 | 0.70 | 0.11  | 3/15/2020 21:52 | J |
| Selenium | 0.58 | U | ug/L | 1 | 5.0  | 0.58  | 3/15/2020 21:52 | J |
| Thallium | 0.15 | I | ug/L | 1 | 0.20 | 0.057 | 3/15/2020 21:52 | J |

Analysis Desc: SW846 7470A  
Analysis, Water

Preparation Method: SW-846 7470A

Analytical Method: SW-846 7470A

|         |       |   |      |   |      |       |                 |   |
|---------|-------|---|------|---|------|-------|-----------------|---|
| Mercury | 0.011 | U | ug/L | 1 | 0.10 | 0.011 | 3/16/2020 15:51 | J |
|---------|-------|---|------|---|------|-------|-----------------|---|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B

|                             |      |   |      |   |     |      |                 |   |
|-----------------------------|------|---|------|---|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | 0.54 | U | ug/L | 1 | 1.0 | 0.54 | 3/10/2020 14:08 | J |
| 1,1,1-Trichloroethane       | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 14:08 | J |
| 1,1,2,2-Tetrachloroethane   | 0.20 | U | ug/L | 1 | 1.0 | 0.20 | 3/10/2020 14:08 | J |
| 1,1,2-Trichloroethane       | 0.30 | U | ug/L | 1 | 1.0 | 0.30 | 3/10/2020 14:08 | J |
| 1,1-Dichloroethane          | 0.14 | U | ug/L | 1 | 1.0 | 0.14 | 3/10/2020 14:08 | J |
| 1,1-Dichloroethylene        | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 14:08 | J |
| 1,2,3-Trichloropropane      | 0.91 | U | ug/L | 1 | 1.0 | 0.91 | 3/10/2020 14:08 | J |
| 1,2-Dibromo-3-Chloropropane | 3.1  | U | ug/L | 1 | 5.0 | 3.1  | 3/10/2020 14:08 | J |
| 1,2-Dichlorobenzene         | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 14:08 | J |
| 1,2-Dichloroethane          | 0.23 | U | ug/L | 1 | 1.0 | 0.23 | 3/10/2020 14:08 | J |
| 1,2-Dichloropropane         | 0.66 | U | ug/L | 1 | 1.0 | 0.66 | 3/10/2020 14:08 | J |
| 1,4-Dichlorobenzene         | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 14:08 | J |
| 2-Butanone (MEK)            | 0.43 | U | ug/L | 1 | 5.0 | 0.43 | 3/10/2020 14:08 | J |
| 2-Hexanone                  | 0.71 | U | ug/L | 1 | 5.0 | 0.71 | 3/10/2020 14:08 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766008**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB29S**

Date Collected: 02/26/20 08:22

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| 4-Methyl-2-pentanone (MIBK) | 0.47    | U    | ug/L  | 1  | 1.0             | 0.47            | 3/10/2020 14:08 | J   |
| Acetone                     | 2.1     | U    | ug/L  | 1  | 5.0             | 2.1             | 3/10/2020 14:08 | J   |
| Acrylonitrile               | 1.1     | U    | ug/L  | 1  | 10              | 1.1             | 3/10/2020 14:08 | J   |
| Benzene                     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 14:08 | J   |
| Bromochloromethane          | 0.17    | U    | ug/L  | 1  | 1.0             | 0.17            | 3/10/2020 14:08 | J   |
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/10/2020 14:08 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/10/2020 14:08 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 14:08 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/10/2020 14:08 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 14:08 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 14:08 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 14:08 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 14:08 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 14:08 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 14:08 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 14:08 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 14:08 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 14:08 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 14:08 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 14:08 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 14:08 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 14:08 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 14:08 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 14:08 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 14:08 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 14:08 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 14:08 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 14:08 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 14:08 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 14:08 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 14:08 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 14:08 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 14:08 | J   |
| 1,2-Dichloroethane-d4 (S)   | 91      |      | %     | 1  | 70-128          |                 | 3/10/2020 14:08 |     |
| Toluene-d8 (S)              | 91      |      | %     | 1  | 77-119          |                 | 3/10/2020 14:08 |     |
| Bromofluorobenzene (S)      | 104     |      | %     | 1  | 86-123          |                 | 3/10/2020 14:08 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |      |   |      |   |      |      |                 |   |
|-----------------------------|------|---|------|---|------|------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11 | U | ug/L | 1 | 0.20 | 0.11 | 3/10/2020 14:08 | J |
|-----------------------------|------|---|------|---|------|------|-----------------|---|

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766008**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB29S**

Date Collected: 02/26/20 08:22

Sample Description:

Location:

| Parameters                | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------|---------|------|-------|----|--------------|--------------|-----------------|-----|
| Ethylene Dibromide (EDB)  | 0.020   | U    | ug/L  | 1  | 0.10         | 0.020        | 3/10/2020 14:08 | J   |
| 1,2-Dichloroethane-d4 (S) | 88      |      | %     | 1  | 77-125       |              | 3/10/2020 14:08 |     |
| Toluene-d8 (S)            | 90      |      | %     | 1  | 80-121       |              | 3/10/2020 14:08 |     |
| Bromofluorobenzene (S)    | 96      |      | %     | 1  | 80-129       |              | 3/10/2020 14:08 |     |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |      |   |      |   |      |       |                 |   |
|----------------|------|---|------|---|------|-------|-----------------|---|
| Chloride       | 24   |   | mg/L | 1 | 5.0  | 0.50  | 2/27/2020 11:03 | J |
| Nitrate (as N) | 0.16 | I | mg/L | 1 | 0.50 | 0.050 | 2/27/2020 11:03 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |       |   |      |   |       |       |                |   |
|-------------|-------|---|------|---|-------|-------|----------------|---|
| Ammonia (N) | 0.040 | U | mg/L | 5 | 0.050 | 0.040 | 3/3/2020 14:24 | G |
|-------------|-------|---|------|---|-------|-------|----------------|---|

Analysis Desc: Tot Dissolved Solids,SM2540C

Analytical Method: SM 2540 C

|                        |     |  |      |   |    |    |                 |   |
|------------------------|-----|--|------|---|----|----|-----------------|---|
| Total Dissolved Solids | 130 |  | mg/L | 1 | 10 | 10 | 2/27/2020 14:33 | J |
|------------------------|-----|--|------|---|----|----|-----------------|---|

Lab ID: **J2002766009**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB13S**

Date Collected: 02/26/20 09:21

Sample Description:

Location:

| Parameters                                | Results | Qual | Units | DF                               | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-------------------------------------------|---------|------|-------|----------------------------------|--------------|--------------|-----------------|-----|
| <b>METALS</b>                             |         |      |       |                                  |              |              |                 |     |
| Analysis Desc: SW846 6010B Analysis,Water |         |      |       | Preparation Method: SW-846 3010A |              |              |                 |     |
|                                           |         |      |       | Analytical Method: SW-846 6010   |              |              |                 |     |
| Arsenic                                   | 8.0     | U    | ug/L  | 1                                | 32           | 8.0          | 3/10/2020 14:00 | J   |
| Barium                                    | 11      | I    | ug/L  | 1                                | 12           | 3.0          | 3/10/2020 14:00 | J   |
| Beryllium                                 | 2.0     | U    | ug/L  | 1                                | 8.0          | 2.0          | 3/10/2020 14:00 | J   |
| Cadmium                                   | 0.50    | U    | ug/L  | 1                                | 2.0          | 0.50         | 3/10/2020 14:00 | J   |
| Chromium                                  | 40      |      | ug/L  | 1                                | 20           | 5.0          | 3/10/2020 14:00 | J   |
| Cobalt                                    | 1.0     | U    | ug/L  | 1                                | 4.0          | 1.0          | 3/10/2020 14:00 | J   |
| Copper                                    | 10      | U    | ug/L  | 1                                | 40           | 10           | 3/10/2020 14:00 | J   |
| Iron                                      | 4200    |      | ug/L  | 1                                | 800          | 200          | 3/10/2020 14:00 | J   |
| Lead                                      | 3.1     | I    | ug/L  | 1                                | 12           | 3.0          | 3/10/2020 14:00 | J   |
| Nickel                                    | 10      | U    | ug/L  | 1                                | 40           | 10           | 3/10/2020 14:00 | J   |
| Silver                                    | 8.0     | U    | ug/L  | 1                                | 32           | 8.0          | 3/10/2020 14:00 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766009**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB13S**

Date Collected: 02/26/20 09:21

Sample Description:

Location:

| Parameters | Results   | Qual     | Units       | DF       | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|------------|-----------|----------|-------------|----------|-----------------|-----------------|-----------------|-----|
| Sodium     | <b>68</b> |          | <b>mg/L</b> | <b>1</b> | 3.2             | 0.80            | 3/10/2020 14:00 | J   |
| Vanadium   | <b>57</b> |          | <b>ug/L</b> | <b>1</b> | 8.0             | 2.0             | 3/10/2020 14:00 | J   |
| Zinc       | <b>50</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 200             | 50              | 3/10/2020 14:00 | J   |

Analysis Desc: SW846 6020B  
Analysis, Total

Preparation Method: SW-846 3010A  
Analytical Method: SW-846 6020

|          |              |          |             |          |      |       |                 |   |
|----------|--------------|----------|-------------|----------|------|-------|-----------------|---|
| Antimony | <b>0.35</b>  | <b>I</b> | <b>ug/L</b> | <b>1</b> | 0.70 | 0.11  | 3/15/2020 21:56 | J |
| Selenium | <b>5.5</b>   |          | <b>ug/L</b> | <b>1</b> | 5.0  | 0.58  | 3/15/2020 21:56 | J |
| Thallium | <b>0.085</b> | <b>I</b> | <b>ug/L</b> | <b>1</b> | 0.20 | 0.057 | 3/15/2020 21:56 | J |

Analysis Desc: SW846 7470A  
Analysis, Water

Preparation Method: SW-846 7470A  
Analytical Method: SW-846 7470A

|         |              |          |             |          |      |       |                 |   |
|---------|--------------|----------|-------------|----------|------|-------|-----------------|---|
| Mercury | <b>0.037</b> | <b>I</b> | <b>ug/L</b> | <b>1</b> | 0.10 | 0.011 | 3/16/2020 15:54 | J |
|---------|--------------|----------|-------------|----------|------|-------|-----------------|---|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis,  
Water

Preparation Method: SW-846 5030B  
Analytical Method: SW-846 8260B

|                             |             |          |             |          |     |      |                 |   |
|-----------------------------|-------------|----------|-------------|----------|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | <b>0.54</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.54 | 3/10/2020 14:34 | J |
| 1,1,1-Trichloroethane       | <b>0.22</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.22 | 3/10/2020 14:34 | J |
| 1,1,2,2-Tetrachloroethane   | <b>0.20</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.20 | 3/10/2020 14:34 | J |
| 1,1,2-Trichloroethane       | <b>0.30</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.30 | 3/10/2020 14:34 | J |
| 1,1-Dichloroethane          | <b>0.14</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.14 | 3/10/2020 14:34 | J |
| 1,1-Dichloroethylene        | <b>0.18</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.18 | 3/10/2020 14:34 | J |
| 1,2,3-Trichloropropane      | <b>0.91</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.91 | 3/10/2020 14:34 | J |
| 1,2-Dibromo-3-Chloropropane | <b>3.1</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0 | 3.1  | 3/10/2020 14:34 | J |
| 1,2-Dichlorobenzene         | <b>0.18</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.18 | 3/10/2020 14:34 | J |
| 1,2-Dichloroethane          | <b>0.23</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.23 | 3/10/2020 14:34 | J |
| 1,2-Dichloropropane         | <b>0.66</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.66 | 3/10/2020 14:34 | J |
| 1,4-Dichlorobenzene         | <b>0.22</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.22 | 3/10/2020 14:34 | J |
| 2-Butanone (MEK)            | <b>0.43</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0 | 0.43 | 3/10/2020 14:34 | J |
| 2-Hexanone                  | <b>0.71</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0 | 0.71 | 3/10/2020 14:34 | J |
| 4-Methyl-2-pentanone (MIBK) | <b>0.47</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.47 | 3/10/2020 14:34 | J |
| Acetone                     | <b>2.1</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0 | 2.1  | 3/10/2020 14:34 | J |
| Acrylonitrile               | <b>1.1</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 10  | 1.1  | 3/10/2020 14:34 | J |
| Benzene                     | <b>0.16</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.16 | 3/10/2020 14:34 | J |
| Bromochloromethane          | <b>0.17</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.17 | 3/10/2020 14:34 | J |
| Bromodichloromethane        | <b>0.46</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.46 | 3/10/2020 14:34 | J |
| Bromoform                   | <b>0.44</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.44 | 3/10/2020 14:34 | J |
| Bromomethane                | <b>0.29</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.29 | 3/10/2020 14:34 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: J2002766009

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: MWB13S

Date Collected: 02/26/20 09:21

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|--------------|--------------|-----------------|-----|
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0          | 0.67         | 3/10/2020 14:34 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0          | 0.36         | 3/10/2020 14:34 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0          | 0.21         | 3/10/2020 14:34 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0          | 0.33         | 3/10/2020 14:34 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0          | 0.18         | 3/10/2020 14:34 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0          | 0.21         | 3/10/2020 14:34 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0          | 0.33         | 3/10/2020 14:34 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0          | 0.26         | 3/10/2020 14:34 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0          | 0.24         | 3/10/2020 14:34 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 14:34 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0          | 0.16         | 3/10/2020 14:34 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0          | 2.5          | 3/10/2020 14:34 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0          | 0.23         | 3/10/2020 14:34 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0          | 0.36         | 3/10/2020 14:34 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0          | 0.23         | 3/10/2020 14:34 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0          | 0.29         | 3/10/2020 14:34 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0          | 0.32         | 3/10/2020 14:34 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0          | 0.19         | 3/10/2020 14:34 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 14:34 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0          | 0.53         | 3/10/2020 14:34 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0          | 0.24         | 3/10/2020 14:34 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0          | 0.16         | 3/10/2020 14:34 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 14:34 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0          | 0.21         | 3/10/2020 14:34 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10           | 1.8          | 3/10/2020 14:34 | J   |
| 1,2-Dichloroethane-d4 (S)   | 93      |      | %     | 1  | 70-128       |              | 3/10/2020 14:34 |     |
| Toluene-d8 (S)              | 90      |      | %     | 1  | 77-119       |              | 3/10/2020 14:34 |     |
| Bromofluorobenzene (S)      | 103     |      | %     | 1  | 86-123       |              | 3/10/2020 14:34 |     |

Analysis Desc: 8260B SIM Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/10/2020 14:34 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/10/2020 14:34 | J |
| 1,2-Dichloroethane-d4 (S)   | 89    |   | %    | 1 | 77-125 |       | 3/10/2020 14:34 |   |
| Toluene-d8 (S)              | 90    |   | %    | 1 | 80-121 |       | 3/10/2020 14:34 |   |
| Bromofluorobenzene (S)      | 97    |   | %    | 1 | 80-129 |       | 3/10/2020 14:34 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766009**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB13S**

Date Collected: 02/26/20 09:21

Sample Description:

Location:

| Parameters                                                               | Results      | Qual     | Units       | DF       | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|--------------------------------------------------------------------------|--------------|----------|-------------|----------|-----------------|-----------------|-----------------|-----|
| Chloride                                                                 | <b>190</b>   |          | <b>mg/L</b> | <b>1</b> | 5.0             | 0.50            | 2/27/2020 11:47 | J   |
| Nitrate (as N)                                                           | <b>0.32</b>  | <b>I</b> | <b>mg/L</b> | <b>1</b> | 0.50            | 0.050           | 2/27/2020 11:47 | J   |
| Analysis Desc: Ammonia,E350.1,Water Analytical Method: EPA 350.1         |              |          |             |          |                 |                 |                 |     |
| Ammonia (N)                                                              | <b>0.040</b> | <b>U</b> | <b>mg/L</b> | <b>5</b> | 0.050           | 0.040           | 3/3/2020 14:25  | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C Analytical Method: SM 2540 C |              |          |             |          |                 |                 |                 |     |
| Total Dissolved Solids                                                   | <b>470</b>   |          | <b>mg/L</b> | <b>1</b> | 10              | 10              | 2/27/2020 14:33 | J   |

Lab ID: **J2002766010**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB22S**

Date Collected: 02/26/20 09:53

Sample Description:

Location:

| Parameters                                                  | Results     | Qual     | Units       | DF       | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-------------------------------------------------------------|-------------|----------|-------------|----------|-----------------|-----------------|-----------------|-----|
| <b>METALS</b>                                               |             |          |             |          |                 |                 |                 |     |
| Analysis Desc: SW846 6010B Preparation Method: SW-846 3010A |             |          |             |          |                 |                 |                 |     |
| Analysis,Water Analytical Method: SW-846 6010               |             |          |             |          |                 |                 |                 |     |
| Arsenic                                                     | <b>8.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 32              | 8.0             | 3/10/2020 14:03 | J   |
| Barium                                                      | <b>3.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 12              | 3.0             | 3/10/2020 14:03 | J   |
| Beryllium                                                   | <b>2.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 8.0             | 2.0             | 3/10/2020 14:03 | J   |
| Cadmium                                                     | <b>0.50</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 2.0             | 0.50            | 3/10/2020 14:03 | J   |
| Chromium                                                    | <b>5.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 20              | 5.0             | 3/10/2020 14:03 | J   |
| Cobalt                                                      | <b>1.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 4.0             | 1.0             | 3/10/2020 14:03 | J   |
| Copper                                                      | <b>10</b>   | <b>U</b> | <b>ug/L</b> | <b>1</b> | 40              | 10              | 3/10/2020 14:03 | J   |
| Iron                                                        | <b>200</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 800             | 200             | 3/10/2020 14:03 | J   |
| Lead                                                        | <b>3.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 12              | 3.0             | 3/10/2020 14:03 | J   |
| Nickel                                                      | <b>10</b>   | <b>U</b> | <b>ug/L</b> | <b>1</b> | 40              | 10              | 3/10/2020 14:03 | J   |
| Silver                                                      | <b>8.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 32              | 8.0             | 3/10/2020 14:03 | J   |
| Sodium                                                      | <b>59</b>   |          | <b>mg/L</b> | <b>1</b> | 3.2             | 0.80            | 3/10/2020 14:03 | J   |
| Vanadium                                                    | <b>3.9</b>  | <b>I</b> | <b>ug/L</b> | <b>1</b> | 8.0             | 2.0             | 3/10/2020 14:03 | J   |
| Zinc                                                        | <b>50</b>   | <b>U</b> | <b>ug/L</b> | <b>1</b> | 200             | 50              | 3/10/2020 14:03 | J   |
| Analysis Desc: SW846 6020B Preparation Method: SW-846 3010A |             |          |             |          |                 |                 |                 |     |
| Analysis,Total Analytical Method: SW-846 6020               |             |          |             |          |                 |                 |                 |     |
| Antimony                                                    | <b>0.24</b> | <b>I</b> | <b>ug/L</b> | <b>1</b> | 0.70            | 0.11            | 3/15/2020 22:04 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766010**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB22S**

Date Collected: 02/26/20 09:53

Sample Description:

Location:

| Parameters | Results      | Qual     | Units       | DF       | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|------------|--------------|----------|-------------|----------|-----------------|-----------------|-----------------|-----|
| Selenium   | <b>0.58</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0             | 0.58            | 3/15/2020 22:04 | J   |
| Thallium   | <b>0.057</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 0.20            | 0.057           | 3/15/2020 22:04 | J   |

Analysis Desc: SW846 7470A  
Analysis, Water

Preparation Method: SW-846 7470A  
Analytical Method: SW-846 7470A

|         |              |          |             |          |      |       |                 |   |
|---------|--------------|----------|-------------|----------|------|-------|-----------------|---|
| Mercury | <b>0.011</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 0.10 | 0.011 | 3/16/2020 15:57 | J |
|---------|--------------|----------|-------------|----------|------|-------|-----------------|---|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis,  
Water

Preparation Method: SW-846 5030B  
Analytical Method: SW-846 8260B

|                             |             |          |             |          |     |      |                 |   |
|-----------------------------|-------------|----------|-------------|----------|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | <b>0.54</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.54 | 3/10/2020 15:01 | J |
| 1,1,1-Trichloroethane       | <b>0.22</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.22 | 3/10/2020 15:01 | J |
| 1,1,2,2-Tetrachloroethane   | <b>0.20</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.20 | 3/10/2020 15:01 | J |
| 1,1,2-Trichloroethane       | <b>0.30</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.30 | 3/10/2020 15:01 | J |
| 1,1-Dichloroethane          | <b>0.14</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.14 | 3/10/2020 15:01 | J |
| 1,1-Dichloroethylene        | <b>0.18</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.18 | 3/10/2020 15:01 | J |
| 1,2,3-Trichloropropane      | <b>0.91</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.91 | 3/10/2020 15:01 | J |
| 1,2-Dibromo-3-Chloropropane | <b>3.1</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0 | 3.1  | 3/10/2020 15:01 | J |
| 1,2-Dichlorobenzene         | <b>0.18</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.18 | 3/10/2020 15:01 | J |
| 1,2-Dichloroethane          | <b>0.23</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.23 | 3/10/2020 15:01 | J |
| 1,2-Dichloropropane         | <b>0.66</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.66 | 3/10/2020 15:01 | J |
| 1,4-Dichlorobenzene         | <b>0.22</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.22 | 3/10/2020 15:01 | J |
| 2-Butanone (MEK)            | <b>0.43</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0 | 0.43 | 3/10/2020 15:01 | J |
| 2-Hexanone                  | <b>0.71</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0 | 0.71 | 3/10/2020 15:01 | J |
| 4-Methyl-2-pentanone (MIBK) | <b>0.47</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.47 | 3/10/2020 15:01 | J |
| Acetone                     | <b>2.1</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0 | 2.1  | 3/10/2020 15:01 | J |
| Acrylonitrile               | <b>1.1</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 10  | 1.1  | 3/10/2020 15:01 | J |
| Benzene                     | <b>0.16</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.16 | 3/10/2020 15:01 | J |
| Bromochloromethane          | <b>0.17</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.17 | 3/10/2020 15:01 | J |
| Bromodichloromethane        | <b>0.46</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.46 | 3/10/2020 15:01 | J |
| Bromoform                   | <b>0.44</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.44 | 3/10/2020 15:01 | J |
| Bromomethane                | <b>0.29</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.29 | 3/10/2020 15:01 | J |
| Carbon Disulfide            | <b>0.67</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.67 | 3/10/2020 15:01 | J |
| Carbon Tetrachloride        | <b>0.36</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.36 | 3/10/2020 15:01 | J |
| Chlorobenzene               | <b>0.21</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.21 | 3/10/2020 15:01 | J |
| Chloroethane                | <b>0.33</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.33 | 3/10/2020 15:01 | J |
| Chloroform                  | <b>0.18</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.18 | 3/10/2020 15:01 | J |
| Chloromethane               | <b>0.21</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.21 | 3/10/2020 15:01 | J |
| Dibromochloromethane        | <b>0.33</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.33 | 3/10/2020 15:01 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766010**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB22S**

Date Collected: 02/26/20 09:53

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|--------------|--------------|-----------------|-----|
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0          | 0.26         | 3/10/2020 15:01 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0          | 0.24         | 3/10/2020 15:01 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 15:01 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0          | 0.16         | 3/10/2020 15:01 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0          | 2.5          | 3/10/2020 15:01 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0          | 0.23         | 3/10/2020 15:01 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0          | 0.36         | 3/10/2020 15:01 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0          | 0.23         | 3/10/2020 15:01 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0          | 0.29         | 3/10/2020 15:01 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0          | 0.32         | 3/10/2020 15:01 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0          | 0.19         | 3/10/2020 15:01 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 15:01 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0          | 0.53         | 3/10/2020 15:01 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0          | 0.24         | 3/10/2020 15:01 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0          | 0.16         | 3/10/2020 15:01 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 15:01 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0          | 0.21         | 3/10/2020 15:01 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10           | 1.8          | 3/10/2020 15:01 | J   |
| 1,2-Dichloroethane-d4 (S)   | 95      |      | %     | 1  | 70-128       |              | 3/10/2020 15:01 |     |
| Toluene-d8 (S)              | 90      |      | %     | 1  | 77-119       |              | 3/10/2020 15:01 |     |
| Bromofluorobenzene (S)      | 102     |      | %     | 1  | 86-123       |              | 3/10/2020 15:01 |     |

Analysis Desc: 8260B SIM Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/10/2020 15:01 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/10/2020 15:01 | J |
| 1,2-Dichloroethane-d4 (S)   | 90    |   | %    | 1 | 77-125 |       | 3/10/2020 15:01 |   |
| Toluene-d8 (S)              | 89    |   | %    | 1 | 80-121 |       | 3/10/2020 15:01 |   |
| Bromofluorobenzene (S)      | 95    |   | %    | 1 | 80-129 |       | 3/10/2020 15:01 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |      |   |      |   |      |       |                 |   |
|----------------|------|---|------|---|------|-------|-----------------|---|
| Chloride       | 98   |   | mg/L | 1 | 5.0  | 0.50  | 2/27/2020 12:09 | J |
| Nitrate (as N) | 0.12 | I | mg/L | 1 | 0.50 | 0.050 | 2/27/2020 12:09 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |       |   |      |   |       |       |                |   |
|-------------|-------|---|------|---|-------|-------|----------------|---|
| Ammonia (N) | 0.040 | U | mg/L | 5 | 0.050 | 0.040 | 3/3/2020 14:26 | G |
|-------------|-------|---|------|---|-------|-------|----------------|---|

Analysis Desc: Tot Dissolved Solids,SM2540C

Analytical Method: SM 2540 C

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766010**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB22S**

Date Collected: 02/26/20 09:53

Sample Description:

Location:

| Parameters             | Results    | Qual | Units       | DF       | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|------------------------|------------|------|-------------|----------|-----------------|-----------------|----------------|-----|
| Total Dissolved Solids | <b>370</b> |      | <b>mg/L</b> | <b>1</b> | 10              | 10              | 3/3/2020 14:46 | J   |

Lab ID: **J2002766011**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB12S**

Date Collected: 02/26/20 10:53

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed | Lab |
|------------|---------|------|-------|----|-----------------|-----------------|----------|-----|
|------------|---------|------|-------|----|-----------------|-----------------|----------|-----|

### METALS

Analysis Desc: SW846 6010B  
Analysis,Water

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6010

|           |             |          |             |          |     |      |                 |   |
|-----------|-------------|----------|-------------|----------|-----|------|-----------------|---|
| Arsenic   | <b>8.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 32  | 8.0  | 3/10/2020 14:07 | J |
| Barium    | <b>5.3</b>  | <b>I</b> | <b>ug/L</b> | <b>1</b> | 12  | 3.0  | 3/10/2020 14:07 | J |
| Beryllium | <b>2.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 8.0 | 2.0  | 3/10/2020 14:07 | J |
| Cadmium   | <b>0.50</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 2.0 | 0.50 | 3/10/2020 14:07 | J |
| Chromium  | <b>5.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 20  | 5.0  | 3/10/2020 14:07 | J |
| Cobalt    | <b>1.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 4.0 | 1.0  | 3/10/2020 14:07 | J |
| Copper    | <b>10</b>   | <b>U</b> | <b>ug/L</b> | <b>1</b> | 40  | 10   | 3/10/2020 14:07 | J |
| Iron      | <b>700</b>  | <b>I</b> | <b>ug/L</b> | <b>1</b> | 800 | 200  | 3/10/2020 14:07 | J |
| Lead      | <b>3.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 12  | 3.0  | 3/10/2020 14:07 | J |
| Nickel    | <b>10</b>   | <b>U</b> | <b>ug/L</b> | <b>1</b> | 40  | 10   | 3/10/2020 14:07 | J |
| Silver    | <b>8.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 32  | 8.0  | 3/10/2020 14:07 | J |
| Sodium    | <b>17</b>   |          | <b>mg/L</b> | <b>1</b> | 3.2 | 0.80 | 3/10/2020 14:07 | J |
| Vanadium  | <b>30</b>   |          | <b>ug/L</b> | <b>1</b> | 8.0 | 2.0  | 3/10/2020 14:07 | J |
| Zinc      | <b>50</b>   | <b>U</b> | <b>ug/L</b> | <b>1</b> | 200 | 50   | 3/10/2020 14:07 | J |

Analysis Desc: SW846 6020B  
Analysis,Total

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6020

|          |              |          |             |          |      |       |                 |   |
|----------|--------------|----------|-------------|----------|------|-------|-----------------|---|
| Antimony | <b>0.46</b>  | <b>I</b> | <b>ug/L</b> | <b>1</b> | 0.70 | 0.11  | 3/15/2020 22:23 | J |
| Selenium | <b>16</b>    |          | <b>ug/L</b> | <b>1</b> | 5.0  | 0.58  | 3/15/2020 22:23 | J |
| Thallium | <b>0.057</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 0.20 | 0.057 | 3/15/2020 22:23 | J |

Analysis Desc: SW846 7470A  
Analysis,Water

Preparation Method: SW-846 7470A

Analytical Method: SW-846 7470A

|         |              |          |             |          |      |       |                 |   |
|---------|--------------|----------|-------------|----------|------|-------|-----------------|---|
| Mercury | <b>0.021</b> | <b>I</b> | <b>ug/L</b> | <b>1</b> | 0.10 | 0.011 | 3/16/2020 16:01 | J |
|---------|--------------|----------|-------------|----------|------|-------|-----------------|---|

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766011**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB12S**

Date Collected: 02/26/20 10:53

Sample Description:

Location:

| Parameters                                   | Results | Qual | Units                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|----------------------------------------------|---------|------|----------------------------------|----|-----------------|-----------------|-----------------|-----|
| <b>VOLATILES</b>                             |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: 8260B VOCs Analysis,<br>Water |         |      | Preparation Method: SW-846 5030B |    |                 |                 |                 |     |
|                                              |         |      | Analytical Method: SW-846 8260B  |    |                 |                 |                 |     |
| 1,1,1,2-Tetrachloroethane                    | 0.54    | U    | ug/L                             | 1  | 1.0             | 0.54            | 3/10/2020 15:27 | J   |
| 1,1,1-Trichloroethane                        | 0.22    | U    | ug/L                             | 1  | 1.0             | 0.22            | 3/10/2020 15:27 | J   |
| 1,1,2,2-Tetrachloroethane                    | 0.20    | U    | ug/L                             | 1  | 1.0             | 0.20            | 3/10/2020 15:27 | J   |
| 1,1,2-Trichloroethane                        | 0.30    | U    | ug/L                             | 1  | 1.0             | 0.30            | 3/10/2020 15:27 | J   |
| 1,1-Dichloroethane                           | 0.14    | U    | ug/L                             | 1  | 1.0             | 0.14            | 3/10/2020 15:27 | J   |
| 1,1-Dichloroethylene                         | 0.18    | U    | ug/L                             | 1  | 1.0             | 0.18            | 3/10/2020 15:27 | J   |
| 1,2,3-Trichloropropane                       | 0.91    | U    | ug/L                             | 1  | 1.0             | 0.91            | 3/10/2020 15:27 | J   |
| 1,2-Dibromo-3-Chloropropane                  | 3.1     | U    | ug/L                             | 1  | 5.0             | 3.1             | 3/10/2020 15:27 | J   |
| 1,2-Dichlorobenzene                          | 0.18    | U    | ug/L                             | 1  | 1.0             | 0.18            | 3/10/2020 15:27 | J   |
| 1,2-Dichloroethane                           | 0.23    | U    | ug/L                             | 1  | 1.0             | 0.23            | 3/10/2020 15:27 | J   |
| 1,2-Dichloropropane                          | 0.66    | U    | ug/L                             | 1  | 1.0             | 0.66            | 3/10/2020 15:27 | J   |
| 1,4-Dichlorobenzene                          | 0.22    | U    | ug/L                             | 1  | 1.0             | 0.22            | 3/10/2020 15:27 | J   |
| 2-Butanone (MEK)                             | 0.43    | U    | ug/L                             | 1  | 5.0             | 0.43            | 3/10/2020 15:27 | J   |
| 2-Hexanone                                   | 0.71    | U    | ug/L                             | 1  | 5.0             | 0.71            | 3/10/2020 15:27 | J   |
| 4-Methyl-2-pentanone (MIBK)                  | 0.47    | U    | ug/L                             | 1  | 1.0             | 0.47            | 3/10/2020 15:27 | J   |
| Acetone                                      | 2.1     | U    | ug/L                             | 1  | 5.0             | 2.1             | 3/10/2020 15:27 | J   |
| Acrylonitrile                                | 1.1     | U    | ug/L                             | 1  | 10              | 1.1             | 3/10/2020 15:27 | J   |
| Benzene                                      | 0.16    | U    | ug/L                             | 1  | 1.0             | 0.16            | 3/10/2020 15:27 | J   |
| Bromochloromethane                           | 0.17    | U    | ug/L                             | 1  | 1.0             | 0.17            | 3/10/2020 15:27 | J   |
| Bromodichloromethane                         | 0.46    | U    | ug/L                             | 1  | 1.0             | 0.46            | 3/10/2020 15:27 | J   |
| Bromoform                                    | 0.44    | U    | ug/L                             | 1  | 1.0             | 0.44            | 3/10/2020 15:27 | J   |
| Bromomethane                                 | 0.29    | U    | ug/L                             | 1  | 1.0             | 0.29            | 3/10/2020 15:27 | J   |
| Carbon Disulfide                             | 0.67    | U    | ug/L                             | 1  | 1.0             | 0.67            | 3/10/2020 15:27 | J   |
| Carbon Tetrachloride                         | 0.36    | U    | ug/L                             | 1  | 1.0             | 0.36            | 3/10/2020 15:27 | J   |
| Chlorobenzene                                | 0.21    | U    | ug/L                             | 1  | 1.0             | 0.21            | 3/10/2020 15:27 | J   |
| Chloroethane                                 | 0.33    | U    | ug/L                             | 1  | 1.0             | 0.33            | 3/10/2020 15:27 | J   |
| Chloroform                                   | 0.18    | U    | ug/L                             | 1  | 1.0             | 0.18            | 3/10/2020 15:27 | J   |
| Chloromethane                                | 0.21    | U    | ug/L                             | 1  | 1.0             | 0.21            | 3/10/2020 15:27 | J   |
| Dibromochloromethane                         | 0.33    | U    | ug/L                             | 1  | 1.0             | 0.33            | 3/10/2020 15:27 | J   |
| Dibromomethane                               | 0.26    | U    | ug/L                             | 1  | 1.0             | 0.26            | 3/10/2020 15:27 | J   |
| Ethylbenzene                                 | 0.24    | U    | ug/L                             | 1  | 1.0             | 0.24            | 3/10/2020 15:27 | J   |
| Ethylene Dibromide (EDB)                     | 0.20    | U    | ug/L                             | 1  | 1.0             | 0.20            | 3/10/2020 15:27 | J   |
| Iodomethane (Methyl Iodide)                  | 0.16    | U    | ug/L                             | 1  | 1.0             | 0.16            | 3/10/2020 15:27 | J   |
| Methylene Chloride                           | 2.5     | U    | ug/L                             | 1  | 5.0             | 2.5             | 3/10/2020 15:27 | J   |
| Styrene                                      | 0.23    | U    | ug/L                             | 1  | 1.0             | 0.23            | 3/10/2020 15:27 | J   |
| Tetrachloroethylene (PCE)                    | 0.36    | U    | ug/L                             | 1  | 1.0             | 0.36            | 3/10/2020 15:27 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766011**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB12S**

Date Collected: 02/26/20 10:53

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 15:27 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 15:27 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 15:27 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 15:27 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 15:27 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 15:27 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 15:27 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 15:27 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 15:27 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 15:27 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 15:27 | J   |
| 1,2-Dichloroethane-d4 (S)   | 93      |      | %     | 1  | 70-128          |                 | 3/10/2020 15:27 |     |
| Toluene-d8 (S)              | 90      |      | %     | 1  | 77-119          |                 | 3/10/2020 15:27 |     |
| Bromofluorobenzene (S)      | 106     |      | %     | 1  | 86-123          |                 | 3/10/2020 15:27 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/10/2020 15:27 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/10/2020 15:27 | J |
| 1,2-Dichloroethane-d4 (S)   | 89    |   | %    | 1 | 77-125 |       | 3/10/2020 15:27 |   |
| Toluene-d8 (S)              | 90    |   | %    | 1 | 80-121 |       | 3/10/2020 15:27 |   |
| Bromofluorobenzene (S)      | 98    |   | %    | 1 | 80-129 |       | 3/10/2020 15:27 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |      |   |      |   |      |       |                 |   |
|----------------|------|---|------|---|------|-------|-----------------|---|
| Chloride       | 28   |   | mg/L | 1 | 5.0  | 0.50  | 2/27/2020 14:22 | J |
| Nitrate (as N) | 0.20 | I | mg/L | 1 | 0.50 | 0.050 | 2/27/2020 14:22 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |       |   |      |   |       |       |                |   |
|-------------|-------|---|------|---|-------|-------|----------------|---|
| Ammonia (N) | 0.040 | U | mg/L | 5 | 0.050 | 0.040 | 3/3/2020 14:28 | G |
|-------------|-------|---|------|---|-------|-------|----------------|---|

Analysis Desc: Tot Dissolved  
Solids,SM2540C

Analytical Method: SM 2540 C

|                        |     |  |      |   |    |    |                |   |
|------------------------|-----|--|------|---|----|----|----------------|---|
| Total Dissolved Solids | 220 |  | mg/L | 1 | 10 | 10 | 3/3/2020 14:46 | J |
|------------------------|-----|--|------|---|----|----|----------------|---|

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766012**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB2S**

Date Collected: 02/26/20 11:54

Sample Description:

Location:

| Parameters                                | Results | Qual | Units                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-------------------------------------------|---------|------|----------------------------------|----|-----------------|-----------------|-----------------|-----|
| <b>METALS</b>                             |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 6010B                |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Water                           |         |      | Analytical Method: SW-846 6010   |    |                 |                 |                 |     |
| Arsenic                                   | 8.0     | U    | ug/L                             | 1  | 32              | 8.0             | 3/10/2020 14:10 | J   |
| Barium                                    | 7.7     | I    | ug/L                             | 1  | 12              | 3.0             | 3/10/2020 14:10 | J   |
| Beryllium                                 | 2.0     | U    | ug/L                             | 1  | 8.0             | 2.0             | 3/10/2020 14:10 | J   |
| Cadmium                                   | 0.50    | U    | ug/L                             | 1  | 2.0             | 0.50            | 3/10/2020 14:10 | J   |
| Chromium                                  | 5.0     | U    | ug/L                             | 1  | 20              | 5.0             | 3/10/2020 14:10 | J   |
| Cobalt                                    | 1.0     | U    | ug/L                             | 1  | 4.0             | 1.0             | 3/10/2020 14:10 | J   |
| Copper                                    | 10      | U    | ug/L                             | 1  | 40              | 10              | 3/10/2020 14:10 | J   |
| Iron                                      | 800     |      | ug/L                             | 1  | 800             | 200             | 3/10/2020 14:10 | J   |
| Lead                                      | 15      |      | ug/L                             | 1  | 12              | 3.0             | 3/10/2020 14:10 | J   |
| Nickel                                    | 10      | U    | ug/L                             | 1  | 40              | 10              | 3/10/2020 14:10 | J   |
| Silver                                    | 8.0     | U    | ug/L                             | 1  | 32              | 8.0             | 3/10/2020 14:10 | J   |
| Sodium                                    | 1.9     | I    | mg/L                             | 1  | 3.2             | 0.80            | 3/10/2020 14:10 | J   |
| Vanadium                                  | 3.3     | I    | ug/L                             | 1  | 8.0             | 2.0             | 3/10/2020 14:10 | J   |
| Zinc                                      | 50      | U    | ug/L                             | 1  | 200             | 50              | 3/10/2020 14:10 | J   |
| Analysis Desc: SW846 6020B                |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Total                           |         |      | Analytical Method: SW-846 6020   |    |                 |                 |                 |     |
| Antimony                                  | 0.17    | I    | ug/L                             | 1  | 0.70            | 0.11            | 3/15/2020 22:29 | J   |
| Selenium                                  | 0.58    | U    | ug/L                             | 1  | 5.0             | 0.58            | 3/15/2020 22:29 | J   |
| Thallium                                  | 0.057   | U    | ug/L                             | 1  | 0.20            | 0.057           | 3/15/2020 22:29 | J   |
| Analysis Desc: SW846 7470A                |         |      | Preparation Method: SW-846 7470A |    |                 |                 |                 |     |
| Analysis, Water                           |         |      | Analytical Method: SW-846 7470A  |    |                 |                 |                 |     |
| Mercury                                   | 0.077   | I    | ug/L                             | 1  | 0.10            | 0.011           | 3/16/2020 16:04 | J   |
| <b>VOLATILES</b>                          |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: 8260B VOCs Analysis, Water |         |      | Preparation Method: SW-846 5030B |    |                 |                 |                 |     |
|                                           |         |      | Analytical Method: SW-846 8260B  |    |                 |                 |                 |     |
| 1,1,1,2-Tetrachloroethane                 | 0.54    | U    | ug/L                             | 1  | 1.0             | 0.54            | 3/10/2020 15:54 | J   |
| 1,1,1-Trichloroethane                     | 0.22    | U    | ug/L                             | 1  | 1.0             | 0.22            | 3/10/2020 15:54 | J   |
| 1,1,2,2-Tetrachloroethane                 | 0.20    | U    | ug/L                             | 1  | 1.0             | 0.20            | 3/10/2020 15:54 | J   |
| 1,1,2-Trichloroethane                     | 0.30    | U    | ug/L                             | 1  | 1.0             | 0.30            | 3/10/2020 15:54 | J   |
| 1,1-Dichloroethane                        | 0.14    | U    | ug/L                             | 1  | 1.0             | 0.14            | 3/10/2020 15:54 | J   |
| 1,1-Dichloroethylene                      | 0.18    | U    | ug/L                             | 1  | 1.0             | 0.18            | 3/10/2020 15:54 | J   |
| 1,2,3-Trichloropropane                    | 0.91    | U    | ug/L                             | 1  | 1.0             | 0.91            | 3/10/2020 15:54 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766012**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB2S**

Date Collected: 02/26/20 11:54

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| 1,2-Dibromo-3-Chloropropane | 3.1     | U    | ug/L  | 1  | 5.0             | 3.1             | 3/10/2020 15:54 | J   |
| 1,2-Dichlorobenzene         | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 15:54 | J   |
| 1,2-Dichloroethane          | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 15:54 | J   |
| 1,2-Dichloropropane         | 0.66    | U    | ug/L  | 1  | 1.0             | 0.66            | 3/10/2020 15:54 | J   |
| 1,4-Dichlorobenzene         | 0.22    | U    | ug/L  | 1  | 1.0             | 0.22            | 3/10/2020 15:54 | J   |
| 2-Butanone (MEK)            | 0.43    | U    | ug/L  | 1  | 5.0             | 0.43            | 3/10/2020 15:54 | J   |
| 2-Hexanone                  | 0.71    | U    | ug/L  | 1  | 5.0             | 0.71            | 3/10/2020 15:54 | J   |
| 4-Methyl-2-pentanone (MIBK) | 0.47    | U    | ug/L  | 1  | 1.0             | 0.47            | 3/10/2020 15:54 | J   |
| Acetone                     | 2.1     | U    | ug/L  | 1  | 5.0             | 2.1             | 3/10/2020 15:54 | J   |
| Acrylonitrile               | 1.1     | U    | ug/L  | 1  | 10              | 1.1             | 3/10/2020 15:54 | J   |
| Benzene                     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 15:54 | J   |
| Bromochloromethane          | 0.17    | U    | ug/L  | 1  | 1.0             | 0.17            | 3/10/2020 15:54 | J   |
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/10/2020 15:54 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/10/2020 15:54 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 15:54 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/10/2020 15:54 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 15:54 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 15:54 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 15:54 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 15:54 | J   |
| Chloromethane               | 2.3     |      | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 15:54 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 15:54 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 15:54 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 15:54 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 15:54 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 15:54 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 15:54 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 15:54 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 15:54 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 15:54 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 15:54 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 15:54 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 15:54 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 15:54 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 15:54 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 15:54 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 15:54 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 15:54 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 15:54 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 15:54 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766012**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB2S**

Date Collected: 02/26/20 11:54

Sample Description:

Location:

| Parameters                | Results    | Qual | Units | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------|------------|------|-------|----------|--------------|--------------|-----------------|-----|
| 1,2-Dichloroethane-d4 (S) | <b>94</b>  |      | %     | <b>1</b> | 70-128       |              | 3/10/2020 15:54 |     |
| Toluene-d8 (S)            | <b>88</b>  |      | %     | <b>1</b> | 77-119       |              | 3/10/2020 15:54 |     |
| Bromofluorobenzene (S)    | <b>101</b> |      | %     | <b>1</b> | 86-123       |              | 3/10/2020 15:54 |     |

Analysis Desc: 8260B SIM Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |              |          |      |          |        |       |                 |   |
|-----------------------------|--------------|----------|------|----------|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | <b>0.11</b>  | <b>U</b> | ug/L | <b>1</b> | 0.20   | 0.11  | 3/10/2020 15:54 | J |
| Ethylene Dibromide (EDB)    | <b>0.020</b> | <b>U</b> | ug/L | <b>1</b> | 0.10   | 0.020 | 3/10/2020 15:54 | J |
| 1,2-Dichloroethane-d4 (S)   | <b>90</b>    |          | %    | <b>1</b> | 77-125 |       | 3/10/2020 15:54 |   |
| Toluene-d8 (S)              | <b>88</b>    |          | %    | <b>1</b> | 80-121 |       | 3/10/2020 15:54 |   |
| Bromofluorobenzene (S)      | <b>95</b>    |          | %    | <b>1</b> | 80-129 |       | 3/10/2020 15:54 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |             |          |      |          |      |       |                 |   |
|----------------|-------------|----------|------|----------|------|-------|-----------------|---|
| Chloride       | <b>1.3</b>  | <b>I</b> | mg/L | <b>1</b> | 5.0  | 0.50  | 2/27/2020 15:28 | J |
| Nitrate (as N) | <b>0.18</b> | <b>I</b> | mg/L | <b>1</b> | 0.50 | 0.050 | 2/27/2020 15:28 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |              |          |      |          |       |       |                |   |
|-------------|--------------|----------|------|----------|-------|-------|----------------|---|
| Ammonia (N) | <b>0.040</b> | <b>U</b> | mg/L | <b>5</b> | 0.050 | 0.040 | 3/3/2020 14:29 | G |
|-------------|--------------|----------|------|----------|-------|-------|----------------|---|

Analysis Desc: Tot Dissolved Solids,SM2540C

Analytical Method: SM 2540 C

|                        |           |  |      |          |    |    |                |   |
|------------------------|-----------|--|------|----------|----|----|----------------|---|
| Total Dissolved Solids | <b>93</b> |  | mg/L | <b>1</b> | 10 | 10 | 3/3/2020 14:46 | J |
|------------------------|-----------|--|------|----------|----|----|----------------|---|

Lab ID: **J2002766013**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB20S**

Date Collected: 02/26/20 13:01

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed | Lab |
|------------|---------|------|-------|----|--------------|--------------|----------|-----|
|------------|---------|------|-------|----|--------------|--------------|----------|-----|

### METALS

Analysis Desc: SW846 6010B Analysis,Water

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6010

|           |            |          |      |          |     |     |                 |   |
|-----------|------------|----------|------|----------|-----|-----|-----------------|---|
| Arsenic   | <b>8.0</b> | <b>U</b> | ug/L | <b>1</b> | 32  | 8.0 | 3/10/2020 14:14 | J |
| Barium    | <b>4.5</b> | <b>I</b> | ug/L | <b>1</b> | 12  | 3.0 | 3/10/2020 14:14 | J |
| Beryllium | <b>2.0</b> | <b>U</b> | ug/L | <b>1</b> | 8.0 | 2.0 | 3/10/2020 14:14 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766013**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB20S**

Date Collected: 02/26/20 13:01

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| Cadmium    | 0.50    | U    | ug/L  | 1  | 2.0             | 0.50            | 3/10/2020 14:14 | J   |
| Chromium   | 5.9     | I    | ug/L  | 1  | 20              | 5.0             | 3/10/2020 14:14 | J   |
| Cobalt     | 1.0     | U    | ug/L  | 1  | 4.0             | 1.0             | 3/10/2020 14:14 | J   |
| Copper     | 10      | U    | ug/L  | 1  | 40              | 10              | 3/10/2020 14:14 | J   |
| Iron       | 200     | U    | ug/L  | 1  | 800             | 200             | 3/10/2020 14:14 | J   |
| Lead       | 3.1     | I    | ug/L  | 1  | 12              | 3.0             | 3/10/2020 14:14 | J   |
| Nickel     | 10      | U    | ug/L  | 1  | 40              | 10              | 3/10/2020 14:14 | J   |
| Silver     | 8.0     | U    | ug/L  | 1  | 32              | 8.0             | 3/10/2020 14:14 | J   |
| Sodium     | 45      |      | mg/L  | 1  | 3.2             | 0.80            | 3/10/2020 14:14 | J   |
| Vanadium   | 14      |      | ug/L  | 1  | 8.0             | 2.0             | 3/10/2020 14:14 | J   |
| Zinc       | 50      | U    | ug/L  | 1  | 200             | 50              | 3/10/2020 14:14 | J   |

Analysis Desc: SW846 6020B  
Analysis, Total

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6020

|          |       |   |      |   |      |       |                 |   |
|----------|-------|---|------|---|------|-------|-----------------|---|
| Antimony | 0.25  | I | ug/L | 1 | 0.70 | 0.11  | 3/15/2020 22:33 | J |
| Selenium | 1.7   | I | ug/L | 1 | 5.0  | 0.58  | 3/15/2020 22:33 | J |
| Thallium | 0.057 | U | ug/L | 1 | 0.20 | 0.057 | 3/15/2020 22:33 | J |

Analysis Desc: SW846 7470A  
Analysis, Water

Preparation Method: SW-846 7470A

Analytical Method: SW-846 7470A

|         |       |   |      |   |      |       |                 |   |
|---------|-------|---|------|---|------|-------|-----------------|---|
| Mercury | 0.033 | I | ug/L | 1 | 0.10 | 0.011 | 3/16/2020 16:07 | J |
|---------|-------|---|------|---|------|-------|-----------------|---|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B

|                             |      |   |      |   |     |      |                 |   |
|-----------------------------|------|---|------|---|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | 0.54 | U | ug/L | 1 | 1.0 | 0.54 | 3/10/2020 16:21 | J |
| 1,1,1-Trichloroethane       | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 16:21 | J |
| 1,1,2,2-Tetrachloroethane   | 0.20 | U | ug/L | 1 | 1.0 | 0.20 | 3/10/2020 16:21 | J |
| 1,1,2-Trichloroethane       | 0.30 | U | ug/L | 1 | 1.0 | 0.30 | 3/10/2020 16:21 | J |
| 1,1-Dichloroethane          | 0.14 | U | ug/L | 1 | 1.0 | 0.14 | 3/10/2020 16:21 | J |
| 1,1-Dichloroethylene        | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 16:21 | J |
| 1,2,3-Trichloropropane      | 0.91 | U | ug/L | 1 | 1.0 | 0.91 | 3/10/2020 16:21 | J |
| 1,2-Dibromo-3-Chloropropane | 3.1  | U | ug/L | 1 | 5.0 | 3.1  | 3/10/2020 16:21 | J |
| 1,2-Dichlorobenzene         | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 16:21 | J |
| 1,2-Dichloroethane          | 0.23 | U | ug/L | 1 | 1.0 | 0.23 | 3/10/2020 16:21 | J |
| 1,2-Dichloropropane         | 0.66 | U | ug/L | 1 | 1.0 | 0.66 | 3/10/2020 16:21 | J |
| 1,4-Dichlorobenzene         | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 16:21 | J |
| 2-Butanone (MEK)            | 0.43 | U | ug/L | 1 | 5.0 | 0.43 | 3/10/2020 16:21 | J |
| 2-Hexanone                  | 0.71 | U | ug/L | 1 | 5.0 | 0.71 | 3/10/2020 16:21 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766013**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB20S**

Date Collected: 02/26/20 13:01

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| 4-Methyl-2-pentanone (MIBK) | 0.47    | U    | ug/L  | 1  | 1.0             | 0.47            | 3/10/2020 16:21 | J   |
| Acetone                     | 2.1     | U    | ug/L  | 1  | 5.0             | 2.1             | 3/10/2020 16:21 | J   |
| Acrylonitrile               | 1.1     | U    | ug/L  | 1  | 10              | 1.1             | 3/10/2020 16:21 | J   |
| Benzene                     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 16:21 | J   |
| Bromochloromethane          | 0.17    | U    | ug/L  | 1  | 1.0             | 0.17            | 3/10/2020 16:21 | J   |
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/10/2020 16:21 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/10/2020 16:21 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 16:21 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/10/2020 16:21 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 16:21 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 16:21 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 16:21 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 16:21 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 16:21 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 16:21 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 16:21 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 16:21 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 16:21 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 16:21 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 16:21 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 16:21 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 16:21 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 16:21 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 16:21 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 16:21 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 16:21 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 16:21 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 16:21 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 16:21 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 16:21 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 16:21 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 16:21 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 16:21 | J   |
| 1,2-Dichloroethane-d4 (S)   | 96      |      | %     | 1  | 70-128          |                 | 3/10/2020 16:21 |     |
| Toluene-d8 (S)              | 89      |      | %     | 1  | 77-119          |                 | 3/10/2020 16:21 |     |
| Bromofluorobenzene (S)      | 102     |      | %     | 1  | 86-123          |                 | 3/10/2020 16:21 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |      |   |      |   |      |      |                 |   |
|-----------------------------|------|---|------|---|------|------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11 | U | ug/L | 1 | 0.20 | 0.11 | 3/10/2020 16:21 | J |
|-----------------------------|------|---|------|---|------|------|-----------------|---|

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766013**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB20S**

Date Collected: 02/26/20 13:01

Sample Description:

Location:

| Parameters                | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------|---------|------|-------|----|--------------|--------------|-----------------|-----|
| Ethylene Dibromide (EDB)  | 0.020   | U    | ug/L  | 1  | 0.10         | 0.020        | 3/10/2020 16:21 | J   |
| 1,2-Dichloroethane-d4 (S) | 92      |      | %     | 1  | 77-125       |              | 3/10/2020 16:21 |     |
| Toluene-d8 (S)            | 89      |      | %     | 1  | 80-121       |              | 3/10/2020 16:21 |     |
| Bromofluorobenzene (S)    | 95      |      | %     | 1  | 80-129       |              | 3/10/2020 16:21 |     |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |     |  |      |   |      |       |                 |   |
|----------------|-----|--|------|---|------|-------|-----------------|---|
| Chloride       | 85  |  | mg/L | 1 | 5.0  | 0.50  | 2/27/2020 17:18 | J |
| Nitrate (as N) | 1.0 |  | mg/L | 1 | 0.50 | 0.050 | 2/27/2020 17:18 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |      |  |      |   |       |       |                |   |
|-------------|------|--|------|---|-------|-------|----------------|---|
| Ammonia (N) | 0.82 |  | mg/L | 5 | 0.050 | 0.040 | 3/3/2020 14:30 | G |
|-------------|------|--|------|---|-------|-------|----------------|---|

Analysis Desc: Tot Dissolved Solids,SM2540C

Analytical Method: SM 2540 C

|                        |     |  |      |   |    |    |                |   |
|------------------------|-----|--|------|---|----|----|----------------|---|
| Total Dissolved Solids | 260 |  | mg/L | 1 | 10 | 10 | 3/3/2020 14:46 | J |
|------------------------|-----|--|------|---|----|----|----------------|---|

Lab ID: **J2002766014**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB21S**

Date Collected: 02/26/20 13:36

Sample Description:

Location:

| Parameters                                | Results | Qual | Units | DF                               | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-------------------------------------------|---------|------|-------|----------------------------------|--------------|--------------|-----------------|-----|
| <b>METALS</b>                             |         |      |       |                                  |              |              |                 |     |
| Analysis Desc: SW846 6010B Analysis,Water |         |      |       | Preparation Method: SW-846 3010A |              |              |                 |     |
|                                           |         |      |       | Analytical Method: SW-846 6010   |              |              |                 |     |
| Arsenic                                   | 8.0     | U    | ug/L  | 1                                | 32           | 8.0          | 3/10/2020 14:18 | J   |
| Barium                                    | 28      |      | ug/L  | 1                                | 12           | 3.0          | 3/10/2020 14:18 | J   |
| Beryllium                                 | 2.0     | U    | ug/L  | 1                                | 8.0          | 2.0          | 3/10/2020 14:18 | J   |
| Cadmium                                   | 0.50    | U    | ug/L  | 1                                | 2.0          | 0.50         | 3/10/2020 14:18 | J   |
| Chromium                                  | 5.0     | U    | ug/L  | 1                                | 20           | 5.0          | 3/10/2020 14:18 | J   |
| Cobalt                                    | 1.0     | U    | ug/L  | 1                                | 4.0          | 1.0          | 3/10/2020 14:18 | J   |
| Copper                                    | 10      | U    | ug/L  | 1                                | 40           | 10           | 3/10/2020 14:18 | J   |
| Iron                                      | 430     | I    | ug/L  | 1                                | 800          | 200          | 3/10/2020 14:18 | J   |
| Lead                                      | 5.5     | I    | ug/L  | 1                                | 12           | 3.0          | 3/10/2020 14:18 | J   |
| Nickel                                    | 10      | U    | ug/L  | 1                                | 40           | 10           | 3/10/2020 14:18 | J   |
| Silver                                    | 8.0     | U    | ug/L  | 1                                | 32           | 8.0          | 3/10/2020 14:18 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766014**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB21S**

Date Collected: 02/26/20 13:36

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|------------|---------|------|-------|----|--------------|--------------|-----------------|-----|
| Sodium     | 8.6     |      | mg/L  | 1  | 3.2          | 0.80         | 3/10/2020 14:18 | J   |
| Vanadium   | 2.0     | U    | ug/L  | 1  | 8.0          | 2.0          | 3/10/2020 14:18 | J   |
| Zinc       | 50      | U    | ug/L  | 1  | 200          | 50           | 3/10/2020 14:18 | J   |

Analysis Desc: SW846 6020B  
Analysis, Total

Preparation Method: SW-846 3010A  
Analytical Method: SW-846 6020

|          |       |   |      |   |      |       |                 |   |
|----------|-------|---|------|---|------|-------|-----------------|---|
| Antimony | 0.14  | I | ug/L | 1 | 0.70 | 0.11  | 3/15/2020 22:37 | J |
| Selenium | 0.58  | U | ug/L | 1 | 5.0  | 0.58  | 3/15/2020 22:37 | J |
| Thallium | 0.066 | I | ug/L | 1 | 0.20 | 0.057 | 3/15/2020 22:37 | J |

Analysis Desc: SW846 7470A  
Analysis, Water

Preparation Method: SW-846 7470A  
Analytical Method: SW-846 7470A

|         |       |   |      |   |      |       |                 |   |
|---------|-------|---|------|---|------|-------|-----------------|---|
| Mercury | 0.011 | U | ug/L | 1 | 0.10 | 0.011 | 3/16/2020 16:10 | J |
|---------|-------|---|------|---|------|-------|-----------------|---|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis,  
Water

Preparation Method: SW-846 5030B  
Analytical Method: SW-846 8260B

|                             |      |   |      |   |     |      |                 |   |
|-----------------------------|------|---|------|---|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | 0.54 | U | ug/L | 1 | 1.0 | 0.54 | 3/10/2020 16:47 | J |
| 1,1,1-Trichloroethane       | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 16:47 | J |
| 1,1,2,2-Tetrachloroethane   | 0.20 | U | ug/L | 1 | 1.0 | 0.20 | 3/10/2020 16:47 | J |
| 1,1,2-Trichloroethane       | 0.30 | U | ug/L | 1 | 1.0 | 0.30 | 3/10/2020 16:47 | J |
| 1,1-Dichloroethane          | 0.14 | U | ug/L | 1 | 1.0 | 0.14 | 3/10/2020 16:47 | J |
| 1,1-Dichloroethylene        | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 16:47 | J |
| 1,2,3-Trichloropropane      | 0.91 | U | ug/L | 1 | 1.0 | 0.91 | 3/10/2020 16:47 | J |
| 1,2-Dibromo-3-Chloropropane | 3.1  | U | ug/L | 1 | 5.0 | 3.1  | 3/10/2020 16:47 | J |
| 1,2-Dichlorobenzene         | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 16:47 | J |
| 1,2-Dichloroethane          | 0.23 | U | ug/L | 1 | 1.0 | 0.23 | 3/10/2020 16:47 | J |
| 1,2-Dichloropropane         | 0.66 | U | ug/L | 1 | 1.0 | 0.66 | 3/10/2020 16:47 | J |
| 1,4-Dichlorobenzene         | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 16:47 | J |
| 2-Butanone (MEK)            | 0.43 | U | ug/L | 1 | 5.0 | 0.43 | 3/10/2020 16:47 | J |
| 2-Hexanone                  | 0.71 | U | ug/L | 1 | 5.0 | 0.71 | 3/10/2020 16:47 | J |
| 4-Methyl-2-pentanone (MIBK) | 0.47 | U | ug/L | 1 | 1.0 | 0.47 | 3/10/2020 16:47 | J |
| Acetone                     | 2.1  | U | ug/L | 1 | 5.0 | 2.1  | 3/10/2020 16:47 | J |
| Acrylonitrile               | 1.1  | U | ug/L | 1 | 10  | 1.1  | 3/10/2020 16:47 | J |
| Benzene                     | 0.16 | U | ug/L | 1 | 1.0 | 0.16 | 3/10/2020 16:47 | J |
| Bromochloromethane          | 0.17 | U | ug/L | 1 | 1.0 | 0.17 | 3/10/2020 16:47 | J |
| Bromodichloromethane        | 0.46 | U | ug/L | 1 | 1.0 | 0.46 | 3/10/2020 16:47 | J |
| Bromoform                   | 0.44 | U | ug/L | 1 | 1.0 | 0.44 | 3/10/2020 16:47 | J |
| Bromomethane                | 0.29 | U | ug/L | 1 | 1.0 | 0.29 | 3/10/2020 16:47 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766014**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB21S**

Date Collected: 02/26/20 13:36

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/10/2020 16:47 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 16:47 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 16:47 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 16:47 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 16:47 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 16:47 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 16:47 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 16:47 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 16:47 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 16:47 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 16:47 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 16:47 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 16:47 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 16:47 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 16:47 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 16:47 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 16:47 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 16:47 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 16:47 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 16:47 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 16:47 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 16:47 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 16:47 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 16:47 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 16:47 | J   |
| 1,2-Dichloroethane-d4 (S)   | 93      |      | %     | 1  | 70-128          |                 | 3/10/2020 16:47 |     |
| Toluene-d8 (S)              | 89      |      | %     | 1  | 77-119          |                 | 3/10/2020 16:47 |     |
| Bromofluorobenzene (S)      | 104     |      | %     | 1  | 86-123          |                 | 3/10/2020 16:47 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/10/2020 16:47 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/10/2020 16:47 | J |
| 1,2-Dichloroethane-d4 (S)   | 89    |   | %    | 1 | 77-125 |       | 3/10/2020 16:47 |   |
| Toluene-d8 (S)              | 88    |   | %    | 1 | 80-121 |       | 3/10/2020 16:47 |   |
| Bromofluorobenzene (S)      | 97    |   | %    | 1 | 80-129 |       | 3/10/2020 16:47 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766014**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **MWB21S**

Date Collected: 02/26/20 13:36

Sample Description:

Location:

| Parameters                                  | Results     | Qual                         | Units       | DF       | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|---------------------------------------------|-------------|------------------------------|-------------|----------|-----------------|-----------------|-----------------|-----|
| Chloride                                    | <b>19</b>   |                              | <b>mg/L</b> | <b>1</b> | 5.0             | 0.50            | 2/27/2020 16:34 | J   |
| Nitrate (as N)                              | <b>0.31</b> | <b>I</b>                     | <b>mg/L</b> | <b>1</b> | 0.50            | 0.050           | 2/27/2020 16:34 | J   |
| Analysis Desc: Ammonia,E350.1,Water         |             | Analytical Method: EPA 350.1 |             |          |                 |                 |                 |     |
| Ammonia (N)                                 | <b>1.7</b>  |                              | <b>mg/L</b> | <b>5</b> | 0.050           | 0.040           | 3/5/2020 17:37  | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C |             | Analytical Method: SM 2540 C |             |          |                 |                 |                 |     |
| Total Dissolved Solids                      | <b>93</b>   |                              | <b>mg/L</b> | <b>1</b> | 10              | 10              | 3/3/2020 14:46  | J   |

Lab ID: **J2002766015**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **Equipment Blank #1**

Date Collected: 02/26/20 13:51

Sample Description:

Location:

| Parameters                                   | Results | Qual                             | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|----------------------------------------------|---------|----------------------------------|-------|----|-----------------|-----------------|-----------------|-----|
| METALS                                       |         |                                  |       |    |                 |                 |                 |     |
| Analysis Desc: SW846 6010B<br>Analysis,Water |         | Preparation Method: SW-846 3010A |       |    |                 |                 |                 |     |
| Analytical Method: SW-846 6010               |         |                                  |       |    |                 |                 |                 |     |
| Arsenic                                      | 8.0     | U                                | ug/L  | 1  | 32              | 8.0             | 3/10/2020 14:21 | J   |
| Barium                                       | 3.0     | U                                | ug/L  | 1  | 12              | 3.0             | 3/10/2020 14:21 | J   |
| Beryllium                                    | 2.0     | U                                | ug/L  | 1  | 8.0             | 2.0             | 3/10/2020 14:21 | J   |
| Cadmium                                      | 0.50    | U                                | ug/L  | 1  | 2.0             | 0.50            | 3/10/2020 14:21 | J   |
| Chromium                                     | 5.0     | U                                | ug/L  | 1  | 20              | 5.0             | 3/10/2020 14:21 | J   |
| Cobalt                                       | 1.0     | U                                | ug/L  | 1  | 4.0             | 1.0             | 3/10/2020 14:21 | J   |
| Copper                                       | 10      | U                                | ug/L  | 1  | 40              | 10              | 3/10/2020 14:21 | J   |
| Iron                                         | 200     | U                                | ug/L  | 1  | 800             | 200             | 3/10/2020 14:21 | J   |
| Lead                                         | 3.0     | U                                | ug/L  | 1  | 12              | 3.0             | 3/10/2020 14:21 | J   |
| Nickel                                       | 10      | U                                | ug/L  | 1  | 40              | 10              | 3/10/2020 14:21 | J   |
| Silver                                       | 8.0     | U                                | ug/L  | 1  | 32              | 8.0             | 3/10/2020 14:21 | J   |
| Sodium                                       | 0.80    | U                                | mg/L  | 1  | 3.2             | 0.80            | 3/10/2020 14:21 | J   |
| Vanadium                                     | 2.0     | U                                | ug/L  | 1  | 8.0             | 2.0             | 3/10/2020 14:21 | J   |
| Zinc                                         | 50      | U                                | ug/L  | 1  | 200             | 50              | 3/10/2020 14:21 | J   |
| Analysis Desc: SW846 6020B<br>Analysis,Total |         | Preparation Method: SW-846 3010A |       |    |                 |                 |                 |     |
| Analytical Method: SW-846 6020               |         |                                  |       |    |                 |                 |                 |     |
| Antimony                                     | 0.13    | I                                | ug/L  | 1  | 0.70            | 0.11            | 3/15/2020 22:41 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766015**  
Sample ID: **Equipment Blank #1**

Date Received: 02/26/20 15:35 Matrix: Water  
Date Collected: 02/26/20 13:51

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|------------|---------|------|-------|----|--------------|--------------|-----------------|-----|
| Selenium   | 0.58    | U    | ug/L  | 1  | 5.0          | 0.58         | 3/15/2020 22:41 | J   |
| Thallium   | 0.057   | U    | ug/L  | 1  | 0.20         | 0.057        | 3/15/2020 22:41 | J   |

Analysis Desc: SW846 7470A  
Analysis, Water

Preparation Method: SW-846 7470A  
Analytical Method: SW-846 7470A

|         |       |   |      |   |      |       |                 |   |
|---------|-------|---|------|---|------|-------|-----------------|---|
| Mercury | 0.011 | U | ug/L | 1 | 0.10 | 0.011 | 3/16/2020 16:33 | J |
|---------|-------|---|------|---|------|-------|-----------------|---|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis,  
Water

Preparation Method: SW-846 5030B  
Analytical Method: SW-846 8260B

|                             |      |   |      |   |     |      |                 |   |
|-----------------------------|------|---|------|---|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | 0.54 | U | ug/L | 1 | 1.0 | 0.54 | 3/10/2020 17:14 | J |
| 1,1,1-Trichloroethane       | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 17:14 | J |
| 1,1,2,2-Tetrachloroethane   | 0.20 | U | ug/L | 1 | 1.0 | 0.20 | 3/10/2020 17:14 | J |
| 1,1,2-Trichloroethane       | 0.30 | U | ug/L | 1 | 1.0 | 0.30 | 3/10/2020 17:14 | J |
| 1,1-Dichloroethane          | 0.14 | U | ug/L | 1 | 1.0 | 0.14 | 3/10/2020 17:14 | J |
| 1,1-Dichloroethylene        | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 17:14 | J |
| 1,2,3-Trichloropropane      | 0.91 | U | ug/L | 1 | 1.0 | 0.91 | 3/10/2020 17:14 | J |
| 1,2-Dibromo-3-Chloropropane | 3.1  | U | ug/L | 1 | 5.0 | 3.1  | 3/10/2020 17:14 | J |
| 1,2-Dichlorobenzene         | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 17:14 | J |
| 1,2-Dichloroethane          | 0.23 | U | ug/L | 1 | 1.0 | 0.23 | 3/10/2020 17:14 | J |
| 1,2-Dichloropropane         | 0.66 | U | ug/L | 1 | 1.0 | 0.66 | 3/10/2020 17:14 | J |
| 1,4-Dichlorobenzene         | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 17:14 | J |
| 2-Butanone (MEK)            | 0.43 | U | ug/L | 1 | 5.0 | 0.43 | 3/10/2020 17:14 | J |
| 2-Hexanone                  | 0.71 | U | ug/L | 1 | 5.0 | 0.71 | 3/10/2020 17:14 | J |
| 4-Methyl-2-pentanone (MIBK) | 0.47 | U | ug/L | 1 | 1.0 | 0.47 | 3/10/2020 17:14 | J |
| Acetone                     | 2.1  | U | ug/L | 1 | 5.0 | 2.1  | 3/10/2020 17:14 | J |
| Acrylonitrile               | 1.1  | U | ug/L | 1 | 10  | 1.1  | 3/10/2020 17:14 | J |
| Benzene                     | 0.16 | U | ug/L | 1 | 1.0 | 0.16 | 3/10/2020 17:14 | J |
| Bromochloromethane          | 0.17 | U | ug/L | 1 | 1.0 | 0.17 | 3/10/2020 17:14 | J |
| Bromodichloromethane        | 0.46 | U | ug/L | 1 | 1.0 | 0.46 | 3/10/2020 17:14 | J |
| Bromoform                   | 0.44 | U | ug/L | 1 | 1.0 | 0.44 | 3/10/2020 17:14 | J |
| Bromomethane                | 0.29 | U | ug/L | 1 | 1.0 | 0.29 | 3/10/2020 17:14 | J |
| Carbon Disulfide            | 0.67 | U | ug/L | 1 | 1.0 | 0.67 | 3/10/2020 17:14 | J |
| Carbon Tetrachloride        | 0.36 | U | ug/L | 1 | 1.0 | 0.36 | 3/10/2020 17:14 | J |
| Chlorobenzene               | 0.21 | U | ug/L | 1 | 1.0 | 0.21 | 3/10/2020 17:14 | J |
| Chloroethane                | 0.33 | U | ug/L | 1 | 1.0 | 0.33 | 3/10/2020 17:14 | J |
| Chloroform                  | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 17:14 | J |
| Chloromethane               | 0.21 | U | ug/L | 1 | 1.0 | 0.21 | 3/10/2020 17:14 | J |
| Dibromochloromethane        | 0.33 | U | ug/L | 1 | 1.0 | 0.33 | 3/10/2020 17:14 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766015**  
Sample ID: **Equipment Blank #1**

