DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

REI Consultants, Inc./REI Consultants of North Carolina, PLLC

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Michael Hofe, PE Phone: (304) 255-2500

E-mail: mhofe@reiclabs.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Macon County MSW Landfill	109 Sierra Drive, Franklin, NC	57-03	.1600	April 13, 2016

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☒ Detection Monitoring ☒ Assessment Monitoring ☒ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☒ Leachate monitoring data
☒ Surface water monitoring data
☐ Methane gas monitoring data
☒ Corrective action data (specify) MW-1D, MW-23
☐ Other(specify)

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Michael Hofe, PE — Facility Representative Name (Print)

Consultant for Facility — Title

(304) 255-2500 — (Area Code) Telephone Number

Signature

6/14/2016 — Date

Affix NC Licensed/ Professional Geologist Seal

PO Box 286, Beaver, WV 25813

Facility Representative Address

P-1018

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009

WATER QUALITY MONITORING REPORT

1st Semi-annual 2016 Event
Macon County MSW Landfill, Permit No. 57-03
Macon County, North Carolina

Prepared for:

Macon County Solid Waste Department
109 Sierra Drive
Franklin, NC 28734

Prepared by:

REI Consultants, Inc.
P.O. Box 286
Beaver, WV 25813

June 14, 2016

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1.0 EXECUTIVE SUMMARY

REI Consultants, Inc. (REIC) has prepared the 1st Semi-Annual Water Quality Monitoring Report for 2016 for the Macon County Municipal Solid Waste (MSW) Landfill, Permit No. 57-03, an active municipal solid waste disposal facility located in Macon County, North Carolina. Water quality monitoring at the facility is performed on a semi-annual basis and consists of sampling groundwater monitoring wells and surface water locations in the vicinity of the landfill. This report has been prepared in accordance with NCAC 13B Section .1632(i).

The 1st semi-annual 2016 monitoring event was performed on April 13, 2016. Groundwater samples were collected from eighteen (18) monitoring wells. In addition, samples were collected from four (4) surface water locations. All samples were analyzed for North Carolina Appendix I parameters. No volatile organic compounds (VOCs) were detected above Solid Waste Section Limits (SWSLs) with the exception of 1,4-dichlorobenzene in wells MW-1A, MW-1B, and MW-1D. None of these 1,4-dichlorobenzene detections were above the North Carolina groundwater quality standard. The VOC detections are limited to one area of the facility northwest of the closed landfill. Note that Macon County has implemented a corrective action plan to address issues associated with the presence of VOCs in this area of the facility.

Metals detected above North Carolina groundwater standards in compliance wells were as follows:

Parameter	Monitoring Well
Arsenic	MW-2
Barium	MW-19
Chromium	MW-19, MW-22
Cobalt	MW-1A, MW-2, MW-5D, MW-14, MW-19, MW-21, MW-22
Lead	MW-19, MW-22
Vanadium	MW-19, MW-22

Of the groundwater standard exceedances, only lead in well MW-19 was higher than statistical limits calculated from background data. However, appreciable suspended solids were present in the sample collected from well MW-19. In addition, analysis of the sample for dissolved metals yielded no detection above the SWSL of lead. Due to the solids in the samples and the lack of elevated dissolved metals, it is likely that the total metals elevations were the result of naturally occurring material associated with sediments in well MW-19 (see Appendix E, "Alternate Source Demonstration"). All other groundwater protection standard exceedances in wells MW-1A, MW-2, MW-5D, MW-14, MW-19, MW-21m and MW-22 were below background statistical limits and therefore are due to natural variation (see Appendix E, "Alternate Source Demonstration").

Static groundwater elevations were measured in each monitoring well prior to sampling. These measurements were converted to groundwater elevations, which were used to develop generalized potentiometric contours in the vicinity of the MSW Landfill. From this data, groundwater appears to be flowing to the west, northwest, and north in the vicinity of the waste areas. An average groundwater flow rate under the landfill has been estimated at 10 feet/year.

It is recommended that the Macon County MSW Landfill remain in detection monitoring for the 2nd semiannual monitoring period of 2016, with continued monitoring for delineation and trends of VOCs in the corrective action area of the facility.

2.0 INTRODUCTION

REI Consultants, Inc. (REIC) has prepared the 1st Semi-Annual Water Quality Monitoring Report for 2016 for the Macon County MSW Landfill, Permit No. 57-03, an active municipal solid waste disposal facility located approximately a mile and half north of the town of Franklin in Macon County, North Carolina. The facility consists of a completed waste area, no longer active, in the southwest area of the property, and an active cell situated northeast of the closed area. A baling facility and recycling area are located east of the active portion of the landfill. Lake Emory (the Little Tennessee River) is situated to the northwest and north of the site.

The groundwater monitoring well network at the MSW Landfill consists of wells MW-1A, MW-1B, MW-1D, MW-2, MW-3A, MW-5D, MW-10, MW-14, MW-15, MW-17, MW-18, MW-19, MW-19A, MW-20, MW-21, MW-22, MW-22A, and MW-23 (see Figure 1 for locations). Monitoring wells MW-10, MW-17, and MW-18 are located hydraulically upgradient of the waste areas, and therefore are designated as the background wells for the facility. Monitoring wells MW-1A, MW-1B, MW-2, MW-3A, MW-5D, MW-14, MW-15, MW-19, MW-19A, MW-20, MW-21, MW-22, and MW-22A are located downgradient of the waste areas, and are monitored as detection program compliance wells. Well MW-5D was installed prior to the 2nd semi-annual 2008 event in order to replace well MW-5, which has been dry since 2000. All well samples are analyzed semiannually for Appendix I parameters.

The facility is currently in detection monitoring. However, limited assessment activities have been performed in the vicinity of wells MW-1A and MW-1B due to VOC detections in these wells. Wells MW-1D and MW-23 were installed prior to the 2nd semi-annual 2007 monitoring event in order to monitor groundwater vertically and horizontally downgradient of wells MW-1A and MW-1B. Macon County has implemented a corrective action plan to address issues associated with the presence of VOCs in this area of the facility. Wells MW-1D and MW-23 will continue to be monitored semiannually for delineation and trends of Appendix I parameters.

In addition to the above monitoring wells, samples are collected from four (4) surface water locations, designated SW-1, SW-2, SW-3, and SW-4. Sample SW-1 is collected from Lake Emory downriver from the effluent of the Town of Franklin Wastewater Treatment Plant, which is located adjacent to the southwest end of the landfill. Sample SW-2 is located approximately 1450 feet downriver of SW-1. Samples SW-3 (upstream) and SW-4 (downstream) are collected from a perennial tributary stream to Lake Emory that runs north along the east side of the landfill facility (see Figure 1 for locations). Surface water samples are analyzed semiannually for Appendix I parameters. In addition to the groundwater and surface water samples, a sample is collected semi-annually from the MSW Landfill leachate pond. This sample is analyzed for Appendix I parameters and nitrate, sulfate, phosphate, biochemical oxygen demand (BOD), and chemical oxygen demand (COD).

For the 1st semi-annual 2016 monitoring event, field sampling was performed on April 13, 2016. Samples were collected from all of the above sample locations.

3.0 HYDROLOGIC EVALUATION

Static water levels were measured from the top of casing (TOC) prior to purging in all wells during the sampling event. These water level measurements, in conjunction with surveyed TOC elevation data, were used to calculate static groundwater elevations in each well. Groundwater elevation data from the 1st semi-annual 2016 monitoring event was contoured to represent the potentiometric surface of the upper-most (water table) aquifer in the vicinity of the landfill. Elevation data and the influence of topographical features were utilized to estimate contours. A copy of the resulting potentiometric map is included as Figure 1. A summary of monitoring well data, including static water levels measured during the 1st semi-annual 2016 event, is included in Table 1.

The majority of the monitoring wells at the facility are screened in the soil/saprolite layer overlying the resident bedrock. Two wells, MW-1A and MW-3A, are reportedly installed in bedrock. The two wells in the pair MW19/MW19-A are both screened in saprolite; MW-19A is screened at a greater depth than well MW-19. In well pair MW-22/MW22-A, well MW-22

is screened in shallow saprolite and well MW-22A monitors the transition zone at the saprolite/bedrock interface. Wells MW-1D and MW-5D are completed in bedrock, while well MW-23 is screened in the saprolite.

Generally, groundwater flows under the closed portion of the facility to the west and northwest, and under the active area to the northwest, north, and northeast. Groundwater flows from upland areas toward Lake Emory. The background wells MW-10, MW-17, and MW-18 are situated hydrologically upgradient of the landfill, and all compliance wells are located hydrologically downgradient of the waste areas.

Previous investigators conducted both in-situ aquifer slug tests and laboratory permeability tests in order to estimate typical hydraulic conductivities at the site. Elevation data from the potentiometric map was utilized to estimate hydraulic gradients in the vicinity of the facility. This information has been applied in a form of Darcy's Law to calculate the groundwater seepage velocity across the site, which was estimated to be 10 ft/year. Groundwater flow rate calculations are included in Appendix A.

4.0 SAMPLING AND LABORATORY ANALYSIS

Monitoring wells at the MSW Landfill were purged and sampled using laboratory decontaminated polytetrafluoroethylene single check valve bailers. Field testing of pH, temperature, conductivity, and turbidity were measured to ensure adequate purging. Samples were collected in pre-cleaned and appropriately preserved containers, transported in iced coolers, and delivered to the laboratory in good condition. All wells were sampled during the 1st semi-annual 2016 monitoring event. Several groundwater samples were noted as exhibiting very high turbidity. Field sampling logs are included in Appendix B. A summary of field sample data is included in Table 2.

All samples were analyzed by REIC's North Carolina certified laboratory. The laboratory quality assurance program included all appropriate, method specific quality controls (QC). All laboratory data met the required QC criteria. No VOCs were detected above SWSLs with the

exception of 1,4-dichlorobenzene in wells MW-1A, MW-1B, and MW-1D. All 1,4-dichlorobenzene detections were below the North Carolina groundwater standard.

Metals detected above North Carolina groundwater standards in compliance wells were as follows:

Parameter	Monitoring Well
Arsenic	MW-2
Barium	MW-19
Chromium	MW-19, MW-22
Cobalt	MW-1A, MW-2, MW-5D, MW-14, MW-19, MW-21, MW-22
Lead	MW-19, MW-22
Vanadium	MW-19, MW-22

A summary of laboratory detections above SWSLs is included in Table 3. Laboratory reports and chain-of-custody records are included in Appendix C. Data have been reported to method detection limits (MDLs) as requested by the North Carolina Department of Environmental Quality. However, note that any values reported below SWSLs, flagged with a "J" qualifier, are only estimates, are not quantitative, and should not be used numerically in any way. Historical results are given in Appendix D.

5.0 STATISTICAL ANALYSIS

The updated regulations at 15A NCAC 13B Section .1633 no longer require statistical analysis to be performed as a routine screening tool during detection monitoring. However, due to the number of groundwater standards exceedances for metals in several monitoring wells, statistical analysis was utilized to demonstrate that a majority of these metals concentrations were less than background levels.

Of the groundwater standard exceedances, only lead in well MW-19 was higher than statistical limits calculated from background data. However, appreciable suspended solids were present

in the sample collected from well MW-19. In addition, analysis of the sample for dissolved metals yielded no detection of lead above the SWSL. Due to the presence of solids and the lack of dissolved lead in the sample, it is likely that the total lead elevation was the result of naturally occurring material associated with sediments in well MW-19 (see Appendix E, "Alternate Source Demonstration"). All other exceedances of groundwater standards were below background statistical limits. This indicates that the arsenic exceedance in well MW-2; the barium exceedance in well MW-19; the chromium exceedances in wells MW-19 and MW-22; the cobalt exceedances in wells MW-1A, MW-2, MW-5D, MW-14, MW-19, MW-21, and MW-22; the lead exceedance in well MW-22; and the vanadium exceedances in wells MW-19 and MW-22 are due to natural variation, as these parameters have been observed in the upgradient background wells at the facility at higher levels than those exhibited in compliance wells (see Appendix E, "Alternate Source Demonstration"). In addition, the lead exceedance in well MW-19 is due to naturally occurring material associated with solids in the sample. The Statistical Analysis Summary is included in Appendix E, "Alternate Source Demonstration".

6.0 CONCLUSIONS AND RECOMMENDATIONS

- The 1st semi-annual 2016 water quality monitoring event at the Macon County MSW Landfill has been performed in accordance with State and Federal guidelines.

- The direction of groundwater flow in the vicinity of the waste areas is generally to the west, northwest, north, and northeast from upland areas toward Lake Emory.

- The average rate of groundwater flow in the vicinity of the landfill is estimated at 10 feet/year.

- No VOCs were detected above SWSLs with the exception of 1,4-dichlorobenzene in wells MW-1A, MW-1B, and MW-1D.

- 1,4-dichlorobenzene did not exceed the North Carolina groundwater standard in wells MW-1A, MW-1B, and MW-1D.

- The only metals detected above North Carolina groundwater standards in compliance wells were arsenic, barium, chromium, cobalt, lead, and vanadium.

- All of the above metals exceedances were below statistical background with the exception of lead in well MW-19. However, it is likely that the total lead elevation was the result of naturally occurring material associated with sediments in this well.

- It is recommended that the Macon County MSW Landfill remain in detection monitoring for the 2nd semiannual monitoring period of 2016, with continued monitoring for delineation and trends of VOCs in the corrective action area of the facility.

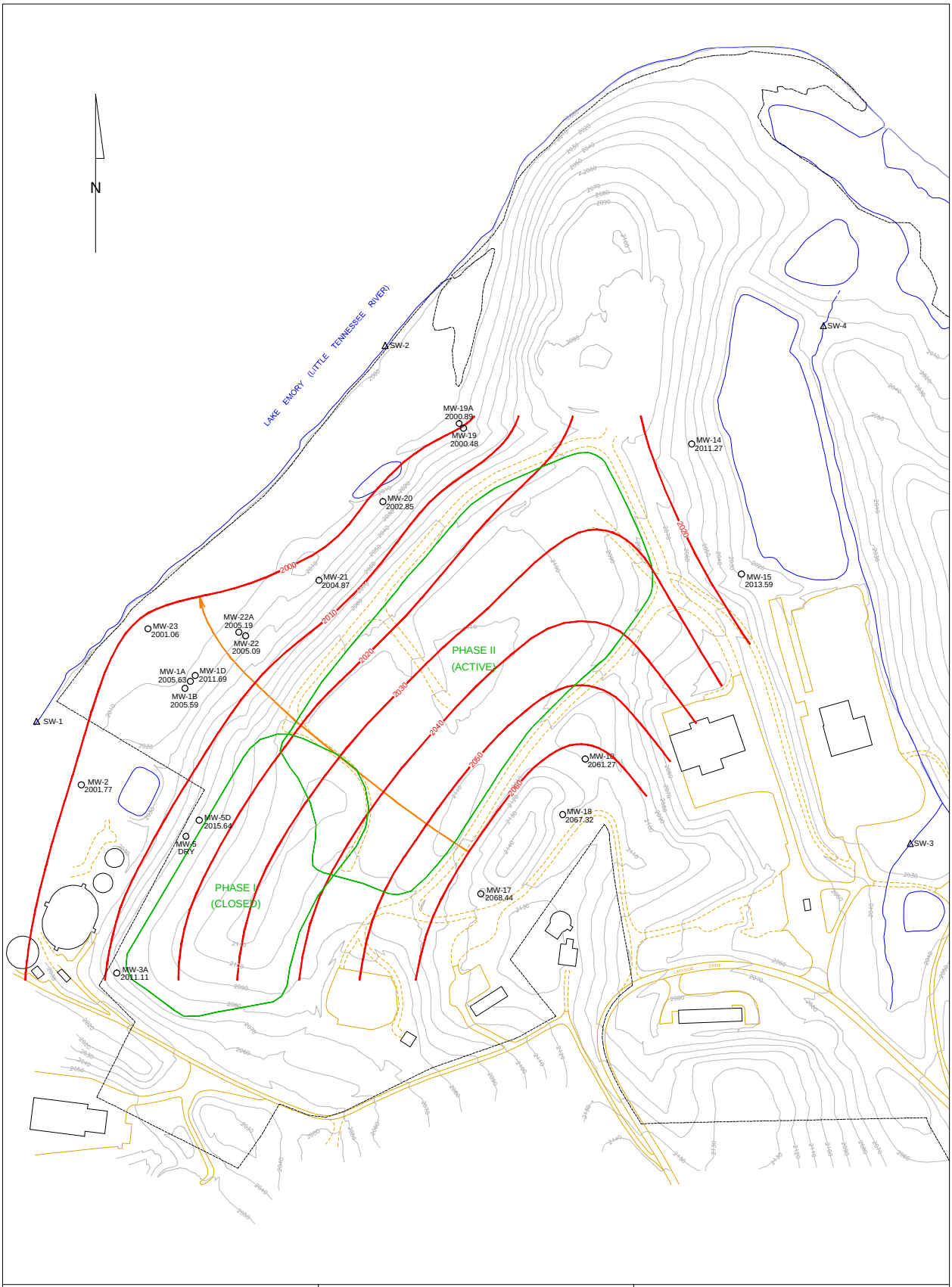
Macon County Municipal Solid Waste (MSW) Landfill

Macon County, North Carolina

Permit Number: 57-03

Figure 1:

Potentiometric Map



POTENTIOMETRIC CONTOURS

MUNICIPAL SOLID WASTE LANDFILL
MACON COUNTY, NORTH CAROLINA
PERMIT NO. 57-03

1ST SEMIANNUAL 2016 MONITORING EVENT DATA

SCALE:

0 250 500

ALL MEASUREMENTS IN FEET

PREPARED BY: REI CONSULTANTS, INC.
MAY 2016

REI Consultants, Inc.

BASE MAP PROVIDED BY MCGILL ASSOCIATES
TOPOGRAPHIC CONTOURS BASED ON MAY 16, 2012 AERIAL SURVEY

LEGEND:

- MONITORING WELL
- SURFACE WATER MONITORING LOCATION
- POTENTIOMETRIC CONTOURS
- TOPOGRAPHIC CONTOURS
- SURFACE WATER
- PROPERTY LINE
- WASTE CELL LIMITS
- STRUCTURES
- ROADS - PAVED
- ROADS - UNPAVED
- HYDRAULIC GRADIENT FLOW PATH

Table 1
Summary of Monitoring Well Data and Static Water Levels
Macon County MSW Landfill, Permit No. 57-03
1st Semi-annual 2016 Monitoring Event

Well ID	Installation Date	Well Diameter (in)	Total Well Depth* (ft)	Depth to Top of Screen** (ft)	Length of Screened Interval (ft)	Geology of Screened Interval	Top of Casing Elevation (ft above MSL)	Ground Elevation (ft above MSL)	Static Depth to Water* (ft)	Groundwater Elevation (ft above MSL)	Latitude	Longitude
MW-1A	12/19/1991	2	31.10	19.5	10	Bedrock	2012.25	N/A	6.62	2005.63	N 35° 12' 08.9"	W 083° 22' 57.5"
MW-1B	12/19/1991	2	17.45	5.0	10	Shallow Saprolite	2012.19	N/A	6.60	2005.59	N 35° 12' 08.7"	W 083° 22' 57.8"
MW-2	12/20/1991	2	20.15	8.0	10	Saprolite	2014.78	N/A	13.01	2001.77	N 35° 12' 06.1"	W 083° 23' 00.9"
MW-3A	12/18/1991	2	67.62	52.0	13	Bedrock	2070.55	N/A	59.44	2011.11	N 35° 12' 01.4"	W 083° 22' 59.1"
MW-5	12/18/1991	2	55.20	38.0	15	N/A	2072.92	N/A	>55.20	<2017.72	N 35° 12' 05.1"	W 083° 22' 56.8"
MW-10	9/5/1996	2	67.60	55.0	10	Shallow Saprolite	2115.08	N/A	53.81	2061.27	N 35° 12' 07.0"	W 083° 22' 44.1"
MW-14	9/12/1996	2	42.57	29.0	10	Shallow Saprolite	2049.54	N/A	38.27	2011.27	N 35° 12' 15.8"	W 083° 22' 41.4"
MW-15	9/12/1996	2	17.97	7.0	10	Shallow Saprolite	2029.19	N/A	15.60	2013.59	N 35° 12' 12.2"	W 083° 22' 39.9"
MW-17	1999	2	83.30	66.0	15	Shallow Saprolite	2133.30	N/A	64.86	2068.44	N 35° 12' 03.4"	W 083° 22' 47.6"
MW-18	1999	2	62.08	N/A	N/A	Shallow Saprolite	2115.40	N/A	48.08	2067.32	N 35° 12' 05.5"	W 083° 22' 45.2"
MW-19	1999	2	25.80	7.0	15	Shallow Saprolite	2021.00	N/A	20.52	2000.48	N 35° 12' 15.9"	W 083° 22' 49.1"
MW-19A	1999	2	57.09	52.5	2.5	Deep Saprolite	2020.80	N/A	19.91	2000.89	N 35° 12' 15.9"	W 083° 22' 49.0"
MW-20	1999	2	23.03	6.0	15	Shallow Saprolite	2015.40	N/A	12.55	2002.85	N 35° 12' 14.0"	W 083° 22' 51.9"
MW-21	1999	2	26.93	8.5	15	Shallow Saprolite	2020.90	N/A	16.03	2004.87	N 35° 12' 12.0"	W 083° 22' 53.2"
MW-22	1999	2	25.10	8.0	15	Shallow Saprolite	2020.92	N/A	15.83	2005.09	N 35° 12' 10.1"	W 083° 22' 55.8"
MW-22A	1999	2	42.30	37.5	2.5	Saprolite/Bedrock	2017.94	N/A	12.75	2005.19	N 35° 12' 10.2"	W 083° 22' 56.0"
MW-1D	9/20/2007	2	63.05	50.0	10	Bedrock	2013.65	2010.93	1.96	2011.69	N 35° 12' 08.9"	W 083° 22' 57.3"
MW-5D	9/20/2007	2	69.82	57.0	10	Bedrock	2075.67	2072.97	60.03	2015.64	N 35° 12' 04.9"	W 083° 22' 57.2"
MW-23	9/12/2007	2	30.95	18.4	10	Fluvial/Saprolite	2007.08	2004.34	6.02	2001.06	N 35° 12' 10.1"	W 083° 22' 58.8"

* - measured from top of casing
** - measured from ground surface
MSL - mean sea level
N/A - not available

TABLE 2: SAMPLING LOG SUMMARY

MSW Landfill (Permit: #57-03)

REIC Job #: 16041545 & 16041538
Sampling Date: 4/13/2016
Sampler(s): Mcbride / Farley / Talley / Bennett
Weather Conditions: Cloudy & Sunny 43-72°F

Property	Units	MW-1A	MW-1B	MW-1D	MW-2
Sampling Depth	Feet	6.67	6.60	54.71	13.81
Static Depth	Feet	6.62	6.60	1.96	13.01
Well Depth	Feet	31.10	17.45	63.05	20.15
Water Column Height	Feet	24.48	10.85	61.09	7.14
Volume Purged	Liters	44	19	50	9
Purging Status	-	Finished Purging	Finished Purging	Purged Dry	Purged Dry
Physical Property	Units	MW-1A	MW-1B	MW-1D	MW-2
pH	SU	5.82 Dup 5.79	5.72 Dup 5.73	6.94	6.03
Temperature	°C	15.8 Dup 15.6	13.9 Dup 14.0	13.5	14.5
Conductivity	umhos/cm	176.9 Dup 177.1	142.5 Dup 143.2	501	183.6
Turbidity	NTU	1.80 Dup 1.75	9.41 Dup 9.65	464	19.58
Appearance	-	Clear	Clear	Cloudy	Clear
Odor	-	No Odor	No Odor	No Odor	No Odor
Total Suspended Solids (TSS)	mg/L	-	5.5	192	-

Property	Units	MW-3A	MW-5	MW-5D	MW-10
Sampling Depth	Feet	59.44	-	60.44	61.41
Static Depth	Feet	59.44	54.98	60.03	53.81
Well Depth	Feet	67.62	55.20	69.82	67.60
Water Column Height	Feet	8.18	-	9.79	13.79
Volume Purged	Liters	15	-	17	12
Purging Status	-	Finished Purging	Not Sampled	Finished Purging	Purged Dry
Physical Property	Units	MW-3A	MW-5	MW-5D	MW-10
pH	SU	5.36 Dup 5.35	-	5.69	5.43
Temperature	°C	14.8 Dup 14.9	-	18.7	14.8
Conductivity	umhos/cm	30.7 Dup 30.6	-	77.0	127.6
Turbidity	NTU	7.00 Dup 7.31	-	46.8	157
Appearance	-	Clear	-	Cloudy	Cloudy
Odor	-	No Odor	-	No Odor	No Odor
Total Suspended Solids (TSS)	mg/L	11	-	83	163

TABLE 2: SAMPLING LOG SUMMARY

MSW Landfill (Permit: #57-03)

REIC Job #: 16041545 & 16041538
Sampling Date: 4/13/2016
Sampler(s): Mcbride / Farley / Talley / Bennett
Weather Conditions: Cloudy & Sunny 43-72°F

Property	Units	MW-14	MW-15	MW-17	MW-18
Sampling Depth	Feet	41.35	15.95	69.89	55.40
Static Depth	Feet	38.27	15.60	64.86	48.08
Well Depth	Feet	42.57	17.97	83.30	62.08
Water Column Height	Feet	4.30	2.37	18.44	14.00
Volume Purged	Liters	2	2	32	25
Purging Status	-	Purged Dry	Purged Dry	Finished Purging	Finished Purging
Physical Property	Units	MW-14	MW-15	MW-17	MW-18
pH	SU	5.59	5.01	5.15	5.33
Temperature	°C	15.4	15.3	15.1	14.9
Conductivity	umhos/cm	19.0	37.1	85.6	40.2
Turbidity	NTU	251	288	454	87.0
Appearance	-	Cloudy	Cloudy	Cloudy	Cloudy
Odor	-	No Odor	No Odor	No Odor	No Odor
Total Suspended Solids (TSS)	mg/L	324	272	514	72

Property	Units	MW-19	MW-19A	MW-20	MW-21
Sampling Depth	Feet	20.85	48.97	13.18	20.25
Static Depth	Feet	20.52	19.91	12.55	16.03
Well Depth	Feet	25.80	57.09	23.03	26.93
Water Column Height	Feet	5.28	37.18	10.48	10.90
Volume Purged	Liters	11	24	20	20
Purging Status	-	Finished Purging	Purged Dry	Finished Purging	Finished Purging
Physical Property	Units	MW-19	MW-19A	MW-20	MW-21
pH	SU	5.42	6.20	5.52	6.14
Temperature	°C	13.5	15.2	9.8	12.6
Conductivity	umhos/cm	43.4	54.3	134.8	73.2
Turbidity	NTU	565	11.57	73.9	79.5
Appearance	-	Cloudy	Clear	Cloudy	Cloudy
Odor	-	No Odor	No Odor	No Odor	No Odor
Total Suspended Solids (TSS)	mg/L	242	62.5	72	36

TABLE 2: SAMPLING LOG SUMMARY

MSW Landfill (Permit: #57-03)

REIC Job #: 16041545 & 16041538
Sampling Date: 4/13/2016
Sampler(s): Mcbride / Farley / Talley / Bennett
Weather Conditions: Cloudy & Sunny 43-72°F

Property	Units	MW-22	MW-22A	MW-23	SW-1
Sampling Depth	Feet	16.90	29.20	7.10	-
Static Depth	Feet	15.83	12.75	6.02	-
Well Depth	Feet	25.10	42.30	30.95	-
Water Column Height	Feet	9.27	29.55	24.93	-
Volume Purged	Liters	17	34	44	-
Purging Status	-	Finished Purging	Purged Dry	Finished Purging	-
Physical Property	Units	MW-22	MW-22A	MW-23	SW-1
pH	SU	5.90	6.89	6.04	7.26
Temperature	°C	14.0	15.4	14.4	16.3
Conductivity	umhos/cm	118.4	545	237	80.4
Turbidity	NTU	564	9.68	64.0	7.08
Appearance	-	Muddy	Clear	Cloudy	Clear
Odor	-	No Odor	No Odor	No Odor	No Odor
Total Suspended Solids (TSS)	mg/L	1290	36	53	7

Property	Units	SW-2	SW-3	SW-4	Leachate
Sampling Depth	Feet	-	-	-	-
Static Depth	Feet	-	-	-	-
Well Depth	Feet	-	-	-	-
Water Column Height	Feet	-	-	-	-
Volume Purged	Liters	-	-	-	-
Purging Status	-	-	-	-	-
Physical Property	Units	SW-2	SW-3	SW-4	Leachate
pH	SU	6.53	6.49	6.76	8.77
Temperature	°C	12.4	14.3	15.3	
Conductivity	umhos/cm	31.4	50.9	51.5	6360
Turbidity	NTU	3.53	8.80	22.6	17.82
Appearance	-	Clear	Clear	Clear	Cloudy
Odor	-	No Odor	No Odor	No Odor	Slight Odor
Total Suspended Solids (TSS)	mg/L	-	-	5.5	-

