RESEARCH ENVIRONMENTAL & INDUSTRIAL CONSULTANTS, INC.

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

July 9, 2013

Mr. Chris Stahl, Director
Macon County Department of Solid Waste Management
109 Sierra Drive
Franklin, NC 28734

RE: Old Franklin Landfill, Permit No. 57-01
Old Highlands Landfill, Permit No. 57-02
Macon County MSW Landfill, Permit No. 57-03
Highlands C&D Landfill, Permit No. 57-04
1st Semi-annual 2013 Water Quality Monitoring Reports

Mr. Stahl;

Enclosed please find the 1st Semi-annual 2013 Water Quality Monitoring Reports for the above indicated facilities. Note that the Old Highlands and Highlands C&D facilities are combined in a single report. Presented are the findings of the water quality sampling, evaluation of the laboratory data, and results of the hydrologic review relative to the 1st Semi-annual 2013 event for each of the facilities.

An electronic version of the reports has been included on CD, two (2) copies of which have been forwarded to the NCDENR Solid Waste Section. Should you have any questions or need additional information, please feel free to contact me at (304) 255-2500 or mhofe@reiclabs.com.

Sincerely,

Michael Hofe, PE
REI Consultants, Inc.

cc: Compliance Unit, NCDENR-DWM, SWS

Enclosures

REIC

RESEARCH ENVIRONMENTAL & INDUSTRIAL CONSULTANTS, INC.

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The Solid Waste Association of North America

West Virginia Manufacturers Association

Association of West Virginia Solid Waste Authorities

West Virginia Oil Marketers & Grocers Association

In preparing this report, the professional services of REI Consultants, Inc. have been performed, findings obtained, and conclusions reached in accordance with present State and Federal regulations, and generally accepted review principles and practices. Questions regarding any of the information presented in this report should be directed to REIC headquarters at (304) 255-2500.

Respectfully submitted,

7/9/2013

Michael P. Hofe, P.E. (NC #28029)
Manager
Environmental Monitoring & Investigative Assessment Department

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1.0 EXECUTIVE SUMMARY

REI Consultants, Inc. (REIC) has prepared the 1st Semi-Annual Water Quality Monitoring Report for 2013 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 2013 monitoring event was performed on April 18, 2013. 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 laboratory Solid Waste Section Limits (SWSLs) with the exception of benzene and chlorobenzene in well MW-1D and 1,4-dichlorobenzene in wells MW-1A, MW-1B, and MW-1D. Benzene was detected above the North Carolina groundwater quality standard in well MW-1D. The VOC detections are limited to one area of the facility northwest of the closed landfill. Note that Macon County is in the process of implementing 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
Barium	MW-15
Chromium	MW-22
Cobalt	MW-1A, MW-2, MW-15, MW-21, MW-22
Lead	MW-22
Vanadium	MW-22

All groundwater protection standard exceedances of metals in wells MW-1A, MW-2, MW-15, MW-21, and MW-22 were below background statistical limits and therefore are attributed 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 2013, 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 2013 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 had been dry since 2000.

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 VOCs vertically and horizontally downgradient of wells MW-1A and MW-1B. Wells MW-1D and MW-23 will continue to be monitored for delineation and trends of VOCs, and Macon County is implementing a corrective action plan to address issues associated with the presence of VOCs in this area of the facility.

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. 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, BOD, and COD.

For the 1st semi-annual 2013 monitoring event, field sampling was performed on April 18, 2013. 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 2013 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 in this report (see Figure 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 and north. 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 2013 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 1.

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 and stringent REIC acceptance review prior to inclusion in this report. No VOCs were detected above SWSLs with the exception of benzene

and chlorobenzene in well MW-1D and 1,4-dichlorobenzene in wells MW-1A, MW-1B, and MW-1D. Benzene was detected above the North Carolina groundwater quality standard in well MW-1D.

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

Parameter	Monitoring Well
Barium	MW-15
Chromium	MW-22
Cobalt	MW-1A, MW-2, MW-15, MW-21, MW-22
Lead	MW-22
Vanadium	MW-22

A summary of laboratory results in included in Table 2. Laboratory reports and chain-of-custody records are included in Appendix C. Data have been reported to method detection limits (MDLs) as requested by NCDENR. 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 these metals concentrations were less than background levels.

All exceedances of groundwater standards for metals were below background statistical limits. This indicates that the barium concentration in well MW-15; the cobalt concentrations in wells MW-1A, MW-2, MW-15, MW-21, and MW-22; and the chromium, lead, and vanadium

concentrations in well 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. The Statistical Analysis Summary is included in Appendix E, "Alternate Source Demonstration".

6.0 CONCLUSIONS AND RECOMMENDATIONS

- The 1st semi-annual 2013 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, and north 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 benzene and chlorobenzene in well MW-1D; and 1,4-dichlorobenzene in wells MW-1A, MW-1B, and MW-1D.

- Benzene exceeded the North Carolina groundwater standard in well MW-1D.

- Metals detected above North Carolina groundwater standards in compliance wells were as follows: barium in well MW-15; chromium in well MW-22; cobalt in wells MW-1A, MW-2, MW-15, MW-21, and MW-22; lead in well MW-22; and vanadium in well MW-22.