Date Received: 02/26/20 15:35 Matrix: Water  
Date Collected: 02/26/20 13:51

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|--------------|--------------|-----------------|-----|
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0          | 0.26         | 3/10/2020 17:14 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0          | 0.24         | 3/10/2020 17:14 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 17:14 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0          | 0.16         | 3/10/2020 17:14 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0          | 2.5          | 3/10/2020 17:14 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0          | 0.23         | 3/10/2020 17:14 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0          | 0.36         | 3/10/2020 17:14 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0          | 0.23         | 3/10/2020 17:14 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0          | 0.29         | 3/10/2020 17:14 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0          | 0.32         | 3/10/2020 17:14 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0          | 0.19         | 3/10/2020 17:14 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 17:14 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0          | 0.53         | 3/10/2020 17:14 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0          | 0.24         | 3/10/2020 17:14 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0          | 0.16         | 3/10/2020 17:14 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 17:14 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0          | 0.21         | 3/10/2020 17:14 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10           | 1.8          | 3/10/2020 17:14 | J   |
| 1,2-Dichloroethane-d4 (S)   | 95      |      | %     | 1  | 70-128       |              | 3/10/2020 17:14 |     |
| Toluene-d8 (S)              | 89      |      | %     | 1  | 77-119       |              | 3/10/2020 17:14 |     |
| Bromofluorobenzene (S)      | 108     |      | %     | 1  | 86-123       |              | 3/10/2020 17:14 |     |

Analysis Desc: 8260B SIM Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/10/2020 17:14 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/10/2020 17:14 | J |
| 1,2-Dichloroethane-d4 (S)   | 92    |   | %    | 1 | 77-125 |       | 3/10/2020 17:14 |   |
| Toluene-d8 (S)              | 89    |   | %    | 1 | 80-121 |       | 3/10/2020 17:14 |   |
| Bromofluorobenzene (S)      | 101   |   | %    | 1 | 80-129 |       | 3/10/2020 17:14 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |       |   |      |   |      |       |                 |   |
|----------------|-------|---|------|---|------|-------|-----------------|---|
| Chloride       | 0.50  | U | mg/L | 1 | 5.0  | 0.50  | 2/27/2020 16:56 | J |
| Nitrate (as N) | 0.050 | U | mg/L | 1 | 0.50 | 0.050 | 2/27/2020 16:56 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |        |   |      |   |       |        |                |   |
|-------------|--------|---|------|---|-------|--------|----------------|---|
| Ammonia (N) | 0.0080 | U | mg/L | 1 | 0.010 | 0.0080 | 3/5/2020 17:38 | G |
|-------------|--------|---|------|---|-------|--------|----------------|---|

Analysis Desc: Tot Dissolved Solids,SM2540C

Analytical Method: SM 2540 C

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766015**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **Equipment Blank #1**

Date Collected: 02/26/20 13:51

Sample Description:

Location:

| Parameters             | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed       | Lab |
|------------------------|---------|------|-------|----|--------------|--------------|----------------|-----|
| Total Dissolved Solids | 10      | U    | mg/L  | 1  | 10           | 10           | 3/3/2020 14:46 | J   |

Lab ID: **J2002766016**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **Trip Blank #1**

Date Collected: 02/26/20 07:21

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed | Lab |
|------------|---------|------|-------|----|--------------|--------------|----------|-----|
|------------|---------|------|-------|----|--------------|--------------|----------|-----|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B

|                             |      |   |      |   |     |      |                 |   |
|-----------------------------|------|---|------|---|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | 0.54 | U | ug/L | 1 | 1.0 | 0.54 | 3/10/2020 17:40 | J |
| 1,1,1-Trichloroethane       | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 17:40 | J |
| 1,1,2,2-Tetrachloroethane   | 0.20 | U | ug/L | 1 | 1.0 | 0.20 | 3/10/2020 17:40 | J |
| 1,1,2-Trichloroethane       | 0.30 | U | ug/L | 1 | 1.0 | 0.30 | 3/10/2020 17:40 | J |
| 1,1-Dichloroethane          | 0.14 | U | ug/L | 1 | 1.0 | 0.14 | 3/10/2020 17:40 | J |
| 1,1-Dichloroethylene        | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 17:40 | J |
| 1,2,3-Trichloropropane      | 0.91 | U | ug/L | 1 | 1.0 | 0.91 | 3/10/2020 17:40 | J |
| 1,2-Dibromo-3-Chloropropane | 3.1  | U | ug/L | 1 | 5.0 | 3.1  | 3/10/2020 17:40 | J |
| 1,2-Dichlorobenzene         | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 17:40 | J |
| 1,2-Dichloroethane          | 0.23 | U | ug/L | 1 | 1.0 | 0.23 | 3/10/2020 17:40 | J |
| 1,2-Dichloropropane         | 0.66 | U | ug/L | 1 | 1.0 | 0.66 | 3/10/2020 17:40 | J |
| 1,4-Dichlorobenzene         | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 17:40 | J |
| 2-Butanone (MEK)            | 0.43 | U | ug/L | 1 | 5.0 | 0.43 | 3/10/2020 17:40 | J |
| 2-Hexanone                  | 0.71 | U | ug/L | 1 | 5.0 | 0.71 | 3/10/2020 17:40 | J |
| 4-Methyl-2-pentanone (MIBK) | 0.47 | U | ug/L | 1 | 1.0 | 0.47 | 3/10/2020 17:40 | J |
| Acetone                     | 2.1  | U | ug/L | 1 | 5.0 | 2.1  | 3/10/2020 17:40 | J |
| Acrylonitrile               | 1.1  | U | ug/L | 1 | 10  | 1.1  | 3/10/2020 17:40 | J |
| Benzene                     | 0.16 | U | ug/L | 1 | 1.0 | 0.16 | 3/10/2020 17:40 | J |
| Bromochloromethane          | 0.17 | U | ug/L | 1 | 1.0 | 0.17 | 3/10/2020 17:40 | J |
| Bromodichloromethane        | 0.46 | U | ug/L | 1 | 1.0 | 0.46 | 3/10/2020 17:40 | J |
| Bromoform                   | 0.44 | U | ug/L | 1 | 1.0 | 0.44 | 3/10/2020 17:40 | J |
| Bromomethane                | 0.29 | U | ug/L | 1 | 1.0 | 0.29 | 3/10/2020 17:40 | J |
| Carbon Disulfide            | 0.67 | U | ug/L | 1 | 1.0 | 0.67 | 3/10/2020 17:40 | J |
| Carbon Tetrachloride        | 0.36 | U | ug/L | 1 | 1.0 | 0.36 | 3/10/2020 17:40 | J |
| Chlorobenzene               | 0.21 | U | ug/L | 1 | 1.0 | 0.21 | 3/10/2020 17:40 | J |
| Chloroethane                | 0.33 | U | ug/L | 1 | 1.0 | 0.33 | 3/10/2020 17:40 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766016**

Date Received: 02/26/20 15:35 Matrix: Water

Sample ID: **Trip Blank #1**

Date Collected: 02/26/20 07:21

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 17:40 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 17:40 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 17:40 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 17:40 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 17:40 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 17:40 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 17:40 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 17:40 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 17:40 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 17:40 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 17:40 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 17:40 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 17:40 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 17:40 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 17:40 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 17:40 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 17:40 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 17:40 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 17:40 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 17:40 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 17:40 | J   |
| 1,2-Dichloroethane-d4 (S)   | 93      |      | %     | 1  | 70-128          |                 | 3/10/2020 17:40 |     |
| Toluene-d8 (S)              | 89      |      | %     | 1  | 77-119          |                 | 3/10/2020 17:40 |     |
| Bromofluorobenzene (S)      | 103     |      | %     | 1  | 86-123          |                 | 3/10/2020 17:40 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/10/2020 17:40 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/10/2020 17:40 | J |
| 1,2-Dichloroethane-d4 (S)   | 89    |   | %    | 1 | 77-125 |       | 3/10/2020 17:40 |   |
| Toluene-d8 (S)              | 89    |   | %    | 1 | 80-121 |       | 3/10/2020 17:40 |   |
| Bromofluorobenzene (S)      | 96    |   | %    | 1 | 80-129 |       | 3/10/2020 17:40 |   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766017**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-3S**

Date Collected: 02/27/20 13:00

Sample Description:

Location:

| Parameters                          | Results | Qual | Units                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-------------------------------------|---------|------|----------------------------------|----|-----------------|-----------------|-----------------|-----|
| <b>METALS</b>                       |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 6010B          |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Water                     |         |      | Analytical Method: SW-846 6010   |    |                 |                 |                 |     |
| Arsenic                             | 9.0     | U    | ug/L                             | 1  | 40              | 9.0             | 3/3/2020 15:22  | J   |
| Barium                              | 12      |      | ug/L                             | 1  | 4.0             | 1.0             | 3/3/2020 15:22  | J   |
| Beryllium                           | 0.50    | U    | ug/L                             | 1  | 2.0             | 0.50            | 3/3/2020 15:22  | J   |
| Cadmium                             | 1.0     | U    | ug/L                             | 1  | 4.0             | 1.0             | 3/3/2020 15:22  | J   |
| Chromium                            | 2.0     | U    | ug/L                             | 1  | 8.0             | 2.0             | 3/3/2020 15:22  | J   |
| Cobalt                              | 2.0     | U    | ug/L                             | 1  | 8.0             | 2.0             | 3/3/2020 15:22  | J   |
| Copper                              | 4.0     | U    | ug/L                             | 1  | 16              | 4.0             | 3/3/2020 15:22  | J   |
| Iron                                | 410     |      | ug/L                             | 1  | 400             | 100             | 3/3/2020 15:22  | J   |
| Lead                                | 3.0     | U    | ug/L                             | 1  | 12              | 3.0             | 3/3/2020 15:22  | J   |
| Nickel                              | 6.0     | U    | ug/L                             | 1  | 24              | 6.0             | 3/3/2020 15:22  | J   |
| Silver                              | 10      | U    | ug/L                             | 1  | 40              | 10              | 3/3/2020 15:22  | J   |
| Sodium                              | 3.0     |      | mg/L                             | 1  | 1.4             | 0.35            | 3/3/2020 15:22  | J   |
| Vanadium                            | 1.0     | U    | ug/L                             | 1  | 4.0             | 1.0             | 3/3/2020 15:22  | J   |
| Zinc                                | 50      | U    | ug/L                             | 1  | 200             | 50              | 3/3/2020 15:22  | J   |
| Analysis Desc: SW846 6020B          |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Total                     |         |      | Analytical Method: SW-846 6020   |    |                 |                 |                 |     |
| Antimony                            | 0.11    | U    | ug/L                             | 1  | 0.70            | 0.11            | 3/3/2020 17:58  | J   |
| Selenium                            | 0.58    | U    | ug/L                             | 1  | 5.0             | 0.58            | 3/3/2020 17:58  | J   |
| Thallium                            | 0.057   | U    | ug/L                             | 1  | 0.20            | 0.057           | 3/3/2020 17:58  | J   |
| Analysis Desc: SW846 7470A          |         |      | Preparation Method: SW-846 7470A |    |                 |                 |                 |     |
| Analysis, Water                     |         |      | Analytical Method: SW-846 7470A  |    |                 |                 |                 |     |
| Mercury                             | 0.011   | U    | ug/L                             | 1  | 0.10            | 0.011           | 3/16/2020 16:49 | J   |
| <b>VOLATILES</b>                    |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: 8260B VOCs Analysis, |         |      | Preparation Method: SW-846 5030B |    |                 |                 |                 |     |
| Water                               |         |      | Analytical Method: SW-846 8260B  |    |                 |                 |                 |     |
| 1,1,1,2-Tetrachloroethane           | 0.54    | U    | ug/L                             | 1  | 1.0             | 0.54            | 3/10/2020 18:07 | J   |
| 1,1,1-Trichloroethane               | 0.22    | U    | ug/L                             | 1  | 1.0             | 0.22            | 3/10/2020 18:07 | J   |
| 1,1,2,2-Tetrachloroethane           | 0.20    | U    | ug/L                             | 1  | 1.0             | 0.20            | 3/10/2020 18:07 | J   |
| 1,1,2-Trichloroethane               | 0.30    | U    | ug/L                             | 1  | 1.0             | 0.30            | 3/10/2020 18:07 | J   |
| 1,1-Dichloroethane                  | 0.14    | U    | ug/L                             | 1  | 1.0             | 0.14            | 3/10/2020 18:07 | J   |
| 1,1-Dichloroethylene                | 0.18    | U    | ug/L                             | 1  | 1.0             | 0.18            | 3/10/2020 18:07 | J   |
| 1,2,3-Trichloropropane              | 0.91    | U    | ug/L                             | 1  | 1.0             | 0.91            | 3/10/2020 18:07 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766017**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-3S**

Date Collected: 02/27/20 13:00

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| 1,2-Dibromo-3-Chloropropane | 3.1     | U    | ug/L  | 1  | 5.0             | 3.1             | 3/10/2020 18:07 | J   |
| 1,2-Dichlorobenzene         | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 18:07 | J   |
| 1,2-Dichloroethane          | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 18:07 | J   |
| 1,2-Dichloropropane         | 0.66    | U    | ug/L  | 1  | 1.0             | 0.66            | 3/10/2020 18:07 | J   |
| 1,4-Dichlorobenzene         | 0.22    | U    | ug/L  | 1  | 1.0             | 0.22            | 3/10/2020 18:07 | J   |
| 2-Butanone (MEK)            | 0.43    | U    | ug/L  | 1  | 5.0             | 0.43            | 3/10/2020 18:07 | J   |
| 2-Hexanone                  | 0.71    | U    | ug/L  | 1  | 5.0             | 0.71            | 3/10/2020 18:07 | J   |
| 4-Methyl-2-pentanone (MIBK) | 0.47    | U    | ug/L  | 1  | 1.0             | 0.47            | 3/10/2020 18:07 | J   |
| Acetone                     | 2.1     | U    | ug/L  | 1  | 5.0             | 2.1             | 3/10/2020 18:07 | J   |
| Acrylonitrile               | 1.1     | U    | ug/L  | 1  | 10              | 1.1             | 3/10/2020 18:07 | J   |
| Benzene                     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 18:07 | J   |
| Bromochloromethane          | 0.17    | U    | ug/L  | 1  | 1.0             | 0.17            | 3/10/2020 18:07 | J   |
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/10/2020 18:07 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/10/2020 18:07 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 18:07 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/10/2020 18:07 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 18:07 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 18:07 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 18:07 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 18:07 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 18:07 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 18:07 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 18:07 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 18:07 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 18:07 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 18:07 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 18:07 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 18:07 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 18:07 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 18:07 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 18:07 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 18:07 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 18:07 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 18:07 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 18:07 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 18:07 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 18:07 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 18:07 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 18:07 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 18:07 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766017**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-3S**

Date Collected: 02/27/20 13:00

Sample Description:

Location:

| Parameters                | Results    | Qual | Units | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------|------------|------|-------|----------|--------------|--------------|-----------------|-----|
| 1,2-Dichloroethane-d4 (S) | <b>93</b>  |      | %     | <b>1</b> | 70-128       |              | 3/10/2020 18:07 |     |
| Toluene-d8 (S)            | <b>89</b>  |      | %     | <b>1</b> | 77-119       |              | 3/10/2020 18:07 |     |
| Bromofluorobenzene (S)    | <b>106</b> |      | %     | <b>1</b> | 86-123       |              | 3/10/2020 18:07 |     |

Analysis Desc: 8260B SIM Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |              |          |      |          |        |       |                 |   |
|-----------------------------|--------------|----------|------|----------|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | <b>0.11</b>  | <b>U</b> | ug/L | <b>1</b> | 0.20   | 0.11  | 3/10/2020 18:07 | J |
| Ethylene Dibromide (EDB)    | <b>0.020</b> | <b>U</b> | ug/L | <b>1</b> | 0.10   | 0.020 | 3/10/2020 18:07 | J |
| 1,2-Dichloroethane-d4 (S)   | <b>89</b>    |          | %    | <b>1</b> | 77-125 |       | 3/10/2020 18:07 |   |
| Toluene-d8 (S)              | <b>89</b>    |          | %    | <b>1</b> | 80-121 |       | 3/10/2020 18:07 |   |
| Bromofluorobenzene (S)      | <b>99</b>    |          | %    | <b>1</b> | 80-129 |       | 3/10/2020 18:07 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |             |          |      |          |      |       |                 |   |
|----------------|-------------|----------|------|----------|------|-------|-----------------|---|
| Chloride       | <b>5.5</b>  |          | mg/L | <b>1</b> | 5.0  | 0.50  | 2/28/2020 18:16 | J |
| Nitrate (as N) | <b>0.12</b> | <b>I</b> | mg/L | <b>1</b> | 0.50 | 0.050 | 2/28/2020 18:16 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |              |          |      |          |       |       |                |   |
|-------------|--------------|----------|------|----------|-------|-------|----------------|---|
| Ammonia (N) | <b>0.040</b> | <b>U</b> | mg/L | <b>5</b> | 0.050 | 0.040 | 3/5/2020 17:39 | G |
|-------------|--------------|----------|------|----------|-------|-------|----------------|---|

Analysis Desc: Tot Dissolved Solids,SM2540C

Analytical Method: SM 2540 C

|                        |           |  |      |          |    |    |                |   |
|------------------------|-----------|--|------|----------|----|----|----------------|---|
| Total Dissolved Solids | <b>45</b> |  | mg/L | <b>1</b> | 10 | 10 | 3/3/2020 14:46 | J |
|------------------------|-----------|--|------|----------|----|----|----------------|---|

Lab ID: **J2002766018**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-40S**

Date Collected: 02/27/20 12:23

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed | Lab |
|------------|---------|------|-------|----|--------------|--------------|----------|-----|
|------------|---------|------|-------|----|--------------|--------------|----------|-----|

### METALS

Analysis Desc: SW846 6010B Analysis,Water

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6010

|           |             |          |      |          |     |      |                |   |
|-----------|-------------|----------|------|----------|-----|------|----------------|---|
| Arsenic   | <b>9.0</b>  | <b>U</b> | ug/L | <b>1</b> | 40  | 9.0  | 3/3/2020 15:26 | J |
| Barium    | <b>54</b>   |          | ug/L | <b>1</b> | 4.0 | 1.0  | 3/3/2020 15:26 | J |
| Beryllium | <b>0.50</b> | <b>U</b> | ug/L | <b>1</b> | 2.0 | 0.50 | 3/3/2020 15:26 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766018**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-40S**

Date Collected: 02/27/20 12:23

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|------------|---------|------|-------|----|-----------------|-----------------|----------------|-----|
| Cadmium    | 1.0     | U    | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 15:26 | J   |
| Chromium   | 2.0     | U    | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 15:26 | J   |
| Cobalt     | 2.0     | U    | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 15:26 | J   |
| Copper     | 4.0     | U    | ug/L  | 1  | 16              | 4.0             | 3/3/2020 15:26 | J   |
| Iron       | 790     |      | ug/L  | 1  | 400             | 100             | 3/3/2020 15:26 | J   |
| Lead       | 3.0     | U    | ug/L  | 1  | 12              | 3.0             | 3/3/2020 15:26 | J   |
| Nickel     | 6.5     | I    | ug/L  | 1  | 24              | 6.0             | 3/3/2020 15:26 | J   |
| Silver     | 10      | U    | ug/L  | 1  | 40              | 10              | 3/3/2020 15:26 | J   |
| Sodium     | 42      |      | mg/L  | 1  | 1.4             | 0.35            | 3/3/2020 15:26 | J   |
| Vanadium   | 6.6     |      | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 15:26 | J   |
| Zinc       | 50      | U    | ug/L  | 1  | 200             | 50              | 3/3/2020 15:26 | J   |

Analysis Desc: SW846 6020B  
Analysis, Total

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6020

|          |       |   |      |   |      |       |                |   |
|----------|-------|---|------|---|------|-------|----------------|---|
| Antimony | 0.42  | I | ug/L | 1 | 0.70 | 0.11  | 3/3/2020 18:02 | J |
| Selenium | 0.63  | I | ug/L | 1 | 5.0  | 0.58  | 3/3/2020 18:02 | J |
| Thallium | 0.057 | U | ug/L | 1 | 0.20 | 0.057 | 3/3/2020 18:02 | J |

Analysis Desc: SW846 7470A  
Analysis, Water

Preparation Method: SW-846 7470A

Analytical Method: SW-846 7470A

|         |       |   |      |   |      |       |                 |   |
|---------|-------|---|------|---|------|-------|-----------------|---|
| Mercury | 0.011 | U | ug/L | 1 | 0.10 | 0.011 | 3/16/2020 16:59 | J |
|---------|-------|---|------|---|------|-------|-----------------|---|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B

|                             |      |   |      |   |     |      |                 |   |
|-----------------------------|------|---|------|---|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | 0.54 | U | ug/L | 1 | 1.0 | 0.54 | 3/12/2020 11:29 | J |
| 1,1,1-Trichloroethane       | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/12/2020 11:29 | J |
| 1,1,2,2-Tetrachloroethane   | 0.20 | U | ug/L | 1 | 1.0 | 0.20 | 3/12/2020 11:29 | J |
| 1,1,2-Trichloroethane       | 0.30 | U | ug/L | 1 | 1.0 | 0.30 | 3/12/2020 11:29 | J |
| 1,1-Dichloroethane          | 0.14 | U | ug/L | 1 | 1.0 | 0.14 | 3/12/2020 11:29 | J |
| 1,1-Dichloroethylene        | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/12/2020 11:29 | J |
| 1,2,3-Trichloropropane      | 0.91 | U | ug/L | 1 | 1.0 | 0.91 | 3/12/2020 11:29 | J |
| 1,2-Dibromo-3-Chloropropane | 3.1  | U | ug/L | 1 | 5.0 | 3.1  | 3/12/2020 11:29 | J |
| 1,2-Dichlorobenzene         | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/12/2020 11:29 | J |
| 1,2-Dichloroethane          | 0.23 | U | ug/L | 1 | 1.0 | 0.23 | 3/12/2020 11:29 | J |
| 1,2-Dichloropropane         | 0.66 | U | ug/L | 1 | 1.0 | 0.66 | 3/12/2020 11:29 | J |
| 1,4-Dichlorobenzene         | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/12/2020 11:29 | J |
| 2-Butanone (MEK)            | 0.43 | U | ug/L | 1 | 5.0 | 0.43 | 3/12/2020 11:29 | J |
| 2-Hexanone                  | 9.5  |   | ug/L | 1 | 5.0 | 0.71 | 3/12/2020 11:29 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766018**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-40S**

Date Collected: 02/27/20 12:23

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| 4-Methyl-2-pentanone (MIBK) | 1.4     |      | ug/L  | 1  | 1.0             | 0.47            | 3/12/2020 11:29 | J   |
| Acetone                     | 2.1     | U    | ug/L  | 1  | 5.0             | 2.1             | 3/12/2020 11:29 | J   |
| Acrylonitrile               | 1.1     | U    | ug/L  | 1  | 10              | 1.1             | 3/12/2020 11:29 | J   |
| Benzene                     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 11:29 | J   |
| Bromochloromethane          | 0.17    | U    | ug/L  | 1  | 1.0             | 0.17            | 3/12/2020 11:29 | J   |
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/12/2020 11:29 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/12/2020 11:29 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/12/2020 11:29 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/12/2020 11:29 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 11:29 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 11:29 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 11:29 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 11:29 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 11:29 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 11:29 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/12/2020 11:29 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 11:29 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 11:29 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 11:29 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/12/2020 11:29 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 11:29 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 11:29 | J   |
| Toluene                     | 7.0     |      | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 11:29 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/12/2020 11:29 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/12/2020 11:29 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/12/2020 11:29 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 11:29 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/12/2020 11:29 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 11:29 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 11:29 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 11:29 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 11:29 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/12/2020 11:29 | J   |
| 1,2-Dichloroethane-d4 (S)   | 91      |      | %     | 1  | 70-128          |                 | 3/12/2020 11:29 |     |
| Toluene-d8 (S)              | 87      |      | %     | 1  | 77-119          |                 | 3/12/2020 11:29 |     |
| Bromofluorobenzene (S)      | 103     |      | %     | 1  | 86-123          |                 | 3/12/2020 11:29 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |      |   |      |   |      |      |                 |   |
|-----------------------------|------|---|------|---|------|------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11 | U | ug/L | 1 | 0.20 | 0.11 | 3/12/2020 11:29 | J |
|-----------------------------|------|---|------|---|------|------|-----------------|---|

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766018**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-40S**

Date Collected: 02/27/20 12:23

Sample Description:

Location:

| Parameters                | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------|---------|------|-------|----|--------------|--------------|-----------------|-----|
| Ethylene Dibromide (EDB)  | 0.020   | U    | ug/L  | 1  | 0.10         | 0.020        | 3/12/2020 11:29 | J   |
| 1,2-Dichloroethane-d4 (S) | 88      |      | %     | 1  | 77-125       |              | 3/12/2020 11:29 |     |
| Toluene-d8 (S)            | 87      |      | %     | 1  | 80-121       |              | 3/12/2020 11:29 |     |
| Bromofluorobenzene (S)    | 96      |      | %     | 1  | 80-129       |              | 3/12/2020 11:29 |     |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |      |   |      |   |      |       |                 |   |
|----------------|------|---|------|---|------|-------|-----------------|---|
| Chloride       | 74   |   | mg/L | 1 | 5.0  | 0.50  | 2/28/2020 17:54 | J |
| Nitrate (as N) | 0.18 | I | mg/L | 1 | 0.50 | 0.050 | 2/28/2020 17:54 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |     |    |      |   |       |       |                |   |
|-------------|-----|----|------|---|-------|-------|----------------|---|
| Ammonia (N) | 2.6 | J4 | mg/L | 5 | 0.050 | 0.040 | 3/5/2020 16:04 | G |
|-------------|-----|----|------|---|-------|-------|----------------|---|

Analysis Desc: Tot Dissolved Solids,SM2540C

Analytical Method: SM 2540 C

|                        |     |  |      |   |    |    |                |   |
|------------------------|-----|--|------|---|----|----|----------------|---|
| Total Dissolved Solids | 210 |  | mg/L | 1 | 10 | 10 | 3/3/2020 14:46 | J |
|------------------------|-----|--|------|---|----|----|----------------|---|

Lab ID: **J2002766019**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-39S**

Date Collected: 02/27/20 11:50

Sample Description:

Location:

| Parameters                                | Results | Qual | Units | DF                               | Adjusted PQL | Adjusted MDL | Analyzed       | Lab |
|-------------------------------------------|---------|------|-------|----------------------------------|--------------|--------------|----------------|-----|
| <b>METALS</b>                             |         |      |       |                                  |              |              |                |     |
| Analysis Desc: SW846 6010B Analysis,Water |         |      |       | Preparation Method: SW-846 3010A |              |              |                |     |
|                                           |         |      |       | Analytical Method: SW-846 6010   |              |              |                |     |
| Arsenic                                   | 9.0     | U    | ug/L  | 1                                | 40           | 9.0          | 3/3/2020 15:29 | J   |
| Barium                                    | 15      |      | ug/L  | 1                                | 4.0          | 1.0          | 3/3/2020 15:29 | J   |
| Beryllium                                 | 0.50    | U    | ug/L  | 1                                | 2.0          | 0.50         | 3/3/2020 15:29 | J   |
| Cadmium                                   | 1.0     | U    | ug/L  | 1                                | 4.0          | 1.0          | 3/3/2020 15:29 | J   |
| Chromium                                  | 2.0     | U    | ug/L  | 1                                | 8.0          | 2.0          | 3/3/2020 15:29 | J   |
| Cobalt                                    | 2.0     | U    | ug/L  | 1                                | 8.0          | 2.0          | 3/3/2020 15:29 | J   |
| Copper                                    | 4.0     | U    | ug/L  | 1                                | 16           | 4.0          | 3/3/2020 15:29 | J   |
| Iron                                      | 580     |      | ug/L  | 1                                | 400          | 100          | 3/3/2020 15:29 | J   |
| Lead                                      | 3.0     | U    | ug/L  | 1                                | 12           | 3.0          | 3/3/2020 15:29 | J   |
| Nickel                                    | 6.0     | U    | ug/L  | 1                                | 24           | 6.0          | 3/3/2020 15:29 | J   |
| Silver                                    | 10      | U    | ug/L  | 1                                | 40           | 10           | 3/3/2020 15:29 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766019**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-39S**

Date Collected: 02/27/20 11:50

Sample Description:

Location:

| Parameters                 | Results | Qual                             | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|----------------------------|---------|----------------------------------|-------|----|-----------------|-----------------|-----------------|-----|
| Sodium                     | 32      |                                  | mg/L  | 1  | 1.4             | 0.35            | 3/3/2020 15:29  | J   |
| Vanadium                   | 1.2     | I                                | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 15:29  | J   |
| Zinc                       | 50      | U                                | ug/L  | 1  | 200             | 50              | 3/3/2020 15:29  | J   |
| Analysis Desc: SW846 6020B |         | Preparation Method: SW-846 3010A |       |    |                 |                 |                 |     |
| Analysis, Total            |         | Analytical Method: SW-846 6020   |       |    |                 |                 |                 |     |
| Antimony                   | 0.11    | U                                | ug/L  | 1  | 0.70            | 0.11            | 3/3/2020 18:07  | J   |
| Selenium                   | 0.58    | U                                | ug/L  | 1  | 5.0             | 0.58            | 3/3/2020 18:07  | J   |
| Thallium                   | 0.057   | U                                | ug/L  | 1  | 0.20            | 0.057           | 3/3/2020 18:07  | J   |
| Analysis Desc: SW846 7470A |         | Preparation Method: SW-846 7470A |       |    |                 |                 |                 |     |
| Analysis, Water            |         | Analytical Method: SW-846 7470A  |       |    |                 |                 |                 |     |
| Mercury                    | 0.011   | U                                | ug/L  | 1  | 0.10            | 0.011           | 3/16/2020 17:02 | J   |

### VOLATILES

|                                           |      |                                  |      |   |     |      |                 |   |
|-------------------------------------------|------|----------------------------------|------|---|-----|------|-----------------|---|
| Analysis Desc: 8260B VOCs Analysis, Water |      | Preparation Method: SW-846 5030B |      |   |     |      |                 |   |
|                                           |      | Analytical Method: SW-846 8260B  |      |   |     |      |                 |   |
| 1,1,1,2-Tetrachloroethane                 | 0.54 | U                                | ug/L | 1 | 1.0 | 0.54 | 3/10/2020 19:00 | J |
| 1,1,1-Trichloroethane                     | 0.22 | U                                | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 19:00 | J |
| 1,1,2,2-Tetrachloroethane                 | 0.20 | U                                | ug/L | 1 | 1.0 | 0.20 | 3/10/2020 19:00 | J |
| 1,1,2-Trichloroethane                     | 0.30 | U                                | ug/L | 1 | 1.0 | 0.30 | 3/10/2020 19:00 | J |
| 1,1-Dichloroethane                        | 0.14 | U                                | ug/L | 1 | 1.0 | 0.14 | 3/10/2020 19:00 | J |
| 1,1-Dichloroethylene                      | 0.18 | U                                | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 19:00 | J |
| 1,2,3-Trichloropropane                    | 0.91 | U                                | ug/L | 1 | 1.0 | 0.91 | 3/10/2020 19:00 | J |
| 1,2-Dibromo-3-Chloropropane               | 3.1  | U                                | ug/L | 1 | 5.0 | 3.1  | 3/10/2020 19:00 | J |
| 1,2-Dichlorobenzene                       | 0.18 | U                                | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 19:00 | J |
| 1,2-Dichloroethane                        | 0.23 | U                                | ug/L | 1 | 1.0 | 0.23 | 3/10/2020 19:00 | J |
| 1,2-Dichloropropane                       | 0.66 | U                                | ug/L | 1 | 1.0 | 0.66 | 3/10/2020 19:00 | J |
| 1,4-Dichlorobenzene                       | 0.22 | U                                | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 19:00 | J |
| 2-Butanone (MEK)                          | 0.43 | U                                | ug/L | 1 | 5.0 | 0.43 | 3/10/2020 19:00 | J |
| 2-Hexanone                                | 0.71 | U                                | ug/L | 1 | 5.0 | 0.71 | 3/10/2020 19:00 | J |
| 4-Methyl-2-pentanone (MIBK)               | 0.47 | U                                | ug/L | 1 | 1.0 | 0.47 | 3/10/2020 19:00 | J |
| Acetone                                   | 2.1  | U                                | ug/L | 1 | 5.0 | 2.1  | 3/10/2020 19:00 | J |
| Acrylonitrile                             | 1.1  | U                                | ug/L | 1 | 10  | 1.1  | 3/10/2020 19:00 | J |
| Benzene                                   | 0.76 | I                                | ug/L | 1 | 1.0 | 0.16 | 3/10/2020 19:00 | J |
| Bromochloromethane                        | 0.17 | U                                | ug/L | 1 | 1.0 | 0.17 | 3/10/2020 19:00 | J |
| Bromodichloromethane                      | 0.46 | U                                | ug/L | 1 | 1.0 | 0.46 | 3/10/2020 19:00 | J |
| Bromoform                                 | 0.44 | U                                | ug/L | 1 | 1.0 | 0.44 | 3/10/2020 19:00 | J |
| Bromomethane                              | 0.29 | U                                | ug/L | 1 | 1.0 | 0.29 | 3/10/2020 19:00 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766019**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-39S**

Date Collected: 02/27/20 11:50

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/10/2020 19:00 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 19:00 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 19:00 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 19:00 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 19:00 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 19:00 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 19:00 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 19:00 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 19:00 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 19:00 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 19:00 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 19:00 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 19:00 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 19:00 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 19:00 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 19:00 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 19:00 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 19:00 | J   |
| Vinyl Chloride              | 1.1     |      | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 19:00 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 19:00 | J   |
| cis-1,2-Dichloroethylene    | 0.60    | I    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 19:00 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 19:00 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 19:00 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 19:00 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 19:00 | J   |
| 1,2-Dichloroethane-d4 (S)   | 95      |      | %     | 1  | 70-128          |                 | 3/10/2020 19:00 |     |
| Toluene-d8 (S)              | 91      |      | %     | 1  | 77-119          |                 | 3/10/2020 19:00 |     |
| Bromofluorobenzene (S)      | 105     |      | %     | 1  | 86-123          |                 | 3/10/2020 19:00 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/10/2020 19:00 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/10/2020 19:00 | J |
| 1,2-Dichloroethane-d4 (S)   | 90    |   | %    | 1 | 77-125 |       | 3/10/2020 19:00 |   |
| Toluene-d8 (S)              | 90    |   | %    | 1 | 80-121 |       | 3/10/2020 19:00 |   |
| Bromofluorobenzene (S)      | 97    |   | %    | 1 | 80-129 |       | 3/10/2020 19:00 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766019**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-39S**

Date Collected: 02/27/20 11:50

Sample Description:

Location:

| Parameters                                  | Results     | Qual                         | Units       | DF       | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|---------------------------------------------|-------------|------------------------------|-------------|----------|-----------------|-----------------|-----------------|-----|
| Chloride                                    | <b>71</b>   |                              | <b>mg/L</b> | <b>1</b> | 5.0             | 0.50            | 2/28/2020 17:31 | J   |
| Nitrate (as N)                              | <b>0.12</b> | <b>I</b>                     | <b>mg/L</b> | <b>1</b> | 0.50            | 0.050           | 2/28/2020 17:31 | J   |
| Analysis Desc: Ammonia,E350.1,Water         |             | Analytical Method: EPA 350.1 |             |          |                 |                 |                 |     |
| Ammonia (N)                                 | <b>1.7</b>  |                              | <b>mg/L</b> | <b>5</b> | 0.050           | 0.040           | 3/5/2020 16:08  | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C |             | Analytical Method: SM 2540 C |             |          |                 |                 |                 |     |
| Total Dissolved Solids                      | <b>250</b>  |                              | <b>mg/L</b> | <b>1</b> | 10              | 10              | 3/3/2020 14:46  | J   |

Lab ID: **J2002766020**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-35S**

Date Collected: 02/27/20 14:37

Sample Description:

Location:

| Parameters                                   | Results | Qual                             | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|----------------------------------------------|---------|----------------------------------|-------|----|-----------------|-----------------|----------------|-----|
| METALS                                       |         |                                  |       |    |                 |                 |                |     |
| Analysis Desc: SW846 6010B<br>Analysis,Water |         | Preparation Method: SW-846 3010A |       |    |                 |                 |                |     |
| Analytical Method: SW-846 6010               |         |                                  |       |    |                 |                 |                |     |
| Arsenic                                      | 9.0     | U                                | ug/L  | 1  | 40              | 9.0             | 3/3/2020 15:41 | J   |
| Barium                                       | 1.0     | U                                | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 15:41 | J   |
| Beryllium                                    | 0.50    | U                                | ug/L  | 1  | 2.0             | 0.50            | 3/3/2020 15:41 | J   |
| Cadmium                                      | 1.0     | U                                | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 15:41 | J   |
| Chromium                                     | 2.0     | U                                | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 15:41 | J   |
| Cobalt                                       | 2.0     | U                                | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 15:41 | J   |
| Copper                                       | 4.0     | U                                | ug/L  | 1  | 16              | 4.0             | 3/3/2020 15:41 | J   |
| Iron                                         | 100     | U                                | ug/L  | 1  | 400             | 100             | 3/3/2020 15:41 | J   |
| Lead                                         | 3.0     | U                                | ug/L  | 1  | 12              | 3.0             | 3/3/2020 15:41 | J   |
| Nickel                                       | 6.0     | U                                | ug/L  | 1  | 24              | 6.0             | 3/3/2020 15:41 | J   |
| Silver                                       | 10      | U                                | ug/L  | 1  | 40              | 10              | 3/3/2020 15:41 | J   |
| Sodium                                       | 2.1     |                                  | mg/L  | 1  | 1.4             | 0.35            | 3/3/2020 15:41 | J   |
| Vanadium                                     | 1.0     | U                                | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 15:41 | J   |
| Zinc                                         | 50      | U                                | ug/L  | 1  | 200             | 50              | 3/3/2020 15:41 | J   |
| Analysis Desc: SW846 6020B<br>Analysis,Total |         | Preparation Method: SW-846 3010A |       |    |                 |                 |                |     |
| Analytical Method: SW-846 6020               |         |                                  |       |    |                 |                 |                |     |
| Antimony                                     | 0.11    | U                                | ug/L  | 1  | 0.70            | 0.11            | 3/3/2020 18:24 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766020**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-35S**

Date Collected: 02/27/20 14:37

Sample Description:

Location:

| Parameters | Results      | Qual     | Units       | DF       | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|------------|--------------|----------|-------------|----------|-----------------|-----------------|----------------|-----|
| Selenium   | <b>0.58</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0             | 0.58            | 3/3/2020 18:24 | J   |
| Thallium   | <b>0.057</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 0.20            | 0.057           | 3/3/2020 18:24 | J   |

Analysis Desc: SW846 7470A  
Analysis, Water

Preparation Method: SW-846 7470A  
Analytical Method: SW-846 7470A

|         |              |          |             |          |      |       |                 |   |
|---------|--------------|----------|-------------|----------|------|-------|-----------------|---|
| Mercury | <b>0.011</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 0.10 | 0.011 | 3/16/2020 17:05 | J |
|---------|--------------|----------|-------------|----------|------|-------|-----------------|---|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis,  
Water

Preparation Method: SW-846 5030B  
Analytical Method: SW-846 8260B

|                             |             |          |             |          |     |      |                 |   |
|-----------------------------|-------------|----------|-------------|----------|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | <b>0.54</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.54 | 3/10/2020 19:27 | J |
| 1,1,1-Trichloroethane       | <b>0.22</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.22 | 3/10/2020 19:27 | J |
| 1,1,2,2-Tetrachloroethane   | <b>0.20</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.20 | 3/10/2020 19:27 | J |
| 1,1,2-Trichloroethane       | <b>0.30</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.30 | 3/10/2020 19:27 | J |
| 1,1-Dichloroethane          | <b>0.14</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.14 | 3/10/2020 19:27 | J |
| 1,1-Dichloroethylene        | <b>0.18</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.18 | 3/10/2020 19:27 | J |
| 1,2,3-Trichloropropane      | <b>0.91</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.91 | 3/10/2020 19:27 | J |
| 1,2-Dibromo-3-Chloropropane | <b>3.1</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0 | 3.1  | 3/10/2020 19:27 | J |
| 1,2-Dichlorobenzene         | <b>0.18</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.18 | 3/10/2020 19:27 | J |
| 1,2-Dichloroethane          | <b>0.23</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.23 | 3/10/2020 19:27 | J |
| 1,2-Dichloropropane         | <b>0.66</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.66 | 3/10/2020 19:27 | J |
| 1,4-Dichlorobenzene         | <b>0.22</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.22 | 3/10/2020 19:27 | J |
| 2-Butanone (MEK)            | <b>0.43</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0 | 0.43 | 3/10/2020 19:27 | J |
| 2-Hexanone                  | <b>0.71</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0 | 0.71 | 3/10/2020 19:27 | J |
| 4-Methyl-2-pentanone (MIBK) | <b>0.47</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.47 | 3/10/2020 19:27 | J |
| Acetone                     | <b>2.1</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 5.0 | 2.1  | 3/10/2020 19:27 | J |
| Acrylonitrile               | <b>1.1</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 10  | 1.1  | 3/10/2020 19:27 | J |
| Benzene                     | <b>0.16</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.16 | 3/10/2020 19:27 | J |
| Bromochloromethane          | <b>0.17</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.17 | 3/10/2020 19:27 | J |
| Bromodichloromethane        | <b>0.46</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.46 | 3/10/2020 19:27 | J |
| Bromoform                   | <b>0.44</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.44 | 3/10/2020 19:27 | J |
| Bromomethane                | <b>0.29</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.29 | 3/10/2020 19:27 | J |
| Carbon Disulfide            | <b>0.67</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.67 | 3/10/2020 19:27 | J |
| Carbon Tetrachloride        | <b>0.36</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.36 | 3/10/2020 19:27 | J |
| Chlorobenzene               | <b>0.21</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.21 | 3/10/2020 19:27 | J |
| Chloroethane                | <b>0.33</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.33 | 3/10/2020 19:27 | J |
| Chloroform                  | <b>0.18</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.18 | 3/10/2020 19:27 | J |
| Chloromethane               | <b>0.21</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.21 | 3/10/2020 19:27 | J |
| Dibromochloromethane        | <b>0.33</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0 | 0.33 | 3/10/2020 19:27 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766020**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-35S**

Date Collected: 02/27/20 14:37

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|--------------|--------------|-----------------|-----|
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0          | 0.26         | 3/10/2020 19:27 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0          | 0.24         | 3/10/2020 19:27 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 19:27 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0          | 0.16         | 3/10/2020 19:27 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0          | 2.5          | 3/10/2020 19:27 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0          | 0.23         | 3/10/2020 19:27 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0          | 0.36         | 3/10/2020 19:27 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0          | 0.23         | 3/10/2020 19:27 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0          | 0.29         | 3/10/2020 19:27 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0          | 0.32         | 3/10/2020 19:27 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0          | 0.19         | 3/10/2020 19:27 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 19:27 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0          | 0.53         | 3/10/2020 19:27 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0          | 0.24         | 3/10/2020 19:27 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0          | 0.16         | 3/10/2020 19:27 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 19:27 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0          | 0.21         | 3/10/2020 19:27 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10           | 1.8          | 3/10/2020 19:27 | J   |
| 1,2-Dichloroethane-d4 (S)   | 93      |      | %     | 1  | 70-128       |              | 3/10/2020 19:27 |     |
| Toluene-d8 (S)              | 92      |      | %     | 1  | 77-119       |              | 3/10/2020 19:27 |     |
| Bromofluorobenzene (S)      | 104     |      | %     | 1  | 86-123       |              | 3/10/2020 19:27 |     |

Analysis Desc: 8260B SIM Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/10/2020 19:27 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/10/2020 19:27 | J |
| 1,2-Dichloroethane-d4 (S)   | 89    |   | %    | 1 | 77-125 |       | 3/10/2020 19:27 |   |
| Toluene-d8 (S)              | 91    |   | %    | 1 | 80-121 |       | 3/10/2020 19:27 |   |
| Bromofluorobenzene (S)      | 96    |   | %    | 1 | 80-129 |       | 3/10/2020 19:27 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |      |   |      |   |      |       |                 |   |
|----------------|------|---|------|---|------|-------|-----------------|---|
| Chloride       | 3.1  | I | mg/L | 1 | 5.0  | 0.50  | 2/28/2020 21:12 | J |
| Nitrate (as N) | 0.12 | I | mg/L | 1 | 0.50 | 0.050 | 2/28/2020 21:12 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |       |   |      |   |       |       |                |   |
|-------------|-------|---|------|---|-------|-------|----------------|---|
| Ammonia (N) | 0.040 | U | mg/L | 5 | 0.050 | 0.040 | 3/5/2020 16:09 | G |
|-------------|-------|---|------|---|-------|-------|----------------|---|

Analysis Desc: Tot Dissolved Solids,SM2540C

Analytical Method: SM 2540 C

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766020**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-35S**

Date Collected: 02/27/20 14:37

Sample Description:

Location:

| Parameters             | Results   | Qual | Units       | DF       | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|------------------------|-----------|------|-------------|----------|-----------------|-----------------|----------------|-----|
| Total Dissolved Solids | <b>55</b> |      | <b>mg/L</b> | <b>1</b> | 10              | 10              | 3/3/2020 14:46 | J   |

Lab ID: **J2002766021**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **SGMW-2S**

Date Collected: 02/27/20 15:48

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed | Lab |
|------------|---------|------|-------|----|-----------------|-----------------|----------|-----|
|------------|---------|------|-------|----|-----------------|-----------------|----------|-----|

### METALS

Analysis Desc: SW846 6010B  
Analysis, Water

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6010

|           |             |          |             |          |     |      |                |   |
|-----------|-------------|----------|-------------|----------|-----|------|----------------|---|
| Arsenic   | <b>9.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 40  | 9.0  | 3/3/2020 15:44 | J |
| Barium    | <b>86</b>   |          | <b>ug/L</b> | <b>1</b> | 4.0 | 1.0  | 3/3/2020 15:44 | J |
| Beryllium | <b>0.50</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 2.0 | 0.50 | 3/3/2020 15:44 | J |
| Cadmium   | <b>1.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 4.0 | 1.0  | 3/3/2020 15:44 | J |
| Chromium  | <b>7.4</b>  | <b>I</b> | <b>ug/L</b> | <b>1</b> | 8.0 | 2.0  | 3/3/2020 15:44 | J |
| Cobalt    | <b>2.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 8.0 | 2.0  | 3/3/2020 15:44 | J |
| Copper    | <b>4.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 16  | 4.0  | 3/3/2020 15:44 | J |
| Iron      | <b>770</b>  |          | <b>ug/L</b> | <b>1</b> | 400 | 100  | 3/3/2020 15:44 | J |
| Lead      | <b>3.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 12  | 3.0  | 3/3/2020 15:44 | J |
| Nickel    | <b>6.0</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 24  | 6.0  | 3/3/2020 15:44 | J |
| Silver    | <b>10</b>   | <b>U</b> | <b>ug/L</b> | <b>1</b> | 40  | 10   | 3/3/2020 15:44 | J |
| Sodium    | <b>3.7</b>  |          | <b>mg/L</b> | <b>1</b> | 1.4 | 0.35 | 3/3/2020 15:44 | J |
| Vanadium  | <b>16</b>   |          | <b>ug/L</b> | <b>1</b> | 4.0 | 1.0  | 3/3/2020 15:44 | J |
| Zinc      | <b>50</b>   | <b>U</b> | <b>ug/L</b> | <b>1</b> | 200 | 50   | 3/3/2020 15:44 | J |

Analysis Desc: SW846 6020B  
Analysis, Total

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6020

|          |              |          |             |          |      |       |                |   |
|----------|--------------|----------|-------------|----------|------|-------|----------------|---|
| Antimony | <b>0.11</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 0.70 | 0.11  | 3/3/2020 18:28 | J |
| Selenium | <b>2.9</b>   | <b>U</b> | <b>ug/L</b> | <b>5</b> | 25   | 2.9   | 3/4/2020 15:10 | J |
| Thallium | <b>0.057</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 0.20 | 0.057 | 3/3/2020 18:28 | J |

Analysis Desc: SW846 7470A  
Analysis, Water

Preparation Method: SW-846 7470A

Analytical Method: SW-846 7470A

|         |              |          |             |          |      |       |                 |   |
|---------|--------------|----------|-------------|----------|------|-------|-----------------|---|
| Mercury | <b>0.017</b> | <b>I</b> | <b>ug/L</b> | <b>1</b> | 0.10 | 0.011 | 3/16/2020 17:09 | J |
|---------|--------------|----------|-------------|----------|------|-------|-----------------|---|

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766021**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **SGMW-2S**

Date Collected: 02/27/20 15:48

Sample Description:

Location:

| Parameters                                   | Results | Qual | Units                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|----------------------------------------------|---------|------|----------------------------------|----|-----------------|-----------------|-----------------|-----|
| <b>VOLATILES</b>                             |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: 8260B VOCs Analysis,<br>Water |         |      | Preparation Method: SW-846 5030B |    |                 |                 |                 |     |
|                                              |         |      | Analytical Method: SW-846 8260B  |    |                 |                 |                 |     |
| 1,1,1,2-Tetrachloroethane                    | 0.54    | U    | ug/L                             | 1  | 1.0             | 0.54            | 3/10/2020 19:53 | J   |
| 1,1,1-Trichloroethane                        | 0.22    | U    | ug/L                             | 1  | 1.0             | 0.22            | 3/10/2020 19:53 | J   |
| 1,1,2,2-Tetrachloroethane                    | 0.20    | U    | ug/L                             | 1  | 1.0             | 0.20            | 3/10/2020 19:53 | J   |
| 1,1,2-Trichloroethane                        | 0.30    | U    | ug/L                             | 1  | 1.0             | 0.30            | 3/10/2020 19:53 | J   |
| 1,1-Dichloroethane                           | 0.14    | U    | ug/L                             | 1  | 1.0             | 0.14            | 3/10/2020 19:53 | J   |
| 1,1-Dichloroethylene                         | 0.18    | U    | ug/L                             | 1  | 1.0             | 0.18            | 3/10/2020 19:53 | J   |
| 1,2,3-Trichloropropane                       | 0.91    | U    | ug/L                             | 1  | 1.0             | 0.91            | 3/10/2020 19:53 | J   |
| 1,2-Dibromo-3-Chloropropane                  | 3.1     | U    | ug/L                             | 1  | 5.0             | 3.1             | 3/10/2020 19:53 | J   |
| 1,2-Dichlorobenzene                          | 0.18    | U    | ug/L                             | 1  | 1.0             | 0.18            | 3/10/2020 19:53 | J   |
| 1,2-Dichloroethane                           | 0.23    | U    | ug/L                             | 1  | 1.0             | 0.23            | 3/10/2020 19:53 | J   |
| 1,2-Dichloropropane                          | 0.66    | U    | ug/L                             | 1  | 1.0             | 0.66            | 3/10/2020 19:53 | J   |
| 1,4-Dichlorobenzene                          | 0.22    | U    | ug/L                             | 1  | 1.0             | 0.22            | 3/10/2020 19:53 | J   |
| 2-Butanone (MEK)                             | 0.43    | U    | ug/L                             | 1  | 5.0             | 0.43            | 3/10/2020 19:53 | J   |
| 2-Hexanone                                   | 0.71    | U    | ug/L                             | 1  | 5.0             | 0.71            | 3/10/2020 19:53 | J   |
| 4-Methyl-2-pentanone (MIBK)                  | 0.47    | U    | ug/L                             | 1  | 1.0             | 0.47            | 3/10/2020 19:53 | J   |
| Acetone                                      | 2.1     | U    | ug/L                             | 1  | 5.0             | 2.1             | 3/10/2020 19:53 | J   |
| Acrylonitrile                                | 1.1     | U    | ug/L                             | 1  | 10              | 1.1             | 3/10/2020 19:53 | J   |
| Benzene                                      | 0.16    | U    | ug/L                             | 1  | 1.0             | 0.16            | 3/10/2020 19:53 | J   |
| Bromochloromethane                           | 0.17    | U    | ug/L                             | 1  | 1.0             | 0.17            | 3/10/2020 19:53 | J   |
| Bromodichloromethane                         | 0.46    | U    | ug/L                             | 1  | 1.0             | 0.46            | 3/10/2020 19:53 | J   |
| Bromoform                                    | 0.44    | U    | ug/L                             | 1  | 1.0             | 0.44            | 3/10/2020 19:53 | J   |
| Bromomethane                                 | 0.29    | U    | ug/L                             | 1  | 1.0             | 0.29            | 3/10/2020 19:53 | J   |
| Carbon Disulfide                             | 0.67    | U    | ug/L                             | 1  | 1.0             | 0.67            | 3/10/2020 19:53 | J   |
| Carbon Tetrachloride                         | 0.36    | U    | ug/L                             | 1  | 1.0             | 0.36            | 3/10/2020 19:53 | J   |
| Chlorobenzene                                | 0.21    | U    | ug/L                             | 1  | 1.0             | 0.21            | 3/10/2020 19:53 | J   |
| Chloroethane                                 | 0.33    | U    | ug/L                             | 1  | 1.0             | 0.33            | 3/10/2020 19:53 | J   |
| Chloroform                                   | 0.18    | U    | ug/L                             | 1  | 1.0             | 0.18            | 3/10/2020 19:53 | J   |
| Chloromethane                                | 0.21    | U    | ug/L                             | 1  | 1.0             | 0.21            | 3/10/2020 19:53 | J   |
| Dibromochloromethane                         | 0.33    | U    | ug/L                             | 1  | 1.0             | 0.33            | 3/10/2020 19:53 | J   |
| Dibromomethane                               | 0.26    | U    | ug/L                             | 1  | 1.0             | 0.26            | 3/10/2020 19:53 | J   |
| Ethylbenzene                                 | 0.24    | U    | ug/L                             | 1  | 1.0             | 0.24            | 3/10/2020 19:53 | J   |
| Ethylene Dibromide (EDB)                     | 0.20    | U    | ug/L                             | 1  | 1.0             | 0.20            | 3/10/2020 19:53 | J   |
| Iodomethane (Methyl Iodide)                  | 0.16    | U    | ug/L                             | 1  | 1.0             | 0.16            | 3/10/2020 19:53 | J   |
| Methylene Chloride                           | 2.5     | U    | ug/L                             | 1  | 5.0             | 2.5             | 3/10/2020 19:53 | J   |
| Styrene                                      | 0.23    | U    | ug/L                             | 1  | 1.0             | 0.23            | 3/10/2020 19:53 | J   |
| Tetrachloroethylene (PCE)                    | 0.36    | U    | ug/L                             | 1  | 1.0             | 0.36            | 3/10/2020 19:53 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766021**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **SGMW-2S**

Date Collected: 02/27/20 15:48

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|--------------|--------------|-----------------|-----|
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0          | 0.23         | 3/10/2020 19:53 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0          | 0.29         | 3/10/2020 19:53 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0          | 0.32         | 3/10/2020 19:53 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0          | 0.19         | 3/10/2020 19:53 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 19:53 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0          | 0.53         | 3/10/2020 19:53 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0          | 0.24         | 3/10/2020 19:53 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0          | 0.16         | 3/10/2020 19:53 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 19:53 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0          | 0.21         | 3/10/2020 19:53 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10           | 1.8          | 3/10/2020 19:53 | J   |
| 1,2-Dichloroethane-d4 (S)   | 95      |      | %     | 1  | 70-128       |              | 3/10/2020 19:53 |     |
| Toluene-d8 (S)              | 90      |      | %     | 1  | 77-119       |              | 3/10/2020 19:53 |     |
| Bromofluorobenzene (S)      | 105     |      | %     | 1  | 86-123       |              | 3/10/2020 19:53 |     |

Analysis Desc: 8260B SIM Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/10/2020 19:53 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/10/2020 19:53 | J |
| 1,2-Dichloroethane-d4 (S)   | 91    |   | %    | 1 | 77-125 |       | 3/10/2020 19:53 |   |
| Toluene-d8 (S)              | 90    |   | %    | 1 | 80-121 |       | 3/10/2020 19:53 |   |
| Bromofluorobenzene (S)      | 98    |   | %    | 1 | 80-129 |       | 3/10/2020 19:53 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |      |   |      |   |      |       |                 |   |
|----------------|------|---|------|---|------|-------|-----------------|---|
| Chloride       | 5.0  | I | mg/L | 1 | 5.0  | 0.50  | 2/28/2020 21:56 | J |
| Nitrate (as N) | 0.12 | I | mg/L | 1 | 0.50 | 0.050 | 2/28/2020 21:56 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |       |   |      |   |       |       |                |   |
|-------------|-------|---|------|---|-------|-------|----------------|---|
| Ammonia (N) | 0.040 | U | mg/L | 5 | 0.050 | 0.040 | 3/5/2020 16:10 | G |
|-------------|-------|---|------|---|-------|-------|----------------|---|

Analysis Desc: Tot Dissolved Solids,SM2540C

Analytical Method: SM 2540 C

|                        |    |  |      |   |    |    |                |   |
|------------------------|----|--|------|---|----|----|----------------|---|
| Total Dissolved Solids | 46 |  | mg/L | 1 | 10 | 10 | 3/3/2020 14:46 | J |
|------------------------|----|--|------|---|----|----|----------------|---|

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766022**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **SGMW-15R**

Date Collected: 02/27/20 15:11

Sample Description:

Location:

| Parameters                          | Results | Qual | Units                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-------------------------------------|---------|------|----------------------------------|----|-----------------|-----------------|-----------------|-----|
| <b>METALS</b>                       |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 6010B          |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Water                     |         |      | Analytical Method: SW-846 6010   |    |                 |                 |                 |     |
| Arsenic                             | 9.0     | U    | ug/L                             | 1  | 40              | 9.0             | 3/3/2020 15:55  | J   |
| Barium                              | 140     |      | ug/L                             | 1  | 4.0             | 1.0             | 3/3/2020 15:55  | J   |
| Beryllium                           | 0.50    | U    | ug/L                             | 1  | 2.0             | 0.50            | 3/3/2020 15:55  | J   |
| Cadmium                             | 1.0     | U    | ug/L                             | 1  | 4.0             | 1.0             | 3/3/2020 15:55  | J   |
| Chromium                            | 9.4     |      | ug/L                             | 1  | 8.0             | 2.0             | 3/3/2020 15:55  | J   |
| Cobalt                              | 2.0     | U    | ug/L                             | 1  | 8.0             | 2.0             | 3/3/2020 15:55  | J   |
| Copper                              | 4.1     | I    | ug/L                             | 1  | 16              | 4.0             | 3/3/2020 15:55  | J   |
| Iron                                | 2600    |      | ug/L                             | 1  | 400             | 100             | 3/3/2020 15:55  | J   |
| Lead                                | 3.0     | U    | ug/L                             | 1  | 12              | 3.0             | 3/3/2020 15:55  | J   |
| Nickel                              | 14      | I    | ug/L                             | 1  | 24              | 6.0             | 3/3/2020 15:55  | J   |
| Silver                              | 10      | U    | ug/L                             | 1  | 40              | 10              | 3/3/2020 15:55  | J   |
| Sodium                              | 14      |      | mg/L                             | 1  | 1.4             | 0.35            | 3/3/2020 15:55  | J   |
| Vanadium                            | 4.3     |      | ug/L                             | 1  | 4.0             | 1.0             | 3/3/2020 15:55  | J   |
| Zinc                                | 50      | U    | ug/L                             | 1  | 200             | 50              | 3/3/2020 15:55  | J   |
| Analysis Desc: SW846 6020B          |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Total                     |         |      | Analytical Method: SW-846 6020   |    |                 |                 |                 |     |
| Antimony                            | 0.11    | U    | ug/L                             | 1  | 0.70            | 0.11            | 3/3/2020 18:32  | J   |
| Selenium                            | 0.58    | U    | ug/L                             | 1  | 5.0             | 0.58            | 3/3/2020 18:32  | J   |
| Thallium                            | 0.057   | U    | ug/L                             | 1  | 0.20            | 0.057           | 3/3/2020 18:32  | J   |
| Analysis Desc: SW846 7470A          |         |      | Preparation Method: SW-846 7470A |    |                 |                 |                 |     |
| Analysis, Water                     |         |      | Analytical Method: SW-846 7470A  |    |                 |                 |                 |     |
| Mercury                             | 0.011   | U    | ug/L                             | 1  | 0.10            | 0.011           | 3/16/2020 17:12 | J   |
| <b>VOLATILES</b>                    |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: 8260B VOCs Analysis, |         |      | Preparation Method: SW-846 5030B |    |                 |                 |                 |     |
| Water                               |         |      | Analytical Method: SW-846 8260B  |    |                 |                 |                 |     |
| 1,1,1,2-Tetrachloroethane           | 0.54    | U    | ug/L                             | 1  | 1.0             | 0.54            | 3/10/2020 20:20 | J   |
| 1,1,1-Trichloroethane               | 0.22    | U    | ug/L                             | 1  | 1.0             | 0.22            | 3/10/2020 20:20 | J   |
| 1,1,2,2-Tetrachloroethane           | 0.20    | U    | ug/L                             | 1  | 1.0             | 0.20            | 3/10/2020 20:20 | J   |
| 1,1,2-Trichloroethane               | 0.30    | U    | ug/L                             | 1  | 1.0             | 0.30            | 3/10/2020 20:20 | J   |
| 1,1-Dichloroethane                  | 0.14    | U    | ug/L                             | 1  | 1.0             | 0.14            | 3/10/2020 20:20 | J   |
| 1,1-Dichloroethylene                | 0.18    | U    | ug/L                             | 1  | 1.0             | 0.18            | 3/10/2020 20:20 | J   |
| 1,2,3-Trichloropropane              | 0.91    | U    | ug/L                             | 1  | 1.0             | 0.91            | 3/10/2020 20:20 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: J2002766022

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: SGMW-15R

Date Collected: 02/27/20 15:11

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| 1,2-Dibromo-3-Chloropropane | 3.1     | U    | ug/L  | 1  | 5.0             | 3.1             | 3/10/2020 20:20 | J   |
| 1,2-Dichlorobenzene         | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 20:20 | J   |
| 1,2-Dichloroethane          | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 20:20 | J   |
| 1,2-Dichloropropane         | 0.66    | U    | ug/L  | 1  | 1.0             | 0.66            | 3/10/2020 20:20 | J   |
| 1,4-Dichlorobenzene         | 0.22    | U    | ug/L  | 1  | 1.0             | 0.22            | 3/10/2020 20:20 | J   |
| 2-Butanone (MEK)            | 0.43    | U    | ug/L  | 1  | 5.0             | 0.43            | 3/10/2020 20:20 | J   |
| 2-Hexanone                  | 0.71    | U    | ug/L  | 1  | 5.0             | 0.71            | 3/10/2020 20:20 | J   |
| 4-Methyl-2-pentanone (MIBK) | 0.47    | U    | ug/L  | 1  | 1.0             | 0.47            | 3/10/2020 20:20 | J   |
| Acetone                     | 2.1     | U    | ug/L  | 1  | 5.0             | 2.1             | 3/10/2020 20:20 | J   |
| Acrylonitrile               | 1.1     | U    | ug/L  | 1  | 10              | 1.1             | 3/10/2020 20:20 | J   |
| Benzene                     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 20:20 | J   |
| Bromochloromethane          | 0.17    | U    | ug/L  | 1  | 1.0             | 0.17            | 3/10/2020 20:20 | J   |
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/10/2020 20:20 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/10/2020 20:20 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 20:20 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/10/2020 20:20 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 20:20 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 20:20 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 20:20 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 20:20 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 20:20 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 20:20 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 20:20 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 20:20 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 20:20 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 20:20 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 20:20 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 20:20 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 20:20 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 20:20 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 20:20 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 20:20 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 20:20 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 20:20 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 20:20 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 20:20 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 20:20 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 20:20 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 20:20 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 20:20 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766022**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **SGMW-15R**

Date Collected: 02/27/20 15:11

Sample Description:

Location:

| Parameters                | Results    | Qual | Units | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------|------------|------|-------|----------|--------------|--------------|-----------------|-----|
| 1,2-Dichloroethane-d4 (S) | <b>93</b>  |      | %     | <b>1</b> | 70-128       |              | 3/10/2020 20:20 |     |
| Toluene-d8 (S)            | <b>92</b>  |      | %     | <b>1</b> | 77-119       |              | 3/10/2020 20:20 |     |
| Bromofluorobenzene (S)    | <b>106</b> |      | %     | <b>1</b> | 86-123       |              | 3/10/2020 20:20 |     |

Analysis Desc: 8260B SIM Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |              |          |      |          |        |       |                 |   |
|-----------------------------|--------------|----------|------|----------|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | <b>0.11</b>  | <b>U</b> | ug/L | <b>1</b> | 0.20   | 0.11  | 3/10/2020 20:20 | J |
| Ethylene Dibromide (EDB)    | <b>0.020</b> | <b>U</b> | ug/L | <b>1</b> | 0.10   | 0.020 | 3/10/2020 20:20 | J |
| 1,2-Dichloroethane-d4 (S)   | <b>89</b>    |          | %    | <b>1</b> | 77-125 |       | 3/10/2020 20:20 |   |
| Toluene-d8 (S)              | <b>91</b>    |          | %    | <b>1</b> | 80-121 |       | 3/10/2020 20:20 |   |
| Bromofluorobenzene (S)      | <b>99</b>    |          | %    | <b>1</b> | 80-129 |       | 3/10/2020 20:20 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |             |          |      |          |      |       |                 |   |
|----------------|-------------|----------|------|----------|------|-------|-----------------|---|
| Chloride       | <b>51</b>   |          | mg/L | <b>1</b> | 5.0  | 0.50  | 2/28/2020 21:34 | J |
| Nitrate (as N) | <b>0.12</b> | <b>I</b> | mg/L | <b>1</b> | 0.50 | 0.050 | 2/28/2020 21:34 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |              |          |      |          |       |       |                |   |
|-------------|--------------|----------|------|----------|-------|-------|----------------|---|
| Ammonia (N) | <b>0.040</b> | <b>U</b> | mg/L | <b>5</b> | 0.050 | 0.040 | 3/5/2020 16:11 | G |
|-------------|--------------|----------|------|----------|-------|-------|----------------|---|

Analysis Desc: Tot Dissolved Solids,SM2540C

Analytical Method: SM 2540 C

|                        |            |  |      |          |    |    |                |   |
|------------------------|------------|--|------|----------|----|----|----------------|---|
| Total Dissolved Solids | <b>180</b> |  | mg/L | <b>1</b> | 10 | 10 | 3/3/2020 14:46 | J |
|------------------------|------------|--|------|----------|----|----|----------------|---|

Lab ID: **J2002766023**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **TRIP**

Date Collected: 02/27/20 00:00

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed | Lab |
|------------|---------|------|-------|----|--------------|--------------|----------|-----|
|------------|---------|------|-------|----|--------------|--------------|----------|-----|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B

|                           |             |          |      |          |     |      |                 |   |
|---------------------------|-------------|----------|------|----------|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane | <b>0.54</b> | <b>U</b> | ug/L | <b>1</b> | 1.0 | 0.54 | 3/10/2020 20:46 | J |
| 1,1,1-Trichloroethane     | <b>0.22</b> | <b>U</b> | ug/L | <b>1</b> | 1.0 | 0.22 | 3/10/2020 20:46 | J |
| 1,1,2,2-Tetrachloroethane | <b>0.20</b> | <b>U</b> | ug/L | <b>1</b> | 1.0 | 0.20 | 3/10/2020 20:46 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766023**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **TRIP**

Date Collected: 02/27/20 00:00

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| 1,1,2-Trichloroethane       | 0.30    | U    | ug/L  | 1  | 1.0             | 0.30            | 3/10/2020 20:46 | J   |
| 1,1-Dichloroethane          | 0.14    | U    | ug/L  | 1  | 1.0             | 0.14            | 3/10/2020 20:46 | J   |
| 1,1-Dichloroethylene        | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 20:46 | J   |
| 1,2,3-Trichloropropane      | 0.91    | U    | ug/L  | 1  | 1.0             | 0.91            | 3/10/2020 20:46 | J   |
| 1,2-Dibromo-3-Chloropropane | 3.1     | U    | ug/L  | 1  | 5.0             | 3.1             | 3/10/2020 20:46 | J   |
| 1,2-Dichlorobenzene         | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 20:46 | J   |
| 1,2-Dichloroethane          | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 20:46 | J   |
| 1,2-Dichloropropane         | 0.66    | U    | ug/L  | 1  | 1.0             | 0.66            | 3/10/2020 20:46 | J   |
| 1,4-Dichlorobenzene         | 0.22    | U    | ug/L  | 1  | 1.0             | 0.22            | 3/10/2020 20:46 | J   |
| 2-Butanone (MEK)            | 0.43    | U    | ug/L  | 1  | 5.0             | 0.43            | 3/10/2020 20:46 | J   |
| 2-Hexanone                  | 0.71    | U    | ug/L  | 1  | 5.0             | 0.71            | 3/10/2020 20:46 | J   |
| 4-Methyl-2-pentanone (MIBK) | 0.47    | U    | ug/L  | 1  | 1.0             | 0.47            | 3/10/2020 20:46 | J   |
| Acetone                     | 2.1     | U    | ug/L  | 1  | 5.0             | 2.1             | 3/10/2020 20:46 | J   |
| Acrylonitrile               | 1.1     | U    | ug/L  | 1  | 10              | 1.1             | 3/10/2020 20:46 | J   |
| Benzene                     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 20:46 | J   |
| Bromochloromethane          | 0.17    | U    | ug/L  | 1  | 1.0             | 0.17            | 3/10/2020 20:46 | J   |
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/10/2020 20:46 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/10/2020 20:46 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 20:46 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/10/2020 20:46 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 20:46 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 20:46 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 20:46 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 20:46 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 20:46 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 20:46 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 20:46 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 20:46 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 20:46 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 20:46 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 20:46 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 20:46 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 20:46 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 20:46 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 20:46 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 20:46 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 20:46 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 20:46 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 20:46 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 20:46 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766023**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **TRIP**

Date Collected: 02/27/20 00:00

Sample Description:

Location:

| Parameters                               | Results      | Qual     | Units       | DF       | Adjusted<br>PQL                       | Adjusted<br>MDL | Analyzed        | Lab |
|------------------------------------------|--------------|----------|-------------|----------|---------------------------------------|-----------------|-----------------|-----|
| cis-1,3-Dichloropropene                  | <b>0.16</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0                                   | 0.16            | 3/10/2020 20:46 | J   |
| trans-1,2-Dichloroethylene               | <b>0.20</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0                                   | 0.20            | 3/10/2020 20:46 | J   |
| trans-1,3-Dichloropropylene              | <b>0.21</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 1.0                                   | 0.21            | 3/10/2020 20:46 | J   |
| trans-1,4-Dichloro-2-butene              | <b>1.8</b>   | <b>U</b> | <b>ug/L</b> | <b>1</b> | 10                                    | 1.8             | 3/10/2020 20:46 | J   |
| 1,2-Dichloroethane-d4 (S)                | <b>94</b>    |          | <b>%</b>    | <b>1</b> | 70-128                                |                 | 3/10/2020 20:46 |     |
| Toluene-d8 (S)                           | <b>89</b>    |          | <b>%</b>    | <b>1</b> | 77-119                                |                 | 3/10/2020 20:46 |     |
| Bromofluorobenzene (S)                   | <b>105</b>   |          | <b>%</b>    | <b>1</b> | 86-123                                |                 | 3/10/2020 20:46 |     |
| Analysis Desc: 8260B SIM Analysis, Water |              |          |             |          | Preparation Method: SW-846 5030B      |                 |                 |     |
|                                          |              |          |             |          | Analytical Method: SW-846 8260B (SIM) |                 |                 |     |
| 1,2-Dibromo-3-Chloropropane              | <b>0.11</b>  | <b>U</b> | <b>ug/L</b> | <b>1</b> | 0.20                                  | 0.11            | 3/10/2020 20:46 | J   |
| Ethylene Dibromide (EDB)                 | <b>0.020</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 0.10                                  | 0.020           | 3/10/2020 20:46 | J   |
| 1,2-Dichloroethane-d4 (S)                | <b>90</b>    |          | <b>%</b>    | <b>1</b> | 77-125                                |                 | 3/10/2020 20:46 |     |
| Toluene-d8 (S)                           | <b>89</b>    |          | <b>%</b>    | <b>1</b> | 80-121                                |                 | 3/10/2020 20:46 |     |
| Bromofluorobenzene (S)                   | <b>98</b>    |          | <b>%</b>    | <b>1</b> | 80-129                                |                 | 3/10/2020 20:46 |     |

Lab ID: **J2002766024**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-39I**

Date Collected: 02/27/20 11:21

Sample Description:

Location:

| Parameters                                 | Results      | Qual     | Units       | DF       | Adjusted<br>PQL                  | Adjusted<br>MDL | Analyzed        | Lab |
|--------------------------------------------|--------------|----------|-------------|----------|----------------------------------|-----------------|-----------------|-----|
| <b>METALS</b>                              |              |          |             |          |                                  |                 |                 |     |
| Analysis Desc: SW846 6010B Analysis, Water |              |          |             |          | Preparation Method: SW-846 3010A |                 |                 |     |
|                                            |              |          |             |          | Analytical Method: SW-846 6010   |                 |                 |     |
| Iron                                       | <b>130</b>   | <b>I</b> | <b>ug/L</b> | <b>1</b> | 400                              | 100             | 3/3/2020 16:13  | J   |
| Sodium                                     | <b>3.0</b>   |          | <b>mg/L</b> | <b>1</b> | 1.4                              | 0.35            | 3/3/2020 16:13  | J   |
| <b>WET CHEMISTRY</b>                       |              |          |             |          |                                  |                 |                 |     |
| Analysis Desc: IC,E300.0, Water            |              |          |             |          | Analytical Method: EPA 300.0     |                 |                 |     |
| Chloride                                   | <b>5.8</b>   |          | <b>mg/L</b> | <b>1</b> | 5.0                              | 0.50            | 2/28/2020 17:09 | J   |
| Nitrate (as N)                             | <b>0.12</b>  | <b>I</b> | <b>mg/L</b> | <b>1</b> | 0.50                             | 0.050           | 2/28/2020 17:09 | J   |
| Analysis Desc: Ammonia,E350.1, Water       |              |          |             |          | Analytical Method: EPA 350.1     |                 |                 |     |
| Ammonia (N)                                | <b>0.040</b> | <b>U</b> | <b>mg/L</b> | <b>5</b> | 0.050                            | 0.040           | 3/5/2020 16:13  | G   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766024**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-39I**

Date Collected: 02/27/20 11:21

Sample Description:

Location:

| Parameters                                  | Results | Qual                         | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed       | Lab |
|---------------------------------------------|---------|------------------------------|-------|----|--------------|--------------|----------------|-----|
| Analysis Desc: Tot Dissolved Solids,SM2540C |         | Analytical Method: SM 2540 C |       |    |              |              |                |     |
| Total Dissolved Solids                      | 58      |                              | mg/L  | 1  | 10           | 10           | 3/3/2020 14:46 | J   |

Lab ID: **J2002766025**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **MWB-3I**

Date Collected: 02/27/20 12:31

Sample Description:

Location:

| Parameters                                | Results | Qual                                                               | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed       | Lab |
|-------------------------------------------|---------|--------------------------------------------------------------------|-------|----|--------------|--------------|----------------|-----|
| Analysis Desc: SW846 6010B Analysis,Water |         | Preparation Method: SW-846 3010A<br>Analytical Method: SW-846 6010 |       |    |              |              |                |     |
| Iron                                      | 700     |                                                                    | ug/L  | 1  | 400          | 100          | 3/3/2020 16:24 | J   |
| Sodium                                    | 3.3     |                                                                    | mg/L  | 1  | 1.4          | 0.35         | 3/3/2020 16:24 | J   |

### WET CHEMISTRY

|                                             |       |                              |      |   |       |       |                 |   |
|---------------------------------------------|-------|------------------------------|------|---|-------|-------|-----------------|---|
| Analysis Desc: IC,E300.0,Water              |       | Analytical Method: EPA 300.0 |      |   |       |       |                 |   |
| Chloride                                    | 6.1   |                              | mg/L | 1 | 5.0   | 0.50  | 2/28/2020 20:06 | J |
| Nitrate (as N)                              | 0.13  | I                            | mg/L | 1 | 0.50  | 0.050 | 2/28/2020 20:06 | J |
| Analysis Desc: Ammonia,E350.1,Water         |       | Analytical Method: EPA 350.1 |      |   |       |       |                 |   |
| Ammonia (N)                                 | 0.040 | U                            | mg/L | 5 | 0.050 | 0.040 | 3/5/2020 16:14  | G |
| Analysis Desc: Tot Dissolved Solids,SM2540C |       | Analytical Method: SM 2540 C |      |   |       |       |                 |   |
| Total Dissolved Solids                      | 39    |                              | mg/L | 1 | 10    | 10    | 3/3/2020 14:46  | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: J2002766026

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: MWB-351

Date Collected: 02/27/20 14:06

Sample Description:

Location:

| Parameters                                   | Results | Qual | Units                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|----------------------------------------------|---------|------|----------------------------------|----|-----------------|-----------------|-----------------|-----|
| <b>METALS</b>                                |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 6010B                   |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Water                              |         |      | Analytical Method: SW-846 6010   |    |                 |                 |                 |     |
| Iron                                         | 430     |      | ug/L                             | 1  | 400             | 100             | 3/3/2020 16:28  | J   |
| Sodium                                       | 2.1     |      | mg/L                             | 1  | 1.4             | 0.35            | 3/3/2020 16:28  | J   |
| <b>WET CHEMISTRY</b>                         |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: IC,E300.0, Water              |         |      | Analytical Method: EPA 300.0     |    |                 |                 |                 |     |
| Chloride                                     | 3.1     | I    | mg/L                             | 1  | 5.0             | 0.50            | 2/28/2020 20:50 | J   |
| Nitrate (as N)                               | 0.14    | I    | mg/L                             | 1  | 0.50            | 0.050           | 2/28/2020 20:50 | J   |
| Analysis Desc: Ammonia,E350.1, Water         |         |      | Analytical Method: EPA 350.1     |    |                 |                 |                 |     |
| Ammonia (N)                                  | 0.040   | U    | mg/L                             | 5  | 0.050           | 0.040           | 3/5/2020 16:15  | G   |
| Analysis Desc: Tot Dissolved Solids, SM2540C |         |      | Analytical Method: SM 2540 C     |    |                 |                 |                 |     |
| Total Dissolved Solids                       | 38      |      | mg/L                             | 1  | 10              | 10              | 3/3/2020 14:46  | J   |

Lab ID: J2002766027

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: Equipment Blank #1

Date Collected: 02/27/20 16:10

Sample Description:

Location:

| Parameters                      | Results | Qual | Units                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|---------------------------------|---------|------|----------------------------------|----|-----------------|-----------------|-----------------|-----|
| <b>METALS</b>                   |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 6010B      |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Water                 |         |      | Analytical Method: SW-846 6010   |    |                 |                 |                 |     |
| Iron                            | 100     | U    | ug/L                             | 1  | 400             | 100             | 3/3/2020 16:32  | J   |
| Sodium                          | 1.1     | I    | mg/L                             | 1  | 1.4             | 0.35            | 3/3/2020 16:32  | J   |
| <b>WET CHEMISTRY</b>            |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: IC,E300.0, Water |         |      | Analytical Method: EPA 300.0     |    |                 |                 |                 |     |
| Chloride                        | 0.50    | U    | mg/L                             | 1  | 5.0             | 0.50            | 2/28/2020 22:18 | J   |
| Nitrate (as N)                  | 0.050   | U    | mg/L                             | 1  | 0.50            | 0.050           | 2/28/2020 22:18 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766027**

Date Received: 02/28/20 07:00 Matrix: Water

Sample ID: **Equipment Blank #1**

Date Collected: 02/27/20 16:10

Sample Description:

Location:

| Parameters                                  | Results | Qual                         | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed       | Lab |
|---------------------------------------------|---------|------------------------------|-------|----|--------------|--------------|----------------|-----|
| Analysis Desc: Ammonia,E350.1,Water         |         | Analytical Method: EPA 350.1 |       |    |              |              |                |     |
| Ammonia (N)                                 | 0.0080  | U                            | mg/L  | 1  | 0.010        | 0.0080       | 3/5/2020 16:16 | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C |         | Analytical Method: SM 2540 C |       |    |              |              |                |     |
| Total Dissolved Solids                      | 10      | U                            | mg/L  | 1  | 10           | 10           | 3/3/2020 14:46 | J   |

Lab ID: **J2002766028**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-32I**

Date Collected: 02/28/20 08:37

Sample Description:

Location:

| Parameters                                  | Results                          | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------------------------|----------------------------------|------|-------|----|--------------|--------------|-----------------|-----|
| METALS                                      |                                  |      |       |    |              |              |                 |     |
| Analysis Desc: SW846 6010B Analysis,Water   | Preparation Method: SW-846 3010A |      |       |    |              |              |                 |     |
|                                             | Analytical Method: SW-846 6010   |      |       |    |              |              |                 |     |
| Iron                                        | 300                              | I    | ug/L  | 1  | 400          | 100          | 3/3/2020 16:35  | J   |
| Sodium                                      | 3.1                              |      | mg/L  | 1  | 1.4          | 0.35         | 3/3/2020 16:35  | J   |
| WET CHEMISTRY                               |                                  |      |       |    |              |              |                 |     |
| Analysis Desc: IC,E300.0,Water              | Analytical Method: EPA 300.0     |      |       |    |              |              |                 |     |
| Chloride                                    | 4.5                              | I    | mg/L  | 1  | 5.0          | 0.50         | 2/29/2020 00:52 | J   |
| Nitrate (as N)                              | 0.14                             | I    | mg/L  | 1  | 0.50         | 0.050        | 2/29/2020 00:52 | J   |
| Analysis Desc: Ammonia,E350.1,Water         | Analytical Method: EPA 350.1     |      |       |    |              |              |                 |     |
| Ammonia (N)                                 | 0.040                            | U    | mg/L  | 5  | 0.050        | 0.040        | 3/5/2020 16:17  | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C | Analytical Method: SM 2540 C     |      |       |    |              |              |                 |     |
| Total Dissolved Solids                      | 50                               |      | mg/L  | 1  | 10           | 10           | 3/3/2020 14:46  | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: J2002766029

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: MWB-34I

Date Collected: 02/28/20 06:56

Sample Description:

Location:

| Parameters                                      | Results | Qual | Units                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-------------------------------------------------|---------|------|----------------------------------|----|-----------------|-----------------|-----------------|-----|
| <b>METALS</b>                                   |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 6010B                      |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Water                                 |         |      | Analytical Method: SW-846 6010   |    |                 |                 |                 |     |
| Iron                                            | 330     | I    | ug/L                             | 1  | 400             | 100             | 3/3/2020 16:39  | J   |
| Sodium                                          | 3.1     |      | mg/L                             | 1  | 1.4             | 0.35            | 3/3/2020 16:39  | J   |
| <b>WET CHEMISTRY</b>                            |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: IC,E300.0, Water                 |         |      | Analytical Method: EPA 300.0     |    |                 |                 |                 |     |
| Chloride                                        | 4.7     | I    | mg/L                             | 1  | 5.0             | 0.50            | 2/28/2020 22:40 | J   |
| Nitrate (as N)                                  | 0.12    | I    | mg/L                             | 1  | 0.50            | 0.050           | 2/28/2020 22:40 | J   |
| Analysis Desc: Ammonia,E350.1, Water            |         |      | Analytical Method: EPA 350.1     |    |                 |                 |                 |     |
| Ammonia (N)                                     | 0.040   | U,J4 | mg/L                             | 5  | 0.050           | 0.040           | 3/5/2020 16:27  | G   |
| Analysis Desc: Tot Dissolved<br>Solids, SM2540C |         |      | Analytical Method: SM 2540 C     |    |                 |                 |                 |     |
| Total Dissolved Solids                          | 53      |      | mg/L                             | 1  | 10              | 10              | 3/5/2020 10:39  | J   |

Lab ID: J2002766030

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: MWB-11S

Date Collected: 02/28/20 09:41

Sample Description:

Location:

| Parameters                 | Results | Qual | Units                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|----------------------------|---------|------|----------------------------------|----|-----------------|-----------------|----------------|-----|
| <b>METALS</b>              |         |      |                                  |    |                 |                 |                |     |
| Analysis Desc: SW846 6010B |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                |     |
| Analysis, Water            |         |      | Analytical Method: SW-846 6010   |    |                 |                 |                |     |
| Arsenic                    | 9.0     | U    | ug/L                             | 1  | 40              | 9.0             | 3/3/2020 16:43 | J   |
| Barium                     | 43      |      | ug/L                             | 1  | 4.0             | 1.0             | 3/3/2020 16:43 | J   |
| Beryllium                  | 0.50    | U    | ug/L                             | 1  | 2.0             | 0.50            | 3/3/2020 16:43 | J   |
| Cadmium                    | 1.0     | U    | ug/L                             | 1  | 4.0             | 1.0             | 3/3/2020 16:43 | J   |
| Chromium                   | 2.0     | U    | ug/L                             | 1  | 8.0             | 2.0             | 3/3/2020 16:43 | J   |
| Cobalt                     | 2.0     | U    | ug/L                             | 1  | 8.0             | 2.0             | 3/3/2020 16:43 | J   |
| Copper                     | 4.0     | U    | ug/L                             | 1  | 16              | 4.0             | 3/3/2020 16:43 | J   |
| Iron                       | 910     |      | ug/L                             | 1  | 400             | 100             | 3/3/2020 16:43 | J   |
| Lead                       | 3.0     | U    | ug/L                             | 1  | 12              | 3.0             | 3/3/2020 16:43 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766030**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-11S**

Date Collected: 02/28/20 09:41

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|------------|---------|------|-------|----|-----------------|-----------------|----------------|-----|
| Nickel     | 6.0     | U    | ug/L  | 1  | 24              | 6.0             | 3/3/2020 16:43 | J   |
| Silver     | 10      | U    | ug/L  | 1  | 40              | 10              | 3/3/2020 16:43 | J   |
| Sodium     | 18      |      | mg/L  | 1  | 1.4             | 0.35            | 3/3/2020 16:43 | J   |
| Vanadium   | 1.7     | I    | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 16:43 | J   |
| Zinc       | 50      | U    | ug/L  | 1  | 200             | 50              | 3/3/2020 16:43 | J   |

Analysis Desc: SW846 6020B  
Analysis, Total

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6020

|          |       |   |      |   |      |       |                 |   |
|----------|-------|---|------|---|------|-------|-----------------|---|
| Antimony | 0.12  | I | ug/L | 1 | 0.70 | 0.11  | 3/15/2020 22:45 | J |
| Selenium | 0.58  | U | ug/L | 1 | 5.0  | 0.58  | 3/15/2020 22:45 | J |
| Thallium | 0.057 | U | ug/L | 1 | 0.20 | 0.057 | 3/15/2020 22:45 | J |

Analysis Desc: SW846 7470A  
Analysis, Water

Preparation Method: SW-846 7470A

Analytical Method: SW-846 7470A

|         |       |   |      |   |      |       |                 |   |
|---------|-------|---|------|---|------|-------|-----------------|---|
| Mercury | 0.011 | U | ug/L | 1 | 0.10 | 0.011 | 3/16/2020 17:15 | J |
|---------|-------|---|------|---|------|-------|-----------------|---|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B

|                             |      |   |      |   |     |      |                 |   |
|-----------------------------|------|---|------|---|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | 0.54 | U | ug/L | 1 | 1.0 | 0.54 | 3/10/2020 21:13 | J |
| 1,1,1-Trichloroethane       | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 21:13 | J |
| 1,1,2,2-Tetrachloroethane   | 0.20 | U | ug/L | 1 | 1.0 | 0.20 | 3/10/2020 21:13 | J |
| 1,1,2-Trichloroethane       | 0.30 | U | ug/L | 1 | 1.0 | 0.30 | 3/10/2020 21:13 | J |
| 1,1-Dichloroethane          | 0.14 | U | ug/L | 1 | 1.0 | 0.14 | 3/10/2020 21:13 | J |
| 1,1-Dichloroethylene        | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 21:13 | J |
| 1,2,3-Trichloropropane      | 0.91 | U | ug/L | 1 | 1.0 | 0.91 | 3/10/2020 21:13 | J |
| 1,2-Dibromo-3-Chloropropane | 3.1  | U | ug/L | 1 | 5.0 | 3.1  | 3/10/2020 21:13 | J |
| 1,2-Dichlorobenzene         | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 21:13 | J |
| 1,2-Dichloroethane          | 0.23 | U | ug/L | 1 | 1.0 | 0.23 | 3/10/2020 21:13 | J |
| 1,2-Dichloropropane         | 0.66 | U | ug/L | 1 | 1.0 | 0.66 | 3/10/2020 21:13 | J |
| 1,4-Dichlorobenzene         | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 21:13 | J |
| 2-Butanone (MEK)            | 0.43 | U | ug/L | 1 | 5.0 | 0.43 | 3/10/2020 21:13 | J |
| 2-Hexanone                  | 0.71 | U | ug/L | 1 | 5.0 | 0.71 | 3/10/2020 21:13 | J |
| 4-Methyl-2-pentanone (MIBK) | 0.47 | U | ug/L | 1 | 1.0 | 0.47 | 3/10/2020 21:13 | J |
| Acetone                     | 2.1  | U | ug/L | 1 | 5.0 | 2.1  | 3/10/2020 21:13 | J |
| Acrylonitrile               | 1.1  | U | ug/L | 1 | 10  | 1.1  | 3/10/2020 21:13 | J |
| Benzene                     | 0.16 | U | ug/L | 1 | 1.0 | 0.16 | 3/10/2020 21:13 | J |
| Bromochloromethane          | 0.17 | U | ug/L | 1 | 1.0 | 0.17 | 3/10/2020 21:13 | J |
| Bromodichloromethane        | 0.46 | U | ug/L | 1 | 1.0 | 0.46 | 3/10/2020 21:13 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766030**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-11S**

Date Collected: 02/28/20 09:41

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/10/2020 21:13 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 21:13 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/10/2020 21:13 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 21:13 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 21:13 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 21:13 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 21:13 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 21:13 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 21:13 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 21:13 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 21:13 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 21:13 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 21:13 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 21:13 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 21:13 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 21:13 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 21:13 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 21:13 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 21:13 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 21:13 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 21:13 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 21:13 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 21:13 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 21:13 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 21:13 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 21:13 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 21:13 | J   |
| 1,2-Dichloroethane-d4 (S)   | 95      |      | %     | 1  | 70-128          |                 | 3/10/2020 21:13 |     |
| Toluene-d8 (S)              | 89      |      | %     | 1  | 77-119          |                 | 3/10/2020 21:13 |     |
| Bromofluorobenzene (S)      | 103     |      | %     | 1  | 86-123          |                 | 3/10/2020 21:13 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/10/2020 21:13 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/10/2020 21:13 | J |
| 1,2-Dichloroethane-d4 (S)   | 91    |   | %    | 1 | 77-125 |       | 3/10/2020 21:13 |   |
| Toluene-d8 (S)              | 89    |   | %    | 1 | 80-121 |       | 3/10/2020 21:13 |   |
| Bromofluorobenzene (S)      | 96    |   | %    | 1 | 80-129 |       | 3/10/2020 21:13 |   |

### WET CHEMISTRY

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766030**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-11S**

Date Collected: 02/28/20 09:41

Sample Description:

Location:

| Parameters                                  | Results | Qual                         | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|---------------------------------------------|---------|------------------------------|-------|----|-----------------|-----------------|-----------------|-----|
| Analysis Desc: IC,E300.0,Water              |         | Analytical Method: EPA 300.0 |       |    |                 |                 |                 |     |
| Chloride                                    | 35      |                              | mg/L  | 1  | 5.0             | 0.50            | 2/29/2020 01:36 | J   |
| Nitrate (as N)                              | 0.14    | I                            | mg/L  | 1  | 0.50            | 0.050           | 2/29/2020 01:36 | J   |
| Analysis Desc: Ammonia,E350.1,Water         |         | Analytical Method: EPA 350.1 |       |    |                 |                 |                 |     |
| Ammonia (N)                                 | 0.040   | U                            | mg/L  | 5  | 0.050           | 0.040           | 3/5/2020 16:30  | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C |         | Analytical Method: SM 2540 C |       |    |                 |                 |                 |     |
| Total Dissolved Solids                      | 130     |                              | mg/L  | 1  | 10              | 10              | 3/5/2020 10:39  | J   |

Lab ID: **J2002766031**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-32S**

Date Collected: 02/28/20 09:07

Sample Description:

Location:

| Parameters                 | Results | Qual                             | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|----------------------------|---------|----------------------------------|-------|----|-----------------|-----------------|----------------|-----|
| <b>METALS</b>              |         |                                  |       |    |                 |                 |                |     |
| Analysis Desc: SW846 6010B |         | Preparation Method: SW-846 3010A |       |    |                 |                 |                |     |
| Analysis,Water             |         | Analytical Method: SW-846 6010   |       |    |                 |                 |                |     |
| Arsenic                    | 9.0     | U                                | ug/L  | 1  | 40              | 9.0             | 3/3/2020 16:47 | J   |
| Barium                     | 13      |                                  | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 16:47 | J   |
| Beryllium                  | 0.50    | U                                | ug/L  | 1  | 2.0             | 0.50            | 3/3/2020 16:47 | J   |
| Cadmium                    | 1.0     | U                                | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 16:47 | J   |
| Chromium                   | 2.6     | I                                | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 16:47 | J   |
| Cobalt                     | 2.0     | U                                | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 16:47 | J   |
| Copper                     | 4.0     | U                                | ug/L  | 1  | 16              | 4.0             | 3/3/2020 16:47 | J   |
| Iron                       | 460     |                                  | ug/L  | 1  | 400             | 100             | 3/3/2020 16:47 | J   |
| Lead                       | 3.0     | U                                | ug/L  | 1  | 12              | 3.0             | 3/3/2020 16:47 | J   |
| Nickel                     | 6.0     | U                                | ug/L  | 1  | 24              | 6.0             | 3/3/2020 16:47 | J   |
| Silver                     | 10      | U                                | ug/L  | 1  | 40              | 10              | 3/3/2020 16:47 | J   |
| Sodium                     | 5.4     |                                  | mg/L  | 1  | 1.4             | 0.35            | 3/3/2020 16:47 | J   |
| Vanadium                   | 8.8     |                                  | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 16:47 | J   |
| Zinc                       | 50      | U                                | ug/L  | 1  | 200             | 50              | 3/3/2020 16:47 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766031**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-32S**

Date Collected: 02/28/20 09:07

Sample Description:

Location:

| Parameters                 | Results | Qual                             | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|----------------------------|---------|----------------------------------|-------|----|--------------|--------------|-----------------|-----|
| Analysis Desc: SW846 6020B |         | Preparation Method: SW-846 3010A |       |    |              |              |                 |     |
| Analysis, Total            |         | Analytical Method: SW-846 6020   |       |    |              |              |                 |     |
| Antimony                   | 0.27    | I                                | ug/L  | 1  | 0.70         | 0.11         | 3/15/2020 22:49 | J   |
| Selenium                   | 1.9     | I                                | ug/L  | 1  | 5.0          | 0.58         | 3/15/2020 22:49 | J   |
| Thallium                   | 0.057   | U                                | ug/L  | 1  | 0.20         | 0.057        | 3/15/2020 22:49 | J   |

Analysis Desc: SW846 7470A  
Analysis, Water

Preparation Method: SW-846 7470A

Analytical Method: SW-846 7470A

|         |       |   |      |   |      |       |                 |   |
|---------|-------|---|------|---|------|-------|-----------------|---|
| Mercury | 0.011 | U | ug/L | 1 | 0.10 | 0.011 | 3/16/2020 17:18 | J |
|---------|-------|---|------|---|------|-------|-----------------|---|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B

|                             |      |   |      |   |     |      |                 |   |
|-----------------------------|------|---|------|---|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | 0.54 | U | ug/L | 1 | 1.0 | 0.54 | 3/10/2020 21:40 | J |
| 1,1,1-Trichloroethane       | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 21:40 | J |
| 1,1,2,2-Tetrachloroethane   | 0.20 | U | ug/L | 1 | 1.0 | 0.20 | 3/10/2020 21:40 | J |
| 1,1,2-Trichloroethane       | 0.30 | U | ug/L | 1 | 1.0 | 0.30 | 3/10/2020 21:40 | J |
| 1,1-Dichloroethane          | 0.14 | U | ug/L | 1 | 1.0 | 0.14 | 3/10/2020 21:40 | J |
| 1,1-Dichloroethylene        | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 21:40 | J |
| 1,2,3-Trichloropropane      | 0.91 | U | ug/L | 1 | 1.0 | 0.91 | 3/10/2020 21:40 | J |
| 1,2-Dibromo-3-Chloropropane | 3.1  | U | ug/L | 1 | 5.0 | 3.1  | 3/10/2020 21:40 | J |
| 1,2-Dichlorobenzene         | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/10/2020 21:40 | J |
| 1,2-Dichloroethane          | 0.23 | U | ug/L | 1 | 1.0 | 0.23 | 3/10/2020 21:40 | J |
| 1,2-Dichloropropane         | 0.66 | U | ug/L | 1 | 1.0 | 0.66 | 3/10/2020 21:40 | J |
| 1,4-Dichlorobenzene         | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/10/2020 21:40 | J |
| 2-Butanone (MEK)            | 0.43 | U | ug/L | 1 | 5.0 | 0.43 | 3/10/2020 21:40 | J |
| 2-Hexanone                  | 0.71 | U | ug/L | 1 | 5.0 | 0.71 | 3/10/2020 21:40 | J |
| 4-Methyl-2-pentanone (MIBK) | 0.47 | U | ug/L | 1 | 1.0 | 0.47 | 3/10/2020 21:40 | J |
| Acetone                     | 2.1  | U | ug/L | 1 | 5.0 | 2.1  | 3/10/2020 21:40 | J |
| Acrylonitrile               | 1.1  | U | ug/L | 1 | 10  | 1.1  | 3/10/2020 21:40 | J |
| Benzene                     | 0.16 | U | ug/L | 1 | 1.0 | 0.16 | 3/10/2020 21:40 | J |
| Bromochloromethane          | 0.17 | U | ug/L | 1 | 1.0 | 0.17 | 3/10/2020 21:40 | J |
| Bromodichloromethane        | 0.46 | U | ug/L | 1 | 1.0 | 0.46 | 3/10/2020 21:40 | J |
| Bromoform                   | 0.44 | U | ug/L | 1 | 1.0 | 0.44 | 3/10/2020 21:40 | J |
| Bromomethane                | 0.29 | U | ug/L | 1 | 1.0 | 0.29 | 3/10/2020 21:40 | J |
| Carbon Disulfide            | 0.67 | U | ug/L | 1 | 1.0 | 0.67 | 3/10/2020 21:40 | J |
| Carbon Tetrachloride        | 0.36 | U | ug/L | 1 | 1.0 | 0.36 | 3/10/2020 21:40 | J |
| Chlorobenzene               | 0.21 | U | ug/L | 1 | 1.0 | 0.21 | 3/10/2020 21:40 | J |
| Chloroethane                | 0.33 | U | ug/L | 1 | 1.0 | 0.33 | 3/10/2020 21:40 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766031**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-32S**

Date Collected: 02/28/20 09:07

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 21:40 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 21:40 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 21:40 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 21:40 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 21:40 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 21:40 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 21:40 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 21:40 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 21:40 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 21:40 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 21:40 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 21:40 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 21:40 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 21:40 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 21:40 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 21:40 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 21:40 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 21:40 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 21:40 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 21:40 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 21:40 | J   |
| 1,2-Dichloroethane-d4 (S)   | 97      |      | %     | 1  | 70-128          |                 | 3/10/2020 21:40 |     |
| Toluene-d8 (S)              | 90      |      | %     | 1  | 77-119          |                 | 3/10/2020 21:40 |     |
| Bromofluorobenzene (S)      | 105     |      | %     | 1  | 86-123          |                 | 3/10/2020 21:40 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/10/2020 21:40 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/10/2020 21:40 | J |
| 1,2-Dichloroethane-d4 (S)   | 93    |   | %    | 1 | 77-125 |       | 3/10/2020 21:40 |   |
| Toluene-d8 (S)              | 90    |   | %    | 1 | 80-121 |       | 3/10/2020 21:40 |   |
| Bromofluorobenzene (S)      | 98    |   | %    | 1 | 80-129 |       | 3/10/2020 21:40 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |      |   |      |   |      |       |                 |   |
|----------------|------|---|------|---|------|-------|-----------------|---|
| Chloride       | 9.9  |   | mg/L | 1 | 5.0  | 0.50  | 2/28/2020 23:46 | J |
| Nitrate (as N) | 0.15 | I | mg/L | 1 | 0.50 | 0.050 | 2/28/2020 23:46 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766031**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-32S**

Date Collected: 02/28/20 09:07

Sample Description:

Location:

| Parameters                                  | Results     | Qual                         | Units       | DF       | Adjusted PQL | Adjusted MDL | Analyzed       | Lab |
|---------------------------------------------|-------------|------------------------------|-------------|----------|--------------|--------------|----------------|-----|
| Ammonia (N)                                 | <b>0.38</b> |                              | <b>mg/L</b> | <b>5</b> | 0.050        | 0.040        | 3/5/2020 16:31 | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C |             | Analytical Method: SM 2540 C |             |          |              |              |                |     |
| Total Dissolved Solids                      | <b>120</b>  |                              | <b>mg/L</b> | <b>1</b> | 10           | 10           | 3/5/2020 10:39 | J   |

Lab ID: **J2002766032**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-33S**

Date Collected: 02/28/20 07:59

Sample Description:

Location:

| Parameters                 | Results | Qual                             | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|----------------------------|---------|----------------------------------|-------|----|-----------------|-----------------|----------------|-----|
| METALS                     |         |                                  |       |    |                 |                 |                |     |
| Analysis Desc: SW846 6010B |         | Preparation Method: SW-846 3010A |       |    |                 |                 |                |     |
| Analysis,Water             |         | Analytical Method: SW-846 6010   |       |    |                 |                 |                |     |
| Arsenic                    | 9.0     | U                                | ug/L  | 1  | 40              | 9.0             | 3/3/2020 16:50 | J   |
| Barium                     | 4.1     |                                  | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 16:50 | J   |
| Beryllium                  | 0.50    | U                                | ug/L  | 1  | 2.0             | 0.50            | 3/3/2020 16:50 | J   |
| Cadmium                    | 1.0     | U                                | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 16:50 | J   |
| Chromium                   | 2.0     | U                                | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 16:50 | J   |
| Cobalt                     | 2.0     | U                                | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 16:50 | J   |
| Copper                     | 4.4     | I                                | ug/L  | 1  | 16              | 4.0             | 3/3/2020 16:50 | J   |
| Iron                       | 350     | I                                | ug/L  | 1  | 400             | 100             | 3/3/2020 16:50 | J   |
| Lead                       | 3.0     | U                                | ug/L  | 1  | 12              | 3.0             | 3/3/2020 16:50 | J   |
| Nickel                     | 6.0     | U                                | ug/L  | 1  | 24              | 6.0             | 3/3/2020 16:50 | J   |
| Silver                     | 10      | U                                | ug/L  | 1  | 40              | 10              | 3/3/2020 16:50 | J   |
| Sodium                     | 8.6     |                                  | mg/L  | 1  | 1.4             | 0.35            | 3/3/2020 16:50 | J   |
| Vanadium                   | 15      |                                  | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 16:50 | J   |
| Zinc                       | 50      | U                                | ug/L  | 1  | 200             | 50              | 3/3/2020 16:50 | J   |

Analysis Desc: SW846 6020B Analysis,Total

Preparation Method: SW-846 3010A  
Analytical Method: SW-846 6020

|          |              |          |             |          |      |       |                 |   |
|----------|--------------|----------|-------------|----------|------|-------|-----------------|---|
| Antimony | <b>0.24</b>  | <b>I</b> | <b>ug/L</b> | <b>1</b> | 0.70 | 0.11  | 3/15/2020 22:55 | J |
| Selenium | <b>2.3</b>   | <b>I</b> | <b>ug/L</b> | <b>1</b> | 5.0  | 0.58  | 3/15/2020 22:55 | J |
| Thallium | <b>0.057</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 0.20 | 0.057 | 3/15/2020 22:55 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766032**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-33S**

Date Collected: 02/28/20 07:59

Sample Description:

Location:

| Parameters                 | Results      | Qual                             | Units       | DF       | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|----------------------------|--------------|----------------------------------|-------------|----------|-----------------|-----------------|-----------------|-----|
| Analysis Desc: SW846 7470A |              | Preparation Method: SW-846 7470A |             |          |                 |                 |                 |     |
| Analysis, Water            |              | Analytical Method: SW-846 7470A  |             |          |                 |                 |                 |     |
| Mercury                    | <b>0.011</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 0.10            | 0.011           | 3/16/2020 17:21 | J   |

### VOLATILES

|                                           |             |                                  |             |          |     |      |                 |   |
|-------------------------------------------|-------------|----------------------------------|-------------|----------|-----|------|-----------------|---|
| Analysis Desc: 8260B VOCs Analysis, Water |             | Preparation Method: SW-846 5030B |             |          |     |      |                 |   |
|                                           |             | Analytical Method: SW-846 8260B  |             |          |     |      |                 |   |
| 1,1,1,2-Tetrachloroethane                 | <b>0.54</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.54 | 3/10/2020 22:06 | J |
| 1,1,1-Trichloroethane                     | <b>0.22</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.22 | 3/10/2020 22:06 | J |
| 1,1,2,2-Tetrachloroethane                 | <b>0.20</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.20 | 3/10/2020 22:06 | J |
| 1,1,2-Trichloroethane                     | <b>0.30</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.30 | 3/10/2020 22:06 | J |
| 1,1-Dichloroethane                        | <b>0.14</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.14 | 3/10/2020 22:06 | J |
| 1,1-Dichloroethylene                      | <b>0.18</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.18 | 3/10/2020 22:06 | J |
| 1,2,3-Trichloropropane                    | <b>0.91</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.91 | 3/10/2020 22:06 | J |
| 1,2-Dibromo-3-Chloropropane               | <b>3.1</b>  | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 5.0 | 3.1  | 3/10/2020 22:06 | J |
| 1,2-Dichlorobenzene                       | <b>0.18</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.18 | 3/10/2020 22:06 | J |
| 1,2-Dichloroethane                        | <b>0.23</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.23 | 3/10/2020 22:06 | J |
| 1,2-Dichloropropane                       | <b>0.66</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.66 | 3/10/2020 22:06 | J |
| 1,4-Dichlorobenzene                       | <b>0.22</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.22 | 3/10/2020 22:06 | J |
| 2-Butanone (MEK)                          | <b>0.43</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 5.0 | 0.43 | 3/10/2020 22:06 | J |
| 2-Hexanone                                | <b>0.71</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 5.0 | 0.71 | 3/10/2020 22:06 | J |
| 4-Methyl-2-pentanone (MIBK)               | <b>0.47</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.47 | 3/10/2020 22:06 | J |
| Acetone                                   | <b>2.1</b>  | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 5.0 | 2.1  | 3/10/2020 22:06 | J |
| Acrylonitrile                             | <b>1.1</b>  | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 10  | 1.1  | 3/10/2020 22:06 | J |
| Benzene                                   | <b>0.16</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.16 | 3/10/2020 22:06 | J |
| Bromochloromethane                        | <b>0.17</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.17 | 3/10/2020 22:06 | J |
| Bromodichloromethane                      | <b>0.46</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.46 | 3/10/2020 22:06 | J |
| Bromoform                                 | <b>0.44</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.44 | 3/10/2020 22:06 | J |
| Bromomethane                              | <b>0.29</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.29 | 3/10/2020 22:06 | J |
| Carbon Disulfide                          | <b>0.67</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.67 | 3/10/2020 22:06 | J |
| Carbon Tetrachloride                      | <b>0.36</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.36 | 3/10/2020 22:06 | J |
| Chlorobenzene                             | <b>0.21</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.21 | 3/10/2020 22:06 | J |
| Chloroethane                              | <b>0.33</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.33 | 3/10/2020 22:06 | J |
| Chloroform                                | <b>0.18</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.18 | 3/10/2020 22:06 | J |
| Chloromethane                             | <b>0.21</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.21 | 3/10/2020 22:06 | J |
| Dibromochloromethane                      | <b>0.33</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.33 | 3/10/2020 22:06 | J |
| Dibromomethane                            | <b>0.26</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.26 | 3/10/2020 22:06 | J |
| Ethylbenzene                              | <b>0.24</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.24 | 3/10/2020 22:06 | J |
| Ethylene Dibromide (EDB)                  | <b>0.20</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.20 | 3/10/2020 22:06 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766032**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-33S**

Date Collected: 02/28/20 07:59

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|--------------|--------------|-----------------|-----|
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0          | 0.16         | 3/10/2020 22:06 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0          | 2.5          | 3/10/2020 22:06 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0          | 0.23         | 3/10/2020 22:06 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0          | 0.36         | 3/10/2020 22:06 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0          | 0.23         | 3/10/2020 22:06 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0          | 0.29         | 3/10/2020 22:06 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0          | 0.32         | 3/10/2020 22:06 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0          | 0.19         | 3/10/2020 22:06 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 22:06 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0          | 0.53         | 3/10/2020 22:06 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0          | 0.24         | 3/10/2020 22:06 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0          | 0.16         | 3/10/2020 22:06 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/10/2020 22:06 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0          | 0.21         | 3/10/2020 22:06 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10           | 1.8          | 3/10/2020 22:06 | J   |
| 1,2-Dichloroethane-d4 (S)   | 93      |      | %     | 1  | 70-128       |              | 3/10/2020 22:06 |     |
| Toluene-d8 (S)              | 90      |      | %     | 1  | 77-119       |              | 3/10/2020 22:06 |     |
| Bromofluorobenzene (S)      | 107     |      | %     | 1  | 86-123       |              | 3/10/2020 22:06 |     |

Analysis Desc: 8260B SIM Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/10/2020 22:06 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/10/2020 22:06 | J |
| 1,2-Dichloroethane-d4 (S)   | 90    |   | %    | 1 | 77-125 |       | 3/10/2020 22:06 |   |
| Toluene-d8 (S)              | 90    |   | %    | 1 | 80-121 |       | 3/10/2020 22:06 |   |
| Bromofluorobenzene (S)      | 100   |   | %    | 1 | 80-129 |       | 3/10/2020 22:06 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |      |  |      |   |      |       |                 |   |
|----------------|------|--|------|---|------|-------|-----------------|---|
| Chloride       | 16   |  | mg/L | 1 | 5.0  | 0.50  | 2/28/2020 23:24 | J |
| Nitrate (as N) | 0.53 |  | mg/L | 1 | 0.50 | 0.050 | 2/28/2020 23:24 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |      |  |      |   |       |       |                |   |
|-------------|------|--|------|---|-------|-------|----------------|---|
| Ammonia (N) | 0.40 |  | mg/L | 5 | 0.050 | 0.040 | 3/5/2020 16:32 | G |
|-------------|------|--|------|---|-------|-------|----------------|---|

Analysis Desc: Tot Dissolved Solids,SM2540C

Analytical Method: SM 2540 C

|                        |     |  |      |   |    |    |                |   |
|------------------------|-----|--|------|---|----|----|----------------|---|
| Total Dissolved Solids | 130 |  | mg/L | 1 | 10 | 10 | 3/5/2020 10:39 | J |
|------------------------|-----|--|------|---|----|----|----------------|---|

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766033**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-34S**

Date Collected: 02/28/20 07:25

Sample Description:

Location:

| Parameters                                | Results | Qual | Units                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-------------------------------------------|---------|------|----------------------------------|----|-----------------|-----------------|-----------------|-----|
| <b>METALS</b>                             |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 6010B                |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Water                           |         |      | Analytical Method: SW-846 6010   |    |                 |                 |                 |     |
| Arsenic                                   | 9.0     | U    | ug/L                             | 1  | 40              | 9.0             | 3/3/2020 16:54  | J   |
| Barium                                    | 2.6     | I    | ug/L                             | 1  | 4.0             | 1.0             | 3/3/2020 16:54  | J   |
| Beryllium                                 | 0.50    | U    | ug/L                             | 1  | 2.0             | 0.50            | 3/3/2020 16:54  | J   |
| Cadmium                                   | 1.0     | U    | ug/L                             | 1  | 4.0             | 1.0             | 3/3/2020 16:54  | J   |
| Chromium                                  | 2.0     | U    | ug/L                             | 1  | 8.0             | 2.0             | 3/3/2020 16:54  | J   |
| Cobalt                                    | 2.0     | U    | ug/L                             | 1  | 8.0             | 2.0             | 3/3/2020 16:54  | J   |
| Copper                                    | 5.5     | I    | ug/L                             | 1  | 16              | 4.0             | 3/3/2020 16:54  | J   |
| Iron                                      | 440     |      | ug/L                             | 1  | 400             | 100             | 3/3/2020 16:54  | J   |
| Lead                                      | 3.0     | U    | ug/L                             | 1  | 12              | 3.0             | 3/3/2020 16:54  | J   |
| Nickel                                    | 6.0     | U    | ug/L                             | 1  | 24              | 6.0             | 3/3/2020 16:54  | J   |
| Silver                                    | 10      | U    | ug/L                             | 1  | 40              | 10              | 3/3/2020 16:54  | J   |
| Sodium                                    | 68      |      | mg/L                             | 1  | 1.4             | 0.35            | 3/3/2020 16:54  | J   |
| Vanadium                                  | 36      |      | ug/L                             | 1  | 4.0             | 1.0             | 3/3/2020 16:54  | J   |
| Zinc                                      | 50      | U    | ug/L                             | 1  | 200             | 50              | 3/3/2020 16:54  | J   |
| <b>METALS</b>                             |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 6020B                |         |      | Preparation Method: SW-846 3010A |    |                 |                 |                 |     |
| Analysis, Total                           |         |      | Analytical Method: SW-846 6020   |    |                 |                 |                 |     |
| Antimony                                  | 0.59    | I    | ug/L                             | 1  | 0.70            | 0.11            | 3/15/2020 22:59 | J   |
| Selenium                                  | 3.6     | I    | ug/L                             | 1  | 5.0             | 0.58            | 3/15/2020 22:59 | J   |
| Thallium                                  | 0.057   | U    | ug/L                             | 1  | 0.20            | 0.057           | 3/15/2020 22:59 | J   |
| <b>METALS</b>                             |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: SW846 7470A                |         |      | Preparation Method: SW-846 7470A |    |                 |                 |                 |     |
| Analysis, Water                           |         |      | Analytical Method: SW-846 7470A  |    |                 |                 |                 |     |
| Mercury                                   | 0.011   | U    | ug/L                             | 1  | 0.10            | 0.011           | 3/16/2020 17:25 | J   |
| <b>VOLATILES</b>                          |         |      |                                  |    |                 |                 |                 |     |
| Analysis Desc: 8260B VOCs Analysis, Water |         |      | Preparation Method: SW-846 5030B |    |                 |                 |                 |     |
|                                           |         |      | Analytical Method: SW-846 8260B  |    |                 |                 |                 |     |
| 1,1,1,2-Tetrachloroethane                 | 0.54    | U    | ug/L                             | 1  | 1.0             | 0.54            | 3/10/2020 22:33 | J   |
| 1,1,1-Trichloroethane                     | 0.22    | U    | ug/L                             | 1  | 1.0             | 0.22            | 3/10/2020 22:33 | J   |
| 1,1,2,2-Tetrachloroethane                 | 0.20    | U    | ug/L                             | 1  | 1.0             | 0.20            | 3/10/2020 22:33 | J   |
| 1,1,2-Trichloroethane                     | 0.30    | U    | ug/L                             | 1  | 1.0             | 0.30            | 3/10/2020 22:33 | J   |
| 1,1-Dichloroethane                        | 0.14    | U    | ug/L                             | 1  | 1.0             | 0.14            | 3/10/2020 22:33 | J   |
| 1,1-Dichloroethylene                      | 0.18    | U    | ug/L                             | 1  | 1.0             | 0.18            | 3/10/2020 22:33 | J   |
| 1,2,3-Trichloropropane                    | 0.91    | U    | ug/L                             | 1  | 1.0             | 0.91            | 3/10/2020 22:33 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766033**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-34S**

Date Collected: 02/28/20 07:25

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| 1,2-Dibromo-3-Chloropropane | 3.1     | U    | ug/L  | 1  | 5.0             | 3.1             | 3/10/2020 22:33 | J   |
| 1,2-Dichlorobenzene         | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 22:33 | J   |
| 1,2-Dichloroethane          | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 22:33 | J   |
| 1,2-Dichloropropane         | 0.66    | U    | ug/L  | 1  | 1.0             | 0.66            | 3/10/2020 22:33 | J   |
| 1,4-Dichlorobenzene         | 0.22    | U    | ug/L  | 1  | 1.0             | 0.22            | 3/10/2020 22:33 | J   |
| 2-Butanone (MEK)            | 0.43    | U    | ug/L  | 1  | 5.0             | 0.43            | 3/10/2020 22:33 | J   |
| 2-Hexanone                  | 0.71    | U    | ug/L  | 1  | 5.0             | 0.71            | 3/10/2020 22:33 | J   |
| 4-Methyl-2-pentanone (MIBK) | 0.47    | U    | ug/L  | 1  | 1.0             | 0.47            | 3/10/2020 22:33 | J   |
| Acetone                     | 2.1     | U    | ug/L  | 1  | 5.0             | 2.1             | 3/10/2020 22:33 | J   |
| Acrylonitrile               | 1.1     | U    | ug/L  | 1  | 10              | 1.1             | 3/10/2020 22:33 | J   |
| Benzene                     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 22:33 | J   |
| Bromochloromethane          | 0.17    | U    | ug/L  | 1  | 1.0             | 0.17            | 3/10/2020 22:33 | J   |
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/10/2020 22:33 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/10/2020 22:33 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 22:33 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/10/2020 22:33 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 22:33 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 22:33 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 22:33 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 22:33 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 22:33 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 22:33 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 22:33 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 22:33 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 22:33 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 22:33 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 22:33 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 22:33 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 22:33 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 22:33 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 22:33 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 22:33 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 22:33 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 22:33 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 22:33 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 22:33 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 22:33 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 22:33 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 22:33 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 22:33 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766033**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **MWB-34S**

Date Collected: 02/28/20 07:25

Sample Description:

Location:

| Parameters                | Results    | Qual | Units | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------|------------|------|-------|----------|--------------|--------------|-----------------|-----|
| 1,2-Dichloroethane-d4 (S) | <b>96</b>  |      | %     | <b>1</b> | 70-128       |              | 3/10/2020 22:33 |     |
| Toluene-d8 (S)            | <b>88</b>  |      | %     | <b>1</b> | 77-119       |              | 3/10/2020 22:33 |     |
| Bromofluorobenzene (S)    | <b>104</b> |      | %     | <b>1</b> | 86-123       |              | 3/10/2020 22:33 |     |

Analysis Desc: 8260B SIM Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |              |          |      |          |        |       |                 |   |
|-----------------------------|--------------|----------|------|----------|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | <b>0.11</b>  | <b>U</b> | ug/L | <b>1</b> | 0.20   | 0.11  | 3/10/2020 22:33 | J |
| Ethylene Dibromide (EDB)    | <b>0.020</b> | <b>U</b> | ug/L | <b>1</b> | 0.10   | 0.020 | 3/10/2020 22:33 | J |
| 1,2-Dichloroethane-d4 (S)   | <b>92</b>    |          | %    | <b>1</b> | 77-125 |       | 3/10/2020 22:33 |   |
| Toluene-d8 (S)              | <b>88</b>    |          | %    | <b>1</b> | 80-121 |       | 3/10/2020 22:33 |   |
| Bromofluorobenzene (S)      | <b>96</b>    |          | %    | <b>1</b> | 80-129 |       | 3/10/2020 22:33 |   |

### WET CHEMISTRY

Analysis Desc: IC,E300.0,Water

Analytical Method: EPA 300.0

|                |             |  |      |          |      |       |                 |   |
|----------------|-------------|--|------|----------|------|-------|-----------------|---|
| Chloride       | <b>160</b>  |  | mg/L | <b>1</b> | 5.0  | 0.50  | 2/28/2020 23:02 | J |
| Nitrate (as N) | <b>0.76</b> |  | mg/L | <b>1</b> | 0.50 | 0.050 | 2/28/2020 23:02 | J |

Analysis Desc: Ammonia,E350.1,Water

Analytical Method: EPA 350.1

|             |            |  |      |          |       |       |                |   |
|-------------|------------|--|------|----------|-------|-------|----------------|---|
| Ammonia (N) | <b>2.6</b> |  | mg/L | <b>5</b> | 0.050 | 0.040 | 3/5/2020 16:34 | G |
|-------------|------------|--|------|----------|-------|-------|----------------|---|

Analysis Desc: Tot Dissolved Solids,SM2540C

Analytical Method: SM 2540 C

|                        |            |  |      |          |    |    |                |   |
|------------------------|------------|--|------|----------|----|----|----------------|---|
| Total Dissolved Solids | <b>540</b> |  | mg/L | <b>1</b> | 10 | 10 | 3/5/2020 10:39 | J |
|------------------------|------------|--|------|----------|----|----|----------------|---|

Lab ID: **J2002766034**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **TRIP**

Date Collected: 02/28/20 00:00

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed | Lab |
|------------|---------|------|-------|----|--------------|--------------|----------|-----|
|------------|---------|------|-------|----|--------------|--------------|----------|-----|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis, Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B

|                           |             |          |      |          |     |      |                 |   |
|---------------------------|-------------|----------|------|----------|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane | <b>0.54</b> | <b>U</b> | ug/L | <b>1</b> | 1.0 | 0.54 | 3/10/2020 22:59 | J |
| 1,1,1-Trichloroethane     | <b>0.22</b> | <b>U</b> | ug/L | <b>1</b> | 1.0 | 0.22 | 3/10/2020 22:59 | J |
| 1,1,2,2-Tetrachloroethane | <b>0.20</b> | <b>U</b> | ug/L | <b>1</b> | 1.0 | 0.20 | 3/10/2020 22:59 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766034**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **TRIP**

Date Collected: 02/28/20 00:00

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| 1,1,2-Trichloroethane       | 0.30    | U    | ug/L  | 1  | 1.0             | 0.30            | 3/10/2020 22:59 | J   |
| 1,1-Dichloroethane          | 0.14    | U    | ug/L  | 1  | 1.0             | 0.14            | 3/10/2020 22:59 | J   |
| 1,1-Dichloroethylene        | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 22:59 | J   |
| 1,2,3-Trichloropropane      | 0.91    | U    | ug/L  | 1  | 1.0             | 0.91            | 3/10/2020 22:59 | J   |
| 1,2-Dibromo-3-Chloropropane | 3.1     | U    | ug/L  | 1  | 5.0             | 3.1             | 3/10/2020 22:59 | J   |
| 1,2-Dichlorobenzene         | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 22:59 | J   |
| 1,2-Dichloroethane          | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 22:59 | J   |
| 1,2-Dichloropropane         | 0.66    | U    | ug/L  | 1  | 1.0             | 0.66            | 3/10/2020 22:59 | J   |
| 1,4-Dichlorobenzene         | 0.22    | U    | ug/L  | 1  | 1.0             | 0.22            | 3/10/2020 22:59 | J   |
| 2-Butanone (MEK)            | 0.43    | U    | ug/L  | 1  | 5.0             | 0.43            | 3/10/2020 22:59 | J   |
| 2-Hexanone                  | 0.71    | U    | ug/L  | 1  | 5.0             | 0.71            | 3/10/2020 22:59 | J   |
| 4-Methyl-2-pentanone (MIBK) | 0.47    | U    | ug/L  | 1  | 1.0             | 0.47            | 3/10/2020 22:59 | J   |
| Acetone                     | 2.1     | U    | ug/L  | 1  | 5.0             | 2.1             | 3/10/2020 22:59 | J   |
| Acrylonitrile               | 1.1     | U    | ug/L  | 1  | 10              | 1.1             | 3/10/2020 22:59 | J   |
| Benzene                     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 22:59 | J   |
| Bromochloromethane          | 0.17    | U    | ug/L  | 1  | 1.0             | 0.17            | 3/10/2020 22:59 | J   |
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/10/2020 22:59 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/10/2020 22:59 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 22:59 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/10/2020 22:59 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 22:59 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 22:59 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 22:59 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/10/2020 22:59 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 22:59 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/10/2020 22:59 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/10/2020 22:59 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 22:59 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 22:59 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 22:59 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/10/2020 22:59 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 22:59 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/10/2020 22:59 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/10/2020 22:59 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/10/2020 22:59 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/10/2020 22:59 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/10/2020 22:59 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 22:59 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/10/2020 22:59 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/10/2020 22:59 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766034**

Date Received: 02/28/20 11:00 Matrix: Water

Sample ID: **TRIP**

Date Collected: 02/28/20 00:00

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/10/2020 22:59 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/10/2020 22:59 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/10/2020 22:59 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/10/2020 22:59 | J   |
| 1,2-Dichloroethane-d4 (S)   | 95      |      | %     | 1  | 70-128          |                 | 3/10/2020 22:59 |     |
| Toluene-d8 (S)              | 91      |      | %     | 1  | 77-119          |                 | 3/10/2020 22:59 |     |
| Bromofluorobenzene (S)      | 106     |      | %     | 1  | 86-123          |                 | 3/10/2020 22:59 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/10/2020 22:59 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/10/2020 22:59 | J |
| 1,2-Dichloroethane-d4 (S)   | 91    |   | %    | 1 | 77-125 |       | 3/10/2020 22:59 |   |
| Toluene-d8 (S)              | 91    |   | %    | 1 | 80-121 |       | 3/10/2020 22:59 |   |
| Bromofluorobenzene (S)      | 98    |   | %    | 1 | 80-129 |       | 3/10/2020 22:59 |   |

Lab ID: **J2002766035**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-3**

Date Collected: 03/02/20 08:30

Sample Description:

Location:

| Parameters | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed | Lab |
|------------|---------|------|-------|----|-----------------|-----------------|----------|-----|
|------------|---------|------|-------|----|-----------------|-----------------|----------|-----|

### METALS

Analysis Desc: EPA 245.1  
Analysis, Water

Preparation Method: EPA 245.1

Analytical Method: EPA 245.1

|         |          |   |      |   |         |          |                |   |
|---------|----------|---|------|---|---------|----------|----------------|---|
| Mercury | 0.000011 | U | mg/L | 1 | 0.00010 | 0.000011 | 3/5/2020 16:37 | J |
|---------|----------|---|------|---|---------|----------|----------------|---|

Analysis Desc: SW846 6010B  
Analysis, Water

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6010

|           |      |   |      |   |      |      |                |   |
|-----------|------|---|------|---|------|------|----------------|---|
| Arsenic   | 9.0  | U | ug/L | 1 | 40   | 9.0  | 3/3/2020 17:09 | J |
| Barium    | 41   |   | ug/L | 1 | 4.0  | 1.0  | 3/3/2020 17:09 | J |
| Beryllium | 0.50 | U | ug/L | 1 | 2.0  | 0.50 | 3/3/2020 17:09 | J |
| Cadmium   | 1.0  | U | ug/L | 1 | 4.0  | 1.0  | 3/3/2020 17:09 | J |
| Calcium   | 54   |   | mg/L | 1 | 0.40 | 0.10 | 3/3/2020 17:09 | J |
| Chromium  | 3.9  | I | ug/L | 1 | 8.0  | 2.0  | 3/3/2020 17:09 | J |
| Cobalt    | 2.0  | U | ug/L | 1 | 8.0  | 2.0  | 3/3/2020 17:09 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766035**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-3**

Date Collected: 03/02/20 08:30

Sample Description:

Location:

| Parameters                | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|---------------------------|---------|------|-------|----|-----------------|-----------------|----------------|-----|
| Copper                    | 9.7     | I    | ug/L  | 1  | 16              | 4.0             | 3/3/2020 17:09 | J   |
| Iron                      | 1300    |      | ug/L  | 1  | 400             | 100             | 3/3/2020 17:09 | J   |
| Lead                      | 14      |      | ug/L  | 1  | 12              | 3.0             | 3/3/2020 17:09 | J   |
| Magnesium                 | 4.9     |      | mg/L  | 1  | 0.40            | 0.10            | 3/3/2020 17:09 | J   |
| Nickel                    | 7.7     | I    | ug/L  | 1  | 24              | 6.0             | 3/3/2020 17:09 | J   |
| Silver                    | 10      | U    | ug/L  | 1  | 40              | 10              | 3/3/2020 17:09 | J   |
| Total Hardness (as CaCO3) | 150     |      | mg/L  | 1  | 0.16            | 0.10            | 3/3/2020 17:09 | J   |
| Vanadium                  | 5.8     |      | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 17:09 | J   |
| Zinc                      | 50      | U    | ug/L  | 1  | 200             | 50              | 3/3/2020 17:09 | J   |

Analysis Desc: SW846 6020B  
Analysis, Total

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6020

|          |       |   |      |   |      |       |                 |   |
|----------|-------|---|------|---|------|-------|-----------------|---|
| Antimony | 2.3   |   | ug/L | 1 | 0.70 | 0.11  | 3/15/2020 23:06 | J |
| Selenium | 0.58  | U | ug/L | 1 | 5.0  | 0.58  | 3/15/2020 23:06 | J |
| Thallium | 0.057 | U | ug/L | 1 | 0.20 | 0.057 | 3/15/2020 23:06 | J |

### Microbiology

Analysis Desc: Fecal  
Coliform, SM9223D, Water

Analytical Method: COLILERT-18 (Fecal Coliforms)

|                |     |  |               |    |    |    |                |   |
|----------------|-----|--|---------------|----|----|----|----------------|---|
| Coliform Fecal | 441 |  | MPN/100<br>mL | 10 | 10 | 10 | 3/2/2020 12:18 | J |
|----------------|-----|--|---------------|----|----|----|----------------|---|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B

|                             |      |   |      |   |     |      |                 |   |
|-----------------------------|------|---|------|---|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | 0.54 | U | ug/L | 1 | 1.0 | 0.54 | 3/12/2020 12:53 | J |
| 1,1,1-Trichloroethane       | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/12/2020 12:53 | J |
| 1,1,2,2-Tetrachloroethane   | 0.20 | U | ug/L | 1 | 1.0 | 0.20 | 3/12/2020 12:53 | J |
| 1,1,2-Trichloroethane       | 0.30 | U | ug/L | 1 | 1.0 | 0.30 | 3/12/2020 12:53 | J |
| 1,1-Dichloroethane          | 0.14 | U | ug/L | 1 | 1.0 | 0.14 | 3/12/2020 12:53 | J |
| 1,1-Dichloroethylene        | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/12/2020 12:53 | J |
| 1,2,3-Trichloropropane      | 0.91 | U | ug/L | 1 | 1.0 | 0.91 | 3/12/2020 12:53 | J |
| 1,2-Dibromo-3-Chloropropane | 3.1  | U | ug/L | 1 | 5.0 | 3.1  | 3/12/2020 12:53 | J |
| 1,2-Dichlorobenzene         | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/12/2020 12:53 | J |
| 1,2-Dichloroethane          | 0.23 | U | ug/L | 1 | 1.0 | 0.23 | 3/12/2020 12:53 | J |
| 1,2-Dichloropropane         | 0.66 | U | ug/L | 1 | 1.0 | 0.66 | 3/12/2020 12:53 | J |
| 1,4-Dichlorobenzene         | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/12/2020 12:53 | J |
| 2-Butanone (MEK)            | 0.43 | U | ug/L | 1 | 5.0 | 0.43 | 3/12/2020 12:53 | J |
| 2-Hexanone                  | 0.71 | U | ug/L | 1 | 5.0 | 0.71 | 3/12/2020 12:53 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766035**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-3**

Date Collected: 03/02/20 08:30

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| 4-Methyl-2-pentanone (MIBK) | 0.47    | U    | ug/L  | 1  | 1.0             | 0.47            | 3/12/2020 12:53 | J   |
| Acetone                     | 2.1     | U    | ug/L  | 1  | 5.0             | 2.1             | 3/12/2020 12:53 | J   |
| Acrylonitrile               | 1.1     | U    | ug/L  | 1  | 10              | 1.1             | 3/12/2020 12:53 | J   |
| Benzene                     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 12:53 | J   |
| Bromochloromethane          | 0.17    | U    | ug/L  | 1  | 1.0             | 0.17            | 3/12/2020 12:53 | J   |
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/12/2020 12:53 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/12/2020 12:53 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/12/2020 12:53 | J   |
| Carbon Disulfide            | 0.69    | I    | ug/L  | 1  | 1.0             | 0.67            | 3/12/2020 12:53 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 12:53 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 12:53 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 12:53 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 12:53 | J   |
| Chloromethane               | 0.94    | I    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 12:53 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 12:53 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/12/2020 12:53 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 12:53 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 12:53 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 12:53 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/12/2020 12:53 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 12:53 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 12:53 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 12:53 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/12/2020 12:53 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/12/2020 12:53 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/12/2020 12:53 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 12:53 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/12/2020 12:53 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 12:53 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 12:53 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 12:53 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 12:53 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/12/2020 12:53 | J   |
| 1,2-Dichloroethane-d4 (S)   | 81      |      | %     | 1  | 70-128          |                 | 3/12/2020 12:53 |     |
| Toluene-d8 (S)              | 82      |      | %     | 1  | 77-119          |                 | 3/12/2020 12:53 |     |
| Bromofluorobenzene (S)      | 91      |      | %     | 1  | 86-123          |                 | 3/12/2020 12:53 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |      |   |      |   |      |      |                 |   |
|-----------------------------|------|---|------|---|------|------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11 | U | ug/L | 1 | 0.20 | 0.11 | 3/12/2020 12:53 | J |
|-----------------------------|------|---|------|---|------|------|-----------------|---|

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766035**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-3**

Date Collected: 03/02/20 08:30

Sample Description:

Location:

| Parameters                | Results      | Qual     | Units       | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------|--------------|----------|-------------|----------|--------------|--------------|-----------------|-----|
| Ethylene Dibromide (EDB)  | <b>0.020</b> | <b>U</b> | <b>ug/L</b> | <b>1</b> | 0.10         | 0.020        | 3/12/2020 12:53 | J   |
| 1,2-Dichloroethane-d4 (S) | <b>77</b>    |          | <b>%</b>    | <b>1</b> | 77-125       |              | 3/12/2020 12:53 |     |
| Toluene-d8 (S)            | <b>82</b>    |          | <b>%</b>    | <b>1</b> | 80-121       |              | 3/12/2020 12:53 |     |
| Bromofluorobenzene (S)    | <b>85</b>    |          | <b>%</b>    | <b>1</b> | 80-129       |              | 3/12/2020 12:53 |     |

### WET CHEMISTRY

Analysis Desc: Total Nitrogen, Calculated, Water Analytical Method: Calculation

|                |            |  |             |          |      |      |                 |   |
|----------------|------------|--|-------------|----------|------|------|-----------------|---|
| Total Nitrogen | <b>5.0</b> |  | <b>mg/L</b> | <b>1</b> | 0.40 | 0.18 | 3/11/2020 10:44 | G |
|----------------|------------|--|-------------|----------|------|------|-----------------|---|

Analysis Desc: Unionized Ammonia, DEP SOP, Water Analytical Method: DEP SOP 10/03/83

|                   |          |          |             |          |       |  |                 |   |
|-------------------|----------|----------|-------------|----------|-------|--|-----------------|---|
| Unionized Ammonia | <b>0</b> | <b>U</b> | <b>mg/L</b> | <b>1</b> | 0.050 |  | 3/11/2020 10:45 | G |
|-------------------|----------|----------|-------------|----------|-------|--|-----------------|---|

Analysis Desc: IC, E300.0, Water Analytical Method: EPA 300.0

|                |            |  |             |          |      |       |                |   |
|----------------|------------|--|-------------|----------|------|-------|----------------|---|
| Nitrate (as N) | <b>2.1</b> |  | <b>mg/L</b> | <b>1</b> | 0.50 | 0.050 | 3/2/2020 21:08 | J |
|----------------|------------|--|-------------|----------|------|-------|----------------|---|

|                   |            |  |             |          |      |       |                |   |
|-------------------|------------|--|-------------|----------|------|-------|----------------|---|
| Nitrate + Nitrite | <b>2.2</b> |  | <b>mg/L</b> | <b>1</b> | 0.50 | 0.050 | 3/2/2020 21:08 | J |
|-------------------|------------|--|-------------|----------|------|-------|----------------|---|

Analysis Desc: Ammonia, E350.1, Water Analytical Method: EPA 350.1

|             |             |  |             |          |       |       |                |   |
|-------------|-------------|--|-------------|----------|-------|-------|----------------|---|
| Ammonia (N) | <b>0.31</b> |  | <b>mg/L</b> | <b>5</b> | 0.050 | 0.040 | 3/5/2020 16:35 | G |
|-------------|-------------|--|-------------|----------|-------|-------|----------------|---|

Analysis Desc: TKN, E351.2, Water Preparation Method: Copper Sulfate Digestion

Analytical Method: EPA 351.2

|                         |            |  |             |          |      |       |                |   |
|-------------------------|------------|--|-------------|----------|------|-------|----------------|---|
| Total Kjeldahl Nitrogen | <b>2.7</b> |  | <b>mg/L</b> | <b>1</b> | 0.10 | 0.085 | 3/4/2020 10:37 | G |
|-------------------------|------------|--|-------------|----------|------|-------|----------------|---|

Analysis Desc: Total Phosphorus, E365.4, Analysis Preparation Method: Copper Sulfate Digestion

Analytical Method: EPA 365.4

|                         |             |  |             |          |      |       |                |   |
|-------------------------|-------------|--|-------------|----------|------|-------|----------------|---|
| Total Phosphorus (as P) | <b>0.25</b> |  | <b>mg/L</b> | <b>1</b> | 0.10 | 0.055 | 3/4/2020 10:37 | G |
|-------------------------|-------------|--|-------------|----------|------|-------|----------------|---|

Analysis Desc: COD, E410.4, Water Analytical Method: EPA 410.4

|                        |           |  |             |          |    |     |                 |   |
|------------------------|-----------|--|-------------|----------|----|-----|-----------------|---|
| Chemical Oxygen Demand | <b>77</b> |  | <b>mg/L</b> | <b>1</b> | 20 | 7.2 | 3/10/2020 16:56 | G |
|------------------------|-----------|--|-------------|----------|----|-----|-----------------|---|

Analysis Desc: Chlorophyll A, SM10200H, Water Analytical Method: SM 10200 H

|                         |           |          |              |          |     |     |                 |   |
|-------------------------|-----------|----------|--------------|----------|-----|-----|-----------------|---|
| Corrected Chlorophyll A | <b>12</b> | <b>1</b> | <b>mg/m3</b> | <b>1</b> | 5.0 | 2.5 | 3/12/2020 17:00 | G |
|-------------------------|-----------|----------|--------------|----------|-----|-----|-----------------|---|

Analysis Desc: Tot Dissolved Solids, SM2540C Analytical Method: SM 2540 C

|                        |            |  |             |          |    |    |                |   |
|------------------------|------------|--|-------------|----------|----|----|----------------|---|
| Total Dissolved Solids | <b>370</b> |  | <b>mg/L</b> | <b>1</b> | 10 | 10 | 3/5/2020 10:39 | J |
|------------------------|------------|--|-------------|----------|----|----|----------------|---|

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766035**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-3**

Date Collected: 03/02/20 08:30

Sample Description:

Location:

| Parameters                         | Results | Qual                        | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|------------------------------------|---------|-----------------------------|-------|----|-----------------|-----------------|----------------|-----|
| Analysis Desc: BOD, SM5210B, Water |         | Analytical Method: SM 5210B |       |    |                 |                 |                |     |
| Biochemical Oxygen Demand          | 3.2     |                             | mg/L  | 1  | 2.0             | 2.0             | 3/3/2020 09:55 | J   |
| Analysis Desc: TOC, SM5310B, Water |         | Analytical Method: SM 5310B |       |    |                 |                 |                |     |
| Total Organic Carbon               | 19      |                             | mg/L  | 1  | 1.0             | 0.65            | 3/5/2020 10:15 | G   |

Lab ID: **J2002766036**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-6**

Date Collected: 03/02/20 06:45

Sample Description:

Location:

| Parameters                                    | Results  | Qual                                                               | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|-----------------------------------------------|----------|--------------------------------------------------------------------|-------|----|-----------------|-----------------|----------------|-----|
| <b>METALS</b>                                 |          |                                                                    |       |    |                 |                 |                |     |
| Analysis Desc: EPA 245.1<br>Analysis, Water   |          | Preparation Method: EPA 245.1<br>Analytical Method: EPA 245.1      |       |    |                 |                 |                |     |
| Mercury                                       | 0.000011 | U                                                                  | mg/L  | 1  | 0.00010         | 0.000011        | 3/5/2020 16:41 | J   |
| Analysis Desc: SW846 6010B<br>Analysis, Water |          | Preparation Method: SW-846 3010A<br>Analytical Method: SW-846 6010 |       |    |                 |                 |                |     |
| Arsenic                                       | 9.0      | U                                                                  | ug/L  | 1  | 40              | 9.0             | 3/3/2020 17:12 | J   |
| Barium                                        | 30       |                                                                    | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 17:12 | J   |
| Beryllium                                     | 0.50     | U                                                                  | ug/L  | 1  | 2.0             | 0.50            | 3/3/2020 17:12 | J   |
| Cadmium                                       | 1.0      | U                                                                  | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 17:12 | J   |
| Calcium                                       | 27       |                                                                    | mg/L  | 1  | 0.40            | 0.10            | 3/3/2020 17:12 | J   |
| Chromium                                      | 3.0      | I                                                                  | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 17:12 | J   |
| Cobalt                                        | 2.0      | U                                                                  | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 17:12 | J   |
| Copper                                        | 4.0      | I                                                                  | ug/L  | 1  | 16              | 4.0             | 3/3/2020 17:12 | J   |
| Iron                                          | 360      | I                                                                  | ug/L  | 1  | 400             | 100             | 3/3/2020 17:12 | J   |
| Lead                                          | 3.0      | U                                                                  | ug/L  | 1  | 12              | 3.0             | 3/3/2020 17:12 | J   |
| Magnesium                                     | 2.4      |                                                                    | mg/L  | 1  | 0.40            | 0.10            | 3/3/2020 17:12 | J   |
| Nickel                                        | 6.0      | U                                                                  | ug/L  | 1  | 24              | 6.0             | 3/3/2020 17:12 | J   |
| Silver                                        | 10       | U                                                                  | ug/L  | 1  | 40              | 10              | 3/3/2020 17:12 | J   |
| Total Hardness (as CaCO3)                     | 78       |                                                                    | mg/L  | 1  | 0.16            | 0.10            | 3/3/2020 17:12 | J   |
| Vanadium                                      | 4.5      |                                                                    | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 17:12 | J   |
| Zinc                                          | 50       | U                                                                  | ug/L  | 1  | 200             | 50              | 3/3/2020 17:12 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766036**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-6**