Table 3
Summary of Detections
MSW Landfill, Permit No. 57-03
1st Semi-annual 2016 Monitoring Event

	NC 2L	SWSL	MW-1A	MW-1B	MW-1D	MW-2	MW-3A	MW-5D	MW-10	MW-14	MW-15	MW-17	MW-18	MW-19	MW-19A	MW-20	MW-21	MW-22	MW-22A	MW-23	SW-1	SW-2	SW-3	SW-4
VOCs																								
1,4-Dichlorobenzene	6	1	1.8	1.4	3.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Metals																								
Arsenic	10	10	-	-	-	**10.7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	700	100	-	-	114	-	-	157	304	305	149	216	106	**785**	-	-	-	696	-	115	-	-	-	-
Beryllium	4	1	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	-	3.0	-	-	-	-	-	-
Cadmium	2	1	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	10	10	-	-	-	-	-	-	-	-	-	**26.8**	-	**31.0**	-	-	-	**59.1**	-	-	-	-	-	-
Cobalt	1	10	**19.4**	-	-	**23.8**	-	**14.4**	-	**15.0**	-	**20.6**	-	**17.5**	-	-	**43.9**	**36.4**	-	-	-	-	-	-
Copper	1000	10	-	-	-	-	-	-	-	13.2	-	30.3	-	36.4	-	-	-	57.6	-	-	-	-	-	-
Lead	15	10	-	-	-	-	-	-	-	-	-	-	-	**54.6**	-	-	-	**23.1**	-	-	-	-	-	-
Vanadium	0.3	25	-	-	-	-	-	-	-	-	-	**30.5**	-	**60.5**	-	-	-	**116**	-	-	-	-	-	-
Zinc	1000	10	-	26.2	17.4	-	-	-	21.0	53.7	18.8	58.7	13.5	134	15.8	10.9	-	123	-	-	10.6	-	-	-
Total Suspended Solids (TSS)		1	-	4	192	8	11	83	163	324	272	514	72	242	63	72	36	1290	36	53	7	2	4	6

NOTES:

NC 2L - North Carolina groundwater standard
SWSL - Solid Waste Section Limit
Constituents that exceed the NC 2L Standard are highlighed in red
DRY - well was dry during sampling event
All constituents reported in µg/L - parts per billion (ppb)
Only parameters detected above SWSLs are listed
"-" - parameter not detected above SWSL
NS - location not sampled

Macon County Municipal Solid Waste (MSW) Landfill

Macon County, North Carolina

Permit Number: 57-03

Appendix A:

Groundwater Flow Rate Calculations

Macon MSW

Flow Path		
X	Y	Distance (ft)
692005.6	557065.0	
691955.3	557097.7	60.0
691909.5	557128.5	55.2
691862.6	557162.1	57.7
691810.0	557200.2	64.9
691756.1	557242.5	68.5
691707.3	557281.1	62.2
691657.7	557321.9	64.3
691600.8	557367.3	72.8
691536.8	557420.3	83.0
691482.8	557470.0	73.4
691437.7	557513.3	62.6
691400.8	557548.4	50.9
691362.7	557590.6	56.8
691338.4	557622.3	40.0
691315.9	557657.5	41.7
691300.2	557688.2	34.6
691291.0	557712.0	25.5
691285.6	557731.2	19.9
691280.9	557753.3	22.6

Hydraulic gradient, I =	0.059	ft / ft
K =	4.9E-05	cm / sec
n_{eff} =	0.27	
V = KI / n_{eff} =	10	ft / yr

Horizontal Distance	1016.7	ft
Vertical Difference	60	ft

Macon County Municipal Solid Waste (MSW) Landfill

Macon County, North Carolina

Permit Number: 57-03

Appendix B:

Field Sampling Logs

pH / Conductivity Meter:	FS-PH- 1
ph Probe:	FS-PHP- 1
Conductivity Probe:	FS-CP- 1
Turbidity Meter:	FS-TURB- 1

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-1A

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 11:49 | Weather Conditions: Sunny | 70 °F

Static Depth (Depth to Water)	6.62	(Ft)	Volume	14.17	(Liters)
Well Depth	31.10	(Ft)	3 Volumes	42.57	(Liters)
Water Column Height	24.48	(Ft)	Volume Purged	44.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
11:55	5.82	189.1	13.3	3.65	1
11:58	5.81	187.9	13.2	7.51	8
12:01	5.83	185.4	13.5	13.34	16
12:03	5.82	181.6	13.7	8.75	24
12:05	5.79	179.6	13.8	4.98	32
12:08	5.79	178.1	13.9	4.22	40
12:09		Finished Purging			44

SAMPLING DATA

Date: 4/13/2016 | Time: 12:15 / 12:20

Method: Teflon Bailer | Sampling Depth: 6.67'

pH: 5.82 Dup 5.79 ***(SU)*** | Conductivity: 176.9 Dup 177.1 ***(umhos/cm)***

Temperature: 15.8 Dup 15.6 ***(°C)*** | Turbidity: 1.80 Dup 1.75 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Clear | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: RF | Date: 04/13/16

Sample Set Page 1 of 19

pH / Conductivity Meter:	FS-PH- 1
ph Probe:	FS-PHP- 1
Conductivity Probe:	FS-CP- 1
Turbidity Meter:	FS-TURB- 1

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-1B

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 11:57 | Weather Conditions: Sunny | 70 °F

Static Depth (Depth to Water)	6.60	(Ft)	Volume	6.28	(Liters)
Well Depth	17.45	(Ft)	3 Volumes	18.84	(Liters)
Water Column Height	10.85	(Ft)	Volume Purged	19.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
12:26	5.65	143.8	13.1	0.42	1
12:27	5.72	144.8	12.6	3.67	4
12:28	5.72	145.4	12.3	7.35	8
12:30	5.73	146.4	12.6	6.07	12
12:32	5.74	146.1	12.6	7.58	16
12:34		Finished Purging			19

SAMPLING DATA

Date: 4/13/2016 | Time: 12:40 / 12:45

Method: Teflon Bailer | Sampling Depth: 6.60'

pH: 5.72 Dup 5.73 ***(SU)*** | Conductivity: 142.5 Dup 143.2 ***(umhos/cm)***

Temperature: 13.9 Dup 14.0 ***(°C)*** | Turbidity: 9.41 Dup 9.65 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Clear | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: RF | Date: 04/13/16

Sample Set Page 2 of 19

pH / Conductivity Meter:	FS-PH- 2
ph Probe:	FS-PHP- 2
Conductivity Probe:	FS-CP- 2
Turbidity Meter:	FS-TURB- 2

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-1D

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 08:10 | Weather Conditions: Sunny | 43 °F

Static Depth (Depth to Water)	1.96	(Ft)	Volume	35.37 (Liters)
Well Depth	63.05	(Ft)	3 Volumes	106.11 (Liters)
Water Column Height	61.09	(Ft)	Volume Purged	50.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
08:14	6.99	495.0	11.6	0.12	1
08:16	7.12	494.0	12.8	0.19	14
08:20	6.99	508.0	13.5	2.11	28
08:24	6.94	611.0	13.1	750.00	42
08:27		Purged Dry			50

SAMPLING DATA

Date: 4/13/2016 | Time: 12:33 / 12:35

Method: Teflon Bailer | Sampling Depth: 54.71'

pH: 6.94 ***(SU)*** | Conductivity: 501 ***(umhos/cm)***

Temperature: 13.5 ***(°C)*** | Turbidity: 464 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: A.M | Date: 4/13/16

Sample Set Page 3 of 19

pH / Conductivity Meter:	FS-PH- 1
ph Probe:	FS-PHP- 1
Conductivity Probe:	FS-CP- 1
Turbidity Meter:	FS-TURB- 1

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-2

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 13:00 | Weather Conditions: Sunny | 72 °F

Static Depth (Depth to Water)	13.01	(Ft)	Volume	4.13 (Liters)
Well Depth	20.15	(Ft)	3 Volumes	12.40 (Liters)
Water Column Height	7.14	(Ft)	Volume Purged	9.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
13:04	5.78	135.3	14.7	576.00	1
13:06	5.79	141.6	14.1	776.00	3
13:08	6.05	245.0	14.0	427.00	5
13:09	6.19	367.0	14.0	487.00	7
13:11	6.34	424.0	14.1	593.00	9
13:11		Purged Dry			9

SAMPLING DATA

Date: 4/13/2016 | Time: 13:27 / 13:34

Method: Teflon Bailer | Sampling Depth: 13.81'

pH: 6.03 ***(SU)*** | Conductivity: 183.6 ***(umhos/cm)***

Temperature: 14.5 ***(°C)*** | Turbidity: 19.58 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Clear | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: RF | Date: 4/13/16

Sample Set Page 4 of 19

pH / Conductivity Meter:	FS-PH- 2
ph Probe:	FS-PHP- 2
Conductivity Probe:	FS-CP- 2
Turbidity Meter:	FS-TURB- 2

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-3A

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 08:41 | Weather Conditions: Sunny | 57 °F

Static Depth (Depth to Water)	59.44	(Ft)	Volume	4.73	(Liters)
Well Depth	67.62	(Ft)	3 Volumes	14.20	(Liters)
Water Column Height	8.18	(Ft)	Volume Purged	15.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
08:44	5.46	30.2	14.5	21.80	1
08:46	5.34	30.0	15.3	20.60	3
08:47	5.28	30.3	15.4	15.30	5
08:48	5.25	30.4	15.5	15.13	7
08:49	5.27	30.6	15.4	13.98	9
08:51	5.27	30.6	15.4	15.24	11
08:52		Finished Purging			15

SAMPLING DATA

Date: 4/13/2016 | Time: 08:55 / 09:06

Method: Teflon Bailer | Sampling Depth: 59.44'

pH: 5.36 Dup 5.35 ***(SU)*** | Conductivity: 30.7 Dup 30.6 ***(umhos/cm)***

Temperature: 14.8 Dup 14.9 ***(°C)*** | Turbidity: 7.00 Dup 7.31 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Clear | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: A.M | Date: 4/13/16

Sample Set Page 5 of 19

pH / Conductivity Meter:	FS-PH- -
ph Probe:	FS-PHP- -
Conductivity Probe:	FS-CP- -
Turbidity Meter:	FS-TURB- -

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-5

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 09:38 | Weather Conditions: | °F

Static Depth (Depth to Water)	54.98	(Ft)	Volume	-	(Liters)
Well Depth	55.20	(Ft)	3 Volumes	-	(Liters)
Water Column Height	-	(Ft)	Volume Purged	-	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
		Not Sampled			

SAMPLING DATA

Date: | Time: -

Method: Teflon Bailer | Sampling Depth: -

pH: - ***(SU)*** | Conductivity: - ***(umhos/cm)***

Temperature: - ***(°C)*** | Turbidity: - ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: - | Odor: -

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: A.M | Date: 4/13/16

Sample Set Page 6 of 19

pH / Conductivity Meter:	FS-PH- 2
ph Probe:	FS-PHP- 2
Conductivity Probe:	FS-CP- 2
Turbidity Meter:	FS-TURB- 2

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-5D

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 09:18 | Weather Conditions: Sunny | 57 °F

Static Depth (Depth to Water)	60.03	(Ft)	Volume	5.66	(Liters)
Well Depth	69.82	(Ft)	3 Volumes	17.00	(Liters)
Water Column Height	9.79	(Ft)	Volume Purged	17.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
09:22	5.72	91.1	17.4	46..0	1
09:23	5.74	94.1	18.4	142.00	3
09:24	5.74	83.7	18.6	76.90	6
09:26	5.77	81.2	18.7	68.30	9
09:27	5.78	80.8	18.7	74.30	12
09:29	5.77	81.1	18.7	67.10	15
09:30		Finished Purging			17

SAMPLING DATA

Date: 4/13/2016 | Time: 09:31 / 09:34

Method: Teflon Bailer | Sampling Depth: 60.44'

pH: 5.69 ***(SU)*** | Conductivity: 77 ***(umhos/cm)***

Temperature: 18.7 ***(°C)*** | Turbidity: 46.8 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: A.M | Date: 4/13/16

Sample Set Page 7 of 19

pH / Conductivity Meter:	FS-PH- 2
ph Probe:	FS-PHP- 2
Conductivity Probe:	FS-CP- 2
Turbidity Meter:	FS-TURB- 2

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-10

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 10:45 | Weather Conditions: Sunny | 65 °F

Static Depth (Depth to Water)	53.81	(Ft)	Volume	7.99 (Liters)
Well Depth	67.60	(Ft)	3 Volumes	23.95 (Liters)
Water Column Height	13.79	(Ft)	Volume Purged	12.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
10:48	5.50	132.0	15.2	20.60	1
10:49	5.44	136.2	14.6	>800	4
10:51	5.54	143.4	14.4	>800	8
10:52	5.78	161.9	14.4	>800	12
10:52		Purged Dry			12

SAMPLING DATA

Date: 4/13/2016 | Time: 11:01 / 11:05

Method: Teflon Bailer | Sampling Depth: 61.41'

pH: 5.43 ***(SU)*** | Conductivity: 127.6 ***(umhos/cm)***

Temperature: 14.8 ***(°C)*** | Turbidity: 157 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: A.M | Date: 4/13/16

Sample Set Page 8 of 19

pH / Conductivity Meter:	FS-PH- 2
ph Probe:	FS-PHP- 2
Conductivity Probe:	FS-CP- 2
Turbidity Meter:	FS-TURB- 2

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-14

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 11:32 | Weather Conditions: Sunny | 70 °F

Static Depth (Depth to Water)	38.27	(Ft)	Volume	2.48 (Liters)
Well Depth	42.57	(Ft)	3 Volumes	7.46 (Liters)
Water Column Height	4.30	(Ft)	Volume Purged	2.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
11:36	5.21	20.4	16.1	18.60	1
11:38	5.19	20.3	15.2	542.00	2
11:38		Purged Dry			2

SAMPLING DATA

Date: 4/13/2016 | Time: 11:55 / 12:08

Method: Teflon Bailer | Sampling Depth: 41.35'

pH: 5.59 ***(SU)*** | Conductivity: 19 ***(umhos/cm)***

Temperature: 15.4 ***(°C)*** | Turbidity: 251 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: A.M | Date: 4/13/16

Sample Set Page 9 of 19

pH / Conductivity Meter:	FS-PH- 2
ph Probe:	FS-PHP- 2
Conductivity Probe:	FS-CP- 2
Turbidity Meter:	FS-TURB- 2

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-15

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 11:23 | Weather Conditions: Sunny | 70 °F

Static Depth (Depth to Water)	15.60	(Ft)	Volume	1.37	(Liters)
Well Depth	17.97	(Ft)	3 Volumes	4.11	(Liters)
Water Column Height	2.37	(Ft)	Volume Purged	1.50	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
11:26	5.10	31.6	15.3	18.35	1
11:27		Purged Dry			1.5

SAMPLING DATA

Date: 4/13/2016 | Time: 12:13 / 12:17

Method: Teflon Bailer | Sampling Depth: 15.95'

pH: 5.01 ***(SU)*** | Conductivity: 37.1 ***(umhos/cm)***

Temperature: 15.3 ***(°C)*** | Turbidity: 288 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: A.M | Date: 4/13/16

Sample Set Page 10 of 19

pH / Conductivity Meter:	FS-PH- 2
ph Probe:	FS-PHP- 2
Conductivity Probe:	FS-CP- 2
Turbidity Meter:	FS-TURB- 2

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-17

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 09:46 | Weather Conditions: Sunny | 62 °F

Static Depth (Depth to Water)	64.86	(Ft)	Volume	10.67 (Liters)
Well Depth	83.30	(Ft)	3 Volumes	32.03 (Liters)
Water Column Height	18.44	(Ft)	Volume Purged	32.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
09:49	5.06	65.2	15.2	1.62	1
09:52	5.17	87.6	15.1	730.00	6
09:55	5.21	90.1	15.0	789.00	12
09:58	5.21	90.8	14.9	732.00	18
10:02	5.25	97.0	15.0	700.00	24
10:05	5.24	93.9	15.0	611.00	30
10:06		Finished Purging			32

SAMPLING DATA

Date: 4/13/2016 | Time: 10:08 / 10:12

Method: Teflon Bailer | Sampling Depth: 69.89'

pH: 5.15 ***(SU)*** | Conductivity: 85.6 ***(umhos/cm)***

Temperature: 15.1 ***(°C)*** | Turbidity: 454 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: A.M | Date: 4/13/16

Sample Set Page 11 of 19

pH / Conductivity Meter:	FS-PH- 2
ph Probe:	FS-PHP- 2
Conductivity Probe:	FS-CP- 2
Turbidity Meter:	FS-TURB- 2

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-18

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 10:19 | Weather Conditions: Sunny | 65 °F

Static Depth (Depth to Water)	48.08	(Ft)	Volume	8.10	(Liters)
Well Depth	62.08	(Ft)	3 Volumes	24.31	(Liters)
Water Column Height	14.00	(Ft)	Volume Purged	25.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
10:22	5.00	25.4	15.6	4.75	1
10:24	5.21	33.7	14.9	151.00	5
10:26	5.36	45.5	14.9	313.00	10
10:29	5.43	45.8	14.9	318.00	15
10:31	5.37	42.3	14.8	269.00	20
10:34	5.33	40.6	14.8	98.70	25
10:34		Finished Purging			25

SAMPLING DATA

Date: 4/13/2016 | Time: 10:36 / 10:39

Method: Teflon Bailer | Sampling Depth: 55.40'

pH: 5.33 ***(SU)*** | Conductivity: 40.2 ***(umhos/cm)***

Temperature: 14.9 ***(°C)*** | Turbidity: 87 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: A.M | Date: 4/13/16

Sample Set Page 12 of 19

pH / Conductivity Meter:	FS-PH- 1
ph Probe:	FS-PHP- 1
Conductivity Probe:	FS-CP- 1
Turbidity Meter:	FS-TURB- 1

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-19

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 08:25 | Weather Conditions: Clear | 46 °F

Static Depth (Depth to Water)	20.52	(Ft)	Volume	3.05 (Liters)
Well Depth	25.80	(Ft)	3 Volumes	9.17 (Liters)
Water Column Height	5.28	(Ft)	Volume Purged	11.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
08:54	5.53	42.7	12.8	1.78	1
08:56	5.42	43.3	13.6	471.00	3
08:58	5.41	44.1	13.7	602.00	5
09:00	5.41	43.5	13.7	630.00	7
09:02	5.43	43.5	13.6	728.00	9
09:04	5.43	43.3	13.7	691.00	11
09:04		Finished Purging			11

SAMPLING DATA

Date: 4/13/2016 | Time: 09:06 / 09:08

Method: Teflon Bailer | Sampling Depth: 20.85'

pH: 5.42 ***(SU)*** | Conductivity: 43.4 ***(umhos/cm)***

Temperature: 13.5 ***(°C)*** | Turbidity: 565 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: RF | Date: 4/13/16

Sample Set Page 13 of 19

pH / Conductivity Meter:	FS-PH- 1
ph Probe:	FS-PHP- 1
Conductivity Probe:	FS-CP- 1
Turbidity Meter:	FS-TURB- 1

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-19A

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 08:20 | Weather Conditions: Clear | 46 °F

Static Depth (Depth to Water)	19.91	(Ft)	Volume	21.52 (Liters)
Well Depth	57.09	(Ft)	3 Volumes	64.58 (Liters)
Water Column Height	37.18	(Ft)	Volume Purged	24.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
08:27	6.06	74.7	12.6	6.56	1
08:35	6.12	53.2	13.6	25.40	10
08:42	6.16	52.2	13.6	42.20	20
08:45		Purged Dry			24

SAMPLING DATA

Date: 4/13/2016 | Time: 12:46 / 12:49

Method: Teflon Bailer | Sampling Depth: 48.97'

pH: 6.20 ***(SU)*** | Conductivity: 54.3 ***(umhos/cm)***

Temperature: 15.2 ***(°C)*** | Turbidity: 11.57 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Clear | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: A.M | Date: 4/13/16

Sample Set Page 14 of 19

pH / Conductivity Meter:	FS-PH- 1
ph Probe:	FS-PHP- 1
Conductivity Probe:	FS-CP- 1
Turbidity Meter:	FS-TURB- 1

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-20

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 09:19 | Weather Conditions: Clear | 50 °F

Static Depth (Depth to Water)	12.55	(Ft)	Volume	6.06 (Liters)
Well Depth	23.03	(Ft)	3 Volumes	18.20 (Liters)
Water Column Height	10.48	(Ft)	Volume Purged	20.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
09:26	5.48	117.1	9.7	661.00	1
09:27	5.47	124.8	9.8	234.00	4
09:29	5.35	129.0	9.6	122.00	8
09:31	5.51	130.8	9.8	97.50	12
09:33	5.52	131.7	9.8	123.00	16
09:34	5.53	131.9	9.9	141.00	20
09:34		Finished Purging			20

SAMPLING DATA

Date: 4/13/2016 | Time: 09:37 / 09:39

Method: Teflon Bailer | Sampling Depth: 13.18'

pH: 5.52 ***(SU)*** | Conductivity: 134.8 ***(umhos/cm)***

Temperature: 09.8 ***(°C)*** | Turbidity: 73.9 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: RF | Date: 4/13/16

Sample Set Page 15 of 19

pH / Conductivity Meter:	FS-PH- 1
ph Probe:	FS-PHP- 1
Conductivity Probe:	FS-CP- 1
Turbidity Meter:	FS-TURB- 1

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-21

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 09:44 | Weather Conditions: Cloudy | 51 °F

Static Depth (Depth to Water)	16.03	(Ft)	Volume	6.31 (Liters)
Well Depth	26.93	(Ft)	3 Volumes	18.93 (Liters)
Water Column Height	10.90	(Ft)	Volume Purged	20.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
09:48	5.73	43.5	11.7	287.00	1
09:50	5.90	59.7	12.1	83.00	4
09:52	5.99	67.6	12.2	74.80	8
09:54	6.06	70.3	12.3	94.90	12
09:56	6.05	66.5	12.6	111.00	16
09:58	6.11	72.6	12.6	97.70	20
09:58		Finished Purging			20

SAMPLING DATA

Date: 4/13/2016 | Time: 10:00 / 10:02

Method: Teflon Bailer | Sampling Depth: 20.25'

pH: 6.14 ***(SU)*** | Conductivity: 73.2 ***(umhos/cm)***

Temperature: 12.6 ***(°C)*** | Turbidity: 79.5 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: RF | Date: 4/13/16

Sample Set Page 16 of 19

pH / Conductivity Meter:	FS-PH- 1
ph Probe:	FS-PHP- 1
Conductivity Probe:	FS-CP- 1
Turbidity Meter:	FS-TURB- 1

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-22

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 10:12 | Weather Conditions: Sunny | 60 °F

Static Depth (Depth to Water)	15.83	(Ft)	Volume	5.36	(Liters)
Well Depth	25.10	(Ft)	3 Volumes	16.10	(Liters)
Water Column Height	9.27	(Ft)	Volume Purged	17.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
10:39	6.30	98.6	14.3	31.60	1
10:40	6.01	87.3	13.7	>800	3
10:41	5.96	101.4	13.5	>800	6
10:43	5.93	107.5	13.5	>800	9
10:44	5.90	114.1	13.6	>800	12
10:45	5.89	119.9	13.5	>800	15
10:46		Finished Purging			17

SAMPLING DATA

Date: 4/13/2016 | Time: 10:49 / 10:52

Method: Teflon Bailer | Sampling Depth: 16.90'

pH: 5.90 ***(SU)*** | Conductivity: 118.4 ***(umhos/cm)***

Temperature: 14.0 ***(°C)*** | Turbidity: 564 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Muddy | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: RF | Date: 4/13/16

Sample Set Page 17 of 19

pH / Conductivity Meter:	FS-PH- 1
ph Probe:	FS-PHP- 1
Conductivity Probe:	FS-CP- 1
Turbidity Meter:	FS-TURB- 1

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-22A

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 10:09 | Weather Conditions: Sunny | 60 °F

Static Depth (Depth to Water)	12.75	(Ft)	Volume	17.10 (Liters)
Well Depth	42.30	(Ft)	3 Volumes	51.32 (Liters)
Water Column Height	29.55	(Ft)	Volume Purged	34.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
10:10	6.83	227.0	13.5	2.52	1
10:21	7.36	233.0	14.3	16.35	10
10:26	7.01	462.0	14.5	18.90	20
10:31	6.90	530.0	14.5	128.00	30
10:34		Purged Dry			34

SAMPLING DATA

Date: 4/13/2016 | Time: 10:55 / 10:58

Method: Teflon Bailer | Sampling Depth: 29.20'

pH: 6.89 ***(SU)*** | Conductivity: 545 ***(umhos/cm)***

Temperature: 15.4 ***(°C)*** | Turbidity: 9.68 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Clear | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: RF | Date: 4/13/16

Sample Set Page 18 of 19

pH / Conductivity Meter:	FS-PH- 1
ph Probe:	FS-PHP- 1
Conductivity Probe:	FS-CP- 1
Turbidity Meter:	FS-TURB- 1

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2016 | Well #: MW-23

Contact Person: Chris Stahl | Phone #: 828-349-2100

WELL CONDITION DATA

	Y	N		Y	N
Protective Casing Present	x		Physical Damage		x
Protective Casing Locked	x		Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/13/2016 11:05 | Weather Conditions: Sunny | 65 °F

Static Depth (Depth to Water)	6.02	(Ft)	Volume	14.43 (Liters)
Well Depth	30.95	(Ft)	3 Volumes	43.30 (Liters)
Water Column Height	24.93	(Ft)	Volume Purged	44.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (°C)	Turbidity (NTU)	Volume Purged (Liters)
11:10	6.05	237.0	12.8	0.80	1
11:13	6.04	236.0	12.9	4.58	8
11:17	6.05	237.0	13.7	221.00	16
11:20	6.08	239.0	13.8	185.00	24
11:23	6.06	239.0	13.9	159.00	32
11:26	6.08	239.0	13.9	188.00	40
11:28		Finished Purging			44

SAMPLING DATA

Date: 4/13/2016 | Time: 11:40 / 11:42

Method: Teflon Bailer | Sampling Depth: 7.10'

pH: 6.04 ***(SU)*** | Conductivity: 237 ***(umhos/cm)***

Temperature: 14.4 ***(°C)*** | Turbidity: 64 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Mcbride / Farley / Talley / Bennett | Initials: RF | Date: 4/13/16

Sample Set Page 19 of 19

pH / Conductivity Meter:	FS-PH- 2
ph Probe:	FS-PHP- 2
Conductivity Probe:	FS-CP- 2
Turbidity Meter:	FS-TURB- 2

REI CONSULTANTS, INC. SURFACE WATER SAMPLING LOG

Project Name: MSW Landfill

Contact Person: Chris Stahl Phone/Fax: 828-349-2100

Outlet: SW-1

Date:	4/13/2016	Time:	13:08 / 13:12
pH:	7.26 ***SU***	Conductivity:	80.4 ***umhos/cm***
Flow:	N/A ***GPD***	Temperature:	16.3 ***°C***

Sample Odor and Physical Appearance: Clear - No Odor

Comments: Turbidity = 7.08 NTU

Sampled By: R. Farley / Talley / JD Bennett Initials: A.M Date: 4/13/2016

Outlet: SW-2

Date:	4/13/2016	Time:	08:42 / 08:46
pH:	6.53 ***SU***	Conductivity:	31.4 ***umhos/cm***
Flow:	N/A ***GPD***	Temperature:	12.4 ***°C***

Sample Odor and Physical Appearance: Clear - No Odor

Comments: Turbidity = 3.53 NTU

Sampled By: R. Farley / Talley / JD Bennett Initials: RF Date: 4/13/2016

Outlet: SW-3

Date:	4/13/2016	Time:	11:14 / 11:17
pH:	6.49 ***SU***	Conductivity:	50.9 ***umhos/cm***
Flow:	N/A ***GPD***	Temperature:	14.3 ***°C***

Sample Odor and Physical Appearance: Clear - No Odor

Comments: Turbidity = 8.80 NTU

Sampled By: R. Farley / Talley / JD Bennett Initials: A.M Date: 4/13/2016

Sample Set Page 1 of 2

pH / Conductivity Meter:	FS-PH- 2
ph Probe:	FS-PHP- 2
Conductivity Probe:	FS-CP- 2
Turbidity Meter:	FS-TURB- 2

REI CONSULTANTS, INC. SURFACE WATER SAMPLING LOG

Project Name: MSW Landfill

Contact Person: Chris Stahl Phone/Fax: 828-349-2100

Outlet: SW-4

Date:	4/13/2016	Time:	11:45 / 11:48
pH:	6.76 ***SU***	Conductivity:	51.5 ***umhos/cm***
Flow:	N/A ***GPD***	Temperature:	15.3 ***°C***

Sample Odor and Physical Appearance: Clear - No Odor

Comments: Turbidity = 22.60 NTU

Sampled By: A. McBride / R. Talley Initials: A.M Date: 4/13/2016

Outlet: Leachate

Date:	4/13/2016	Time:	13:18 / 13:25
pH:	8.77 ***SU***	Conductivity:	6360 ***umhos/cm***
Flow:	N/A ***GPD***	Temperature:	***°C***

Sample Odor and Physical Appearance: Cloudy - Slight Odor

Comments: Turbidity = 17.82 NTU

Sampled By: A. McBride / R. Talley Initials: A.M Date: 4/13/2016

Outlet:

Date:		Time:	
pH:	***SU***	Conductivity:	***umhos/cm***
Flow:	***GPD***	Temperature:	***°C***

Sample Odor and Physical Appearance:

Comments: Turbidity = NTU

Sampled By: Initials: Date:

Sample Set Page 2 of 2

Macon County Municipal Solid Waste (MSW) Landfill

Macon County, North Carolina

Permit Number: 57-03

Appendix C:

Laboratory Results and Chain-of-Custody Record

Macon County Municipal Solid Waste (MSW) Landfill

Macon County, North Carolina

Permit Number: 57-03

MSW Landfill

Laboratory Results
and
Chain-of-Custody Record

REI Consultants, Inc.
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Beaver, WV 25813
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Website: www.reiclabs.com

Improving the environment, one client at a time...