- All of the above metals exceedances were below background statistical limits and therefore are attributed 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.

- It is recommended that the Macon County MSW Landfill remain in detection monitoring for the 2nd semiannual monitoring period of 2013, with continued monitoring for delineation and trends of VOCs in the corrective action area of the facility.

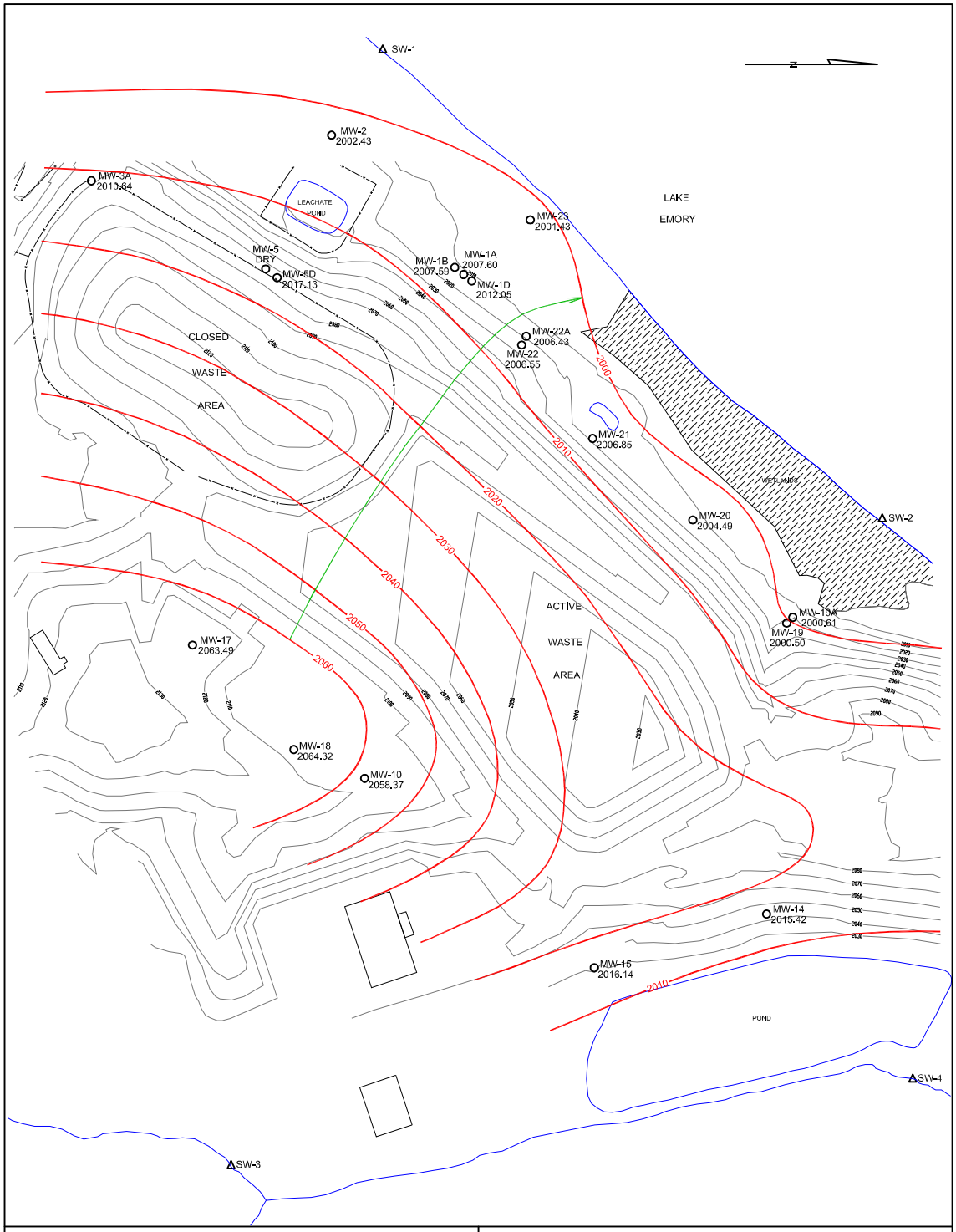
Macon County Municipal Solid Waste (MSW) Landfill

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 2013 MONITORING EVENT DATA

PREPARED BY:
REI CONSULTANTS, INC.
MAY 2013

REI Consultants, Inc.