Date Collected: 03/02/20 06:45

Sample Description:

Location:

| Parameters                 | Results      | Qual                             | Units       | DF       | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|----------------------------|--------------|----------------------------------|-------------|----------|-----------------|-----------------|-----------------|-----|
| Analysis Desc: SW846 6020B |              | Preparation Method: SW-846 3010A |             |          |                 |                 |                 |     |
| Analysis, Total            |              | Analytical Method: SW-846 6020   |             |          |                 |                 |                 |     |
| Antimony                   | <b>0.38</b>  | <b>I</b>                         | <b>ug/L</b> | <b>1</b> | 0.70            | 0.11            | 3/15/2020 23:29 | J   |
| Selenium                   | <b>0.58</b>  | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 5.0             | 0.58            | 3/15/2020 23:29 | J   |
| Thallium                   | <b>0.057</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 0.20            | 0.057           | 3/15/2020 23:29 | J   |

### Microbiology

|                                               |             |                                                  |                   |           |    |    |                |   |
|-----------------------------------------------|-------------|--------------------------------------------------|-------------------|-----------|----|----|----------------|---|
| Analysis Desc: Fecal Coliform, SM9223D, Water |             | Analytical Method: COLILERT-18 (Fecal Coliforms) |                   |           |    |    |                |   |
| Coliform Fecal                                | <b>1180</b> |                                                  | <b>MPN/100 mL</b> | <b>10</b> | 10 | 10 | 3/2/2020 12:18 | J |

### VOLATILES

|                                           |             |                                  |             |          |     |      |                 |   |
|-------------------------------------------|-------------|----------------------------------|-------------|----------|-----|------|-----------------|---|
| Analysis Desc: 8260B VOCs Analysis, Water |             | Preparation Method: SW-846 5030B |             |          |     |      |                 |   |
|                                           |             | Analytical Method: SW-846 8260B  |             |          |     |      |                 |   |
| 1,1,1,2-Tetrachloroethane                 | <b>0.54</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.54 | 3/12/2020 13:46 | J |
| 1,1,1-Trichloroethane                     | <b>0.22</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.22 | 3/12/2020 13:46 | J |
| 1,1,2,2-Tetrachloroethane                 | <b>0.20</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.20 | 3/12/2020 13:46 | J |
| 1,1,2-Trichloroethane                     | <b>0.30</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.30 | 3/12/2020 13:46 | J |
| 1,1-Dichloroethane                        | <b>0.14</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.14 | 3/12/2020 13:46 | J |
| 1,1-Dichloroethylene                      | <b>0.18</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.18 | 3/12/2020 13:46 | J |
| 1,2,3-Trichloropropane                    | <b>0.91</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.91 | 3/12/2020 13:46 | J |
| 1,2-Dibromo-3-Chloropropane               | <b>3.1</b>  | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 5.0 | 3.1  | 3/12/2020 13:46 | J |
| 1,2-Dichlorobenzene                       | <b>0.18</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.18 | 3/12/2020 13:46 | J |
| 1,2-Dichloroethane                        | <b>0.23</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.23 | 3/12/2020 13:46 | J |
| 1,2-Dichloropropane                       | <b>0.66</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.66 | 3/12/2020 13:46 | J |
| 1,4-Dichlorobenzene                       | <b>0.22</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.22 | 3/12/2020 13:46 | J |
| 2-Butanone (MEK)                          | <b>0.43</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 5.0 | 0.43 | 3/12/2020 13:46 | J |
| 2-Hexanone                                | <b>0.71</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 5.0 | 0.71 | 3/12/2020 13:46 | J |
| 4-Methyl-2-pentanone (MIBK)               | <b>0.47</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.47 | 3/12/2020 13:46 | J |
| Acetone                                   | <b>2.1</b>  | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 5.0 | 2.1  | 3/12/2020 13:46 | J |
| Acrylonitrile                             | <b>1.1</b>  | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 10  | 1.1  | 3/12/2020 13:46 | J |
| Benzene                                   | <b>0.16</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.16 | 3/12/2020 13:46 | J |
| Bromochloromethane                        | <b>0.17</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.17 | 3/12/2020 13:46 | J |
| Bromodichloromethane                      | <b>0.46</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.46 | 3/12/2020 13:46 | J |
| Bromoform                                 | <b>0.44</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.44 | 3/12/2020 13:46 | J |
| Bromomethane                              | <b>0.29</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.29 | 3/12/2020 13:46 | J |
| Carbon Disulfide                          | <b>0.67</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.67 | 3/12/2020 13:46 | J |
| Carbon Tetrachloride                      | <b>0.36</b> | <b>U</b>                         | <b>ug/L</b> | <b>1</b> | 1.0 | 0.36 | 3/12/2020 13:46 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766036**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-6**

Date Collected: 03/02/20 06:45

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 13:46 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 13:46 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 13:46 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 13:46 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 13:46 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/12/2020 13:46 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 13:46 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 13:46 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 13:46 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/12/2020 13:46 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 13:46 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 13:46 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 13:46 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/12/2020 13:46 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/12/2020 13:46 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/12/2020 13:46 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 13:46 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/12/2020 13:46 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 13:46 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 13:46 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 13:46 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 13:46 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/12/2020 13:46 | J   |
| 1,2-Dichloroethane-d4 (S)   | 95      |      | %     | 1  | 70-128          |                 | 3/12/2020 13:46 |     |
| Toluene-d8 (S)              | 86      |      | %     | 1  | 77-119          |                 | 3/12/2020 13:46 |     |
| Bromofluorobenzene (S)      | 104     |      | %     | 1  | 86-123          |                 | 3/12/2020 13:46 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/12/2020 13:46 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/12/2020 13:46 | J |
| 1,2-Dichloroethane-d4 (S)   | 91    |   | %    | 1 | 77-125 |       | 3/12/2020 13:46 |   |
| Toluene-d8 (S)              | 87    |   | %    | 1 | 80-121 |       | 3/12/2020 13:46 |   |
| Bromofluorobenzene (S)      | 97    |   | %    | 1 | 80-129 |       | 3/12/2020 13:46 |   |

### WET CHEMISTRY

Analysis Desc: Total  
Nitrogen, Calculated, Water

Analytical Method: Calculation

|                |     |  |      |   |      |      |                 |   |
|----------------|-----|--|------|---|------|------|-----------------|---|
| Total Nitrogen | 2.0 |  | mg/L | 1 | 0.40 | 0.18 | 3/11/2020 10:45 | G |
|----------------|-----|--|------|---|------|------|-----------------|---|

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766036**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-6**

Date Collected: 03/02/20 06:45

Sample Description:

Location:

| Parameters                                      | Results | Qual                                                                         | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-------------------------------------------------|---------|------------------------------------------------------------------------------|-------|----|--------------|--------------|-----------------|-----|
| Analysis Desc: Unionized Ammonia,DEP SOP,Water  |         | Analytical Method: DEP SOP 10/03/83                                          |       |    |              |              |                 |     |
| Unionized Ammonia                               | 0       | U                                                                            | mg/L  | 1  | 0.050        |              | 3/11/2020 10:45 | G   |
| Analysis Desc: IC,E300.0,Water                  |         | Analytical Method: EPA 300.0                                                 |       |    |              |              |                 |     |
| Nitrate (as N)                                  | 0.82    |                                                                              | mg/L  | 1  | 0.50         | 0.050        | 3/2/2020 21:30  | J   |
| Nitrate + Nitrite                               | 0.82    |                                                                              | mg/L  | 1  | 0.50         | 0.050        | 3/2/2020 21:30  | J   |
| Analysis Desc: Ammonia,E350.1,Water             |         | Analytical Method: EPA 350.1                                                 |       |    |              |              |                 |     |
| Ammonia (N)                                     | 0.15    |                                                                              | mg/L  | 5  | 0.050        | 0.040        | 3/5/2020 16:36  | G   |
| Analysis Desc: TKN,E351.2,Water                 |         | Preparation Method: Copper Sulfate Digestion<br>Analytical Method: EPA 351.2 |       |    |              |              |                 |     |
| Total Kjeldahl Nitrogen                         | 1.1     |                                                                              | mg/L  | 1  | 0.10         | 0.085        | 3/4/2020 10:37  | G   |
| Analysis Desc: Total Phosphorus,E365.4,Analysis |         | Preparation Method: Copper Sulfate Digestion<br>Analytical Method: EPA 365.4 |       |    |              |              |                 |     |
| Total Phosphorus (as P)                         | 0.16    |                                                                              | mg/L  | 1  | 0.10         | 0.055        | 3/4/2020 10:37  | G   |
| Analysis Desc: COD,E410.4,Water                 |         | Analytical Method: EPA 410.4                                                 |       |    |              |              |                 |     |
| Chemical Oxygen Demand                          | 43      |                                                                              | mg/L  | 1  | 20           | 7.2          | 3/10/2020 16:56 | G   |
| Analysis Desc: Chlorophyll A,SM10200H,Water     |         | Analytical Method: SM 10200 H                                                |       |    |              |              |                 |     |
| Corrected Chlorophyll A                         | 5.0     |                                                                              | mg/m3 | 1  | 5.0          | 2.5          | 3/12/2020 17:00 | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C     |         | Analytical Method: SM 2540 C                                                 |       |    |              |              |                 |     |
| Total Dissolved Solids                          | 190     |                                                                              | mg/L  | 1  | 10           | 10           | 3/5/2020 10:39  | J   |
| Analysis Desc: BOD,SM5210B,Water                |         | Analytical Method: SM 5210B                                                  |       |    |              |              |                 |     |
| Biochemical Oxygen Demand                       | 2.0     | U                                                                            | mg/L  | 1  | 2.0          | 2.0          | 3/3/2020 09:57  | J   |
| Analysis Desc: TOC,SM5310B,Water                |         | Analytical Method: SM 5310B                                                  |       |    |              |              |                 |     |
| Total Organic Carbon                            | 8.7     |                                                                              | mg/L  | 1  | 1.0          | 0.65         | 3/5/2020 10:15  | G   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: J2002766037

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: SW-7

Date Collected: 03/02/20 07:21

Sample Description:

Location:

| Parameters                                    | Results  | Qual | Units                                            | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-----------------------------------------------|----------|------|--------------------------------------------------|----|--------------|--------------|-----------------|-----|
| <b>METALS</b>                                 |          |      |                                                  |    |              |              |                 |     |
| Analysis Desc: EPA 245.1                      |          |      | Preparation Method: EPA 245.1                    |    |              |              |                 |     |
| Analysis, Water                               |          |      | Analytical Method: EPA 245.1                     |    |              |              |                 |     |
| Mercury                                       | 0.000011 | U    | mg/L                                             | 1  | 0.00010      | 0.000011     | 3/5/2020 16:44  | J   |
| Analysis Desc: SW846 6010B                    |          |      | Preparation Method: SW-846 3010A                 |    |              |              |                 |     |
| Analysis, Water                               |          |      | Analytical Method: SW-846 6010                   |    |              |              |                 |     |
| Arsenic                                       | 9.0      | U    | ug/L                                             | 1  | 40           | 9.0          | 3/3/2020 17:16  | J   |
| Barium                                        | 25       |      | ug/L                                             | 1  | 4.0          | 1.0          | 3/3/2020 17:16  | J   |
| Beryllium                                     | 0.50     | U    | ug/L                                             | 1  | 2.0          | 0.50         | 3/3/2020 17:16  | J   |
| Cadmium                                       | 1.0      | U    | ug/L                                             | 1  | 4.0          | 1.0          | 3/3/2020 17:16  | J   |
| Calcium                                       | 17       |      | mg/L                                             | 1  | 0.40         | 0.10         | 3/3/2020 17:16  | J   |
| Chromium                                      | 4.5      | I    | ug/L                                             | 1  | 8.0          | 2.0          | 3/3/2020 17:16  | J   |
| Cobalt                                        | 2.0      | U    | ug/L                                             | 1  | 8.0          | 2.0          | 3/3/2020 17:16  | J   |
| Copper                                        | 4.0      | U    | ug/L                                             | 1  | 16           | 4.0          | 3/3/2020 17:16  | J   |
| Iron                                          | 1400     |      | ug/L                                             | 1  | 400          | 100          | 3/3/2020 17:16  | J   |
| Lead                                          | 3.0      | U    | ug/L                                             | 1  | 12           | 3.0          | 3/3/2020 17:16  | J   |
| Magnesium                                     | 1.9      |      | mg/L                                             | 1  | 0.40         | 0.10         | 3/3/2020 17:16  | J   |
| Nickel                                        | 6.0      | U    | ug/L                                             | 1  | 24           | 6.0          | 3/3/2020 17:16  | J   |
| Silver                                        | 10       | U    | ug/L                                             | 1  | 40           | 10           | 3/3/2020 17:16  | J   |
| Total Hardness (as CaCO3)                     | 49       |      | mg/L                                             | 1  | 0.16         | 0.10         | 3/3/2020 17:16  | J   |
| Vanadium                                      | 5.9      |      | ug/L                                             | 1  | 4.0          | 1.0          | 3/3/2020 17:16  | J   |
| Zinc                                          | 50       | U    | ug/L                                             | 1  | 200          | 50           | 3/3/2020 17:16  | J   |
| Analysis Desc: SW846 6020B                    |          |      | Preparation Method: SW-846 3010A                 |    |              |              |                 |     |
| Analysis, Total                               |          |      | Analytical Method: SW-846 6020                   |    |              |              |                 |     |
| Antimony                                      | 0.20     | I    | ug/L                                             | 1  | 0.70         | 0.11         | 3/15/2020 23:36 | J   |
| Selenium                                      | 0.58     | U    | ug/L                                             | 1  | 5.0          | 0.58         | 3/15/2020 23:36 | J   |
| Thallium                                      | 0.057    | U    | ug/L                                             | 1  | 0.20         | 0.057        | 3/15/2020 23:36 | J   |
| <b>Microbiology</b>                           |          |      |                                                  |    |              |              |                 |     |
| Analysis Desc: Fecal Coliform, SM9223D, Water |          |      | Analytical Method: COLILERT-18 (Fecal Coliforms) |    |              |              |                 |     |
| Coliform Fecal                                | 98       |      | MPN/100 mL                                       | 10 | 10           | 10           | 3/2/2020 12:18  | J   |
| <b>VOLATILES</b>                              |          |      |                                                  |    |              |              |                 |     |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766037**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-7**

Date Collected: 03/02/20 07:21

Sample Description:

Location:

| Parameters                                   | Results | Qual                             | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|----------------------------------------------|---------|----------------------------------|-------|----|-----------------|-----------------|-----------------|-----|
| Analysis Desc: 8260B VOCs Analysis,<br>Water |         | Preparation Method: SW-846 5030B |       |    |                 |                 |                 |     |
|                                              |         | Analytical Method: SW-846 8260B  |       |    |                 |                 |                 |     |
| 1,1,1,2-Tetrachloroethane                    | 0.54    | U                                | ug/L  | 1  | 1.0             | 0.54            | 3/12/2020 14:12 | J   |
| 1,1,1-Trichloroethane                        | 0.22    | U                                | ug/L  | 1  | 1.0             | 0.22            | 3/12/2020 14:12 | J   |
| 1,1,2,2-Tetrachloroethane                    | 0.20    | U                                | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 14:12 | J   |
| 1,1,2-Trichloroethane                        | 0.30    | U                                | ug/L  | 1  | 1.0             | 0.30            | 3/12/2020 14:12 | J   |
| 1,1-Dichloroethane                           | 0.14    | U                                | ug/L  | 1  | 1.0             | 0.14            | 3/12/2020 14:12 | J   |
| 1,1-Dichloroethylene                         | 0.18    | U                                | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 14:12 | J   |
| 1,2,3-Trichloropropane                       | 0.91    | U                                | ug/L  | 1  | 1.0             | 0.91            | 3/12/2020 14:12 | J   |
| 1,2-Dibromo-3-Chloropropane                  | 3.1     | U                                | ug/L  | 1  | 5.0             | 3.1             | 3/12/2020 14:12 | J   |
| 1,2-Dichlorobenzene                          | 0.18    | U                                | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 14:12 | J   |
| 1,2-Dichloroethane                           | 0.23    | U                                | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 14:12 | J   |
| 1,2-Dichloropropane                          | 0.66    | U                                | ug/L  | 1  | 1.0             | 0.66            | 3/12/2020 14:12 | J   |
| 1,4-Dichlorobenzene                          | 0.22    | U                                | ug/L  | 1  | 1.0             | 0.22            | 3/12/2020 14:12 | J   |
| 2-Butanone (MEK)                             | 0.43    | U                                | ug/L  | 1  | 5.0             | 0.43            | 3/12/2020 14:12 | J   |
| 2-Hexanone                                   | 0.71    | U                                | ug/L  | 1  | 5.0             | 0.71            | 3/12/2020 14:12 | J   |
| 4-Methyl-2-pentanone (MIBK)                  | 0.47    | U                                | ug/L  | 1  | 1.0             | 0.47            | 3/12/2020 14:12 | J   |
| Acetone                                      | 2.1     | U                                | ug/L  | 1  | 5.0             | 2.1             | 3/12/2020 14:12 | J   |
| Acrylonitrile                                | 1.1     | U                                | ug/L  | 1  | 10              | 1.1             | 3/12/2020 14:12 | J   |
| Benzene                                      | 0.16    | U                                | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 14:12 | J   |
| Bromochloromethane                           | 0.17    | U                                | ug/L  | 1  | 1.0             | 0.17            | 3/12/2020 14:12 | J   |
| Bromodichloromethane                         | 0.46    | U                                | ug/L  | 1  | 1.0             | 0.46            | 3/12/2020 14:12 | J   |
| Bromoform                                    | 0.44    | U                                | ug/L  | 1  | 1.0             | 0.44            | 3/12/2020 14:12 | J   |
| Bromomethane                                 | 0.29    | U                                | ug/L  | 1  | 1.0             | 0.29            | 3/12/2020 14:12 | J   |
| Carbon Disulfide                             | 0.67    | U                                | ug/L  | 1  | 1.0             | 0.67            | 3/12/2020 14:12 | J   |
| Carbon Tetrachloride                         | 0.36    | U                                | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 14:12 | J   |
| Chlorobenzene                                | 0.21    | U                                | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 14:12 | J   |
| Chloroethane                                 | 0.33    | U                                | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 14:12 | J   |
| Chloroform                                   | 0.18    | U                                | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 14:12 | J   |
| Chloromethane                                | 0.21    | U                                | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 14:12 | J   |
| Dibromochloromethane                         | 0.33    | U                                | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 14:12 | J   |
| Dibromomethane                               | 0.26    | U                                | ug/L  | 1  | 1.0             | 0.26            | 3/12/2020 14:12 | J   |
| Ethylbenzene                                 | 0.24    | U                                | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 14:12 | J   |
| Ethylene Dibromide (EDB)                     | 0.20    | U                                | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 14:12 | J   |
| Iodomethane (Methyl Iodide)                  | 0.16    | U                                | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 14:12 | J   |
| Methylene Chloride                           | 2.5     | U                                | ug/L  | 1  | 5.0             | 2.5             | 3/12/2020 14:12 | J   |
| Styrene                                      | 0.23    | U                                | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 14:12 | J   |
| Tetrachloroethylene (PCE)                    | 0.36    | U                                | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 14:12 | J   |
| Toluene                                      | 0.23    | U                                | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 14:12 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766037**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-7**

Date Collected: 03/02/20 07:21

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|--------------|--------------|-----------------|-----|
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0          | 0.29         | 3/12/2020 14:12 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0          | 0.32         | 3/12/2020 14:12 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0          | 0.19         | 3/12/2020 14:12 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/12/2020 14:12 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0          | 0.53         | 3/12/2020 14:12 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0          | 0.24         | 3/12/2020 14:12 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0          | 0.16         | 3/12/2020 14:12 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/12/2020 14:12 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0          | 0.21         | 3/12/2020 14:12 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10           | 1.8          | 3/12/2020 14:12 | J   |
| 1,2-Dichloroethane-d4 (S)   | 95      |      | %     | 1  | 70-128       |              | 3/12/2020 14:12 |     |
| Toluene-d8 (S)              | 90      |      | %     | 1  | 77-119       |              | 3/12/2020 14:12 |     |
| Bromofluorobenzene (S)      | 105     |      | %     | 1  | 86-123       |              | 3/12/2020 14:12 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/12/2020 14:12 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/12/2020 14:12 | J |
| 1,2-Dichloroethane-d4 (S)   | 91    |   | %    | 1 | 77-125 |       | 3/12/2020 14:12 |   |
| Toluene-d8 (S)              | 89    |   | %    | 1 | 80-121 |       | 3/12/2020 14:12 |   |
| Bromofluorobenzene (S)      | 98    |   | %    | 1 | 80-129 |       | 3/12/2020 14:12 |   |

### WET CHEMISTRY

Analysis Desc: Total

Analytical Method: Calculation

Nitrogen, Calculated, Water

|                |      |  |      |   |      |      |                 |   |
|----------------|------|--|------|---|------|------|-----------------|---|
| Total Nitrogen | 0.89 |  | mg/L | 1 | 0.40 | 0.18 | 3/11/2020 10:45 | G |
|----------------|------|--|------|---|------|------|-----------------|---|

Analysis Desc: Unionized  
Ammonia, DEP SOP, Water

Analytical Method: DEP SOP 10/03/83

|                   |   |   |      |   |       |  |                 |   |
|-------------------|---|---|------|---|-------|--|-----------------|---|
| Unionized Ammonia | 0 | U | mg/L | 1 | 0.050 |  | 3/11/2020 10:45 | G |
|-------------------|---|---|------|---|-------|--|-----------------|---|

Analysis Desc: IC, E300.0, Water

Analytical Method: EPA 300.0

|                   |      |   |      |   |      |       |                |   |
|-------------------|------|---|------|---|------|-------|----------------|---|
| Nitrate (as N)    | 0.13 | I | mg/L | 1 | 0.50 | 0.050 | 3/2/2020 21:52 | J |
| Nitrate + Nitrite | 0.13 | I | mg/L | 1 | 0.50 | 0.050 | 3/2/2020 21:52 | J |

Analysis Desc: Ammonia, E350.1, Water

Analytical Method: EPA 350.1

|             |       |   |      |   |       |       |                |   |
|-------------|-------|---|------|---|-------|-------|----------------|---|
| Ammonia (N) | 0.040 | U | mg/L | 5 | 0.050 | 0.040 | 3/5/2020 16:37 | G |
|-------------|-------|---|------|---|-------|-------|----------------|---|

Analysis Desc: TKN, E351.2, Water

Preparation Method: Copper Sulfate Digestion

Analytical Method: EPA 351.2

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766037**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-7**

Date Collected: 03/02/20 07:21

Sample Description:

Location:

| Parameters                                      | Results     | Qual                                                                         | Units        | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-------------------------------------------------|-------------|------------------------------------------------------------------------------|--------------|----------|--------------|--------------|-----------------|-----|
| Total Kjeldahl Nitrogen                         | <b>0.76</b> |                                                                              | <b>mg/L</b>  | <b>1</b> | 0.10         | 0.085        | 3/4/2020 10:37  | G   |
| Analysis Desc: Total Phosphorus,E365.4,Analysis |             | Preparation Method: Copper Sulfate Digestion<br>Analytical Method: EPA 365.4 |              |          |              |              |                 |     |
| Total Phosphorus (as P)                         | <b>0.14</b> |                                                                              | <b>mg/L</b>  | <b>1</b> | 0.10         | 0.055        | 3/4/2020 10:37  | G   |
| Analysis Desc: COD,E410.4,Water                 |             | Analytical Method: EPA 410.4                                                 |              |          |              |              |                 |     |
| Chemical Oxygen Demand                          | <b>82</b>   |                                                                              | <b>mg/L</b>  | <b>1</b> | 20           | 7.2          | 3/10/2020 16:56 | G   |
| Analysis Desc: Chlorophyll A,SM10200H,Water     |             | Analytical Method: SM 10200 H                                                |              |          |              |              |                 |     |
| Corrected Chlorophyll A                         | <b>4.0</b>  | <b>I</b>                                                                     | <b>mg/m3</b> | <b>1</b> | 5.0          | 2.5          | 3/12/2020 17:00 | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C     |             | Analytical Method: SM 2540 C                                                 |              |          |              |              |                 |     |
| Total Dissolved Solids                          | <b>160</b>  |                                                                              | <b>mg/L</b>  | <b>1</b> | 10           | 10           | 3/5/2020 10:39  | J   |
| Analysis Desc: BOD,SM5210B,Water                |             | Analytical Method: SM 5210B                                                  |              |          |              |              |                 |     |
| Biochemical Oxygen Demand                       | <b>2.0</b>  | <b>U</b>                                                                     | <b>mg/L</b>  | <b>1</b> | 2.0          | 2.0          | 3/3/2020 10:00  | J   |
| Analysis Desc: TOC,SM5310B,Water                |             | Analytical Method: SM 5310B                                                  |              |          |              |              |                 |     |
| Total Organic Carbon                            | <b>17</b>   |                                                                              | <b>mg/L</b>  | <b>1</b> | 1.0          | 0.65         | 3/5/2020 10:15  | G   |

Lab ID: **J2002766038**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-5**

Date Collected: 03/02/20 07:01

Sample Description:

Location:

| Parameters                                | Results         | Qual                                                               | Units       | DF       | Adjusted PQL | Adjusted MDL | Analyzed       | Lab |
|-------------------------------------------|-----------------|--------------------------------------------------------------------|-------------|----------|--------------|--------------|----------------|-----|
| <b>METALS</b>                             |                 |                                                                    |             |          |              |              |                |     |
| Analysis Desc: EPA 245.1 Analysis,Water   |                 | Preparation Method: EPA 245.1<br>Analytical Method: EPA 245.1      |             |          |              |              |                |     |
| Mercury                                   | <b>0.000011</b> | <b>U</b>                                                           | <b>mg/L</b> | <b>1</b> | 0.00010      | 0.000011     | 3/5/2020 16:47 | J   |
| Analysis Desc: SW846 6010B Analysis,Water |                 | Preparation Method: SW-846 3010A<br>Analytical Method: SW-846 6010 |             |          |              |              |                |     |
| Arsenic                                   | <b>9.0</b>      | <b>U</b>                                                           | <b>ug/L</b> | <b>1</b> | 40           | 9.0          | 3/3/2020 17:20 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766038**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-5**

Date Collected: 03/02/20 07:01

Sample Description:

Location:

| Parameters                | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|---------------------------|---------|------|-------|----|-----------------|-----------------|----------------|-----|
| Barium                    | 26      |      | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 17:20 | J   |
| Beryllium                 | 0.50    | U    | ug/L  | 1  | 2.0             | 0.50            | 3/3/2020 17:20 | J   |
| Cadmium                   | 1.0     | U    | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 17:20 | J   |
| Calcium                   | 26      |      | mg/L  | 1  | 0.40            | 0.10            | 3/3/2020 17:20 | J   |
| Chromium                  | 2.0     | U    | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 17:20 | J   |
| Cobalt                    | 2.0     | U    | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 17:20 | J   |
| Copper                    | 4.0     | U    | ug/L  | 1  | 16              | 4.0             | 3/3/2020 17:20 | J   |
| Iron                      | 320     | I    | ug/L  | 1  | 400             | 100             | 3/3/2020 17:20 | J   |
| Lead                      | 3.0     | U    | ug/L  | 1  | 12              | 3.0             | 3/3/2020 17:20 | J   |
| Magnesium                 | 2.1     |      | mg/L  | 1  | 0.40            | 0.10            | 3/3/2020 17:20 | J   |
| Nickel                    | 6.0     | U    | ug/L  | 1  | 24              | 6.0             | 3/3/2020 17:20 | J   |
| Silver                    | 10      | U    | ug/L  | 1  | 40              | 10              | 3/3/2020 17:20 | J   |
| Total Hardness (as CaCO3) | 75      |      | mg/L  | 1  | 0.16            | 0.10            | 3/3/2020 17:20 | J   |
| Vanadium                  | 3.2     | I    | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 17:20 | J   |
| Zinc                      | 50      | U    | ug/L  | 1  | 200             | 50              | 3/3/2020 17:20 | J   |

Analysis Desc: SW846 6020B  
Analysis, Total

Preparation Method: SW-846 3010A

Analytical Method: SW-846 6020

|          |       |   |      |   |      |       |                 |   |
|----------|-------|---|------|---|------|-------|-----------------|---|
| Antimony | 0.27  | I | ug/L | 1 | 0.70 | 0.11  | 3/15/2020 23:40 | J |
| Selenium | 0.58  | U | ug/L | 1 | 5.0  | 0.58  | 3/15/2020 23:40 | J |
| Thallium | 0.057 | U | ug/L | 1 | 0.20 | 0.057 | 3/15/2020 23:40 | J |

### Microbiology

Analysis Desc: Fecal  
Coliform, SM9223D, Water

Analytical Method: COLILERT-18 (Fecal Coliforms)

|                |     |  |               |    |    |    |                |   |
|----------------|-----|--|---------------|----|----|----|----------------|---|
| Coliform Fecal | 243 |  | MPN/100<br>mL | 10 | 10 | 10 | 3/2/2020 12:18 | J |
|----------------|-----|--|---------------|----|----|----|----------------|---|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B

|                             |      |   |      |   |     |      |                 |   |
|-----------------------------|------|---|------|---|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | 0.54 | U | ug/L | 1 | 1.0 | 0.54 | 3/12/2020 14:39 | J |
| 1,1,1-Trichloroethane       | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/12/2020 14:39 | J |
| 1,1,2,2-Tetrachloroethane   | 0.20 | U | ug/L | 1 | 1.0 | 0.20 | 3/12/2020 14:39 | J |
| 1,1,2-Trichloroethane       | 0.30 | U | ug/L | 1 | 1.0 | 0.30 | 3/12/2020 14:39 | J |
| 1,1-Dichloroethane          | 0.14 | U | ug/L | 1 | 1.0 | 0.14 | 3/12/2020 14:39 | J |
| 1,1-Dichloroethylene        | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/12/2020 14:39 | J |
| 1,2,3-Trichloropropane      | 0.91 | U | ug/L | 1 | 1.0 | 0.91 | 3/12/2020 14:39 | J |
| 1,2-Dibromo-3-Chloropropane | 3.1  | U | ug/L | 1 | 5.0 | 3.1  | 3/12/2020 14:39 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766038**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-5**

Date Collected: 03/02/20 07:01

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| 1,2-Dichlorobenzene         | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 14:39 | J   |
| 1,2-Dichloroethane          | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 14:39 | J   |
| 1,2-Dichloropropane         | 0.66    | U    | ug/L  | 1  | 1.0             | 0.66            | 3/12/2020 14:39 | J   |
| 1,4-Dichlorobenzene         | 0.22    | U    | ug/L  | 1  | 1.0             | 0.22            | 3/12/2020 14:39 | J   |
| 2-Butanone (MEK)            | 0.43    | U    | ug/L  | 1  | 5.0             | 0.43            | 3/12/2020 14:39 | J   |
| 2-Hexanone                  | 0.71    | U    | ug/L  | 1  | 5.0             | 0.71            | 3/12/2020 14:39 | J   |
| 4-Methyl-2-pentanone (MIBK) | 0.47    | U    | ug/L  | 1  | 1.0             | 0.47            | 3/12/2020 14:39 | J   |
| Acetone                     | 2.1     | U    | ug/L  | 1  | 5.0             | 2.1             | 3/12/2020 14:39 | J   |
| Acrylonitrile               | 1.1     | U    | ug/L  | 1  | 10              | 1.1             | 3/12/2020 14:39 | J   |
| Benzene                     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 14:39 | J   |
| Bromochloromethane          | 0.17    | U    | ug/L  | 1  | 1.0             | 0.17            | 3/12/2020 14:39 | J   |
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/12/2020 14:39 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/12/2020 14:39 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/12/2020 14:39 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/12/2020 14:39 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 14:39 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 14:39 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 14:39 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 14:39 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 14:39 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 14:39 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/12/2020 14:39 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 14:39 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 14:39 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 14:39 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/12/2020 14:39 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 14:39 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 14:39 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 14:39 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/12/2020 14:39 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/12/2020 14:39 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/12/2020 14:39 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 14:39 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/12/2020 14:39 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 14:39 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 14:39 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 14:39 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 14:39 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/12/2020 14:39 | J   |
| 1,2-Dichloroethane-d4 (S)   | 95      |      | %     | 1  | 70-128          |                 | 3/12/2020 14:39 |     |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766038**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-5**

Date Collected: 03/02/20 07:01

Sample Description:

Location:

| Parameters                               | Results      | Qual                                                                      | Units | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|------------------------------------------|--------------|---------------------------------------------------------------------------|-------|----------|--------------|--------------|-----------------|-----|
| Toluene-d8 (S)                           | <b>87</b>    |                                                                           | %     | <b>1</b> | 77-119       |              | 3/12/2020 14:39 |     |
| Bromofluorobenzene (S)                   | <b>104</b>   |                                                                           | %     | <b>1</b> | 86-123       |              | 3/12/2020 14:39 |     |
| Analysis Desc: 8260B SIM Analysis, Water |              | Preparation Method: SW-846 5030B<br>Analytical Method: SW-846 8260B (SIM) |       |          |              |              |                 |     |
| 1,2-Dibromo-3-Chloropropane              | <b>0.11</b>  | <b>U</b>                                                                  | ug/L  | <b>1</b> | 0.20         | 0.11         | 3/12/2020 14:39 | J   |
| Ethylene Dibromide (EDB)                 | <b>0.020</b> | <b>U</b>                                                                  | ug/L  | <b>1</b> | 0.10         | 0.020        | 3/12/2020 14:39 | J   |
| 1,2-Dichloroethane-d4 (S)                | <b>91</b>    |                                                                           | %     | <b>1</b> | 77-125       |              | 3/12/2020 14:39 |     |
| Toluene-d8 (S)                           | <b>87</b>    |                                                                           | %     | <b>1</b> | 80-121       |              | 3/12/2020 14:39 |     |
| Bromofluorobenzene (S)                   | <b>97</b>    |                                                                           | %     | <b>1</b> | 80-129       |              | 3/12/2020 14:39 |     |

### WET CHEMISTRY

|                                                   |              |                                                                              |      |          |       |       |                 |   |
|---------------------------------------------------|--------------|------------------------------------------------------------------------------|------|----------|-------|-------|-----------------|---|
| Analysis Desc: Total Nitrogen, Calculated, Water  |              | Analytical Method: Calculation                                               |      |          |       |       |                 |   |
| Total Nitrogen                                    | <b>1.2</b>   |                                                                              | mg/L | <b>1</b> | 0.40  | 0.18  | 3/11/2020 10:46 | G |
| Analysis Desc: Unionized Ammonia, DEP SOP, Water  |              | Analytical Method: DEP SOP 10/03/83                                          |      |          |       |       |                 |   |
| Unionized Ammonia                                 | <b>0</b>     | <b>U</b>                                                                     | mg/L | <b>1</b> | 0.050 |       | 3/11/2020 10:46 | G |
| Analysis Desc: IC, E300.0, Water                  |              | Analytical Method: EPA 300.0                                                 |      |          |       |       |                 |   |
| Nitrate (as N)                                    | <b>0.56</b>  |                                                                              | mg/L | <b>1</b> | 0.50  | 0.050 | 3/2/2020 22:14  | J |
| Nitrate + Nitrite                                 | <b>0.56</b>  |                                                                              | mg/L | <b>1</b> | 0.50  | 0.050 | 3/2/2020 22:14  | J |
| Analysis Desc: Ammonia, E350.1, Water             |              | Analytical Method: EPA 350.1                                                 |      |          |       |       |                 |   |
| Ammonia (N)                                       | <b>0.040</b> | <b>U</b>                                                                     | mg/L | <b>5</b> | 0.050 | 0.040 | 3/5/2020 16:38  | G |
| Analysis Desc: TKN, E351.2, Water                 |              | Preparation Method: Copper Sulfate Digestion<br>Analytical Method: EPA 351.2 |      |          |       |       |                 |   |
| Total Kjeldahl Nitrogen                           | <b>0.59</b>  |                                                                              | mg/L | <b>1</b> | 0.10  | 0.085 | 3/4/2020 10:37  | G |
| Analysis Desc: Total Phosphorus, E365.4, Analysis |              | Preparation Method: Copper Sulfate Digestion<br>Analytical Method: EPA 365.4 |      |          |       |       |                 |   |
| Total Phosphorus (as P)                           | <b>0.076</b> | <b>I</b>                                                                     | mg/L | <b>1</b> | 0.10  | 0.055 | 3/4/2020 10:37  | G |
| Analysis Desc: COD, E410.4, Water                 |              | Analytical Method: EPA 410.4                                                 |      |          |       |       |                 |   |
| Chemical Oxygen Demand                            | <b>26</b>    |                                                                              | mg/L | <b>1</b> | 20    | 7.2   | 3/10/2020 16:56 | G |
| Analysis Desc: Chlorophyll A, SM10200H, Water     |              | Analytical Method: SM 10200 H                                                |      |          |       |       |                 |   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766038**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-5**

Date Collected: 03/02/20 07:01

Sample Description:

Location:

| Parameters                                  | Results | Qual                         | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|---------------------------------------------|---------|------------------------------|-------|----|-----------------|-----------------|-----------------|-----|
| Corrected Chlorophyll A                     | 4.0     | I                            | mg/m3 | 1  | 5.0             | 2.5             | 3/12/2020 17:00 | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C |         | Analytical Method: SM 2540 C |       |    |                 |                 |                 |     |
| Total Dissolved Solids                      | 170     |                              | mg/L  | 1  | 10              | 10              | 3/5/2020 10:39  | J   |
| Analysis Desc: BOD,SM5210B,Water            |         | Analytical Method: SM 5210B  |       |    |                 |                 |                 |     |
| Biochemical Oxygen Demand                   | 2.0     | U                            | mg/L  | 1  | 2.0             | 2.0             | 3/3/2020 10:02  | J   |
| Analysis Desc: TOC,SM5310B,Water            |         | Analytical Method: SM 5310B  |       |    |                 |                 |                 |     |
| Total Organic Carbon                        | 7.8     |                              | mg/L  | 1  | 1.0             | 0.65            | 3/5/2020 10:15  | G   |

Lab ID: **J2002766039**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-4**

Date Collected: 03/02/20 07:42

Sample Description:

Location:

| Parameters                                | Results  | Qual                                                               | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed       | Lab |
|-------------------------------------------|----------|--------------------------------------------------------------------|-------|----|-----------------|-----------------|----------------|-----|
| <b>METALS</b>                             |          |                                                                    |       |    |                 |                 |                |     |
| Analysis Desc: EPA 245.1 Analysis,Water   |          | Preparation Method: EPA 245.1<br>Analytical Method: EPA 245.1      |       |    |                 |                 |                |     |
| Mercury                                   | 0.000011 | U                                                                  | mg/L  | 1  | 0.00010         | 0.000011        | 3/5/2020 16:57 | J   |
| Analysis Desc: SW846 6010B Analysis,Water |          | Preparation Method: SW-846 3010A<br>Analytical Method: SW-846 6010 |       |    |                 |                 |                |     |
| Arsenic                                   | 9.0      | U                                                                  | ug/L  | 1  | 40              | 9.0             | 3/3/2020 17:23 | J   |
| Barium                                    | 37       |                                                                    | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 17:23 | J   |
| Beryllium                                 | 0.50     | U                                                                  | ug/L  | 1  | 2.0             | 0.50            | 3/3/2020 17:23 | J   |
| Cadmium                                   | 1.0      | U                                                                  | ug/L  | 1  | 4.0             | 1.0             | 3/3/2020 17:23 | J   |
| Calcium                                   | 26       |                                                                    | mg/L  | 1  | 0.40            | 0.10            | 3/3/2020 17:23 | J   |
| Chromium                                  | 8.4      |                                                                    | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 17:23 | J   |
| Cobalt                                    | 2.0      | U                                                                  | ug/L  | 1  | 8.0             | 2.0             | 3/3/2020 17:23 | J   |
| Copper                                    | 4.0      | U                                                                  | ug/L  | 1  | 16              | 4.0             | 3/3/2020 17:23 | J   |
| Iron                                      | 1500     |                                                                    | ug/L  | 1  | 400             | 100             | 3/3/2020 17:23 | J   |
| Lead                                      | 3.0      | U                                                                  | ug/L  | 1  | 12              | 3.0             | 3/3/2020 17:23 | J   |
| Magnesium                                 | 2.8      |                                                                    | mg/L  | 1  | 0.40            | 0.10            | 3/3/2020 17:23 | J   |
| Nickel                                    | 6.9      | I                                                                  | ug/L  | 1  | 24              | 6.0             | 3/3/2020 17:23 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766039**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-4**

Date Collected: 03/02/20 07:42

Sample Description:

Location:

| Parameters                 | Results | Qual | Units | DF                               | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|----------------------------|---------|------|-------|----------------------------------|-----------------|-----------------|-----------------|-----|
| Silver                     | 10      | U    | ug/L  | 1                                | 40              | 10              | 3/3/2020 17:23  | J   |
| Total Hardness (as CaCO3)  | 76      |      | mg/L  | 1                                | 0.16            | 0.10            | 3/3/2020 17:23  | J   |
| Vanadium                   | 13      |      | ug/L  | 1                                | 4.0             | 1.0             | 3/3/2020 17:23  | J   |
| Zinc                       | 50      | U    | ug/L  | 1                                | 200             | 50              | 3/3/2020 17:23  | J   |
| Analysis Desc: SW846 6020B |         |      |       | Preparation Method: SW-846 3010A |                 |                 |                 |     |
| Analysis, Total            |         |      |       | Analytical Method: SW-846 6020   |                 |                 |                 |     |
| Antimony                   | 0.23    | I    | ug/L  | 1                                | 0.70            | 0.11            | 3/15/2020 23:47 | J   |
| Selenium                   | 0.89    | I    | ug/L  | 1                                | 5.0             | 0.58            | 3/15/2020 23:47 | J   |
| Thallium                   | 0.057   | U    | ug/L  | 1                                | 0.20            | 0.057           | 3/15/2020 23:47 | J   |

### Microbiology

Analysis Desc: Fecal Coliform, SM9223D, Water Analytical Method: COLILERT-18 (Fecal Coliforms)

|                |    |   |               |    |    |    |                |   |
|----------------|----|---|---------------|----|----|----|----------------|---|
| Coliform Fecal | 10 | U | MPN/100<br>mL | 10 | 10 | 10 | 3/2/2020 12:18 | J |
|----------------|----|---|---------------|----|----|----|----------------|---|

### VOLATILES

Analysis Desc: 8260B VOCs Analysis, Water Preparation Method: SW-846 5030B  
Analytical Method: SW-846 8260B

|                             |      |   |      |   |     |      |                 |   |
|-----------------------------|------|---|------|---|-----|------|-----------------|---|
| 1,1,1,2-Tetrachloroethane   | 0.54 | U | ug/L | 1 | 1.0 | 0.54 | 3/12/2020 15:05 | J |
| 1,1,1-Trichloroethane       | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/12/2020 15:05 | J |
| 1,1,2,2-Tetrachloroethane   | 0.20 | U | ug/L | 1 | 1.0 | 0.20 | 3/12/2020 15:05 | J |
| 1,1,2-Trichloroethane       | 0.30 | U | ug/L | 1 | 1.0 | 0.30 | 3/12/2020 15:05 | J |
| 1,1-Dichloroethane          | 0.14 | U | ug/L | 1 | 1.0 | 0.14 | 3/12/2020 15:05 | J |
| 1,1-Dichloroethylene        | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/12/2020 15:05 | J |
| 1,2,3-Trichloropropane      | 0.91 | U | ug/L | 1 | 1.0 | 0.91 | 3/12/2020 15:05 | J |
| 1,2-Dibromo-3-Chloropropane | 3.1  | U | ug/L | 1 | 5.0 | 3.1  | 3/12/2020 15:05 | J |
| 1,2-Dichlorobenzene         | 0.18 | U | ug/L | 1 | 1.0 | 0.18 | 3/12/2020 15:05 | J |
| 1,2-Dichloroethane          | 0.23 | U | ug/L | 1 | 1.0 | 0.23 | 3/12/2020 15:05 | J |
| 1,2-Dichloropropane         | 0.66 | U | ug/L | 1 | 1.0 | 0.66 | 3/12/2020 15:05 | J |
| 1,4-Dichlorobenzene         | 0.22 | U | ug/L | 1 | 1.0 | 0.22 | 3/12/2020 15:05 | J |
| 2-Butanone (MEK)            | 0.43 | U | ug/L | 1 | 5.0 | 0.43 | 3/12/2020 15:05 | J |
| 2-Hexanone                  | 0.71 | U | ug/L | 1 | 5.0 | 0.71 | 3/12/2020 15:05 | J |
| 4-Methyl-2-pentanone (MIBK) | 0.47 | U | ug/L | 1 | 1.0 | 0.47 | 3/12/2020 15:05 | J |
| Acetone                     | 2.1  | U | ug/L | 1 | 5.0 | 2.1  | 3/12/2020 15:05 | J |
| Acrylonitrile               | 1.1  | U | ug/L | 1 | 10  | 1.1  | 3/12/2020 15:05 | J |
| Benzene                     | 0.16 | U | ug/L | 1 | 1.0 | 0.16 | 3/12/2020 15:05 | J |
| Bromochloromethane          | 0.17 | U | ug/L | 1 | 1.0 | 0.17 | 3/12/2020 15:05 | J |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766039**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-4**

Date Collected: 03/02/20 07:42

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/12/2020 15:05 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/12/2020 15:05 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/12/2020 15:05 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/12/2020 15:05 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 15:05 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 15:05 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 15:05 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 15:05 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 15:05 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 15:05 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/12/2020 15:05 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 15:05 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 15:05 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 15:05 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/12/2020 15:05 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 15:05 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 15:05 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 15:05 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/12/2020 15:05 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/12/2020 15:05 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/12/2020 15:05 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 15:05 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/12/2020 15:05 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 15:05 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 15:05 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 15:05 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 15:05 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10              | 1.8             | 3/12/2020 15:05 | J   |
| 1,2-Dichloroethane-d4 (S)   | 93      |      | %     | 1  | 70-128          |                 | 3/12/2020 15:05 |     |
| Toluene-d8 (S)              | 85      |      | %     | 1  | 77-119          |                 | 3/12/2020 15:05 |     |
| Bromofluorobenzene (S)      | 106     |      | %     | 1  | 86-123          |                 | 3/12/2020 15:05 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/12/2020 15:05 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/12/2020 15:05 | J |
| 1,2-Dichloroethane-d4 (S)   | 89    |   | %    | 1 | 77-125 |       | 3/12/2020 15:05 |   |
| Toluene-d8 (S)              | 85    |   | %    | 1 | 80-121 |       | 3/12/2020 15:05 |   |
| Bromofluorobenzene (S)      | 99    |   | %    | 1 | 80-129 |       | 3/12/2020 15:05 |   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766039**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-4**

Date Collected: 03/02/20 07:42

Sample Description:

Location:

| Parameters                                        | Results | Qual | Units                                                                        | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|---------------------------------------------------|---------|------|------------------------------------------------------------------------------|----|--------------|--------------|-----------------|-----|
| <b>WET CHEMISTRY</b>                              |         |      |                                                                              |    |              |              |                 |     |
| Analysis Desc: Total Nitrogen, Calculated, Water  |         |      | Analytical Method: Calculation                                               |    |              |              |                 |     |
| Total Nitrogen                                    | 0.82    |      | mg/L                                                                         | 1  | 0.40         | 0.18         | 3/11/2020 10:46 | G   |
| Analysis Desc: Unionized Ammonia, DEP SOP, Water  |         |      | Analytical Method: DEP SOP 10/03/83                                          |    |              |              |                 |     |
| Unionized Ammonia                                 | 0       | U    | mg/L                                                                         | 1  | 0.050        |              | 3/11/2020 10:46 | G   |
| Analysis Desc: IC, E300.0, Water                  |         |      | Analytical Method: EPA 300.0                                                 |    |              |              |                 |     |
| Nitrate (as N)                                    | 0.23    | I    | mg/L                                                                         | 1  | 0.50         | 0.050        | 3/2/2020 22:36  | J   |
| Nitrate + Nitrite                                 | 0.23    | I    | mg/L                                                                         | 1  | 0.50         | 0.050        | 3/2/2020 22:36  | J   |
| Analysis Desc: Ammonia, E350.1, Water             |         |      | Analytical Method: EPA 350.1                                                 |    |              |              |                 |     |
| Ammonia (N)                                       | 0.040   | U    | mg/L                                                                         | 5  | 0.050        | 0.040        | 3/5/2020 16:39  | G   |
| Analysis Desc: TKN, E351.2, Water                 |         |      | Preparation Method: Copper Sulfate Digestion<br>Analytical Method: EPA 351.2 |    |              |              |                 |     |
| Total Kjeldahl Nitrogen                           | 0.59    |      | mg/L                                                                         | 1  | 0.10         | 0.085        | 3/4/2020 10:37  | G   |
| Analysis Desc: Total Phosphorus, E365.4, Analysis |         |      | Preparation Method: Copper Sulfate Digestion<br>Analytical Method: EPA 365.4 |    |              |              |                 |     |
| Total Phosphorus (as P)                           | 0.10    |      | mg/L                                                                         | 1  | 0.10         | 0.055        | 3/4/2020 10:37  | G   |
| Analysis Desc: COD, E410.4, Water                 |         |      | Analytical Method: EPA 410.4                                                 |    |              |              |                 |     |
| Chemical Oxygen Demand                            | 50      |      | mg/L                                                                         | 1  | 20           | 7.2          | 3/10/2020 16:56 | G   |
| Analysis Desc: Chlorophyll A, SM10200H, Water     |         |      | Analytical Method: SM 10200 H                                                |    |              |              |                 |     |
| Corrected Chlorophyll A                           | 5.6     |      | mg/m3                                                                        | 1  | 5.0          | 2.5          | 3/12/2020 17:00 | G   |
| Analysis Desc: Tot Dissolved Solids, SM2540C      |         |      | Analytical Method: SM 2540 C                                                 |    |              |              |                 |     |
| Total Dissolved Solids                            | 180     |      | mg/L                                                                         | 1  | 10           | 10           | 3/6/2020 14:54  | J   |
| Analysis Desc: BOD, SM5210B, Water                |         |      | Analytical Method: SM 5210B                                                  |    |              |              |                 |     |
| Biochemical Oxygen Demand                         | 2.0     | U    | mg/L                                                                         | 1  | 2.0          | 2.0          | 3/3/2020 10:05  | J   |
| Analysis Desc: TOC, SM5310B, Water                |         |      | Analytical Method: SM 5310B                                                  |    |              |              |                 |     |
| Total Organic Carbon                              | 8.0     |      | mg/L                                                                         | 1  | 1.0          | 0.65         | 3/5/2020 10:15  | G   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766040**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-1**

Date Collected: 03/02/20 09:01

Sample Description:

Location:

| Parameters                 | Results  | Qual | Units                                            | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|----------------------------|----------|------|--------------------------------------------------|----|-----------------|-----------------|-----------------|-----|
| <b>METALS</b>              |          |      |                                                  |    |                 |                 |                 |     |
| Analysis Desc: EPA 245.1   |          |      | Preparation Method: EPA 245.1                    |    |                 |                 |                 |     |
| Analysis, Water            |          |      | Analytical Method: EPA 245.1                     |    |                 |                 |                 |     |
| Mercury                    | 0.000011 | U    | mg/L                                             | 1  | 0.00010         | 0.000011        | 3/5/2020 17:00  | J   |
| Analysis Desc: SW846 6010B |          |      | Preparation Method: SW-846 3010A                 |    |                 |                 |                 |     |
| Analysis, Water            |          |      | Analytical Method: SW-846 6010                   |    |                 |                 |                 |     |
| Arsenic                    | 9.0      | U    | ug/L                                             | 1  | 40              | 9.0             | 3/3/2020 17:27  | J   |
| Barium                     | 28       |      | ug/L                                             | 1  | 4.0             | 1.0             | 3/3/2020 17:27  | J   |
| Beryllium                  | 0.50     | U    | ug/L                                             | 1  | 2.0             | 0.50            | 3/3/2020 17:27  | J   |
| Cadmium                    | 1.0      | U    | ug/L                                             | 1  | 4.0             | 1.0             | 3/3/2020 17:27  | J   |
| Calcium                    | 15       |      | mg/L                                             | 1  | 0.40            | 0.10            | 3/3/2020 17:27  | J   |
| Chromium                   | 2.1      | I    | ug/L                                             | 1  | 8.0             | 2.0             | 3/3/2020 17:27  | J   |
| Cobalt                     | 2.0      | U    | ug/L                                             | 1  | 8.0             | 2.0             | 3/3/2020 17:27  | J   |
| Copper                     | 4.0      | U    | ug/L                                             | 1  | 16              | 4.0             | 3/3/2020 17:27  | J   |
| Iron                       | 670      |      | ug/L                                             | 1  | 400             | 100             | 3/3/2020 17:27  | J   |
| Lead                       | 3.0      | U    | ug/L                                             | 1  | 12              | 3.0             | 3/3/2020 17:27  | J   |
| Magnesium                  | 2.2      |      | mg/L                                             | 1  | 0.40            | 0.10            | 3/3/2020 17:27  | J   |
| Nickel                     | 6.0      | U    | ug/L                                             | 1  | 24              | 6.0             | 3/3/2020 17:27  | J   |
| Silver                     | 10       | U    | ug/L                                             | 1  | 40              | 10              | 3/3/2020 17:27  | J   |
| Total Hardness (as CaCO3)  | 46       |      | mg/L                                             | 1  | 0.16            | 0.10            | 3/3/2020 17:27  | J   |
| Vanadium                   | 2.8      | I    | ug/L                                             | 1  | 4.0             | 1.0             | 3/3/2020 17:27  | J   |
| Zinc                       | 50       | U    | ug/L                                             | 1  | 200             | 50              | 3/3/2020 17:27  | J   |
| Analysis Desc: SW846 6020B |          |      | Preparation Method: SW-846 3010A                 |    |                 |                 |                 |     |
| Analysis, Total            |          |      | Analytical Method: SW-846 6020                   |    |                 |                 |                 |     |
| Antimony                   | 0.24     | I    | ug/L                                             | 1  | 0.70            | 0.11            | 3/15/2020 23:52 | J   |
| Selenium                   | 0.58     | U    | ug/L                                             | 1  | 5.0             | 0.58            | 3/15/2020 23:52 | J   |
| Thallium                   | 0.057    | U    | ug/L                                             | 1  | 0.20            | 0.057           | 3/15/2020 23:52 | J   |
| <b>Microbiology</b>        |          |      |                                                  |    |                 |                 |                 |     |
| Analysis Desc: Fecal       |          |      | Analytical Method: COLILERT-18 (Fecal Coliforms) |    |                 |                 |                 |     |
| Coliform, SM9223D, Water   |          |      |                                                  |    |                 |                 |                 |     |
| Coliform Fecal             | 1020     |      | MPN/100<br>mL                                    | 10 | 10              | 10              | 3/2/2020 12:18  | J   |
| <b>VOLATILES</b>           |          |      |                                                  |    |                 |                 |                 |     |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766040**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-1**

Date Collected: 03/02/20 09:01

Sample Description:

Location:

| Parameters                                   | Results | Qual                             | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|----------------------------------------------|---------|----------------------------------|-------|----|-----------------|-----------------|-----------------|-----|
| Analysis Desc: 8260B VOCs Analysis,<br>Water |         | Preparation Method: SW-846 5030B |       |    |                 |                 |                 |     |
|                                              |         | Analytical Method: SW-846 8260B  |       |    |                 |                 |                 |     |
| 1,1,1,2-Tetrachloroethane                    | 0.54    | U                                | ug/L  | 1  | 1.0             | 0.54            | 3/12/2020 15:32 | J   |
| 1,1,1-Trichloroethane                        | 0.22    | U                                | ug/L  | 1  | 1.0             | 0.22            | 3/12/2020 15:32 | J   |
| 1,1,2,2-Tetrachloroethane                    | 0.20    | U                                | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 15:32 | J   |
| 1,1,2-Trichloroethane                        | 0.30    | U                                | ug/L  | 1  | 1.0             | 0.30            | 3/12/2020 15:32 | J   |
| 1,1-Dichloroethane                           | 0.14    | U                                | ug/L  | 1  | 1.0             | 0.14            | 3/12/2020 15:32 | J   |
| 1,1-Dichloroethylene                         | 0.18    | U                                | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 15:32 | J   |
| 1,2,3-Trichloropropane                       | 0.91    | U                                | ug/L  | 1  | 1.0             | 0.91            | 3/12/2020 15:32 | J   |
| 1,2-Dibromo-3-Chloropropane                  | 3.1     | U                                | ug/L  | 1  | 5.0             | 3.1             | 3/12/2020 15:32 | J   |
| 1,2-Dichlorobenzene                          | 0.18    | U                                | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 15:32 | J   |
| 1,2-Dichloroethane                           | 0.23    | U                                | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 15:32 | J   |
| 1,2-Dichloropropane                          | 0.66    | U                                | ug/L  | 1  | 1.0             | 0.66            | 3/12/2020 15:32 | J   |
| 1,4-Dichlorobenzene                          | 0.22    | U                                | ug/L  | 1  | 1.0             | 0.22            | 3/12/2020 15:32 | J   |
| 2-Butanone (MEK)                             | 0.43    | U                                | ug/L  | 1  | 5.0             | 0.43            | 3/12/2020 15:32 | J   |
| 2-Hexanone                                   | 0.71    | U                                | ug/L  | 1  | 5.0             | 0.71            | 3/12/2020 15:32 | J   |
| 4-Methyl-2-pentanone (MIBK)                  | 0.47    | U                                | ug/L  | 1  | 1.0             | 0.47            | 3/12/2020 15:32 | J   |
| Acetone                                      | 2.1     | U                                | ug/L  | 1  | 5.0             | 2.1             | 3/12/2020 15:32 | J   |
| Acrylonitrile                                | 1.1     | U                                | ug/L  | 1  | 10              | 1.1             | 3/12/2020 15:32 | J   |
| Benzene                                      | 0.16    | U                                | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 15:32 | J   |
| Bromochloromethane                           | 0.17    | U                                | ug/L  | 1  | 1.0             | 0.17            | 3/12/2020 15:32 | J   |
| Bromodichloromethane                         | 0.46    | U                                | ug/L  | 1  | 1.0             | 0.46            | 3/12/2020 15:32 | J   |
| Bromoform                                    | 0.44    | U                                | ug/L  | 1  | 1.0             | 0.44            | 3/12/2020 15:32 | J   |
| Bromomethane                                 | 0.29    | U                                | ug/L  | 1  | 1.0             | 0.29            | 3/12/2020 15:32 | J   |
| Carbon Disulfide                             | 0.67    | U                                | ug/L  | 1  | 1.0             | 0.67            | 3/12/2020 15:32 | J   |
| Carbon Tetrachloride                         | 0.36    | U                                | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 15:32 | J   |
| Chlorobenzene                                | 0.41    | U                                | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 15:32 | J   |
| Chloroethane                                 | 0.33    | U                                | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 15:32 | J   |
| Chloroform                                   | 0.18    | U                                | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 15:32 | J   |
| Chloromethane                                | 0.21    | U                                | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 15:32 | J   |
| Dibromochloromethane                         | 0.33    | U                                | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 15:32 | J   |
| Dibromomethane                               | 0.26    | U                                | ug/L  | 1  | 1.0             | 0.26            | 3/12/2020 15:32 | J   |
| Ethylbenzene                                 | 0.24    | U                                | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 15:32 | J   |
| Ethylene Dibromide (EDB)                     | 0.20    | U                                | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 15:32 | J   |
| Iodomethane (Methyl Iodide)                  | 0.16    | U                                | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 15:32 | J   |
| Methylene Chloride                           | 2.5     | U                                | ug/L  | 1  | 5.0             | 2.5             | 3/12/2020 15:32 | J   |
| Styrene                                      | 0.23    | U                                | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 15:32 | J   |
| Tetrachloroethylene (PCE)                    | 0.36    | U                                | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 15:32 | J   |
| Toluene                                      | 0.23    | U                                | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 15:32 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766040**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-1**

Date Collected: 03/02/20 09:01

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|--------------|--------------|-----------------|-----|
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0          | 0.29         | 3/12/2020 15:32 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0          | 0.32         | 3/12/2020 15:32 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0          | 0.19         | 3/12/2020 15:32 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/12/2020 15:32 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0          | 0.53         | 3/12/2020 15:32 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0          | 0.24         | 3/12/2020 15:32 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0          | 0.16         | 3/12/2020 15:32 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0          | 0.20         | 3/12/2020 15:32 | J   |
| trans-1,3-Dichloropropylene | 0.21    | U    | ug/L  | 1  | 1.0          | 0.21         | 3/12/2020 15:32 | J   |
| trans-1,4-Dichloro-2-butene | 1.8     | U    | ug/L  | 1  | 10           | 1.8          | 3/12/2020 15:32 | J   |
| 1,2-Dichloroethane-d4 (S)   | 94      |      | %     | 1  | 70-128       |              | 3/12/2020 15:32 |     |
| Toluene-d8 (S)              | 87      |      | %     | 1  | 77-119       |              | 3/12/2020 15:32 |     |
| Bromofluorobenzene (S)      | 105     |      | %     | 1  | 86-123       |              | 3/12/2020 15:32 |     |

Analysis Desc: 8260B SIM Analysis,  
Water

Preparation Method: SW-846 5030B

Analytical Method: SW-846 8260B (SIM)

|                             |       |   |      |   |        |       |                 |   |
|-----------------------------|-------|---|------|---|--------|-------|-----------------|---|
| 1,2-Dibromo-3-Chloropropane | 0.11  | U | ug/L | 1 | 0.20   | 0.11  | 3/12/2020 15:32 | J |
| Ethylene Dibromide (EDB)    | 0.020 | U | ug/L | 1 | 0.10   | 0.020 | 3/12/2020 15:32 | J |
| 1,2-Dichloroethane-d4 (S)   | 90    |   | %    | 1 | 77-125 |       | 3/12/2020 15:32 |   |
| Toluene-d8 (S)              | 87    |   | %    | 1 | 80-121 |       | 3/12/2020 15:32 |   |
| Bromofluorobenzene (S)      | 98    |   | %    | 1 | 80-129 |       | 3/12/2020 15:32 |   |

### WET CHEMISTRY

Analysis Desc: Total

Analytical Method: Calculation

Nitrogen, Calculated, Water

|                |     |  |      |   |      |      |                 |   |
|----------------|-----|--|------|---|------|------|-----------------|---|
| Total Nitrogen | 1.4 |  | mg/L | 1 | 0.40 | 0.18 | 3/11/2020 10:46 | G |
|----------------|-----|--|------|---|------|------|-----------------|---|

Analysis Desc: Unionized  
Ammonia, DEP SOP, Water

Analytical Method: DEP SOP 10/03/83

|                   |   |   |      |   |       |  |                 |   |
|-------------------|---|---|------|---|-------|--|-----------------|---|
| Unionized Ammonia | 0 | U | mg/L | 1 | 0.050 |  | 3/11/2020 10:46 | G |
|-------------------|---|---|------|---|-------|--|-----------------|---|

Analysis Desc: IC, E300.0, Water

Analytical Method: EPA 300.0

|                   |      |   |      |   |      |       |                |   |
|-------------------|------|---|------|---|------|-------|----------------|---|
| Nitrate (as N)    | 0.13 | I | mg/L | 1 | 0.50 | 0.050 | 3/2/2020 22:58 | J |
| Nitrate + Nitrite | 0.13 | I | mg/L | 1 | 0.50 | 0.050 | 3/2/2020 22:58 | J |

Analysis Desc: Ammonia, E350.1, Water

Analytical Method: EPA 350.1

|             |       |       |      |   |       |       |                |   |
|-------------|-------|-------|------|---|-------|-------|----------------|---|
| Ammonia (N) | 0.040 | U, J4 | mg/L | 5 | 0.050 | 0.040 | 3/5/2020 16:49 | G |
|-------------|-------|-------|------|---|-------|-------|----------------|---|

Analysis Desc: TKN, E351.2, Water

Preparation Method: Copper Sulfate Digestion

Analytical Method: EPA 351.2

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766040**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **SW-1**

Date Collected: 03/02/20 09:01

Sample Description:

Location:

| Parameters                                      | Results      | Qual                                                                         | Units        | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-------------------------------------------------|--------------|------------------------------------------------------------------------------|--------------|----------|--------------|--------------|-----------------|-----|
| Total Kjeldahl Nitrogen                         | <b>1.3</b>   |                                                                              | <b>mg/L</b>  | <b>1</b> | 0.10         | 0.085        | 3/4/2020 10:37  | G   |
| Analysis Desc: Total Phosphorus,E365.4,Analysis |              | Preparation Method: Copper Sulfate Digestion<br>Analytical Method: EPA 365.4 |              |          |              |              |                 |     |
| Total Phosphorus (as P)                         | <b>0.055</b> | <b>U</b>                                                                     | <b>mg/L</b>  | <b>1</b> | 0.10         | 0.055        | 3/4/2020 10:37  | G   |
| Analysis Desc: COD,E410.4,Water                 |              | Analytical Method: EPA 410.4                                                 |              |          |              |              |                 |     |
| Chemical Oxygen Demand                          | <b>120</b>   |                                                                              | <b>mg/L</b>  | <b>1</b> | 20           | 7.2          | 3/10/2020 16:56 | G   |
| Analysis Desc: Chlorophyll A,SM10200H,Water     |              | Analytical Method: SM 10200 H                                                |              |          |              |              |                 |     |
| Corrected Chlorophyll A                         | <b>6.4</b>   |                                                                              | <b>mg/m3</b> | <b>1</b> | 5.0          | 2.5          | 3/12/2020 17:00 | G   |
| Analysis Desc: Tot Dissolved Solids,SM2540C     |              | Analytical Method: SM 2540 C                                                 |              |          |              |              |                 |     |
| Total Dissolved Solids                          | <b>170</b>   |                                                                              | <b>mg/L</b>  | <b>1</b> | 10           | 10           | 3/6/2020 14:54  | J   |
| Analysis Desc: BOD,SM5210B,Water                |              | Analytical Method: SM 5210B                                                  |              |          |              |              |                 |     |
| Biochemical Oxygen Demand                       | <b>2.0</b>   | <b>U</b>                                                                     | <b>mg/L</b>  | <b>1</b> | 2.0          | 2.0          | 3/3/2020 10:07  | J   |
| Analysis Desc: TOC,SM5310B,Water                |              | Analytical Method: SM 5310B                                                  |              |          |              |              |                 |     |
| Total Organic Carbon                            | <b>30</b>    |                                                                              | <b>mg/L</b>  | <b>1</b> | 1.0          | 0.65         | 3/5/2020 10:15  | G   |

Lab ID: **J2002766041**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **Trip**

Date Collected: 03/02/20 00:00

Sample Description:

Location:

| Parameters                                | Results     | Qual                                                                | Units       | DF       | Adjusted PQL | Adjusted MDL | Analyzed        | Lab |
|-------------------------------------------|-------------|---------------------------------------------------------------------|-------------|----------|--------------|--------------|-----------------|-----|
| <b>VOLATILES</b>                          |             |                                                                     |             |          |              |              |                 |     |
| Analysis Desc: 8260B VOCs Analysis, Water |             | Preparation Method: SW-846 5030B<br>Analytical Method: SW-846 8260B |             |          |              |              |                 |     |
| 1,1,1,2-Tetrachloroethane                 | <b>0.54</b> | <b>U</b>                                                            | <b>ug/L</b> | <b>1</b> | 1.0          | 0.54         | 3/12/2020 15:58 | J   |
| 1,1,1-Trichloroethane                     | <b>0.22</b> | <b>U</b>                                                            | <b>ug/L</b> | <b>1</b> | 1.0          | 0.22         | 3/12/2020 15:58 | J   |
| 1,1,2,2-Tetrachloroethane                 | <b>0.20</b> | <b>U</b>                                                            | <b>ug/L</b> | <b>1</b> | 1.0          | 0.20         | 3/12/2020 15:58 | J   |
| 1,1,2-Trichloroethane                     | <b>0.30</b> | <b>U</b>                                                            | <b>ug/L</b> | <b>1</b> | 1.0          | 0.30         | 3/12/2020 15:58 | J   |
| 1,1-Dichloroethane                        | <b>0.14</b> | <b>U</b>                                                            | <b>ug/L</b> | <b>1</b> | 1.0          | 0.14         | 3/12/2020 15:58 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766041**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **Trip**

Date Collected: 03/02/20 00:00

Sample Description:

Location:

| Parameters                  | Results | Qual | Units | DF | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|-----------------------------|---------|------|-------|----|-----------------|-----------------|-----------------|-----|
| 1,1-Dichloroethylene        | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 15:58 | J   |
| 1,2,3-Trichloropropane      | 0.91    | U    | ug/L  | 1  | 1.0             | 0.91            | 3/12/2020 15:58 | J   |
| 1,2-Dibromo-3-Chloropropane | 3.1     | U    | ug/L  | 1  | 5.0             | 3.1             | 3/12/2020 15:58 | J   |
| 1,2-Dichlorobenzene         | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 15:58 | J   |
| 1,2-Dichloroethane          | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 15:58 | J   |
| 1,2-Dichloropropane         | 0.66    | U    | ug/L  | 1  | 1.0             | 0.66            | 3/12/2020 15:58 | J   |
| 1,4-Dichlorobenzene         | 0.22    | U    | ug/L  | 1  | 1.0             | 0.22            | 3/12/2020 15:58 | J   |
| 2-Butanone (MEK)            | 0.43    | U    | ug/L  | 1  | 5.0             | 0.43            | 3/12/2020 15:58 | J   |
| 2-Hexanone                  | 0.71    | U    | ug/L  | 1  | 5.0             | 0.71            | 3/12/2020 15:58 | J   |
| 4-Methyl-2-pentanone (MIBK) | 0.47    | U    | ug/L  | 1  | 1.0             | 0.47            | 3/12/2020 15:58 | J   |
| Acetone                     | 2.1     | U    | ug/L  | 1  | 5.0             | 2.1             | 3/12/2020 15:58 | J   |
| Acrylonitrile               | 1.1     | U    | ug/L  | 1  | 10              | 1.1             | 3/12/2020 15:58 | J   |
| Benzene                     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 15:58 | J   |
| Bromochloromethane          | 0.17    | U    | ug/L  | 1  | 1.0             | 0.17            | 3/12/2020 15:58 | J   |
| Bromodichloromethane        | 0.46    | U    | ug/L  | 1  | 1.0             | 0.46            | 3/12/2020 15:58 | J   |
| Bromoform                   | 0.44    | U    | ug/L  | 1  | 1.0             | 0.44            | 3/12/2020 15:58 | J   |
| Bromomethane                | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/12/2020 15:58 | J   |
| Carbon Disulfide            | 0.67    | U    | ug/L  | 1  | 1.0             | 0.67            | 3/12/2020 15:58 | J   |
| Carbon Tetrachloride        | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 15:58 | J   |
| Chlorobenzene               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 15:58 | J   |
| Chloroethane                | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 15:58 | J   |
| Chloroform                  | 0.18    | U    | ug/L  | 1  | 1.0             | 0.18            | 3/12/2020 15:58 | J   |
| Chloromethane               | 0.21    | U    | ug/L  | 1  | 1.0             | 0.21            | 3/12/2020 15:58 | J   |
| Dibromochloromethane        | 0.33    | U    | ug/L  | 1  | 1.0             | 0.33            | 3/12/2020 15:58 | J   |
| Dibromomethane              | 0.26    | U    | ug/L  | 1  | 1.0             | 0.26            | 3/12/2020 15:58 | J   |
| Ethylbenzene                | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 15:58 | J   |
| Ethylene Dibromide (EDB)    | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 15:58 | J   |
| Iodomethane (Methyl Iodide) | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 15:58 | J   |
| Methylene Chloride          | 2.5     | U    | ug/L  | 1  | 5.0             | 2.5             | 3/12/2020 15:58 | J   |
| Styrene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 15:58 | J   |
| Tetrachloroethylene (PCE)   | 0.36    | U    | ug/L  | 1  | 1.0             | 0.36            | 3/12/2020 15:58 | J   |
| Toluene                     | 0.23    | U    | ug/L  | 1  | 1.0             | 0.23            | 3/12/2020 15:58 | J   |
| Trichloroethene             | 0.29    | U    | ug/L  | 1  | 1.0             | 0.29            | 3/12/2020 15:58 | J   |
| Trichlorofluoromethane      | 0.32    | U    | ug/L  | 1  | 1.0             | 0.32            | 3/12/2020 15:58 | J   |
| Vinyl Acetate               | 0.19    | U    | ug/L  | 1  | 1.0             | 0.19            | 3/12/2020 15:58 | J   |
| Vinyl Chloride              | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 15:58 | J   |
| Xylene (Total)              | 0.53    | U    | ug/L  | 1  | 2.0             | 0.53            | 3/12/2020 15:58 | J   |
| cis-1,2-Dichloroethylene    | 0.24    | U    | ug/L  | 1  | 1.0             | 0.24            | 3/12/2020 15:58 | J   |
| cis-1,3-Dichloropropene     | 0.16    | U    | ug/L  | 1  | 1.0             | 0.16            | 3/12/2020 15:58 | J   |
| trans-1,2-Dichloroethylene  | 0.20    | U    | ug/L  | 1  | 1.0             | 0.20            | 3/12/2020 15:58 | J   |