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1557 Commerce Road, Suite 201
Verona, VA 24482
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16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Wednesday, April 27, 2016

Mr. Chris Stahl
MACON COUNTY SOLID WASTE MANAGEMENT
5 WEST MAIN ST
FRANKLIN, NC 28734

TEL: (828) 349-2000
FAX:

RE: MSW LANDFILL - 1SA-2016

Work Order #: 16041545

Dear Mr. Chris Stahl:

REI Consultants, Inc. received 26 sample(s) on 4/14/2016 for the analyses presented in the following report.

Sincerely,

Michelle Ellison

Michelle Ellison

Project Manager

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:15:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-01A	**Matrix:**	Groundwater
Client Sample ID:	MW-1A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 5:36 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/22/2016 5:36 PM	
Barium	0.0530	0.0010	0.100	NA	J	mg/L	4/22/2016 5:36 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 5:36 PM	
Cadmium	0.0005	0.0002	0.0010	NA	J	mg/L	4/22/2016 5:36 PM	
Chromium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 5:36 PM	
Cobalt	0.0194	0.0010	0.0100	NA		mg/L	4/22/2016 5:36 PM	
Copper	0.0019	0.0010	0.0100	NA	J	mg/L	4/22/2016 5:36 PM	
Lead	ND	0.0002	0.0100	NA		mg/L	4/22/2016 5:36 PM	
Nickel	0.0029	0.0020	0.0500	NA	J	mg/L	4/22/2016 5:36 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 5:36 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/22/2016 5:36 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/22/2016 5:36 PM	
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/22/2016 5:36 PM	
Zinc	0.0058	0.0030	0.0100	NA	J	mg/L	4/22/2016 5:36 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/18/2016 7:28 PM	
Acetone	ND	4.88	100	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/18/2016 7:28 PM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Carbon disulfide	1.54	1.27	100	NA	J	µg/L	4/18/2016 7:28 PM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Chlorobenzene	1.66	0.177	3.00	NA	J	µg/L	4/18/2016 7:28 PM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/18/2016 7:28 PM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/18/2016 7:28 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:15:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-01A	**Matrix:**	Groundwater
Client Sample ID:	MW-1A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
1,4-Dichlorobenzene	1.76	0.287	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/18/2016 7:28 PM	PA/VA
Surr: 1,2-Dichloroethane-d4	90.1	NA	75.9-132	NA		%Rec	4/18/2016 7:28 PM	
Surr: 4-Bromofluorobenzene	112	NA	73.6-132	NA		%Rec	4/18/2016 7:28 PM	
Surr: Dibromofluoromethane	97.4	NA	80.1-127	NA		%Rec	4/18/2016 7:28 PM	
Surr: Toluene-d8	95.7	NA	72.4-119	NA		%Rec	4/18/2016 7:28 PM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	ND	1.0	5.0	NA		mg/L	4/18/2016 11:10 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:15:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-02A	**Matrix:**	Groundwater
Client Sample ID:	MW-1A DUPLICATE	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 5:42 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/22/2016 5:42 PM	
Barium	0.0532	0.0010	0.100	NA	J	mg/L	4/22/2016 5:42 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 5:42 PM	
Cadmium	0.0004	0.0002	0.0010	NA	J	mg/L	4/22/2016 5:42 PM	
Chromium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 5:42 PM	
Cobalt	0.0198	0.0010	0.0100	NA		mg/L	4/22/2016 5:42 PM	
Copper	0.0022	0.0010	0.0100	NA	J	mg/L	4/22/2016 5:42 PM	
Lead	ND	0.0002	0.0100	NA		mg/L	4/22/2016 5:42 PM	
Nickel	0.0033	0.0020	0.0500	NA	J	mg/L	4/22/2016 5:42 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 5:42 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/22/2016 5:42 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/22/2016 5:42 PM	
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/22/2016 5:42 PM	
Zinc	0.0061	0.0030	0.0100	NA	J	mg/L	4/22/2016 5:42 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/18/2016 8:02 PM	
Acetone	ND	4.88	100	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/18/2016 8:02 PM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/18/2016 8:02 PM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Chlorobenzene	1.68	0.177	3.00	NA	J	µg/L	4/18/2016 8:02 PM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/18/2016 8:02 PM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/18/2016 8:02 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:15:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-02A	**Matrix:**	Groundwater
Client Sample ID:	MW-1A DUPLICATE	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
1,4-Dichlorobenzene	1.85	0.287	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/18/2016 8:02 PM	PA/VA
Surr: 1,2-Dichloroethane-d4	88.4	NA	75.9-132	NA		%Rec	4/18/2016 8:02 PM	
Surr: 4-Bromofluorobenzene	108	NA	73.6-132	NA		%Rec	4/18/2016 8:02 PM	
Surr: Dibromofluoromethane	95.8	NA	80.1-127	NA		%Rec	4/18/2016 8:02 PM	
Surr: Toluene-d8	99.2	NA	72.4-119	NA		%Rec	4/18/2016 8:02 PM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	ND	1.0	5.0	NA		mg/L	4/18/2016 11:10 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:40:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-03A	**Matrix:**	Groundwater
Client Sample ID:	MW-1B	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 5:59 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/22/2016 5:59 PM	
Barium	0.0563	0.0010	0.100	NA	J	mg/L	4/22/2016 5:59 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 5:59 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 5:59 PM	
Chromium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 5:59 PM	
Cobalt	0.0087	0.0010	0.0100	NA	J	mg/L	4/22/2016 5:59 PM	
Copper	0.0023	0.0010	0.0100	NA	J	mg/L	4/22/2016 5:59 PM	
Lead	0.0003	0.0002	0.0100	NA	J	mg/L	4/22/2016 5:59 PM	
Nickel	ND	0.0020	0.0500	NA		mg/L	4/22/2016 5:59 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 5:59 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/22/2016 5:59 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/22/2016 5:59 PM	
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/22/2016 5:59 PM	
Zinc	0.0262	0.0030	0.0100	NA		mg/L	4/22/2016 5:59 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/18/2016 8:35 PM	
Acetone	ND	4.88	100	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/18/2016 8:35 PM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Carbon disulfide	2.30	1.27	100	NA	J	µg/L	4/18/2016 8:35 PM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Chlorobenzene	1.24	0.177	3.00	NA	J	µg/L	4/18/2016 8:35 PM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/18/2016 8:35 PM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/18/2016 8:35 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:40:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-03A	**Matrix:**	Groundwater
Client Sample ID:	MW-1B	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
1,4-Dichlorobenzene	1.35	0.287	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/18/2016 8:35 PM	PA/VA
Surr: 1,2-Dichloroethane-d4	93.1	NA	75.9-132	NA		%Rec	4/18/2016 8:35 PM	
Surr: 4-Bromofluorobenzene	111	NA	73.6-132	NA		%Rec	4/18/2016 8:35 PM	
Surr: Dibromofluoromethane	97.3	NA	80.1-127	NA		%Rec	4/18/2016 8:35 PM	
Surr: Toluene-d8	101	NA	72.4-119	NA		%Rec	4/18/2016 8:35 PM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	3.5	1.0	5.0	NA	J	mg/L	4/18/2016 11:10 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:40:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-04A	**Matrix:**	Groundwater
Client Sample ID:	MW-1B DUPLICATE	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 6:04 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/22/2016 6:04 PM	
Barium	0.0551	0.0010	0.100	NA	J	mg/L	4/22/2016 6:04 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 6:04 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 6:04 PM	
Chromium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 6:04 PM	
Cobalt	0.0081	0.0010	0.0100	NA	J	mg/L	4/22/2016 6:04 PM	
Copper	0.0020	0.0010	0.0100	NA	J	mg/L	4/22/2016 6:04 PM	
Lead	0.0002	0.0002	0.0100	NA	J	mg/L	4/22/2016 6:04 PM	
Nickel	ND	0.0020	0.0500	NA		mg/L	4/22/2016 6:04 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 6:04 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/22/2016 6:04 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/22/2016 6:04 PM	
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/22/2016 6:04 PM	
Zinc	0.0078	0.0030	0.0100	NA	J	mg/L	4/22/2016 6:04 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/18/2016 9:08 PM	
Acetone	ND	4.88	100	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/18/2016 9:08 PM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Carbon disulfide	2.94	1.27	100	NA	J	µg/L	4/18/2016 9:08 PM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Chlorobenzene	1.13	0.177	3.00	NA	J	µg/L	4/18/2016 9:08 PM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/18/2016 9:08 PM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/18/2016 9:08 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:40:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-04A	**Matrix:**	Groundwater
Client Sample ID:	MW-1B DUPLICATE	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
1,4-Dichlorobenzene	1.33	0.287	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/18/2016 9:08 PM	PA/VA
Surr: 1,2-Dichloroethane-d4	94.3	NA	75.9-132	NA		%Rec	4/18/2016 9:08 PM	
Surr: 4-Bromofluorobenzene	111	NA	73.6-132	NA		%Rec	4/18/2016 9:08 PM	
Surr: Dibromofluoromethane	96.0	NA	80.1-127	NA		%Rec	4/18/2016 9:08 PM	
Surr: Toluene-d8	102	NA	72.4-119	NA		%Rec	4/18/2016 9:08 PM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	5.5	1.0	5.0	NA		mg/L	4/18/2016 11:10 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:33:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-05A	**Matrix:**	Groundwater
Client Sample ID:	MW-1D	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	0.0003	0.0002	0.0060	NA	J	mg/L	4/22/2016 6:49 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:04 PM	
Barium	0.114	0.0010	0.100	NA		mg/L	4/21/2016 10:04 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 6:49 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/21/2016 10:04 PM	
Chromium	0.0051	0.0010	0.0100	NA	J	mg/L	4/21/2016 10:04 PM	
Cobalt	0.0083	0.0010	0.0100	NA	J	mg/L	4/21/2016 10:04 PM	
Copper	0.0062	0.0010	0.0100	NA	J	mg/L	4/21/2016 10:04 PM	
Lead	0.0014	0.0002	0.0100	NA	J	mg/L	4/21/2016 10:04 PM	
Nickel	0.0120	0.0020	0.0500	NA	J	mg/L	4/21/2016 10:04 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:04 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:04 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/21/2016 10:04 PM	
Vanadium	0.0143	0.0010	0.0250	NA	J	mg/L	4/21/2016 10:04 PM	
Zinc	0.0174	0.0030	0.0100	NA		mg/L	4/21/2016 10:04 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/18/2016 9:42 PM	
Acetone	ND	4.88	100	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Benzene	0.520	0.129	1.00	NA	J	µg/L	4/18/2016 9:42 PM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/18/2016 9:42 PM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/18/2016 9:42 PM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Chlorobenzene	2.45	0.177	3.00	NA	J	µg/L	4/18/2016 9:42 PM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/18/2016 9:42 PM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/18/2016 9:42 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:33:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-05A	**Matrix:**	Groundwater
Client Sample ID:	MW-1D	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
1,4-Dichlorobenzene	3.14	0.287	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
1,1-Dichloroethane	0.850	0.383	5.00	NA	J	µg/L	4/18/2016 9:42 PM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/18/2016 9:42 PM	PA/VA
Surr: 1,2-Dichloroethane-d4	89.6	NA	75.9-132	NA		%Rec	4/18/2016 9:42 PM	
Surr: 4-Bromofluorobenzene	109	NA	73.6-132	NA		%Rec	4/18/2016 9:42 PM	
Surr: Dibromofluoromethane	91.8	NA	80.1-127	NA		%Rec	4/18/2016 9:42 PM	
Surr: Toluene-d8	99.5	NA	72.4-119	NA		%Rec	4/18/2016 9:42 PM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	192	2.0	10	NA		mg/L	4/18/2016 11:10 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 1:27:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-06A	**Matrix:**	Groundwater
Client Sample ID:	MW-2	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 6:55 PM	
Arsenic	0.0107	0.0010	0.0100	NA		mg/L	4/21/2016 10:10 PM	
Barium	0.0617	0.0010	0.100	NA	J	mg/L	4/21/2016 10:10 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 6:55 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/21/2016 10:10 PM	
Chromium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:10 PM	
Cobalt	0.0238	0.0010	0.0100	NA		mg/L	4/21/2016 10:10 PM	
Copper	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:10 PM	
Lead	ND	0.0002	0.0100	NA		mg/L	4/21/2016 10:10 PM	
Nickel	ND	0.0020	0.0500	NA		mg/L	4/21/2016 10:10 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:10 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:10 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/21/2016 10:10 PM	
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/21/2016 10:10 PM	
Zinc	0.0056	0.0030	0.0100	NA	J	mg/L	4/21/2016 10:10 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/18/2016 10:15 PM	
Acetone	ND	4.88	100	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/18/2016 10:15 PM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/18/2016 10:15 PM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/18/2016 10:15 PM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/18/2016 10:15 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 1:27:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-06A	**Matrix:**	Groundwater
Client Sample ID:	MW-2	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/18/2016 10:15 PM	PA/VA
Surr: 1,2-Dichloroethane-d4	94.2	NA	75.9-132	NA		%Rec	4/18/2016 10:15 PM	
Surr: 4-Bromofluorobenzene	110	NA	73.6-132	NA		%Rec	4/18/2016 10:15 PM	
Surr: Dibromofluoromethane	93.9	NA	80.1-127	NA		%Rec	4/18/2016 10:15 PM	
Surr: Toluene-d8	99.2	NA	72.4-119	NA		%Rec	4/18/2016 10:15 PM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	8.0	2.0	10	NA	J	mg/L	4/18/2016 11:10 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 8:55:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-07A	**Matrix:**	Groundwater
Client Sample ID:	MW-3A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 7:00 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:16 PM	
Barium	0.0643	0.0010	0.100	NA	J	mg/L	4/21/2016 10:16 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 7:00 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/21/2016 10:16 PM	
Chromium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:16 PM	
Cobalt	0.0038	0.0010	0.0100	NA	J	mg/L	4/21/2016 10:16 PM	
Copper	0.0017	0.0010	0.0100	NA	J	mg/L	4/21/2016 10:16 PM	
Lead	0.0002	0.0002	0.0100	NA	J	mg/L	4/21/2016 10:16 PM	
Nickel	ND	0.0020	0.0500	NA		mg/L	4/21/2016 10:16 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:16 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:16 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/21/2016 10:16 PM	
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/21/2016 10:16 PM	
Zinc	0.0081	0.0030	0.0100	NA	J	mg/L	4/21/2016 10:16 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 3:49 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 3:49 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 3:49 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 3:49 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 3:49 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 8:55:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-07A	**Matrix:**	Groundwater
Client Sample ID:	MW-3A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 3:49 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	88.4	NA	75.9-132	NA		%Rec	4/19/2016 3:49 AM	
Surr: 4-Bromofluorobenzene	104	NA	73.6-132	NA		%Rec	4/19/2016 3:49 AM	
Surr: Dibromofluoromethane	93.0	NA	80.1-127	NA		%Rec	4/19/2016 3:49 AM	
Surr: Toluene-d8	98.7	NA	72.4-119	NA		%Rec	4/19/2016 3:49 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	11.0	1.0	5.0	NA		mg/L	4/18/2016 11:10 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 8:55:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-08A	**Matrix:**	Groundwater
Client Sample ID:	MW-3A DUPLICATE	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 7:06 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:32 PM	
Barium	0.0626	0.0010	0.100	NA	J	mg/L	4/21/2016 10:32 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 7:06 PM	
Cadmium	0.0003	0.0002	0.0010	NA	J	mg/L	4/21/2016 10:32 PM	
Chromium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:32 PM	
Cobalt	0.0037	0.0010	0.0100	NA	J	mg/L	4/21/2016 10:32 PM	
Copper	0.0015	0.0010	0.0100	NA	J	mg/L	4/21/2016 10:32 PM	
Lead	0.0002	0.0002	0.0100	NA	J	mg/L	4/21/2016 10:32 PM	
Nickel	ND	0.0020	0.0500	NA		mg/L	4/21/2016 10:32 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:32 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:32 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/21/2016 10:32 PM	
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/21/2016 10:32 PM	
Zinc	0.0099	0.0030	0.0100	NA	J	mg/L	4/21/2016 10:32 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 4:23 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 4:23 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 4:23 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 4:23 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 4:23 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 8:55:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-08A	**Matrix:**	Groundwater
Client Sample ID:	MW-3A DUPLICATE	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 4:23 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	86.3	NA	75.9-132	NA		%Rec	4/19/2016 4:23 AM	
Surr: 4-Bromofluorobenzene	104	NA	73.6-132	NA		%Rec	4/19/2016 4:23 AM	
Surr: Dibromofluoromethane	94.8	NA	80.1-127	NA		%Rec	4/19/2016 4:23 AM	
Surr: Toluene-d8	100	NA	72.4-119	NA		%Rec	4/19/2016 4:23 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	10.5	1.0	5.0	NA		mg/L	4/18/2016 11:52 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 9:31:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-09A	**Matrix:**	Groundwater
Client Sample ID:	MW-5D	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	0.0002	0.0002	0.0060	NA	J	mg/L	4/22/2016 7:34 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:49 PM	
Barium	0.157	0.0010	0.100	NA		mg/L	4/21/2016 10:49 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 7:34 PM	
Cadmium	0.0015	0.0002	0.0010	NA		mg/L	4/21/2016 10:49 PM	
Chromium	0.0020	0.0010	0.0100	NA	J	mg/L	4/21/2016 10:49 PM	
Cobalt	0.0144	0.0010	0.0100	NA		mg/L	4/21/2016 10:49 PM	
Copper	0.0031	0.0010	0.0100	NA	J	mg/L	4/21/2016 10:49 PM	
Lead	0.0018	0.0002	0.0100	NA	J	mg/L	4/21/2016 10:49 PM	
Nickel	0.0042	0.0020	0.0500	NA	J	mg/L	4/21/2016 10:49 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:49 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:49 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/21/2016 10:49 PM	
Vanadium	0.0017	0.0010	0.0250	NA	J	mg/L	4/21/2016 10:49 PM	
Zinc	0.0095	0.0030	0.0100	NA	J	mg/L	4/21/2016 10:49 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 4:56 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 4:56 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 4:56 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 4:56 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 4:56 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 9:31:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-09A	**Matrix:**	Groundwater
Client Sample ID:	MW-5D	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
1,1-Dichloroethane	0.510	0.383	5.00	NA	J	µg/L	4/19/2016 4:56 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
cis-1,2-Dichloroethene	0.610	0.226	5.00	NA	J	µg/L	4/19/2016 4:56 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 4:56 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	86.8	NA	75.9-132	NA		%Rec	4/19/2016 4:56 AM	
Surr: 4-Bromofluorobenzene	106	NA	73.6-132	NA		%Rec	4/19/2016 4:56 AM	
Surr: Dibromofluoromethane	94.0	NA	80.1-127	NA		%Rec	4/19/2016 4:56 AM	
Surr: Toluene-d8	98.2	NA	72.4-119	NA		%Rec	4/19/2016 4:56 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	83.0	2.0	10	NA		mg/L	4/18/2016 11:10 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 11:01:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-10A	**Matrix:**	Groundwater
Client Sample ID:	MW-10	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 7:40 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:55 PM	
Barium	0.304	0.0010	0.100	NA		mg/L	4/21/2016 10:55 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 7:40 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/21/2016 10:55 PM	
Chromium	0.0055	0.0010	0.0100	NA	J	mg/L	4/21/2016 10:55 PM	
Cobalt	0.0023	0.0010	0.0100	NA	J	mg/L	4/21/2016 10:55 PM	
Copper	0.0055	0.0010	0.0100	NA	J	mg/L	4/21/2016 10:55 PM	
Lead	0.0016	0.0002	0.0100	NA	J	mg/L	4/21/2016 10:55 PM	
Nickel	0.0026	0.0020	0.0500	NA	J	mg/L	4/21/2016 10:55 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:55 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 10:55 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/21/2016 10:55 PM	
Vanadium	0.0098	0.0010	0.0250	NA	J	mg/L	4/21/2016 10:55 PM	
Zinc	0.0210	0.0030	0.0100	NA		mg/L	4/21/2016 10:55 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 5:29 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 5:29 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 5:29 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 5:29 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 5:29 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 11:01:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-10A	**Matrix:**	Groundwater
Client Sample ID:	MW-10	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 5:29 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	87.0	NA	75.9-132	NA		%Rec	4/19/2016 5:29 AM	
Surr: 4-Bromofluorobenzene	109	NA	73.6-132	NA		%Rec	4/19/2016 5:29 AM	
Surr: Dibromofluoromethane	91.3	NA	80.1-127	NA		%Rec	4/19/2016 5:29 AM	
Surr: Toluene-d8	101	NA	72.4-119	NA		%Rec	4/19/2016 5:29 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	163	2.0	10	NA		mg/L	4/18/2016 11:10 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 11:55:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-11A	**Matrix:**	Groundwater
Client Sample ID:	MW-14	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 7:45 PM	
Arsenic	0.0013	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:00 PM	
Barium	0.305	0.0010	0.100	NA		mg/L	4/21/2016 11:00 PM	
Beryllium	0.0007	0.0002	0.0010	NA	J	mg/L	4/22/2016 7:45 PM	
Cadmium	0.0002	0.0002	0.0010	NA	J	mg/L	4/21/2016 11:00 PM	
Chromium	0.0096	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:00 PM	
Cobalt	0.0150	0.0010	0.0100	NA		mg/L	4/21/2016 11:00 PM	
Copper	0.0132	0.0010	0.0100	NA		mg/L	4/21/2016 11:00 PM	
Lead	0.0095	0.0002	0.0100	NA	J	mg/L	4/21/2016 11:00 PM	
Nickel	0.0078	0.0020	0.0500	NA	J	mg/L	4/21/2016 11:00 PM	
Selenium	ND	0.0020	0.0100	NA		mg/L	4/21/2016 11:00 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:00 PM	
Thallium	0.0002	0.0002	0.0055	NA	J	mg/L	4/21/2016 11:00 PM	
Vanadium	0.0203	0.0010	0.0250	NA	J	mg/L	4/21/2016 11:00 PM	
Zinc	0.0537	0.0030	0.0100	NA		mg/L	4/21/2016 11:00 PM	

Notes:

The reporting limit for Se is elevated due to matrix interference.

VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 6:02 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 6:02 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 6:02 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 6:02 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 11:55:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-11A	**Matrix:**	Groundwater
Client Sample ID:	MW-14	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 6:02 AM	PA/VA
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 6:02 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	87.2	NA	75.9-132	NA		%Rec	4/19/2016 6:02 AM	
Surr: 4-Bromofluorobenzene	106	NA	73.6-132	NA		%Rec	4/19/2016 6:02 AM	
Surr: Dibromofluoromethane	93.5	NA	80.1-127	NA		%Rec	4/19/2016 6:02 AM	
Surr: Toluene-d8	100	NA	72.4-119	NA		%Rec	4/19/2016 6:02 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	324	2.0	10	NA		mg/L	4/18/2016 11:10 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:13:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-12A	**Matrix:**	Groundwater
Client Sample ID:	MW-15	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 7:51 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:06 PM	
Barium	0.149	0.0010	0.100	NA		mg/L	4/21/2016 11:06 PM	
Beryllium	0.0005	0.0002	0.0010	NA	J	mg/L	4/22/2016 7:51 PM	
Cadmium	0.0002	0.0002	0.0010	NA	J	mg/L	4/21/2016 11:06 PM	
Chromium	0.0021	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:06 PM	
Cobalt	0.0070	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:06 PM	
Copper	0.0017	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:06 PM	
Lead	0.0018	0.0002	0.0100	NA	J	mg/L	4/21/2016 11:06 PM	
Nickel	0.0022	0.0020	0.0500	NA	J	mg/L	4/21/2016 11:06 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:06 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:06 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/21/2016 11:06 PM	
Vanadium	0.0058	0.0010	0.0250	NA	J	mg/L	4/21/2016 11:06 PM	
Zinc	0.0188	0.0030	0.0100	NA		mg/L	4/21/2016 11:06 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 6:36 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 6:36 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 6:36 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 6:36 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 6:36 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:13:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-12A	**Matrix:**	Groundwater
Client Sample ID:	MW-15	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 6:36 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	89.2	NA	75.9-132	NA		%Rec	4/19/2016 6:36 AM	
Surr: 4-Bromofluorobenzene	107	NA	73.6-132	NA		%Rec	4/19/2016 6:36 AM	
Surr: Dibromofluoromethane	91.2	NA	80.1-127	NA		%Rec	4/19/2016 6:36 AM	
Surr: Toluene-d8	100	NA	72.4-119	NA		%Rec	4/19/2016 6:36 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	272	2.0	10	NA		mg/L	4/18/2016 11:10 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 10:08:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-13A	**Matrix:**	Groundwater
Client Sample ID:	MW-17	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 7:56 PM	
Arsenic	0.0034	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:12 PM	
Barium	0.216	0.0010	0.100	NA		mg/L	4/21/2016 11:12 PM	
Beryllium	0.0003	0.0002	0.0010	NA	J	mg/L	4/22/2016 7:56 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/21/2016 11:12 PM	
Chromium	0.0268	0.0010	0.0100	NA		mg/L	4/21/2016 11:12 PM	
Cobalt	0.0206	0.0010	0.0100	NA		mg/L	4/21/2016 11:12 PM	
Copper	0.0303	0.0010	0.0100	NA		mg/L	4/21/2016 11:12 PM	
Lead	0.0081	0.0002	0.0100	NA	J	mg/L	4/21/2016 11:12 PM	
Nickel	0.0081	0.0020	0.0500	NA	J	mg/L	4/21/2016 11:12 PM	
Selenium	0.0057	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:12 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:12 PM	
Thallium	0.0003	0.0002	0.0055	NA	J	mg/L	4/21/2016 11:12 PM	
Vanadium	0.0305	0.0010	0.0250	NA		mg/L	4/21/2016 11:12 PM	
Zinc	0.0587	0.0030	0.0100	NA		mg/L	4/21/2016 11:12 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 7:09 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 7:09 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 7:09 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 7:09 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 7:09 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 10:08:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-13A	**Matrix:**	Groundwater
Client Sample ID:	MW-17	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 7:09 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	91.2	NA	75.9-132	NA		%Rec	4/19/2016 7:09 AM	
Surr: 4-Bromofluorobenzene	106	NA	73.6-132	NA		%Rec	4/19/2016 7:09 AM	
Surr: Dibromofluoromethane	94.9	NA	80.1-127	NA		%Rec	4/19/2016 7:09 AM	
Surr: Toluene-d8	99.5	NA	72.4-119	NA		%Rec	4/19/2016 7:09 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	514	2.0	10	NA		mg/L	4/18/2016 11:10 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 10:36:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-14A	**Matrix:**	Groundwater
Client Sample ID:	MW-18	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 8:02 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:17 PM	
Barium	0.106	0.0010	0.100	NA		mg/L	4/21/2016 11:17 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 8:02 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/21/2016 11:17 PM	
Chromium	0.0040	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:17 PM	
Cobalt	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:17 PM	
Copper	0.0035	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:17 PM	
Lead	0.0010	0.0002	0.0100	NA	J	mg/L	4/21/2016 11:17 PM	
Nickel	0.0025	0.0020	0.0500	NA	J	mg/L	4/21/2016 11:17 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:17 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:17 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/21/2016 11:17 PM	
Vanadium	0.0037	0.0010	0.0250	NA	J	mg/L	4/21/2016 11:17 PM	
Zinc	0.0135	0.0030	0.0100	NA		mg/L	4/21/2016 11:17 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 7:43 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 7:43 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 7:43 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 7:43 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 7:43 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 10:36:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-14A	**Matrix:**	Groundwater
Client Sample ID:	MW-18	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 7:43 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	87.3	NA	75.9-132	NA		%Rec	4/19/2016 7:43 AM	
Surr: 4-Bromofluorobenzene	108	NA	73.6-132	NA		%Rec	4/19/2016 7:43 AM	
Surr: Dibromofluoromethane	93.8	NA	80.1-127	NA		%Rec	4/19/2016 7:43 AM	
Surr: Toluene-d8	99.7	NA	72.4-119	NA		%Rec	4/19/2016 7:43 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	72.0	1.0	5.0	NA		mg/L	4/18/2016 11:52 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 9:06:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-15A	**Matrix:**	Groundwater
Client Sample ID:	MW-19	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 8:08 PM	
Arsenic	0.0018	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:23 PM	
Barium	0.785	0.0010	0.100	NA		mg/L	4/21/2016 11:23 PM	
Beryllium	0.0022	0.0002	0.0010	NA		mg/L	4/22/2016 8:08 PM	
Cadmium	0.0005	0.0002	0.0010	NA	J	mg/L	4/21/2016 11:23 PM	
Chromium	0.0310	0.0010	0.0100	NA		mg/L	4/21/2016 11:23 PM	
Cobalt	0.0175	0.0010	0.0100	NA		mg/L	4/21/2016 11:23 PM	
Copper	0.0364	0.0010	0.0100	NA		mg/L	4/21/2016 11:23 PM	
Lead	0.0546	0.0002	0.0100	NA		mg/L	4/21/2016 11:23 PM	
Nickel	0.0154	0.0020	0.0500	NA	J	mg/L	4/21/2016 11:23 PM	
Selenium	0.0027	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:23 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:23 PM	
Thallium	0.0002	0.0002	0.0055	NA	J	mg/L	4/21/2016 11:23 PM	
Vanadium	0.0605	0.0010	0.0250	NA		mg/L	4/21/2016 11:23 PM	
Zinc	0.134	0.0030	0.0100	NA		mg/L	4/21/2016 11:23 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 8:16 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 8:16 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 8:16 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 8:16 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 8:16 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 9:06:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-15A	**Matrix:**	Groundwater
Client Sample ID:	MW-19	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 8:16 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	91.1	NA	75.9-132	NA		%Rec	4/19/2016 8:16 AM	
Surr: 4-Bromofluorobenzene	105	NA	73.6-132	NA		%Rec	4/19/2016 8:16 AM	
Surr: Dibromofluoromethane	94.6	NA	80.1-127	NA		%Rec	4/19/2016 8:16 AM	
Surr: Toluene-d8	98.1	NA	72.4-119	NA		%Rec	4/19/2016 8:16 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	242	2.0	10	NA		mg/L	4/18/2016 11:52 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:46:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-16A	**Matrix:**	Groundwater
Client Sample ID:	MW-19A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 8:13 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:40 PM	
Barium	0.0858	0.0010	0.100	NA	J	mg/L	4/21/2016 11:40 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 8:13 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/21/2016 11:40 PM	
Chromium	0.0043	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:40 PM	
Cobalt	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:40 PM	
Copper	0.0049	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:40 PM	
Lead	0.0025	0.0002	0.0100	NA	J	mg/L	4/21/2016 11:40 PM	
Nickel	ND	0.0020	0.0500	NA		mg/L	4/21/2016 11:40 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:40 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:40 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/21/2016 11:40 PM	
Vanadium	0.0033	0.0010	0.0250	NA	J	mg/L	4/21/2016 11:40 PM	
Zinc	0.0158	0.0030	0.0100	NA		mg/L	4/21/2016 11:40 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 8:50 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 8:50 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 8:50 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 8:50 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 8:50 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:46:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-16A	**Matrix:**	Groundwater
Client Sample ID:	MW-19A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 8:50 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	89.7	NA	75.9-132	NA		%Rec	4/19/2016 8:50 AM	
Surr: 4-Bromofluorobenzene	108	NA	73.6-132	NA		%Rec	4/19/2016 8:50 AM	
Surr: Dibromofluoromethane	93.3	NA	80.1-127	NA		%Rec	4/19/2016 8:50 AM	
Surr: Toluene-d8	98.9	NA	72.4-119	NA		%Rec	4/19/2016 8:50 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	62.5	1.0	5.0	NA		mg/L	4/18/2016 11:52 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 9:37:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-17A	**Matrix:**	Groundwater
Client Sample ID:	MW-20	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 8:19 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:45 PM	
Barium	0.0701	0.0010	0.100	NA	J	mg/L	4/21/2016 11:45 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 8:19 PM	
Cadmium	0.0003	0.0002	0.0010	NA	J	mg/L	4/21/2016 11:45 PM	
Chromium	0.0037	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:45 PM	
Cobalt	0.0039	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:45 PM	
Copper	0.0041	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:45 PM	
Lead	0.0016	0.0002	0.0100	NA	J	mg/L	4/21/2016 11:45 PM	
Nickel	0.0036	0.0020	0.0500	NA	J	mg/L	4/21/2016 11:45 PM	
Selenium	0.0013	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:45 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:45 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/21/2016 11:45 PM	
Vanadium	0.0076	0.0010	0.0250	NA	J	mg/L	4/21/2016 11:45 PM	
Zinc	0.0109	0.0030	0.0100	NA		mg/L	4/21/2016 11:45 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 9:23 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 9:23 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 9:23 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 9:23 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 9:23 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 9:37:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-17A	**Matrix:**	Groundwater
Client Sample ID:	MW-20	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 9:23 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	89.8	NA	75.9-132	NA		%Rec	4/19/2016 9:23 AM	
Surr: 4-Bromofluorobenzene	106	NA	73.6-132	NA		%Rec	4/19/2016 9:23 AM	
Surr: Dibromofluoromethane	92.6	NA	80.1-127	NA		%Rec	4/19/2016 9:23 AM	
Surr: Toluene-d8	99.2	NA	72.4-119	NA		%Rec	4/19/2016 9:23 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	72.0	2.0	10	NA		mg/L	4/18/2016 11:52 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 10:00:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-18A	**Matrix:**	Groundwater
Client Sample ID:	MW-21	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 8:36 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:51 PM	
Barium	0.0258	0.0010	0.100	NA	J	mg/L	4/21/2016 11:51 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 8:36 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/21/2016 11:51 PM	
Chromium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:51 PM	
Cobalt	0.0439	0.0010	0.0100	NA		mg/L	4/21/2016 11:51 PM	
Copper	0.0011	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:51 PM	
Lead	ND	0.0002	0.0100	NA		mg/L	4/21/2016 11:51 PM	
Nickel	ND	0.0020	0.0500	NA		mg/L	4/21/2016 11:51 PM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:51 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:51 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/21/2016 11:51 PM	
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/21/2016 11:51 PM	
Zinc	0.0069	0.0030	0.0100	NA	J	mg/L	4/21/2016 11:51 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: JM**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 9:56 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 9:56 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 9:56 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 9:56 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 9:56 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 10:00:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-18A	**Matrix:**	Groundwater
Client Sample ID:	MW-21	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 9:56 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	89.4	NA	75.9-132	NA		%Rec	4/19/2016 9:56 AM	
Surr: 4-Bromofluorobenzene	108	NA	73.6-132	NA		%Rec	4/19/2016 9:56 AM	
Surr: Dibromofluoromethane	93.2	NA	80.1-127	NA		%Rec	4/19/2016 9:56 AM	
Surr: Toluene-d8	101	NA	72.4-119	NA		%Rec	4/19/2016 9:56 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	36.0	2.0	10	NA		mg/L	4/18/2016 11:52 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 10:49:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-19A	**Matrix:**	Groundwater
Client Sample ID:	MW-22	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 8:41 PM	
Arsenic	0.0033	0.0010	0.0100	NA	J	mg/L	4/22/2016 8:41 PM	
Barium	0.696	0.0010	0.100	NA		mg/L	4/21/2016 11:57 PM	
Beryllium	0.0030	0.0002	0.0010	NA		mg/L	4/22/2016 8:41 PM	
Cadmium	0.0004	0.0002	0.0010	NA	J	mg/L	4/21/2016 11:57 PM	
Chromium	0.0591	0.0010	0.0100	NA		mg/L	4/21/2016 11:57 PM	
Cobalt	0.0364	0.0010	0.0100	NA		mg/L	4/21/2016 11:57 PM	
Copper	0.0576	0.0010	0.0100	NA		mg/L	4/21/2016 11:57 PM	
Lead	0.0231	0.0002	0.0100	NA		mg/L	4/21/2016 11:57 PM	
Nickel	0.0476	0.0020	0.0500	NA	J	mg/L	4/21/2016 11:57 PM	
Selenium	0.0031	0.0010	0.0100	NA	J	mg/L	4/21/2016 11:57 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 11:57 PM	
Thallium	0.0007	0.0002	0.0055	NA	J	mg/L	4/21/2016 11:57 PM	
Vanadium	0.116	0.0010	0.0250	NA		mg/L	4/21/2016 11:57 PM	
Zinc	0.123	0.0030	0.0100	NA		mg/L	4/21/2016 11:57 PM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: MD**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 3:48 PM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 3:48 PM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 3:48 PM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 3:48 PM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 3:48 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 10:49:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-19A	**Matrix:**	Groundwater
Client Sample ID:	MW-22	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 3:48 PM	PA/VA
Surr: 1,2-Dichloroethane-d4	82.7	NA	75.9-132	NA		%Rec	4/19/2016 3:48 PM	
Surr: 4-Bromofluorobenzene	101	NA	73.6-132	NA		%Rec	4/19/2016 3:48 PM	
Surr: Dibromofluoromethane	100	NA	80.1-127	NA		%Rec	4/19/2016 3:48 PM	
Surr: Toluene-d8	98.0	NA	72.4-119	NA		%Rec	4/19/2016 3:48 PM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	1,290	2.0	10	NA		mg/L	4/18/2016 11:52 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 10:55:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-20A	**Matrix:**	Groundwater
Client Sample ID:	MW-22A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 8:47 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:02 AM	
Barium	0.0559	0.0010	0.100	NA	J	mg/L	4/22/2016 12:02 AM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 8:47 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 12:02 AM	
Chromium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:02 AM	
Cobalt	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:02 AM	
Copper	0.0034	0.0010	0.0100	NA	J	mg/L	4/22/2016 12:02 AM	
Lead	ND	0.0002	0.0100	NA		mg/L	4/22/2016 12:02 AM	
Nickel	ND	0.0020	0.0500	NA		mg/L	4/22/2016 12:02 AM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:02 AM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:02 AM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/22/2016 12:02 AM	
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/22/2016 12:02 AM	
Zinc	0.0098	0.0030	0.0100	NA	J	mg/L	4/22/2016 12:02 AM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: MD**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 4:23 PM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 4:23 PM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Carbon disulfide	1.78	1.27	100	NA	J	µg/L	4/19/2016 4:23 PM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 4:23 PM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 4:23 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 10:55:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-20A	**Matrix:**	Groundwater
Client Sample ID:	MW-22A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 4:23 PM	PA/VA
Surr: 1,2-Dichloroethane-d4	85.2	NA	75.9-132	NA		%Rec	4/19/2016 4:23 PM	
Surr: 4-Bromofluorobenzene	99.6	NA	73.6-132	NA		%Rec	4/19/2016 4:23 PM	
Surr: Dibromofluoromethane	100	NA	80.1-127	NA		%Rec	4/19/2016 4:23 PM	
Surr: Toluene-d8	96.9	NA	72.4-119	NA		%Rec	4/19/2016 4:23 PM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	36.0	2.0	10	NA		mg/L	4/18/2016 11:52 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 11:40:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-21A	**Matrix:**	Groundwater
Client Sample ID:	MW-23	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 8:53 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:08 AM	
Barium	0.115	0.0010	0.100	NA		mg/L	4/22/2016 12:08 AM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 8:53 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 12:08 AM	
Chromium	0.0042	0.0010	0.0100	NA	J	mg/L	4/22/2016 12:08 AM	
Cobalt	0.0021	0.0010	0.0100	NA	J	mg/L	4/22/2016 12:08 AM	
Copper	0.0040	0.0010	0.0100	NA	J	mg/L	4/22/2016 12:08 AM	
Lead	0.0015	0.0002	0.0100	NA	J	mg/L	4/22/2016 12:08 AM	
Nickel	0.0034	0.0020	0.0500	NA	J	mg/L	4/22/2016 12:08 AM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:08 AM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:08 AM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/22/2016 12:08 AM	
Vanadium	0.0065	0.0010	0.0250	NA	J	mg/L	4/22/2016 12:08 AM	
Zinc	0.0097	0.0030	0.0100	NA	J	mg/L	4/22/2016 12:08 AM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: MD**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 4:57 PM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 4:57 PM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 4:57 PM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 4:57 PM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 4:57 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 11:40:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-21A	**Matrix:**	Groundwater
Client Sample ID:	MW-23	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
1,4-Dichlorobenzene	0.600	0.287	1.00	NA	J	µg/L	4/19/2016 4:57 PM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 4:57 PM	PA/VA
Surr: 1,2-Dichloroethane-d4	83.7	NA	75.9-132	NA		%Rec	4/19/2016 4:57 PM	
Surr: 4-Bromofluorobenzene	102	NA	73.6-132	NA		%Rec	4/19/2016 4:57 PM	
Surr: Dibromofluoromethane	100	NA	80.1-127	NA		%Rec	4/19/2016 4:57 PM	
Surr: Toluene-d8	97.1	NA	72.4-119	NA		%Rec	4/19/2016 4:57 PM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	53.0	2.0	10	NA		mg/L	4/18/2016 11:52 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 1:08:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-22A	**Matrix:**	Groundwater
Client Sample ID:	SW-1	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 8:58 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:13 AM	
Barium	0.0134	0.0010	0.100	NA	J	mg/L	4/22/2016 12:13 AM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 8:58 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 12:13 AM	
Chromium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:13 AM	
Cobalt	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:13 AM	
Copper	0.0011	0.0010	0.0100	NA	J	mg/L	4/22/2016 12:13 AM	
Lead	0.0003	0.0002	0.0100	NA	J	mg/L	4/22/2016 12:13 AM	
Nickel	ND	0.0020	0.0500	NA		mg/L	4/22/2016 12:13 AM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:13 AM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:13 AM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/22/2016 12:13 AM	
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/22/2016 12:13 AM	
Zinc	0.0106	0.0030	0.0100	NA		mg/L	4/22/2016 12:13 AM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: MD**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 5:31 PM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 5:31 PM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 5:31 PM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 5:31 PM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 5:31 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 1:08:00 PM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-22A	**Matrix:**	Groundwater
Client Sample ID:	SW-1	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 5:31 PM	PA/VA
Surr: 1,2-Dichloroethane-d4	85.7	NA	75.9-132	NA		%Rec	4/19/2016 5:31 PM	
Surr: 4-Bromofluorobenzene	102	NA	73.6-132	NA		%Rec	4/19/2016 5:31 PM	
Surr: Dibromofluoromethane	99.0	NA	80.1-127	NA		%Rec	4/19/2016 5:31 PM	
Surr: Toluene-d8	96.5	NA	72.4-119	NA		%Rec	4/19/2016 5:31 PM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	7.0	1.0	5.0	NA		mg/L	4/18/2016 11:52 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 8:42:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-23A	**Matrix:**	Groundwater
Client Sample ID:	SW-2	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 9:04 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:19 AM	
Barium	0.0120	0.0010	0.100	NA	J	mg/L	4/22/2016 12:19 AM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 9:04 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 12:19 AM	
Chromium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:19 AM	
Cobalt	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:19 AM	
Copper	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:19 AM	
Lead	ND	0.0002	0.0100	NA		mg/L	4/22/2016 12:19 AM	
Nickel	ND	0.0020	0.0500	NA		mg/L	4/22/2016 12:19 AM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:19 AM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:19 AM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/22/2016 12:19 AM	
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/22/2016 12:19 AM	
Zinc	0.0042	0.0030	0.0100	NA	J	mg/L	4/22/2016 12:19 AM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: MD**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 6:04 PM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 6:04 PM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 6:04 PM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 6:04 PM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 6:04 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 8:42:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-23A	**Matrix:**	Groundwater
Client Sample ID:	SW-2	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 6:04 PM	PA/VA
Surr: 1,2-Dichloroethane-d4	82.8	NA	75.9-132	NA		%Rec	4/19/2016 6:04 PM	
Surr: 4-Bromofluorobenzene	100	NA	73.6-132	NA		%Rec	4/19/2016 6:04 PM	
Surr: Dibromofluoromethane	97.5	NA	80.1-127	NA		%Rec	4/19/2016 6:04 PM	
Surr: Toluene-d8	97.7	NA	72.4-119	NA		%Rec	4/19/2016 6:04 PM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	2.0	1.0	5.0	NA	J	mg/L	4/18/2016 11:52 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 11:14:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-24A	**Matrix:**	Groundwater
Client Sample ID:	SW-3	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 9:09 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:25 AM	
Barium	0.0401	0.0010	0.100	NA	J	mg/L	4/22/2016 12:25 AM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 9:09 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 12:25 AM	
Chromium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:25 AM	
Cobalt	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:25 AM	
Copper	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:25 AM	
Lead	ND	0.0002	0.0100	NA		mg/L	4/22/2016 12:25 AM	
Nickel	ND	0.0020	0.0500	NA		mg/L	4/22/2016 12:25 AM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:25 AM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:25 AM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/22/2016 12:25 AM	
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/22/2016 12:25 AM	
Zinc	0.0039	0.0030	0.0100	NA	J	mg/L	4/22/2016 12:25 AM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: MD**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 6:54 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 6:54 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 6:54 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 6:54 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 6:54 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 11:14:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-24A	**Matrix:**	Groundwater
Client Sample ID:	SW-3	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 6:54 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	84.2	NA	75.9-132	NA		%Rec	4/19/2016 6:54 AM	
Surr: 4-Bromofluorobenzene	100	NA	73.6-132	NA		%Rec	4/19/2016 6:54 AM	
Surr: Dibromofluoromethane	99.0	NA	80.1-127	NA		%Rec	4/19/2016 6:54 AM	
Surr: Toluene-d8	97.3	NA	72.4-119	NA		%Rec	4/19/2016 6:54 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	4.0	1.0	5.0	NA	J	mg/L	4/18/2016 11:52 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 11:45:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-25A	**Matrix:**	Groundwater
Client Sample ID:	SW-4	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	ND	0.0002	0.0060	NA		mg/L	4/22/2016 9:15 PM	
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:30 AM	
Barium	0.0396	0.0010	0.100	NA	J	mg/L	4/22/2016 12:30 AM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 9:15 PM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/22/2016 12:30 AM	
Chromium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:30 AM	
Cobalt	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:30 AM	
Copper	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:30 AM	
Lead	0.0002	0.0002	0.0100	NA	J	mg/L	4/22/2016 12:30 AM	
Nickel	ND	0.0020	0.0500	NA		mg/L	4/22/2016 12:30 AM	
Selenium	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:30 AM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/22/2016 12:30 AM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/22/2016 12:30 AM	
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/22/2016 12:30 AM	
Zinc	0.0046	0.0030	0.0100	NA	J	mg/L	4/22/2016 12:30 AM	
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: MD**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 7:22 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 7:22 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 7:22 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 7:22 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 7:22 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 11:45:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-25A	**Matrix:**	Groundwater
Client Sample ID:	SW-4	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 7:22 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	84.9	NA	75.9-132	NA		%Rec	4/19/2016 7:22 AM	
Surr: 4-Bromofluorobenzene	102	NA	73.6-132	NA		%Rec	4/19/2016 7:22 AM	
Surr: Dibromofluoromethane	97.6	NA	80.1-127	NA		%Rec	4/19/2016 7:22 AM	
Surr: Toluene-d8	98.0	NA	72.4-119	NA		%Rec	4/19/2016 7:22 AM	
TOTAL SUSPENDED SOLIDS			**Method: SM2540 D-1997**				**Analyst: KY**	
Total Suspended Solids	5.5	1.0	5.0	NA		mg/L	4/18/2016 11:52 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:00:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-26A	**Matrix:**	Trip Blank
Client Sample ID:	TRIP BLANK	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: MD**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/19/2016 7:51 AM	
Acetone	ND	4.88	100	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/19/2016 7:51 AM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/19/2016 7:51 AM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/19/2016 7:51 AM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/19/2016 7:51 AM	PA/VA
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041545

Date Reported: 4/27/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 12:00:00 AM
Project:	MSW LANDFILL - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041545-26A	**Matrix:**	Trip Blank
Client Sample ID:	TRIP BLANK	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/19/2016 7:51 AM	PA/VA
Surr: 1,2-Dichloroethane-d4	82.7	NA	75.9-132	NA		%Rec	4/19/2016 7:51 AM	
Surr: 4-Bromofluorobenzene	102	NA	73.6-132	NA		%Rec	4/19/2016 7:51 AM	
Surr: Dibromofluoromethane	98.2	NA	80.1-127	NA		%Rec	4/19/2016 7:51 AM	
Surr: Toluene-d8	98.9	NA	72.4-119	NA		%Rec	4/19/2016 7:51 AM	

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: (304)255-2500
Website: www.reiclabs.com

Improving the environment, one client at a time...

Sample Receipt Checklist

Client Name:	**MAC006**			Work Order Number:	**16041545**
RCPNo:	**1**	Date and Time Received:	**4/14/2016 12:19:00 PM**	Received by:	**Doug Arthur**
Completed By:	**Doug Arthur**		Reviewed By:		
Completed Date:	**4/14/2016 12:19:44 PM**		Reviewed Date:		

Carrier Name: REIC

1.	Chain of custody present?	Yes [x]	No [ ]	
2.	Chain of custody signed when relinquished and received?	Yes [x]	No [ ]	
3.	Are matrices correctly identified on Chain of custody?	Yes [x]	No [ ]	
4.	Is it clear what analyses were requested?	Yes [x]	No [ ]	
5.	Custody seals intact?	Yes [ ]	No [ ]	Not Present [x]
6.	Samples in proper container type and preservative?	Yes [x]	No [ ]	
7.	Were correct preservatives noted on COC?	Yes [x]	No [ ]	NA [ ]
8.	Sample containers intact?	Yes [x]	No [ ]	
9.	Sufficient sample volume for indicated test?	Yes [x]	No [ ]	
10.	Were container labels complete?	Yes [x]	No [ ]	
11.	All samples received within holding time?	Yes [x]	No [ ]	
12.	Was an attempt made to cool the samples?	Yes [x]	No [ ]	NA [ ]
13.	Sample Temp. taken and recorded upon receipt?	Yes [ ]	No [x]	To ºC
14.	Water - Were bubbles absent in VOC vials?	Yes [x]	No [ ]	No Vials [ ]
15.	Are Samples considered acceptable?	Yes [x]	No [ ]	
16.	COC filled out properly?	Yes [x]	No [ ]	

Client Notification/Response

Client Name: **MAC006** Work Order Number: **16041545**

Comment:

Client Contacted: Yes [ ] No [ ] NA [x] Person Contacted:

Contact Mode: Phone [ ] Fax: [ ] Email: [ ] In Person: [ ]

Date Contacted: Contacted By:

Regarding:

Client Instructions:

Corrective Action:

CHAIN OF CUSTODY RECORD

REIC

Research Environmental & Industrial Consultants, Inc.

MAIN LABORATORY & CORPORATE HEADQUARTERS:
P.O. Box 286 • 225 Industrial Park Rd, Beaver, WV 25813
800-995-0105 • 304-255-2500 • www.reiclabs.com

MID-OHIO VALLEY Service Center
101 17th Street
Ashland, KY 41101
606-393-5027

SHENANDOAH Service Center
1557 Commerce Rd., Ste 201
Verona, VA 24482
540-248-0183

ROANOKE Service Center
3029-C Peters Creek Rd
Roanoke, VA 24019
540-777-1276

MORGANTOWN Service Center
16 Commerce Drive
Westover, WV 26501
304-241-5861

v11-0615 REIC use ONLY CLIENT ID MAC 006 DATE _____ SHEET 1 of 3

Client: Macon Co Dept Of SWM PO # _____
Contact Person: Chris Stahl Phone: 828-439-2100
Address: 109 Sierra City: Franklin State: NC Zip: 28734
Billing Address (if different) _____
City _____ State _____ Zip _____
Site ID & State: MSW Landfill Proj ID: 1 st Semi 2016 Sampler: AM/RF/RT/JB

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME: (•) NORMAL ( ) RUSH TURNAROUND* ( ) 5 DAY ( ) 3 DAY ( ) 2 DAY ( ) 1 DAY
*Rush work needs prior laboratory approval and will incur additional charges

Send Results Via: ( ) Email ( ) Fax

All analytical requests are subject to REIC's Standard Terms and Conditions.

ANALYSIS & METHOD REQUESTED: NC APPENDIX 1 VOC; NC APPENDIX 1 METALS; TSS

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	#1	#2	#0	#	#	#	#	#	#	#
MW- 1 A	2 P - 4 G	4-13-16 / 1215	G Water	Grab	X	X	X							
MW - 1 A Duplicate	6 P - 12 G	4-13-16 / 1215	G Water	Grab	X	X	X							
MW - 1 B	2 P - 4 G	4-13-16 / 1240	G Water	Grab	X	X	X							
MW - 1 B Duplicate	6 P - 12 G	4-13-16 / 1240	G Water	Grab	X	X	X							
MW - 1 D	2 P - 4 G	4-13-16 / 1233	G Water	Grab	X	X	X							
MW - 2	2 P - 4 G	4-13-16 / 1327	G Water	Grab	X	X	X							
MW-3 A	2 P - 4 G	4-13-16 / 0855	G Water	Grab	X	X	X							
MW -3 A Duplicate	6 P - 12 G	4-13-16 / 0855	G Water	Grab	X	X	X							
MW-5 D	2 P - 4 G	4-13-16 / 0931	G Water	Grab	X	X	X							
MW- 10	2 P - 4 G	4-13-16 / 1101	G Water	Grab	X	X	X							

ENTER PRESERVATIVE CODE(S):
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide/ Sodium Arsenite
6 Sodium Hydroxide
7 Ascorbic Acid
8 Sodium Bisulfate/Methanol
9 Ammonium Chloride
10 CR6 Buffer
11 Sodium Sulfite/ Hydrochloric Acid
12 Zinc Acetate *
*(Use blank for a preservative not listed.)

COMMENTS:
Analyze Dissolved Metals For Any Total Metal Detection.

Corrected IR # 2

Temperature at arrival: 1 °C ICED? Y X N___ Containers provided by: [X] REIC [ ] Client Delivered by: [ ] Client [X] REIC [ ] UPS [ ] FedEx [ ] USPS Other _____

	Relinquished by (signature)	Date/Time		Relinquished by (signature)	Date/Time		Relinquished by (signature)	Date/Time
1	[signature]	4-14-16 0900	2			3		
	Received by (signature)	4-14-16 0800		Received by (signature)			Received by (signature)	
4	Relinquished by (signature)	Date/Time	5	Relinquished by (signature)	Date/Time	6	Relinquished by (signature)	Date/Time
	Received by (signature)	Date/Time		Received by (signature)	Date/Time		Received by (signature)	Date/Time

CHAIN OF CUSTODY RECORD

v11-0615 REIC use ONLY CLIENT ID MAC 006 DATE _____ SHEET 2 OF 3

REIC

Research Environmental & Industrial Consultants, Inc.

MAIN LABORATORY & CORPORATE HEADQUARTERS:
P.O. Box 286 • 225 Industrial Park Rd, Beaver, WV 25813
800-999-0105 • 304-255-2500 • www.reiclabs.com

MID-OHIO VALLEY Service Center
101 17th Street
Ashland, KY 41101
606-393-5027

SHENANDOAH Service Center
1557 Commerce Rd., Ste 201
Verona, VA 24482
540-248-0183

ROANOKE Service Center
3029-C Peters Creek Rd
Roanoke, VA 24019
540-777-1276

MORGANTOWN Service Center
16 Commerce Drive
Westover, WV 26501
304-241-5861

Client: Macon Co Dept Of SWM PO # _____

Contact Person: Chris Stahl Phone: 828-439-2100

Address: 109 Sierra City: Franklin State: NC Zip: 28734

Billing Address (if different) _____

City _____ State _____ Zip _____

Site ID & State: MSW Landfill Proj ID: 1 st Semi 2016 Sampler: AM/RF/RT/JB

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME: [•] NORMAL — RUSH TURNAROUND*: [ ] 5 DAY [ ] 3 DAY [ ] 2 DAY [ ] 1 DAY

*Rush work needs prior laboratory approval and will incur additional charges

Send Results Via: [ ] Email [ ] Fax

All analytical requests are subject to REIC's Standard Terms and Conditions.