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## ANALYTICAL RESULTS

Workorder: J2002766 Trail Ridge Landfill

Lab ID: **J2002766041**

Date Received: 03/02/20 10:10 Matrix: Water

Sample ID: **Trip**

Date Collected: 03/02/20 00:00

Sample Description:

Location:

| Parameters                                  | Results      | Qual     | Units | DF       | Adjusted<br>PQL                       | Adjusted<br>MDL | Analyzed        | Lab |
|---------------------------------------------|--------------|----------|-------|----------|---------------------------------------|-----------------|-----------------|-----|
| trans-1,3-Dichloropropylene                 | <b>0.21</b>  | <b>U</b> | ug/L  | <b>1</b> | 1.0                                   | 0.21            | 3/12/2020 15:58 | J   |
| trans-1,4-Dichloro-2-butene                 | <b>1.8</b>   | <b>U</b> | ug/L  | <b>1</b> | 10                                    | 1.8             | 3/12/2020 15:58 | J   |
| 1,2-Dichloroethane-d4 (S)                   | <b>93</b>    |          | %     | <b>1</b> | 70-128                                |                 | 3/12/2020 15:58 |     |
| Toluene-d8 (S)                              | <b>89</b>    |          | %     | <b>1</b> | 77-119                                |                 | 3/12/2020 15:58 |     |
| Bromofluorobenzene (S)                      | <b>105</b>   |          | %     | <b>1</b> | 86-123                                |                 | 3/12/2020 15:58 |     |
| Analysis Desc: 8260B SIM Analysis,<br>Water |              |          |       |          | Preparation Method: SW-846 5030B      |                 |                 |     |
|                                             |              |          |       |          | Analytical Method: SW-846 8260B (SIM) |                 |                 |     |
| 1,2-Dibromo-3-Chloropropane                 | <b>0.11</b>  | <b>U</b> | ug/L  | <b>1</b> | 0.20                                  | 0.11            | 3/12/2020 15:58 | J   |
| Ethylene Dibromide (EDB)                    | <b>0.020</b> | <b>U</b> | ug/L  | <b>1</b> | 0.10                                  | 0.020           | 3/12/2020 15:58 | J   |
| 1,2-Dichloroethane-d4 (S)                   | <b>89</b>    |          | %     | <b>1</b> | 77-125                                |                 | 3/12/2020 15:58 |     |
| Toluene-d8 (S)                              | <b>89</b>    |          | %     | <b>1</b> | 80-121                                |                 | 3/12/2020 15:58 |     |
| Bromofluorobenzene (S)                      | <b>98</b>    |          | %     | <b>1</b> | 80-129                                |                 | 3/12/2020 15:58 |     |

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## ANALYTICAL RESULTS QUALIFIERS

Workorder: J2002766 Trail Ridge Landfill

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### PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- [1] samples 35-40 filtered 3/2/20 15:16
- J4 Estimated Result

### LAB QUALIFIERS

- G DOH Certification #E82001(AEL-G)(FL NELAC Certification)
- J DOH Certification #E82574(AEL-JAX)(FL NELAC Certification)

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

QC Batch: WCAJ/1462 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Prepared:  
Associated Lab Samples: J2002766001, J2002766002, J2002766003, J2002766004, J2002766005, J2002766006, J2002766007, J2002766008,  
METHOD BLANK: 3396999

| Parameter      | Units | Blank Result | Reporting Limit Qualifiers |
|----------------|-------|--------------|----------------------------|
| WET CHEMISTRY  |       |              |                            |
| Chloride       | mg/L  | 0.50         | 0.50 U                     |
| Nitrate (as N) | mg/L  | 0.050        | 0.050 U                    |

LABORATORY CONTROL SAMPLE & LCSD: 3397000 3397001

| Parameter      | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD Qualifiers |
|----------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|--------------------|
| WET CHEMISTRY  |       |             |            |             |           |            |             |     |                    |
| Chloride       | mg/L  | 20          | 20         | 20          | 98        | 100        | 90-110      | 2   | 10                 |
| Nitrate (as N) | mg/L  | 2           | 2.0        | 2.0         | 100       | 101        | 90-110      | 1   | 10                 |

MATRIX SPIKE SAMPLE: 3397002 Original: J2002766002

| Parameter      | Units | Original Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits Qualifiers |
|----------------|-------|-----------------|-------------|-----------|----------|-------------------------|
| WET CHEMISTRY  |       |                 |             |           |          |                         |
| Chloride       | mg/L  | 7               | 20          | 25        | 90       | 90-110                  |
| Nitrate (as N) | mg/L  | 0.12            | 2           | 2.0       | 96       | 90-110                  |

MATRIX SPIKE SAMPLE: 3397003 Original: J2002766006

| Parameter      | Units | Original Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits Qualifiers |
|----------------|-------|-----------------|-------------|-----------|----------|-------------------------|
| WET CHEMISTRY  |       |                 |             |           |          |                         |
| Chloride       | mg/L  | 5.2             | 20          | 27        | 111      | 90-110                  |
| Nitrate (as N) | mg/L  | 0.16            | 2           | 2.6       | 124      | 90-110                  |

QC Batch: WCAJ/1465 Analysis Method: SM 2540 C  
QC Batch Method: SM 2540 C Prepared:  
Associated Lab Samples: J2002766001, J2002766002, J2002766003, J2002766004, J2002766005, J2002766006, J2002766007, J2002766008,

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

METHOD BLANK: 3397233

| Parameter              | Units | Blank Result | Reporting Limit Qualifiers |
|------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY          |       |              |                            |
| Total Dissolved Solids | mg/L  | 10           | 10 U                       |

LABORATORY CONTROL SAMPLE: 3397234

| Parameter              | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY          |       |             |            |           |                         |
| Total Dissolved Solids | mg/L  | 300         | 300        | 100       | 85-115                  |

SAMPLE DUPLICATE: 3397235

Original: J2002689005

| Parameter               | Units                                              | Original Result | DUP Result       | RPD | Max RPD   | Qualifiers |
|-------------------------|----------------------------------------------------|-----------------|------------------|-----|-----------|------------|
| WET CHEMISTRY           |                                                    |                 |                  |     |           |            |
| Total Dissolved Solids  | mg/L                                               | 700             | 700              | 0   | 10        |            |
| QC Batch:               | WCAj/1467                                          |                 | Analysis Method: |     | EPA 300.0 |            |
| QC Batch Method:        | EPA 300.0                                          |                 | Prepared:        |     |           |            |
| Associated Lab Samples: | J2002766017, J2002766018, J2002766019, J2002766024 |                 |                  |     |           |            |

METHOD BLANK: 3397860

| Parameter      | Units | Blank Result | Reporting Limit Qualifiers |
|----------------|-------|--------------|----------------------------|
| WET CHEMISTRY  |       |              |                            |
| Chloride       | mg/L  | 0.50         | 0.50 U                     |
| Nitrate (as N) | mg/L  | 0.050        | 0.050 U                    |

LABORATORY CONTROL SAMPLE & LCSD: 3397861 3397862

| Parameter      | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD Qualifiers |
|----------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|--------------------|
| WET CHEMISTRY  |       |             |            |             |           |            |             |     |                    |
| Chloride       | mg/L  | 20          | 19         | 20          | 96        | 99         | 90-110      | 2   | 10                 |
| Nitrate (as N) | mg/L  | 2           | 2.0        | 2.0         | 100       | 98         | 90-110      | 2   | 10                 |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE SAMPLE: 3398328

Original: J2002824002

| Parameter      | Units | Original Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|----------------|-------|-----------------|-------------|-----------|----------|--------------|------------|
| WET CHEMISTRY  |       |                 |             |           |          |              |            |
| Chloride       | mg/L  | 110             | 40          | 150       | 104      | 90-110       |            |
| Nitrate (as N) | mg/L  | 5.1             | 4           | 9.3       | 105      | 90-110       |            |

QC Batch: WCAj/1480

Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Prepared:

Associated Lab Samples: J2002766020, J2002766021, J2002766022, J2002766025, J2002766026, J2002766027, J2002766028, J2002766029,

METHOD BLANK: 3398980

| Parameter      | Units | Blank Result | Reporting Limit | Qualifiers |
|----------------|-------|--------------|-----------------|------------|
| WET CHEMISTRY  |       |              |                 |            |
| Chloride       | mg/L  | 0.50         | 0.50            | U          |
| Nitrate (as N) | mg/L  | 0.050        | 0.050           | U          |

LABORATORY CONTROL SAMPLE & LCSD: 3398981

3398982

| Parameter      | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD | Qualifiers |
|----------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|---------|------------|
| WET CHEMISTRY  |       |             |            |             |           |            |             |     |         |            |
| Chloride       | mg/L  | 20          | 20         | 19          | 99        | 97         | 90-110      | 2   | 10      |            |
| Nitrate (as N) | mg/L  | 2           | 2.0        | 1.9         | 99        | 97         | 90-110      | 2   | 10      |            |

MATRIX SPIKE SAMPLE: 3398983

Original: J2002766025

| Parameter      | Units | Original Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|----------------|-------|-----------------|-------------|-----------|----------|--------------|------------|
| WET CHEMISTRY  |       |                 |             |           |          |              |            |
| Chloride       | mg/L  | 6.1             | 20          | 26        | 98       | 90-110       |            |
| Nitrate (as N) | mg/L  | 0.13            | 2           | 2.0       | 92       | 90-110       |            |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE SAMPLE: 3398984

Original: J2002766028

| Parameter      | Units | Original Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|----------------|-------|-----------------|-------------|-----------|----------|--------------|------------|
| WET CHEMISTRY  |       |                 |             |           |          |              |            |
| Chloride       | mg/L  | 4.5             | 20          | 25        | 104      | 90-110       |            |
| Nitrate (as N) | mg/L  | 0.14            | 2           | 2.0       | 93       | 90-110       |            |

QC Batch: WCAj/1486

Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0

Prepared:

Associated Lab Samples: J2002766035, J2002766036, J2002766037, J2002766038, J2002766039, J2002766040

METHOD BLANK: 3399912

| Parameter         | Units | Blank Result | Reporting Limit | Qualifiers |
|-------------------|-------|--------------|-----------------|------------|
| WET CHEMISTRY     |       |              |                 |            |
| Nitrate (as N)    | mg/L  | 0.050        | 0.050           | U          |
| Nitrate + Nitrite | mg/L  | 0.050        | 0.050           | U          |

LABORATORY CONTROL SAMPLE & LCSD: 3399913

3399914

| Parameter         | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD | Qualifiers |
|-------------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|---------|------------|
| WET CHEMISTRY     |       |             |            |             |           |            |             |     |         |            |
| Nitrate (as N)    | mg/L  | 2           | 2.0        | 2.0         | 101       | 101        | 90-110      | 0   | 10      |            |
| Nitrate + Nitrite | mg/L  |             | 4.2        | 4.1         |           |            |             | 1   | 10      |            |

MATRIX SPIKE SAMPLE: 3399915

Original: J2002878001

| Parameter         | Units | Original Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|-------------------|-------|-----------------|-------------|-----------|----------|--------------|------------|
| WET CHEMISTRY     |       |                 |             |           |          |              |            |
| Nitrate (as N)    | mg/L  | 0               | 2           | 1.8       | 92       | 90-110       |            |
| Nitrate + Nitrite | mg/L  |                 |             | 3.9       |          |              |            |

QC Batch: DGMj/1220

Analysis Method: SW-846 6010

QC Batch Method: SW-846 3010A

Prepared: 03/03/2020 03:30

Associated Lab Samples: J2002766017, J2002766018, J2002766019, J2002766020, J2002766021

Report ID: 951077 - 2395873

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

METHOD BLANK: 3400305

| Parameter | Units | Blank Result | Reporting Limit | Qualifiers |
|-----------|-------|--------------|-----------------|------------|
| METALS    |       |              |                 |            |
| Silver    | ug/L  | 8.0          | 8.0             | U          |
| Arsenic   | ug/L  | 8.0          | 8.0             | U          |
| Barium    | ug/L  | 3.0          | 3.0             | U          |
| Beryllium | ug/L  | 2.0          | 2.0             | U          |
| Cadmium   | ug/L  | 0.50         | 0.50            | U          |
| Cobalt    | ug/L  | 1.0          | 1.0             | U          |
| Chromium  | ug/L  | 5.0          | 5.0             | U          |
| Copper    | ug/L  | 10           | 10              | U          |
| Iron      | ug/L  | 200          | 200             | U          |
| Sodium    | mg/L  | 0.80         | 0.80            | U          |
| Nickel    | ug/L  | 10           | 10              | U          |
| Lead      | ug/L  | 3.0          | 3.0             | U          |
| Vanadium  | ug/L  | 2.0          | 2.0             | U          |
| Zinc      | ug/L  | 50           | 50              | U          |

LABORATORY CONTROL SAMPLE: 3400306

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| METALS    |       |             |            |           |              |            |
| Silver    | ug/L  | 160         | 140        | 90        | 80-120       |            |
| Arsenic   | ug/L  | 160         | 140        | 86        | 80-120       |            |
| Barium    | ug/L  | 60          | 53         | 89        | 80-120       |            |
| Beryllium | ug/L  | 40          | 36         | 89        | 80-120       |            |
| Cadmium   | ug/L  | 10          | 8.7        | 87        | 80-120       |            |
| Cobalt    | ug/L  | 20          | 18         | 89        | 80-120       |            |
| Chromium  | ug/L  | 100         | 90         | 90        | 80-120       |            |
| Copper    | ug/L  | 200         | 180        | 90        | 80-120       |            |
| Iron      | ug/L  | 4000        | 3600       | 91        | 80-120       |            |
| Sodium    | mg/L  | 16          | 14         | 91        | 80-120       |            |
| Nickel    | ug/L  | 200         | 180        | 90        | 80-120       |            |
| Lead      | ug/L  | 60          | 54         | 90        | 80-120       |            |
| Vanadium  | ug/L  | 40          | 35         | 88        | 80-120       |            |
| Zinc      | ug/L  | 1000        | 890        | 89        | 80-120       |            |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3400307 3400308 Original: J2002799001

| Parameter | Units | Original<br>Result | Spike<br>Conc. | MS<br>Result | MSD<br>Result | MS<br>% Rec | MSD<br>% Rec | % Rec<br>Limit | Max<br>RPD | RPD | Qualifiers |
|-----------|-------|--------------------|----------------|--------------|---------------|-------------|--------------|----------------|------------|-----|------------|
| METALS    |       |                    |                |              |               |             |              |                |            |     |            |
| Silver    | ug/L  | 0                  | 160            | 130          | 140           | 80          | 85           | 75-125         | 6          | 20  |            |
| Arsenic   | ug/L  | 2.1                | 160            | 120          | 130           | 78          | 81           | 75-125         | 4          | 20  |            |
| Barium    | ug/L  | 6                  | 60             | 54           | 57            | 79          | 86           | 75-125         | 7          | 20  |            |
| Beryllium | ug/L  | 0                  | 40             | 32           | 33            | 79          | 84           | 75-125         | 6          | 20  |            |
| Cadmium   | ug/L  | 0                  | 10             | 7.6          | 8.2           | 76          | 82           | 75-125         | 8          | 20  |            |
| Cobalt    | ug/L  | 0                  | 20             | 16           | 17            | 79          | 86           | 75-125         | 8          | 20  |            |
| Chromium  | ug/L  | 1                  | 100            | 80           | 85            | 80          | 85           | 75-125         | 6          | 20  |            |
| Copper    | ug/L  | 1.7                | 200            | 160          | 170           | 80          | 84           | 75-125         | 6          | 20  |            |
| Iron      | ug/L  | 2400               | 4000           | 5400         | 5900          | 76          | 87           | 75-125         | 8          | 20  |            |
| Sodium    | mg/L  | 9                  | 16             | 21           | 23            | 75          | 86           | 75-125         | 8          | 20  |            |
| Nickel    | ug/L  | 3.1                | 200            | 160          | 170           | 80          | 85           | 75-125         | 6          | 20  |            |
| Lead      | ug/L  | 0                  | 60             | 48           | 49            | 80          | 82           | 75-125         | 3          | 20  |            |
| Vanadium  | ug/L  | 2.4                | 40             | 34           | 36            | 78          | 84           | 75-125         | 6          | 20  |            |
| Zinc      | ug/L  | 6.5                | 1000           | 790          | 840           | 79          | 84           | 75-125         | 6          | 20  |            |

QC Batch: DGMj/1221

Analysis Method: SW-846 6010

QC Batch Method: SW-846 3010A

Prepared: 03/03/2020 03:30

Associated Lab Samples: J2002766022, J2002766024, J2002766025, J2002766026, J2002766027, J2002766028, J2002766029, J2002766030,

METHOD BLANK: 3400309

| Parameter | Units | Blank<br>Result | Reporting<br>Limit | Qualifiers |
|-----------|-------|-----------------|--------------------|------------|
| METALS    |       |                 |                    |            |
| Silver    | ug/L  | 8.0             | 8.0                | U          |
| Arsenic   | ug/L  | 8.0             | 8.0                | U          |
| Barium    | ug/L  | 3.0             | 3.0                | U          |
| Beryllium | ug/L  | 2.0             | 2.0                | U          |
| Calcium   | mg/L  | 0.20            | 0.20               | U          |
| Cadmium   | ug/L  | 0.50            | 0.50               | U          |
| Cobalt    | ug/L  | 1.0             | 1.0                | U          |
| Chromium  | ug/L  | 5.0             | 5.0                | U          |
| Copper    | ug/L  | 10              | 10                 | U          |
| Iron      | ug/L  | 200             | 200                | U          |
| Magnesium | mg/L  | 0.10            | 0.10               | U          |
| Sodium    | mg/L  | 0.80            | 0.80               | U          |
| Nickel    | ug/L  | 10              | 10                 | U          |
| Lead      | ug/L  | 3.0             | 3.0                | U          |
| Vanadium  | ug/L  | 2.0             | 2.0                | U          |
| Zinc      | ug/L  | 50              | 50                 | U          |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

LABORATORY CONTROL SAMPLE: 3400310

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|-----------|-------|-------------|------------|-----------|-------------------------|
| METALS    |       |             |            |           |                         |
| Silver    | ug/L  | 160         | 140        | 89        | 80-120                  |
| Arsenic   | ug/L  | 160         | 130        | 84        | 80-120                  |
| Barium    | ug/L  | 60          | 52         | 87        | 80-120                  |
| Beryllium | ug/L  | 40          | 35         | 87        | 80-120                  |
| Calcium   | mg/L  | 4           | 3.4        | 85        | 80-120                  |
| Cadmium   | ug/L  | 10          | 8.4        | 84        | 80-120                  |
| Cobalt    | ug/L  | 20          | 17         | 87        | 80-120                  |
| Chromium  | ug/L  | 100         | 87         | 87        | 80-120                  |
| Copper    | ug/L  | 200         | 180        | 88        | 80-120                  |
| Iron      | ug/L  | 4000        | 3600       | 90        | 80-120                  |
| Magnesium | mg/L  | 2           | 1.8        | 88        | 80-120                  |
| Sodium    | mg/L  | 16          | 14         | 89        | 80-120                  |
| Nickel    | ug/L  | 200         | 180        | 88        | 80-120                  |
| Lead      | ug/L  | 60          | 52         | 87        | 80-120                  |
| Vanadium  | ug/L  | 40          | 34         | 85        | 80-120                  |
| Zinc      | ug/L  | 1000        | 860        | 86        | 80-120                  |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3400311 3400312 Original: J2002766022

| Parameter | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | Max RPD | RPD Qualifiers |
|-----------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|---------|----------------|
| METALS    |       |                 |             |           |            |          |           |             |         |                |
| Silver    | ug/L  | 0               | 160         | 130       | 140        | 84       | 90        | 75-125      | 7       | 20             |
| Arsenic   | ug/L  | 0.5             | 160         | 130       | 140        | 80       | 86        | 75-125      | 7       | 20             |
| Barium    | ug/L  | 140             | 60          | 180       | 190        | 70       | 97        | 75-125      | 9       | 20             |
| Beryllium | ug/L  | 0.1             | 40          | 33        | 34         | 82       | 86        | 75-125      | 5       | 20             |
| Calcium   | mg/L  | 20              | 4           | 22        | 23         | 51       | 78        | 75-125      | 5       | 20             |
| Cadmium   | ug/L  | 0               | 10          | 7.9       | 8.5        | 79       | 85        | 75-125      | 7       | 20             |
| Cobalt    | ug/L  | 0               | 20          | 16        | 18         | 82       | 89        | 75-125      | 9       | 20             |
| Chromium  | ug/L  | 9.4             | 100         | 91        | 95         | 82       | 85        | 75-125      | 4       | 20             |
| Copper    | ug/L  | 4.1             | 200         | 170       | 190        | 84       | 93        | 75-125      | 11      | 20             |
| Iron      | ug/L  | 2600            | 4000        | 5800      | 6200       | 80       | 89        | 75-125      | 6       | 20             |
| Magnesium | mg/L  | 4.3             | 2           | 5.6       | 6.1        | 67       | 89        | 75-125      | 7       | 20             |
| Sodium    | mg/L  | 14              | 16          | 26        | 29         | 77       | 92        | 75-125      | 9       | 20             |
| Nickel    | ug/L  | 14              | 200         | 180       | 190        | 81       | 87        | 75-125      | 7       | 20             |
| Lead      | ug/L  | 0               | 60          | 47        | 51         | 78       | 86        | 75-125      | 10      | 20             |
| Vanadium  | ug/L  | 4.3             | 40          | 37        | 43         | 82       | 98        | 75-125      | 15      | 20             |
| Zinc      | ug/L  | 11              | 1000        | 820       | 890        | 82       | 89        | 75-125      | 8       | 20             |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

QC Batch: DGMJ/1222 Analysis Method: SW-846 6020  
QC Batch Method: SW-846 3010A Prepared: 03/03/2020 03:30  
Associated Lab Samples: J2002766017, J2002766018, J2002766019, J2002766020, J2002766021, J2002766022

METHOD BLANK: 3400315

| Parameter | Units | Blank Result | Reporting Limit Qualifiers |
|-----------|-------|--------------|----------------------------|
| METALS    |       |              |                            |
| Selenium  | ug/L  | 0.58         | 0.58 U                     |
| Antimony  | ug/L  | 0.11         | 0.11 U                     |
| Thallium  | ug/L  | 0.057        | 0.057 U                    |

LABORATORY CONTROL SAMPLE: 3400316

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|-----------|-------|-------------|------------|-----------|-------------------------|
| METALS    |       |             |            |           |                         |
| Selenium  | ug/L  | 50          | 47         | 94        | 80-120                  |
| Antimony  | ug/L  | 50          | 46         | 92        | 80-120                  |
| Thallium  | ug/L  | 50          | 45         | 90        | 80-120                  |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3400317 3400318 Original: T2003219026

| Parameter | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | Max RPD | RPD Qualifiers |
|-----------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|---------|----------------|
| METALS    |       |                 |             |           |            |          |           |             |         |                |
| Selenium  | ug/L  | 0.45            | 50          | 45        | 45         | 91       | 90        | 75-125      | 1       | 20             |
| Antimony  | ug/L  | 0.33            | 50          | 47        | 48         | 94       | 95        | 75-125      | 1       | 20             |
| Thallium  | ug/L  | 0.2             | 50          | 47        | 48         | 93       | 95        | 75-125      | 2       | 20             |

QC Batch: WCAJ/1500 Analysis Method: SM 2540 C  
QC Batch Method: SM 2540 C Prepared:  
Associated Lab Samples: J2002766010, J2002766011, J2002766012, J2002766013, J2002766014, J2002766015, J2002766017, J2002766018,

METHOD BLANK: 3401141

| Parameter              | Units | Blank Result | Reporting Limit Qualifiers |
|------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY          |       |              |                            |
| Total Dissolved Solids | mg/L  | 10           | 10 U                       |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

METHOD BLANK: 3401141

LABORATORY CONTROL SAMPLE: 3401142

| Parameter              | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY          |       |             |            |           |                         |
| Total Dissolved Solids | mg/L  | 300         | 300        | 100       | 85-115                  |

SAMPLE DUPLICATE: 3401143

Original: J2002766010

| Parameter              | Units | Original Result | DUP Result | RPD | Max RPD Qualifiers |
|------------------------|-------|-----------------|------------|-----|--------------------|
| WET CHEMISTRY          |       |                 |            |     |                    |
| Total Dissolved Solids | mg/L  | 370             | 370        | 1   | 10                 |

QC Batch: WCAj/1501

Analysis Method: SM 5210B

QC Batch Method: SM 5210B

Prepared:

Associated Lab Samples: J2002766035, J2002766036, J2002766037, J2002766038, J2002766039, J2002766040

METHOD BLANK: 3401154

| Parameter                 | Units | Blank Result | Reporting Limit Qualifiers |
|---------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY             |       |              |                            |
| Biochemical Oxygen Demand | mg/L  | 2.0          | 2.0 U                      |

LABORATORY CONTROL SAMPLE: 3401155

| Parameter                 | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|---------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY             |       |             |            |           |                         |
| Biochemical Oxygen Demand | mg/L  | 200         | 210        | 106       | 84.6-115.4              |

QC Batch: WCAg/1679

Analysis Method: EPA 350.1

QC Batch Method: EPA 350.1

Prepared:

Associated Lab Samples: J2002766001, J2002766002, J2002766003

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

METHOD BLANK: 3401428

| Parameter                 | Units | Blank Result | Reporting Limit Qualifiers |
|---------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0.0080       | 0.0080 U                   |

LABORATORY CONTROL SAMPLE: 3401429

| Parameter                 | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|---------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0.5         | 0.53       | 105       | 90-110                  |

LABORATORY CONTROL SAMPLE: 3401430

| Parameter                 | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|---------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0.2         | 0.19       | 96        | 90-110                  |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3401431 3401432 Original: J2002847001

| Parameter                 | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | Max RPD | RPD | Qualifiers |
|---------------------------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|---------|-----|------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 13              | 10          | 21        | 22         | 78       | 92        | 90-110      | 7       | 10  |            |

QC Batch: WCAg/1680

Analysis Method: EPA 350.1

QC Batch Method: EPA 350.1

Prepared:

Associated Lab Samples: J2002766004, J2002766005, J2002766006, J2002766007, J2002766008, J2002766009, J2002766010, J2002766011,

METHOD BLANK: 3401435

| Parameter                 | Units | Blank Result | Reporting Limit Qualifiers |
|---------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0.0080       | 0.0080 U                   |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

LABORATORY CONTROL SAMPLE: 3401436

| Parameter                 | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|---------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0.5         | 0.50       | 101       | 90-110                  |

LABORATORY CONTROL SAMPLE: 3401437

| Parameter                 | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|---------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0.2         | 0.19       | 93        | 90-110                  |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3401438 3401439 Original: J2002766004

| Parameter                 | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | Max RPD | RPD | Qualifiers |
|---------------------------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|---------|-----|------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0               | 2           | 1.7       | 1.9        | 86       | 93        | 90-110      | 9       | 10  |            |

QC Batch: WCAg/1701

Analysis Method: EPA 351.2

QC Batch Method: Copper Sulfate Digestion

Prepared: 03/03/2020 16:15

Associated Lab Samples: J2002766035, J2002766036, J2002766037, J2002766038, J2002766039, J2002766040

METHOD BLANK: 3404849

| Parameter                             | Units | Blank Result | Reporting Limit Qualifiers |
|---------------------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY Total Kjeldahl Nitrogen | mg/L  | 0.085        | 0.085 U                    |

METHOD BLANK: 3404850

| Parameter                             | Units | Blank Result | Reporting Limit Qualifiers |
|---------------------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY Total Phosphorus (as P) | mg/L  | 0.055        | 0.055 U                    |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

LABORATORY CONTROL SAMPLE: 3404851

| Parameter               | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|-------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY           |       |             |            |           |                         |
| Total Kjeldahl Nitrogen | mg/L  | 1           | 1.1        | 107       | 90-110                  |

LABORATORY CONTROL SAMPLE: 3404852

| Parameter               | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|-------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY           |       |             |            |           |                         |
| Total Phosphorus (as P) | mg/L  | 1           | 1.0        | 100       | 80-120                  |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3404853 3404855 Original: G2002125002

| Parameter               | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | Max RPD | Max RPD Qualifiers |
|-------------------------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|---------|--------------------|
| WET CHEMISTRY           |       |                 |             |           |            |          |           |             |         |                    |
| Total Kjeldahl Nitrogen | mg/L  | 0.77            | 1           | 1.6       | 1.8        | 87       | 104       | 90-110      | 10      | 20                 |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3404854 3404856 Original: G2002125002

| Parameter               | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | Max RPD | Max RPD Qualifiers |
|-------------------------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|---------|--------------------|
| WET CHEMISTRY           |       |                 |             |           |            |          |           |             |         |                    |
| Total Phosphorus (as P) | mg/L  | 3.5             | 1           | 4.8       | 4.8        | 130      | 131       | 80-120      | 0       | 20                 |

QC Batch: WCAg/1701

Analysis Method: EPA 365.4

QC Batch Method: Copper Sulfate Digestion

Prepared: 03/03/2020 16:15

Associated Lab Samples: J2002766035, J2002766036, J2002766037, J2002766038, J2002766039, J2002766040

METHOD BLANK: 3404849

| Parameter               | Units | Blank Result | Reporting Limit Qualifiers |
|-------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY           |       |              |                            |
| Total Kjeldahl Nitrogen | mg/L  | 0.085        | 0.085 U                    |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

METHOD BLANK: 3404850

| Parameter               | Units | Blank Result | Reporting Limit Qualifiers |
|-------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY           |       |              |                            |
| Total Phosphorus (as P) | mg/L  | 0.055        | 0.055 U                    |

LABORATORY CONTROL SAMPLE: 3404851

| Parameter               | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|-------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY           |       |             |            |           |                         |
| Total Kjeldahl Nitrogen | mg/L  | 1           | 1.1        | 107       | 90-110                  |

LABORATORY CONTROL SAMPLE: 3404852

| Parameter               | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|-------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY           |       |             |            |           |                         |
| Total Phosphorus (as P) | mg/L  | 1           | 1.0        | 100       | 80-120                  |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3404853 3404855 Original: G2002125002

| Parameter               | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | Max RPD | Max RPD Qualifiers |
|-------------------------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|---------|--------------------|
| WET CHEMISTRY           |       |                 |             |           |            |          |           |             |         |                    |
| Total Kjeldahl Nitrogen | mg/L  | 0.77            | 1           | 1.6       | 1.8        | 87       | 104       | 90-110      | 10      | 20                 |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3404854 3404856 Original: G2002125002

| Parameter               | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | Max RPD | Max RPD Qualifiers |
|-------------------------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|---------|--------------------|
| WET CHEMISTRY           |       |                 |             |           |            |          |           |             |         |                    |
| Total Phosphorus (as P) | mg/L  | 3.5             | 1           | 4.8       | 4.8        | 130      | 131       | 80-120      | 0       | 20                 |

QC Batch: DGMj/1237

Analysis Method: EPA 245.1

QC Batch Method: EPA 245.1

Prepared: 03/05/2020 11:40

Associated Lab Samples: J2002766035, J2002766036, J2002766037, J2002766038, J2002766039, J2002766040

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

METHOD BLANK: 3405293

| Parameter | Units | Blank Result | Reporting Limit Qualifiers |
|-----------|-------|--------------|----------------------------|
| METALS    |       |              |                            |
| Mercury   | mg/L  | 0.000011     | 0.000011 U                 |

LABORATORY CONTROL SAMPLE: 3405294

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|-----------|-------|-------------|------------|-----------|-------------------------|
| METALS    |       |             |            |           |                         |
| Mercury   | mg/L  | 0.002       | 0.0018     | 91        | 85-115                  |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405295 3405296 Original: J2003081001

| Parameter | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | Max RPD | RPD Qualifiers |
|-----------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|---------|----------------|
| METALS    |       |                 |             |           |            |          |           |             |         |                |
| Mercury   | mg/L  | 0               | 0.002       | 0.0019    | 0.0019     | 95       | 95        | 70-130      | 1       | 20             |

QC Batch: WCAj/1535

Analysis Method: SM 2540 C

QC Batch Method: SM 2540 C

Prepared:

Associated Lab Samples: J2002766029, J2002766030, J2002766031, J2002766032, J2002766033, J2002766035, J2002766036, J2002766037,

METHOD BLANK: 3405614

| Parameter              | Units | Blank Result | Reporting Limit Qualifiers |
|------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY          |       |              |                            |
| Total Dissolved Solids | mg/L  | 10           | 10 U                       |

LABORATORY CONTROL SAMPLE: 3405615

| Parameter              | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY          |       |             |            |           |                         |
| Total Dissolved Solids | mg/L  | 300         | 310        | 103       | 85-115                  |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

SAMPLE DUPLICATE: 3406614

Original: J2002766029

| Parameter               | Units                                                                        | Original Result | DUP Result       | RPD                           | Max RPD Qualifiers |
|-------------------------|------------------------------------------------------------------------------|-----------------|------------------|-------------------------------|--------------------|
| WET CHEMISTRY           |                                                                              |                 |                  |                               |                    |
| Total Dissolved Solids  | mg/L                                                                         | 53              | 56               | 6                             | 10                 |
| QC Batch:               | MICj/1260                                                                    |                 | Analysis Method: | COLILERT-18 (Fecal Coliforms) |                    |
| QC Batch Method:        | COLILERT-18 (Fecal Coliforms)                                                |                 | Prepared:        |                               |                    |
| Associated Lab Samples: | J2002766035, J2002766036, J2002766037, J2002766038, J2002766039, J2002766040 |                 |                  |                               |                    |

METHOD BLANK: 3406428

| Parameter               |           | Units                                 | Blank Result | Reporting Limit  | Qualifiers |
|-------------------------|-----------|---------------------------------------|--------------|------------------|------------|
| Microbiology            |           |                                       |              |                  |            |
| Coliform Fecal          |           | MPN/100                               | 1            | 1                | U          |
|                         |           |                                       |              |                  |            |
| QC Batch:               | WCAg/1727 |                                       |              | Analysis Method: | EPA 350.1  |
| QC Batch Method:        | EPA 350.1 |                                       |              | Prepared:        |            |
| Associated Lab Samples: |           | J2002766014, J2002766015, J2002766017 |              |                  |            |

METHOD BLANK: 3406758

| Parameter     | Units | Blank Result | Reporting Limit Qualifiers |
|---------------|-------|--------------|----------------------------|
| WET CHEMISTRY |       |              |                            |
| Ammonia (N)   | mg/L  | 0.0080       | 0.0080 U                   |

LABORATORY CONTROL SAMPLE: 3406759

| Parameter     | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|---------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY |       |             |            |           |                         |
| Ammonia (N)   | mg/L  | 0.5         | 0.49       | 99        | 90-110                  |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

LABORATORY CONTROL SAMPLE: 3406760

| Parameter                 | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|---------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0.2         | 0.21       | 106       | 90-110                  |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406761 3406762 Original: G2002183004

| Parameter                 | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | Max RPD | RPD Qualifiers |
|---------------------------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|---------|----------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 41              | 20          | 61        | 61         | 104      | 99        | 90-110      | 2       | 10             |

QC Batch: WCAg/1728

Analysis Method: EPA 350.1

QC Batch Method: EPA 350.1

Prepared:

Associated Lab Samples: J2002766018, J2002766019, J2002766020, J2002766021, J2002766022, J2002766024, J2002766025, J2002766026,

METHOD BLANK: 3406768

| Parameter                 | Units | Blank Result | Reporting Limit Qualifiers |
|---------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0.0080       | 0.0080 U                   |

LABORATORY CONTROL SAMPLE: 3406769

| Parameter                 | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|---------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0.5         | 0.47       | 94        | 90-110                  |

LABORATORY CONTROL SAMPLE: 3406770

| Parameter                 | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|---------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0.2         | 0.22       | 110       | 90-110                  |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406771 3406772 Original: J2002766018

| Parameter                    | Units | Original<br>Result | Spike<br>Conc. | MS<br>Result | MSD<br>Result | MS<br>% Rec | MSD<br>% Rec | % Rec<br>Limit | Max<br>RPD | RPD | Qualifiers |
|------------------------------|-------|--------------------|----------------|--------------|---------------|-------------|--------------|----------------|------------|-----|------------|
| WET CHEMISTRY<br>Ammonia (N) | mg/L  | 2.6                | 2              | 4.1          | 4.8           | 76          | 109          | 90-110         | 15         | 10  |            |

QC Batch: WCAg/1729

Analysis Method: EPA 350.1

QC Batch Method: EPA 350.1

Prepared:

Associated Lab Samples: J2002766029, J2002766030, J2002766031, J2002766032, J2002766033, J2002766035, J2002766036, J2002766037,

METHOD BLANK: 3406782

| Parameter                    | Units | Blank<br>Result | Reporting<br>Limit | Qualifiers |
|------------------------------|-------|-----------------|--------------------|------------|
| WET CHEMISTRY<br>Ammonia (N) | mg/L  | 0.0080          | 0.0080             | U          |

LABORATORY CONTROL SAMPLE: 3406783

| Parameter                    | Units | Spike<br>Conc. | LCS<br>Result | LCS<br>% Rec | % Rec<br>Limits | Qualifiers |
|------------------------------|-------|----------------|---------------|--------------|-----------------|------------|
| WET CHEMISTRY<br>Ammonia (N) | mg/L  | 0.5            | 0.50          | 100          | 90-110          |            |

LABORATORY CONTROL SAMPLE: 3406784

| Parameter                    | Units | Spike<br>Conc. | LCS<br>Result | LCS<br>% Rec | % Rec<br>Limits | Qualifiers |
|------------------------------|-------|----------------|---------------|--------------|-----------------|------------|
| WET CHEMISTRY<br>Ammonia (N) | mg/L  | 0.2            | 0.19          | 94           | 90-110          |            |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406785 3406786 Original: J2002766029

| Parameter                    | Units | Original<br>Result | Spike<br>Conc. | MS<br>Result | MSD<br>Result | MS<br>% Rec | MSD<br>% Rec | % Rec<br>Limit | Max<br>RPD | RPD | Qualifiers |
|------------------------------|-------|--------------------|----------------|--------------|---------------|-------------|--------------|----------------|------------|-----|------------|
| WET CHEMISTRY<br>Ammonia (N) | mg/L  | 0                  | 2              | 1.8          | 1.7           | 90          | 86           | 90-110         | 4          | 10  |            |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

QC Batch: WCAg/1730 Analysis Method: EPA 350.1  
QC Batch Method: EPA 350.1 Prepared:  
Associated Lab Samples: J2002766040

METHOD BLANK: 3406793

| Parameter                 | Units | Blank Result | Reporting Limit Qualifiers |
|---------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0.0080       | 0.0080 U                   |

LABORATORY CONTROL SAMPLE: 3406794

| Parameter                 | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|---------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0.5         | 0.50       | 99        | 90-110                  |

LABORATORY CONTROL SAMPLE: 3406795

| Parameter                 | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|---------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0.2         | 0.19       | 95        | 90-110                  |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3406796 3406797 Original: J2002766040

| Parameter                 | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD | Qualifiers |
|---------------------------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|------------|
| WET CHEMISTRY Ammonia (N) | mg/L  | 0               | 2           | 1.7       | 1.7        | 85       | 86        | 90-110      | 2   | 10      |            |

QC Batch: WCAj/1553 Analysis Method: SM 2540 C  
QC Batch Method: SM 2540 C Prepared:  
Associated Lab Samples: J2002766039, J2002766040

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

METHOD BLANK: 3407895

| Parameter              | Units | Blank Result | Reporting Limit Qualifiers |
|------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY          |       |              |                            |
| Total Dissolved Solids | mg/L  | 10           | 10 U                       |

LABORATORY CONTROL SAMPLE: 3407896

| Parameter              | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY          |       |             |            |           |                         |
| Total Dissolved Solids | mg/L  | 300         | 300        | 101       | 85-115                  |

SAMPLE DUPLICATE: 3407897

Original: J2002766039

| Parameter                                                                                            | Units     | Original Result | DUP Result       | RPD      | Max RPD Qualifiers |
|------------------------------------------------------------------------------------------------------|-----------|-----------------|------------------|----------|--------------------|
| WET CHEMISTRY                                                                                        |           |                 |                  |          |                    |
| Total Dissolved Solids                                                                               | mg/L      | 180             | 180              | 0        | 10                 |
| QC Batch:                                                                                            | WCAg/1746 |                 | Analysis Method: | SM 5310B |                    |
| QC Batch Method:                                                                                     | SM 5310B  |                 | Prepared:        |          |                    |
| Associated Lab Samples: J2002766035, J2002766036, J2002766037, J2002766038, J2002766039, J2002766040 |           |                 |                  |          |                    |

METHOD BLANK: 3408412

| Parameter            | Units | Blank Result | Reporting Limit Qualifiers |
|----------------------|-------|--------------|----------------------------|
| WET CHEMISTRY        |       |              |                            |
| Total Organic Carbon | mg/L  | 0.65         | 0.65 U                     |

METHOD BLANK: 3408418

| Parameter            | Units | Blank Result | Reporting Limit Qualifiers |
|----------------------|-------|--------------|----------------------------|
| WET CHEMISTRY        |       |              |                            |
| Total Organic Carbon | mg/L  | 0.65         | 0.65 U                     |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

LABORATORY CONTROL SAMPLE: 3408414

| Parameter            | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|----------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY        |       |             |            |           |                         |
| Total Organic Carbon | mg/L  | 10          | 9.6        | 96        | 90-110                  |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3408415 3408416 Original: G2002223004

| Parameter            | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | Max RPD | RPD Qualifiers |
|----------------------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|---------|----------------|
| WET CHEMISTRY        |       |                 |             |           |            |          |           |             |         |                |
| Total Organic Carbon | mg/L  | 0.34            | 25          | 25        | 25         | 100      | 100       | 90-110      | 0       | 10             |

QC Batch: DGMj/1247

Analysis Method: SW-846 6010

QC Batch Method: SW-846 3010A

Prepared: 03/10/2020 03:30

Associated Lab Samples: J2002766001, J2002766002, J2002766003, J2002766004, J2002766005, J2002766006, J2002766007

METHOD BLANK: 3409649

| Parameter | Units | Blank Result | Reporting Limit Qualifiers |
|-----------|-------|--------------|----------------------------|
| METALS    |       |              |                            |
| Silver    | ug/L  | 8.0          | 8.0 U                      |
| Arsenic   | ug/L  | 8.0          | 8.0 U                      |
| Barium    | ug/L  | 3.0          | 3.0 U                      |
| Beryllium | ug/L  | 2.0          | 2.0 U                      |
| Cadmium   | ug/L  | 0.50         | 0.50 U                     |
| Cobalt    | ug/L  | 1.0          | 1.0 U                      |
| Chromium  | ug/L  | 5.0          | 5.0 U                      |
| Copper    | ug/L  | 10           | 10 U                       |
| Iron      | ug/L  | 200          | 200 U                      |
| Sodium    | mg/L  | 0.80         | 0.80 U                     |
| Nickel    | ug/L  | 10           | 10 U                       |
| Lead      | ug/L  | 3.0          | 3.0 U                      |
| Vanadium  | ug/L  | 2.0          | 2.0 U                      |
| Zinc      | ug/L  | 50           | 50 U                       |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

LABORATORY CONTROL SAMPLE: 3409650

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| METALS    |       |             |            |           |              |            |
| Silver    | ug/L  | 160         | 150        | 94        | 80-120       |            |
| Arsenic   | ug/L  | 160         | 140        | 90        | 80-120       |            |
| Barium    | ug/L  | 60          | 58         | 97        | 80-120       |            |
| Beryllium | ug/L  | 40          | 37         | 94        | 80-120       |            |
| Cadmium   | ug/L  | 10          | 9.8        | 98        | 80-120       |            |
| Cobalt    | ug/L  | 20          | 19         | 95        | 80-120       |            |
| Chromium  | ug/L  | 100         | 93         | 93        | 80-120       |            |
| Copper    | ug/L  | 200         | 180        | 92        | 80-120       |            |
| Iron      | ug/L  | 4000        | 3700       | 92        | 80-120       |            |
| Sodium    | mg/L  | 16          | 15         | 95        | 80-120       |            |
| Nickel    | ug/L  | 200         | 190        | 97        | 80-120       |            |
| Lead      | ug/L  | 60          | 58         | 96        | 80-120       |            |
| Vanadium  | ug/L  | 40          | 37         | 93        | 80-120       |            |
| Zinc      | ug/L  | 1000        | 960        | 96        | 80-120       |            |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409651 3409652 Original: S2000562001

| Parameter | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD | Qualifiers |
|-----------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|------------|
| METALS    |       |                 |             |           |            |          |           |             |     |         |            |
| Silver    | ug/L  | 0.4             | 160         | 150       | 150        | 96       | 97        | 75-125      | 1   | 20      |            |
| Arsenic   | ug/L  | 2.5             | 160         | 140       | 150        | 89       | 96        | 75-125      | 7   | 20      |            |
| Barium    | ug/L  | 52              | 60          | 110       | 120        | 99       | 109       | 75-125      | 5   | 20      |            |
| Beryllium | ug/L  | 0.3             | 40          | 36        | 37         | 89       | 93        | 75-125      | 4   | 20      |            |
| Cadmium   | ug/L  | 0.8             | 10          | 10        | 10         | 93       | 96        | 75-125      | 3   | 20      |            |
| Cobalt    | ug/L  | 1.1             | 20          | 19        | 20         | 90       | 96        | 75-125      | 6   | 20      |            |
| Chromium  | ug/L  | 4.1             | 100         | 90        | 94         | 90       | 94        | 75-125      | 4   | 20      |            |
| Copper    | ug/L  | 44              | 200         | 230       | 240        | 91       | 98        | 75-125      | 6   | 20      |            |
| Iron      | ug/L  | 2700            | 4000        | 6500      | 7000       | 94       | 106       | 75-125      | 7   | 20      |            |
| Sodium    | mg/L  | 13              | 16          | 29        | 30         | 101      | 109       | 75-125      | 5   | 20      |            |
| Nickel    | ug/L  | 8.5             | 200         | 190       | 200        | 94       | 99        | 75-125      | 5   | 20      |            |
| Lead      | ug/L  | 3.8             | 60          | 55        | 60         | 86       | 93        | 75-125      | 7   | 20      |            |
| Vanadium  | ug/L  | 2.3             | 40          | 38        | 41         | 90       | 97        | 75-125      | 7   | 20      |            |
| Zinc      | ug/L  | 250             | 1000        | 1200      | 1200       | 94       | 100       | 75-125      | 5   | 20      |            |

QC Batch: DGMj/1248

Analysis Method: SW-846 6010

QC Batch Method: SW-846 3010A

Prepared: 03/10/2020 03:30

Associated Lab Samples: J2002766008, J2002766009, J2002766010, J2002766011, J2002766012, J2002766013, J2002766014, J2002766015

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

METHOD BLANK: 3409657

| Parameter     | Units | Blank Result | Reporting Limit | Qualifiers |
|---------------|-------|--------------|-----------------|------------|
| <b>METALS</b> |       |              |                 |            |
| Silver        | ug/L  | 8.0          | 8.0             | U          |
| Arsenic       | ug/L  | 8.0          | 8.0             | U          |
| Barium        | ug/L  | 3.0          | 3.0             | U          |
| Beryllium     | ug/L  | 2.0          | 2.0             | U          |
| Cadmium       | ug/L  | 0.50         | 0.50            | U          |
| Cobalt        | ug/L  | 1.0          | 1.0             | U          |
| Chromium      | ug/L  | 5.0          | 5.0             | U          |
| Copper        | ug/L  | 10           | 10              | U          |
| Iron          | ug/L  | 200          | 200             | U          |
| Sodium        | mg/L  | 0.80         | 0.80            | U          |
| Nickel        | ug/L  | 10           | 10              | U          |
| Lead          | ug/L  | 3.0          | 3.0             | U          |
| Vanadium      | ug/L  | 2.0          | 2.0             | U          |
| Zinc          | ug/L  | 50           | 50              | U          |

LABORATORY CONTROL SAMPLE: 3409658

| Parameter     | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---------------|-------|-------------|------------|-----------|--------------|------------|
| <b>METALS</b> |       |             |            |           |              |            |
| Silver        | ug/L  | 160         | 150        | 96        | 80-120       |            |
| Arsenic       | ug/L  | 160         | 160        | 97        | 80-120       |            |
| Barium        | ug/L  | 60          | 61         | 101       | 80-120       |            |
| Beryllium     | ug/L  | 40          | 39         | 97        | 80-120       |            |
| Cadmium       | ug/L  | 10          | 10         | 102       | 80-120       |            |
| Cobalt        | ug/L  | 20          | 20         | 100       | 80-120       |            |
| Chromium      | ug/L  | 100         | 94         | 94        | 80-120       |            |
| Copper        | ug/L  | 200         | 180        | 92        | 80-120       |            |
| Iron          | ug/L  | 4000        | 3800       | 95        | 80-120       |            |
| Sodium        | mg/L  | 16          | 15         | 95        | 80-120       |            |
| Nickel        | ug/L  | 200         | 210        | 103       | 80-120       |            |
| Lead          | ug/L  | 60          | 60         | 100       | 80-120       |            |
| Vanadium      | ug/L  | 40          | 38         | 95        | 80-120       |            |
| Zinc          | ug/L  | 1000        | 1000       | 102       | 80-120       |            |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3409659 3409660 Original: J2002766008

| Parameter | Units | Original<br>Result | Spike<br>Conc. | MS<br>Result | MSD<br>Result | MS<br>% Rec | MSD<br>% Rec | % Rec<br>Limit | Max<br>RPD | RPD | Qualifiers |
|-----------|-------|--------------------|----------------|--------------|---------------|-------------|--------------|----------------|------------|-----|------------|
| METALS    |       |                    |                |              |               |             |              |                |            |     |            |
| Silver    | ug/L  | 0                  | 160            | 150          | 150           | 95          | 94           | 75-125         | 1          | 20  |            |
| Arsenic   | ug/L  | 0                  | 160            | 160          | 160           | 100         | 101          | 75-125         | 1          | 20  |            |
| Barium    | ug/L  | 7.2                | 60             | 68           | 68            | 101         | 101          | 75-125         | 0          | 20  |            |
| Beryllium | ug/L  | 0.4                | 40             | 39           | 39            | 97          | 98           | 75-125         | 0          | 20  |            |
| Cadmium   | ug/L  | 0                  | 10             | 10           | 10            | 101         | 100          | 75-125         | 1          | 20  |            |
| Cobalt    | ug/L  | 0                  | 20             | 20           | 20            | 101         | 100          | 75-125         | 1          | 20  |            |
| Chromium  | ug/L  | 1.2                | 100            | 95           | 94            | 95          | 94           | 75-125         | 1          | 20  |            |
| Copper    | ug/L  | 0                  | 200            | 180          | 180           | 92          | 91           | 75-125         | 1          | 20  |            |
| Iron      | ug/L  | 270                | 4000           | 4100         | 4000          | 95          | 94           | 75-125         | 1          | 20  |            |
| Sodium    | mg/L  | 16                 | 16             | 32           | 31            | 97          | 94           | 75-125         | 1          | 20  |            |
| Nickel    | ug/L  | 1.4                | 200            | 210          | 210           | 103         | 103          | 75-125         | 0          | 20  |            |
| Lead      | ug/L  | 2.2                | 60             | 62           | 63            | 104         | 105          | 75-125         | 0          | 20  |            |
| Vanadium  | ug/L  | 6.8                | 40             | 44           | 46            | 94          | 99           | 75-125         | 4          | 20  |            |
| Zinc      | ug/L  | 4.7                | 1000           | 1000         | 1000          | 103         | 103          | 75-125         | 0          | 20  |            |

QC Batch: DGMj/1257

Analysis Method: SW-846 6020

QC Batch Method: SW-846 3010A

Prepared: 03/11/2020 03:30

Associated Lab Samples: J2002766007, J2002766008, J2002766009, J2002766010, J2002766011, J2002766012, J2002766013, J2002766014,

METHOD BLANK: 3411297

| Parameter | Units | Blank<br>Result | Reporting<br>Limit | Qualifiers |
|-----------|-------|-----------------|--------------------|------------|
| METALS    |       |                 |                    |            |
| Selenium  | ug/L  | 0.58            | 0.58               | U          |
| Antimony  | ug/L  | 0.11            | 0.11               | U          |
| Thallium  | ug/L  | 0.057           | 0.057              | U          |

LABORATORY CONTROL SAMPLE: 3411298

| Parameter | Units | Spike<br>Conc. | LCS<br>Result | LCS<br>% Rec | % Rec<br>Limits | Qualifiers |
|-----------|-------|----------------|---------------|--------------|-----------------|------------|
| METALS    |       |                |               |              |                 |            |
| Selenium  | ug/L  | 50             | 42            | 85           | 80-120          |            |
| Antimony  | ug/L  | 50             | 41            | 81           | 80-120          |            |
| Thallium  | ug/L  | 50             | 41            | 82           | 80-120          |            |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3411299 3411300 Original: J2002766007

| Parameter | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD | Qualifiers |
|-----------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|------------|
| METALS    |       |                 |             |           |            |          |           |             |     |         |            |
| Selenium  | ug/L  | 1.1             | 50          | 40        | 47         | 79       | 91        | 75-125      | 14  | 20      |            |
| Antimony  | ug/L  | 0.46            | 50          | 45        | 52         | 89       | 103       | 75-125      | 15  | 20      |            |
| Thallium  | ug/L  | 0.029           | 50          | 42        | 46         | 83       | 92        | 75-125      | 11  | 20      |            |

QC Batch: MSVj/1360

Analysis Method: SW-846 8260B

QC Batch Method: SW-846 5030B

Prepared: 03/10/2020 11:45

Associated Lab Samples: J2002766007, J2002766008, J2002766009, J2002766010, J2002766011, J2002766012, J2002766013, J2002766014,

METHOD BLANK: 3412429

| Parameter                   | Units | Blank Result | Reporting Limit | Qualifiers |
|-----------------------------|-------|--------------|-----------------|------------|
| VOLATILES                   |       |              |                 |            |
| Chloromethane               | ug/L  | 0.21         | 0.21            | U          |
| Vinyl Chloride              | ug/L  | 0.20         | 0.20            | U          |
| Bromomethane                | ug/L  | 0.29         | 0.29            | U          |
| Chloroethane                | ug/L  | 0.33         | 0.33            | U          |
| Trichlorofluoromethane      | ug/L  | 0.32         | 0.32            | U          |
| Acetone                     | ug/L  | 2.1          | 2.1             | U          |
| 1,1-Dichloroethylene        | ug/L  | 0.18         | 0.18            | U          |
| Iodomethane (Methyl Iodide) | ug/L  | 0.16         | 0.16            | U          |
| Acrylonitrile               | ug/L  | 1.1          | 1.1             | U          |
| Methylene Chloride          | ug/L  | 2.5          | 2.5             | U          |
| Carbon Disulfide            | ug/L  | 0.67         | 0.67            | U          |
| trans-1,2-Dichloroethylene  | ug/L  | 0.20         | 0.20            | U          |
| 1,1-Dichloroethane          | ug/L  | 0.14         | 0.14            | U          |
| Vinyl Acetate               | ug/L  | 0.19         | 0.19            | U          |
| 2-Butanone (MEK)            | ug/L  | 0.43         | 0.43            | U          |
| cis-1,2-Dichloroethylene    | ug/L  | 0.24         | 0.24            | U          |
| Bromochloromethane          | ug/L  | 0.17         | 0.17            | U          |
| Chloroform                  | ug/L  | 0.18         | 0.18            | U          |
| 1,2-Dichloroethane          | ug/L  | 0.23         | 0.23            | U          |
| 1,1,1-Trichloroethane       | ug/L  | 0.22         | 0.22            | U          |
| Carbon Tetrachloride        | ug/L  | 0.36         | 0.36            | U          |
| Benzene                     | ug/L  | 0.16         | 0.16            | U          |
| Dibromomethane              | ug/L  | 0.26         | 0.26            | U          |
| 1,2-Dichloropropane         | ug/L  | 0.66         | 0.66            | U          |
| Trichloroethene             | ug/L  | 0.29         | 0.29            | U          |
| Bromodichloromethane        | ug/L  | 0.46         | 0.46            | U          |
| cis-1,3-Dichloropropene     | ug/L  | 0.16         | 0.16            | U          |
| 4-Methyl-2-pentanone (MIBK) | ug/L  | 0.47         | 0.47            | U          |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

METHOD BLANK: 3412429

| Parameter                   | Units | Blank Result | Reporting Limit | Qualifiers |
|-----------------------------|-------|--------------|-----------------|------------|
| trans-1,3-Dichloropropylene | ug/L  | 0.21         | 0.21            | U          |
| 1,1,2-Trichloroethane       | ug/L  | 0.30         | 0.30            | U          |
| Toluene                     | ug/L  | 0.23         | 0.23            | U          |
| 2-Hexanone                  | ug/L  | 0.71         | 0.71            | U          |
| Dibromochloromethane        | ug/L  | 0.33         | 0.33            | U          |
| Ethylene Dibromide (EDB)    | ug/L  | 0.20         | 0.20            | U          |
| Tetrachloroethylene (PCE)   | ug/L  | 0.36         | 0.36            | U          |
| 1,1,1,2-Tetrachloroethane   | ug/L  | 0.54         | 0.54            | U          |
| Chlorobenzene               | ug/L  | 0.21         | 0.21            | U          |
| Ethylbenzene                | ug/L  | 0.24         | 0.24            | U          |
| Bromoform                   | ug/L  | 0.44         | 0.44            | U          |
| Styrene                     | ug/L  | 0.23         | 0.23            | U          |
| 1,1,2,2-Tetrachloroethane   | ug/L  | 0.20         | 0.20            | U          |
| 1,2,3-Trichloropropane      | ug/L  | 0.91         | 0.91            | U          |
| 1,4-Dichlorobenzene         | ug/L  | 0.22         | 0.22            | U          |
| 1,2-Dichlorobenzene         | ug/L  | 0.18         | 0.18            | U          |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 3.1          | 3.1             | U          |
| trans-1,4-Dichloro-2-butene | ug/L  | 1.8          | 1.8             | U          |
| Xylene (Total)              | ug/L  | 0.53         | 0.53            | U          |
| 1,2-Dichloroethane-d4 (S)   | %     | 92           | 70-128          |            |
| Toluene-d8 (S)              | %     | 88           | 77-119          |            |
| Bromofluorobenzene (S)      | %     | 102          | 86-123          |            |

LABORATORY CONTROL SAMPLE & LCSD: 3412430 3412431

| Parameter                   | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD | Qualifiers |
|-----------------------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|---------|------------|
| VOLATILES                   |       |             |            |             |           |            |             |     |         |            |
| Chloromethane               | ug/L  | 20          | 20         | 20          | 102       | 101        |             | 2   |         |            |
| Vinyl Chloride              | ug/L  | 20          | 21         | 21          | 104       | 103        | 70-130      | 1   | 20      |            |
| Bromomethane                | ug/L  | 20          | 20         | 16          | 99        | 82         |             | 19  |         |            |
| Chloroethane                | ug/L  | 20          | 21         | 21          | 107       | 104        |             | 3   |         |            |
| Trichlorofluoromethane      | ug/L  | 20          | 23         | 23          | 116       | 113        |             | 2   |         |            |
| Acetone                     | ug/L  | 20          | 17         | 17          | 86        | 85         |             | 1   |         |            |
| 1,1-Dichloroethylene        | ug/L  | 20          | 24         | 23          | 118       | 115        | 70-130      | 3   | 20      |            |
| Iodomethane (Methyl Iodide) | ug/L  | 20          | 11         | 8.7         | 55        | 44         |             | 23  |         |            |
| Acrylonitrile               | ug/L  | 20          | 23         | 22          | 116       | 111        |             | 4   |         |            |
| Methylene Chloride          | ug/L  | 20          | 25         | 23          | 123       | 117        |             | 5   |         |            |
| Carbon Disulfide            | ug/L  | 20          | 22         | 22          | 112       | 112        |             | 0   |         |            |
| trans-1,2-Dichloroethylene  | ug/L  | 20          | 23         | 22          | 114       | 112        |             | 2   |         |            |
| 1,1-Dichloroethane          | ug/L  | 20          | 23         | 23          | 117       | 115        |             | 2   |         |            |
| Vinyl Acetate               | ug/L  | 20          | 26         | 19          | 132       | 96         |             | 32  |         |            |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

| LABORATORY CONTROL SAMPLE & LCSD: |       | 3412430     | 3412431    |             |           |            |             |     |         |            |
|-----------------------------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|---------|------------|
| Parameter                         | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD | Qualifiers |
| 2-Butanone (MEK)                  | ug/L  | 20          | 23         | 22          | 115       | 110        |             | 5   |         |            |
| cis-1,2-Dichloroethylene          | ug/L  | 20          | 23         | 23          | 117       | 113        | 70-130      | 3   | 20      |            |
| Bromochloromethane                | ug/L  | 20          | 24         | 23          | 120       | 115        |             | 4   |         |            |
| Chloroform                        | ug/L  | 20          | 24         | 23          | 120       | 117        | 70-130      | 2   | 20      |            |
| 1,2-Dichloroethane                | ug/L  | 20          | 22         | 22          | 110       | 111        |             | 1   |         |            |
| 1,1,1-Trichloroethane             | ug/L  | 20          | 23         | 23          | 116       | 114        |             | 2   |         |            |
| Carbon Tetrachloride              | ug/L  | 20          | 24         | 23          | 119       | 115        |             | 3   |         |            |
| Benzene                           | ug/L  | 20          | 24         | 23          | 118       | 116        | 70-130      | 2   | 20      |            |
| Dibromomethane                    | ug/L  | 20          | 23         | 23          | 116       | 113        |             | 3   |         |            |
| 1,2-Dichloropropane               | ug/L  | 20          | 23         | 23          | 116       | 113        |             | 2   |         |            |
| Trichloroethene                   | ug/L  | 20          | 23         | 23          | 113       | 113        | 70-130      | 1   | 20      |            |
| Bromodichloromethane              | ug/L  | 20          | 24         | 23          | 119       | 116        |             | 2   |         |            |
| cis-1,3-Dichloropropene           | ug/L  | 20          | 24         | 23          | 120       | 114        |             | 5   |         |            |
| 4-Methyl-2-pentanone (MIBK)       | ug/L  | 20          | 24         | 23          | 120       | 115        |             | 4   |         |            |
| trans-1,3-Dichloropropylene       | ug/L  | 20          | 24         | 23          | 121       | 115        |             | 5   |         |            |
| 1,1,2-Trichloroethane             | ug/L  | 20          | 23         | 22          | 117       | 112        |             | 5   |         |            |
| Toluene                           | ug/L  | 20          | 19         | 19          | 97        | 93         | 70-130      | 4   | 20      |            |
| 2-Hexanone                        | ug/L  | 20          | 21         | 20          | 105       | 99         |             | 6   |         |            |
| Dibromochloromethane              | ug/L  | 20          | 21         | 20          | 104       | 100        |             | 4   |         |            |
| Ethylene Dibromide (EDB)          | ug/L  | 20          | 21         | 21          | 107       | 104        |             | 3   |         |            |
| Tetrachloroethylene (PCE)         | ug/L  | 20          | 20         | 20          | 101       | 98         | 70-130      | 3   | 20      |            |
| 1,1,1,2-Tetrachloroethane         | ug/L  | 20          | 21         | 20          | 107       | 102        |             | 4   |         |            |
| Chlorobenzene                     | ug/L  | 20          | 21         | 20          | 105       | 101        | 70-130      | 4   | 20      |            |
| Ethylbenzene                      | ug/L  | 20          | 21         | 20          | 104       | 101        | 70-130      | 3   | 20      |            |
| Bromoform                         | ug/L  | 20          | 19         | 19          | 97        | 95         |             | 2   |         |            |
| Styrene                           | ug/L  | 20          | 21         | 21          | 106       | 103        |             | 3   |         |            |
| 1,1,2,2-Tetrachloroethane         | ug/L  | 20          | 22         | 20          | 109       | 99         |             | 10  |         |            |
| 1,2,3-Trichloropropane            | ug/L  | 20          | 23         | 18          | 116       | 92         |             | 23  |         |            |
| 1,4-Dichlorobenzene               | ug/L  | 20          | 19         | 19          | 97        | 93         |             | 4   |         |            |
| 1,2-Dichlorobenzene               | ug/L  | 20          | 20         | 19          | 98        | 94         | 70-130      | 5   | 20      |            |
| 1,2-Dibromo-3-Chloropropane       | ug/L  | 20          | 20         | 18          | 98        | 89         |             | 9   |         |            |
| Xylene (Total)                    | ug/L  | 60          | 63         | 60          | 106       | 100        | 70-130      | 5   | 20      |            |
| 1,2-Dichloroethane-d4 (S)         | %     |             |            |             | 90        | 91         | 70-128      | 1   |         |            |
| Toluene-d8 (S)                    | %     |             |            |             | 88        | 89         | 77-119      | 1   |         |            |
| Bromofluorobenzene (S)            | %     |             |            |             | 95        | 95         | 86-123      | 1   |         |            |

MATRIX SPIKE SAMPLE: 3412432

Original: J2002766007

| Parameter | Units | Original Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-----------------|-------------|-----------|----------|--------------|------------|
|-----------|-------|-----------------|-------------|-----------|----------|--------------|------------|

VOLATILES

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE SAMPLE: 3412432

Original: J2002766007

| Parameter                      | Units | Original<br>Result | Spike<br>Conc. | MS<br>Result | MS<br>% Rec | % Rec<br>Limits | Qualifiers |
|--------------------------------|-------|--------------------|----------------|--------------|-------------|-----------------|------------|
| Chloromethane                  | ug/L  | 0                  | 20             | 22           | 108         | 70-130          |            |
| Vinyl Chloride                 | ug/L  | 0                  | 20             | 21           | 103         |                 |            |
| Bromomethane                   | ug/L  | 0                  | 20             | 20           | 101         |                 |            |
| Chloroethane                   | ug/L  | 0                  | 20             | 22           | 108         |                 |            |
| Trichlorofluoromethane         | ug/L  | 0                  | 20             | 22           | 112         |                 |            |
| Acetone                        | ug/L  | 0                  | 20             | 19           | 95          | 70-130          |            |
| 1,1-Dichloroethylene           | ug/L  | 0                  | 20             | 22           | 112         |                 |            |
| Iodomethane (Methyl<br>Iodide) | ug/L  | 0                  | 20             | 11           | 54          |                 |            |
| Acrylonitrile                  | ug/L  | 0                  | 20             | 23           | 115         |                 |            |
| Methylene Chloride             | ug/L  | 0                  | 20             | 19           | 97          |                 |            |
| Carbon Disulfide               | ug/L  | 0                  | 20             | 21           | 103         | 70-130          |            |
| trans-1,2-Dichloroethylene     | ug/L  | 0                  | 20             | 22           | 110         |                 |            |
| 1,1-Dichloroethane             | ug/L  | 0                  | 20             | 22           | 111         |                 |            |
| Vinyl Acetate                  | ug/L  | 0                  | 20             | 21           | 105         |                 |            |
| 2-Butanone (MEK)               | ug/L  | 0                  | 20             | 22           | 110         |                 |            |
| cis-1,2-Dichloroethylene       | ug/L  | 0                  | 20             | 22           | 110         | 70-130          |            |
| Bromochloromethane             | ug/L  | 0                  | 20             | 23           | 113         |                 |            |
| Chloroform                     | ug/L  | 0                  | 20             | 22           | 112         |                 |            |
| 1,2-Dichloroethane             | ug/L  | 0                  | 20             | 22           | 109         |                 |            |
| 1,1,1-Trichloroethane          | ug/L  | 0                  | 20             | 22           | 112         |                 |            |
| Carbon Tetrachloride           | ug/L  | 0                  | 20             | 22           | 109         | 70-130          |            |
| Benzene                        | ug/L  | 0                  | 20             | 23           | 113         |                 |            |
| Dibromomethane                 | ug/L  | 0                  | 20             | 22           | 112         |                 |            |
| 1,2-Dichloropropane            | ug/L  | 0                  | 20             | 22           | 111         |                 |            |
| Trichloroethene                | ug/L  | 0                  | 20             | 21           | 104         |                 |            |
| Bromodichloromethane           | ug/L  | 0                  | 20             | 23           | 115         | 70-130          |            |
| cis-1,3-Dichloropropene        | ug/L  | 0                  | 20             | 22           | 111         |                 |            |
| 4-Methyl-2-pentanone<br>(MIBK) | ug/L  | 0                  | 20             | 23           | 117         |                 |            |
| trans-1,3-Dichloropropylene    | ug/L  | 0                  | 20             | 22           | 109         |                 |            |
| 1,1,2-Trichloroethane          | ug/L  | 0                  | 20             | 22           | 111         |                 |            |
| Toluene                        | ug/L  | 0                  | 20             | 18           | 89          | 70-130          |            |
| 2-Hexanone                     | ug/L  | 0                  | 20             | 20           | 102         |                 |            |
| Dibromochloromethane           | ug/L  | 0                  | 20             | 19           | 97          |                 |            |
| Ethylene Dibromide (EDB)       | ug/L  | 0                  | 20             | 20           | 99          |                 |            |
| Tetrachloroethylene (PCE)      | ug/L  | 0                  | 20             | 18           | 90          |                 |            |
| 1,1,1,2-Tetrachloroethane      | ug/L  | 0                  | 20             | 20           | 99          | 70-130          |            |
| Chlorobenzene                  | ug/L  | 0                  | 20             | 19           | 97          |                 |            |
| Ethylbenzene                   | ug/L  | 0                  | 20             | 20           | 98          |                 |            |
| Bromoform                      | ug/L  | 0                  | 20             | 19           | 94          |                 |            |
| Styrene                        | ug/L  | 0                  | 20             | 20           | 99          |                 |            |
| 1,1,2,2-Tetrachloroethane      | ug/L  | 0                  | 20             | 21           | 103         | 70-130          |            |
| 1,2,3-Trichloropropane         | ug/L  | 0                  | 20             | 21           | 105         |                 |            |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE SAMPLE: 3412432