ANALYSIS & METHOD REQUESTED: NC APPENDIX 1 VOC; NC APPENDIX 1 METALS; TSS

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	*1	*2	*0	*	*	*	*	*	*	*
MW-14	2 P - 4 G	4-13-16 / 1155	G Water	Grab	X	X	X							
MW-15	2 P - 4 G	4-13-16 / 1213	G Water	Grab	X	X	X							
MW-17	2 P - 4 G	4-13-16 / 1008	G Water	Grab	X	X	X							
MW-18	2 P - 4 G	4-13-16 / 1036	G Water	Grab	X	X	X							
MW-19	2 P - 4 G	4-13-16 / 0906	G Water	Grab	X	X	X							
MW-19 A	2 P - 4 G	4-13-16 / 1246	G Water	Grab	X	X	X							
MW-20	2 P - 4 G	4-13-16 / 0937	G Water	Grab	X	X	X							
MW-21	2 P - 4 G	4-13-16 / 1000	G Water	Grab	X	X	X							
MW-22	2 P - 4 G	4-13-16 / 1049	G Water	Grab	X	X	X							
MW-22 A	2 P - 4 G	4-13-16 / 1055	G Water	Grab	X	X	X							

ENTER PRESERVATIVE CODE(S):

0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide/ Sodium Arsenite
6 Sodium Hydroxide
7 Ascorbic Acid
8 Sodium Bisulfate/Methanol
9 Ammonium Chloride
10 CR6 Buffer
11 Sodium Sulfite/ Hydrochloric Acid
12 Zinc Acetate *

*(Use blank for a preservative not listed.)

COMMENTS:

Analyze Dissolved Metals For Any Total Metal Detection.

Corrected IR # 2

Temperature at arrival: 1 °C ICED? Y X N___ Containers provided by: [X] REIC [ ] Client Delivered by: [ ] Client [X] REIC [ ] UPS [ ] FedEx [ ] USPS Other _____

	Relinquished by (signature)	Date/Time		Relinquished by (signature)	Date/Time		Relinquished by (signature)	Date/Time
1	[illegible]	4-14-16 0830	2			3		
	Received by (signature)	Date/Time		Received by (signature)	Date/Time		Received by (signature)	Date/Time
	[illegible]	4-14-16 0860						
4	Relinquished by (signature)	Date/Time	5	Relinquished by (signature)	Date/Time	6	Relinquished by (signature)	Date/Time
	Received by (signature)	Date/Time		Received by (signature)	Date/Time		Received by (signature)	Date/Time

CHAIN OF CUSTODY RECORD

v11-0615 REIC use ONLY CLIENT ID MAC 006 DATE _____ SHEET 3 of 3

REIC

Research Environmental & Industrial Consultants, Inc.

MAIN LABORATORY & CORPORATE HEADQUARTERS:
P.O. Box 286 • 225 Industrial Park Rd, Beaver, WV 25813
800-999-0105 • 304-255-2500 • www.reiclabs.com

MID-OHIO VALLEY Service Center
101 17th Street
Ashland, KY 41101
606-393-5027

SHENANDOAH Service Center
1557 Commerce Rd., Ste 201
Verona, VA 24482
540-248-0183

ROANOKE Service Center
3029-C Peters Creek Rd
Roanoke, VA 24019
540-777-1276

MORGANTOWN Service Center
16 Commerce Drive
Westover, WV 26501
304-241-5861

Client: Macon Co Dept Of SWM PO # _____

Contact Person: Chris Stahl Phone: 828-439-2100

Address: 109 Sierra City: Franklin State: NC Zip: 28734

Billing Address (if different) _____

City _____ State _____ Zip _____

Site ID & State: MSW Landfill Proj ID: 1 st Semi 2016 Sampler: AM/RF/RT/JB

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME: (•) NORMAL

RUSH TURNAROUND*: ( ) 5 DAY ( ) 3 DAY ( ) 2 DAY ( ) 1 DAY

*Rush work needs prior laboratory approval and will incur additional charges

Send Results Via: ( ) Email ( ) Fax

All analytical requests are subject to REIC's Standard Terms and Conditions.

ANALYSIS & METHOD REQUESTED: NC APPENDIX 1 VOC; NC APPENDIX 1 METALS; TSS; NC APPENDIX 1 VOC

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	#1	#2	#0	#0						
MW-23	2 P - 4 G	4-13-16 / 1140	G Water	Grab	X	X	X							
SW-1	2 P - 4 G	4-13-16 / 1308	G Water	Grab	X	X	X							
SW-2	2 P - 4 G	4-13-16 / 0842	G Water	Grab	X	X	X							
SW-3	2 P - 4 G	4-13-16 / 1114	G Water	Grab	X	X	X							
SW-4	2 P - 4 G	4-13-16 / 1145	G Water	Grab	X	X	X							
TRIP BLANK	2 VOA		Liquid					X						

ENTER PRESERVATIVE CODE(S):

0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide/ Sodium Arsenite
6 Sodium Hydroxide
7 Ascorbic Acid
8 Sodium Bisulfate/Methanol
9 Ammonium Chloride
10 CR6 Buffer
11 Sodium Sulfite/ Hydrochloric Acid
12 Zinc Acetate *

* (Use blank for a preservative not listed.)

COMMENTS:

Analyze Dissolved Metals For Any Total Metal Detection.

Corrected IR # 2

Temperature at arrival: 1 °C ICED? Y X N___ Containers provided by: [X] REIC [ ] Client Delivered by: [ ] Client [X] REIC [ ] UPS [ ] FedEx [ ] USPS Other _____

1	Relinquished by (signature)	Date/Time 4-14-16 0820	2	Relinquished by (signature)	Date/Time	3	Relinquished by (signature)	Date/Time
	Received by (signature)	Date/Time 4-14-16 0820		Received by (signature)	Date/Time		Received by (signature)	Date/Time
4	Relinquished by (signature)	Date/Time	5	Relinquished by (signature)	Date/Time	6	Relinquished by (signature)	Date/Time
	Received by (signature)	Date/Time		Received by (signature)	Date/Time		Received by (signature)	Date/Time

Macon County Municipal Solid Waste (MSW) Landfill

Macon County, North Carolina

Permit Number: 57-03

MSW Leachate

Laboratory Results
and
Chain-of-Custody Record

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: (304) 255-2500
Website: www.reiclabs.com

Improving the environment, one client at a time...

3029-C Peters Creek Road
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Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.248.0183

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Tuesday, April 26, 2016

Mr. Chris Stahl
MACON COUNTY SOLID WASTE MANAGEMENT
5 WEST MAIN ST
FRANKLIN, NC 28734

TEL: (828) 349-2000
FAX:

RE: MSW LEACHATE - 1SA-2016

Work Order #: 16041538

Dear Mr. Chris Stahl:

REI Consultants, Inc. received 1 sample(s) on 4/14/2016 for the analyses presented in the following report.

Sincerely,

Michelle Ellison

Michelle Ellison

Project Manager

REI Consultants, Inc. - Analytical Report

WO#: 16041538

Date Reported: 4/26/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 1:18:00 PM
Project:	MSW LEACHATE - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041538-01A	**Matrix:**	Groundwater
Client Sample ID:	LEACHATE	**Site ID:**	MSW LEACHATE

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
TOTAL METALS by ICP-MS			**Method: SW6020B**				**Analyst: BG**	
Antimony	0.0010	0.0002	0.0060	NA	J	mg/L	4/21/2016 9:08 PM	
Arsenic	0.0064	0.0010	0.0100	NA	J	mg/L	4/21/2016 9:08 PM	
Barium	0.544	0.0010	0.100	NA		mg/L	4/21/2016 9:08 PM	
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2016 12:32 AM	
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/21/2016 9:08 PM	
Chromium	0.0168	0.0010	0.0100	NA		mg/L	4/23/2016 12:32 AM	
Cobalt	0.0320	0.0010	0.0100	NA		mg/L	4/21/2016 9:08 PM	
Copper	0.0029	0.0010	0.0100	NA	J	mg/L	4/21/2016 9:08 PM	
Lead	0.0004	0.0002	0.0100	NA	J	mg/L	4/21/2016 9:08 PM	
Nickel	0.0991	0.0020	0.0500	NA		mg/L	4/23/2016 12:32 AM	
Selenium	0.0026	0.0010	0.0100	NA	J	mg/L	4/21/2016 9:08 PM	
Silver	ND	0.0010	0.0100	NA		mg/L	4/21/2016 9:08 PM	
Thallium	ND	0.0002	0.0055	NA		mg/L	4/21/2016 9:08 PM	
Vanadium	0.0130	0.0010	0.0250	NA	J	mg/L	4/21/2016 9:08 PM	
Zinc	0.0086	0.0050	0.0150	NA	J	mg/L	4/23/2016 12:32 AM	

Notes:

Calculation of the percent recovery on the matrix spike for Ba was not applicable since the spike added was <30% of the parent sample's background concentration.

The reporting limit is elevated for Zn due to matrix interference.

VOLATILE ORGANIC COMPOUNDS-8260			**Method: SW8260B**				**Analyst: MD**	
trans-1,4-Dichloro-2-butene	ND	5.00	100	NA		µg/L	4/15/2016 5:51 PM	
Acetone	15.6	4.88	100	NA	J	µg/L	4/15/2016 5:51 PM	PA/VA
Acrylonitrile	ND	4.24	200	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Benzene	ND	0.129	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Bromoform	ND	0.400	3.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Bromomethane	ND	0.497	10.0	NA		µg/L	4/15/2016 5:51 PM	PA/VA
2-Butanone	ND	4.68	100	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Carbon disulfide	ND	1.27	100	NA		µg/L	4/15/2016 5:51 PM	
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Chloroethane	ND	0.942	10.0	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Chloroform	ND	0.253	5.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Chloromethane	ND	0.327	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041538

Date Reported: 4/26/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 1:18:00 PM
Project:	MSW LEACHATE - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041538-01A	**Matrix:**	Groundwater
Client Sample ID:	LEACHATE	**Site ID:**	MSW LEACHATE

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/15/2016 5:51 PM	PA/VA
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/15/2016 5:51 PM	PA/VA
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Iodomethane	ND	3.44	10.0	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Styrene	ND	0.240	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Toluene	ND	0.167	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
o-Xylene	ND	0.186	1.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/15/2016 5:51 PM	PA/VA
Surr: 1,2-Dichloroethane-d4	110	NA	75.9-132	NA		%Rec	4/15/2016 5:51 PM	
Surr: 4-Bromofluorobenzene	99.6	NA	73.6-132	NA		%Rec	4/15/2016 5:51 PM	
Surr: Dibromofluoromethane	104	NA	80.1-127	NA		%Rec	4/15/2016 5:51 PM	
Surr: Toluene-d8	97.5	NA	72.4-119	NA		%Rec	4/15/2016 5:51 PM	

REI Consultants, Inc. - Analytical Report

WO#: 16041538

Date Reported: 4/26/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 1:18:00 PM
Project:	MSW LEACHATE - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041538-01A	**Matrix:**	Groundwater
Client Sample ID:	LEACHATE	**Site ID:**	MSW LEACHATE

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
BOD, 5 Day, 20°C:			**Method: SM5210 B-2001**				**Analyst: VR**	
Biochemical Oxygen Demand	10	2	5	NA		mg/L	4/15/2016 10:30 AM	PA/VA
Chemical Oxygen Demand			**Method: EPA 410.4, Rev. 2 (1993)**				**Analyst: SF**	
Chemical Oxygen Demand	402	20	50	NA		mg/L	4/15/2016 12:50 PM	PA/VA
ANIONS by ION CHROMATOGRAPHY			**Method: EPA 300.0, Rev.2.1 (1993)**				**Analyst: CF**	
Sulfate	9.98	1.00	5.00	NA		mg/L	4/15/2016 12:51 PM	PA/VA
ANIONS by ION CHROMATOGRAPHY-48 HOUR:			**Method: EPA 300.0, Rev.2.1 (1993)**				**Analyst: CF**	
Nitrogen, Nitrate	13.3	0.20	1.00	NA		mg/L	4/15/2016 1:11 PM	PA/VA

REI Consultants, Inc. - Analytical Report

WO#: 16041538

Date Reported: 4/26/2016

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/13/2016 1:18:00 PM
Project:	MSW LEACHATE - 1SA-2016	**Date Received:**	4/14/2016
Lab ID:	16041538-01B	**Matrix:**	Groundwater
Client Sample ID:	LEACHATE	**Site ID:**	MSW LEACHATE

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed	NELAP
DISSOLVED ANIONS by ION CHROMATOGRAPHY:			**Method: EPA 300.0, Rev.2.1 (1993)**				**Analyst: CF**	
Orthophosphate (As P)	ND	0.05	0.10	NA		mg/L	4/14/2016 8:41 PM	PA/VA

REI Consultants, Inc.
PO Box 286
Beaver, WV 25813
TEL: (304)255-2500
Website: www.reiclabs.com

Improving the environment, one client at a time...

Sample Receipt Checklist

Client Name:	**MAC006**			Work Order Number:	**16041538**
RCPNo:	**1**	Date and Time Received:	**4/14/2016 10:16:16 AM**	Received by:	**Doug Arthur**
Completed By:	**Amanda Wilkins**		Reviewed By:		
Completed Date:	**4/14/2016 10:38:15 AM**		Reviewed Date:		

Carrier Name: Client

1.	Chain of custody present?	Yes [x]	No [ ]	
2.	Chain of custody signed when relinquished and received?	Yes [x]	No [ ]	
3.	Are matrices correctly identified on Chain of custody?	Yes [x]	No [ ]	
4.	Is it clear what analyses were requested?	Yes [x]	No [ ]	
5.	Custody seals intact?	Yes [ ]	No [ ]	Not Present [x]
6.	Samples in proper container type and preservative?	Yes [x]	No [ ]	
7.	Were correct preservatives noted on COC?	Yes [x]	No [ ]	NA [ ]
8.	Sample containers intact?	Yes [x]	No [ ]	
9.	Sufficient sample volume for indicated test?	Yes [x]	No [ ]	
10.	Were container labels complete?	Yes [x]	No [ ]	
11.	All samples received within holding time?	Yes [x]	No [ ]	
12.	Was an attempt made to cool the samples?	Yes [x]	No [ ]	NA [ ]
13.	Sample Temp. taken and recorded upon receipt?	Yes [x]	No [ ]	To 2 ºC
14.	Water - Were bubbles absent in VOC vials?	Yes [ ]	No [ ]	No Vials [x]
15.	Are Samples considered acceptable?	Yes [x]	No [ ]	
16.	COC filled out properly?	Yes [x]	No [ ]	

Client Notification/Response

Client Name: **MAC006** Work Order Number: **16041538**

Comment:

Client Contacted: Yes [ ] No [ ] NA [x] Person Contacted:

Contact Mode: Phone [ ] Fax: [ ] Email: [ ] In Person: [ ]

Date Contacted: Contacted By:

Regarding:

Client Instructions:

Corrective Action:

CHAIN OF CUSTODY RECORD

REIC

Research Environmental & Industrial Consultants, Inc.

MAIN LABORATORY & CORPORATE HEADQUARTERS:
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Ashland, KY 41101	Verona, VA 24482	Roanoke, VA 24019	Westover, WV 26501
606-393-5027	540-248-0183	540-777-1276	304-241-5861

v11-0615 REIC use ONLY CLIENT ID MAC 006 DATE _____ SHEET 1 of 1

Client: Macon Co Dept Of SWM PO # _____
Contact Person Chris Stahl Phone 828-439-2100
Address 109 Sierra City Franklin State NC Zip 28734
Billing Address (if different) _____
City _____ State _____ Zip _____
Site ID & State MSW Leachate Proj ID 1 st Semi 2016 Sampler AM/RT

SAMPLE LOG & ANALYSIS REQUEST

TURNAROUND TIME: (•) NORMAL ( ) RUSH TURNAROUND* ( ) 5 DAY ( ) 3 DAY ( ) 2 DAY ( ) 1 DAY
*Rush work needs prior laboratory approval and will incur additional charges

Send Results Via: ( ) Email ( ) Fax

All analytical requests are subject to REIC's Standard Terms and Conditions.

ANALYSIS & METHOD REQUESTED: NC APPENDIX 1 VOC; NITRATE; SULFATE; METALS; COD; ORTHOPHOSPHATE; BOD

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	#1	#0	#0	#2	#3	#0	#0	#	#	#
LEACHATE	5 P - 4 G	4-13-16 / 1318	G Water	Grab	X	X	X	X	X	X	X			
Corrected IR # 2														

ENTER PRESERVATIVE CODE(S):
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide/ Sodium Arsenite
6 Sodium Hydroxide
7 Ascorbic Acid
8 Sodium Bisulfate/Methanol
9 Ammonium Chloride
10 CR6 Buffer
11 Sodium Sulfite/ Hydrochloric Acid
12 Zinc Acetate *
* (Use blank for a preservative not listed.)

COMMENTS:
Orthophosphate Field Filtered .

Temperature at arrival: 2 °C ICED? Y X N___ Containers provided by: [X] REIC [ ] Client Delivered by: [ ] Client [X] REIC [ ] UPS [ ] FedEx [ ] USPS Other _____

	Relinquished by (signature)	Date/Time		Relinquished by (signature)	Date/Time		Relinquished by (signature)	Date/Time
1	[signature]	4-14-16 0800	2			3		
	Received by (signature)	4-14-16 0800		Received by (signature)	Date/Time		Received by (signature)	Date/Time
4	Relinquished by (signature)	Date/Time	5	Relinquished by (signature)	Date/Time	6	Relinquished by (signature)	Date/Time
	Received by (signature)	Date/Time		Received by (signature)	Date/Time		Received by (signature)	Date/Time

Macon County Municipal Solid Waste (MSW) Landfill

Macon County, North Carolina

Permit Number: 57-03

Appendix D:

Historical Laboratory Analytical Results

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-1A

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
1,1-Dichloroethane	70	*	*	*	*	*	*	*	*	*	*	*	*	2.3	2.9	4.7	3.9	*	7.6	8.8	6.9
1,4-Dichlorobenzene	1.4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1	2.2	*	*	*
Acetone	700	*	*	*	*	*	*	19	*	*	*	*	*	*	*	*	*	*	*	*	*
Benzene	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.4	1.6	2.4	*	*	*
Carbon Disulfide	700	*	*	*	*	*	*	*	*	10.8	6.3	72.8	3.5	*	*	*	*	8	*	*	*
Chlorobenzene	50	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.4	1.1	2.2	*	*	5.2
Chloroethane	2800	*	*	*	*	*	*	*	*	*	*	*	*	3.1	5.9	3.1	2.9	4.1	*	*	*
cis-1,2-Dichloroethene	70	*	*	*	*	*	*	*	*	*	*	*	*	1.4	1.2	1.8	1.8	1.9	*	*	*
Ethylbenzene	550	*	*	*	*	*	*	*	*	*	*	*	*	*	6.4	5.8	*	*	*	*	*
Methylene Chloride	4.6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5.8	*	*
Vinyl Chloride	0.015	*	*	*	*	*	*	*	*	*	*	*	*	*	1.1	1.7	1.8	2.9	*	*	*
Xylenes, Total	530	*	*	*	*	*	*	*	*	*	*	*	*	6.3	8.2	13	12	9.2	*	*	*
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Arsenic	50	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	39	42	5.2	*	*
Barium	2000	*	*	*	*	88	*	*	12	*	12	13	17	21	27	34	*	*	750	62	47
Cadmium	1.75	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.2	*
Chromium	50	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	64	*	*
Cobalt	NL	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	35	*	*
Copper	1000	*	*	*	*	17	*	*	*	*	*	*	*	*	*	*	*	*	59	*	*
Lead	15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15	*	*	81	*	*
Nickel	100	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	29	*	*
Selenium	50	*	*	*	*	*	*	*	*	*	*	*	*	7.9	*	*	*	*	6.4	5.9	*
Vanadium	NL	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	120	*	*
Zinc	1050	13	22	*	35	39	10	*	24	43	*	25	*	11	*	21	*	10	210	*	*

NOTES:

1. *** - Constituent did not exceed laboratory Practical Quantitation (PQL) Limit or Solid Waste Section Limit (SWSL).**
2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-1A

VOCs	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011
1,1-Dichloroethane	70	7.6	6.1	7.1	5.6	6.4	5	*	*	*	3.8	*	*	7	5	*	*	*	*
1,4-Dichlorobenzene	1.4	6.0	*	6.7	5.8	6.5	1	5.4	5.9	4.2	6.3	3.2	4.6	6	1	3.6	5.2	3.2	4.3
Acetone	700	*	*	*	*	*	100	*	*	*	*	*	*	6000	100	*	*	*	*
Benzene	1	4.2	3.5	3.8	2.5	2.1	1	2.3	2.2	1.8	1.4	1.1	*	1	1	*	*	*	*
Carbon Disulfide	700	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*
Chlorobenzene	50	5.3	*	5.6	*	5.3	3	4.6	5.1	3.5	4.9	*	3.2	50	3	*	4.0	*	3.5
Chloroethane	2800	*	*	5.4	*	*	10	*	*	*	1.8	*	*	3000	10	*	*	*	*
cis-1,2-Dichloroethene	70	*	*	*	*	*	5	*	*	*	1.1	*	*	70	5	*	*	*	*
Ethylbenzene	550	*	*	*	*	*	1	*	*	*	*	*	*	600	1	*	*	*	*
Methylene Chloride	4.6	*	*	*	*	*	1	*	*	*	*	*	*	5	1	*	*	*	*
Vinyl Chloride	0.015	3.9	3	4.6	2.8	2.7	1	2.9	2.2	1.8	1.8	1.3	1.3	0.03	1	1.2	*	*	*
Xylenes, Total	530	*	*	*	*	*	3	*	*	*	*	*	*	500	5	*	*	*	*
METALS	**NC 2L**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**
Arsenic	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*
Barium	2000	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*
Cadmium	1.75	*	*	*	*	*	1	*	*	*	*	*	*	2	1	*	*	*	*
Chromium	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*
Cobalt	NL	*	*	*	*	*	10	*	12.5	12.4	21.5	17.8	19.7	NL	10	25.3	26.6	22.7	25.1
Copper	1000	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*	*	*
Lead	15	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	*	*
Nickel	100	*	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*
Vanadium	NL	*	*	*	*	*	20	*	*	*	*	*	*	NL	25	*	*	*	*
Zinc	1050	*	*	*	*	*	10	21.6	29.8	16.4	11.4	*	10.3	1000	10	*	*	*	*

NOTES:

1. *** - Constituent did not exceed laboratory Practical Quantitation (PQL) Limit or Solid Waste Section Limit (SWSL).**
2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-1A

VOCs	NC 2L	SWSL	Apr-2012	Oct-2012	Apr-2013	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
1,1-Dichloroethane	7	5	*	*	*	*	*	*	*	*	*
1,4-Dichlorobenzene	6	1	3.0	4.2	1.5	3.7	1.9	2.0	2.6	2.6	1.8
Acetone	6000	100	*	*	*	*	*	*	*	*	*
Benzene	1	1	*	*	*	*	*	*	*	*	*
Carbon Disulfide	700	100	*	*	*	*	*	*	*	*	*
Chlorobenzene	50	3	*	4.0	*	3.2	*	*	*	*	*
Chloroethane	3000	10	*	*	*	*	*	*	*	*	*
cis-1,2-Dichloroethene	70	5	*	*	*	*	*	*	*	*	*
Ethylbenzene	600	1	*	*	*	*	*	*	*	*	*
Methylene Chloride	5	1	*	*	*	*	*	*	*	*	*
Vinyl Chloride	0.03	1	*	*	*	*	*	*	*	*	*
Xylenes, Total	500	5	*	*	*	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Apr-2012**	**Oct-2012**	**Apr-2013**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Arsenic	10	10	*	*	*	*	*	*	*	*	*
Barium	700	100	*	*	*	*	*	*	*	*	*
Cadmium	2	1	*	*	*	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*	*	*	*
Cobalt	1	10	**20.9**	**29.7**	**19.8**	**25.3**	**19.8**	**16.2**	**19.3**	**16.8**	**19.4**
Copper	1000	10	*	*	*	*	*	*	*	*	*
Lead	15	10	*	*	*	*	*	*	*	*	*
Nickel	100	50	*	*	*	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	*	*	*	*	*
Zinc	1000	10	*	10.5	*	*	*	*	13.0	*	*

NOTES:

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2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-1B

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
1,1-Dichloroethane	**70**	*	*	*	*	*	*	*	*	*	*	*	*	23	2.4	3.3	3.5	4.4	5.3	12	6.5
1,4-Dichlorobenzene	**1.4**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.2	*	**6.4**	*
Benzene	**1**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	**1**	**1.3**	**1.7**	*	**5.2**	*
Carbon Disulfide	**700**	*	*	*	*	*	*	*	*	3.3	4.2	3.8	3.4	*	*	*	*	17	*	*	*
Chlorobenzene	**50**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.4	*	6.3	*
Chloroethane	**2800**	*	*	*	*	*	*	*	*	*	*	*	*	1.9	4.4	2	2.5	2.3	*	*	*
cis-1,2-Dichloroethene	**70**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.3	1.4	1.4	*	*	*
Ethylbenzene	**550**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3.7	*	1.2	*	*	*
Methylene Chloride	**4.6**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		*	**6.1**	*
Vinyl Chloride	**0.015**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	**1**	**1.4**	**1.8**	*	**5.5**	*
Xylenes, Total	**530**	*	*	*	*	*	*	*	*	*	*	*	*	*	3.6	8.9	6.2	5.3	6	8.4	*
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Antimony	**NL**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	32	44	5.9	*	*
Barium	**2000**	*	*	*	123	104	*	*	17	17	17	17	20	23	21	30	*	*	61	65	52
Cadmium	**1.75**	*	*	*	*	**17**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Chromium	**50**	*	*	*	*	*	*	9	*	*	*	*	*	*	*	*	*	*	3.1	*	*
Cobalt	**NL**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6.5	5
Copper	**1000**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7.6	3.7	2.6
Lead	**15**	*	*	*	*	*	3	4	*	*	*	*	*	*	*	13	*	*	*	*	*
Selenium	**50**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5.3	*	*	*	7.3	*
Zinc	**1050**	*	*	*	19	32	*	*	20	*	*	*	*	11	36	12	*	14	10	12	*

NOTES:

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3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-1B

VOCs	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
1,1-Dichloroethane	70	5.8	5.8	6.7	5.3	6.4	5	*	*	*	3.2	*	*	7	5	*	*	*	*	*	*	*
1,4-Dichlorobenzene	1.4	*	*	5.7	5.3	6.0	1	4.9	5.7	4.4	5.0	3.6	4.1	6	1	3	4.2	2.7	4.0	2.7	2.9	1.1
Benzene	1	3.1	3.2	3.6	2.8	3.0	1	2.2	2.3	1.9	1.5	1.2	*	1	1	*	*	*	*	*	*	*
Carbon Disulfide	700	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
Chlorobenzene	50	*	*	5.0	*	5.1	3	4.0	5.0	3.6	3.9	*	*	50	3	*	3.1	*	*	*	*	*
Chloroethane	2800	*	*	*	*	*	10	*	*	*	1.3	*	*	3000	10	*	*	*	*	*	*	*
cis-1,2-Dichloroethene	70	*	*	*	*	*	5	*	*	*	*	*	*	70	5	*	*	*	*	*	*	*
Ethylbenzene	550	*	*	*	*	*	1	*	*	*	*	*	*	600	1	*	*	*	*	*	*	*
Methylene Chloride	4.6	*	*	*	*	*	1	*	*	*	*	*	*	5	1	*	*	*	*	*	*	*
Vinyl Chloride	0.015	2.7	3.0	3.9	2.9	3.0	1	2.7	2.3	1.8	1.6	1.3	1.3	0.03	1	1.1	*	*	*	*	*	*
Xylenes, Total	530	*	*	*	*	*	3	*	*	*	*	*	*	500	5	*	*	*	*	*	*	*
METALS	**NC 2L**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**
Antimony	NL	*	*	*	*	*	6	*	*	*	*	*	*	1	6	*	*	*	*	*	*	*
Barium	2000	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
Cadmium	1.75	*	*	*	*	*	1	*	*	*	*	*	*	2	1	*	*	*	*	*	*	*
Chromium	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Cobalt	NL	*	*	*	*	*	10	*	*	*	14.7	*	*	1	10	*	*	*	13.9	*	12.5	*
Copper	1000	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*	*	*	*	*	*
Lead	15	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	*	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*	*	*
Zinc	1050	*	*	*	*	*	10	10.1	18.7	*	*	*	*	1000	10	*	*	*	*	*	*	*

NOTES:

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2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-1B

VOCs	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
1,1-Dichloroethane	7	5	*	*	*	*	*	*
1,4-Dichlorobenzene	6	1	2.8	1.6	2.0	1.9	1.5	1.4
Benzene	1	1	*	*	*	*	*	*
Carbon Disulfide	700	100	*	*	*	*	*	*
Chlorobenzene	50	3	*	*	*	*	*	*
Chloroethane	3000	10	*	*	*	*	*	*
cis-1,2-Dichloroethene	70	5	*	*	*	*	*	*
Ethylbenzene	600	1	*	*	*	*	*	*
Methylene Chloride	5	1	*	*	*	*	*	*
Vinyl Chloride	0.03	1	*	*	*	*	*	*
Xylenes, Total	500	5	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Antimony	1	6	*	*	*	*	*	*
Barium	700	100	*	*	*	*	*	*
Cadmium	2	1	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*
Cobalt	1	10	**12.4**	*	*	*	*	*
Copper	1000	10	*	*	*	*	*	*
Lead	15	10	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*
Zinc	1000	10	*	*	*	*	*	26.2

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-1D

VOCs	NC 2L	SWSL	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
1,1-Dichloroethane	70	5	*	5.7	3.2	5.3	5.8	7	5	*	*	*	*	*	*	*	*	*	*	*	*	*
1,4-Dichlorobenzene	1.4	1	5.9	*	2.2	2.6	4.4	6	1	3.9	3.4	3.4	3.3	3.4	3.5	3.1	3.5	3.5	3.4	3.3	2.0	3.1
Benzene	1	1	2.2	2.6	1.5	2.6	2.7	1	1	1.4	*	*	*	*	1.4	1.1	*	*	*	*	*	*
Carbon Disulfide	700	100	*	*	*	*	*	700	100	*	*	*	*	*	*	*	*	*	*	*	*	*
Chlorobenzene	50	3	5.1	*	*	3.0	3.7	50	3	3.1	*	*	*	*	3.3	3.4	*	*	*	*	*	*
Chloroethane	2800	10	*	*	2.3	*	*	3000	10	*	*	*	*	*	*	*	*	*	*	*	*	*
cis-1,2-Dichloroethene	70	5	*	*	*	*	*	70	5	*	*	*	*	*	*	*	*	*	*	*	*	*
Ethylbenzene	550	1	*	*	*	*	*	600	1	*	*	*	*	*	*	*	*	*	*	*	*	*
Methylene Chloride	4.6	1	*	*	*	*	*	5	1	*	*	*	*	*	*	*	*	*	*	*	*	*
Vinyl Chloride	0.015	1	2.2	*	*	*	*	0.03	1	*	*	*	*	*	*	*	*	*	*	*	*	*
Xylenes, Total	530	3	*	*	*	*	*	500	5	*	*	*	*	*	*	*	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Antimony	NL	6	*	*	*	*	*	1	6	*	*	*	*	*	*	*	*	*	*	*	*	*
Barium	2000	100	*	668	1720	263	102	700	100	179	255	287	136	*	109	146	151	185	173	136	229	114
Beryllium	NL	1	*	2	1.3	*	*	4	1	*	*	*	*	*	*	*	*	*	*	*	*	*
Cadmium	1.75	1	*	*	0.319	*	*	2	1	*	*	*	*	*	*	*	*	*	*	*	*	*
Chromium	50	10	*	22.8	125	11.3	*	10	10	*	13.9	12.1	*	*	*	*	*	10.5	10.3	*	16.3	*
Cobalt	NL	10	12.5	34.5	73.4	17.7	19	1	10	18.2	16.0	16.8	12.0	*	*	*	12.8	13.6	11.8	11.3	12.2	*
Copper	1000	10	*	10.6	64.2	*	*	1000	10	*	10.1	*	*	*	*	*	*	*	10.1	*	17.8	*
Lead	15	10	*	28.3	22.7	*	*	15	10	*	*	*	*	*	*	*	*	*	*	*	*	*
Nickel	100	50	*	*	82.1	*	*	100	50	*	*	*	*	*	*	*	*	*	*	*	*	*
Selenium	50	10	*	*	*	*	*	20	10	*	*	*	*	*	*	*	*	*	*	*	*	*
Vanadium	NL	20	*	70.5	284	31.7	*	0.3	25	*	34.9	33.0	*	*	*	*	*	28.4	25.7	*	38.2	*
Zinc	1050	10	29.8	42.9	216	33	*	1000	10	21.7	40.9	34.2	15.0	23.7	*	23.4	28.1	23.3	22.6	20.4	34.4	17.4

NOTES:

1. *** - Constituent did not exceed laboratory Practical Quantitation (PQL) Limit or Solid Waste Section Limit (SWSL).**
2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-2

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Acetone	**700**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11	*
Benzene	**1**	*	*	*	*	*	*	*	*	**3.6**	*	*	*	*	*	*	*	*	*	*	*
Carbon Disulfide	**700**	*	*	*	*	*	*	*	*	5.7	2.5	7.7	5.9	*	*	*	*	*	*	*	*
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Antimony	**NL**	*	*	*	*	*	*	*	*	*	*	*	*	*	2.2	*	*	*	*	*	*
Arsenic	**50**	*	*	*	*	*	*	*	*	*	*	*	*	9.4	*	*	*	*	*	*	*
Barium	**2000**	*	111	*	*	526	181	208	144	185	196	269	146	290	200	270	290	330	230	64	140
Cadmium	**1.75**	*	*	*	*	*	*	*	*	**2**	*	1	*	*	**6.6**	**4.7**	*	*	*	*	**7.4**
Chromium	**50**	*	*	*	*	46	*	*	10	17	6	10	7	43	2.1	6.2	11	23	5.6	*	*
Cobalt	**NL**	50	44	42	37	67	26	*	40	24	37	*	31	22	27	24	32	40	24	12	24
Copper	**1000**	*	*	*	*	27	16	*	*	*	*	*	*	11	*	11	14	29	6.4	3	4.1
Lead	**15**	*	*	*	*	*	4	5	7	*	*	5	*	*	7.2	11	**17**	14	9.7	*	12
Nickel	**100**	*	*	*	*	*	*	*	*	*	*	*	*	82	82	*	*	*	*	*	*
Selenium	**50**	*	*	*	*	*	*	*	*	*	11	*	18	9.9	12	32	*	*	11	*	*
Vanadium	**NL**	*	*	*	*	46	*	*	22	23	*	*	*	17	16	*	21	34	*	*	*
Zinc	**1050**	12	18	10	42	121	29	*	64	93	29	40	*	40	42	37	41	59	17	15	*

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
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Historical Analytical Results
Macon County MSW Landfill
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MW-2

VOCs	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012
Acetone	700	*	*	*	*	*	100	*	*	*	*	*	*	6000	100	*	*	*	*	*
Benzene	1	*	*	*	*	*	1	*	*	*	*	*	*	1	1	*	*	*	*	*
Carbon Disulfide	700	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*
METALS	**NC 2L**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**
Antimony	NL	*	*	*	*	*	6	*	*	*	*	*	*	1	6	*	*	*	12.5	*
Arsenic	50	*	*	*	*	*	10	*	27.9	*	*	*	*	10	10	*	*	*	*	*
Barium	2000	*	*	*	*	*	100	*	261	171	347	175	152	700	100	*	292	134	323	*
Cadmium	1.75	*	*	*	*	*	1	*	*	*	*	*	*	2	1	*	*	*	*	*
Chromium	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*
Cobalt	NL	42.2	49.1	21.6	32.7	23.7	10	30.1	30.4	29.9	46.1	54.3	31.5	1	10	28.7	24.0	33.4	22.9	27.9
Copper	1000	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*	*	*	*
Lead	15	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	*	*	*
Nickel	100	*	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*
Vanadium	NL	*	*	*	*	*	20	*	*	*	*	*	*	0.3	25	*	*	*	*	*
Zinc	1050	*	*	*	*	*	10	14.2	*	*	26.3	10.3	10.2	1000	10	*	*	*	*	*

NOTES:

1. *** - Constituent did not exceed laboratory Practical Quantitation (PQL) Limit or Solid Waste Section Limit (SWSL).**
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3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-2

VOCs	NC 2L	SWSL	Oct-2012	Apr-2013	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Acetone	6000	100	*	*	*	*	*	*	*	*
Benzene	1	1	*	*	*	*	*	*	*	*
Carbon Disulfide	700	100	*	*	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2012**	**Apr-2013**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Antimony	1	6	*	*	*	*	*	*	*	*
Arsenic	10	10	**29.2**	*	*	*	*	*	**15.7**	**10.7**
Barium	700	100	333	166	229	123	310	115	317	*
Cadmium	2	1	*	*	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*	*	*
Cobalt	1	10	**38.0**	**26.1**	**28.1**	**29.2**	**29.4**	**25.1**	**27.2**	**23.8**
Copper	1000	10	*	*	*	*	*	*	*	*
Lead	15	10	*	*	*	*	*	*	*	*
Nickel	100	50	*	*	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	*	*	*	*
Zinc	1000	10	*	10.0	47.5	*	*	12.6	*	*

NOTES:

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3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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MW-3A

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Acetone	700	*	*	*	57	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Carbon Disulfide	700	*	*	*	*	*	*	*	*	5.4	*	4.1	*	*	*	*	*	*	*	*	*
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Barium	2000	*	110	*	*	164	49	*	35	35	39	41	39	38	47	47	67	44	63	46	42
Chromium	50	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.8	*	*
Cobalt	NL	11	27	14	12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Copper	1000	*	*	*	*	13	*	*	*	*	*	*	*	*	*	*	*	*	7.7	2.5	2.2
Lead	15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	16	26	*	*	*	*
Selenium	50	*	*	*	*	*	*	*	*	*	*	*	*	6.4	5.5	5.5	*	*	*	5	*
Zinc	1050	11	17	*	32	38	46	*	34	26	*	*	*	*	13	13	*	11	16	*	*

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-3A

VOCs	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Acetone	700	*	*	*	*	*	100	*	*	*	*	*	*	6000	100	*	*	*	*	*	*	*
Carbon Disulfide	700	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
METALS	**NC 2L**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**
Barium	2000	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
Chromium	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Cobalt	NL	*	*	*	*	*	10	*	*	*	*	*	*	1	10	*	*	*	*	*	*	*
Copper	1000	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*	*	*	*	*	*
Lead	15	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	*	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*	*	*
Zinc	1050	*	*	*	*	*	10	44.3	14.1	23.3	*	12.3	15.3	1000	10	*	*	10.8	*	*	*	*

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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MW-3A

VOCs	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Acetone	6000	100	*	*	*	*	*	*
Carbon Disulfide	700	100	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Barium	700	100	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*
Cobalt	1	10	*	*	*	*	*	*
Copper	1000	10	*	*	*	*	*	*
Lead	15	10	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*
Zinc	1000	10	90.1	10.6	*	12.2	*	*

NOTES:

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2. **NS - location not sampled**
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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
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MW-5

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Carbon Disulfide	700	*	*	*	*	*	*	*	*	*	*	2.3	3.1	DRY	DRY	DRY	DRY	DRY	*	DRY	DRY
Xylenes, Total	530	*	*	*	*	*	*	*	*	*	2	*	*	DRY	DRY	DRY	DRY	DRY	*	DRY	DRY
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Barium	2000	2150	1170	855	928	797	458	168	166	102	99	361	396	DRY	DRY	DRY	DRY	DRY	430	DRY	DRY
Beryllium	NL	*	*	*	*	*	*	*	*	*	*	*	*	DRY	DRY	DRY	DRY	DRY	1	DRY	DRY
Chromium	50	*	*	*	*	70	*	*	7	8	*	21	17	DRY	DRY	DRY	DRY	DRY	26	DRY	DRY
Cobalt	NL	*	12	*	*	65	*	*	40	*	*	*	*	DRY	DRY	DRY	DRY	DRY	12	DRY	DRY
Copper	1000	*	12	*	*	*	27	*	*	*	*	*	10	DRY	DRY	DRY	DRY	DRY	24	DRY	DRY
Lead	15	6	5	*	*	*	9	3	*	*	*	*	*	DRY	DRY	DRY	DRY	DRY	7.5	DRY	DRY
Nickel	100	*	*	*	*	*	*	*	*	*	*	*	11	DRY	DRY	DRY	DRY	DRY	18	DRY	DRY
Selenium	50	*	*	*	*	*	*	*	*	*	*	*	*	DRY	DRY	DRY	DRY	DRY	5	DRY	DRY
Vanadium	NL	*	*	*	*	134	*	*	*	*	*	30	24	DRY	DRY	DRY	DRY	DRY	36	DRY	DRY
Zinc	1050	31	27	16	54	55	11	*	38	*	*	70	86	DRY	DRY	DRY	DRY	DRY	77	DRY	DRY

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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MW-5

VOCs	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Carbon Disulfide	700	DRY	DRY	DRY	DRY	DRY	100	DRY	DRY	DRY	DRY	DRY	DRY	700	100	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Xylenes, Total	530	DRY	DRY	DRY	DRY	DRY	3	DRY	DRY	DRY	DRY	DRY	DRY	500	5	DRY	DRY	DRY	DRY	DRY	DRY	DRY
METALS	**NC 2L**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**
Barium	2000	DRY	DRY	DRY	DRY	DRY	100	DRY	DRY	DRY	DRY	DRY	DRY	700	100	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Beryllium	NL	DRY	DRY	DRY	DRY	DRY	1	DRY	DRY	DRY	DRY	DRY	DRY	NL	1	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Chromium	50	DRY	DRY	DRY	DRY	DRY	10	DRY	DRY	DRY	DRY	DRY	DRY	10	10	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Cobalt	NL	DRY	DRY	DRY	DRY	DRY	10	DRY	DRY	DRY	DRY	DRY	DRY	NL	10	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Copper	1000	DRY	DRY	DRY	DRY	DRY	10	DRY	DRY	DRY	DRY	DRY	DRY	1000	10	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Lead	15	DRY	DRY	DRY	DRY	DRY	10	DRY	DRY	DRY	DRY	DRY	DRY	15	10	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Nickel	100	DRY	DRY	DRY	DRY	DRY	50	DRY	DRY	DRY	DRY	DRY	DRY	100	50	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Selenium	50	DRY	DRY	DRY	DRY	DRY	10	DRY	DRY	DRY	DRY	DRY	DRY	20	10	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Vanadium	NL	DRY	DRY	DRY	DRY	DRY	20	DRY	DRY	DRY	DRY	DRY	DRY	NL	25	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Zinc	1050	DRY	DRY	DRY	DRY	DRY	10	DRY	DRY	DRY	DRY	DRY	DRY	1000	10	DRY	DRY	DRY	DRY	DRY	DRY	DRY

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
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MW-5

VOCs	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Carbon Disulfide	700	100	DRY	DRY	DRY	DRY	DRY	DRY
Xylenes, Total	500	5	DRY	DRY	DRY	DRY	DRY	DRY
METALS	**NC 2L**	**SWSL**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Barium	700	100	DRY	DRY	DRY	DRY	DRY	DRY
Beryllium	NL	1	DRY	DRY	DRY	DRY	DRY	DRY
Chromium	10	10	DRY	DRY	DRY	DRY	DRY	DRY
Cobalt	NL	10	DRY	DRY	DRY	DRY	DRY	DRY
Copper	1000	10	DRY	DRY	DRY	DRY	DRY	DRY
Lead	15	10	DRY	DRY	DRY	DRY	DRY	DRY
Nickel	100	50	DRY	DRY	DRY	DRY	DRY	DRY
Selenium	20	10	DRY	DRY	DRY	DRY	DRY	DRY
Vanadium	NL	25	DRY	DRY	DRY	DRY	DRY	DRY
Zinc	1000	10	DRY	DRY	DRY	DRY	DRY	DRY

NOTES:

1. *** - Constituent did not exceed laboratory Practical Quantitation (PQL) Limit or Solid Waste Section Limit (SWSL).**
2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-5D

VOCs	NC 2L	SWSL	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Methylene chloride	4.6	1	1.2	1.7	1.7	*	1.2	5	1	1.3	1.5	*	*	*	*	*	*	*	*	*	*	*
Xylenes, Total	530	3	5.8	3.7	6.1	4.7	1.9	500	5	2.1	*	*	*	*	*	*	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Barium	2000	100	1410	823	254	214	352	700	100	311	165	665	108	101	174	140	126	136	126	132	128	157
Beryllium	NL	1	*	*	*	*	*	4	1	*	*	*	*	*	*	*	*	*	*	*	*	*
Cadmium	1.75	1	*	*	2.8	*	*	2	1	*	2.7	1.3	6.6	*	1.7	*	*	*	*	*	1.4	1.5
Chromium	50	10	*	17	11.9	*	*	10	10	10.8	*	32.1	*	*	*	*	*	*	*	*	*	*
Cobalt	NL	10	17.1		*	*	*	1	10	*	*	10.1	*	*	*	*	*	10.8	13.3	13.6	15.5	14.4
Copper	1000	10	13.2	14.6	12.7	*	*	1000	10	*	*	26.8	*	*	*	*	*	*	*	*	*	*
Lead	15	10	*	*	*	*	*	15	10	*	*	*	*	*	*	*	*	*	*	*	*	*
Nickel	100	50	*	*	*	*	*	100	50	*	*	*	*	*	*	*	*	*	*	*	*	*
Selenium	50	10	*	*	*	*	*	20	10	*	*	*	*	*	*	*	*	*	*	*	*	*
Vanadium	NL	20	*	34.1	*	*	*	0.3	25	*	*	51.7	*	*	*	*	*	*	*	*	*	*
Zinc	1050	10	37.2	34.2	19.2	89.3	20.3	1000	10	23.6	13.1	76.3	*	*	11.6	30.2	12.5	*	*	17.4	*	*

NOTES:

1. *** - Constituent did not exceed laboratory Practical Quantitation (PQL) Limit or Solid Waste Section Limit (SWSL).**
2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-10

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Carbon Disulfide	700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	1.4	*	*	*
cis-1,2-Dichloroethene	70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	*	5.9
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Antimony	N/L	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	28	*	*
Arsenic	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	18	*	6.2	18	*	9	*	*
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	673	652	750	790	570	2800	280	1300	450	97
Beryllium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	1.8	*	*
Cadmium	1.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	*	*
Chromium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	40	31	26	24	2.6	100	*	100	*	*
Cobalt	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	16	15	11	73	*	42	6.2	*
Copper	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20	24	*	*	*	56	*	89	3.7	*
Lead	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7	5	*	11	22	41	*	29	*	*
Nickel	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20	15	20	*	*	21	*	48	*	*
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	8.7	*	6.3	*	*	11	*	*
Vanadium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70	55	38	16	*	160	*	170	*	*
Zinc	1050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120	86	64	13	18	360	20	260	12	*

NOTES:

1. *** - Constituent did not exceed laboratory Practical Quantitation (PQL) Limit or Solid Waste Section Limit (SWSL).**
2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-10

VOCs	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Carbon Disulfide	700	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
cis-1,2-Dichloroethene	70	*	*	*	*	*	5	*	*	*	*	*	*	70	5	*	*	*	*	*	*	*
METALS	**NC 2L**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**
Antimony	N/L	*	*	*	*	*	6	*	*	*	*	*	*	1	6	*	*	*	*	*	*	*
Arsenic	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Barium	2000	766	*	*	*	*	100	248	226	235	369	315	254	700	100	408	840	1510	434	394	308	407
Beryllium	NL	*	*	*	*	*	1	*	*	*	*	*	*	4	1	*	*	1.3	*	*	*	*
Cadmium	1.75	*	*	*	*	*	1	*	*	*	*	*	*	2	1	*	*	*	*	*	*	*
Chromium	50	*	*	*	*	*	10	*	*	*	10.3	*	*	10	10	*	25.0	42.2	*	*	*	*
Cobalt	NL	*	*	*	*	*	10	*	*	*	*	*	*	1	10	*	11.2	24.8	*	*	*	*
Copper	1000	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	16.3	25.3	*	*	*	*
Lead	15	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	16.4	*	*	*	*
Nickel	100	*	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*	*	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	10.1	25.4	*	*	*	*
Vanadium	NL	*	*	*	*	*	20	*	*	*	*	*	*	0.3	25	*	35.9	72.1	*	*	*	*
Zinc	1050	*	*	*	*	*	10	11.0	*	*	31.5	17.3	*	1000	10	14.5	106	165	12.4	30.9	25.0	38.7

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-10

VOCs	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Carbon Disulfide	700	100	*	*	*	*	*	*
cis-1,2-Dichloroethene	70	5	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Antimony	1	6	*	*	*	*	*	*
Arsenic	10	10	*	*	*	*	*	*
Barium	700	100	197	216	184	276	**758**	304
Beryllium	4	1	*	*	*	*	1.3	*
Cadmium	2	1	*	*	*	*	2.0	*
Chromium	10	10	*	*	*	*	**46.9**	*
Cobalt	1	10	*	*	*	*	**14.1**	*
Copper	1000	10	*	*	*	*	35.1	*
Lead	15	10	*	*	*	*	11.2	*
Nickel	100	50	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	**93.7**	*
Zinc	1000	10	*	10.9	*	22.7	134	21.0

NOTES:

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3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-14

METALS	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Antimony	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	3.9	*	*	*	*	*
Arsenic	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8	7	8	*	6.5	12	*	7.6	*	*
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	458	831	330	680	980	860	190	1000	330	330
Beryllium	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	3.2	*	5.2	*	*
Cadmium	1.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	*	*
Chromium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31	48	9.3	12	53	37	21	100	*	*
Cobalt	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	29	45	11	20	62	48	17	120	*	*
Copper	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23	36	*	16	43	27	17	100	*	*
Lead	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18	27	7.3	25	38	34	6.6	67	7.1	7.1
Nickel	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	22	*	*	*	12	*	56	*	*
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5	*	5.3	*	16	*	*	17	*	*
Thallium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	1.2	*	*	*	*	*
Vanadium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70	100	16	35	93	73	42	220	5.3	5.3
Zinc	1050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	110	166	48	100	200	*	*	380	75	75

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-14

METALS	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Antimony	NL	*	*	*	*	*	6	*	*	*	*	*	*	1	6	*	*	*	*	*	*	*
Arsenic	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Barium	2000	*	*	*	*	*	100	341	119	107	*	133	138	700	100	172	154	226	277	149	215	117
Beryllium	N/A	*	*	*	*	*	1	*	*	*	*	*	*	4	1	*	*	*	*	*	*	*
Cadmium	1.75	*	*	*	*	*	1	*	*	*	*	*	*	2	1	*	*	*	*	*	4.2	*
Chromium	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Cobalt	NL	*	*	*	*	*	10	*	*	*	*	*	*	1	10	*	*	11.5	*	*	10.3	*
Copper	1000	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*	*	*	*	*	*
Lead	15	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	*	*	*	*	*
Nickel	100	*	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*	*	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*	*	*
Thallium	NL	*	*	*	*	*	5	*	*	*	*	*	*	0.2	5.5	*	*	*	*	*	*	*
Vanadium	NL	*	*	*	*	*	20	*	*	*	*	*	*	0.3	25	*	*	*	*	*	*	*
Zinc	1050	*	*	*	*	*	10	84.6	*	15.6	12.4	19.7	18.5	1000	10	21.2	32.1	42.4	23.6	36.6	33.8	15.5

NOTES:

1. *** - Constituent did not exceed laboratory Practical Quantitation (PQL) Limit or Solid Waste Section Limit (SWSL).**
2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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MW-14

METALS	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Antimony	1	6	*	*	*	*	*	*
Arsenic	10	10	*	*	*	*	*	*
Barium	700	100	209	180	129	153	**836**	305
Beryllium	4	1	*	*	*	*	2.5	*
Cadmium	2	1	*	*	*	*	1.0	*
Chromium	10	10	*	*	*	*	**37.3**	*
Cobalt	1	10	*	*	*	*	**44.8**	**15.0**
Copper	1000	10	*	*	*	*	40.2	13.2
Lead	15	10	*	*	*	*	**34.8**	*
Nickel	100	50	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*
Thallium	0.2	5.5	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	**76.9**	*
Zinc	1000	10	17.4	23.3	24.0	31.6	157	53.7

NOTES:

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3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-15

METALS	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Antimony	**NL**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	3.9	*	*	*	*	*
Arsenic	**50**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8	*	11	*	*	*	*	*	*	*
Barium	**2000**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	996	893	810	1200	920	1000	830	150	210	880
Beryllium	**NL**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	*	*
Cadmium	**1.75**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	**3.5**	*	*	*	*	**3.9**
Chromium	**50**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	34	8	16	14	37	26	30	8.2	*	33
Cobalt	**NL**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	67	48	37	52	89	74	68	16	8.3	81
Copper	**1000**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	37	41	30	43	83	49	81	15	4.2	63
Lead	**15**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**36**	**23**	**22**	**43**	**40**	**38**	**32**	6.4	*	**38**
Nickel	**100**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20	17	17	10	*	18	18	9.8	*	26
Selenium	**50**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	7.9	*	12	*	*	*	5.5	*
Vanadium	**NL**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	120	36	42	54	100	84	95	26	*	120
Zinc	**1050**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	140	80	84	140	150	150	110	38	35	110

NOTES:

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3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-15

METALS	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Antimony	NL	*	*	*	*	*	6	*	*	*	*	*	*	1	6	*	*	*	*	*	*	*
Arsenic	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	2970	1050	*	*	*
Barium	2000	697	699	505	*	602	100	384	359	282	133	477	582	700	100	492	657	2.5	*	2370	434	897
Beryllium	NL	*	*	*	*	*	1	*	*	*	*	*	*	4	1	*	*	*	*	1.3	*	*
Cadmium	1.75	*	*	*	*	*	1	*	*	*	*	*	*	2	1	*	*	*	*	*	*	*
Chromium	50	*	12.6	*	*	*	10	*	*	*	*	*	*	10	10	*	*	29.7	*	*	*	*
Cobalt	NL	35.4	53.3	18.7	20.5	43.3	10	16.6	*	12.7	*	29.1	15.4	1	10	23.1	37.5	160	31.1	56.5	24.2	31.9
Copper	1000	*	*	*	*	*	10	13.9	*	*	*	37.7	34.5	1000	10	32.2	36.4	217	62.4	170	21.5	44.2
Lead	15	23.9	26.5	*	*	18.9	10	*	*	*	*	14.0	10.1	15	10	11.4	17.7	95.1	18.5	48.3	11.5	20.4
Nickel	100	*	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*	*	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	31.6	*	14.9	*	*
Vanadium	NL	*	51.4	*	*	*	20	*	*	*	*	*	*	0.3	25	*	*	50.1	*	*	*	*
Zinc	1050	61	72.1	*	*	63.1	10	40	18	20.8	23.9	86.4	34.5	1000	10	35	56.6	176	39.4	76.8	34.7	45.7

NOTES:

1. *** - Constituent did not exceed laboratory Practical Quantitation (PQL) Limit or Solid Waste Section Limit (SWSL).**
2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-15

METALS	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Antimony	1	6	*	*	*	*	*	*
Arsenic	10	10	*	*	*	*	*	*
Barium	700	100	668	422	538	**1150**	215	149
Beryllium	4	1	*	*	*	2.6	*	*
Cadmium	2	1	*	*	*	*	*	*
Chromium	10	10	*	*	*	**37.7**	*	*
Cobalt	1	10	**18.3**	**17.6**	*	**80.2**	**14.2**	*
Copper	1000	10	22.8	21.9	*	78.7	*	*
Lead	15	10	12.0	*	*	**51.9**	*	*
Nickel	100	50	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	**126**	*	*
Zinc	1000	10	31.1	27.4	70.6	112	30.9	18.8

NOTES:

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2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-17

METALS	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Antimony	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	8.5	*	*	*
Arsenic	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	6	*	*	*	*	*	*	*	*
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	199	150	290	220	210	130	670	130	330	*
Beryllium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	1.4	*	*	*
Cadmium	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	3.9	*
Chromium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25	11	25	31	25	21	140	*	65	28.6
Cobalt	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	18	25	*	56	11	26	*
Copper	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23	*	16	25	18	16	130	7.5	62	*
Lead	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8	6.4	18	20	8	*	44	*	24	41.6
Nickel	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	12	43	*	20	*
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	6.4	*	*	10	6.6	*	*
Vanadium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	36	14	35	35	31	21	180	*	94	*
Zinc	1050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	61	31	71	140	60	37	260	31	100	84.8