Original: J2002766007

| Parameter                   | Units | Original Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|-----------------------------|-------|-----------------|-------------|-----------|----------|--------------|------------|
| 1,4-Dichlorobenzene         | ug/L  | 0               | 20          | 18        | 88       | 70-130       |            |
| 1,2-Dichlorobenzene         | ug/L  | 0               | 20          | 18        | 93       |              |            |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 0               | 20          | 18        | 90       |              |            |
| Xylene (Total)              | ug/L  | 0               | 60          | 59        | 99       | 70-130       |            |
| 1,2-Dichloroethane-d4 (S)   | %     | 91              |             |           | 95       | 70-128       |            |
| Toluene-d8 (S)              | %     | 89              |             |           | 89       | 77-119       |            |
| Bromofluorobenzene (S)      | %     | 103             |             |           | 97       | 86-123       |            |

QC Batch: MSVj/1362

Analysis Method: SW-846 8260B (SIM)

QC Batch Method: SW-846 5030B

Prepared: 03/10/2020 11:45

Associated Lab Samples: J2002766007, J2002766008, J2002766009, J2002766010, J2002766011, J2002766012, J2002766013, J2002766014,

METHOD BLANK: 3412462

| Parameter                   | Units | Blank Result | Reporting Limit | Qualifiers |
|-----------------------------|-------|--------------|-----------------|------------|
| VOLATILES                   |       |              |                 |            |
| Ethylene Dibromide (EDB)    | ug/L  | 0.020        | 0.020           | U          |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 0.11         | 0.11            | U          |
| 1,2-Dichloroethane-d4 (S)   | %     | 88           | 77-125          |            |
| Toluene-d8 (S)              | %     | 88           | 80-121          |            |
| Bromofluorobenzene (S)      | %     | 95           | 80-129          |            |

LABORATORY CONTROL SAMPLE & LCSD: 3412463 3412464

| Parameter                   | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD | Qualifiers |
|-----------------------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|---------|------------|
| VOLATILES                   |       |             |            |             |           |            |             |     |         |            |
| Ethylene Dibromide (EDB)    | ug/L  | 0.8         | 0.81       | 0.79        | 101       | 99         | 70-130      | 2   | 30      |            |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 0.8         | 0.71       | 0.75        | 89        | 94         | 70-130      | 5   | 30      |            |
| 1,2-Dichloroethane-d4 (S)   | %     |             |            |             | 86        | 93         | 77-125      | 7   |         |            |
| Toluene-d8 (S)              | %     |             |            |             | 90        | 89         | 80-121      | 1   |         |            |
| Bromofluorobenzene (S)      | %     |             |            |             | 94        | 96         | 80-129      | 2   |         |            |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE SAMPLE: 3412465

Original: J2002766008

| Parameter                   | Units | Original Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|-----------------------------|-------|-----------------|-------------|-----------|----------|--------------|------------|
| VOLATILES                   |       |                 |             |           |          |              |            |
| Ethylene Dibromide (EDB)    | ug/L  | 0               | 0.8         | 0.74      | 93       | 70-130       |            |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 0               | 0.8         | 0.69      | 86       | 70-130       |            |
| 1,2-Dichloroethane-d4 (S)   | %     | 88              |             |           | 91       | 77-125       |            |
| Toluene-d8 (S)              | %     | 90              |             |           | 91       | 80-121       |            |
| Bromofluorobenzene (S)      | %     | 96              |             |           | 97       | 80-129       |            |

QC Batch: MSVj/1364

Analysis Method: SW-846 8260B

QC Batch Method: SW-846 5030B

Prepared: 03/10/2020 11:45

Associated Lab Samples: J2002766032, J2002766033, J2002766034

METHOD BLANK: 3412476

| Parameter                   | Units | Blank Result | Reporting Limit | Qualifiers |
|-----------------------------|-------|--------------|-----------------|------------|
| VOLATILES                   |       |              |                 |            |
| Chloromethane               | ug/L  | 0.21         | 0.21            | U          |
| Vinyl Chloride              | ug/L  | 0.20         | 0.20            | U          |
| Bromomethane                | ug/L  | 0.29         | 0.29            | U          |
| Chloroethane                | ug/L  | 0.33         | 0.33            | U          |
| Trichlorofluoromethane      | ug/L  | 0.32         | 0.32            | U          |
| Acetone                     | ug/L  | 2.1          | 2.1             | U          |
| 1,1-Dichloroethylene        | ug/L  | 0.18         | 0.18            | U          |
| Iodomethane (Methyl Iodide) | ug/L  | 0.16         | 0.16            | U          |
| Acrylonitrile               | ug/L  | 1.1          | 1.1             | U          |
| Methylene Chloride          | ug/L  | 2.5          | 2.5             | U          |
| Carbon Disulfide            | ug/L  | 0.67         | 0.67            | U          |
| trans-1,2-Dichloroethylene  | ug/L  | 0.20         | 0.20            | U          |
| 1,1-Dichloroethane          | ug/L  | 0.14         | 0.14            | U          |
| Vinyl Acetate               | ug/L  | 0.19         | 0.19            | U          |
| 2-Butanone (MEK)            | ug/L  | 0.43         | 0.43            | U          |
| cis-1,2-Dichloroethylene    | ug/L  | 0.24         | 0.24            | U          |
| Bromochloromethane          | ug/L  | 0.17         | 0.17            | U          |
| Chloroform                  | ug/L  | 0.18         | 0.18            | U          |
| 1,2-Dichloroethane          | ug/L  | 0.23         | 0.23            | U          |
| 1,1,1-Trichloroethane       | ug/L  | 0.22         | 0.22            | U          |
| Carbon Tetrachloride        | ug/L  | 0.36         | 0.36            | U          |
| Benzene                     | ug/L  | 0.16         | 0.16            | U          |
| Dibromomethane              | ug/L  | 0.26         | 0.26            | U          |
| 1,2-Dichloropropane         | ug/L  | 0.66         | 0.66            | U          |
| Trichloroethene             | ug/L  | 0.29         | 0.29            | U          |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

METHOD BLANK: 3412476

| Parameter                   | Units | Blank Result | Reporting Limit | Qualifiers |
|-----------------------------|-------|--------------|-----------------|------------|
| Bromodichloromethane        | ug/L  | 0.46         | 0.46            | U          |
| cis-1,3-Dichloropropene     | ug/L  | 0.16         | 0.16            | U          |
| 4-Methyl-2-pentanone (MIBK) | ug/L  | 0.47         | 0.47            | U          |
| trans-1,3-Dichloropropylene | ug/L  | 0.21         | 0.21            | U          |
| 1,1,2-Trichloroethane       | ug/L  | 0.30         | 0.30            | U          |
| Toluene                     | ug/L  | 0.23         | 0.23            | U          |
| 2-Hexanone                  | ug/L  | 0.71         | 0.71            | U          |
| Dibromochloromethane        | ug/L  | 0.33         | 0.33            | U          |
| Ethylene Dibromide (EDB)    | ug/L  | 0.20         | 0.20            | U          |
| Tetrachloroethylene (PCE)   | ug/L  | 0.36         | 0.36            | U          |
| 1,1,1,2-Tetrachloroethane   | ug/L  | 0.54         | 0.54            | U          |
| Chlorobenzene               | ug/L  | 0.21         | 0.21            | U          |
| Ethylbenzene                | ug/L  | 0.24         | 0.24            | U          |
| Bromoform                   | ug/L  | 0.44         | 0.44            | U          |
| Styrene                     | ug/L  | 0.23         | 0.23            | U          |
| 1,1,2,2-Tetrachloroethane   | ug/L  | 0.20         | 0.20            | U          |
| 1,2,3-Trichloropropane      | ug/L  | 0.91         | 0.91            | U          |
| 1,4-Dichlorobenzene         | ug/L  | 0.22         | 0.22            | U          |
| 1,2-Dichlorobenzene         | ug/L  | 0.18         | 0.18            | U          |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 3.1          | 3.1             | U          |
| trans-1,4-Dichloro-2-butene | ug/L  | 1.8          | 1.8             | U          |
| Xylene (Total)              | ug/L  | 0.53         | 0.53            | U          |
| 1,2-Dichloroethane-d4 (S)   | %     | 92           | 70-128          |            |
| Toluene-d8 (S)              | %     | 88           | 77-119          |            |
| Bromofluorobenzene (S)      | %     | 102          | 86-123          |            |

LABORATORY CONTROL SAMPLE & LCSD: 3412477 3412478

| Parameter                   | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD | Qualifiers |
|-----------------------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|---------|------------|
| VOLATILES                   |       |             |            |             |           |            |             |     |         |            |
| Chloromethane               | ug/L  | 20          | 20         | 21          | 102       | 103        |             | 0   |         |            |
| Vinyl Chloride              | ug/L  | 20          | 21         | 19          | 104       | 97         | 70-130      | 6   | 20      |            |
| Bromomethane                | ug/L  | 20          | 20         | 17          | 99        | 83         |             | 18  |         |            |
| Chloroethane                | ug/L  | 20          | 21         | 21          | 107       | 103        |             | 4   |         |            |
| Trichlorofluoromethane      | ug/L  | 20          | 23         | 21          | 116       | 107        |             | 8   |         |            |
| Acetone                     | ug/L  | 20          | 17         | 17          | 86        | 84         |             | 2   |         |            |
| 1,1-Dichloroethylene        | ug/L  | 20          | 24         | 21          | 118       | 106        | 70-130      | 10  | 20      |            |
| Iodomethane (Methyl Iodide) | ug/L  | 20          | 11         | 8.7         | 55        | 44         |             | 24  |         |            |
| Acrylonitrile               | ug/L  | 20          | 23         | 21          | 116       | 104        |             | 11  |         |            |
| Methylene Chloride          | ug/L  | 20          | 25         | 22          | 123       | 109        |             | 12  |         |            |
| Carbon Disulfide            | ug/L  | 20          | 22         | 20          | 112       | 101        |             | 11  |         |            |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

| LABORATORY CONTROL SAMPLE & LCSD: 3412477 3412478 |       |             |            |             |           |            |             |     |                    |
|---------------------------------------------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|--------------------|
| Parameter                                         | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD Qualifiers |
| trans-1,2-Dichloroethylene                        | ug/L  | 20          | 23         | 20          | 114       | 102        |             | 11  |                    |
| 1,1-Dichloroethane                                | ug/L  | 20          | 23         | 21          | 117       | 105        |             | 11  |                    |
| Vinyl Acetate                                     | ug/L  | 20          | 26         | 11          | 132       | 56         |             | 81  |                    |
| 2-Butanone (MEK)                                  | ug/L  | 20          | 23         | 20          | 115       | 100        |             | 14  |                    |
| cis-1,2-Dichloroethylene                          | ug/L  | 20          | 23         | 21          | 117       | 105        | 70-130      | 11  | 20                 |
| Bromochloromethane                                | ug/L  | 20          | 24         | 22          | 120       | 109        |             | 10  |                    |
| Chloroform                                        | ug/L  | 20          | 24         | 21          | 120       | 107        | 70-130      | 11  | 20                 |
| 1,2-Dichloroethane                                | ug/L  | 20          | 22         | 20          | 110       | 100        |             | 9   |                    |
| 1,1,1-Trichloroethane                             | ug/L  | 20          | 23         | 21          | 116       | 104        |             | 11  |                    |
| Carbon Tetrachloride                              | ug/L  | 20          | 24         | 21          | 119       | 105        |             | 13  |                    |
| Benzene                                           | ug/L  | 20          | 24         | 21          | 118       | 105        | 70-130      | 12  | 20                 |
| Dibromomethane                                    | ug/L  | 20          | 23         | 22          | 116       | 108        |             | 7   |                    |
| 1,2-Dichloropropane                               | ug/L  | 20          | 23         | 21          | 116       | 104        |             | 11  |                    |
| Trichloroethene                                   | ug/L  | 20          | 23         | 22          | 113       | 109        | 70-130      | 3   | 20                 |
| Bromodichloromethane                              | ug/L  | 20          | 24         | 21          | 119       | 105        |             | 12  |                    |
| cis-1,3-Dichloropropene                           | ug/L  | 20          | 24         | 20          | 120       | 103        |             | 15  |                    |
| 4-Methyl-2-pentanone (MIBK)                       | ug/L  | 20          | 24         | 21          | 120       | 104        |             | 14  |                    |
| trans-1,3-Dichloropropylene                       | ug/L  | 20          | 24         | 20          | 121       | 102        |             | 17  |                    |
| 1,1,2-Trichloroethane                             | ug/L  | 20          | 23         | 21          | 117       | 103        |             | 13  |                    |
| Toluene                                           | ug/L  | 20          | 19         | 17          | 97        | 86         | 70-130      | 12  | 20                 |
| 2-Hexanone                                        | ug/L  | 20          | 21         | 18          | 105       | 92         |             | 13  |                    |
| Dibromochloromethane                              | ug/L  | 20          | 21         | 18          | 104       | 92         |             | 12  |                    |
| Ethylene Dibromide (EDB)                          | ug/L  | 20          | 21         | 19          | 107       | 94         |             | 12  |                    |
| Tetrachloroethylene (PCE)                         | ug/L  | 20          | 20         | 18          | 101       | 90         | 70-130      | 12  | 20                 |
| 1,1,1,2-Tetrachloroethane                         | ug/L  | 20          | 21         | 19          | 107       | 94         |             | 13  |                    |
| Chlorobenzene                                     | ug/L  | 20          | 21         | 18          | 105       | 92         | 70-130      | 13  | 20                 |
| Ethylbenzene                                      | ug/L  | 20          | 21         | 19          | 104       | 93         | 70-130      | 12  | 20                 |
| Bromoform                                         | ug/L  | 20          | 19         | 18          | 97        | 89         |             | 9   |                    |
| Styrene                                           | ug/L  | 20          | 21         | 19          | 106       | 95         |             | 11  |                    |
| 1,1,2,2-Tetrachloroethane                         | ug/L  | 20          | 22         | 17          | 109       | 85         |             | 25  |                    |
| 1,2,3-Trichloropropane                            | ug/L  | 20          | 23         | 18          | 116       | 92         |             | 23  |                    |
| 1,4-Dichlorobenzene                               | ug/L  | 20          | 19         | 16          | 97        | 81         |             | 17  |                    |
| 1,2-Dichlorobenzene                               | ug/L  | 20          | 20         | 17          | 98        | 83         | 70-130      | 17  | 20                 |
| 1,2-Dibromo-3-Chloropropane                       | ug/L  | 20          | 20         | 17          | 98        | 84         |             | 15  |                    |
| Xylene (Total)                                    | ug/L  | 60          | 63         | 56          | 106       | 93         | 70-130      | 12  | 20                 |
| 1,2-Dichloroethane-d4 (S)                         | %     |             |            |             | 90        | 94         | 70-128      | 4   |                    |
| Toluene-d8 (S)                                    | %     |             |            |             | 88        | 90         | 77-119      | 2   |                    |
| Bromofluorobenzene (S)                            | %     |             |            |             | 95        | 97         | 86-123      | 3   |                    |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE SAMPLE: 3412479

Original: J2002766032

| Parameter                      | Units | Original<br>Result | Spike<br>Conc. | MS<br>Result | MS<br>% Rec | % Rec<br>Limits | Qualifiers |
|--------------------------------|-------|--------------------|----------------|--------------|-------------|-----------------|------------|
| VOLATILES                      |       |                    |                |              |             |                 |            |
| Chloromethane                  | ug/L  | 0                  | 20             | 22           | 109         | 70-130          |            |
| Vinyl Chloride                 | ug/L  | 0                  | 20             | 20           | 102         |                 |            |
| Bromomethane                   | ug/L  | 0                  | 20             | 22           | 108         |                 |            |
| Chloroethane                   | ug/L  | 0                  | 20             | 22           | 108         |                 |            |
| Trichlorofluoromethane         | ug/L  | 0                  | 20             | 23           | 117         | 70-130          |            |
| Acetone                        | ug/L  | 0                  | 20             | 19           | 93          |                 |            |
| 1,1-Dichloroethylene           | ug/L  | 0                  | 20             | 23           | 115         |                 |            |
| Iodomethane (Methyl<br>Iodide) | ug/L  | 0                  | 20             | 12           | 58          |                 |            |
| Acrylonitrile                  | ug/L  | 0                  | 20             | 22           | 112         | 70-130          |            |
| Methylene Chloride             | ug/L  | 0                  | 20             | 19           | 97          |                 |            |
| Carbon Disulfide               | ug/L  | 0                  | 20             | 22           | 108         |                 |            |
| trans-1,2-Dichloroethylene     | ug/L  | 0                  | 20             | 22           | 112         |                 |            |
| 1,1-Dichloroethane             | ug/L  | 0                  | 20             | 23           | 115         | 70-130          |            |
| Vinyl Acetate                  | ug/L  | 0                  | 20             | 24           | 119         |                 |            |
| 2-Butanone (MEK)               | ug/L  | 0                  | 20             | 22           | 111         |                 |            |
| cis-1,2-Dichloroethylene       | ug/L  | 0                  | 20             | 23           | 113         |                 |            |
| Bromochloromethane             | ug/L  | 0                  | 20             | 23           | 115         | 70-130          |            |
| Chloroform                     | ug/L  | 0                  | 20             | 23           | 117         |                 |            |
| 1,2-Dichloroethane             | ug/L  | 0                  | 20             | 22           | 110         |                 |            |
| 1,1,1-Trichloroethane          | ug/L  | 0                  | 20             | 22           | 112         |                 |            |
| Carbon Tetrachloride           | ug/L  | 0                  | 20             | 23           | 117         | 70-130          |            |
| Benzene                        | ug/L  | 0                  | 20             | 23           | 115         |                 |            |
| Dibromomethane                 | ug/L  | 0                  | 20             | 23           | 113         |                 |            |
| 1,2-Dichloropropane            | ug/L  | 0                  | 20             | 22           | 112         |                 |            |
| Trichloroethene                | ug/L  | 0                  | 20             | 21           | 107         | 70-130          |            |
| Bromodichloromethane           | ug/L  | 0                  | 20             | 23           | 116         |                 |            |
| cis-1,3-Dichloropropene        | ug/L  | 0                  | 20             | 23           | 113         |                 |            |
| 4-Methyl-2-pentanone<br>(MIBK) | ug/L  | 0                  | 20             | 23           | 114         |                 |            |
| trans-1,3-Dichloropropylene    | ug/L  | 0                  | 20             | 22           | 112         | 70-130          |            |
| 1,1,2-Trichloroethane          | ug/L  | 0                  | 20             | 22           | 110         |                 |            |
| Toluene                        | ug/L  | 0                  | 20             | 19           | 95          |                 |            |
| 2-Hexanone                     | ug/L  | 0                  | 20             | 20           | 101         |                 |            |
| Dibromochloromethane           | ug/L  | 0                  | 20             | 20           | 100         | 70-130          |            |
| Ethylene Dibromide (EDB)       | ug/L  | 0                  | 20             | 21           | 103         |                 |            |
| Tetrachloroethylene (PCE)      | ug/L  | 0                  | 20             | 19           | 97          |                 |            |
| 1,1,1,2-Tetrachloroethane      | ug/L  | 0                  | 20             | 21           | 104         |                 |            |
| Chlorobenzene                  | ug/L  | 0                  | 20             | 20           | 100         | 70-130          |            |
| Ethylbenzene                   | ug/L  | 0                  | 20             | 20           | 102         | 70-130          |            |
| Bromoform                      | ug/L  | 0                  | 20             | 19           | 95          |                 |            |
| Styrene                        | ug/L  | 0                  | 20             | 21           | 103         |                 |            |
| 1,1,2,2-Tetrachloroethane      | ug/L  | 0                  | 20             | 21           | 103         |                 |            |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE SAMPLE: 3412479

Original: J2002766032

| Parameter                   | Units | Original Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|-----------------------------|-------|-----------------|-------------|-----------|----------|--------------|------------|
| 1,2,3-Trichloropropane      | ug/L  | 0               | 20          | 22        | 108      |              |            |
| 1,4-Dichlorobenzene         | ug/L  | 0               | 20          | 19        | 94       |              |            |
| 1,2-Dichlorobenzene         | ug/L  | 0               | 20          | 19        | 95       | 70-130       |            |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 0               | 20          | 19        | 95       |              |            |
| Xylene (Total)              | ug/L  | 0               | 60          | 61        | 101      | 70-130       |            |
| 1,2-Dichloroethane-d4 (S)   | %     | 93              |             |           | 93       | 70-128       |            |
| Toluene-d8 (S)              | %     | 90              |             |           | 90       | 77-119       |            |
| Bromofluorobenzene (S)      | %     | 107             |             |           | 99       | 86-123       |            |

QC Batch: DGMj/1265

Analysis Method: SW-846 7470A

QC Batch Method: SW-846 7470A

Prepared: 03/11/2020 11:30

Associated Lab Samples: J2002766007, J2002766008, J2002766009, J2002766010, J2002766011, J2002766012, J2002766013, J2002766014

METHOD BLANK: 3412480

| Parameter | Units | Blank Result | Reporting Limit | Qualifiers |
|-----------|-------|--------------|-----------------|------------|
| METALS    |       |              |                 |            |
| Mercury   | ug/L  | 0.011        | 0.011           | U          |

LABORATORY CONTROL SAMPLE: 3412481

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| METALS    |       |             |            |           |              |            |
| Mercury   | ug/L  | 2           | 2.0        | 99        | 80-120       |            |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3412482

3412483

Original: S2000562001

| Parameter | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | Max RPD | Max RPD | Qualifiers |
|-----------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|---------|---------|------------|
| METALS    |       |                 |             |           |            |          |           |             |         |         |            |
| Mercury   | ug/L  | 0               | 2           | 0.55      | 0.46       | 28       | 23        | 80-120      | 18      | 20      |            |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

QC Batch: MSVJ/1366 Analysis Method: SW-846 8260B (SIM)  
QC Batch Method: SW-846 5030B Prepared: 03/10/2020 11:45  
Associated Lab Samples: J2002766032, J2002766033, J2002766034

METHOD BLANK: 3412484

| Parameter                   | Units | Blank Result | Reporting Limit Qualifiers |
|-----------------------------|-------|--------------|----------------------------|
| VOLATILES                   |       |              |                            |
| Ethylene Dibromide (EDB)    | ug/L  | 0.020        | 0.020 U                    |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 0.11         | 0.11 U                     |
| 1,2-Dichloroethane-d4 (S)   | %     | 88           | 77-125                     |
| Toluene-d8 (S)              | %     | 88           | 80-121                     |
| Bromofluorobenzene (S)      | %     | 95           | 80-129                     |

LABORATORY CONTROL SAMPLE & LCSD: 3412485 3412486

| Parameter                   | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD Qualifiers |
|-----------------------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|--------------------|
| VOLATILES                   |       |             |            |             |           |            |             |     |                    |
| Ethylene Dibromide (EDB)    | ug/L  | 0.8         | 0.81       | 0.79        | 101       | 99         | 70-130      | 2   | 30                 |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 0.8         | 0.71       | 0.75        | 89        | 94         | 70-130      | 5   | 30                 |
| 1,2-Dichloroethane-d4 (S)   | %     |             |            |             | 86        | 93         | 77-125      | 7   |                    |
| Toluene-d8 (S)              | %     |             |            |             | 90        | 89         | 80-121      | 1   |                    |
| Bromofluorobenzene (S)      | %     |             |            |             | 94        | 96         | 80-129      | 2   |                    |

MATRIX SPIKE SAMPLE: 3412487 Original: J2002766033

| Parameter                   | Units | Original Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits Qualifiers |
|-----------------------------|-------|-----------------|-------------|-----------|----------|-------------------------|
| VOLATILES                   |       |                 |             |           |          |                         |
| Ethylene Dibromide (EDB)    | ug/L  | 0               | 0.8         | 0.81      | 101      | 70-130                  |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 0               | 0.8         | 0.75      | 94       | 70-130                  |
| 1,2-Dichloroethane-d4 (S)   | %     | 92              |             |           | 94       | 77-125                  |
| Toluene-d8 (S)              | %     | 88              |             |           | 89       | 80-121                  |
| Bromofluorobenzene (S)      | %     | 96              |             |           | 95       | 80-129                  |

QC Batch: DGMJ/1266 Analysis Method: SW-846 7470A  
QC Batch Method: SW-846 7470A Prepared: 03/16/2020 12:15  
Associated Lab Samples: J2002766015, J2002766017, J2002766018, J2002766019, J2002766020, J2002766021, J2002766022, J2002766030,

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

METHOD BLANK: 3412488

| Parameter | Units | Blank Result | Reporting Limit Qualifiers |
|-----------|-------|--------------|----------------------------|
| METALS    |       |              |                            |
| Mercury   | ug/L  | 0.011        | 0.011 U                    |

LABORATORY CONTROL SAMPLE: 3412489

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|-----------|-------|-------------|------------|-----------|-------------------------|
| METALS    |       |             |            |           |                         |
| Mercury   | ug/L  | 2           | 1.8        | 91        | 80-120                  |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3412490 3412491 Original: J2002766015

| Parameter | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD | Qualifiers |
|-----------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|------------|
| METALS    |       |                 |             |           |            |          |           |             |     |         |            |
| Mercury   | ug/L  | 0               | 2           | 1.8       | 1.9        | 92       | 93        | 80-120      | 1   | 20      |            |

QC Batch: WCAg/1799

Analysis Method: SM 10200 H

QC Batch Method: SM 10200 H

Prepared:

Associated Lab Samples: J2002766035, J2002766036, J2002766037, J2002766038, J2002766039, J2002766040

METHOD BLANK: 3412813

| Parameter               | Units | Blank Result | Reporting Limit Qualifiers |
|-------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY           |       |              |                            |
| Corrected Chlorophyll A | mg/m3 | 2.5          | 2.5 U                      |

METHOD BLANK: 3412815

| Parameter               | Units | Blank Result | Reporting Limit Qualifiers |
|-------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY           |       |              |                            |
| Corrected Chlorophyll A | mg/m3 | 2.5          | 2.5 U                      |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

SAMPLE DUPLICATE: 3412814

Original: J2002766036

| Parameter                                | Units | Original Result | DUP Result | RPD | Max RPD Qualifiers |
|------------------------------------------|-------|-----------------|------------|-----|--------------------|
| WET CHEMISTRY<br>Corrected Chlorophyll A | mg/m3 | 5.0             | 5.0        | 0   | 35                 |

SAMPLE DUPLICATE: 3412816

Original: A2002071001

| Parameter               | Units                                                                        | Original Result  | DUP Result | RPD       | Max RPD | Qualifiers |
|-------------------------|------------------------------------------------------------------------------|------------------|------------|-----------|---------|------------|
| WET CHEMISTRY           |                                                                              |                  |            |           |         |            |
| Corrected Chlorophyll A | mg/m3                                                                        | 19               | 20         | 7         | 35      |            |
| QC Batch:               | WCAg/1806                                                                    | Analysis Method: |            | EPA 410.4 |         |            |
| QC Batch Method:        | EPA 410.4                                                                    | Prepared:        |            |           |         |            |
| Associated Lab Samples: | J2002766035, J2002766036, J2002766037, J2002766038, J2002766039, J2002766040 |                  |            |           |         |            |

METHOD BLANK: 3413766

| Parameter                               | Units | Blank Result | Reporting Limit Qualifiers |
|-----------------------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY<br>Chemical Oxygen Demand | mg/L  | 7.2          | 7.2 U                      |

METHOD BLANK: 3413776

| Parameter                               | Units | Blank Result | Reporting Limit Qualifiers |
|-----------------------------------------|-------|--------------|----------------------------|
| WET CHEMISTRY<br>Chemical Oxygen Demand | mg/L  | 7.2          | 7.2 U                      |

LABORATORY CONTROL SAMPLE: 3413767

| Parameter                               | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits Qualifiers |
|-----------------------------------------|-------|-------------|------------|-----------|-------------------------|
| WET CHEMISTRY<br>Chemical Oxygen Demand | mg/L  | 500         | 490        | 98        | 90-110                  |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3413769 3413770 Original: J2003047006

| Parameter              | Units | Original<br>Result | Spike<br>Conc. | MS<br>Result | MSD<br>Result | MS<br>% Rec | MSD<br>% Rec | % Rec<br>Limit | RPD | Max<br>RPD | Qualifiers |
|------------------------|-------|--------------------|----------------|--------------|---------------|-------------|--------------|----------------|-----|------------|------------|
| WET CHEMISTRY          |       |                    |                |              |               |             |              |                |     |            |            |
| Chemical Oxygen Demand | mg/L  | 12                 | 500            | 510          | 500           | 100         | 98           | 90-110         | 3   | 10         |            |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3413773 3413774 Original: G2002186001

| Parameter              | Units | Original<br>Result | Spike<br>Conc. | MS<br>Result | MSD<br>Result | MS<br>% Rec | MSD<br>% Rec | % Rec<br>Limit | RPD | Max<br>RPD | Qualifiers |
|------------------------|-------|--------------------|----------------|--------------|---------------|-------------|--------------|----------------|-----|------------|------------|
| WET CHEMISTRY          |       |                    |                |              |               |             |              |                |     |            |            |
| Chemical Oxygen Demand | mg/L  | 46                 | 500            | 530          | 550           | 97          | 100          | 90-110         | 3   | 10         |            |

QC Batch: MSVJ/1382

Analysis Method: SW-846 8260B

QC Batch Method: SW-846 5030B

Prepared: 03/12/2020 08:49

Associated Lab Samples: J2002766035, J2002766036, J2002766037, J2002766038, J2002766039, J2002766040, J2002766041

METHOD BLANK: 3417202

| Parameter                   | Units | Blank<br>Result | Reporting<br>Limit | Qualifiers |
|-----------------------------|-------|-----------------|--------------------|------------|
| VOLATILES                   |       |                 |                    |            |
| Chloromethane               | ug/L  | 0.21            | 0.21               | U          |
| Vinyl Chloride              | ug/L  | 0.20            | 0.20               | U          |
| Bromomethane                | ug/L  | 0.29            | 0.29               | U          |
| Chloroethane                | ug/L  | 0.33            | 0.33               | U          |
| Trichlorofluoromethane      | ug/L  | 0.32            | 0.32               | U          |
| Acetone                     | ug/L  | 2.1             | 2.1                | U          |
| 1,1-Dichloroethylene        | ug/L  | 0.18            | 0.18               | U          |
| Iodomethane (Methyl Iodide) | ug/L  | 0.16            | 0.16               | U          |
| Acrylonitrile               | ug/L  | 1.1             | 1.1                | U          |
| Methylene Chloride          | ug/L  | 2.5             | 2.5                | U          |
| Carbon Disulfide            | ug/L  | 0.67            | 0.67               | U          |
| trans-1,2-Dichloroethylene  | ug/L  | 0.20            | 0.20               | U          |
| 1,1-Dichloroethane          | ug/L  | 0.14            | 0.14               | U          |
| Vinyl Acetate               | ug/L  | 0.19            | 0.19               | U          |
| 2-Butanone (MEK)            | ug/L  | 0.43            | 0.43               | U          |
| cis-1,2-Dichloroethylene    | ug/L  | 0.24            | 0.24               | U          |
| Bromochloromethane          | ug/L  | 0.17            | 0.17               | U          |
| Chloroform                  | ug/L  | 0.18            | 0.18               | U          |
| 1,2-Dichloroethane          | ug/L  | 0.23            | 0.23               | U          |
| 1,1,1-Trichloroethane       | ug/L  | 0.22            | 0.22               | U          |
| Carbon Tetrachloride        | ug/L  | 0.36            | 0.36               | U          |
| Benzene                     | ug/L  | 0.16            | 0.16               | U          |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

METHOD BLANK: 3417202

| Parameter                   | Units | Blank Result | Reporting Limit Qualifiers |
|-----------------------------|-------|--------------|----------------------------|
| Dibromomethane              | ug/L  | 0.26         | 0.26 U                     |
| 1,2-Dichloropropane         | ug/L  | 0.66         | 0.66 U                     |
| Trichloroethene             | ug/L  | 0.29         | 0.29 U                     |
| Bromodichloromethane        | ug/L  | 0.46         | 0.46 U                     |
| cis-1,3-Dichloropropene     | ug/L  | 0.16         | 0.16 U                     |
| 4-Methyl-2-pentanone (MIBK) | ug/L  | 0.47         | 0.47 U                     |
| trans-1,3-Dichloropropylene | ug/L  | 0.21         | 0.21 U                     |
| 1,1,2-Trichloroethane       | ug/L  | 0.30         | 0.30 U                     |
| Toluene                     | ug/L  | 0.23         | 0.23 U                     |
| 2-Hexanone                  | ug/L  | 0.71         | 0.71 U                     |
| Dibromochloromethane        | ug/L  | 0.33         | 0.33 U                     |
| Ethylene Dibromide (EDB)    | ug/L  | 0.20         | 0.20 U                     |
| Tetrachloroethylene (PCE)   | ug/L  | 0.36         | 0.36 U                     |
| 1,1,1,2-Tetrachloroethane   | ug/L  | 0.54         | 0.54 U                     |
| Chlorobenzene               | ug/L  | 0.21         | 0.21 U                     |
| Ethylbenzene                | ug/L  | 0.24         | 0.24 U                     |
| Bromoform                   | ug/L  | 0.44         | 0.44 U                     |
| Styrene                     | ug/L  | 0.23         | 0.23 U                     |
| 1,1,2,2-Tetrachloroethane   | ug/L  | 0.20         | 0.20 U                     |
| 1,2,3-Trichloropropane      | ug/L  | 0.91         | 0.91 U                     |
| 1,4-Dichlorobenzene         | ug/L  | 0.22         | 0.22 U                     |
| 1,2-Dichlorobenzene         | ug/L  | 0.18         | 0.18 U                     |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 3.1          | 3.1 U                      |
| trans-1,4-Dichloro-2-butene | ug/L  | 1.8          | 1.8 U                      |
| Xylene (Total)              | ug/L  | 0.53         | 0.53 U                     |
| 1,2-Dichloroethane-d4 (S)   | %     | 89           | 70-128                     |
| Toluene-d8 (S)              | %     | 89           | 77-119                     |
| Bromofluorobenzene (S)      | %     | 100          | 86-123                     |

LABORATORY CONTROL SAMPLE & LCSD: 3417203 3417204

| Parameter                   | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD Qualifiers |
|-----------------------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|--------------------|
| VOLATILES                   |       |             |            |             |           |            |             |     |                    |
| Chloromethane               | ug/L  | 20          | 21         | 20          | 107       | 101        |             | 6   |                    |
| Vinyl Chloride              | ug/L  | 20          | 20         | 21          | 100       | 105        | 70-130      | 5   | 20                 |
| Bromomethane                | ug/L  | 20          | 12         | 17          | 59        | 86         |             | 37  |                    |
| Chloroethane                | ug/L  | 20          | 22         | 22          | 108       | 112        |             | 4   |                    |
| Trichlorofluoromethane      | ug/L  | 20          | 22         | 23          | 112       | 116        |             | 3   |                    |
| Acetone                     | ug/L  | 20          | 18         | 20          | 91        | 100        |             | 9   |                    |
| 1,1-Dichloroethylene        | ug/L  | 20          | 23         | 23          | 116       | 116        | 70-130      | 0   | 20                 |
| Iodomethane (Methyl Iodide) | ug/L  | 20          | 7.4        | 9.2         | 37        | 46         |             | 23  |                    |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

| LABORATORY CONTROL SAMPLE & LCSD: 3417203 3417204 |       |             |            |             |           |            |             |     |                    |
|---------------------------------------------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|--------------------|
| Parameter                                         | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD Qualifiers |
| Acrylonitrile                                     | ug/L  | 20          | 23         | 23          | 115       | 115        |             | 0   |                    |
| Methylene Chloride                                | ug/L  | 20          | 24         | 24          | 121       | 122        |             | 1   |                    |
| Carbon Disulfide                                  | ug/L  | 20          | 22         | 21          | 111       | 106        |             | 4   |                    |
| trans-1,2-Dichloroethylene                        | ug/L  | 20          | 23         | 23          | 114       | 113        |             | 1   |                    |
| 1,1-Dichloroethane                                | ug/L  | 20          | 23         | 22          | 115       | 112        |             | 3   |                    |
| Vinyl Acetate                                     | ug/L  | 20          | 24         | 18          | 122       | 92         |             | 28  |                    |
| 2-Butanone (MEK)                                  | ug/L  | 20          | 23         | 23          | 116       | 115        |             | 1   |                    |
| cis-1,2-Dichloroethylene                          | ug/L  | 20          | 23         | 23          | 114       | 114        | 70-130      | 1   | 20                 |
| Bromochloromethane                                | ug/L  | 20          | 24         | 24          | 119       | 119        |             | 1   |                    |
| Chloroform                                        | ug/L  | 20          | 24         | 23          | 118       | 115        | 70-130      | 3   | 20                 |
| 1,2-Dichloroethane                                | ug/L  | 20          | 22         | 22          | 111       | 110        |             | 1   |                    |
| 1,1,1-Trichloroethane                             | ug/L  | 20          | 23         | 23          | 116       | 114        |             | 2   |                    |
| Carbon Tetrachloride                              | ug/L  | 20          | 24         | 22          | 119       | 111        |             | 7   |                    |
| Benzene                                           | ug/L  | 20          | 23         | 23          | 117       | 114        | 70-130      | 3   | 20                 |
| Dibromomethane                                    | ug/L  | 20          | 23         | 23          | 116       | 115        |             | 1   |                    |
| 1,2-Dichloropropane                               | ug/L  | 20          | 23         | 23          | 114       | 113        |             | 1   |                    |
| Trichloroethene                                   | ug/L  | 20          | 22         | 23          | 112       | 114        | 70-130      | 2   | 20                 |
| Bromodichloromethane                              | ug/L  | 20          | 24         | 23          | 119       | 116        |             | 3   |                    |
| cis-1,3-Dichloropropene                           | ug/L  | 20          | 23         | 23          | 117       | 114        |             | 2   |                    |
| 4-Methyl-2-pentanone (MIBK)                       | ug/L  | 20          | 24         | 24          | 120       | 120        |             | 0   |                    |
| trans-1,3-Dichloropropylene                       | ug/L  | 20          | 24         | 23          | 120       | 113        |             | 7   |                    |
| 1,1,2-Trichloroethane                             | ug/L  | 20          | 23         | 22          | 116       | 111        |             | 4   |                    |
| Toluene                                           | ug/L  | 20          | 19         | 19          | 94        | 94         | 70-130      | 0   | 20                 |
| 2-Hexanone                                        | ug/L  | 20          | 20         | 21          | 102       | 104        |             | 2   |                    |
| Dibromochloromethane                              | ug/L  | 20          | 20         | 20          | 100       | 99         |             | 2   |                    |
| Ethylene Dibromide (EDB)                          | ug/L  | 20          | 21         | 21          | 104       | 104        |             | 0   |                    |
| Tetrachloroethylene (PCE)                         | ug/L  | 20          | 19         | 19          | 96        | 96         | 70-130      | 0   | 20                 |
| 1,1,1,2-Tetrachloroethane                         | ug/L  | 20          | 21         | 20          | 103       | 102        |             | 2   |                    |
| Chlorobenzene                                     | ug/L  | 20          | 20         | 20          | 98        | 100        | 70-130      | 2   | 20                 |
| Ethylbenzene                                      | ug/L  | 20          | 20         | 20          | 100       | 100        | 70-130      | 0   | 20                 |
| Bromoform                                         | ug/L  | 20          | 19         | 19          | 97        | 95         |             | 2   |                    |
| Styrene                                           | ug/L  | 20          | 21         | 20          | 104       | 102        |             | 1   |                    |
| 1,1,2,2-Tetrachloroethane                         | ug/L  | 20          | 21         | 21          | 105       | 103        |             | 2   |                    |
| 1,2,3-Trichloropropane                            | ug/L  | 20          | 21         | 22          | 105       | 110        |             | 5   |                    |
| 1,4-Dichlorobenzene                               | ug/L  | 20          | 18         | 18          | 92        | 88         |             | 4   |                    |
| 1,2-Dichlorobenzene                               | ug/L  | 20          | 19         | 18          | 93        | 92         | 70-130      | 1   | 20                 |
| 1,2-Dibromo-3-Chloropropane                       | ug/L  | 20          | 19         | 18          | 96        | 92         |             | 5   |                    |
| Xylene (Total)                                    | ug/L  | 60          | 61         | 61          | 102       | 101        | 70-130      | 1   | 20                 |
| 1,2-Dichloroethane-d4 (S)                         | %     |             |            |             | 92        | 92         | 70-128      | 0   |                    |
| Toluene-d8 (S)                                    | %     |             |            |             | 85        | 89         | 77-119      | 4   |                    |
| Bromofluorobenzene (S)                            | %     |             |            |             | 96        | 96         | 86-123      | 1   |                    |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE SAMPLE: 3417205

Original: J2003367001

| Parameter                      | Units | Original<br>Result | Spike<br>Conc. | MS<br>Result | MS<br>% Rec | % Rec<br>Limits | Qualifiers |
|--------------------------------|-------|--------------------|----------------|--------------|-------------|-----------------|------------|
| VOLATILES                      |       |                    |                |              |             |                 |            |
| Chloromethane                  | ug/L  | 0                  | 20             | 21           | 105         |                 |            |
| Vinyl Chloride                 | ug/L  | 9.9                | 20             | 25           | 75          | 70-130          |            |
| Bromomethane                   | ug/L  | 0                  | 20             | 21           | 104         |                 |            |
| Chloroethane                   | ug/L  | 0                  | 20             | 23           | 116         |                 |            |
| Trichlorofluoromethane         | ug/L  | 0                  | 20             | 24           | 123         |                 |            |
| Acetone                        | ug/L  | 0                  | 20             | 20           | 101         |                 |            |
| 1,1-Dichloroethylene           | ug/L  | 0                  | 20             | 24           | 119         | 70-130          |            |
| Iodomethane (Methyl<br>Iodide) | ug/L  | 0                  | 20             | 10           | 52          |                 |            |
| Acrylonitrile                  | ug/L  | 0                  | 20             | 24           | 121         |                 |            |
| Methylene Chloride             | ug/L  | 0                  | 20             | 21           | 104         |                 |            |
| Carbon Disulfide               | ug/L  | 0                  | 20             | 23           | 115         |                 |            |
| trans-1,2-Dichloroethylene     | ug/L  | 3.9                | 20             | 28           | 119         |                 |            |
| 1,1-Dichloroethane             | ug/L  | 0                  | 20             | 24           | 120         |                 |            |
| Vinyl Acetate                  | ug/L  | 0                  | 20             | 26           | 130         |                 |            |
| 2-Butanone (MEK)               | ug/L  | 0                  | 20             | 24           | 120         |                 |            |
| cis-1,2-Dichloroethylene       | ug/L  | 64                 | 20             | 88           | 120         | 70-130          |            |
| Bromochloromethane             | ug/L  | 0                  | 20             | 25           | 123         |                 |            |
| Chloroform                     | ug/L  | 3.6                | 20             | 28           | 123         | 70-130          |            |
| 1,2-Dichloroethane             | ug/L  | 0                  | 20             | 23           | 117         |                 |            |
| 1,1,1-Trichloroethane          | ug/L  | 0                  | 20             | 24           | 121         |                 |            |
| Carbon Tetrachloride           | ug/L  | 0                  | 20             | 25           | 123         |                 |            |
| Benzene                        | ug/L  | 0                  | 20             | 24           | 121         | 70-130          |            |
| Dibromomethane                 | ug/L  | 0                  | 20             | 24           | 118         |                 |            |
| 1,2-Dichloropropane            | ug/L  | 0                  | 20             | 24           | 118         |                 |            |
| Trichloroethene                | ug/L  |                    |                | 490          |             |                 |            |
| Bromodichloromethane           | ug/L  | 0                  | 20             | 25           | 126         |                 |            |
| cis-1,3-Dichloropropene        | ug/L  | 0                  | 20             | 24           | 122         |                 |            |
| 4-Methyl-2-pentanone<br>(MIBK) | ug/L  | 0                  | 20             | 25           | 127         |                 |            |
| trans-1,3-Dichloropropylene    | ug/L  | 0                  | 20             | 24           | 120         |                 |            |
| 1,1,2-Trichloroethane          | ug/L  | 0                  | 20             | 24           | 120         |                 |            |
| Toluene                        | ug/L  | 0                  | 20             | 20           | 100         | 70-130          |            |
| 2-Hexanone                     | ug/L  | 0                  | 20             | 23           | 113         |                 |            |
| Dibromochloromethane           | ug/L  | 0                  | 20             | 20           | 102         |                 |            |
| Ethylene Dibromide (EDB)       | ug/L  | 0                  | 20             | 22           | 110         |                 |            |
| Tetrachloroethylene (PCE)      | ug/L  | 0                  | 20             | 20           | 102         | 70-130          |            |
| 1,1,1,2-Tetrachloroethane      | ug/L  | 0                  | 20             | 22           | 108         |                 |            |
| Chlorobenzene                  | ug/L  | 0                  | 20             | 21           | 106         | 70-130          |            |
| Ethylbenzene                   | ug/L  | 0                  | 20             | 21           | 107         | 70-130          |            |
| Bromoform                      | ug/L  | 0                  | 20             | 21           | 103         |                 |            |
| Styrene                        | ug/L  | 0                  | 20             | 22           | 108         |                 |            |
| 1,1,2,2-Tetrachloroethane      | ug/L  | 0                  | 20             | 23           | 113         |                 |            |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE SAMPLE: 3417205

Original: J2003367001

| Parameter                   | Units | Original Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|-----------------------------|-------|-----------------|-------------|-----------|----------|--------------|------------|
| 1,2,3-Trichloropropane      | ug/L  | 0               | 20          | 23        | 117      |              |            |
| 1,4-Dichlorobenzene         | ug/L  | 0               | 20          | 19        | 97       |              |            |
| 1,2-Dichlorobenzene         | ug/L  | 0               | 20          | 20        | 101      | 70-130       |            |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 0               | 20          | 21        | 105      |              |            |
| Xylene (Total)              | ug/L  | 0               | 60          | 65        | 108      | 70-130       |            |
| 1,2-Dichloroethane-d4 (S)   | %     | 94              |             |           | 90       | 70-128       |            |
| Toluene-d8 (S)              | %     | 89              |             |           | 88       | 77-119       |            |
| Bromofluorobenzene (S)      | %     | 108             |             |           | 96       | 86-123       |            |

QC Batch: MSVJ/1384

Analysis Method: SW-846 8260B (SIM)

QC Batch Method: SW-846 5030B

Prepared: 03/12/2020 08:49

Associated Lab Samples: J2002766035, J2002766036, J2002766037, J2002766038, J2002766039, J2002766040, J2002766041

METHOD BLANK: 3417206

| Parameter                   | Units | Blank Result | Reporting Limit | Qualifiers |
|-----------------------------|-------|--------------|-----------------|------------|
| VOLATILES                   |       |              |                 |            |
| Ethylene Dibromide (EDB)    | ug/L  | 0.020        | 0.020           | U          |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 0.11         | 0.11            | U          |
| 1,2-Dichloroethane-d4 (S)   | %     | 86           | 77-125          |            |
| Toluene-d8 (S)              | %     | 89           | 80-121          |            |
| Bromofluorobenzene (S)      | %     | 94           | 80-129          |            |

LABORATORY CONTROL SAMPLE & LCSD: 3417207 3417208

| Parameter                   | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD | Qualifiers |
|-----------------------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|---------|------------|
| VOLATILES                   |       |             |            |             |           |            |             |     |         |            |
| Ethylene Dibromide (EDB)    | ug/L  | 0.8         | 0.84       | 0.73        | 105       | 91         | 70-130      | 14  | 30      |            |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 0.8         | 0.79       | 0.77        | 99        | 96         | 70-130      | 3   | 30      |            |
| 1,2-Dichloroethane-d4 (S)   | %     |             |            |             | 87        | 87         | 77-125      | 0   |         |            |
| Toluene-d8 (S)              | %     |             |            |             | 87        | 85         | 80-121      | 3   |         |            |
| Bromofluorobenzene (S)      | %     |             |            |             | 95        | 93         | 80-129      | 2   |         |            |

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## QUALITY CONTROL DATA

Workorder: J2002766 Trail Ridge Landfill

MATRIX SPIKE SAMPLE: 3417209

Original: J2002766035

| Parameter                   | Units | Original<br>Result | Spike<br>Conc. | MS<br>Result | MS<br>% Rec | % Rec<br>Limits | Qualifiers |
|-----------------------------|-------|--------------------|----------------|--------------|-------------|-----------------|------------|
| VOLATILES                   |       |                    |                |              |             |                 |            |
| Ethylene Dibromide (EDB)    | ug/L  | 0                  | 0.8            | 0.71         | 89          | 70-130          |            |
| 1,2-Dibromo-3-Chloropropane | ug/L  | 0                  | 0.8            | 0.71         | 89          | 70-130          |            |
| 1,2-Dichloroethane-d4 (S)   | %     | 77                 |                |              | 89          | 77-125          |            |
| Toluene-d8 (S)              | %     | 82                 |                |              | 88          | 80-121          |            |
| Bromofluorobenzene (S)      | %     | 85                 |                |              | 97          | 80-129          |            |

## QUALITY CONTROL DATA QUALIFIERS

Workorder: J2002766 Trail Ridge Landfill

### QUALITY CONTROL PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J4 Estimated Result
- [2] samples 1-5 filtered 3/4/20 17:45

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J2002766 Trail Ridge Landfill

| Lab ID      | Sample ID          | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|-------------|--------------------|-------------|------------|-----------------|----------------|
| J2002766001 | MWB11I (R)         |             |            | EPA 300.0       | WCAj/1462      |
| J2002766002 | MWB2I              |             |            | EPA 300.0       | WCAj/1462      |
| J2002766003 | MWB12I             |             |            | EPA 300.0       | WCAj/1462      |
| J2002766004 | MWB13I             |             |            | EPA 300.0       | WCAj/1462      |
| J2002766005 | MWB29I             |             |            | EPA 300.0       | WCAj/1462      |
| J2002766006 | MWB27I             |             |            | EPA 300.0       | WCAj/1462      |
| J2002766007 | MWB27S             |             |            | EPA 300.0       | WCAj/1462      |
| J2002766008 | MWB29S             |             |            | EPA 300.0       | WCAj/1462      |
| J2002766009 | MWB13S             |             |            | EPA 300.0       | WCAj/1462      |
| J2002766010 | MWB22S             |             |            | EPA 300.0       | WCAj/1462      |
| J2002766011 | MWB12S             |             |            | EPA 300.0       | WCAj/1462      |
| J2002766012 | MWB2S              |             |            | EPA 300.0       | WCAj/1462      |
| J2002766013 | MWB20S             |             |            | EPA 300.0       | WCAj/1462      |
| J2002766014 | MWB21S             |             |            | EPA 300.0       | WCAj/1462      |
| J2002766015 | Equipment Blank #1 |             |            | EPA 300.0       | WCAj/1462      |
| J2002766001 | MWB11I (R)         |             |            | SM 2540 C       | WCAj/1465      |
| J2002766002 | MWB2I              |             |            | SM 2540 C       | WCAj/1465      |
| J2002766003 | MWB12I             |             |            | SM 2540 C       | WCAj/1465      |
| J2002766004 | MWB13I             |             |            | SM 2540 C       | WCAj/1465      |
| J2002766005 | MWB29I             |             |            | SM 2540 C       | WCAj/1465      |
| J2002766006 | MWB27I             |             |            | SM 2540 C       | WCAj/1465      |
| J2002766007 | MWB27S             |             |            | SM 2540 C       | WCAj/1465      |
| J2002766008 | MWB29S             |             |            | SM 2540 C       | WCAj/1465      |
| J2002766009 | MWB13S             |             |            | SM 2540 C       | WCAj/1465      |
| J2002766017 | MWB-3S             |             |            | EPA 300.0       | WCAj/1467      |
| J2002766018 | MWB-40S            |             |            | EPA 300.0       | WCAj/1467      |
| J2002766019 | MWB-39S            |             |            | EPA 300.0       | WCAj/1467      |
| J2002766024 | MWB-39I            |             |            | EPA 300.0       | WCAj/1467      |
| J2002766020 | MWB-35S            |             |            | EPA 300.0       | WCAj/1480      |
| J2002766021 | SGMW-2S            |             |            | EPA 300.0       | WCAj/1480      |
| J2002766022 | SGMW-15R           |             |            | EPA 300.0       | WCAj/1480      |

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J2002766 Trail Ridge Landfill

| Lab ID      | Sample ID          | Prep Method  | Prep Batch | Analysis Method | Analysis Batch |
|-------------|--------------------|--------------|------------|-----------------|----------------|
| J2002766025 | MWB-3I             |              |            | EPA 300.0       | WCAj/1480      |
| J2002766026 | MWB-35I            |              |            | EPA 300.0       | WCAj/1480      |
| J2002766027 | Equipment Blank #1 |              |            | EPA 300.0       | WCAj/1480      |
| J2002766028 | MWB-32I            |              |            | EPA 300.0       | WCAj/1480      |
| J2002766029 | MWB-34I            |              |            | EPA 300.0       | WCAj/1480      |
| J2002766030 | MWB-11S            |              |            | EPA 300.0       | WCAj/1480      |
| J2002766031 | MWB-32S            |              |            | EPA 300.0       | WCAj/1480      |
| J2002766032 | MWB-33S            |              |            | EPA 300.0       | WCAj/1480      |
| J2002766033 | MWB-34S            |              |            | EPA 300.0       | WCAj/1480      |
| J2002766035 | SW-3               |              |            | EPA 300.0       | WCAj/1486      |
| J2002766036 | SW-6               |              |            | EPA 300.0       | WCAj/1486      |
| J2002766037 | SW-7               |              |            | EPA 300.0       | WCAj/1486      |
| J2002766038 | SW-5               |              |            | EPA 300.0       | WCAj/1486      |
| J2002766039 | SW-4               |              |            | EPA 300.0       | WCAj/1486      |
| J2002766040 | SW-1               |              |            | EPA 300.0       | WCAj/1486      |
| J2002766017 | MWB-3S             | SW-846 3010A | DGMj/1220  | SW-846 6010     | ICPj/1105      |
| J2002766018 | MWB-40S            | SW-846 3010A | DGMj/1220  | SW-846 6010     | ICPj/1105      |
| J2002766019 | MWB-39S            | SW-846 3010A | DGMj/1220  | SW-846 6010     | ICPj/1105      |
| J2002766020 | MWB-35S            | SW-846 3010A | DGMj/1220  | SW-846 6010     | ICPj/1105      |
| J2002766021 | SGMW-2S            | SW-846 3010A | DGMj/1220  | SW-846 6010     | ICPj/1105      |
| J2002766022 | SGMW-15R           | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766024 | MWB-39I            | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766025 | MWB-3I             | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766026 | MWB-35I            | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766027 | Equipment Blank #1 | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766028 | MWB-32I            | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766029 | MWB-34I            | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766030 | MWB-11S            | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766031 | MWB-32S            | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766032 | MWB-33S            | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766033 | MWB-34S            | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J2002766 Trail Ridge Landfill

| Lab ID      | Sample ID          | Prep Method  | Prep Batch | Analysis Method | Analysis Batch |
|-------------|--------------------|--------------|------------|-----------------|----------------|
| J2002766035 | SW-3               | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766036 | SW-6               | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766037 | SW-7               | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766038 | SW-5               | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766039 | SW-4               | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766040 | SW-1               | SW-846 3010A | DGMj/1221  | SW-846 6010     | ICPj/1104      |
| J2002766017 | MWB-3S             | SW-846 3010A | DGMj/1222  | SW-846 6020     | ICMj/1068      |
| J2002766018 | MWB-40S            | SW-846 3010A | DGMj/1222  | SW-846 6020     | ICMj/1068      |
| J2002766019 | MWB-39S            | SW-846 3010A | DGMj/1222  | SW-846 6020     | ICMj/1068      |
| J2002766020 | MWB-35S            | SW-846 3010A | DGMj/1222  | SW-846 6020     | ICMj/1068      |
| J2002766021 | SGMW-2S            | SW-846 3010A | DGMj/1222  | SW-846 6020     | ICMj/1068      |
| J2002766022 | SGMW-15R           | SW-846 3010A | DGMj/1222  | SW-846 6020     | ICMj/1068      |
| J2002766010 | MWB22S             |              |            | SM 2540 C       | WCAj/1500      |
| J2002766011 | MWB12S             |              |            | SM 2540 C       | WCAj/1500      |
| J2002766012 | MWB2S              |              |            | SM 2540 C       | WCAj/1500      |
| J2002766013 | MWB20S             |              |            | SM 2540 C       | WCAj/1500      |
| J2002766014 | MWB21S             |              |            | SM 2540 C       | WCAj/1500      |
| J2002766015 | Equipment Blank #1 |              |            | SM 2540 C       | WCAj/1500      |
| J2002766017 | MWB-3S             |              |            | SM 2540 C       | WCAj/1500      |
| J2002766018 | MWB-40S            |              |            | SM 2540 C       | WCAj/1500      |
| J2002766019 | MWB-39S            |              |            | SM 2540 C       | WCAj/1500      |
| J2002766020 | MWB-35S            |              |            | SM 2540 C       | WCAj/1500      |
| J2002766021 | SGMW-2S            |              |            | SM 2540 C       | WCAj/1500      |
| J2002766022 | SGMW-15R           |              |            | SM 2540 C       | WCAj/1500      |
| J2002766024 | MWB-39I            |              |            | SM 2540 C       | WCAj/1500      |
| J2002766025 | MWB-3I             |              |            | SM 2540 C       | WCAj/1500      |
| J2002766026 | MWB-35I            |              |            | SM 2540 C       | WCAj/1500      |
| J2002766027 | Equipment Blank #1 |              |            | SM 2540 C       | WCAj/1500      |
| J2002766028 | MWB-32I            |              |            | SM 2540 C       | WCAj/1500      |
| J2002766035 | SW-3               |              |            | SM 5210B        | WCAj/1501      |
| J2002766036 | SW-6               |              |            | SM 5210B        | WCAj/1501      |

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J2002766 Trail Ridge Landfill

| Lab ID      | Sample ID  | Prep Method              | Prep Batch | Analysis Method | Analysis Batch |
|-------------|------------|--------------------------|------------|-----------------|----------------|
| J2002766037 | SW-7       |                          |            | SM 5210B        | WCAj/1501      |
| J2002766038 | SW-5       |                          |            | SM 5210B        | WCAj/1501      |
| J2002766039 | SW-4       |                          |            | SM 5210B        | WCAj/1501      |
| J2002766040 | SW-1       |                          |            | SM 5210B        | WCAj/1501      |
| J2002766001 | MWB11I (R) |                          |            | EPA 350.1       | WCAg/1679      |
| J2002766002 | MWB2I      |                          |            | EPA 350.1       | WCAg/1679      |
| J2002766003 | MWB12I     |                          |            | EPA 350.1       | WCAg/1679      |
| J2002766004 | MWB13I     |                          |            | EPA 350.1       | WCAg/1680      |
| J2002766005 | MWB29I     |                          |            | EPA 350.1       | WCAg/1680      |
| J2002766006 | MWB27I     |                          |            | EPA 350.1       | WCAg/1680      |
| J2002766007 | MWB27S     |                          |            | EPA 350.1       | WCAg/1680      |
| J2002766008 | MWB29S     |                          |            | EPA 350.1       | WCAg/1680      |
| J2002766009 | MWB13S     |                          |            | EPA 350.1       | WCAg/1680      |
| J2002766010 | MWB22S     |                          |            | EPA 350.1       | WCAg/1680      |
| J2002766011 | MWB12S     |                          |            | EPA 350.1       | WCAg/1680      |
| J2002766012 | MWB2S      |                          |            | EPA 350.1       | WCAg/1680      |
| J2002766013 | MWB20S     |                          |            | EPA 350.1       | WCAg/1680      |
| J2002766035 | SW-3       | Copper Sulfate Digestion | WCAg/1701  | EPA 351.2       | WCAg/1706      |
| J2002766036 | SW-6       | Copper Sulfate Digestion | WCAg/1701  | EPA 351.2       | WCAg/1706      |
| J2002766037 | SW-7       | Copper Sulfate Digestion | WCAg/1701  | EPA 351.2       | WCAg/1706      |
| J2002766038 | SW-5       | Copper Sulfate Digestion | WCAg/1701  | EPA 351.2       | WCAg/1706      |
| J2002766039 | SW-4       | Copper Sulfate Digestion | WCAg/1701  | EPA 351.2       | WCAg/1706      |
| J2002766040 | SW-1       | Copper Sulfate Digestion | WCAg/1701  | EPA 351.2       | WCAg/1706      |
| J2002766035 | SW-3       | Copper Sulfate Digestion | WCAg/1701  | EPA 365.4       | WCAg/1707      |
| J2002766036 | SW-6       | Copper Sulfate Digestion | WCAg/1701  | EPA 365.4       | WCAg/1707      |
| J2002766037 | SW-7       | Copper Sulfate Digestion | WCAg/1701  | EPA 365.4       | WCAg/1707      |
| J2002766038 | SW-5       | Copper Sulfate Digestion | WCAg/1701  | EPA 365.4       | WCAg/1707      |
| J2002766039 | SW-4       | Copper Sulfate Digestion | WCAg/1701  | EPA 365.4       | WCAg/1707      |
| J2002766040 | SW-1       | Copper Sulfate Digestion | WCAg/1701  | EPA 365.4       | WCAg/1707      |

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J2002766 Trail Ridge Landfill

| Lab ID      | Sample ID          | Prep Method | Prep Batch | Analysis Method               | Analysis Batch |
|-------------|--------------------|-------------|------------|-------------------------------|----------------|
| J2002766035 | SW-3               | EPA 245.1   | DGMj/1237  | EPA 245.1                     | CVAj/1048      |
| J2002766036 | SW-6               | EPA 245.1   | DGMj/1237  | EPA 245.1                     | CVAj/1048      |
| J2002766037 | SW-7               | EPA 245.1   | DGMj/1237  | EPA 245.1                     | CVAj/1048      |
| J2002766038 | SW-5               | EPA 245.1   | DGMj/1237  | EPA 245.1                     | CVAj/1048      |
| J2002766039 | SW-4               | EPA 245.1   | DGMj/1237  | EPA 245.1                     | CVAj/1048      |
| J2002766040 | SW-1               | EPA 245.1   | DGMj/1237  | EPA 245.1                     | CVAj/1048      |
| J2002766029 | MWB-34I            |             |            | SM 2540 C                     | WCAj/1535      |
| J2002766030 | MWB-11S            |             |            | SM 2540 C                     | WCAj/1535      |
| J2002766031 | MWB-32S            |             |            | SM 2540 C                     | WCAj/1535      |
| J2002766032 | MWB-33S            |             |            | SM 2540 C                     | WCAj/1535      |
| J2002766033 | MWB-34S            |             |            | SM 2540 C                     | WCAj/1535      |
| J2002766035 | SW-3               |             |            | SM 2540 C                     | WCAj/1535      |
| J2002766036 | SW-6               |             |            | SM 2540 C                     | WCAj/1535      |
| J2002766037 | SW-7               |             |            | SM 2540 C                     | WCAj/1535      |
| J2002766038 | SW-5               |             |            | SM 2540 C                     | WCAj/1535      |
| J2002766035 | SW-3               |             |            | COLILERT-18 (Fecal Coliforms) | MICj/1260      |
| J2002766036 | SW-6               |             |            | COLILERT-18 (Fecal Coliforms) | MICj/1260      |
| J2002766037 | SW-7               |             |            | COLILERT-18 (Fecal Coliforms) | MICj/1260      |
| J2002766038 | SW-5               |             |            | COLILERT-18 (Fecal Coliforms) | MICj/1260      |
| J2002766039 | SW-4               |             |            | COLILERT-18 (Fecal Coliforms) | MICj/1260      |
| J2002766040 | SW-1               |             |            | COLILERT-18 (Fecal Coliforms) | MICj/1260      |
| J2002766014 | MWB21S             |             |            | EPA 350.1                     | WCAg/1727      |
| J2002766015 | Equipment Blank #1 |             |            | EPA 350.1                     | WCAg/1727      |
| J2002766017 | MWB-3S             |             |            | EPA 350.1                     | WCAg/1727      |
| J2002766018 | MWB-40S            |             |            | EPA 350.1                     | WCAg/1728      |
| J2002766019 | MWB-39S            |             |            | EPA 350.1                     | WCAg/1728      |
| J2002766020 | MWB-35S            |             |            | EPA 350.1                     | WCAg/1728      |
| J2002766021 | SGMW-2S            |             |            | EPA 350.1                     | WCAg/1728      |

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| Lab ID      | Sample ID          | Prep Method  | Prep Batch | Analysis Method | Analysis Batch |
|-------------|--------------------|--------------|------------|-----------------|----------------|
| J2002766022 | SGMW-15R           |              |            | EPA 350.1       | WCAg/1728      |
| J2002766024 | MWB-39I            |              |            | EPA 350.1       | WCAg/1728      |
| J2002766025 | MWB-3I             |              |            | EPA 350.1       | WCAg/1728      |
| J2002766026 | MWB-35I            |              |            | EPA 350.1       | WCAg/1728      |
| J2002766027 | Equipment Blank #1 |              |            | EPA 350.1       | WCAg/1728      |
| J2002766028 | MWB-32I            |              |            | EPA 350.1       | WCAg/1728      |
| J2002766029 | MWB-34I            |              |            | EPA 350.1       | WCAg/1729      |
| J2002766030 | MWB-11S            |              |            | EPA 350.1       | WCAg/1729      |
| J2002766031 | MWB-32S            |              |            | EPA 350.1       | WCAg/1729      |
| J2002766032 | MWB-33S            |              |            | EPA 350.1       | WCAg/1729      |
| J2002766033 | MWB-34S            |              |            | EPA 350.1       | WCAg/1729      |
| J2002766035 | SW-3               |              |            | EPA 350.1       | WCAg/1729      |
| J2002766036 | SW-6               |              |            | EPA 350.1       | WCAg/1729      |
| J2002766037 | SW-7               |              |            | EPA 350.1       | WCAg/1729      |
| J2002766038 | SW-5               |              |            | EPA 350.1       | WCAg/1729      |
| J2002766039 | SW-4               |              |            | EPA 350.1       | WCAg/1729      |
| J2002766040 | SW-1               |              |            | EPA 350.1       | WCAg/1730      |
| J2002766039 | SW-4               |              |            | SM 2540 C       | WCAj/1553      |
| J2002766040 | SW-1               |              |            | SM 2540 C       | WCAj/1553      |
| J2002766035 | SW-3               |              |            | SM 5310B        | WCAg/1746      |
| J2002766036 | SW-6               |              |            | SM 5310B        | WCAg/1746      |
| J2002766037 | SW-7               |              |            | SM 5310B        | WCAg/1746      |
| J2002766038 | SW-5               |              |            | SM 5310B        | WCAg/1746      |
| J2002766039 | SW-4               |              |            | SM 5310B        | WCAg/1746      |
| J2002766040 | SW-1               |              |            | SM 5310B        | WCAg/1746      |
| J2002766001 | MWB11I (R)         | SW-846 3010A | DGMj/1247  | SW-846 6010     | ICPj/1127      |
| J2002766002 | MWB2I              | SW-846 3010A | DGMj/1247  | SW-846 6010     | ICPj/1127      |
| J2002766003 | MWB12I             | SW-846 3010A | DGMj/1247  | SW-846 6010     | ICPj/1127      |

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J2002766 Trail Ridge Landfill

| Lab ID      | Sample ID          | Prep Method  | Prep Batch | Analysis Method | Analysis Batch |
|-------------|--------------------|--------------|------------|-----------------|----------------|
| J2002766004 | MWB13I             | SW-846 3010A | DGMj/1247  | SW-846 6010     | ICPj/1127      |
| J2002766005 | MWB29I             | SW-846 3010A | DGMj/1247  | SW-846 6010     | ICPj/1127      |
| J2002766006 | MWB27I             | SW-846 3010A | DGMj/1247  | SW-846 6010     | ICPj/1127      |
| J2002766007 | MWB27S             | SW-846 3010A | DGMj/1247  | SW-846 6010     | ICPj/1127      |
| J2002766008 | MWB29S             | SW-846 3010A | DGMj/1248  | SW-846 6010     | ICPj/1123      |
| J2002766009 | MWB13S             | SW-846 3010A | DGMj/1248  | SW-846 6010     | ICPj/1123      |
| J2002766010 | MWB22S             | SW-846 3010A | DGMj/1248  | SW-846 6010     | ICPj/1123      |
| J2002766011 | MWB12S             | SW-846 3010A | DGMj/1248  | SW-846 6010     | ICPj/1123      |
| J2002766012 | MWB2S              | SW-846 3010A | DGMj/1248  | SW-846 6010     | ICPj/1123      |
| J2002766013 | MWB20S             | SW-846 3010A | DGMj/1248  | SW-846 6010     | ICPj/1123      |
| J2002766014 | MWB21S             | SW-846 3010A | DGMj/1248  | SW-846 6010     | ICPj/1123      |
| J2002766015 | Equipment Blank #1 | SW-846 3010A | DGMj/1248  | SW-846 6010     | ICPj/1123      |
| J2002766007 | MWB27S             | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766008 | MWB29S             | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766009 | MWB13S             | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766010 | MWB22S             | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766011 | MWB12S             | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766012 | MWB2S              | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766013 | MWB20S             | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766014 | MWB21S             | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766015 | Equipment Blank #1 | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766030 | MWB-11S            | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766031 | MWB-32S            | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766032 | MWB-33S            | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766033 | MWB-34S            | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766035 | SW-3               | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766036 | SW-6               | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766037 | SW-7               | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766038 | SW-5               | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766039 | SW-4               | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |
| J2002766040 | SW-1               | SW-846 3010A | DGMj/1257  | SW-846 6020     | ICMj/1080      |

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J2002766 Trail Ridge Landfill

| Lab ID      | Sample ID          | Prep Method  | Prep Batch | Analysis Method    | Analysis Batch |
|-------------|--------------------|--------------|------------|--------------------|----------------|
| J2002766007 | MWB27S             | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766008 | MWB29S             | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766009 | MWB13S             | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766010 | MWB22S             | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766011 | MWB12S             | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766012 | MWB2S              | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766013 | MWB20S             | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766014 | MWB21S             | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766015 | Equipment Blank #1 | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766016 | Trip Blank #1      | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766017 | MWB-3S             | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766018 | MWB-40S            | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766019 | MWB-39S            | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766020 | MWB-35S            | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766021 | SGMW-2S            | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766022 | SGMW-15R           | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766023 | TRIP               | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766030 | MWB-11S            | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
| J2002766031 | MWB-32S            | SW-846 5030B | MSVj/1360  | SW-846 8260B       | MSVj/1361      |
|             |                    |              |            |                    |                |
| J2002766007 | MWB27S             | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766008 | MWB29S             | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766009 | MWB13S             | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766010 | MWB22S             | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766011 | MWB12S             | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766012 | MWB2S              | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766013 | MWB20S             | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766014 | MWB21S             | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766015 | Equipment Blank #1 | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766016 | Trip Blank #1      | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766017 | MWB-3S             | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766018 | MWB-40S            | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766019 | MWB-39S            | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766020 | MWB-35S            | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |