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-17

METALS	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Antimony	NL	*	*	*	*	*	6	*	*	*	*	*	*	1	6	*	*	*	*	*	*	*
Arsenic	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Barium	2000	*	*	*	*	*	100	217	125	152	220	105	112	700	100	114	170	218	116	120	151	151
Beryllium	NL	*	*	*	*	*	1	*	*	*	*	*	*	4	1	*	*	*	*	*	*	*
Cadmium	5	*	*	*	*	*	1	*	*	*	*	*	*	2	1	*	*	*	*	*	*	*
Chromium	50	23	*	*	10.3	*	10	*	*	*	13.3	*	*	10	10	*	*	13.0	*	*	*	*
Cobalt	NL	12.5	*	*	10.2	*	10	15.5	*	*	13.1	*	*	1	10	*	11.9	11.6	*	*	*	*
Copper	1000	*	*	*	*	*	10	12.1	*	*	14.7	*	*	1000	10	*	10.9	12.9	*	*	*	*
Lead	15	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	*	*	*	*	*
Nickel	100	*	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*	*	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*	*	*
Vanadium	NL	*	*	*	*	*	20	*	*	*	*	*	*	0.3	25	*	*	*	*	*	*	*
Zinc	1050	55.6	*	*	52.9	*	10	54	23	24.1	65.4	28.5	24.2	1000	10	29.9	46.3	57.8	30.9	33.4	36.2	44.4

NOTES:

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3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-17

METALS	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Antimony	1	6	*	*	*	*	*	*
Arsenic	10	10	*	*	*	*	*	*
Barium	700	100	105	175	193	207	151	216
Beryllium	4	1	*	*	*	*	*	*
Cadmium	2	1	*	*	*	*	*	*
Chromium	10	10	*	*	*	**16.3**	*	**26.8**
Cobalt	1	10	*	**12.0**	**10.3**	**21.9**	**11.2**	**20.6**
Copper	1000	10	*	13.1	13.8	21.5	12.6	30.3
Lead	15	10	*	*	14.4	*	*	*
Nickel	100	50	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	*	**30.5**
Zinc	1000	10	38.6	49.1	49.9	52.7	38.0	58.7

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-18

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Carbon Disulfide	700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	3.5	*	*	*	*	*	*	*	*
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Arsenic	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5	*	*	*	*	*	*	*	*	*
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	221	151	150	110	110	140	210	190	120	620
Cadmium	1.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	*	1.8
Chromium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13	7	6.3	2.8	3.9	*	12	11	*	48
Cobalt	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	22	*	*	*	*	*	*	*	14
Copper	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*		*	*	4	2.4	14
Lead	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	14	*	*	*	*	16
Nickel	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	*	20
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	7.2	*	*	*	*	*	5.2	*
Vanadium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	14	12	*	57
Zinc	1050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	50	26	23	71	*	26	27	21	*	82

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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MW-18

VOCs	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Carbon Disulfide	700	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
METALS	**NC 2L**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**
Arsenic	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Barium	2000	*	*	*	*	*	100	213	146	133	237	175	177	700	100	115	366	183	*	110	110	115
Cadmium	1.75	*	*	*	*	*	1	*	*	*	*	*	*	2	1	*	*	*	*	*	*	*
Chromium	50	*	14.7	*	*	13.9	10	*	*	*	11.1	*	*	10	10	*	21.2	*	*	*	*	*
Cobalt	NL	*	*	*	*	*	10	*	*	*	*	*	*	1	10	*	*	*	*	*	*	*
Copper	1000	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*	*	*	*	*	*
Lead	15	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	*	*	*	*	*
Nickel	100	*	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*	*	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*	*	*
Vanadium	NL	*	*	*	*	*	20	*	*	*	*	*	*	0.3	25	*	*	*	*	*	*	*
Zinc	1050	*	*	*	*	68.1	10	24.6	29.4	*	27.8	13	15.2	1000	10	11.8	45.3	16.5	10.4	*	13.3	31.9

NOTES:

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2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-18

VOCs	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Carbon Disulfide	700	100	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Arsenic	10	10	*	*	*	*	*	*
Barium	700	100	*	*	124	104	*	106
Cadmium	2	1	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*
Cobalt	1	10	*	*	*	*	*	*
Copper	1000	10	*	*	*	*	*	*
Lead	15	10	*	*	*	*	*	*
Nickel	100	50	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	*	*
Zinc	1000	10	26.6	14.3	14.9	11.6	*	13.5

NOTES:

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2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-19

METALS	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003
Antimony	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	6.5	*	*	7.8	*
Arsenic	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	13	*	*	24	*	*	*
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2380	1310	1200	1800	530	2600	1300	62	520
Beryllium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	4	4	*	10	*	*	*
Cadmium	1.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	2.9	2.2	*	*	*	*
Chromium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	85	43	42	50	40	100	35	2.7	*
Cobalt	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	60	31	27	35	30	80	26	*	*
Copper	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70	39	23	36	33	82	40	7.5	5.3
Lead	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	124	71	80	140	64	160	61	*	13
Nickel	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30	16	27	27	*	30	*	*	*
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	13	*	11	*	*	*	7
Vanadium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	170	77	67	98	68	200	66	*	*
Zinc	1050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	290	179	160	260	130	540	160	11	43

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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MW-19

METALS	NC 2L	Apr-2004	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011
Antimony	NL	*	*	*	*	*	*	6	*	*	*	*	*	*	NL	6	*	*	*	*
Arsenic	50	*	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*
Barium	2000	660	565	985	1060	941	819	100	2650	965	452	1170	1000	1020	700	100	499	488	480	416
Beryllium	NL	*	*	*	*	*	*	1	2.4			2.2	1.7	1	NL	1	*	1.0	1.1	*
Cadmium	1.75	4.4	*	*	*	*	*	1	*	*	*	*	*	*	2	1	*	*	*	*
Chromium	50	61	*	27.7	*	*	*	10	*	*	*	19.3	12.8	*	10	10	*	12.7	15.5	*
Cobalt	NL	35	*	23	*	*	11.4	10	*	*	*	25	16.3	*	NL	10	*	13.2	13.5	*
Copper	1000	55	*	*	*	*	*	10	10.9			24.1	17.6	*	1000	10	*	13.2	13.3	*
Lead	15	80	41.6	56.9	16.1	15	25.2	10	36.2	13.8	20	64	52.1	18.3	15	10	18.1	29.6	31.3	*
Nickel	100	25	*	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*	*	*
Selenium	50	*	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*
Vanadium	NL	120	*	58.1	*	*	*	20	*	*	*	31.6	22.9	*	NL	25	*	*	*	*
Zinc	1050	180	80.4	110	*	*	73.8	10	109	21.8	43.5	139	105	41.2	1000	10	48.6	74.9	75.9	24.4

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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MW-19

METALS	NC 2L	SWSL	Apr-2012	Oct-2012	Apr-2013	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Antimony	1	6	*	*	*	*	*	*	*	*	*
Arsenic	10	10	*	*	*	*	*	*	*	*	*
Barium	700	100	324	338	368	307	486	449	578	**704**	**785**
Beryllium	4	1	*	*	*	*	1.0	1.5	2.0	3.0	2.2
Cadmium	2	1	*	*	*	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	**14.0**	**22.5**	**32.3**	**45.8**	**31.0**
Cobalt	1	10	*	*	*	*	*	**13.1**	**17.8**	**25.0**	**17.5**
Copper	1000	10	*	*	*	*	14.2	21.6	35.2	43.7	36.4
Lead	15	10	10.8	13.0	18.2	*	**22.5**	**35.2**	**52.9**	**71.2**	**54.6**
Nickel	100	50	*	*	*	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	**25.9**	**43.8**	**62.3**	**89.3**	**60.5**
Zinc	1000	10	34	39.3	46.0	33.7	56.5	78.5	120	146	134

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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MW-19A

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Carbon Disulfide	700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2	9	*	*	*	*	9.8	*	*	*
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	49	71	27	62	53	40	40	48	740	48
Chromium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	2.9	*
Cobalt	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	16	*
Copper	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	14	*	*	*	13	2.4
Lead	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	9	*
Nickel	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	6.8	*
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6	*	8	*	*	*	*	*	5.7	*
Vanadium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	7.4	*
Zinc	1050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	290	88	17	24	25	10	29	*	45	*

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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MW-19A

VOCs	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Carbon Disulfide	700	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
METALS	**NC 2L**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**
Barium	2000	*	*	*	*	*	100	*	10.6	*	*	*	*	700	100	*	*	*	*	*	*	*
Chromium	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Cobalt	NL	*	*	*	*	*	10	*	*	*	*	*	*	1	10	*	*	*	*	*	*	*
Copper	1000	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*	*	11.3	*	*	*
Lead	15	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	*	*	*	*	*
Nickel	100	*	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*	*	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*	*	*
Vanadium	NL	*	*	*	*	*	20	*	*	*	*	*	*	0.3	25	*	*	*	*	*	*	*
Zinc	1050	*	*	*	*	*	10	84.7	*	*	13.2	42.2	13.8	1000	10	20.6	12.6	*	48.6	21.2	*	17.2

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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MW-19A

VOCs	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Carbon Disulfide	700	100	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Barium	700	100	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*
Cobalt	1	10	*	*	*	*	*	*
Copper	1000	10	*	*	*	*	*	*
Lead	15	10	*	*	*	*	*	*
Nickel	100	50	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	*	*
Zinc	1000	10	12.1	*	*	13.5	23.3	15.8

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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MW-20

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Carbon Disulfide	700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.9	*	*	*	*	*	7	*	*	*
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Arsenic	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9	*	9	*	*	*	*	*	*	*
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	333	190	130	90	160	100	150	200	44	54
Beryllium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	1.6	*	*
Chromium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31	23	11	7.6	20	*	19	36	*	*
Cobalt	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	13	*	17	*	13	22	*	*
Copper	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20	*	*	*	*	*	11	20	*	*
Lead	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15	7	*	*	15	*	5.9	15	*	*
Nickel	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	12	*	*
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	6.8	*	5.8	*	*	5.5	*	*
Vanadium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	80	53	25	19	40	19	42	80	*	*
Zinc	1050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	80	82	28	26	54	22	49	82	*	*

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
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6. **All constituents reported in parts per billion (ppb)**
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Historical Analytical Results
Macon County MSW Landfill
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MW-20

VOCs	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Carbon Disulfide	700	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
METALS	**NC 2L**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**
Arsenic	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Barium	2000	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
Beryllium	NL	*	*	*	*	*	1	*	*	*	*	*	*	4	1	*	*	*	*	*	*	*
Chromium	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Cobalt	NL	*	*	*	*	*	10	*	*	*	*	*	*	1	10	*	*	*	*	*	*	*
Copper	1000	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*	*	*	*	*	*
Lead	15	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	*	*	*	*	*
Nickel	100	*	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*	*	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*	*	*
Vanadium	NL	*	*	*	*	*	20	*	*	*	*	*	*	0.3	25	*	*	*	*	*	*	*
Zinc	1050	*	*	*	*	*	10	*	13.7	*	10.6	12.2	*	1000	10	*	13.9	*	11.3	*	*	*

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-20

VOCs	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Carbon Disulfide	700	100	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Arsenic	10	10	*	*	*	*	*	*
Barium	700	100	*	*	*	*	122	*
Beryllium	4	1	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*
Cobalt	1	10	*	*	*	*	*	*
Copper	1000	10	*	*	*	*	*	*
Lead	15	10	*	*	*	*	*	*
Nickel	100	50	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	*	*
Zinc	1000	10	*	*	*	*	*	10.9

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-21

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Carbon Disulfide	700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.1	2.9	*	*	*	*	2.1	*	*	*
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Arsenic	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	7	*	*	*	*	*	*	*
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	94	48	72	70	78	75	80	40	51	50
Chromium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5	*	*	*	3.9	*	*	3.6	*	*
Cobalt	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	14	*	7.3	7
Lead	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	17	*	*	*	*	*
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	5.8	*	6.3	*	*	*	*	*
Zinc	1050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30	32	16	14	22	18	30	10	*	*

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
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8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-21

VOCs	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Carbon Disulfide	700	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
METALS	**NC 2L**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**
Arsenic	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Barium	2000	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
Chromium	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Cobalt	NL	*	24.4	28.6	21.2	11.3	10	11.3	*	25.5	*	25.0	*	1	10	13.8	*	**15.4**	*	**12.9**	*	**23.4**
Lead	15	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	*	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*	*	*
Zinc	1050	*	*	*	*	*	10	14.4	12.3	*	*	*	*	1000	10	*	*	*	*	*	*	*

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-21

VOCs	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Carbon Disulfide	700	100	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Arsenic	10	10	*	*	*	*	*	*
Barium	700	100	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*
Cobalt	1	10	**19.9**	**22.8**	**10.1**	**29.0**	*	**43.9**
Lead	15	10	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*
Zinc	1000	10	15.2	*	*	*	*	*

NOTES:

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2. **NS - location not sampled**
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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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MW-22

METALS	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	10/03 DUP
Arsenic	**50**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9	6	25	*	*	27	*	5.2	*	*
Barium	**2000**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1790	1250	1300	1700	350	**2100**	180	430	740	660
Beryllium	**NL**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	6	5	*	11	*	2.4	1.9	1.8
Cadmium	**1.75**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	**7**	**2**	*	*	*	*	*
Chromium	**50**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**84**	**78**	**100**	**83**	34	**140**	18	**56**	18	16
Cobalt	**NL**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	89	100	29	130	15	40	46	42
Copper	**1000**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100	87	80	70	35	130	19	68	36	32
Lead	**15**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**29**	**28**	*	**52**	12	**48**	5.6	**20**	13	12
Nickel	**100**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	80	65	99	38	*	100	*	50	20	18
Selenium	**50**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	11	16	*	12	*	*	10	*	*
Vanadium	**NL**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	170	151	140	200	60	270	37	120	20	18
Zinc	**1050**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	240	193	210	240	87	340	46	120	71	65

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
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MW-22

METALS	NC 2L	Apr-2004	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012
Arsenic	50	*	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*
Barium	2000	940	3160	1330	1160	982	1260	100	1470	371	823	1020	539	712	700	100	847	898	712	938	768	1050
Beryllium	NL	*	11.8	4.7	*	*	4.2	1	2.9	*	2.3	2.8	1.8	1.1	4	1	1.9	4.1	2.4	1.7	2.2	2.5
Cadmium	1.75	10	*	*	*	*	*	1	*	*	*	*	*	*	2	1	*	*	*	*	*	*
Chromium	50	11	366	131	10.2	*	83.7	10	12.7	*	17.4	61.4	33	*	10	10	14.9	55.2	44.3	10.3	25.0	21.3
Cobalt	NL	66	244	100	32.7	31.3	86.2	10	39.4	*	18.9	59	34.1	18.8	1	10	33.9	73.9	43.0	37.1	28.9	43.1
Copper	1000	99	300		*			10	28.8	*	14.9	54.2	32.5	10.6	1000	10	22.3	63.4	38.3	21.9	28.4	31.8
Lead	15	33	104	45.4	*	*	41.7	10	22.4	*	23.2	26.7	21.6	*	15	10	11.3	35.4	20.2	*	17.6	19.4
Nickel	100	80	226	92.2	*	*	*	50	*	*	*	*	*	*	100	50	*	51.4	*	*	*	*
Selenium	50	*	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*	*
Vanadium	NL	190	616	270	*	*	141	20	*	*	31.7	109	65.3	*	0.3	25	25.7	67.4	75.5	*	37.8	36.4
Zinc	1050	240	672	212	57.1	*	207	10	74.4	29.5	39.1	153	79.3	31	1000	10	69.6	155	105	52.7	77.9	78.0

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-22

METALS	NC 2L	SWSL	Apr-2013	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Arsenic	10	10	*	*	*	*	*	*	*
Barium	700	100	574	468	488	**2170**	635	609	696
Beryllium	4	1	2.6	1.1	1.9	*	4.0	3.2	3.0
Cadmium	2	1	*	*	*	*	*	*	*
Chromium	10	10	**32.5**	*	**28.5**	**156**	**65.3**	**50.5**	**59.1**
Cobalt	1	10	**35.1**	**14.7**	**21.0**	**110**	**42.1**	**32.2**	**36.4**
Copper	1000	10	32.2	13.3	33.8	173	67.0	52.8	57.6
Lead	15	10	**17.1**	*	14.3	*	**29.0**	**21.2**	**23.1**
Nickel	100	50	*	*	*	*	56.1	*	*
Selenium	20	10	*	*	*	*	*	*	*
Vanadium	0.3	25	**46.8**	*	**59.2**	**315**	**139**	**104**	**116**
Zinc	1000	10	93.1	48.5	62.9	355	122	100	123

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-22A

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Carbon Disulfide	700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.5	25.7	*	*	*	*	7.1	*	*	*
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Arsenic	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	6.2	*	*
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	67	477	74	72	82	100	85	88	72	100
Beryllium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	*	*
Cadmium	1.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	*	*
Chromium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6	*	4.9	4.2	*	*	21	10	4.2	10
Cobalt	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	*	*
Copper	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	6.1	5	6.3
Lead	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	*	*
Nickel	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	16	8	*	*
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	5.8	*	*	*	*	*	*	*
Vanadium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14	*	*	*	*	*	*	8.6	7	17
Zinc	1050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	54	42	26	27	38	13	22	16	15	19

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6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-22A

VOCs	NC 2L	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013	Oct-2013
Carbon Disulfide	700	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*	*
METALS	**NC 2L**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**	**Oct-2013**
Arsenic	50	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*	*
Barium	2000	*	*	*	*	100	*	*	*	*	*	*	700	100	102	*	110	*	*	*	*	*
Beryllium	NL	*	*	*	*	1	*	*	*	*	*	*	4	1	*	*	*	*	*	*	*	*
Cadmium	1.75	*	*	*	*	1	*	*	*	*	*	*	2	1	*	*	*	1.1	*	*	*	*
Chromium	50	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*	*
Cobalt	NL	*	*	*	*	10	*	*	*	*	*	*	1	10	*	*	*	*	*	*	*	*
Copper	1000	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*	*	*	*	*	*	*
Lead	15	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	*	*	*	*	*	*
Nickel	100	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*	*	*	*	*	*	*
Selenium	50	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*	*	*	*
Vanadium	NL	*	*	*	*	20	*	*	*	*	*	*	0.3	25	*	*	*	*	*	*	*	*
Zinc	1050	*	*	*	*	10	*	*	*	*	*	18.6	1000	10	12.4	*	16.8	18.3	18.1	11.2	30.7	13.2

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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MW-22A

VOCs	NC 2L	SWSL	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Carbon Disulfide	700	100	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Arsenic	10	10	*	*	*	*	*
Barium	700	100	*	*	*	*	*
Beryllium	4	1	*	*	*	*	*
Cadmium	2	1	*	*	*	*	*
Chromium	10	10	*	*	*	*	*
Cobalt	1	10	*	*	*	*	*
Copper	1000	10	*	*	*	*	*
Lead	15	10	*	*	*	*	*
Nickel	100	50	*	*	*	*	*
Selenium	20	10	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	*
Zinc	1000	10	19.1	12.8	17.2	10.6	*

NOTES:

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5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-23

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	SWSL	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011
1,1-Dichlorethane	70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5	*	*	1.7	*	*	7	5	*	*	*
1,4-Dichlorobenzene	1.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	*	1.3	1.1	1.2	1.3	6	1	1.1	1.0	*
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**SWSL**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**
Arsenic	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10	*	*	*	*	*	10	10	*	*	*
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100	128	109	150	156	145	700	100	135	245	139
Beryllium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	*	*	*	*	*	NL	1	*	*	*
Chromium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10	*	*	*	*	*	10	10	*	15.3	*
Cobalt	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10	*	*	*	*	*	NL	10	*	*	*
Copper	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10	*	*	*	*	*	1000	10	*	12.6	*
Lead	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10	*	*	*	*	*	15	10	*	*	*
Nickel	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	50	*	*	*	*	*	100	50	*	*	*
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10	*	*	*	*	*	20	10	*	*	*
Vanadium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20	*	*	*	*	*	NL	25	*	*	*
Zinc	1050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10	26.4	*	21.7	21.6	12.4	1000	10	14.7	52.8	19.1

NOTES:

1. *** - Constituent did not exceed laboratory Practical Quantitation (PQL) Limit or Solid Waste Section Limit (SWSL).**
2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

MW-23

VOCs	NC 2L	SWSL	Oct-2011	Apr-2012	Oct-2012	Apr-2013	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
1,1-Dichlorethane	7	5	*	*	*	*	*	*	*	*	*	*
1,4-Dichlorobenzene	6	1	*	*	*	*	1.0	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Arsenic	10	10	*	*	*	*	*	*	*	*	*	*
Barium	700	100	*	110	142	*	107	*	*	*	*	115
Beryllium	4	1	*	*	*	*	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*	*	*	*	*
Cobalt	1	10	*	*	*	*	*	*	*	*	*	*
Copper	1000	10	*	*	*	*	*	*	*	*	*	*
Lead	15	10	*	*	*	*	*	*	*	*	*	*
Nickel	100	50	*	*	*	*	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	*	*	*	*	*	*
Zinc	1000	10	10.1	12.0	12.5	14.4	93.2	11.4	10.3	18.5	18.9	*

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

SW-1

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Carbon Disulfide	700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	2.6	*	*	*
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15	16	31	12	20	14	15	50	13	18
Chromium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	2.2	*	*	*	*	*	*	*
Copper	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	2.3	3.7
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	5.5	*	*	*	*	*	*	*
Zinc	1050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	21	16	*	22	*	12	*	11	*

NOTES:

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5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

SW-1

VOCs	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Carbon Disulfide	700	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
METALS	**NC 2L**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**
Barium	2000	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
Chromium	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Copper	1000	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*	*	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*	*	*
Zinc	1050	*	*	*	*	*	10	20.1	21.9	*	*	*	11.8	1000	10	14.1	*	*	*	13.8	14.3	16.7

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

SW-1

VOCs	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Carbon Disulfide	700	100	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Barium	700	100	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*
Copper	1000	10	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*
Zinc	1000	10	16.9	38.3	*	10.9	13.9	10.6

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

SW-2

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Carbon Disulfide	700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	18.8	*	*	*	*	*	*	*	*
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Arsenic	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	98	*	*
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	68	133	120	76	140	120	150	5800	48	57
Beryllium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	14	*	*
Cadmium	1.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	61	*	*
Chromium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	8	2.2	*	*	*	*	640	*	*
Cobalt	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	12	890	*	*
Copper	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	1000	*	*
Lead	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	4	*	*	*	*	*	500	*	*
Nickel	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	340	*	*
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	12	*	*	*	*	*	*	*
Silver	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	9.9	*	*
Vanadium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	740	*	*
Zinc	1050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32	52	27	*	36	18	23	2600	*	*

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

SW-2

VOCs	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Carbon Disulfide	700	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
METALS	**NC 2L**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**
Arsenic	50	*	*	*	*	*	6	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Barium	2000	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
Beryllium	NL	*	*	*	*	*	1	*	*	*	*	*	*	4	1	*	*	*	*	*	*	*
Cadmium	1.75	*	*	*	*	*	1	*	*	*	*	*	*	2	1	*	*	*	*	*	*	*
Chromium	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Cobalt	NL	*	*	*	*	*	10	*	*	*	*	*	*	1	10	*	*	*	*	*	*	*
Copper	1000	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*	*	*	*	*	*
Lead	15	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	*	*	*	*	*
Nickel	100	*	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*	*	*	*	*	*
Selenium	50	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*	*	*
Silver	18	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*	*	*	*	*	*
Vanadium	NL	*	*	*	*	*	20	*	*	*	*	*	*	0.3	25	*	*	*	*	*	*	*
Zinc	1050	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*	*	*	*	*	*

NOTES:

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2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

SW-2

VOCs	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Carbon Disulfide	700	100	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Arsenic	10	10	*	*	*	*	*	*
Barium	700	100	*	*	*	*	*	*
Beryllium	4	1	*	*	*	*	*	*
Cadmium	2	1	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*
Cobalt	1	10	*	*	*	*	*	*
Copper	1000	10	*	*	*	*	*	*
Lead	15	10	*	*	*	*	*	*
Nickel	100	50	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*
Silver	20	10	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	*	*
Zinc	1000	10	*	10.1	*	*	*	*

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

SW-3

VOCs	NC 2L	Feb-1995	Mar-1995	Nov-1995	Apr-1996	Oct-1996	May-1997	Oct-1997	May-1998	Oct-1998	Apr-1999	Oct-1999	Apr-2000	Oct-2000	Apr-2001	Oct-2001	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004
Carbon Disulfide	700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	1.6	*	*	*
METALS	**NC 2L**	**Feb-1995**	**Mar-1995**	**Nov-1995**	**Apr-1996**	**Oct-1996**	**May-1997**	**Oct-1997**	**May-1998**	**Oct-1998**	**Apr-1999**	**Oct-1999**	**Apr-2000**	**Oct-2000**	**Apr-2001**	**Oct-2001**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32	46	32	38	34	49	38	37	79	26
Chromium	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	**88**	*	*
Copper	1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	7.7	3.4	3.7
Lead	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	*	5.2	*
Nickel	100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	50	*	*
Vanadium	NL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	*	7.6	*	*
Zinc	1050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*	*	*	*	23	26	24	*

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
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SW-3

VOCs	NC 2L	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Carbon Disulfide	700	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
METALS	**NC 2L**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**
Barium	2000	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*	*	*	*	*	*
Chromium	50	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*	*	*	*	*	*
Copper	1000	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*	*	*	*	*	*
Lead	15	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*	*	*	*	*	*
Nickel	100	*	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*	*	*	*	*	*
Vanadium	NL	*	*	*	*	*	20	*	*	*	*	*	*	0.3	25	*	*	*	*	*	*	*
Zinc	1050	*	*	*	*	*	10	21.3	17.6	12.3	*	*	*	1000	10	*	*	11.4	*	10.6	*	11.0

NOTES:

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4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
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Permit No. 57-03

SW-3

VOCs	NC 2L	SWSL	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Carbon Disulfide	700	100	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Barium	700	100	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*
Copper	1000	10	*	*	*	*	*	*
Lead	15	10	*	*	*	*	*	*
Nickel	100	50	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	*	*
Zinc	1000	10	*	*	*	*	*	*

NOTES:

1. *** - Constituent did not exceed laboratory Practical Quantitation (PQL) Limit or Solid Waste Section Limit (SWSL).**
2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

SW-4

VOCs	NC 2L	Apr-2002	Oct-2002	Apr-2003	Oct-2003	Apr-2004	Dec-2004	Apr-2005	Oct-2005	Apr-2006	Oct-2006	SWSL	Apr-2007	Oct-2007	Apr-2008	Oct-2008	Apr-2009	Oct-2009	NC 2L	SWSL	Apr-2010	Oct-2010
Carbon Disulfide	700	*	*	*	*	*	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*
Styrene	100	*	*	*	*	*	*	*	*	*	*	1	*	*	*	*	*	*	70	10	*	*
METALS	**NC 2L**	**Apr-2002**	**Oct-2002**	**Apr-2003**	**Oct-2003**	**Apr-2004**	**Dec-2004**	**Apr-2005**	**Oct-2005**	**Apr-2006**	**Oct-2006**	**SWSL**	**Apr-2007**	**Oct-2007**	**Apr-2008**	**Oct-2008**	**Apr-2009**	**Oct-2009**	**NC 2L**	**SWSL**	**Apr-2010**	**Oct-2010**
Barium	2000	40	68	36	96	27	*	*	*	*	*	100	*	*	*	*	*	*	700	100	*	*
Chromium	50	*	*	18	2.1	*	*	*	*	*	*	10	*	*	*	*	*	*	10	10	*	*
Cobalt	NL	*	*	*	7	*	*	*	*	*	*	10	*	*	*	*	*	*	NL	10	*	*
Copper	1000	*	*	3.9	4.6	5.2	*	*	*	*	*	10	*	*	*	*	*	*	1000	10	*	*
Lead	15	*	*	*	5.3	*	*	*	*	*	*	10	*	*	*	*	*	*	15	10	*	*
Nickel	100	*	*	12	*	*	*	*	*	*	*	50	*	*	*	*	*	*	100	50	*	*
Selenium	50	*	*	*	*	*	*	*	*	*	*	10	*	*	*	*	*	*	20	10	*	*
Vanadium	NL	*	*	*	5.3	*	*	*	*	*	*	20	*	*	*	*	*	*	NL	25	*	*
Zinc	1050	21	20	21	24	12	*	*	*	*	*	10	*	*	*	*	*	10.8	1000	10	*	*

NOTES:

1. *** - Constituent did not exceed laboratory Practical Quantitation (PQL) Limit or Solid Waste Section Limit (SWSL).**
2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Historical Analytical Results
Macon County MSW Landfill
Permit No. 57-03

SW-4

VOCs	NC 2L	SWSL	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013	Oct-2013	Apr-2014	Oct-2014	Apr-2015	Oct-2015	Apr-2016
Carbon Disulfide	700	100	*	*	*	*	*	*	*	*	*	*	*
Styrene	70	10	*	*	*	*	*	*	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**	**Oct-2013**	**Apr-2014**	**Oct-2014**	**Apr-2015**	**Oct-2015**	**Apr-2016**
Barium	700	100	*	*	*	*	*	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*	*	*	*	*	*
Cobalt	NL	10	*	*	*	*	*	*	*	*	*	*	*
Copper	1000	10	*	*	*	*	*	*	*	*	*	*	*
Lead	15	10	*	*	*	*	*	*	*	*	*	*	*
Nickel	100	50	*	*	*	*	*	*	*	*	*	*	*
Selenium	20	10	*	*	*	*	*	*	*	*	*	*	*
Vanadium	NL	25	*	*	*	*	*	*	*	*	*	*	*
Zinc	1000	10	*	10.1	*	*	18.4	*	*	*	*	*	*

NOTES:

1. *** - Constituent did not exceed laboratory Practical Quantitation (PQL) Limit or Solid Waste Section Limit (SWSL).**
2. **NS - location not sampled**
3. **NL - constituent does not have a NC2L Standard**
4. **Constituents that exceed the NC 2L Standard are highlighed in red**
5. **DRY - well was dry during sampling event**
6. **All constituents reported in parts per billion (ppb)**
7. **Only compounds detected above the laboratory PQL or SWSL are listed**
8. **N/A - not applicable**

Macon County Municipal Solid Waste (MSW) Landfill

Macon County, North Carolina

Permit Number: 57-03

Appendix E:

Alternate Source Demonstration

ALTERNATE SOURCE DEMONSTRATION
1st Semi-annual 2016 Event
Macon County MSW Landfill, Permit No. 57-03
Macon County, North Carolina

Prepared for:

Macon County Solid Waste Department
109 Sierra Drive
Franklin, NC 28734

Prepared by:

REI Consultants of North Carolina, PLLC
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Beaver, WV 25813

Michael P. Hofe, PE
License No. 028029

NORTH CAROLINA PROFESSIONAL SEAL 028029 ENGINEER MICHAEL P. HOFE

Date: 6/14/2016

1.0 EXCEEDANCE DESCRIPTION

REI Consultants of North Carolina, PLLC (REIC of NC), on behalf of Macon County, is submitting this Alternate Source Demonstration (ASD) for the Macon County Municipal Solid Waste Landfill, Permit No. 57-03 (MSW Landfill), pursuant to North Carolina waste management regulations 15 NCAC 13B .1633, due to exceedances of North Carolina groundwater protection standards for metals during the 1st semi-annual monitoring period of 2016. North Carolina groundwater protection standards include both groundwater standards and interim maximum allowable concentrations (IMACs) given in 15A NCAC 2L .0202, effective April 1, 2013. The following metals exceeded groundwater protection standards in the indicated compliance wells:

Parameter	Monitoring Well
Arsenic	MW-2
Barium	MW-19
Chromium	MW-19, MW-22
Cobalt	MW-1A, MW-2, MW-5D, MW-14, MW-19, MW-21, MW-22
Lead	MW-19, MW-22
Vanadium	MW-19, MW-22

2.0 DATA EVALUATION

Statistical analysis of background data from upgradient wells at the facility indicates that all of the above exceedances are lower than background statistical limits with the exception of lead in well MW-19. Statistical analysis of groundwater data was conducted by constructing prediction limits from available upgradient background data. Data from upgradient wells MW-10, MW-17, and MW-18 were pooled and utilized for comparison to data from compliance wells associated with the MSW Landfill. The pooled upgradient data provides a characterization of spatial variability. The statistical analysis was conducted in general accordance with the guidelines of "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance" (U.S. EPA Office of Resource Conservation and Recovery, March 2009). Prediction intervals were constructed as follows. For constituents where more than 15 but less than 50 percent of

the data were below laboratory practical quantitation limits (PQLs)/Solid Waste Section Limits (SWSLs), data was tested for normality or log-normality using the Shapiro-Wilk test. For constituents where 50 percent or more of the data were below PQLs/SWSLs or where transformation failed to bring about normality, a non-parametric prediction limit was constructed using the maximum historical background measurement. The statistical analysis is included in this report. The following table summarizes, for those compliance wells and parameters for which groundwater protection standards were exceeded during the 1st semiannual 2016 event, the sample results above groundwater protection standards, the applicable groundwater protection standards, and background statistical limits:

	SWSL	*GPS*	*UPL*	MW-1A	MW-2	MW-5D	MW-14	MW-19	MW-21	MW-22
Arsenic	10	10	18	-	10.7	-	-	-	-	-
Barium	100	700	1190	-	-	-	-	785	-	-
Chromium	10	10	140	-	-	-	-	31.0	-	59.1
Cobalt	10	1	56	19.4	23.8	14.4	15.0	17.5	43.9	36.4
Lead	10	15	44	-	-	-	-	**54.6**	-	23.1
Vanadium	25	0.3	180	-	-	-	-	60.5	-	116

Notes:
All values in µg/L
SWSL – Solid Waste Section Limit
GPS – 15A NCAC 2L .0202 groundwater protection standard
UPL – upper prediction limit
"-" – not quantified *above GPS*
Bold – exceeds statistical background

Note that of the above results, only the lead elevation in well MW-19 exceeded the statistical background limit. However, appreciable suspended solids were present in the sample collected from well MW-19. In addition, analysis of the sample for dissolved metals yielded no detection of lead above the SWSL. Due to the presence of solids in the sample and the lack of dissolved lead, it is likely that the total lead elevation was the result of naturally occurring material associated with sediments in well MW-19.

All other exceedances of the groundwater standards were below background statistical limits. This indicates that the metals exceedances in wells MW-1A, MW-2, MW-5D, MW-14, MW-21, and MW-22, and the additional metals exceedances in well MW-19, are due to natural variation, as these metals have been observed in the upgradient

background wells at the facility at higher levels than those exhibited in the compliance wells.

3.0 CONCLUSIONS

It is the professional opinion of REIC of NC that the groundwater protection standard exceedances of arsenic in well MW-2; barium in well MW-19; chromium in wells MW-MW-19 and MW-22; cobalt in wells MW-1A, MW-2, MW-5D, MW-14, MW-19, MW-21, and MW-22; lead in well MW-22; and vanadium in wells MW-19 and MW-22 were not the result of a release from the landfill, but rather are due to natural variation. This conclusion is based upon the available data collected from background and compliance wells at the facility, and application of statistical procedures to compare data upgradient and downgradient of the waste areas. Arsenic, barium, chromium, cobalt, lead, and vanadium have been observed in samples collected from background wells at the facility, which indicates that these metals are present naturally in areas of the facility upgradient of waste units. In addition, the statistical limits derived from upgradient data are considerably higher than concentrations of arsenic, barium, chromium, cobalt, lead, and vanadium observed in the above compliance wells during the 1st semiannual 2016 monitoring event. Since arsenic, barium, chromium, cobalt, lead, and vanadium in the affected wells do not exceed background, the presence of the metals is attributed to natural variation.

In addition, it is the professional opinion of REIC of NC that the groundwater protection standard exceedance of lead in well MW-19 was not the result of a release from the landfill, but rather is due to excessive suspended solids in the sample collected from this well. This conclusion is based upon that fact that appreciable suspended solids were present in the sample, and analysis of the sample for dissolved metals yielded no detection of lead above the SWSL. Due to the presence of solids in the sample and the lack of elevated dissolved lead, it is likely that the total lead elevation was the result of naturally occurring material associated with sediments in well MW-19.

Macon County Municipal Solid Waste (MSW) Landfill

Macon County, North Carolina

Permit Number: 57-03

Statistical Analysis

REI Consultants, Inc. P.O Box 286, Beaver, WV 25813 800-999-0105 www.reiclabs.com

MSW Landfill

Well	Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Selenium	Vanadium	Zinc
MW-10	Oct-99	0.0050	0.673	0.001	0.0005	0.040	0.005	0.100	0.005	0.010	0.070	0.120
MW-10	Apr-00	0.0050	0.652	0.001	0.0005	0.031	0.005	0.100	0.005	0.010	0.055	0.086
MW-10	Oct-00	0.018	0.750	0.001	0.0005	0.026	0.016	0.100	0.005	0.010	0.020	0.064
MW-10	Apr-01	0.0050	0.790	0.001	0.0005	0.024	0.015	0.100	0.011	0.010	0.020	0.025
MW-10	Oct-01	0.0050	0.570	0.001	0.0005	0.005	0.011	0.100	0.022	0.010	0.020	0.025
MW-10	Apr-03	0.0050	1.30	0.001	0.0005	0.100	0.042	0.100	0.029	0.010	0.020	0.26
MW-10	Oct-03	0.0050	0.250	0.001	0.0005	0.005	0.005	0.100	0.005	0.010	0.020	0.025
MW-10	Apr-04	0.0050	0.250	0.001	0.0005	0.005	0.005	0.100	0.005	0.010	0.020	0.025
MW-17	Oct-99	0.0050	0.250	0.001	0.0005	0.017	0.005	0.100	0.005	0.010	0.020	0.065
MW-17	Apr-00	0.0050	0.250	0.001	0.0005	0.025	0.005	0.100	0.005	0.010	0.020	0.061
MW-17	Oct-00	0.0050	0.250	0.001	0.0005	0.011	0.005	0.100	0.005	0.010	0.020	0.025
MW-17	Apr-01	0.0050	0.250	0.001	0.0005	0.025	0.005	0.100	0.018	0.010	0.020	0.071
MW-17	Oct-01	0.0050	0.250	0.001	0.0005	0.031	0.018	0.100	0.020	0.010	0.020	0.140
MW-17	Apr-03	0.0050	0.670	0.001	0.0005	0.140	0.056	0.100	0.044	0.010	0.180	0.260
MW-17	Oct-03	0.0050	0.250	0.001	0.0005	0.005	0.011	0.100	0.005	0.010	0.020	0.025
MW-17	Apr-04	0.0050	0.250	0.001	0.0039	0.065	0.026	0.100	0.024	0.010	0.020	0.100
MW-18	Oct-99	0.0050	0.250	0.001	0.0005	0.013	0.005	0.100	0.005	0.010	0.020	0.050
MW-18	Apr-00	0.0050	0.250	0.001	0.0005	0.005	0.022	0.100	0.005	0.010	0.020	0.025
MW-18	Oct-00	0.0050	0.250	0.001	0.0005	0.005	0.005	0.100	0.005	0.010	0.020	0.025
MW-18	Apr-01	0.0050	0.250	0.001	0.0005	0.005	0.005	0.100	0.005	0.010	0.020	0.071
MW-18	Oct-01	0.0050	0.250	0.001	0.0005	0.005	0.005		0.014	0.010	0.020	0.025
MW-18	Apr-03	0.0050	0.250	0.001	0.0005	0.011	0.005	0.100	0.005	0.010	0.020	0.025
MW-18	Oct-03	0.0050	0.250	0.001	0.0005	0.005	0.005	0.100	0.005	0.010	0.020	0.025
MW-18	Apr-04	0.0050	0.620	0.001	0.0018	0.048	0.014	0.100	0.016	0.010	0.057	0.082
MW-10	Dec-04	0.0050	0.766	0.001	0.0005	0.005	0.0118	0.100	0.005	0.010	0.020	0.025
MW-17	Dec-04	0.0050	0.250	0.001	0.0005	0.0286	0.0133	0.100	0.0122	0.010	0.020	0.085
MW-18	Dec-04	0.0050	0.250	0.001	0.0005	0.0190	0.005	0.100	0.005	0.010	0.020	0.025
MW-10	Apr-05	0.0050	0.250	0.001	0.0005	0.005	0.005	0.100	0.005	0.010	0.020	0.025
MW-17	Apr-05	0.0050	0.250	0.001	0.0005	0.0230	0.0125	0.100	0.005	0.010	0.020	0.056
MW-18	Apr-05	0.0050	0.250	0.001	0.0005	0.0147	0.005	0.100	0.005	0.010	0.020	0.025
MW-10	Oct-05	0.0050	0.250	0.001	0.0005	0.005	0.005	0.100	0.005	0.010	0.020	0.025
MW-17	Oct-05	0.0050	0.250	0.001	0.0005	0.005	0.005	0.100	0.005	0.010	0.020	0.025
MW-18	Oct-05	0.0050	0.250	0.001	0.0005	0.005	0.005	0.100	0.005	0.010	0.020	0.025
MW-10	Apr-06	0.0050	0.250	0.001	0.0005	0.005	0.005	0.100	0.005	0.010	0.020	0.025
MW-17	Apr-06	0.0050	0.250	0.001	0.0005	0.005	0.005	0.100	0.005	0.010	0.020	0.025

MSW Landfill

Well	Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Selenium	Vanadium	Zinc
MW-18	Apr-06	0.0050	0.250	0.001	0.0005	0.005	0.005	0.100	0.005	0.010	0.020	0.025
MW-10	Oct-06	0.0050	0.250	0.001	0.0005	0.005	0.005	0.100	0.005	0.010	0.020	0.025
MW-17	Oct-06	0.0050	0.250	0.001	0.0005	0.0103	0.0102	0.100	0.005	0.010	0.020	0.053
MW-18	Oct-06	0.0050	0.250	0.001	0.0005	0.0139	0.005	0.100	0.005	0.010	0.020	0.068
MW-10	Apr-07	0.0050	0.248	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.005	0.010	0.0110
MW-17	Apr-07	0.0050	0.217	0.0005	0.0005	0.0050	0.0155	0.0121	0.005	0.005	0.010	0.0540
MW-18	Apr-07	0.0050	0.213	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.005	0.010	0.025
MW-10	Oct-07	0.0050	0.226	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.005	0.010	0.005
MW-17	Oct-07	0.0050	0.125	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.005	0.010	0.0230
MW-18	Oct-07	0.0050	0.146	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.005	0.010	0.029
MW-10	Apr-08	0.0050	0.235	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.005	0.010	0.005
MW-17	Apr-08	0.0050	0.152	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.005	0.010	0.024
MW-18	Apr-08	0.0050	0.133	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.005	0.010	0.005
MW-10	Oct-08	0.0050	0.369	0.0005	0.0005	0.0103	0.005	0.005	0.005	0.005	0.010	0.032
MW-17	Oct-08	0.0050	0.220	0.0005	0.0005	0.0133	0.0131	0.0147	0.005	0.005	0.010	0.065
MW-18	Oct-08	0.0050	0.237	0.0005	0.0005	0.0111	0.005	0.005	0.005	0.005	0.010	0.028
MW-10	Apr-09	0.0050	0.315	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.010	0.017
MW-17	Apr-09	0.0050	0.105	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.010	0.029
MW-18	Apr-09	0.0050	0.175	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.010	0.0130
MW-10	Oct-09	0.0050	0.254	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.010	0.005
MW-17	Oct-09	0.0050	0.112	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.010	0.024
MW-18	Oct-09	0.0050	0.177	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.010	0.0152
MW-10	Apr-10	0.0050	0.408	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.010	0.015
MW-17	Apr-10	0.0050	0.114	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.010	0.03
MW-18	Apr-10	0.0050	0.115	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.010	0.0118
MW-10	Oct-10	0.0050	0.840	0.0005	0.0005	0.0250	0.0112	0.0163	0.005	0.0101	0.0359	0.106
MW-17	Oct-10	0.0050	0.170	0.0005	0.0005	0.005	0.0119	0.0109	0.005	0.005	0.0125	0.046
MW-18	Oct-10	0.0050	0.366	0.0005	0.0005	0.0212	0.005	0.005	0.005	0.005	0.0125	0.0453
MW-10	Apr-11	0.0050	1.51	0.0013	0.0005	0.0422	0.0248	0.0253	0.0164	0.0254	0.0721	0.165
MW-17	Apr-11	0.0050	0.218	0.0005	0.0005	0.0130	0.0116	0.0129	0.005	0.005	0.0125	0.0578
MW-18	Apr-11	0.0050	0.183	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0165
MW-10	Oct-11	0.0050	0.434	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0124
MW-17	Oct-11	0.0050	0.116	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0309
MW-18	Oct-11	0.0050	0.050	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0104
MW-10	Apr-12	0.0050	0.394	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0309

MSW Landfill

Well	Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Selenium	Vanadium	Zinc
MW-17	Apr-12	0.0050	0.120	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0334
MW-18	Apr-12	0.0050	0.110	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.005
MW-10	Oct-12	0.0050	0.308	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0250
MW-17	Oct-12	0.0050	0.151	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0362
MW-18	Oct-12	0.0050	0.110	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0133
MW-10	Apr-13	0.0050	0.407	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0387
MW-17	Apr-13	0.0050	0.151	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0444
MW-18	Apr-13	0.0050	0.115	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0319
MW-10	Oct-13	0.0050	0.197	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.005
MW-17	Oct-13	0.0050	0.105	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0386
MW-18	Oct-13	0.0050	0.050	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0266
MW-10	Apr-14	0.0050	0.216	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0109
MW-17	Apr-14	0.0050	0.175	0.0005	0.0005	0.005	0.0120	0.0131	0.005	0.005	0.0125	0.0491
MW-18	Apr-14	0.0050	0.050	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0143
MW-10	Oct-14	0.0050	0.184	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.005
MW-17	Oct-14	0.0050	0.193	0.0005	0.0005	0.0103	0.0138	0.0144	0.005	0.005	0.0125	0.0499
MW-18	Oct-14	0.0050	0.124	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0149
MW-10	Apr-15	0.0050	0.276	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0227
MW-17	Apr-15	0.0050	0.207	0.0005	0.0005	0.0163	0.0219	0.0215	0.005	0.005	0.0125	0.0527
MW-18	Apr-15	0.0050	0.104	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0116
MW-10	Oct-15	0.0050	0.758	0.0013	0.0020	0.0469	0.0141	0.0351	0.0112	0.005	0.0937	0.134
MW-17	Oct-15	0.0050	0.151	0.0005	0.0005	0.005	0.0112	0.0126	0.005	0.005	0.0125	0.0380
MW-18	Oct-15	0.0050	0.050	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.005
MW-10	Apr-16	0.0050	0.304	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0210
MW-17	Apr-16	0.0050	0.216	0.0005	0.0005	0.0268	0.0206	0.0303	0.005	0.005	0.0305	0.0587
MW-18	Apr-16	0.0050	0.106	0.0005	0.0005	0.005	0.005	0.005	0.005	0.005	0.0125	0.0135

SWSL	0.010	0.100	0.001	0.001	0.010	0.010	0.010	0.010	0.010	0.025	0.010
# Obs.	96	96	96	96	96	96	95	96	96	96	96
# NDs	95	34	94	93	64	70	83	84	94	88	30
% NDs	99%	35%	98%	97%	67%	73%	87%	88%	98%	92%	31%
Method	Nonpara-metric	Para-metric	Nonpara-metric	Nonpara-metric	Nonpara-metric	Nonpara-metric	Nonpara-metric	Nonpara-metric	Nonpara-metric	Nonpara-metric	Para-metric
Limit	0.018	1.19	0.0013	0.0039	0.140	0.056	0.100	0.044	0.0254	0.180	0.255

96 available background measurements
12 compliance wells
13 constituents for which statistical comparisons are made (COCs):

1,4-Dichlorobenzene
Arsenic
Barium
Beryllium
Cadmium
Chlorobenzene
Chromium
Cobalt
Copper
Lead
Selenium
Vanadium
Zinc

From Table 19-1, EPA Unified Guidance:

#COCs	ln(#COCs)	κ
1	0	1.54
2	0.693147	1.72
5	1.609438	1.95
10	2.302585	2.11
13	2.564949	**2.17**
20	2.995732	2.26
40	3.688879	2.41

Barium (excluding data points censored at 0.5)

1	0.05	0.0152	-2.166	-0.1083	4.6920
2	0.05	0.0303	-1.876	-0.0938	3.5207
3	0.05	0.0455	-1.691	-0.0845	2.8582
4	0.104	0.0606	-1.550	-0.1612	2.4016
5	0.105	0.0758	-1.434	-0.1506	2.0569
6	0.105	0.0909	-1.335	-0.1402	1.7827
7	0.106	0.1061	-1.248	-0.1323	1.5569
8	0.110	0.1212	-1.169	-0.1286	1.3664
9	0.110	0.1364	-1.097	-0.1206	1.2030
10	0.112	0.1515	-1.030	-0.1154	1.0608
11	0.114	0.1667	-0.967	-0.1103	0.9359
12	0.115	0.1818	-0.908	-0.1045	0.8253
13	0.115	0.1970	-0.852	-0.0980	0.7267
14	0.116	0.2121	-0.799	-0.0927	0.6385
15	0.120	0.2273	-0.748	-0.0897	0.5593
16	0.124	0.2424	-0.699	-0.0866	0.4879
17	0.125	0.2576	-0.651	-0.0814	0.4236
18	0.133	0.2727	-0.605	-0.0804	0.3655
19	0.146	0.2879	-0.560	-0.0817	0.3131
20	0.151	0.3030	-0.516	-0.0779	0.2660
21	0.151	0.3182	-0.473	-0.0714	0.2235
22	0.151	0.3333	-0.431	-0.0650	0.1855
23	0.152	0.3485	-0.389	-0.0592	0.1516
24	0.170	0.3636	-0.349	-0.0593	0.1216
25	0.175	0.3788	-0.309	-0.0540	0.0953
26	0.175	0.3939	-0.269	-0.0471	0.0724
27	0.177	0.4091	-0.230	-0.0407	0.0528
28	0.183	0.4242	-0.191	-0.0350	0.0365
29	0.184	0.4394	-0.153	-0.0281	0.0233
30	0.193	0.4545	-0.114	-0.0220	0.0130
31	0.197	0.4697	-0.076	-0.0150	0.0058
32	0.207	0.4848	-0.038	-0.0079	0.0014
33	0.213	0.5000	0.000	0.0000	0.0000
34	0.216	0.5152	0.038	0.0082	0.0014
35	0.216	0.5303	0.076	0.0164	0.0058
36	0.217	0.5455	0.114	0.0248	0.0130
37	0.218	0.5606	0.153	0.0332	0.0233
38	0.220	0.5758	0.191	0.0420	0.0365
39	0.226	0.5909	0.230	0.0520	0.0528
40	0.235	0.6061	0.269	0.0632	0.0724
41	0.237	0.6212	0.309	0.0732	0.0953
42	0.248	0.6364	0.349	0.0865	0.1216
43	0.254	0.6515	0.389	0.0989	0.1516
44	0.276	0.6667	0.431	0.1189	0.1855
45	0.304	0.6818	0.473	0.1437	0.2235
46	0.308	0.6970	0.516	0.1588	0.2660
47	0.315	0.7121	0.560	0.1763	0.3131
48	0.366	0.7273	0.605	0.2213	0.3655
49	0.369	0.7424	0.651	0.2402	0.4236
50	0.394	0.7576	0.699	0.2752	0.4879
51	0.407	0.7727	0.748	0.3044	0.5593
52	0.408	0.7879	0.799	0.3260	0.6385
53	0.434	0.8030	0.852	0.3700	0.7267
54	0.570	0.8182	0.908	0.5178	0.8253
55	0.620	0.8333	0.967	0.5998	0.9359
56	0.652	0.8485	1.030	0.6715	1.0608
57	0.670	0.8636	1.097	0.7349	1.2030
58	0.673	0.8788	1.169	0.7867	1.3664
59	0.750	0.8939	1.248	0.9358	1.5569
60	0.758	0.9091	1.335	1.0121	1.7827
61	0.766	0.9242	1.434	1.0986	2.0569
62	0.790	0.9394	1.550	1.2243	2.4016
63	0.840	0.9545	1.691	1.4201	2.8582
64	1.30	0.9697	1.876	2.4393	3.5207
65	1.51	0.9848	2.166	3.2708	4.6920
			sum	14.9016	58.0481

S.D. = 0.29

W' = 0.729 less than 0.948, normal assumption rejected

ln(Barium)

1	-2.995732	0.0152	-2.166	6.4891	4.6920
2	-2.995732	0.0303	-1.876	5.6211	3.5207
3	-2.995732	0.0455	-1.691	5.0646	2.8582
4	-2.263364	0.0606	-1.550	3.5075	2.4016
5	-2.253795	0.0758	-1.434	3.2324	2.0569
6	-2.253795	0.0909	-1.335	3.0092	1.7827
7	-2.244316	0.1061	-1.248	2.8004	1.5569
8	-2.207275	0.1212	-1.169	2.5802	1.3664
9	-2.207275	0.1364	-1.097	2.4209	1.2030
10	-2.189256	0.1515	-1.030	2.2548	1.0608
11	-2.171557	0.1667	-0.967	2.1008	0.9359
12	-2.162823	0.1818	-0.908	1.9648	0.8253
13	-2.162823	0.1970	-0.852	1.8438	0.7267
14	-2.154165	0.2121	-0.799	1.7214	0.6385
15	-2.120264	0.2273	-0.748	1.5857	0.5593
16	-2.087474	0.2424	-0.699	1.4582	0.4879
17	-2.079442	0.2576	-0.651	1.3534	0.4236
18	-2.017406	0.2727	-0.605	1.2197	0.3655
19	-1.924149	0.2879	-0.560	1.0767	0.3131
20	-1.890475	0.3030	-0.516	0.9749	0.2660
21	-1.890475	0.3182	-0.473	0.8938	0.2235
22	-1.890475	0.3333	-0.431	0.8143	0.1855
23	-1.883875	0.3485	-0.389	0.7336	0.1516
24	-1.771957	0.3636	-0.349	0.6180	0.1216
25	-1.742969	0.3788	-0.309	0.5380	0.0953
26	-1.742969	0.3939	-0.269	0.4690	0.0724
27	-1.731606	0.4091	-0.230	0.3981	0.0528
28	-1.698269	0.4242	-0.191	0.3245	0.0365
29	-1.69282	0.4394	-0.153	0.2582	0.0233
30	-1.645065	0.4545	-0.114	0.1878	0.0130
31	-1.624552	0.4697	-0.076	0.1235	0.0058
32	-1.575036	0.4848	-0.038	0.0598	0.0014
33	-1.546463	0.5000	0.000	0.0000	0.0000
34	-1.532477	0.5152	0.038	-0.0582	0.0014
35	-1.532477	0.5303	0.076	-0.1165	0.0058
36	-1.527858	0.5455	0.114	-0.1745	0.0130
37	-1.52326	0.5606	0.153	-0.2323	0.0233
38	-1.514128	0.5758	0.191	-0.2893	0.0365
39	-1.48722	0.5909	0.230	-0.3419	0.0528
40	-1.44817	0.6061	0.269	-0.3897	0.0724
41	-1.439695	0.6212	0.309	-0.4444	0.0953
42	-1.394327	0.6364	0.349	-0.4863	0.1216
43	-1.370421	0.6515	0.389	-0.5337	0.1516
44	-1.287354	0.6667	0.431	-0.5545	0.1855
45	-1.190728	0.6818	0.473	-0.5630	0.2235
46	-1.177655	0.6970	0.516	-0.6073	0.2660
47	-1.155183	0.7121	0.560	-0.6464	0.3131
48	-1.005122	0.7273	0.605	-0.6077	0.3655
49	-0.996959	0.7424	0.651	-0.6489	0.4236
50	-0.931404	0.7576	0.699	-0.6506	0.4879
51	-0.898942	0.7727	0.748	-0.6723	0.5593
52	-0.896488	0.7879	0.799	-0.7164	0.6385
53	-0.834711	0.8030	0.852	-0.7116	0.7267
54	-0.562119	0.8182	0.908	-0.5107	0.8253
55	-0.478036	0.8333	0.967	-0.4625	0.9359
56	-0.427711	0.8485	1.030	-0.4405	1.0608
57	-0.400478	0.8636	1.097	-0.4392	1.2030
58	-0.39601	0.8788	1.169	-0.4629	1.3664
59	-0.287682	0.8939	1.248	-0.3590	1.5569
60	-0.277072	0.9091	1.335	-0.3699	1.7827
61	-0.266573	0.9242	1.434	-0.3823	2.0569
62	-0.235722	0.9394	1.550	-0.3653	2.4016
63	-0.174353	0.9545	1.691	-0.2948	2.8582
64	0.2623643	0.9697	1.876	0.4923	3.5207
65	0.4121097	0.9848	2.166	0.8927	4.6920
			sum	45.5508	58.0481

S.D. = 0.76

W' = 0.962 greater than 0.948, lognormal assumption not rejected

Mean	-1.474
Std. Dev.	0.762
K	2.17
ln(Pr. Lim.)	0.177
Pr. Lim.	1.19