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Workorder: J2002766 Trail Ridge Landfill

| Lab ID      | Sample ID          | Prep Method  | Prep Batch | Analysis Method    | Analysis Batch |
|-------------|--------------------|--------------|------------|--------------------|----------------|
| J2002766021 | SGMW-2S            | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766022 | SGMW-15R           | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766023 | TRIP               | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766030 | MWB-11S            | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766031 | MWB-32S            | SW-846 5030B | MSVj/1362  | SW-846 8260B (SIM) | MSVj/1363      |
| J2002766032 | MWB-33S            | SW-846 5030B | MSVj/1364  | SW-846 8260B       | MSVj/1365      |
| J2002766033 | MWB-34S            | SW-846 5030B | MSVj/1364  | SW-846 8260B       | MSVj/1365      |
| J2002766034 | TRIP               | SW-846 5030B | MSVj/1364  | SW-846 8260B       | MSVj/1365      |
| J2002766007 | MWB27S             | SW-846 7470A | DGMj/1265  | SW-846 7470A       | CVAj/1054      |
| J2002766008 | MWB29S             | SW-846 7470A | DGMj/1265  | SW-846 7470A       | CVAj/1054      |
| J2002766009 | MWB13S             | SW-846 7470A | DGMj/1265  | SW-846 7470A       | CVAj/1054      |
| J2002766010 | MWB22S             | SW-846 7470A | DGMj/1265  | SW-846 7470A       | CVAj/1054      |
| J2002766011 | MWB12S             | SW-846 7470A | DGMj/1265  | SW-846 7470A       | CVAj/1054      |
| J2002766012 | MWB2S              | SW-846 7470A | DGMj/1265  | SW-846 7470A       | CVAj/1054      |
| J2002766013 | MWB20S             | SW-846 7470A | DGMj/1265  | SW-846 7470A       | CVAj/1054      |
| J2002766014 | MWB21S             | SW-846 7470A | DGMj/1265  | SW-846 7470A       | CVAj/1054      |
| J2002766032 | MWB-33S            | SW-846 5030B | MSVj/1366  | SW-846 8260B (SIM) | MSVj/1367      |
| J2002766033 | MWB-34S            | SW-846 5030B | MSVj/1366  | SW-846 8260B (SIM) | MSVj/1367      |
| J2002766034 | TRIP               | SW-846 5030B | MSVj/1366  | SW-846 8260B (SIM) | MSVj/1367      |
| J2002766015 | Equipment Blank #1 | SW-846 7470A | DGMj/1266  | SW-846 7470A       | CVAj/1055      |
| J2002766017 | MWB-3S             | SW-846 7470A | DGMj/1266  | SW-846 7470A       | CVAj/1055      |
| J2002766018 | MWB-40S            | SW-846 7470A | DGMj/1266  | SW-846 7470A       | CVAj/1055      |
| J2002766019 | MWB-39S            | SW-846 7470A | DGMj/1266  | SW-846 7470A       | CVAj/1055      |
| J2002766020 | MWB-35S            | SW-846 7470A | DGMj/1266  | SW-846 7470A       | CVAj/1055      |
| J2002766021 | SGMW-2S            | SW-846 7470A | DGMj/1266  | SW-846 7470A       | CVAj/1055      |
| J2002766022 | SGMW-15R           | SW-846 7470A | DGMj/1266  | SW-846 7470A       | CVAj/1055      |
| J2002766030 | MWB-11S            | SW-846 7470A | DGMj/1266  | SW-846 7470A       | CVAj/1055      |
| J2002766031 | MWB-32S            | SW-846 7470A | DGMj/1266  | SW-846 7470A       | CVAj/1055      |
| J2002766032 | MWB-33S            | SW-846 7470A | DGMj/1266  | SW-846 7470A       | CVAj/1055      |

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| Lab ID      | Sample ID | Prep Method  | Prep Batch | Analysis Method    | Analysis Batch |
|-------------|-----------|--------------|------------|--------------------|----------------|
| J2002766033 | MWB-34S   | SW-846 7470A | DGMj/1266  | SW-846 7470A       | CVAj/1055      |
| J2002766035 | SW-3      |              |            | SM 10200 H         | WCAg/1799      |
| J2002766036 | SW-6      |              |            | SM 10200 H         | WCAg/1799      |
| J2002766037 | SW-7      |              |            | SM 10200 H         | WCAg/1799      |
| J2002766038 | SW-5      |              |            | SM 10200 H         | WCAg/1799      |
| J2002766039 | SW-4      |              |            | SM 10200 H         | WCAg/1799      |
| J2002766040 | SW-1      |              |            | SM 10200 H         | WCAg/1799      |
| J2002766035 | SW-3      |              |            | EPA 410.4          | WCAg/1806      |
| J2002766036 | SW-6      |              |            | EPA 410.4          | WCAg/1806      |
| J2002766037 | SW-7      |              |            | EPA 410.4          | WCAg/1806      |
| J2002766038 | SW-5      |              |            | EPA 410.4          | WCAg/1806      |
| J2002766039 | SW-4      |              |            | EPA 410.4          | WCAg/1806      |
| J2002766040 | SW-1      |              |            | EPA 410.4          | WCAg/1806      |
| J2002766035 | SW-3      | SW-846 5030B | MSVj/1382  | SW-846 8260B       | MSVj/1383      |
| J2002766036 | SW-6      | SW-846 5030B | MSVj/1382  | SW-846 8260B       | MSVj/1383      |
| J2002766037 | SW-7      | SW-846 5030B | MSVj/1382  | SW-846 8260B       | MSVj/1383      |
| J2002766038 | SW-5      | SW-846 5030B | MSVj/1382  | SW-846 8260B       | MSVj/1383      |
| J2002766039 | SW-4      | SW-846 5030B | MSVj/1382  | SW-846 8260B       | MSVj/1383      |
| J2002766040 | SW-1      | SW-846 5030B | MSVj/1382  | SW-846 8260B       | MSVj/1383      |
| J2002766041 | Trip      | SW-846 5030B | MSVj/1382  | SW-846 8260B       | MSVj/1383      |
| J2002766035 | SW-3      | SW-846 5030B | MSVj/1384  | SW-846 8260B (SIM) | MSVj/1385      |
| J2002766036 | SW-6      | SW-846 5030B | MSVj/1384  | SW-846 8260B (SIM) | MSVj/1385      |
| J2002766037 | SW-7      | SW-846 5030B | MSVj/1384  | SW-846 8260B (SIM) | MSVj/1385      |
| J2002766038 | SW-5      | SW-846 5030B | MSVj/1384  | SW-846 8260B (SIM) | MSVj/1385      |
| J2002766039 | SW-4      | SW-846 5030B | MSVj/1384  | SW-846 8260B (SIM) | MSVj/1385      |
| J2002766040 | SW-1      | SW-846 5030B | MSVj/1384  | SW-846 8260B (SIM) | MSVj/1385      |
| J2002766041 | Trip      | SW-846 5030B | MSVj/1384  | SW-846 8260B (SIM) | MSVj/1385      |
| J2002766035 | SW-3      | Calculation  | CLCg/      | Calculation        | CLCg/          |

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J2002766 Trail Ridge Landfill

| Lab ID      | Sample ID | Prep Method      | Prep Batch | Analysis Method  | Analysis Batch |
|-------------|-----------|------------------|------------|------------------|----------------|
| J2002766035 | SW-3      | DEP SOP 10/03/83 | WCAG/      | DEP SOP 10/03/83 | WCAG/          |
| J2002766036 | SW-6      | Calculation      | CLCg/      | Calculation      | CLCg/          |
| J2002766036 | SW-6      | DEP SOP 10/03/83 | WCAG/      | DEP SOP 10/03/83 | WCAG/          |
| J2002766037 | SW-7      | Calculation      | CLCg/      | Calculation      | CLCg/          |
| J2002766037 | SW-7      | DEP SOP 10/03/83 | WCAG/      | DEP SOP 10/03/83 | WCAG/          |
| J2002766038 | SW-5      | Calculation      | CLCg/      | Calculation      | CLCg/          |
| J2002766038 | SW-5      | DEP SOP 10/03/83 | WCAG/      | DEP SOP 10/03/83 | WCAG/          |
| J2002766039 | SW-4      | Calculation      | CLCg/      | Calculation      | CLCg/          |
| J2002766039 | SW-4      | DEP SOP 10/03/83 | WCAG/      | DEP SOP 10/03/83 | WCAG/          |
| J2002766040 | SW-1      | Calculation      | CLCg/      | Calculation      | CLCg/          |
| J2002766040 | SW-1      | DEP SOP 10/03/83 | WCAG/      | DEP SOP 10/03/83 | WCAG/          |

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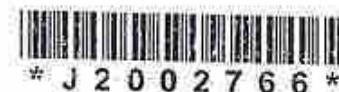




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|                                                                            |  |                                                                                                                                                                          |  |                    |  |                   |  |  |  |  |  |                        |  |  |  |  |  |            |  |            |  |
|----------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|--|-------------------|--|--|--|--|--|------------------------|--|--|--|--|--|------------|--|------------|--|
| CLIENT NAME: <b>CITY OF JACKSONVILLE</b>                                   |  | PROJECT NAME: <b>Trail Ridge Landfill</b>                                                                                                                                |  | BOTTLE SIZE & TYPE |  | ANALYSIS REQUIRED |  |  |  |  |  | LABORATORY I.D. NUMBER |  |  |  |  |  |            |  |            |  |
| ADDRESS: <b>214 North Hogan Street, 10th Floor</b>                         |  | P.O. NUMBER/PROJECT NUMBER: <b>608372:4</b>                                                                                                                              |  | 250mL poly         |  |                   |  |  |  |  |  |                        |  |  |  |  |  | 250mL poly |  | 125mL poly |  |
| <b>Jacksonville, FL 32202</b>                                              |  | PROJECT LOCATION:                                                                                                                                                        |  |                    |  |                   |  |  |  |  |  |                        |  |  |  |  |  |            |  |            |  |
| PHONE: <b>(904)-255-7513</b>                                               |  | REMARKS/SPECIAL INSTRUCTIONS:                                                                                                                                            |  |                    |  |                   |  |  |  |  |  |                        |  |  |  |  |  |            |  |            |  |
| FAX:                                                                       |  | <b>Ground Water Intermediate Wells</b><br>CEC Contact: Jim Christiansen<br><br><b>33628, TRAIL RIDGE LANDFILL, INC. (ADaPT)</b><br><b>AEL Jax Profile: 30178, Line 4</b> |  |                    |  |                   |  |  |  |  |  |                        |  |  |  |  |  |            |  |            |  |
| CONTACT: <b>Eric B. Fuller</b>                                             |  |                                                                                                                                                                          |  |                    |  |                   |  |  |  |  |  |                        |  |  |  |  |  |            |  |            |  |
| SAMPLED BY:                                                                |  |                                                                                                                                                                          |  |                    |  |                   |  |  |  |  |  |                        |  |  |  |  |  |            |  |            |  |
| TURN AROUND TIME:                                                          |  |                                                                                                                                                                          |  |                    |  |                   |  |  |  |  |  |                        |  |  |  |  |  |            |  |            |  |
| <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> RUSH |  |                                                                                                                                                                          |  |                    |  |                   |  |  |  |  |  |                        |  |  |  |  |  |            |  |            |  |

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING |      | MATRIX | NO. COUNT | PRESERVATION | ANALYSIS REQUIRED |                |                 | LABORATORY I.D. NUMBER |      |       |  |  |  |     |
|-----------|--------------------|-----------|----------|------|--------|-----------|--------------|-------------------|----------------|-----------------|------------------------|------|-------|--|--|--|-----|
|           |                    |           | DATE     | TIME |        |           |              | Fe, Na by 6010    | NO3 / Cl / TDS | Ammonia-N 350.1 | HN03                   | None | H2SO4 |  |  |  |     |
|           | MWB 11 I (R)       | 6         | 2-26     | 1227 | W      | 3         |              | 1                 | 1              | 1               |                        |      |       |  |  |  | 001 |
|           | MWB 2 I            | 6         | 2-26     | 1125 | W      | 3         |              | 1                 | 1              | 1               |                        |      |       |  |  |  | 002 |
|           | MWB 12 I           | 6         | 2-26     | 1024 | W      | 3         |              | 1                 | 1              | 1               |                        |      |       |  |  |  | 003 |
|           | MWB 13 I           | 6         | 2-26     | 0853 | W      | 3         |              | 1                 | 1              | 1               |                        |      |       |  |  |  | 004 |
|           | MWB 29 I           | 6         | 2-26     | 0754 | W      | 3         |              | 1                 | 1              | 1               |                        |      |       |  |  |  | 005 |
|           | MWB 27 I           | 6         | 2-26     | 0651 | W      | 3         |              | 1                 | 1              | 1               |                        |      |       |  |  |  | 006 |
|           |                    |           |          |      |        |           |              |                   |                |                 |                        |      |       |  |  |  |     |
|           |                    |           |          |      |        |           |              |                   |                |                 |                        |      |       |  |  |  |     |
|           |                    |           |          |      |        |           |              |                   |                |                 |                        |      |       |  |  |  |     |
|           |                    |           |          |      |        |           |              |                   |                |                 |                        |      |       |  |  |  |     |
|           |                    |           |          |      |        |           |              |                   |                |                 |                        |      |       |  |  |  |     |
|           |                    |           |          |      |        |           |              |                   |                |                 |                        |      |       |  |  |  |     |
|           |                    |           |          |      |        |           |              |                   |                |                 |                        |      |       |  |  |  |     |

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge

Preservation Code: I = Ice H = (HCl) S = (H2SO4) N = (HN03) T = (Sodium Thiosulfate)

Received on Ice ☒ Yes ☐ No ☒ Temp taken from sample ☐ Temp from temp blank ☐ Where required, pH checked

Temperature when received 4 (In degrees Celsius)

Form revised 2/8/08

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A

| Relinquished by:   | Date    | Time | Received by:       | Date    | Time |
|--------------------|---------|------|--------------------|---------|------|
| <i>[Signature]</i> | 2-26-20 | 1430 | <i>[Signature]</i> | 2/26/20 | 1430 |
| <i>[Signature]</i> | 2/26/20 | 1530 | <i>[Signature]</i> | 2/26/20 | 1535 |
|                    |         |      |                    |         |      |

#### FOR DRINKING WATER USE:

(When PWS information not otherwise supplied) PWS ID: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_

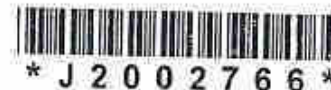
Supplier of Water: \_\_\_\_\_



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| CLIENT NAME: <b>CITY OF JACKSONVILLE</b>                                   |                    | PROJECT NAME: <b>Trail Ridge Landfill</b>                                                                                                                                                       |          | BOTTLE SIZE & TYPE |        | ANALYSIS REQUIRED        |              | LABORATORY I.D. NUMBER                                                 |      |  |
|----------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------|--------|--------------------------|--------------|------------------------------------------------------------------------|------|--|
| ADDRESS: <b>214 North Hogan Street, 10th Floor</b>                         |                    | P.O. NUMBER/PROJECT NUMBER: <b>608372.4</b>                                                                                                                                                     |          | 3X40mL VOA vials   |        | App 1 + EDB 8260/8260SIM |              | App 1 + Na, Fe, Hg 6010/6020/7470<br>NO3 / Cl / TDS<br>Ammonia-N 350.1 |      |  |
| City: <b>Jacksonville, FL 32202</b>                                        |                    | PROJECT LOCATION:                                                                                                                                                                               |          | 500mL poly         |        |                          |              |                                                                        |      |  |
| PHONE: <b>(904)-255-7513</b>                                               |                    | REMARKS/SPECIAL INSTRUCTIONS<br><b>Ground Water Shallow Wells</b><br>CEC Contact: Jim Christiansen<br><b>33628, TRAIL RIDGE LANDFILL, INC. (ADaPT)</b><br><b>AEL Jax Profile: 30178, Line 4</b> |          | 250mL poly         |        |                          |              |                                                                        |      |  |
| FAX:                                                                       |                    |                                                                                                                                                                                                 |          | 125mL poly         |        |                          |              |                                                                        |      |  |
| CONTACT: <b>Eric B. Fuller</b>                                             |                    |                                                                                                                                                                                                 |          |                    |        |                          |              |                                                                        |      |  |
| SAMPLED BY:                                                                |                    |                                                                                                                                                                                                 |          |                    |        |                          |              |                                                                        |      |  |
| TURN AROUND TIME:                                                          |                    |                                                                                                                                                                                                 |          |                    |        |                          |              |                                                                        |      |  |
| <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> RUSH |                    |                                                                                                                                                                                                 |          |                    |        |                          |              |                                                                        |      |  |
| SAMPLE ID                                                                  | SAMPLE DESCRIPTION | Grab Comp                                                                                                                                                                                       | SAMPLING |                    | MATRIX | NO. COUNT                | PRESERVATION |                                                                        |      |  |
|                                                                            |                    |                                                                                                                                                                                                 | DATE     | TIME               |        |                          | HC / BI      | HNO3                                                                   | None |  |
|                                                                            | MWB 275            | G                                                                                                                                                                                               | 2-26     | 0721               | W      | 6                        | 3            | 1                                                                      | 1    |  |
|                                                                            | MWB 295            | G                                                                                                                                                                                               | 2-26     | 0822               | W      | 6                        | 3            | 1                                                                      | 1    |  |
|                                                                            | MWB 135            | G                                                                                                                                                                                               | 2-26     | 0921               | W      | 6                        | 3            | 1                                                                      | 1    |  |
|                                                                            | MWB 225            | G                                                                                                                                                                                               | 2-26     | 0953               | W      | 6                        | 3            | 1                                                                      | 1    |  |
|                                                                            | MWB 125            | G                                                                                                                                                                                               | 2-26     | 1053               | W      | 6                        | 3            | 1                                                                      | 1    |  |
|                                                                            | MWB 25             | G                                                                                                                                                                                               | 2-26     | 1154               | W      | 6                        | 3            | 1                                                                      | 1    |  |
|                                                                            | MWB 205            | G                                                                                                                                                                                               | 2-26     | 1301               | W      | 6                        | 3            | 1                                                                      | 1    |  |
|                                                                            | MWB 215            | G                                                                                                                                                                                               | 2-26     | 1336               | W      | 6                        | 3            | 1                                                                      | 1    |  |
|                                                                            | EQUIPMENT BLANK #1 | G                                                                                                                                                                                               | 2-26     | 1351               | W      | 6                        | 3            | 1                                                                      | 1    |  |
|                                                                            | TRIP BLANK #1      | G                                                                                                                                                                                               | 2-26     | -                  | W      | 3                        | 3            |                                                                        |      |  |

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge  
 Received on Ice ☒ Yes ☐ No ☒ Temp taken from sample ☐ Temp from temp blank ☐ Where required, pH checked  
 Form revised 2/8/08  
 Preservation Code: I = Ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)  
 Temperature when received 4 (in degrees celcius)

| Relinquished by: |  | Date    | Time | Received by: |  | Date    | Time |
|------------------|--|---------|------|--------------|--|---------|------|
| [Signature]      |  | 2-26-20 | 1430 | [Signature]  |  | 2/26/20 | 1430 |
| [Signature]      |  | 2/26/20 | 1530 | [Signature]  |  | 2/26/20 | 1535 |
| [Signature]      |  |         |      | [Signature]  |  |         |      |

#### FOR DRINKING WATER USE:

(When PWS Information not otherwise supplied) PWS ID: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_

Supplier of Water: \_\_\_\_\_



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☐ 528 S. North Lake Blvd., Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597 • E53076

J2002766

|                                                                            |  |                                                                                                                                                                                                         |  |                    |  |                                    |  |                        |  |
|----------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|--|------------------------------------|--|------------------------|--|
| CLIENT NAME: <b>CITY OF JACKSONVILLE</b>                                   |  | PROJECT NAME: <b>Trail Ridge Landfill</b>                                                                                                                                                               |  | BOTTLE SIZE & TYPE |  | ANALYSIS REQUIRED                  |  | LABORATORY I.D. NUMBER |  |
| ADDRESS: <b>214 North Hogan Street, 10th Floor</b>                         |  | P.O. NUMBER/PROJECT NUMBER: <b>608372:4</b>                                                                                                                                                             |  | 3X40mL VOA vials   |  | App I + EDB<br>8260/8260SIM        |  |                        |  |
| City: <b>Jacksonville, FL 32202</b>                                        |  | PROJECT LOCATION                                                                                                                                                                                        |  | 500mL poly         |  | App I + Na,Fe,Hg<br>6010/6020/7470 |  |                        |  |
| PHONE: <b>(904)-255-7513</b>                                               |  | REMARKS/SPECIAL INSTRUCTIONS:<br><br><b>Ground Water Shallow Wells</b><br>CEC Contact: Jim Chrisiansen<br><br><b>33628, TRAIL RIDGE LANDFILL, INC. (ADaPT)</b><br><b>AEL Jax Profile: 30178, Line 4</b> |  | 250mL poly         |  | NO3 / Cl / TDS                     |  |                        |  |
| FAX:                                                                       |  |                                                                                                                                                                                                         |  | 125mL poly         |  | Ammonia-N 350.1                    |  |                        |  |
| CONTACT: <b>Eric B. Fuller</b>                                             |  |                                                                                                                                                                                                         |  |                    |  |                                    |  |                        |  |
| SAMPLED BY:                                                                |  |                                                                                                                                                                                                         |  |                    |  |                                    |  |                        |  |
| TURN AROUND TIME:                                                          |  |                                                                                                                                                                                                         |  |                    |  |                                    |  |                        |  |
| <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> RUSH |  |                                                                                                                                                                                                         |  |                    |  |                                    |  |                        |  |

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING |      | MATRIX | NO. COUNT | PRESERVATION | ANALYSIS REQUIRED |      |      |       | LABORATORY I.D. NUMBER |
|-----------|--------------------|-----------|----------|------|--------|-----------|--------------|-------------------|------|------|-------|------------------------|
|           |                    |           | DATE     | TIME |        |           |              | HCl / DI          | HNO3 | NaOH | H2SO4 |                        |
|           | MWB-35             | G         | 2-27     | 1300 | W      | 6         |              | 3                 | 1    | 1    | 1     | 017                    |
|           | MWB-405            | G         | 2-27     | 1223 | W      | 6         |              | 3                 | 1    | 1    | 1     | 018                    |
|           | MWB-395            | G         | 2-27     | 1150 | W      | 6         |              | 3                 | 1    | 1    | 1     | 019                    |
|           | MWB-356            | G         | 2-27     | 1437 | W      | 6         |              | 3                 | 1    | 1    | 1     | 020                    |
|           | SGMW-25            | G         | 2-27     | 1548 | W      | 6         |              | 3                 | 1    | 1    | 1     | 021                    |
|           | SGMW-15R           | G         | 2-27     | 1511 | W      | 6         |              | 3                 | 1    | 1    | 1     | 022                    |
|           | TRIP               | G         | 2-27     | -    | W      | 3         |              | 3                 |      |      |       | 023                    |
|           |                    |           |          |      |        |           |              |                   |      |      |       |                        |
|           |                    |           |          |      |        |           |              |                   |      |      |       |                        |
|           |                    |           |          |      |        |           |              |                   |      |      |       |                        |
|           |                    |           |          |      |        |           |              |                   |      |      |       |                        |
|           |                    |           |          |      |        |           |              |                   |      |      |       |                        |

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge

Preservation Code: I = Ice H = (HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☒ Yes ☐ No

☒ Temp taken from sample

☐ Temp from temp blank

☐ Where required, pH checked

Temperature when received **7** (in degrees celcius)

Form revised 2/8/08

Device used for measuring Temp by unique identifier (circle IR temp gun used) **J: 9A** G: LT-1 LT-2 T: 10A A: 3A

| Relinquished by:   | Date:     | Time: | Received by:       | Date:     | Time: |
|--------------------|-----------|-------|--------------------|-----------|-------|
| <i>[Signature]</i> | 2/28/2020 | 0630  | <i>[Signature]</i> | 2/28/2020 | 0630  |
| <i>[Signature]</i> | 2/28/2020 | 705   | <i>[Signature]</i> | 2-28-2020 | 700   |
|                    |           |       |                    |           |       |
|                    |           |       |                    |           |       |

#### FOR DRINKING WATER USE:

(When PWS information not otherwise supplied) PWS ID: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_

Supplier of Water: \_\_\_\_\_

Site Address: \_\_\_\_\_



J2002766

- |                                     |                                                                                                             |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------|
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| <input type="checkbox"/>            | 9510 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327 • E84589                        |
| <input type="checkbox"/>            | 6815 SW Archer Road • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639 • E82001                      |
| <input type="checkbox"/>            | 528 S. North Lake Blvd., Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1697 • E53076 |

[illegible]

Received on Ice ☒ Yes ☐ No

Temp taken from sample

☐ Temp from temp blank☐ Where required, pH checked

Preservation Code: I = Ice H=(HCl) S = (H<sub>2</sub>SO<sub>4</sub>) N = (HNO<sub>3</sub>) T = (Sodium Thiosulfate)

Temperature when received 4 (in degrees celcius)

Device used for measuring Temp by unique identifier (circle IR temp gun used)

G:LT-1 LT-2 T:10A A:3A

| Relinquished by: |                    |         |      | Received by:       |                    |         |      |
|------------------|--------------------|---------|------|--------------------|--------------------|---------|------|
|                  |                    | Date    | Time |                    |                    | Date    | Time |
| 1                | <i>[Signature]</i> | 7-28-20 | 0630 | <i>[Signature]</i> | <i>[Signature]</i> | 8/12/20 | 1330 |
| 2                | <i>[Signature]</i> | 7-28-20 | 7:05 | <i>[Signature]</i> | <i>[Signature]</i> | 2-28-20 | 7:00 |
| 3                | <i>[Signature]</i> | 4/14/24 |      |                    |                    |         |      |

FOR DRINKING WATER USE:

(When PWS information not otherwise supplied)

PV810

Contact Person:

Phone :

Supplier of Water:



- ☒ 6601 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354 • E82574  
☐ 6610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9010 • Fax 813.630.4327 • E84680  
☐ 6615 SW Archer Road • Gainesville, FL 32608 • 352.377.2349 • Fax 352.385.6539 • E82001  
☐ 526 S. North Lake Blvd., Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597 • E53076

J2002766

[illegible]

Received on Ice ☒ Yes ☐ No

 Temp taken from sample

 Temp from temp blank

☐ Where required, pH checked

Temperature when received 2 (in degrees celcius)

Form revised 2/8/08

Device used for measuring Temp by unique Identifier (circle IR temp gun used) ☒ J: 9A ☐ G: LT-1 LT-2 ☐ T: 10A ☐ A: 3A

| Relinquished by: |                                                                                     | Date:   | Time: | Received by:                                                                        |  | Date:   | Time: |
|------------------|-------------------------------------------------------------------------------------|---------|-------|-------------------------------------------------------------------------------------|--|---------|-------|
| 1                |  | 2-28-20 | 1100  |  |  | 2-28-20 | 1100  |
| 2                |                                                                                     |         |       |                                                                                     |  |         |       |
| 3                |                                                                                     |         |       |                                                                                     |  |         |       |
| 4                |                                                                                     |         |       |                                                                                     |  |         |       |

FOR DRINKING WATER-USE:

(When PWS Information not otherwise supplied) PWS ID: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Phone: \_\_\_\_\_

Supplier of Water: \_\_\_\_\_

Site-Address:



- |                                     |                                                                                                             |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | 6601 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354 • E82674                   |
| <input type="checkbox"/>            | 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327 • E84580                        |
| <input type="checkbox"/>            | 6815 SW Archer Road • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6839 • E82001                      |
| <input type="checkbox"/>            | 528 S. North Lake Blvd., Ste. 1016 • Allamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597 • E53076 |

Received on Ice ☒ Yes ☐ No ☒ Temp taken from sample ☐ Temp from temp blank ☐ Where required, pH checked Temperature when received 4 (In degrees celcius)  
 Form revised: 2/8/04  
 Device used for measuring Temp by unique identifier (circle IR temp gun used) IR 1A 1B 1C 1D 1E 1F 1G 1H 1I 1J 1K 1L 1M 1N 1O 1P 1Q 1R 1S 1T 1U 1V 1W 1X 1Y 1Z 2A 2B 2C 2D 2E 2F 2G 2H 2I 2J 2K 2L 2M 2N 2O 2P 2Q 2R 2S 2T 2U 2V 2W 2X 2Y 2Z 3A 3B 3C 3D 3E 3F 3G 3H 3I 3J 3K 3L 3M 3N 3O 3P 3Q 3R 3S 3T 3U 3V 3W 3X 3Y 3Z 4A 4B 4C 4D 4E 4F 4G 4H 4I 4J 4K 4L 4M 4N 4O 4P 4Q 4R 4S 4T 4U 4V 4W 4X 4Y 4Z 5A 5B 5C 5D 5E 5F 5G 5H 5I 5J 5K 5L 5M 5N 5O 5P 5Q 5R 5S 5T 5U 5V 5W 5X 5Y 5Z 6A 6B 6C 6D 6E 6F 6G 6H 6I 6J 6K 6L 6M 6N 6O 6P 6Q 6R 6S 6T 6U 6V 6W 6X 6Y 6Z 7A 7B 7C 7D 7E 7F 7G 7H 7I 7J 7K 7L 7M 7N 7O 7P 7Q 7R 7S 7T 7U 7V 7W 7X 7Y 7Z 8A 8B 8C 8D 8E 8F 8G 8H 8I 8J 8K 8L 8M 8N 8O 8P 8Q 8R 8S 8T 8U 8V 8W 8X 8Y 8Z 9A 9B 9C 9D 9E 9F 9G 9H 9I 9J 9K 9L 9M 9N 9O 9P 9Q 9R 9S 9T 9U 9V 9W 9X 9Y 9Z

**FOR DRINKING WATER USE:**

(When PWS information not otherwise supplied)

PINS ID

Contact Person:

Phone



Advanced  
Environmental Laboratories, Inc.

Page 1 of 1

LAB NUMBER: J2002766

- ☒ 6601 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354 • E82574  
☐ 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327 • E84589  
☐ 6916 SW Archer Road • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639 • E82001  
☐ 528 S. North Lake Blvd., Ste. 1016 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1587 • E53076

|                                                                            |  |                                                                                                                                                                                             |  |                    |  |                            |  |                                                                                                                             |  |
|----------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------|--|----------------------------|--|-----------------------------------------------------------------------------------------------------------------------------|--|
| CLIENT NAME: <b>CITY OF JACKSONVILLE</b>                                   |  | PROJECT NAME: <b>Trail Ridge Landfill</b>                                                                                                                                                   |  | BOTTLE SIZE & TYPE |  | ANALYSIS REQUIRED          |  | LABORATORY I.D. NUMBER                                                                                                      |  |
| ADDRESS: <b>214 North Hogan Street, 10th Floor</b>                         |  | P.O. NUMBER/PROJECT NUMBER: <b>608372:4</b>                                                                                                                                                 |  | 3X40mL VOA vials   |  | App I + EDB 8260/82260SIM  |  | 1L poly<br>1L amber<br>2X40mL VOA vials<br>100mL Cup<br>BOD / NO3 / TDS<br>chlorophyll-a 10200H<br>TOC 5310B<br>Fecal 9222D |  |
| City: <b>Jacksonville, FL 32202</b>                                        |  | PROJECT LOCATION                                                                                                                                                                            |  | 500mL poly         |  | App I + Fe, Hg, hardness   |  |                                                                                                                             |  |
| PHONE: <b>(904)-255-7513</b>                                               |  | REMARKS/SPECIAL INSTRUCTIONS:<br><br><b>Surface Water</b><br>CEC Contact: Jim Christiansen<br><br><b>33628, TRAIL RIDGE LANDFILL, INC. (ADaPT)</b><br><b>AEL Jax Profile: 30178, Line 5</b> |  | 250mL poly         |  | Nox/TKN/TP/NH3/un-NH3 /COD |  |                                                                                                                             |  |
| FAX:                                                                       |  |                                                                                                                                                                                             |  | 1L poly            |  | BOD / NO3 / TDS            |  |                                                                                                                             |  |
| CONTACT: <b>Eric B. Fuller</b>                                             |  |                                                                                                                                                                                             |  | 1L amber           |  | chlorophyll-a 10200H       |  |                                                                                                                             |  |
| SAMPLED BY:                                                                |  |                                                                                                                                                                                             |  | 2X40mL VOA vials   |  | TOC 5310B                  |  |                                                                                                                             |  |
| TURN AROUND TIME:                                                          |  |                                                                                                                                                                                             |  | 100mL Cup          |  | Fecal 9222D                |  |                                                                                                                             |  |
| <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> RUSH |  |                                                                                                                                                                                             |  |                    |  |                            |  |                                                                                                                             |  |

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING |      | MATRIX | NO. COUNT | PRESERVATION | ANALYSIS REQUIRED |              |              |              |               |              |                |  | LABORATORY I.D. NUMBER |  |  |
|-----------|--------------------|-----------|----------|------|--------|-----------|--------------|-------------------|--------------|--------------|--------------|---------------|--------------|----------------|--|------------------------|--|--|
|           |                    |           | DATE     | TIME |        |           |              | HCl / DI          | HNO3         | H2SO4        | None         | None 24 hr HT | HCl          | NaThio 6 hr HT |  |                        |  |  |
|           | SW-3               | G         | 3-2      | 0830 | W      | 10        |              | 3                 | 1            | 1            | 1            | 1             | 2            | 1              |  |                        |  |  |
|           | SW-6               | G         | 3-2      | 0645 | W      | 10        |              | 3                 | 1            | 1            | 1            | 1             | 2            | 1              |  |                        |  |  |
|           | SW-7               | G         | 3-2      | 0721 | W      | 10        |              | 3                 | 1            | 1            | 1            | 1             | 2            | 1              |  |                        |  |  |
|           | SW-5               | G         | 3-2      | 0701 | W      | 10        |              | 3                 | 1            | 1            | 1            | 1             | 2            | 1              |  |                        |  |  |
|           | SW-4               | G         | 3-2      | 0742 | W      | 10        |              | 3                 | 1            | 1            | 1            | 1             | 2            | 1              |  |                        |  |  |
|           | SW-1               | G         | 3-2      | 0901 | W      | 10        |              | 3                 | 1            | 1            | 1            | 1             | 2            | 1              |  |                        |  |  |
|           | <del>SW-B</del>    | G         | 3-2      |      | W      | 10        |              | <del>3</del>      | <del>1</del> | <del>1</del> | <del>1</del> | <del>1</del>  | <del>2</del> | <del>1</del>   |  |                        |  |  |
|           | TRIP               | G         | 3-2      | -    | W      | 2         |              | 2                 |              |              |              |               |              |                |  |                        |  |  |

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge

Preservation Code: I = Ice H = (HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice: ☒ Yes ☐ No ☒ Temp taken from sample ☐ Temp from temp blank ☐ Where required, pH checked

Temperature when received 4 (in degrees celcius)

Form revised 2/8/08

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A

| Relinquished by:   | Date   | Time | Received by:       | Date   | Time |
|--------------------|--------|------|--------------------|--------|------|
| <u>[Signature]</u> | 3-2-20 | 1010 | <u>[Signature]</u> | 3-2-20 | 1010 |
|                    |        |      |                    |        |      |
|                    |        |      |                    |        |      |

#### FOR DRINKING WATER USE:

(When PWS information not otherwise supplied)

Contact Person:

Phone:

Supplier of Water:



Advanced  
Environmental Laboratories, Inc.

6681 Southpoint Parkway  
Jacksonville, Florida 32216  
Office (904) 363-9350  
Fax (904) 363-9354

**Project No.:** J2002766  
**Client Name:** City of Jacksonville  
**ProjectID:** Trail Ridge Landfill

**I. Receipt**

No Exceptions were encountered.

**II. Holding Times**

Preparation: All holding times were met.  
Analysis: All holding times were met.

**III. Method**

Analysis: SW-846 6020  
Preparation: SW-846 3010A

**IV. Preparation**

Sample preparation proceeded normally.

**V. Analysis**

A. Calibration: All acceptance criteria were met.  
B. Blanks: All acceptance criteria were met.  
C. Duplicates: All acceptance criteria were met.  
D. Spikes: All acceptance criteria were met.  
E. Serial Dilution: Due to background analytes present in the matrix, the proper quantitation of the Scandium and Yttrium internal standards in J200266021 were obstructed. In order to separate out and return the internal standards to within acceptance limits, this sample was analyzed at a dilution.  
F. Samples: Sample analyses proceeded normally.  
G. Other:



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6681 Southpoint Parkway  
Jacksonville, Florida 32216  
Office (904) 363-9350  
Fax (904) 363-9354

**Project No.:** J2002766  
**Client Name:** City of Jacksonville  
**ProjectID:** Trail Ridge Landfill

**I. Receipt**

No Exceptions were encountered.

**II. Holding Times**

Preparation: All holding times were met.  
Analysis: All holding times were met.

**III. Method**

Analysis: SW-846 6010  
Preparation: SW-846 3010A

**IV. Preparation**

Sample preparation proceeded normally.

**V. Analysis**

A. Calibration: All acceptance criteria were met.  
B. Blanks: All acceptance criteria were met.  
C. Duplicates: All acceptance criteria were met.  
D. Spikes: The matrix spike (MS) recoveries of Barium, Calcium, and Magnesium for J2002766022 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) and Matrix Spike Duplicate (MSD) were acceptable, which indicates the analytical batch was in control. . No further corrective action is required.  
E. Serial Dilution: All acceptance criteria were met.  
F. Samples: Sample analyses proceeded normally.  
G. Other:



**Project No.:** J2002766  
**Client Name:** City of Jacksonville  
**ProjectID:** Trail Ridge Landfill

**I. Receipt**

No Exceptions were encountered.

**II. Holding Times**

Preparation: All holding times were met.  
Analysis: All holding times were met.

**III. Method**

Analysis: EPA 350.1  
Preparation: None

**IV. Preparation**

Sample preparation proceeded normally.

**V. Analysis**

A. Calibration: All acceptance criteria were met.  
B. Blanks: All acceptance criteria were met.  
C. Duplicates: All acceptance criteria were met.  
D. Spikes: The matrix spike recovery of NH<sub>3</sub> for J2002766004 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), Matrix Spike Duplicate (MSD) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was required.  
E. Serial Dilution: All acceptance criteria were met.  
F. Samples: Sample analyses proceeded normally.  
G. Other:



**Project No.:** J2002766  
**Client Name:** City of Jacksonville  
**ProjectID:** Trail Ridge Landfill

**I. Receipt**

No Exceptions were encountered.

**II. Holding Times**

Preparation: All holding times were met.  
Analysis: All holding times were met.

**III. Method**

Analysis: EPA 350.1  
Preparation: None

**IV. Preparation**

Sample preparation proceeded normally.

**V. Analysis**

A. Calibration: All acceptance criteria were met.  
B. Blanks: All acceptance criteria were met.  
C. Duplicates: The relative percent difference (RPD) for the following analyte(s) in the replicate matrix spike analyses of J2002766018 was outside control criteria: NH<sub>3</sub>. Failing RPD indicates inconsistency in the parent sample matrix. All spike recoveries in the MSD and associated LCS were within acceptable limits, indicating the analytical batch was in control. No further corrective action was needed.  
D. Spikes: The matrix spike recovery of NH<sub>3</sub> for J2002766018 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was required.  
E. Serial Dilution: All acceptance criteria were met.  
F. Samples: Sample analyses proceeded normally.  
G. Other:



Advanced  
Environmental Laboratories, Inc.

6681 Southpoint Parkway  
Jacksonville, Florida 32216  
Office (904) 363-9350  
Fax (904) 363-9354

**Project No.:** J2002766  
**Client Name:** City of Jacksonville  
**ProjectID:** Trail Ridge Landfill

**I. Receipt**

No Exceptions were encountered.

**II. Holding Times**

Preparation: All holding times were met.  
Analysis: All holding times were met.

**III. Method**

Analysis: EPA 350.1  
Preparation: None

**IV. Preparation**

Sample preparation proceeded normally.

**V. Analysis**

A. Calibration: All acceptance criteria were met.  
B. Blanks: All acceptance criteria were met.  
C. Duplicates: All acceptance criteria were met.  
D. Spikes: The matrix spike duplicate recovery of NH<sub>3</sub> for J2002766029 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS), Matrix Spike (MS) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was required.  
E. Serial Dilution: All acceptance criteria were met.  
F. Samples: Sample analyses proceeded normally.  
G. Other:



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Environmental Laboratories, Inc.

6681 Southpoint Parkway  
Jacksonville, Florida 32216  
Office (904) 363-9350  
Fax (904) 363-9354

**Project No.:** J2002766  
**Client Name:** City of Jacksonville  
**ProjectID:** Trail Ridge Landfill

**I. Receipt**

No Exceptions were encountered.

**II. Holding Times**

Preparation: All holding times were met.  
Analysis: All holding times were met.

**III. Method**

Analysis: EPA 350.1  
Preparation: None

**IV. Preparation**

Sample preparation proceeded normally.

**V. Analysis**

A. Calibration: All acceptance criteria were met.  
B. Blanks: All acceptance criteria were met.  
C. Duplicates: All acceptance criteria were met.  
D. Spikes: The matrix spike recoveries of NH<sub>3</sub> for J2002766040 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) and %RPD were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential low bias in this matrix. No further corrective action was required.  
E. Serial Dilution: All acceptance criteria were met.  
F. Samples: Sample analyses proceeded normally.  
G. Other:



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Environmental Laboratories, Inc.

6681 Southpoint Parkway  
Jacksonville, Florida 32216  
Office (904) 363-9350  
Fax (904) 363-9354

**Project No.:** J2002766  
**Client Name:** City of Jacksonville  
**ProjectID:** Trail Ridge Landfill

**I. Receipt**

No Exceptions were encountered.

**II. Holding Times**

Preparation: All holding times were met.  
Analysis: All holding times were met.

**III. Method**

Analysis: EPA 300.0  
Preparation: None

**IV. Preparation**

Sample preparation proceeded normally.

**V. Analysis**

A. Calibration: All acceptance criteria were met.  
B. Blanks: All acceptance criteria were met.  
C. Duplicates: All acceptance criteria were met.  
D. Spikes: The matrix spike recoveries of Chloride and Nitrate for J2002766006 were outside control criteria due. Recoveries in the Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential high bias in this matrix. The affected sample is qualified accordingly.  
E. Serial Dilution:  
F. Samples: Sample analyses proceeded normally.  
G. Other:

# PROFESSIONAL TECHNICAL SUPPORT SERVICES, INC.

Atlanta (770) 723-0229

Baton Rouge (504) 293-0135

Chattanooga (423) 493-3377

Houston (281) 441-7600

Pittsburgh (412) 746-8833

## DEPTH TO WATER MEASUREMENTS

FACILITY NAME: TRAIL RIDGE

DATE: 2-26-20

| MONITORING LOCATION | DEPTH TO WATER (ft TOC) |
|---------------------|-------------------------|
| MWB-27S             | 7.64                    |
| MWB-27I             | 8.83                    |
| MWB-27D             | 9.21                    |
| MWB-29S             | 8.40                    |
| MWB-29I             | 9.28                    |
| MWB-29D             | 9.39                    |
| MWB-3S              | 9.38                    |
| MWB-3I              | 15.40                   |
| MWB-11S             | 12.77                   |
| MWB-11I(R)          | 15.65                   |
| MWB-13S             | 12.46                   |
| MWB-13I             | 17.70                   |
| MWB-12S             | 11.13                   |
| MWB-12I             | 10.00                   |
| MWB-12D             | 8.02                    |
| MWB-22S             | 12.59                   |
| MWB-20S             | 10.65                   |

| MONITORING LOCATION | DEPTH TO WATER (ft TOC)   |
|---------------------|---------------------------|
| MWB-2S              | 10.22                     |
| MWB-2I              | 12.73                     |
| MWB-33S             | 10.45                     |
| MWB-34S             | 9.69                      |
| MWB-34I             | 10.12                     |
| MWB-34D             | 10.31                     |
| MWB-21S             | 11.68                     |
| MWB-14S             | WATER LEVEL IS BELOW PUMP |
| MWB-14I             | 11.40                     |
| MWB-14D             | 11.43                     |
| MWB-24S             | 7.23                      |
| MWB-25S             | 8.08                      |
| MWB-25I             | 7.41                      |
| MWB-25D             | 8.00                      |
| MWB-32S             | 8.78                      |
| MWB-32I             | 9.02                      |
| MWB-32D             | 9.19                      |

Atlanta (770) 723-9229  
 Baton Rouge (504) 293-0336  
 Jacksonville (904) 693-3177  
 Houston (281) 441-7606  
 Pittsburgh (412) 746-6813

## PATH TO WATER MEASUREMENTS

DATE: 2-26-20

[illegible]

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) HF SCIENTIFIC MICRO TPI INSTRUMENT # 200710329

☐ ORP☐ OTHER

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A 1000 NTU HF SCIENTIFIC LOT# 90103 EXP: JAN 2021

Standard B 10.0 NTU HF SCIENTIFIC LOT# 90102 EXP: JAN 2021

Standard C 0.02 NTU HF SCIENTIFIC LOT# 90101 EXP: JAN 2021

| DATE<br>(yy/mm/dd) | TIME<br>(hh:mm) | STD<br>(A, B, C) | STD<br>VALUE | INSTRUMENT<br>RESPONSE | % DEV | CALIBRATED<br>(YES, NO) | TYPE<br>(INIT, CONT) | SAMPLER<br>INITIALS |
|--------------------|-----------------|------------------|--------------|------------------------|-------|-------------------------|----------------------|---------------------|
| 20/02/26           | 0610            | A                | 1000         | AUTO CAL               | -     | YES                     | INIT                 | DWA                 |
|                    |                 | B                | 10.0         |                        | -     | YES                     | CONT                 | DWA                 |
|                    |                 | C                | 0.02         |                        | -     | YES                     | CONT                 | DWA                 |
| 20/02/27           | 0715            | A                | 1000         | AUTO CAL               | -     | YES                     | CONT                 | DWA                 |
|                    |                 | B                | 10.0         |                        | -     | YES                     | CONT                 | DWA                 |
|                    |                 | C                | 0.02         |                        | -     | YES                     | CONT                 | DWA                 |
| 20/02/27           | 0610            | A                | 1000         | AUTO CAL               | -     | YES                     | CONT                 | DWA                 |
|                    |                 | B                | 10.0         |                        | -     | YES                     | CONT                 | DWA                 |
|                    |                 | C                | 0.02         |                        | -     | YES                     | CONT                 | DWA                 |
| 20/03/02           | 0615            | A                | 1000         | AUTO CAL               | -     | YES                     | INIT                 | DWA                 |
|                    |                 | B                | 10.0         |                        | -     | YES                     | INIT                 | DWA                 |
|                    |                 | C                | 0.02         |                        | -     | YES                     | INIT                 | DWA                 |

☐ TEMPERATURE    ☐ CONDUCTIVITY    ☐ SALINITY    ☐ pH    ☐ ORP  
☐ TURBIDITY    ☐ RESIDUAL CL    ☐ DO    ☐ OTHER \_\_\_\_\_

Standard A 2.00 (Std) PWR ENV LOT# ~~964040~~ 1/1/1/1

Standard B 4.00 (std) Time Env Lot# 96A1012 Eng: 1/21

Standard C 10.0m (std) Pink Env Lot # 2703951 Exp: 8/20/20

Revision Date: February 1, 2004

## Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI PRO SERIES INSTRUMENT # 150100382

PARAMETER: *[check only one]*

☐ TEMPERATURE    ☐ CONDUCTIVITY    ☐ SALINITY    ☐ pH    ☐ ORP  
☐ TURBIDITY    ☐ RESIDUAL CI    ☒ DO    ☐ OTHER \_\_\_\_\_

**STANDARDS:** *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A SATURATED AIR

Standard B

*Standard C*

[illegible]

DEP-SOP-001/01  
FS 2200 Groundwater Sampling

Table FS 2200-2  
Dissolved Oxygen Saturation

| TEMP  | D.O.   | mg/L  | TEMP  | D.O.  | mg/L  | TEMP  | D.O.  | mg/L  | TEMP  | D.O.  | mg/L  |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| deg C | SAT.   | 20%   | deg C | SAT.  | 20%   | deg C | SAT.  | 20%   | deg C | SAT.  | 20%   |
| 15.0  | 10.084 | 2.017 | 19.0  | 9.276 | 1.855 | 23.0  | 8.578 | 1.716 | 27.0  | 7.968 | 1.594 |
| 15.1  | 10.062 | 2.012 | 19.1  | 9.258 | 1.852 | 23.1  | 8.562 | 1.712 | 27.1  | 7.954 | 1.591 |
| 15.2  | 10.040 | 2.008 | 19.2  | 9.239 | 1.848 | 23.2  | 8.546 | 1.709 | 27.2  | 7.940 | 1.588 |
| 15.3  | 10.019 | 2.004 | 19.3  | 9.220 | 1.844 | 23.3  | 8.530 | 1.706 | 27.3  | 7.926 | 1.585 |
| 15.4  | 9.997  | 1.999 | 19.4  | 9.202 | 1.840 | 23.4  | 8.514 | 1.703 | 27.4  | 7.912 | 1.582 |
| 15.5  | 9.976  | 1.995 | 19.5  | 9.184 | 1.837 | 23.5  | 8.498 | 1.700 | 27.5  | 7.898 | 1.580 |
| 15.6  | 9.955  | 1.991 | 19.6  | 9.165 | 1.833 | 23.6  | 8.482 | 1.696 | 27.6  | 7.884 | 1.577 |
| 15.7  | 9.934  | 1.987 | 19.7  | 9.147 | 1.829 | 23.7  | 8.466 | 1.693 | 27.7  | 7.870 | 1.574 |
| 15.8  | 9.912  | 1.982 | 19.8  | 9.129 | 1.826 | 23.8  | 8.450 | 1.690 | 27.8  | 7.856 | 1.571 |
| 15.9  | 9.891  | 1.978 | 19.9  | 9.111 | 1.822 | 23.9  | 8.434 | 1.687 | 27.9  | 7.842 | 1.568 |
| 16.0  | 9.870  | 1.974 | 20.0  | 9.092 | 1.818 | 24.0  | 8.418 | 1.684 | 28.0  | 7.828 | 1.566 |
| 16.1  | 9.849  | 1.970 | 20.1  | 9.074 | 1.815 | 24.1  | 8.403 | 1.681 | 28.1  | 7.814 | 1.563 |
| 16.2  | 9.829  | 1.966 | 20.2  | 9.056 | 1.811 | 24.2  | 8.387 | 1.677 | 28.2  | 7.800 | 1.560 |
| 16.3  | 9.808  | 1.962 | 20.3  | 9.039 | 1.808 | 24.3  | 8.371 | 1.674 | 28.3  | 7.786 | 1.557 |
| 16.4  | 9.787  | 1.957 | 20.4  | 9.021 | 1.804 | 24.4  | 8.356 | 1.671 | 28.4  | 7.773 | 1.555 |
| 16.5  | 9.767  | 1.953 | 20.5  | 9.003 | 1.801 | 24.5  | 8.340 | 1.668 | 28.5  | 7.759 | 1.552 |
| 16.6  | 9.746  | 1.949 | 20.6  | 8.985 | 1.797 | 24.6  | 8.325 | 1.665 | 28.6  | 7.745 | 1.549 |
| 16.7  | 9.726  | 1.945 | 20.7  | 8.968 | 1.794 | 24.7  | 8.309 | 1.662 | 28.7  | 7.732 | 1.546 |
| 16.8  | 9.705  | 1.941 | 20.8  | 8.950 | 1.790 | 24.8  | 8.294 | 1.659 | 28.8  | 7.718 | 1.544 |
| 16.9  | 9.685  | 1.937 | 20.9  | 8.932 | 1.786 | 24.9  | 8.279 | 1.656 | 28.9  | 7.705 | 1.541 |
| 17.0  | 9.665  | 1.933 | 21.0  | 8.915 | 1.783 | 25.0  | 8.263 | 1.653 | 29.0  | 7.691 | 1.538 |
| 17.1  | 9.645  | 1.929 | 21.1  | 8.896 | 1.780 | 25.1  | 8.248 | 1.650 | 29.1  | 7.678 | 1.536 |
| 17.2  | 9.625  | 1.925 | 21.2  | 8.880 | 1.776 | 25.2  | 8.233 | 1.647 | 29.2  | 7.664 | 1.533 |
| 17.3  | 9.605  | 1.921 | 21.3  | 8.863 | 1.773 | 25.3  | 8.218 | 1.644 | 29.3  | 7.651 | 1.530 |
| 17.4  | 9.585  | 1.917 | 21.4  | 8.846 | 1.769 | 25.4  | 8.203 | 1.641 | 29.4  | 7.638 | 1.528 |
| 17.5  | 9.565  | 1.913 | 21.5  | 8.829 | 1.766 | 25.5  | 8.188 | 1.638 | 29.5  | 7.625 | 1.525 |
| 17.6  | 9.545  | 1.909 | 21.6  | 8.812 | 1.762 | 25.6  | 8.173 | 1.635 | 29.6  | 7.611 | 1.522 |
| 17.7  | 9.526  | 1.905 | 21.7  | 8.794 | 1.759 | 25.7  | 8.158 | 1.632 | 29.7  | 7.598 | 1.520 |
| 17.8  | 9.506  | 1.901 | 21.8  | 8.777 | 1.755 | 25.8  | 8.143 | 1.629 | 29.8  | 7.585 | 1.517 |
| 17.9  | 9.486  | 1.897 | 21.9  | 8.761 | 1.752 | 25.9  | 8.128 | 1.626 | 29.9  | 7.572 | 1.514 |
| 18.0  | 9.467  | 1.893 | 22.0  | 8.744 | 1.749 | 26.0  | 8.114 | 1.623 | 30.0  | 7.559 | 1.512 |
| 18.1  | 9.448  | 1.890 | 22.1  | 8.727 | 1.745 | 26.1  | 8.099 | 1.620 | 30.1  | 7.546 | 1.509 |
| 18.2  | 9.428  | 1.886 | 22.2  | 8.710 | 1.742 | 26.2  | 8.084 | 1.617 | 30.2  | 7.533 | 1.507 |
| 18.3  | 9.409  | 1.882 | 22.3  | 8.693 | 1.739 | 26.3  | 8.070 | 1.614 | 30.3  | 7.520 | 1.504 |
| 18.4  | 9.390  | 1.878 | 22.4  | 8.677 | 1.735 | 26.4  | 8.055 | 1.611 | 30.4  | 7.507 | 1.501 |
| 18.5  | 9.371  | 1.874 | 22.5  | 8.660 | 1.732 | 26.5  | 8.040 | 1.608 | 30.5  | 7.494 | 1.499 |
| 18.6  | 9.352  | 1.870 | 22.6  | 8.644 | 1.729 | 26.6  | 8.026 | 1.605 | 30.6  | 7.481 | 1.496 |
| 18.7  | 9.333  | 1.867 | 22.7  | 8.627 | 1.725 | 26.7  | 8.012 | 1.602 | 30.7  | 7.468 | 1.494 |
| 18.8  | 9.314  | 1.863 | 22.8  | 8.611 | 1.722 | 26.8  | 7.997 | 1.599 | 30.8  | 7.456 | 1.491 |
| 18.9  | 9.295  | 1.859 | 22.9  | 8.595 | 1.719 | 26.9  | 7.983 | 1.597 | 30.9  | 7.443 | 1.489 |

Derived using the formula in Standard Methods for the Examination of Water and Wastewater, Page 4-101, 18th Edition, 1992

## Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI PRO SERIES INSTRUMENT # 15D100782

PARAMETER: *[check only one]*

☐ TEMPERATURE      ☒ CONDUCTIVITY      ☐ SALINITY      ☐ pH      ☐ ORP  
☐ TURBIDITY      ☐ RESIDUAL CL      ☐ DO      ☐ OTHER \_\_\_\_\_

**STANDARDS:** (Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased)

Standard A 1.413 m / cm PINE ENV. Lot# 86J1041 Exp: 10/19

Standard B \_\_\_\_\_

Standard C \_\_\_\_\_

[illegible]



# WELL CONDITION INSPECTION FORM

Site: TRAIL RIDGE

Personnel: DANNY ARMOUR

Date: 2-26-20

Page 1 of 3

| Well ID | Protective Casing                                                       | Well Casing                                                             | Label                                                                      | Lock                                                                | Sample Equipment Type | General Turbidity                                                         | Well Yield                                                                 | Comments/Observations * |
|---------|-------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------|
| MWB-35  | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | DEDICATED BLADE PUMP  | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-205 | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | SLIGHTLY TURBID         |
| MWB-115 | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-135 | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | SLIGHTLY TURBID         |
| MWB-225 | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-125 | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | SLIGHTLY TURBID         |
| MWB-295 | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-275 | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-121 | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-131 | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |

\* Note ponding water, weep holes, or any other information pertaining to well condition. Provide additional details on listed items. Return this form to Site Manager - FOR INTERNAL USE ONLY.



# WELL CONDITION INSPECTION FORM

Site: TRAIL RIDGE

Personnel: DANNY ARMOUR

Date: 2-26-20

Page 2 of 3

| Well ID    | Protective Casing                                                       | Well Casing                                                             | Label                                                                      | Lock                                                                | Sample Equipment Type  | General Turbidity                                                         | Well Yield                                                                 | Comments/Observations * |
|------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------|
| MWB-115(R) | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Dedicated Bladder Pump | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-31     | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                      | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-27I    | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                      | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-29I    | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                      | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-21     | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                      | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-34I    | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                      | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-215    | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                      | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-32I    | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                      | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-33S    | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                      | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |
| MWB-34S    | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                      | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                         |

\* Note ponding water, weep holes, or any other information pertaining to well condition. Provide additional details on listed items. Return this form to Site Manager - FOR INTERNAL USE ONLY.



# WELL CONDITION INSPECTION FORM

Site: TRAIL RIDGE Personnel: DANIEL ARMOUR

Date: 2-26-20 Page 3 of 3

| Well ID    | Protective Casing                                                       | Well Casing                                                             | Label                                                                      | Lockt                                                               | Sample Equipment Type | General Turbidity                                                         | Well Yield                                                                 | Comments/Observations *   |
|------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------|
| MWB-323    | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | DEDICATED SHOWER PUMP | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | SLIGHTLY TURBID           |
| MWB-25     | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | TURBID                    |
| MWB-353    | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | PRIORITARY PUMP       | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                           |
| MWB-351    | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                           |
| MWB-395    | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                           |
| MWB-395    | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                           |
| MWB-405    | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate |                           |
| SGMW-15(R) | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Damaged | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | "                     | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Turbid | <input checked="" type="checkbox"/> OK <input type="checkbox"/> Inadequate | LOCK HAD TO BE CUT TURBID |
|            | <input type="checkbox"/> OK <input type="checkbox"/> Damaged            | <input type="checkbox"/> OK <input type="checkbox"/> Damaged            | <input type="checkbox"/> OK <input type="checkbox"/> Inadequate            | <input type="checkbox"/> Yes <input type="checkbox"/> No            | "                     | <input type="checkbox"/> Clear <input type="checkbox"/> Turbid            | <input type="checkbox"/> OK <input type="checkbox"/> Inadequate            |                           |
|            | <input type="checkbox"/> OK <input type="checkbox"/> Damaged            | <input type="checkbox"/> OK <input type="checkbox"/> Damaged            | <input type="checkbox"/> OK <input type="checkbox"/> Inadequate            | <input type="checkbox"/> Yes <input type="checkbox"/> No            |                       | <input type="checkbox"/> Clear <input type="checkbox"/> Turbid            | <input type="checkbox"/> OK <input type="checkbox"/> Inadequate            |                           |

\* Note ponding water, weep holes, or any other information pertaining to well condition. Provide additional details on listed items. Return this form to Site Manager - FOR INTERNAL USE ONLY.

|                          |            |                                 |  |
|--------------------------|------------|---------------------------------|--|
| SITE NAME: TRAIL RIDGE   |            | SITE LOCATION: JACKSONVILLE, FL |  |
| WELL NO: EQUIPMENT BLANK | SAMPLE ID: | DATE: 2.26.20                   |  |

## PURGING DATA

[illegible]

### SAMPLING DATA

| SAMPLED BY (PRINT) / AFFILIATION:                                                                                                                                                                                           |                                             |               |        | SAMPLER(S) SIGNATURE(S):                                                            |                               |          | SAMPLING INITIATED AT:                                                           |  | SAMPLING ENDED AT:                                                         |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------|--------|-------------------------------------------------------------------------------------|-------------------------------|----------|----------------------------------------------------------------------------------|--|----------------------------------------------------------------------------|--|
| DAN ARMOUR<br>BLAINE GARYSON / PRO-TECH                                                                                                                                                                                     |                                             |               |        |  |                               |          | 1351                                                                             |  | NR                                                                         |  |
| PUMP OR TUBING DEPTH IN WELL (feet):                                                                                                                                                                                        |                                             |               |        | TUBING MATERIAL CODE:                                                               |                               |          | FIELD FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> |  | FILTER SIZE:                                                               |  |
| NA                                                                                                                                                                                                                          |                                             |               |        | NA                                                                                  |                               |          | µm                                                                               |  |                                                                            |  |
| FIELD DECONTAMINATION: PUMP Y N NA TUBING Y N (replaced)                                                                                                                                                                    |                                             |               |        |                                                                                     |                               |          | FILTRATION EQUIPMENT TYPE:                                                       |  | DUPLICATE Y <input checked="" type="checkbox"/> N <input type="checkbox"/> |  |
| SAMPLE CONTAINER SPECIFICATION                                                                                                                                                                                              |                                             |               |        | SAMPLE PRESERVATION                                                                 |                               |          | INTENDED ANALYSIS AND/OR METHOD                                                  |  | SAMPLING EQUIPMENT CODE                                                    |  |
| SAMPLE ID CODE                                                                                                                                                                                                              | # CONTAINERS                                | MATERIAL CODE | VOLUME | PRESERVATIVE USED                                                                   | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH |                                                                                  |  |                                                                            |  |
|                                                                                                                                                                                                                             |                                             |               |        |                                                                                     |                               |          |                                                                                  |  |                                                                            |  |
| ⑤                                                                                                                                                                                                                           | SEE SAMPLE L-0-4 AND BOTTLE ORDER WORKSHEET |               |        |                                                                                     |                               |          |                                                                                  |  |                                                                            |  |
|                                                                                                                                                                                                                             |                                             |               |        |                                                                                     |                               |          |                                                                                  |  |                                                                            |  |
|                                                                                                                                                                                                                             |                                             |               |        |                                                                                     |                               |          |                                                                                  |  |                                                                            |  |
| REMARKS:                                                                                                                                                                                                                    |                                             |               |        |                                                                                     |                               |          |                                                                                  |  |                                                                            |  |
| SWEEN: NA EB- COMPLETED USING D.I. H2O PROVIDED BY TEST AMERICA                                                                                                                                                             |                                             |               |        |                                                                                     |                               |          |                                                                                  |  |                                                                            |  |
| MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other                                                                                              |                                             |               |        |                                                                                     |                               |          |                                                                                  |  |                                                                            |  |
| SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify) |                                             |               |        |                                                                                     |                               |          |                                                                                  |  |                                                                            |  |

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 6$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

[illegible]

Revision Date: February 12, 2009

# GROUNDWATER SAMPLING LOG

|                               |            |                                        |  |
|-------------------------------|------------|----------------------------------------|--|
| SITE NAME: <b>TRAIL RIDGE</b> |            | SITE LOCATION: <b>JACKSONVILLE, FL</b> |  |
| WELL NO: <b>MWB20S</b>        | SAMPLE ID: | DATE: <b>2-26-20</b>                   |  |

| PURGING DATA                                                                                                                   |                                      |                                                              |                                            |
|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------------|--------------------------------------------|
| WELL DIAMETER (inches): <b>2</b>                                                                                               | TUBING DIAMETER (inches): <b>3/8</b> | WELL SCREEN INTERVAL DEPTH: <b>10</b> feet to <b>20</b> feet | STATIC DEPTH TO WATER (feet): <b>10.65</b> |
| WELL ELEVATION TOC (ft NGVD): <b>121.01</b>                                                                                    |                                      | GROUNDWATER ELEVATION (ft NGVD): <b>110.36</b>               |                                            |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable) |                                      |                                                              |                                            |

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

= **0.3** gallons + (**0.006** gallons/foot X **20.00** feet) + **0.05** gallons = **0.47** gallons

|                                                           |                                                         |                                   |                               |                                            |
|-----------------------------------------------------------|---------------------------------------------------------|-----------------------------------|-------------------------------|--------------------------------------------|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <b>15.00</b> | FINAL PUMP OR TUBING DEPTH IN WELL (feet): <b>15.00</b> | PURGING INITIATED AT: <b>1240</b> | PURGING ENDED AT: <b>1301</b> | TOTAL VOLUME PURGED (gallons): <b>3.36</b> |
|-----------------------------------------------------------|---------------------------------------------------------|-----------------------------------|-------------------------------|--------------------------------------------|

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units)<br>μmhos/cm or μS/cm | DISSOLVED OXYGEN (circle units)<br>mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR  | ODOF |
|------|-------------------------|--------------------------------|------------------|-----------------------|---------------------|------------|-------------------------------------------|---------------------------------------------------------|------------------|----------|--------|------|
| 251  | 1.76                    | 1.76                           | 0.16             | 10.97                 | 4.64                | 22.6       | 396                                       | 0.4                                                     | 22.70            | 178      |        |      |
| 254  | 0.48                    | 2.24                           | 0.16             | 10.97                 | 4.65                | 22.5       | 398                                       | 0.4                                                     | 22.50            | 177      |        |      |
| 257  | 0.48                    | 2.72                           | 0.16             | 10.97                 | 4.66                | 22.5       | 399                                       | 0.3                                                     | 15.98            | 125      |        |      |
| 300  | 0.48                    | 3.20                           | 0.16             | 10.97                 | 4.66                | 22.4       | 401                                       | 0.3                                                     | 17.87            | 124      | YELLOW |      |
|      |                         |                                |                  |                       |                     |            |                                           |                                                         |                  |          | TAN    |      |
|      |                         |                                |                  |                       |                     |            |                                           |                                                         |                  |          | TWT    |      |

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; 6" = 1.02; 8" = 1.47; 12" = 5.68  
 TUBING INSIDE DIA. CAPACITY (Gal./ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

|                                                                    |  |                                                                |  |                                                              |                              |
|--------------------------------------------------------------------|--|----------------------------------------------------------------|--|--------------------------------------------------------------|------------------------------|
| FILED BY (PRINT) / AFFILIATION: <b>W ARMOUR / PRO-TECH</b>         |  | SAMPLER(S) SIGNATURE(S):                                       |  | SAMPLING INITIATED AT: <b>1301</b>                           | SAMPLING ENDED AT: <b>NR</b> |
| P OR TUBING DEPTH IN WELL (feet): <b>15.00</b>                     |  | TUBING MATERIAL CODE: <b>T</b>                                 |  | FIELD-FILTERED: <b>Y</b> <input checked="" type="checkbox"/> | FILTER SIZE: <b>NR</b>       |
| DECONTAMINATION: PUMP <b>Y</b> <input checked="" type="checkbox"/> |  | TUBING <b>Y</b> <input checked="" type="checkbox"/> (replaced) |  | DUPLICATE: <b>Y</b> <input checked="" type="checkbox"/>      |                              |

| SAMPLE CONTAINER SPECIFICATION |              |               |        | SAMPLE PRESERVATION |                               |          | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|--------------------------------|--------------|---------------|--------|---------------------|-------------------------------|----------|---------------------------------|---------------------------------------|-------------------------|
| DATE                           | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED   | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH |                                 |                                       |                         |
|                                | SEE          | SAMPLE        | C-O-C  | AND                 | BOTTLE                        | ORDER    | WDAKSHEET                       |                                       |                         |

REMARKS:

Shoen Present: YES ☒ (NO)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFP = Reverse Flow Peristaltic Pump; SM = Squeeze Method (Tubing Gravity Drain); O = Other (Specify)

1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.  
 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)  
 pH: ± 0.2 units; Temperature: ± 0.2 °C; Specific Conductance: ± 5%; Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or ± 10% (whichever is greater); Turbidity: all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

**RESEARCH DESIGN**

| SAMPLE CONTAINER SPECIFICATION |            |               |        | SAMPLE PRESERVATION |                               |          | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|--------------------------------|------------|---------------|--------|---------------------|-------------------------------|----------|---------------------------------|---------------------------------------|-------------------------|
| LE<br>DE                       | CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED   | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH |                                 |                                       |                         |
| 1                              | SEE        | SAMPLE        | C-O-C  | AND                 | BOTTLE                        | ORDER    | WORKSHEET                       |                                       |                         |

Shoen Present YES (NO)

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

- Revision Date: February 12, 2009

• 400 • 0 30000-24

### SAMPLING DATA

REMARKS:

Shoen Present: YES (NO)

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPF = Reverse Flow Peristaltic Pump; SM = Suck Method (Tubing Gravity Drain); O = Other (Specify)

3: 1. The above do not constitute all of the Information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION J)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 6$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

|                        |            |                                 |  |
|------------------------|------------|---------------------------------|--|
| SITE NAME: TRAIL RIDGE |            | SITE LOCATION: JACKSONVILLE, FL |  |
| WELL NO: MW2225        | SAMPLE ID: | DATE: 2-26-20                   |  |
| PURGING DATA           |            |                                 |  |

| PURGING DATA                                                                                                                   |                                  |                                                   |                                         |
|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------------------|-----------------------------------------|
| WELL<br>DIAMETER (inches): 2                                                                                                   | TUBING<br>DIAMETER (inches): 3/8 | WELL SCREEN INTERVAL<br>DEPTH: 16 feet to 26 feet | STATIC DEPTH<br>TO WATER (feet): 12.59  |
| WELL ELEVATION TOC (ft NGVD): 126.97                                                                                           |                                  | PURGE PUMP TYPE<br>OR BAILER: BP                  |                                         |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable) |                                  |                                                   | GROUNDWATER ELEVATION (ft NGVD): 114.38 |

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

= 0.3 gallons + (0.006 gallons/foot X 26.00 feet) + 0.05 gallons = 0.5 gallons

[illegible]

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 1.5" = 0.10; 1.75" = 0.17; 2" = 0.25; 2.25" = 0.37; 2.5" = 0.50; 2.75" = 0.65; 3" = 0.80; 3.25" = 0.97; 3.5" = 1.15; 3.75" = 1.35; 4" = 1.55; 4.25" = 1.75; 4.5" = 1.95; 4.75" = 2.15; 5" = 2.35; 5.25" = 2.55; 5.5" = 2.75; 5.75" = 2.95; 6" = 3.15; 6.25" = 3.35; 6.5" = 3.55; 6.75" = 3.75; 7" = 3.95; 7.25" = 4.15; 7.5" = 4.35; 7.75" = 4.55; 8" = 4.75; 8.25" = 4.95; 8.5" = 5.15; 8.75" = 5.35; 9" = 5.55; 9.25" = 5.75; 9.5" = 5.95; 9.75" = 6.15; 10" = 6.35; 10.25" = 6.55; 10.5" = 6.75; 10.75" = 6.95; 11" = 7.15; 11.25" = 7.35; 11.5" = 7.55; 11.75" = 7.75; 12" = 7.95; 12.25" = 8.15; 12.5" = 8.35; 12.75" = 8.55; 13" = 8.75; 13.25" = 8.95; 13.5" = 9.15; 13.75" = 9.35; 14" = 9.55; 14.25" = 9.75; 14.5" = 9.95; 14.75" = 10.15; 15" = 10.35; 15.25" = 10.55; 15.5" = 10.75; 15.75" = 10.95; 16" = 11.15; 16.25" = 11.35; 16.5" = 11.55; 16.75" = 11.75; 17" = 11.95; 17.25" = 12.15; 17.5" = 12.35; 17.75" = 12.55; 18" = 12.75; 18.25" = 12.95; 18.5" = 13.15; 18.75" = 13.35; 19" = 13.55; 19.25" = 13.75; 19.5" = 13.95; 19.75" = 14.15; 20" = 14.35; 20.25" = 14.55; 20.5" = 14.75; 20.75" = 14.95; 21" = 15.15; 21.25" = 15.35; 21.5" = 15.55; 21.75" = 15.75; 22" = 15.95; 22.25" = 16.15; 22.5" = 16.35; 22.75" = 16.55; 23" = 16.75; 23.25" = 16.95; 23.5" = 17.15; 23.75" = 17.35; 24" = 17.55; 24.25" = 17.75; 24.5" = 17.95; 24.75" = 18.15; 25" = 18.35; 25.25" = 18.55; 25.5" = 18.75; 25.75" = 18.95; 26" = 19.15; 26.25" = 19.35; 26.5" = 19.55; 26.75" = 19.75; 27" = 19.95; 27.25" = 20.15; 27.5" = 20.35; 27.75" = 20.55; 28" = 20.75; 28.25" = 20.95; 28.5" = 21.15; 28.75" = 21.35; 29" = 21.55; 29.25" = 21.75; 29.5" = 21.95; 29.75" = 22.15; 30" = 22.35; 30.25" = 22.55; 30.5" = 22.75; 30.75" = 22.95; 31" = 23.15; 31.25" = 23.35; 31.5" = 23.55; 31.75" = 23.75; 32" = 23.95; 32.25" = 24.15; 32.5" = 24.35; 32.75" = 24.55; 33" = 24.75; 33.25" = 24.95; 33.5" = 25.15; 33.75" = 25.35; 34" = 25.55; 34.25" = 25.75; 34.5" = 25.95; 34.75" = 26.15; 35" = 26.35; 35.25" = 26.55; 35.5" = 26.75; 35.75" = 26.95; 36" = 27.15; 36.25" = 27.35; 36.5" = 27.55; 36.75" = 27.75; 37" = 27.95; 37.25" = 28.15; 37.5" = 28.35; 37.75" = 28.55; 38" = 28.75; 38.25" = 28.95; 38.5" = 29.15; 38.75" = 29.35; 39" = 29.55; 39.25" = 29.75; 39.5" = 29.95; 39.75" = 30.15; 40" = 30.35; 40.25" = 30.55; 40.5" = 30.75; 40.75" = 30.95; 41" = 31.15; 41.25" = 31.35; 41.5" = 31.55; 41.75" = 31.75; 42" = 31.95; 42.25" = 32.15; 42.5" = 32.35; 42.75" = 32.55; 43" = 32.75; 43.25" = 32.95; 43.5" = 33.15; 43.75" = 33.35; 44" = 33.55; 44.25" = 33.75; 44.5" = 33.95; 44.75" = 34.15; 45" = 34.35; 45.25" = 34.55; 45.5" = 34.75; 45.75" = 34.95; 46" = 35.15; 46.25" = 35.35; 46.5" = 35.55; 46.75" = 35.75; 47" = 35.95; 47.25" = 36.15; 47.5" = 36.35; 47.75" = 36.55; 48" = 36.75; 48.25" = 36.95; 48.5" = 37.15; 48.75" = 37.35; 49" = 37.55; 49.25" = 37.75; 49.5" = 37.95; 49.75" = 38.15; 50" = 38.35; 50.25" = 38.55; 50.5" = 38.75; 50.75" = 38.95; 51" = 39.15; 51.25" = 39.35; 51.5" = 39.55; 51.75" = 39.75; 52" = 39.95; 52.25" = 40.15; 52.5" = 40.35; 52.75" = 40.55; 53" = 40.75; 53.25" = 40.95; 53.5" = 41.15; 53.75" = 41.35; 54" = 41.55; 54.25" = 41.75; 54.5" = 41.95; 54.75" = 42.15; 55" = 42.35; 55.25" = 42.55; 55.5" = 42.75; 55.75" = 42.95; 56" = 43.15; 56.25" = 43.35; 56.5" = 43.55; 56.75" = 43.75; 57" = 43.95; 57.25" = 44.15; 57.5" = 44.35; 57.75" = 44.55; 58" = 44.75; 58.25" = 44.95; 58.5" = 45.15; 58.75" = 45.35; 59" = 45.55; 59.25" = 45.75; 59.5" = 45.95; 59.75" = 46.15; 60" = 46.35; 60.25" = 46.55; 60.5" = 46.75; 60.75" = 46.95; 61" = 47.15; 61.25" = 47.35; 61.5" = 47.55; 61.75" = 47.75; 62" = 47.95; 62.25" = 48.15; 62.5" = 48.35; 62.75" = 48.55; 63" = 48.75; 63.25" = 48.95; 63.5" = 49.15; 63.75" = 49.35; 64" = 49.55; 64.25" = 49.75; 64.5" = 49.95; 64.75" = 50.15; 65" = 50.35; 65.25" = 50.55; 65.5" = 50.75; 65.75" = 50.95; 66" = 51.15; 66.25" = 51.35; 66.5" = 51.55; 66.75" = 51.75; 67" = 51.95; 67.25" = 52.15; 67.5" = 52.35; 67.75" = 52.55; 68" = 52.75; 68.25" = 52.95; 68.5" = 53.15; 68.75" = 53.35; 69" = 53.55; 69.25" = 53.75; 69.5" = 53.95; 69.75" = 54.15; 70" = 54.35; 70.25" = 54.55; 70.5" = 54.75; 70.75" = 54.95; 71" = 55.15; 71.25" = 55.35; 71.5" = 55.55; 71.75" = 55.75; 72" = 55.95; 72.25" = 56.15; 72.5" = 56.35; 72.75" = 56.55; 73" = 56.75; 73.25" = 56.95; 73.5" = 57.15; 73.75" = 57.35; 74" = 57.55; 74.25" = 57.75; 74.5" = 57.95; 74.75" = 58.15; 75" = 58.35; 75.2

**PURGING EQUIPMENT CODES:** B = Baller; BP = Bladder Pump; E&P = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

|                                                                                                                        |  |                                                |  |                                                                                           |  |                       |  |
|------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------|--|-------------------------------------------------------------------------------------------|--|-----------------------|--|
| FILED BY (PRINT) / AFFILIATION:<br>W. ARMOUR / PRD-TECH                                                                |  | SAMPLER(S) SIGNATURE(S):<br><i>[Signature]</i> |  | SAMPLING INITIATED AT: 0953                                                               |  | SAMPLING ENDED AT: NR |  |
| PUMP OR TUBING USED IN WELL (Well):<br>21.00                                                                           |  | TUBING MATERIAL CODE: T                        |  | FIELD-FILTERED: Y <input checked="" type="checkbox"/><br>µm<br>Filtration Equipment Type: |  | FILTER SIZE:          |  |
| DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/><br>TUBING Y <input checked="" type="checkbox"/> (replaced) |  |                                                |  | DUPLICATE: Y <input checked="" type="checkbox"/>                                          |  |                       |  |

[illegible]

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Siphon Method (Tubing Gravity Drain); O = Other (Specify)

S: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION J)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

# GROUNDWATER SAMPLING LOG

|                        |            |                                 |  |
|------------------------|------------|---------------------------------|--|
| SITE NAME: TRAIL RIDGE |            | SITE LOCATION: JACKSONVILLE, FL |  |
| WELL NO: MWB133        | SAMPLE ID: | DATE: 2-26-20                   |  |

PURGING DATA

| PURGING DATA                                                                                  |   |                                  |       |
|-----------------------------------------------------------------------------------------------|---|----------------------------------|-------|
| WELL<br>DIAMETER (Inches):                                                                    | 2 | TUBING<br>DIAMETER (Inches):     | 5/8   |
| WELL SCREEN INTERVAL<br>DEPTH: 165.5 feet to 26.5 feet                                        |   | STATIC DEPTH<br>TO WATER (feet): | 12.46 |
| WELL ELEVATION TOC (ft NGVD):                                                                 |   | PURGE PUMP TYPE<br>OR BAILER: SP |       |
| 126.06                                                                                        |   | GROUNDWATER ELEVATION (ft NGVD): |       |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY |   | 113.60                           |       |
| (only fill out if applicable)                                                                 |   |                                  |       |

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

$$= 0.3 \text{ gallons} + (0.006 \text{ gallons/foot} \times 26.56 \text{ feet}) + 0.05 \text{ gallons} = 0.51 \text{ gallons}$$

| INITIAL PUMP OR TUBING | FINAL PUMP OR TUBING |
|------------------------|----------------------|
|                        |                      |

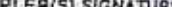
|                                                    |  |                                                  |  |                            |  |                        |  |                                     |  |
|----------------------------------------------------|--|--------------------------------------------------|--|----------------------------|--|------------------------|--|-------------------------------------|--|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 21.56 |  | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 21.56 |  | PURGING INITIATED AT: 0901 |  | PURGING ENDED AT: 0921 |  | TOTAL VOLUME PURGED (gallons): 3.60 |  |
|----------------------------------------------------|--|--------------------------------------------------|--|----------------------------|--|------------------------|--|-------------------------------------|--|

[illegible]

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; 6" = 1.02; 8" = 1.47; 12" = 5.88  
TUBING INSIDE DIA. CAPACITY (GAL/FT.): 1/8" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0028; 5/16" = 0.004; 3/8" = 0.008; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

### SAMPLING DATA

|                                                                      |  |                                                                                                                 |  |                                                                |  |                              |  |
|----------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------|--|------------------------------|--|
| PLED BY (PRINT) / AFFILIATION:<br><b>W. ARMOUR / PRO-TECH</b>        |  | SAMPLER(S) SIGNATURE(S):<br> |  | SAMPLING INITIATED AT: <b>0921</b>                             |  | SAMPLING ENDED AT: <b>NR</b> |  |
| P OR TUBING<br>TH IN WELL (feet):<br><b>21.56</b>                    |  | TUBING MATERIAL CODE: <b>T</b>                                                                                  |  | FIELD-FILTERED: Y <input checked="" type="checkbox"/> <b>0</b> |  | FILTER SIZE:                 |  |
| DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> <b>0</b> |  | TUBING Y <input checked="" type="checkbox"/> <b>0</b> (replaced)                                                |  | DUPLICATE: Y <input checked="" type="checkbox"/> <b>0</b>      |  |                              |  |

| SAMPLE CONTAINER SPECIFICATION |               |        |                   | SAMPLE PRESERVATION           |           |  | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|--------------------------------|---------------|--------|-------------------|-------------------------------|-----------|--|---------------------------------|---------------------------------------|-------------------------|
| CONTAINERS                     | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH  |  |                                 |                                       |                         |
| SEE                            | SAMPLE        | C-O-C  | AND BOTTLE        | DATA                          | WPAKSHEET |  |                                 |                                       |                         |

REMARKS:

Shaan Present: YES (NO)

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other  
(Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Siphon Method (Tubing Gravity Drain); O = Other (Specify)

S: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION J)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2^{\circ}\text{C}$  Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2\text{ mg/L}$  or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20\text{ NTU}$ ; optionally  $\pm 5\text{ NTU}$  or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

[illegible]

### SAMPLING DATA

REMARKS:

Shoen Present: YES (NO)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
 RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)  
pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

# GROUNDWATER SAMPLING LOG

[illegible]

### SAMPLING DATA

[illegible]

REMARKS:

Shoen Present: YES (NO)

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other  
(Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Sraw Method (Tubing Gravity Drain); O = Other (Specify)

S: 1. The above do not constitute all of the information required by Chapter 82-180, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

• 2011: 0000-22

### SAMPLING DATA

REMARKS:

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicon; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Siphon Method (Tubing Gravity Drain); O = Other (Specify)

- Revision Date: February 12, 2009

**U.S. AIR FORCE SUPPLY-24**

### SAMPLING DATA

REMARKS:

Sheen Present YES (NO)

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

IS: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 6$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009



[illegible]

### SAMPLING DATA

REMARKS:

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Sraw Method (Tubing Gravity Drain); O = Other (Specify)

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

## 0000-0000-0000-0000

### SAMPLING DATA

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

1. The above do not constitute all of the information required by Chapter 82-160, F.A.C.

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $< 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $< 20$  NTU; optionally  $\pm 6$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

# GROUNDWATER SAMPLING LOG

[illegible]

### SAMPLING DATA

| PLED BY (PRINT) / AFFILIATION:                           |               |        |                   | SAMPLER(S) SIGNATURE(S):                             |           |  | SAMPLING INITIATED AT:                             |  | SAMPLING ENDED AT:      |  |
|----------------------------------------------------------|---------------|--------|-------------------|------------------------------------------------------|-----------|--|----------------------------------------------------|--|-------------------------|--|
| IN ARMOUR / PRO-TECH                                     |               |        |                   | [Signature]                                          |           |  | 1227                                               |  | NR                      |  |
| OR TUBING<br>IN WELL (Feet): 50.00                       |               |        |                   | TUBING MATERIAL CODE: T                              |           |  | FIELD-FILTERED: Y <input checked="" type="radio"/> |  | FILTER SIZE:            |  |
| DECONTAMINATION: PUMP Y <input checked="" type="radio"/> |               |        |                   | TUBING Y <input checked="" type="radio"/> (replaced) |           |  | DUPLICATE: Y <input checked="" type="radio"/>      |  |                         |  |
| SAMPLE CONTAINER SPECIFICATION                           |               |        |                   | SAMPLE PRESERVATION                                  |           |  | INTENDED ANALYSIS AND/OR METHOD                    |  | SAMPLING EQUIPMENT CODE |  |
| CONTAINERS                                               | MATERIAL CODE | VOLUME | PRESERVATIVE USED | TOTAL VOL ADDED IN FIELD (mL)                        | FINAL pH  |  |                                                    |  |                         |  |
| SEE                                                      | SAMPLE        | C-O-C  | AND BOTTLE        | ORDER                                                | WORKSHEET |  |                                                    |  |                         |  |

REMARKS:

Shoen Present YES (NO)

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

S: 1. The above do not constitute all of the information required by Chapter 82-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009



PURGING EQUIPMENT CODES: B = Baller, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)

## Revision Date: February 12, 2009

[illegible]

### SAMPLING DATA

REMARKS:

**SAMPLING EQUIPMENT CODES:** APP = After Partially Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPF = Reverse Flow Partially Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

Revision Date: February 12, 2009

### SAMPLING DATA

REMARKS:

Sharon Present: YES (NO)

**MATERIAL CODES:** AG = Amber Glass; GG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION J)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

[illegible]

WELL CAPACITY (Gallons Per Foot): 0.76" = 0.02; 1" = 0.04; 1.31" = 0.06; 2" = 0.18; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88  
TUBING INSIDE DIA. CAPACITY (GAL/FT.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0028; 5/16" = 0.004; 3/8" = 0.008; 1/2" = 0.010; 5/8" = 0.016  
PUMPING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

### SAMPLING DATA

| SAMPLING DATA            |               |                          |                     |                               |                       |  |
|--------------------------|---------------|--------------------------|---------------------|-------------------------------|-----------------------|--|
| Y (PRINT) / AFFILIATION: |               | SAMPLER(S) SIGNATURE(S): |                     | SAMPLING INITIATED AT: 1331   | SAMPLING ENDED AT: NR |  |
| ARMOUR / PRO-TECH        |               |                          |                     |                               |                       |  |
| USING WELL (feet): 57.00 |               | TUBING MATERIAL CODE: T  |                     | FIELD-FILTERED: Y             | FILTER SIZE:          |  |
|                          |               |                          |                     | $\mu m$                       |                       |  |
| CONTAMINATION: PUMP Y    |               | TUBING Y  (replaced)     |                     | Filtration Equipment Type:    |                       |  |
|                          |               |                          |                     | DUPLICATE: Y                  |                       |  |
| CONTAINER SPECIFICATION  |               |                          | SAMPLE PRESERVATION |                               |                       |  |
| CONTAINERS               | MATERIAL CODE | VOLUME                   | PRESERVATIVE USED   | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH              |  |
|                          |               |                          |                     |                               |                       |  |
|                          |               |                          |                     |                               |                       |  |
|                          |               |                          |                     |                               |                       |  |
| SEE                      | SAMPLE        | C-O-C                    | AND BOTTLE          | ORDER                         | WORKSHEET             |  |
|                          |               |                          |                     |                               |                       |  |
|                          |               |                          |                     |                               |                       |  |
|                          |               |                          |                     |                               |                       |  |
|                          |               |                          |                     |                               |                       |  |

REMARKS

Sheen Present: YES NO

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Baler; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 82-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009



|            |             |            |                |                  |
|------------|-------------|------------|----------------|------------------|
| SITE NAME: | TRAIL RIDGE |            | SITE LOCATION: | JACKSONVILLE, FL |
| WELL NO:   | MWB-355     | SAMPLE ID: |                | DATE: 2.27.20    |

### PURGING DATA

| PURGING DATA                                        |   |                                  |      |
|-----------------------------------------------------|---|----------------------------------|------|
| WELL<br>DIAMETER (inches):                          | 2 | TUBING<br>DIAMETER (inches):     | 1.4  |
| WELL SCREEN INTERVAL<br>DEPTH: 7.5 feet to 7.5 feet |   | STATO DEPTH<br>TO WATER (feet):  | 8.29 |
| WELL ELEVATION TOC (ft NGVD):                       |   | PURGE PUMP TYPE<br>OR SAILER: PP |      |

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY

$$= 17.50 \text{ feet} - 8.29 \text{ feet} \times 0.163 \text{ gallons/foot} = 1.30 \text{ gallons}$$

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME  
(only fill out if applicable)  
= 0.0 gallons + (0.002 gallons/foot X 17.50 feet) + 0.05 gallons = 0.035 gallons

|                                                    |                                                  |                            |                        |                                  |
|----------------------------------------------------|--------------------------------------------------|----------------------------|------------------------|----------------------------------|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 13.00 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 13.00 | PURGING INITIATED AT: 1416 | PURGING ENDED AT: 1437 | TOTAL VOLUME PURGED (gallons): 2 |
|----------------------------------------------------|--------------------------------------------------|----------------------------|------------------------|----------------------------------|

[illegible]

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; 6" = 1.02; 8" = 1.47; 12" = 5.66  
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0028; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

### SAMPLING DATA

|                                                              |                                                                                                                 |                             |                       |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------|
| SAMPLED BY (PRINT) / AFFILIATION:<br>DANNY ARMOUR / PRO-TEAM | SAMPLER(S) SIGNATURE(S):<br> | SAMPLING INITIATED AT: 1437 | SAMPLING ENDED AT: NR |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------|

|                                      |       |                       |   |                                                       |              |
|--------------------------------------|-------|-----------------------|---|-------------------------------------------------------|--------------|
| PUMP OR TUBING DEPTH IN WELL (feet): | 17.00 | TUBING MATERIAL CODE: | P | FIELD-FILTERED: Y <input checked="" type="checkbox"/> | FILTER SIZE: |
|                                      |       |                       |   | µm                                                    |              |
|                                      |       |                       |   | Filtration Equipment Type:                            |              |

|                        |      |   |    |        |   |              |            |   |    |
|------------------------|------|---|----|--------|---|--------------|------------|---|----|
| FIELD DECONTAMINATION: | PUMP | Y | FR | TUBING | Y | N (replaced) | DUPLICATE: | Y | CD |
|------------------------|------|---|----|--------|---|--------------|------------|---|----|

[illegible]

REMARKS:

Shoen Present: YES ☒ NO

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; Q = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = Aner. Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 82-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION J)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

15-00000-24

DATE: 2-27-20

|                         |               |   |        |  |          |  |                |  |         |
|-------------------------|---------------|---|--------|--|----------|--|----------------|--|---------|
| EQUIPMENT VOLUME PURGE: | $\frac{1}{2}$ | ( | feet - |  | (feet) X |  | gallons/foot = |  | gallons |
|-------------------------|---------------|---|--------|--|----------|--|----------------|--|---------|

|                             |  |                             |  |                            |  |                        |  |                                    |  |
|-----------------------------|--|-----------------------------|--|----------------------------|--|------------------------|--|------------------------------------|--|
| DEPTH IN WELL (feet): 15.00 |  | DEPTH IN WELL (feet): 15.00 |  | PURGING INITIATED AT: 1240 |  | PURGING ENDED AT: 1300 |  | TOTAL VOLUME PURGED (gallons): 3.2 |  |
|-----------------------------|--|-----------------------------|--|----------------------------|--|------------------------|--|------------------------------------|--|

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 1.5" = 0.10; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 5.88  
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0028; 5/16" = 0.004; 3/8" = 0.008; 1/2" = 0.010; 5/8" = 0.016

### SAMPLING DATA

|                        |      |   |                                     |        |   |                                                |            |   |                                     |
|------------------------|------|---|-------------------------------------|--------|---|------------------------------------------------|------------|---|-------------------------------------|
| FIELD DECONTAMINATION: | PUMP | Y | <input checked="" type="checkbox"/> | TUBING | Y | <input checked="" type="checkbox"/> (replaced) | DUPLICATE: | Y | <input checked="" type="checkbox"/> |
|------------------------|------|---|-------------------------------------|--------|---|------------------------------------------------|------------|---|-------------------------------------|

REMARKS: Sheen Present YES (RO)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Siphon Method (Tubing Gravity Drain); O = Other (Specify)

Revision Date: February 12, 2009



## SAMPLING DATA

REMARKS:

Shoen Present YES NO

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = Aner Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 52-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2^{\circ}\text{C}$  Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2\text{ mg/L}$  or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20\text{ NTU}$ ; optionally  $\pm 5\text{ NTU}$  or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

# GROUNDWATER SAMPLING LOG

[illegible]

### SAMPLING DATA

| SAMPLE CONTAINER SPECIFICATION |            |               |            | SAMPLE PRESERVATION |                               |          | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|--------------------------------|------------|---------------|------------|---------------------|-------------------------------|----------|---------------------------------|---------------------------------------|-------------------------|
| WELL NO.                       | CONTAINERS | MATERIAL CODE | VOLUME     | PRESERVATIVE USED   | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH |                                 |                                       |                         |
| 1                              | SEE SAMPLE | C-O-C         | AND BOTTLE | DRQA                | WPAK SHEET                    |          |                                 |                                       |                         |

REMARKS:

Shaan Present: YES (NO)

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; Q = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = Aher Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Sraw Method (Tubing Gravity Drain); O = Other (Specify)

ES: 1. The above do not constitute all of the information required by Chapter 82-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units; Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

# GROUNDWATER SAMPLING LOG

|                               |            |                                        |  |
|-------------------------------|------------|----------------------------------------|--|
| SITE NAME: <b>TRAIL RIDGE</b> |            | SITE LOCATION: <b>JACKSONVILLE, FL</b> |  |
| WELL NO: <b>MWB333</b>        | SAMPLE ID: | DATE: <b>2-28-20</b>                   |  |

|                                                                                                                                                                                                                                                                                  |                                                         |                                                           |                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------|
| <b>PURGING DATA</b>                                                                                                                                                                                                                                                              |                                                         |                                                           |                                            |
| WELL DIAMETER (inches): <b>2</b>                                                                                                                                                                                                                                                 | TUBING DIAMETER (inches): <b>3/8</b>                    | WELL SCREEN INTERVAL DEPTH: <b>10.3 feet to 20.3 feet</b> | STATIC DEPTH TO WATER (feet): <b>10.45</b> |
| WELL ELEVATION TOC (ft NGVD): <b>125.90</b>                                                                                                                                                                                                                                      |                                                         | GROUNDWATER ELEVATION (ft NGVD): <b>115.45</b>            |                                            |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable)<br>$= (20.30 \text{ feet} - 10.45 \text{ feet}) \times 0.163 \text{ gallons/foot} = 1.61 \text{ gallons}$                                         |                                                         |                                                           |                                            |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable)<br>$= 0.3 \text{ gallons} + (0.006 \text{ gallons/foot} \times 20.30 \text{ feet}) + 0.05 \text{ gallons} = 0.47 \text{ gallons}$ |                                                         |                                                           |                                            |
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <b>15.30</b>                                                                                                                                                                                                                        | FINAL PUMP OR TUBING DEPTH IN WELL (feet): <b>15.30</b> | PURGING INITIATED AT: <b>0738</b>                         | PURGING ENDED AT: <b>0759</b>              |
|                                                                                                                                                                                                                                                                                  |                                                         |                                                           | TOTAL VOLUME PURGED (gallons): <b>3.36</b> |

| TIME | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (microhm/cm or µS/cm) | DISSOLVED OXYGEN (micro units) mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR  | ODOR |
|------|-------------------------|--------------------------------|------------------|-----------------------|---------------------|------------|-----------------------------|-----------------------------------------------------|------------------|----------|--------|------|
| 0749 | 1.76                    | 1.76                           | 0.16             | 10.60                 | 5.53                | 18.8       | 167                         | 0.1                                                 | 5.21             | 114      |        |      |
| 0752 | 0.48                    | 2.24                           | 0.16             | 10.60                 | 5.53                | 18.9       | 167                         | 0.1                                                 | 4.37             | 114      |        |      |
| 0755 | 0.48                    | 2.72                           | 0.16             | 10.60                 | 5.55                | 18.8       | 168                         | 0.1                                                 | 4.41             | 114      |        |      |
| 0758 | 0.48                    | 3.20                           | 0.16             | 10.60                 | 5.57                | 18.8       | 169                         | 0.1                                                 | 4.60             | 115      | SLT    |      |
|      |                         |                                |                  |                       |                     |            |                             |                                                     |                  |          | Yellow |      |
|      |                         |                                |                  |                       |                     |            |                             |                                                     |                  |          | Tint   |      |

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" = 5.68  
 TUBING INSIDE DIA. CAPACITY (Gal/ft): 1/8" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0028; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016  
 PURGING EQUIPMENT CODES: B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

|                                                                                                                        |                                |                                                                              |  |                                    |                              |
|------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------------------------------------------------------|--|------------------------------------|------------------------------|
| SAMPLED BY (PRINT) / AFFILIATION: <b>AN ARMOUR / PRO-TECH</b>                                                          |                                | SAMPLER(S) SIGNATURE(S):                                                     |  | SAMPLING INITIATED AT: <b>0759</b> | SAMPLING ENDED AT: <b>NA</b> |
| WELL OR TUBING DEPTH IN WELL (feet): <b>15.30</b>                                                                      | TUBING MATERIAL CODE: <b>T</b> | FIELD-FILTERED: Y <input checked="" type="checkbox"/> (M) FILTER SIZE: _____ |  | Filtration Equipment Type: _____   |                              |
| DO DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> TUBING Y <input checked="" type="checkbox"/> (replaced) |                                | DUPLICATE: Y <input checked="" type="checkbox"/> (M)                         |  |                                    |                              |

| SAMPLE CONTAINER SPECIFICATION |            |               |            | SAMPLE PRESERVATION |                               |          | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|--------------------------------|------------|---------------|------------|---------------------|-------------------------------|----------|---------------------------------|---------------------------------------|-------------------------|
| PLE CODE                       | CONTAINERS | MATERIAL CODE | VOLUME     | PRESERVATIVE USED   | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH |                                 |                                       |                         |
| * SEE                          | SAMPLE     | C-O-C         | AND BOTTLE | ORDER               | WPAK SHEET                    |          |                                 |                                       |                         |

|                                                                                                                                                                                                                            |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| REMARKS:                                                                                                                                                                                                                   |  |
| Shoen Present YES <input checked="" type="checkbox"/> (NO)                                                                                                                                                                 |  |
| MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)                                                                                   |  |
| SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; RFP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify) |  |

ES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.  
 2. **STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)**  
 pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2) optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

[illegible]

DATE: 2-28-20

PURGE PUMP TYPE  
OR GALLER. **RD**

gallons

TOTAL VOLUME  
PURGED (gallons). 3.20

|       |  |
|-------|--|
| Brown |  |
|-------|--|

**PURGING EQUIPMENT CODES:** B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

### SAMPLING DATA

SAMPLING  
ENDED AT: *NR*

SAMPLING EQUIPMENT  
CODESAMPLING EQUIPMENT  
CODE

Shoen Present: YES (NO)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

Revision Date: February 12, 2009

07-11106-2 (11/10/11)

### SAMPLING DATA

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Baler; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2) optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $< 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

# GROUNDWATER SAMPLING LOG

|                        |            |                                 |               |
|------------------------|------------|---------------------------------|---------------|
| SITE NAME: TRAIL RIDGE |            | SITE LOCATION: JACKSONVILLE, FL |               |
| WELL NO: MWB34I        | SAMPLE ID: | PURCHASING DATE:                | DATE: 2-28-20 |

| PURGING DATA                                                                                                                |                               |                                         |                                     |
|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------|-------------------------------------|
| WELL DIAMETER (inches): 2                                                                                                   | TUBING DIAMETER (inches): 1.8 | WELL SCREEN INTERVAL DEPTH: 43.95 feet  | STATIC DEPTH TO WATER (feet): 10.12 |
| WELL ELEVATION TOC (ft NGVD): 125.80                                                                                        |                               | GROUNDWATER ELEVATION (ft NGVD): 115.68 |                                     |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) |                               |                                         |                                     |
| PURGE PUMP TYPE OR BAKER: BP                                                                                                |                               |                                         |                                     |

~~$$\text{EQUIPMENT VOLUME PURGE: } 1 \text{ EQUIPMENT VOL.} = \text{PUMP VOLUME} + (\text{TUBING CAPACITY} \times \text{TUBING LENGTH}) + \text{FLOW CELL VOLUME}$$
  
(only fill out if applicable)~~

|                                                    |  |                                                  |  |                            |                        |                                     |
|----------------------------------------------------|--|--------------------------------------------------|--|----------------------------|------------------------|-------------------------------------|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 48.95 |  | FINAL PUMP OR TUBING DEPTH IN WELL (feet): 48.95 |  | PURGING INITIATED AT: 0636 | PURGING ENDED AT: 0656 | TOTAL VOLUME PURGED (gallons): 0.67 |
|----------------------------------------------------|--|--------------------------------------------------|--|----------------------------|------------------------|-------------------------------------|

[illegible]

WELL CAPACITY (Gallons Per Foot): 0.76" = 0.02; 1" = 0.04; 1.26" = 0.06; 2" = 0.18; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 5.68  
TUBING INSIDE DIA. CAPACITY (Gal./FL): 1/8" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0028; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016  
PURGING EQUIPMENT CODES: B = Baller, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)

### SAMPLING DATA

|                                                             |  |                                                                                                                 |  |                                                       |  |                                                  |  |
|-------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------|--|--------------------------------------------------|--|
| SAMPLED BY (PRINT) / AFFILIATION:<br>IN ARMOUR / PRO-TECH   |  | SAMPLER(S) SIGNATURE(S):<br> |  | SAMPLING INITIATED AT: 0656                           |  | SAMPLING ENDED AT: NA                            |  |
| PUMP OR TUBING<br>DEPTH IN WELL (feet): 48.95               |  | TUBING MATERIAL CODE: T                                                                                         |  | FIELD-FILTERED: Y <input checked="" type="checkbox"/> |  | FILTER SIZE: NA                                  |  |
| DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> |  | TUBING Y <input checked="" type="checkbox"/> (replaced)                                                         |  | Filtration Equipment Type:                            |  | DUPLICATE: Y <input checked="" type="checkbox"/> |  |

| SAMPLE CONTAINER SPECIFICATION |            |               |        | SAMPLE PRESERVATION |                               |          | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|--------------------------------|------------|---------------|--------|---------------------|-------------------------------|----------|---------------------------------|---------------------------------------|-------------------------|
| CONTAINER TYPE                 | CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED   | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH |                                 |                                       |                         |
| ✓                              | SEE        | SAMPLE        | C-O-C  | AND                 | BOTTLE                        | ORDER    | WDAKSHEET                       |                                       |                         |

|                              |                                                                                                                                                                                                 |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| REMARKS:                     |                                                                                                                                                                                                 |
| Shoen Present: YES <u>NO</u> |                                                                                                                                                                                                 |
| MATERIAL CODES:              | AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)                                                                        |
| SAMPLING EQUIPMENT CODES:    | APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFP = Reverse Flow Peristaltic Pump; SM = Suck Method (Tubing Gravity Drain); O = Other (Specify) |

ES: 1. The above do not constitute all of the information required by Chapter 82-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION J)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

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47-0000-1

| PURGING DATA                                                                                  |           |                                  |        |                               |
|-----------------------------------------------------------------------------------------------|-----------|----------------------------------|--------|-------------------------------|
| WELL DIAMETER (inches):                                                                       | 2         | TUBING DIAMETER (inches):        | 5/8    |                               |
| WELL SCREEN INTERVAL                                                                          | DEPTH: 54 | STATIC DEPTH TO WATER (feet):    | 9.02   | PURGE PUMP TYPE OR BAILER: BP |
| WELL ELEVATION TOC (ft NGVD):                                                                 | 124.79    | GROUNDWATER ELEVATION (ft NGVD): | 115.77 |                               |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY |           |                                  |        |                               |
| (only fill out if applicable)                                                                 |           |                                  |        |                               |

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

INITIAL PUMP OR TUBING = 0.3 gallons + (0.006 gallons/foot X 64.56 feet) + 0.05 gallons = 0.74 gallons

|                                              |       |                                            |       |                       |      |                   |      |                                |      |
|----------------------------------------------|-------|--------------------------------------------|-------|-----------------------|------|-------------------|------|--------------------------------|------|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): | 59.56 | FINAL PUMP OR TUBING DEPTH IN WELL (feet): | 59.56 | PURGING INITIATED AT: | 0817 | PURGING ENDED AT: | 0837 | TOTAL VOLUME PURGED (gallons): | 5.20 |
|----------------------------------------------|-------|--------------------------------------------|-------|-----------------------|------|-------------------|------|--------------------------------|------|

[illegible]

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" = 5.68  
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0009; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.008; 1/2" = 0.010; 5/8" = 0.019

**PURGING EQUIPMENT CODES:** B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; 0 = Other (Specify)

### SAMPLING DATA

|                                                           |  |                                                                                                                 |  |                             |  |                       |  |
|-----------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------|--|-----------------------------|--|-----------------------|--|
| SAMPLED BY (PRINT) / AFFILIATION:<br>AN ARMOUR / PRD-TECH |  | SAMPLER(S) SIGNATURE(S):<br> |  | SAMPLING INITIATED AT: 0037 |  | SAMPLING ENDED AT: NR |  |
| PUMP OR TUBING DEPTH IN WELL (feet): 59.56                |  | TUBING MATERIAL CODE: T                                                                                         |  | FIELD-FILTERED: Y (N)       |  | FILTER SIZE:          |  |
| GROUND DECONTAMINATION: PUMP Y (N)                        |  | TUBING Y (N) (replaced)                                                                                         |  | DUPLICATE: Y (N)            |  |                       |  |

[illegible]

REMARKS:

Shaan Present: YES (NO)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bait; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFPP = Reverse Flow Peristaltic Pump; SM = Snares Method (Tubing Gravity Drain); O = Other (Specify)

RES: 1. The above do not constitute all of the information required by Chapter 82-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION J)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

## GROUNDWATER SAMPLING LOG

SITE NAME: TRAIL RIDGE

SITE LOCATION: JACKSONVILLE, FL.

WELL NO: S41-6

SAMPLE ID:

DATE 3-2-20

|                                                                                                                                                                 |    |                           |    |                                              |                               |    |                            |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----|---------------------------|----|----------------------------------------------|-------------------------------|----|----------------------------|----|
| WELL DIAMETER (Inches):                                                                                                                                         | NA | TUBING DIAMETER (Inches): | NA | WELL SCREEN INTERVAL DEPTH: - feet to - feet | STATIC DEPTH TO WATER (feet): | NA | PURGE PUMP TYPE OR BAILER: | NA |
| WELL ELEVATION TOC (ft NGVD):                                                                                                                                   |    |                           |    | NA                                           |                               |    |                            |    |
| GROUNDWATER ELEVATION (ft NGVD):                                                                                                                                |    |                           |    | NA                                           |                               |    |                            |    |
| 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                                   |    |                           |    |                                              |                               |    |                            |    |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME                                                   |    |                           |    |                                              |                               |    |                            |    |
| (only fill out if applicable)                                                                                                                                   |    |                           |    |                                              |                               |    |                            |    |
| =                      gallons + (                      gallons/foot X                      feet) +                      gallons =                      gallons |    |                           |    |                                              |                               |    |                            |    |

|                            |    |                              |    |                                                 |                                  |    |                               |    |
|----------------------------|----|------------------------------|----|-------------------------------------------------|----------------------------------|----|-------------------------------|----|
| WELL<br>DIAMETER (inches): | NA | TUBING<br>DIAMETER (inches): | NA | WELL SCREEN INTERVAL<br>DEPTH: - feet to - feet | STATIC DEPTH<br>TO WATER (feet): | NA | PURGE PUMP TYPE<br>OR BAILER: | NA |
|----------------------------|----|------------------------------|----|-------------------------------------------------|----------------------------------|----|-------------------------------|----|

|                               |    |                                  |    |
|-------------------------------|----|----------------------------------|----|
| WELL ELEVATION TOC (ft NGVD): | NA | GROUNDWATER ELEVATION (ft NGVD): | NA |
|-------------------------------|----|----------------------------------|----|

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY

| (only fill out if applicable) |  | in ( | feet - | feet) | gallons/foot | = | gallons |
|-------------------------------|--|------|--------|-------|--------------|---|---------|
|-------------------------------|--|------|--------|-------|--------------|---|---------|

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

$$= \text{gallons} + (\text{gallons/foot} \times \text{feet}) \div \text{gallons} = \text{gallons}$$

|                                              |    |                                            |    |                       |    |                   |    |                                |    |
|----------------------------------------------|----|--------------------------------------------|----|-----------------------|----|-------------------|----|--------------------------------|----|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): | NA | FINAL PUMP OR TUBING DEPTH IN WELL (feet): | NA | PURGING INITIATED AT: | NA | PURGING ENDED AT: | NA | TOTAL VOLUME PURGED (gallons): | NA |
|----------------------------------------------|----|--------------------------------------------|----|-----------------------|----|-------------------|----|--------------------------------|----|

| TIME | VOLUME<br>PURGED<br>(gallons) | CUMUL.<br>VOLUME<br>PURGED<br>(gallons) | PURGE<br>RATE<br>(gpm) | DEPTH<br>TO<br>WATER<br>(feet) | pH<br>(standard<br>units) | TEMP.<br>(°C) | COND.<br>(circle units)<br>µmhos/cm<br>or µS/cm | DISSOLVED<br>OXYGEN<br>(circle units)<br>mg/L or<br>% saturation | TURBIDITY<br>(NTUs) | ORP<br>(mV) | COLOR | ODOR |
|------|-------------------------------|-----------------------------------------|------------------------|--------------------------------|---------------------------|---------------|-------------------------------------------------|------------------------------------------------------------------|---------------------|-------------|-------|------|
|------|-------------------------------|-----------------------------------------|------------------------|--------------------------------|---------------------------|---------------|-------------------------------------------------|------------------------------------------------------------------|---------------------|-------------|-------|------|

Brow 1

[illegible]

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.08; 2" = 0.16; 3" = 0.37; 4" = 0.66; 5" = 1.02; 6" = 1.47; 12" = 5.88  
TUBING INSIDE DIA. CAPACITY (GAL/FT.): 1/8" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.008; 1/2" = 0.010; 5/8" = 0.018

**PURGING EQUIPMENT CODES:** B = Ballon; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

|                                                                              |  |                                                                                                                |  |                                                       |  |                       |  |
|------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------|--|-----------------------|--|
| SAMPLED BY (PRINT) / AFFILIATION:<br>DAN ARMOUR<br>BLAINE GRISCOM / PRO-TEAM |  | SAMPLE(S) SIGNATURE(S):<br> |  | SAMPLING INITIATED AT: 0645                           |  | SAMPLING ENDED AT: NR |  |
| PUMP OR TUBING DEPTH IN WELL (feet):<br>NA                                   |  | TUBING MATERIAL CODE:<br>NA                                                                                    |  | FIELD-FILTERED: Y <input checked="" type="checkbox"/> |  | FILTER SIZE:<br>µm    |  |
| FIELD DECONTAMINATION: PUMP Y N NA TUBING Y N (replaced)                     |  |                                                                                                                |  | DUPLICATE: Y <input checked="" type="checkbox"/>      |  |                       |  |

SAMPLED BY (PRINT) / AFFILIATION:  
DAN ARMOUR  
BLAINE GRISCOM / PRU-TEAM

SAMPLE(S) SIGNATURE(S):

SAMPLING INITIATED AT: 0645

SAMPLING  
ENDED AT: NR

|                                         |    |                          |    |
|-----------------------------------------|----|--------------------------|----|
| PUMP OR TUBING<br>DEPTH IN WELL (feet): | NA | TUBING<br>MATERIAL CODE: | NA |
|-----------------------------------------|----|--------------------------|----|

TUBING MATERIAL CODE: NA

FIELD-FILTERED: Y   
µm  
Filtration Equipment Type:

**FILTER SIZE:**

|                        |      |   |   |    |        |   |              |
|------------------------|------|---|---|----|--------|---|--------------|
| FIELD DECONTAMINATION: | PUMP | Y | N | NA | TUBING | Y | N (replaced) |
|------------------------|------|---|---|----|--------|---|--------------|

DUPLICATE Y 



### SAMPLE CONTAINER SPECIFICATION

### SAMPLE PRESERVATION

### INTENDED ANALYSIS AND METHOD

**SAMPLE  
PUMP  
FLOW RATE**  
(mL per  
minute)

SAMPLING EQUIPMENT  
CODE[illegible]

REMARKS:

SWEEN: No SW-6 = SURFACE WATER POINT TAKEN FROM POND

**MATERIAL CODES:** AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other  
(Specify)

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RFP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units; Temperature:  $\pm 0.2$  °C; Specific Conductance:  $\pm 6\%$ ; Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater); Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009





Form FD 9000-24  
**GROUNDWATER SAMPLING LOG**

|                               |                                        |                     |
|-------------------------------|----------------------------------------|---------------------|
| SITE NAME: <b>TRAIL RIDGE</b> | SITE LOCATION: <b>JACKSONVILLE, FL</b> | DATE: <b>3-2-20</b> |
| WELL NO: <b>SW-B</b>          | SAMPLE ID:                             |                     |

**PURGING DATA**

|                                                                                                                                                |                                     |                                                      |                                         |                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------|-----------------------------------------|------------------------------------------|
| WELL DIAMETER (Inches): <b>NA</b>                                                                                                              | TUBING DIAMETER (Inches): <b>NA</b> | WELL SCREEN INTERVAL DEPTH: - feet to - feet         | STATIC DEPTH TO WATER (feet): <b>NA</b> | PURGE PUMP TYPE OR BAULER: <b>NA</b>     |
| WELL ELEVATION TOC (ft NGVD): <b>NA</b>                                                                                                        |                                     | GROUNDWATER ELEVATION (ft NGVD): <b>NA</b>           |                                         |                                          |
| WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY<br>(only fill out if applicable)                 |                                     |                                                      |                                         |                                          |
| EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME<br>(only fill out if applicable) |                                     |                                                      |                                         |                                          |
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <b>NA</b>                                                                                         |                                     | FINAL PUMP OR TUBING DEPTH IN WELL (feet): <b>NA</b> |                                         | TOTAL VOLUME PURGED (gallons): <b>NA</b> |

| TIME                                      | VOLUME PURGED (gallons) | CUMUL. VOLUME PURGED (gallons) | PURGE RATE (gpm) | DEPTH TO WATER (feet) | pH (standard units) | TEMP. (°C) | COND. (circle units)<br>μmhos/cm or μS/cm | DISSOLVED OXYGEN (circle units)<br>mg/L or % saturation | TURBIDITY (NTUs) | ORP (mV) | COLOR | ODOR |
|-------------------------------------------|-------------------------|--------------------------------|------------------|-----------------------|---------------------|------------|-------------------------------------------|---------------------------------------------------------|------------------|----------|-------|------|
|                                           | <b>NA</b>               | <b>NA</b>                      | <b>NA</b>        | <b>NA</b>             |                     |            |                                           |                                                         |                  |          |       |      |
| <b>NO FLOW IN THE CANAL AT SW-B</b>       |                         |                                |                  |                       |                     |            |                                           |                                                         |                  |          |       |      |
| <b>A FEW DISJOINTED PUDDLES - NO FLOW</b> |                         |                                |                  |                       |                     |            |                                           |                                                         |                  |          |       |      |
| <b>NO SAMPLES COLLECTED</b>               |                         |                                |                  |                       |                     |            |                                           |                                                         |                  |          |       |      |

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  
TUBING INSIDE DIA. CAPACITY (Gal/ft): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0025; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016  
PURGING EQUIPMENT CODES: B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

**SAMPLING DATA**

|                                                                                      |  |  |                                 |  |  |                                                                                  |  |                              |  |
|--------------------------------------------------------------------------------------|--|--|---------------------------------|--|--|----------------------------------------------------------------------------------|--|------------------------------|--|
| SAMPLED BY (PRINT) / AFFILIATION:<br><b>DAN ARMOUR<br/>BLAINE GRADSON / PRO-TECH</b> |  |  | SAMPLER(S) SIGNATURE(S):<br>    |  |  | SAMPLING INITIATED AT:                                                           |  | SAMPLING ENDED AT: <b>NR</b> |  |
| PUMP OR TUBING DEPTH IN WELL (feet): <b>NA</b>                                       |  |  | TUBING MATERIAL CODE: <b>NA</b> |  |  | FIELD FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> |  | FILTER SIZE:                 |  |
| FIELD DECONTAMINATION: PUMP Y N <b>NA</b> TUBING Y N (replaced)                      |  |  |                                 |  |  | DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>      |  |                              |  |

| SAMPLE CONTAINER SPECIFICATION |                                                    |               |        | SAMPLE PRESERVATION |                               |          | INTENDED ANALYSIS AND/OR METHOD | SAMPLE PUMP FLOW RATE (mL per minute) | SAMPLING EQUIPMENT CODE |
|--------------------------------|----------------------------------------------------|---------------|--------|---------------------|-------------------------------|----------|---------------------------------|---------------------------------------|-------------------------|
| SAMPLE ID CODE                 | # CONTAINERS                                       | MATERIAL CODE | VOLUME | PRESERVATIVE USED   | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH |                                 |                                       |                         |
| <b>20</b>                      | <b>SEE SAMPLE L-D-4 AND BOTTLE ORDER WORKSHEET</b> |               |        |                     |                               |          |                                 |                                       |                         |

REMARKS: **SW-B = SURFACE WATER POINT**

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Srew Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

## Form FD 900B-24

|                        |            |                                 |             |
|------------------------|------------|---------------------------------|-------------|
| SITE NAME: TRAIL RIDGE |            | SITE LOCATION: JACKSONVILLE, FL |             |
| WELL NO: SW-4          | SAMPLE ID: |                                 | DATE 3-2-20 |

## PURGING DATA

[illegible]

### SAMPLING DATA

|                                                                                                                                                                                                                             |              |               |        |                                                                                                                  |                               |          |                                                                                           |  |                                       |  |                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------|--------|------------------------------------------------------------------------------------------------------------------|-------------------------------|----------|-------------------------------------------------------------------------------------------|--|---------------------------------------|--|-------------------------|
| SAMPLED BY (PRINT) / AFFILIATION:<br>DAN ARMOUR<br>BLAKE GRISBOM / PRO-TEAM                                                                                                                                                 |              |               |        | SAMPLEL(S), SIGNATURE(S):<br> |                               |          | SAMPLING INITIATED AT: 0742                                                               |  | SAMPLING ENDED AT: NR                 |  |                         |
| PUMP OR TUBING DEPTH IN WELL (feet):<br>NA                                                                                                                                                                                  |              |               |        | TUBING MATERIAL CODE:<br>NA                                                                                      |                               |          | FIELD-FILTERED: Y <input checked="" type="checkbox"/><br>µm<br>Filtration Equipment Type: |  | FILTER SIZE:                          |  |                         |
| FIELD DECONTAMINATION: PUMP Y N NA TUBING Y N (replaced)                                                                                                                                                                    |              |               |        |                                                                                                                  |                               |          | DUPLICATE Y <input checked="" type="checkbox"/>                                           |  |                                       |  |                         |
| SAMPLE CONTAINER SPECIFICATION                                                                                                                                                                                              |              |               |        | SAMPLE PRESERVATION                                                                                              |                               |          | INTENDED ANALYSIS AND/OR METHOD                                                           |  | SAMPLE PUMP FLOW RATE (mL per minute) |  | SAMPLING EQUIPMENT CODE |
| SAMPLE ID CODE                                                                                                                                                                                                              | # CONTAINERS | MATERIAL CODE | VOLUME | PRESERVATIVE USED                                                                                                | TOTAL VOL ADDED IN FIELD (mL) | FINAL pH |                                                                                           |  |                                       |  |                         |
|                                                                                                                                                                                                                             |              |               |        |                                                                                                                  |                               |          |                                                                                           |  |                                       |  |                         |
|                                                                                                                                                                                                                             |              |               |        |                                                                                                                  |                               |          |                                                                                           |  |                                       |  |                         |
|                                                                                                                                                                                                                             |              |               |        |                                                                                                                  |                               |          |                                                                                           |  |                                       |  |                         |
|                                                                                                                                                                                                                             |              |               |        |                                                                                                                  |                               |          |                                                                                           |  |                                       |  |                         |
|                                                                                                                                                                                                                             |              |               |        |                                                                                                                  |                               |          |                                                                                           |  |                                       |  |                         |
|                                                                                                                                                                                                                             |              |               |        |                                                                                                                  |                               |          |                                                                                           |  |                                       |  |                         |
|                                                                                                                                                                                                                             |              |               |        |                                                                                                                  |                               |          |                                                                                           |  |                                       |  |                         |
|                                                                                                                                                                                                                             |              |               |        |                                                                                                                  |                               |          |                                                                                           |  |                                       |  |                         |
| REMARKS:<br>SWEN: 110 SW-4 = SURFACE WATER POINT Flow AT WIER                                                                                                                                                               |              |               |        |                                                                                                                  |                               |          |                                                                                           |  |                                       |  |                         |
| MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silica; T = Teflon; O = Other (Specify)                                                                                      |              |               |        |                                                                                                                  |                               |          |                                                                                           |  |                                       |  |                         |
| SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify) |              |               |        |                                                                                                                  |                               |          |                                                                                           |  |                                       |  |                         |

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009

## PURGING DATA

WELL ELEVATION TOC (H NGVD)

WELL VOLUME BURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY

[illegible]

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

|                                              |                                            |                       |                   |                                |
|----------------------------------------------|--------------------------------------------|-----------------------|-------------------|--------------------------------|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): | FINAL PUMP OR TUBING DEPTH IN WELL (feet): | PURGING INITIATED AT: | PURGING ENDED AT: | TOTAL VOLUME PURGED (gallons): |
| NA                                           | NA                                         | NA                    | NA                | NA                             |

### SAMPLING DATA

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.  
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)  
pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2 optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)  
Revision Date: February 12, 2005

## PURGING DATA

|                              |    |                                 |    |
|------------------------------|----|---------------------------------|----|
| WELL ELEVATION TOC (R NGVD): | NA | GROUNDWATER ELEVATION (R NGVD): | NA |
|------------------------------|----|---------------------------------|----|

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY

(only fill out if applicable)

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + CIRCULATING CAPACITY

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

| =                   |                   | gallons + { | gallons/cool X | feet) + | gallons = | gallons |
|---------------------|-------------------|-------------|----------------|---------|-----------|---------|
| INITIAL PUMP OUTPUT | FINAL PUMP OUTPUT |             |                |         |           |         |

|                                              |                                            |                       |                   |                                |
|----------------------------------------------|--------------------------------------------|-----------------------|-------------------|--------------------------------|
| INITIAL PUMP OR TUBING DEPTH IN WELL (feet): | FINAL PUMP OR TUBING DEPTH IN WELL (feet): | PURGING INITIATED AT: | PURGING ENDED AT: | TOTAL VOLUME PURGED (gallons): |
| NA                                           | NA                                         | NA                    | NA                | NA                             |

[illegible]

| TIME | VOLUME<br>PURGED | VOLUME<br>PURGED | PURGE<br>RATE | DO TO<br>WATER | pH<br>(standard) | TEMP.<br>(°C) | CONC.<br>(circle units) | OXYGEN<br>(circle units) | TURBIDITY | ORP | COLOR | ODOR |
|------|------------------|------------------|---------------|----------------|------------------|---------------|-------------------------|--------------------------|-----------|-----|-------|------|
|------|------------------|------------------|---------------|----------------|------------------|---------------|-------------------------|--------------------------|-----------|-----|-------|------|

| PURGED<br>(gallons) | PURGED<br>(gallons) | RATE<br>(gpm) | WATER<br>(feet) | (inches)<br>(inches) | (°C) | μmhos/cm<br>or μS/cm | (micro mhos)<br>mg/L of<br>Ca carbonate | (NTU <sub>s</sub> ) | (mV) |
|---------------------|---------------------|---------------|-----------------|----------------------|------|----------------------|-----------------------------------------|---------------------|------|
|---------------------|---------------------|---------------|-----------------|----------------------|------|----------------------|-----------------------------------------|---------------------|------|

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WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.08; 2" = 0.16; 3" = 0.37; 4" = 0.66; 5" = 1.02; 6" = 1.47; 12" = 5.88

TUBING INSIDE DIA. CAPACITY (Gal./Ft.) 1/8" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

### SAMPLING DATA

|                |        |                                                           |              |
|----------------|--------|-----------------------------------------------------------|--------------|
| PUMP OR TUBING | TUBING | FIELD-FILTERED: Y <input checked="" type="checkbox"/> (N) | FILTER SIZE: |
|----------------|--------|-----------------------------------------------------------|--------------|

|                       |    |                |    |                                  |
|-----------------------|----|----------------|----|----------------------------------|
| DEPTH IN WELL (feet): | NA | MATERIAL CODE: | ND | um<br>Filtration Equipment Type: |
|-----------------------|----|----------------|----|----------------------------------|

|                        |      |   |   |    |        |   |              |  |            |   |     |
|------------------------|------|---|---|----|--------|---|--------------|--|------------|---|-----|
| FIELD DECONTAMINATION: | PUMP | Y | N | NA | TUBING | Y | N (replaced) |  | DUPLICATE: | Y | (N) |
|------------------------|------|---|---|----|--------|---|--------------|--|------------|---|-----|

| SAMPLE COLLECTION SPECIFICATION | SAMPLE DESCRIPTION | ANALYST | SAMPLE<br>ID |  |
|---------------------------------|--------------------|---------|--------------|--|
|---------------------------------|--------------------|---------|--------------|--|

| SAMPLE CONTAINER SPECIFICATION | SAMPLE PRESERVATION | INTENDED ANALYSIS AND/OR | PUMP FLOW RATE | SAMPLING EQUIPMENT CODE |
|--------------------------------|---------------------|--------------------------|----------------|-------------------------|
|--------------------------------|---------------------|--------------------------|----------------|-------------------------|

| SAMPLE<br>ID CODE | #<br>CONTAINERS | MATERIAL<br>CODE | VOLUME | PRESERVATIVE<br>USED | TOTAL VOL<br>ADDED IN FIELD (ml) | FINAL<br>ml | METHOD | (ml. per<br>minute) | CODE |
|-------------------|-----------------|------------------|--------|----------------------|----------------------------------|-------------|--------|---------------------|------|
|-------------------|-----------------|------------------|--------|----------------------|----------------------------------|-------------|--------|---------------------|------|

| ID CODE | CONTAINER | CODE | USED | ADDED IN FIELD (mL) | pH | (minutes) |
|---------|-----------|------|------|---------------------|----|-----------|
|         |           |      |      |                     |    |           |

[illegible]

|   |     |      |     |       |     |    |    |    |    |     |   |    |
|---|-----|------|-----|-------|-----|----|----|----|----|-----|---|----|
| * | SFR | UNDP | PLF | K.O.C | PJD | DP | TH | DR | FR | WDR | K | FR |
|---|-----|------|-----|-------|-----|----|----|----|----|-----|---|----|

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|

[illegible][illegible]

|          |  |  |  |  |  |  |  |  |  |
|----------|--|--|--|--|--|--|--|--|--|
| REMARKS: |  |  |  |  |  |  |  |  |  |
|----------|--|--|--|--|--|--|--|--|--|

SUBJECT: NO      SN-1 = SUPER-T WATERS ONLY

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other

(Specify) \_\_\_\_\_

**SAMPLING EQUIPMENT CODES:** APP = After Peristaltic Pump; B = Buffer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
RBB = Reverse Flow Backsiphon Pump; SM = Suction Method; T = Trough; C = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 92-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units Temperature:  $\pm 0.2$  °C Specific Conductance:  $\pm 5\%$  Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2); optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater) Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 5$  NTU or  $\pm 10\%$  (whichever is greater)

Revision Date: February 12, 2009



Advanced Environmental Laboratories, Inc  
6681 Southpoint Pkwy Jacksonville, FL 32216  
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580  
Phone: (904)363-9350  
Fax: (904)363-9354

April 13, 2020

Eric B. Fuller  
City of Jacksonville  
214 North Hogan Street  
10th Floor  
Jacksonville, FL 32202

RE: Workorder: J2004644 Trail Ridge Landfill

Dear Eric Fuller:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, April 03, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jerry Allen'.

Jerry Allen - Project Manager  
JAllen@aellab.com

Enclosures

Report ID: 959401 - 2554194

Page 1 of 10

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Advanced Environmental Laboratories, Inc  
6681 Southpoint Pkwy Jacksonville, FL 32216  
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580  
Phone: (904)363-9350  
Fax: (904)363-9354

## SAMPLE SUMMARY

Workorder: J2004644 Trail Ridge Landfill

| Lab ID      | Sample ID | Matrix | Date Collected | Date Received  |
|-------------|-----------|--------|----------------|----------------|
| J2004644001 | MW-39S    | Water  | 4/2/2020 08:06 | 4/3/2020 08:00 |

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## ANALYTICAL RESULTS

Workorder: J2004644 Trail Ridge Landfill

Lab ID: **J2004644001**

Date Received: 04/03/20 08:00 Matrix: Water

Sample ID: **MW-39S**

Date Collected: 04/02/20 08:06

Sample Description:

Location:

| Parameters                                   | Results     | Qual     | Units                                                               | DF        | Adjusted<br>PQL | Adjusted<br>MDL | Analyzed        | Lab |
|----------------------------------------------|-------------|----------|---------------------------------------------------------------------|-----------|-----------------|-----------------|-----------------|-----|
| <b>VOLATILES</b>                             |             |          |                                                                     |           |                 |                 |                 |     |
| Analysis Desc: RSK-175 Analysis,<br>Water    |             |          | Analytical Method: RSK-175                                          |           |                 |                 |                 |     |
| Methane                                      | <b>2330</b> |          | <b>ug/L</b>                                                         | <b>40</b> | 40              | 28              | 4/10/2020 14:51 | J   |
| Analysis Desc: 8260B VOCs Analysis,<br>Water |             |          | Preparation Method: SW-846 5030B<br>Analytical Method: SW-846 8260B |           |                 |                 |                 |     |
| Vinyl Chloride                               | <b>0.20</b> | <b>U</b> | <b>ug/L</b>                                                         | <b>1</b>  | 1.0             | 0.20            | 4/4/2020 20:56  | J   |
| 1,2-Dichloroethane-d4 (S)                    | <b>99</b>   |          | <b>%</b>                                                            | <b>1</b>  | 70-128          |                 | 4/4/2020 20:56  |     |
| Toluene-d8 (S)                               | <b>96</b>   |          | <b>%</b>                                                            | <b>1</b>  | 77-119          |                 | 4/4/2020 20:56  |     |
| Bromofluorobenzene (S)                       | <b>108</b>  |          | <b>%</b>                                                            | <b>1</b>  | 86-123          |                 | 4/4/2020 20:56  |     |

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Advanced Environmental Laboratories, Inc  
6681 Southpoint Pkwy Jacksonville, FL 32216  
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580  
Phone: (904)363-9350  
Fax: (904)363-9354

## ANALYTICAL RESULTS QUALIFIERS

Workorder: J2004644 Trail Ridge Landfill

---

### PARAMETER QUALIFIERS

- U The compound was analyzed for but not detected.
- I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

### LAB QUALIFIERS

- J DOH Certification #E82574(AEL-JAX)(FL NELAC Certification)

## CERTIFICATE OF ANALYSIS

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## QUALITY CONTROL DATA

Workorder: J2004644 Trail Ridge Landfill

QC Batch: MSVj/1541 Analysis Method: SW-846 8260B  
QC Batch Method: SW-846 5030B Prepared: 04/04/2020 14:11  
Associated Lab Samples: J2004644001

METHOD BLANK: 3438843

| Parameter                 | Units | Blank Result | Reporting Limit Qualifiers |
|---------------------------|-------|--------------|----------------------------|
| VOLATILES                 |       |              |                            |
| Vinyl Chloride            | ug/L  | 0.20         | 0.20 U                     |
| 1,2-Dichloroethane-d4 (S) | %     | 96           | 70-128                     |
| Toluene-d8 (S)            | %     | 96           | 77-119                     |
| Bromofluorobenzene (S)    | %     | 107          | 86-123                     |

LABORATORY CONTROL SAMPLE & LCSD: 3438844 3438845

| Parameter                 | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD Qualifiers |
|---------------------------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|--------------------|
| VOLATILES                 |       |             |            |             |           |            |             |     |                    |
| Vinyl Chloride            | ug/L  | 20          | 22         | 21          | 110       | 105        | 70-130      | 4   | 20                 |
| 1,2-Dichloroethane-d4 (S) | %     |             |            |             | 101       | 104        | 70-128      | 3   |                    |
| Toluene-d8 (S)            | %     |             |            |             | 98        | 97         | 77-119      | 1   |                    |
| Bromofluorobenzene (S)    | %     |             |            |             | 102       | 103        | 86-123      | 1   |                    |

MATRIX SPIKE SAMPLE: 3438846 Original: J2004649001

| Parameter                 | Units | Original Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits Qualifiers |
|---------------------------|-------|-----------------|-------------|-----------|----------|-------------------------|
| VOLATILES                 |       |                 |             |           |          |                         |
| Vinyl Chloride            | ug/L  | 0               | 20          | 18        | 89       | 70-130                  |
| 1,2-Dichloroethane-d4 (S) | %     | 100             |             |           | 99       | 70-128                  |
| Toluene-d8 (S)            | %     | 95              |             |           | 97       | 77-119                  |
| Bromofluorobenzene (S)    | %     | 108             |             |           | 102      | 86-123                  |

QC Batch: GCVj/1050 Analysis Method: RSK-175  
QC Batch Method: RSK-175 Prepared:  
Associated Lab Samples: J2004644001

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## QUALITY CONTROL DATA

Workorder: J2004644 Trail Ridge Landfill

METHOD BLANK: 3445031

| Parameter | Units | Blank Result | Reporting Limit Qualifiers |
|-----------|-------|--------------|----------------------------|
| VOLATILES |       |              |                            |
| Methane   | ug/L  | 0.70         | 0.70 U                     |

LABORATORY CONTROL SAMPLE & LCSD: 3445032 3445033

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limit | RPD | Max RPD | Qualifiers |
|-----------|-------|-------------|------------|-------------|-----------|------------|-------------|-----|---------|------------|
| VOLATILES |       |             |            |             |           |            |             |     |         |            |
| Methane   | ug/L  | 17.9        | 18.2       | 18.3        | 101       | 102        | 80-120      | 1   | 25      |            |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3445034 3445035 Original: T2006342001

| Parameter | Units | Original Result | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD | Qualifiers |
|-----------|-------|-----------------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|------------|
| VOLATILES |       |                 |             |           |            |          |           |             |     |         |            |
| Methane   | ug/L  | 437             | 1790        | 1960      | 1980       | 85       | 86        | 80-120      | 1   | 25      |            |

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Advanced Environmental Laboratories, Inc  
6681 Southpoint Pkwy Jacksonville, FL 32216  
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580  
Phone: (904)363-9350  
Fax: (904)363-9354

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: J2004644 Trail Ridge Landfill

| Lab ID      | Sample ID | Prep Method  | Prep Batch | Analysis Method | Analysis Batch |
|-------------|-----------|--------------|------------|-----------------|----------------|
| J2004644001 | MW-39S    | SW-846 5030B | MSVj/1541  | SW-846 8260B    | MSVj/1542      |
| J2004644001 | MW-39S    |              |            | RSK-175         | GCVj/1050      |

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☒ 6501 Southport Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9554 • E82574  
☐ 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9619 • Fax 813.630.4327 • E84569  
☐ 8315 SW Archer Road • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6539 • E82001  
☐ 528 S. North Lake Blvd. Ste. 1016 • Atlantic Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597 • E83076

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\* J 2 0 0 4 6 4 4 \*

| CLIENT NAME            |         | CITY OF JACKSONVILLE                                         |  | PROJECT NAME                              |     | Trail Ridge Landfill                                            |    | BOTTLE SIZE & TYPE     |   |   |
|------------------------|---------|--------------------------------------------------------------|--|-------------------------------------------|-----|-----------------------------------------------------------------|----|------------------------|---|---|
| ADDRESS                |         | 214 North Hogan Street, 10th Floor<br>Jacksonville, FL 32202 |  | P.O. NUMBER/PROJECT NUMBER                |     | 6083724                                                         |    | 3X40mL<br>VOA<br>vials |   |   |
| PHONE                  |         | (904) 255-7513                                               |  | PROJECT LOCATION                          |     | REMARKS/SPECIAL INSTRUCTIONS                                    |    | 2X40mL<br>VOA<br>vials |   |   |
| FAX                    |         |                                                              |  | Ground Water Shallow Wells                |     | CEC Contact: Jim Christiansen                                   |    |                        |   |   |
| CONTACT                |         | Eric B. Fuller                                               |  | 33628, TRAIL RIDGE LANDFILL, INC. (ADAPT) |     | AEL Jax Profile: 30178, Line 4                                  |    | ANALYSIS REQUIRED      |   |   |
| SAMPLED BY             |         |                                                              |  | TURN AROUND TIME                          |     | <input type="checkbox"/> STANDARD <input type="checkbox"/> RUSH |    | Vinyl Chloride by 8260 |   |   |
| SAMPLE ID              |         | SAMPLE DESCRIPTION                                           |  | Grab Comp                                 |     | SAMPLING DATE TIME                                              |    | METHANE by RSK-175     |   |   |
| 1                      | MMW-39S | mmw-39s                                                      |  | G                                         | 4-2 | 0806                                                            | GW | 5                      | X | X |
| 2                      |         |                                                              |  |                                           |     |                                                                 |    |                        |   |   |
| 3                      |         |                                                              |  |                                           |     |                                                                 |    |                        |   |   |
| 4                      |         |                                                              |  |                                           |     |                                                                 |    |                        |   |   |
| LABORATORY I.D. NUMBER |         |                                                              |  |                                           |     |                                                                 |    |                        |   |   |

Matrix Code: WW = wastewater, SW = surface water, GW = ground water, DW = drinking water, O = oil, A = air, SO = soil, SL = sludge

Received on: ☒ Yes ☐ No Temp taken from sample: ☒ Temp from temp blank ☐ Where required, pH checked

Form revised 2/8/08

Relinquished by: Date: 4/13/2020 Time: 11:00 Received by: Date: 4/13/2020 Time: 15:00

Device used for measuring Temp by unique identifier (circle if temp gun used): (79) G: LT-1 LT-2 T: 10A A: 3A

FOR DRINKING WATER USE: (When PWS information not otherwise supplied) PWS ID: Contact Person: Supplier of Water: Site Address: Phone:

### SAMPLING DATA

REMARKS:Shoon Present YES NO ☒

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;  
 RFPP = Reverse Flow Peristaltic Pump; SM = Sream Method (Tubing Gravity Drain); O = Other (Specify)

TES: 1. The above do not constitute all of the information required by Chapter 82-160, F.A.C.  
2. Substitution Control

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH:  $\pm 0.2$  units. Temperature:  $\pm 0.2$  °C. Specific Conductance:  $\pm 5\%$ . Dissolved Oxygen: all readings  $\leq 20\%$  saturation (see Table FS 2200-2), optionally,  $\pm 0.2$  mg/L or  $\pm 10\%$  (whichever is greater). Turbidity: all readings  $\leq 20$  NTU; optionally  $\pm 6$  NTU or  $\pm 10\%$  (whichever is greater).

Revision Date: February 12, 2009

Client: City of JacksonvilleProject name: Trail Ridge LandfillDate/Time Rcvd: 4-3-2020 8:00Log-In request number: J2004644Received by: BACompleted by: BA**Cooler/Shipping Information:**Courier: ☒ AEL ☐ Client ☐ UPS ☐ Blue Streak ☐ FedEx ☐ AES ☐ ASAP ☐ Other (describe): \_\_\_\_\_Type: ☒ Cooler ☐ Box ☐ Other (describe): \_\_\_\_\_

Cooler temperature: Identify the cooler and document the temperature blank or ice water measurement

| Cooler ID          |                                                                                                            |                                                                                                 |                                                                                                 |                                                                                                 |                                                                                                 |
|--------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Temp (°C)          | <u>4°C</u>                                                                                                 |                                                                                                 |                                                                                                 |                                                                                                 |                                                                                                 |
| Temp taken from    | <input checked="" type="checkbox"/> Sample Bottle<br><input checked="" type="checkbox"/> Cooler            | <input type="checkbox"/> Sample Bottle<br><input type="checkbox"/> Cooler                       | <input type="checkbox"/> Sample Bottle<br><input type="checkbox"/> Cooler                       | <input type="checkbox"/> Sample Bottle<br><input type="checkbox"/> Cooler                       | <input type="checkbox"/> Sample Bottle<br><input type="checkbox"/> Cooler                       |
| Temp measured with | <input checked="" type="checkbox"/> IR gun S/N 9333779<br><input type="checkbox"/> Thermometer (enter ID): | <input type="checkbox"/> IR gun S/N 9333779<br><input type="checkbox"/> Thermometer (enter ID): | <input type="checkbox"/> IR gun S/N 9333779<br><input type="checkbox"/> Thermometer (enter ID): | <input type="checkbox"/> IR gun S/N 9333779<br><input type="checkbox"/> Thermometer (enter ID): | <input type="checkbox"/> IR gun S/N 9333779<br><input type="checkbox"/> Thermometer (enter ID): |

**Other Information:**

Any discrepancies should be explained in the "Comments" section below.

| CHECKLIST                                                                                                                                                                            |  | YES | NO | NA |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----|----|----|
| 1. Were custody seals on shipping container(s) intact?                                                                                                                               |  |     |    |    |
| 2. Were custody papers properly included with samples?                                                                                                                               |  |     |    |    |
| 3. Were custody papers properly filled out (ink, signed, match labels)?                                                                                                              |  |     |    |    |
| 4. Did all bottles arrive in good condition (unbroken)?                                                                                                                              |  |     |    |    |
| 5. Were all bottle labels complete (sample #, date, signed, analysis, preservatives)?                                                                                                |  |     |    |    |
| 6. Did the sample labels agree with the chain of custody?                                                                                                                            |  |     |    |    |
| 7. Were correct bottles used for the tests indicated?                                                                                                                                |  |     |    |    |
| 8. Were proper sample preservation techniques indicated on the label?                                                                                                                |  |     |    |    |
| 9. Were samples received within holding times?                                                                                                                                       |  |     |    |    |
| 10. Were all VOA vials free of the presence of air bubbles?                                                                                                                          |  |     |    |    |
| 11. Have all Soil VOA Vials and Encores been placed in a freezer within 48 hours of collection?                                                                                      |  |     |    |    |
| 12. Were samples in direct contact with wet ice? If "No," check one: <input type="checkbox"/> NO ICE <input type="checkbox"/> BLUE ICE                                               |  |     |    |    |
| 13. Was the cooler temperature less than 6°C?                                                                                                                                        |  |     |    |    |
| 14. Where pH preservation is required, are sample pHs checked and any anomalies recorded by Sample control? Are all <2 or >10? Note: VOA samples are checked by laboratory analysts. |  |     |    |    |
| 15. Was sufficient sample volume provided to perform all tests?                                                                                                                      |  |     |    |    |
| 16. If for Bacteriological testing, were containers supplied by AEL? (See QA officer if answer is no)                                                                                |  |     |    |    |
| 17. Were all sample containers provided by AEL? (Other than Bacteriological)                                                                                                         |  |     |    |    |
| 18. Were samples accepted into the laboratory?                                                                                                                                       |  |     |    |    |
| 19. When necessary to split samples into other bottles, is it noted in the comments?                                                                                                 |  |     |    |    |

**Comments:** (Note all sample(s) and container (s) with a "No" checklist response in this comment section)

APPENDIX B  
COMPACT DISK CONTAINING  
REPORT IN .PDF FORMAT  
AND  
ADaPT FILE