LEGEND

○	MONITORING WELL LOCATION
△	SURFACE WATER SAMPLING LOCATION
2015.42	GROUNDWATER ELEVATION
	TOPOGRAPHIC CONTOURS
	POTENTIOMETRIC CONTOURS
	GROUNDWATER FLOW PATH
	WATER (STREAMS, PONDS, LAKE)

ALL MEASUREMENTS IN FEET

SCALE: 1" = 300'

0 100 200

TABLE 1: SAMPLING LOG SUMMARY

MSW Landfill (Permit: #57-04)

REIC Job #: 1304L11
Sampling Date: 4-17-2013 & 4-18-2013
Sampler(s): Randy Farley / Allen McBride / Billy Shirley
Weather Conditions: Cloudy and Sunny, 58 to 72°F

Property	Units	MW-1A	MW-1B	MW-1D	MW-2
Sampling Depth	Feet	4.69	4.60	53.52	13.17
Static Depth	Feet	4.65	4.60	1.60	12.35
Well Depth	Feet	31.10	17.45	63.05	20.15
Water Column Height	Feet	26.45	12.85	61.45	7.80
Volume Purged	Liters	47	23	48	12
Purging Status	-	Finished Purging	Finished Purging	Stopped Purging	Purged Dry
Physical Property	Units	MW-1A	MW-1B	MW-1D	MW-2
pH	SU	5.62 / Dup 5.63	5.59 / Dup 5.61	7.04	6.28
Temperature	°C	14.2 / Dup 14.1	13.4 / Dup 13.4	15.3	14.2
Conductivity	umhos/cm	152.9 / Dup 153.6	130.3 / Dup 130.2	596	501
Turbidity	NTU	3.47 / Dup 3.47	7.67 / Dup 7.80	390	8.09
Appearance	-	Clear	Clear	Cloudy	Clear
Odor	-	No Odor	No Odor	No Odor	No Odor
Total Suspended Solids (TSS)	mg/L	<5	7	283	36

Property	Units	MW-3A	MW-5	MW-5D	MW-10
Sampling Depth	Feet	59.91	N/A	58.70	58.29
Static Depth	Feet	59.91	55.04	58.54	56.71
Well Depth	Feet	67.62	55.20	69.82	67.60
Water Column Height	Feet	7.71	N/A	11.28	10.89
Volume Purged	Liters	14	N/A	20	8
Purging Status	-	Finished Purging	No Sample	Finished Purging	Purged Dry
Physical Property	Units	MW-3A	MW-5	MW-5D	MW-10
pH	SU	5.45 / Dup 5.44	N/A	5.72	5.57
Temperature	°C	16.6 / Dup 16.7	N/A	19.7	15.4
Conductivity	umhos/cm	28.2 / Dup 28.3	N/A	63.6	118.9
Turbidity	NTU	7.26 / Dup 7.62	N/A	39.4	>800
Appearance	-	Clear	No Sample	Cloudy	Muddy
Odor	-	No Odor	No Sample	No Odor	No Odor
Total Suspended Solids (TSS)	mg/L	<5	No Sample	53	559

TABLE 1: SAMPLING LOG SUMMARY

MSW Landfill (Permit: #57-04)

REIC Job #: 1304L11

Sampling Date: 4-17-2013 & 4-18-2013

Sampler(s): Randy Farley / Allen McBride / Billy Shirley

Weather Conditions: Cloudy and Sunny, 58 to 72°F

Property	Units	MW-14	MW-15	MW-17	MW-18
Sampling Depth	Feet	37.95	14.14	74.74	57.05
Static Depth	Feet	34.12	13.05	69.81	51.08
Well Depth	Feet	42.57	17.97	83.30	62.08
Water Column Height	Feet	8.45	4.92	13.49	11.00
Volume Purged	Liters	6	9	25	20
Purging Status	-	Purged Dry	Finished Purging	Finished Purging	Finished Purging
Physical Property	Units	MW-14	MW-15	MW-17	MW-18
pH	SU	5.37	4.75	5.01	5.84
Temperature	°C	16.1	14.4	16.0	15.2
Conductivity	umhos/cm	41.2	63.2	67.5	46.8
Turbidity	NTU	145	>800	374	64.9
Appearance	-	Cloudy	Muddy	Cloudy	Cloudy
Odor	-	No Odor	No Odor	No Odor	No Odor
Total Suspended Solids (TSS)	mg/L	120	1510	458	104

Property	Units	MW-19	MW-19A	MW-20	MW-21
Sampling Depth	Feet	20.76	47.23	12.30	20.00
Static Depth	Feet	20.50	20.19	10.91	14.05
Well Depth	Feet	25.80	57.09	23.30	26.93
Water Column Height	Feet	5.30	36.90	12.12	12.88
Volume Purged	Liters	9	22	22	23
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	6.37	5.45	6.11
Temperature	°C	14.7	16.7	9.5	13.4
Conductivity	umhos/cm	39.5	48.9	75.5	73.8
Turbidity	NTU	522	83.6	28.3	42.9
Appearance	-	Cloudy	Cloudy	Cloudy	Cloudy
Odor	-	No Odor	No Odor	No Odor	No Odor
Total Suspended Solids (TSS)	mg/L	416	41	24	12

TABLE 1: SAMPLING LOG SUMMARY

MSW Landfill (Permit: #57-04)

REIC Job #: 1304L11
Sampling Date: 4-17-2013 & 4-18-2013
Sampler(s): Randy Farley / Allen McBride / Billy Shirley
Weather Conditions: Cloudy and Sunny, 58 to 72°F

Property	Units	MW-22	MW-22A	MW-23	SW-1
Sampling Depth	Feet	16.00	30.30	5.97	-
Static Depth	Feet	14.37	11.51	5.65	-
Well Depth	Feet	25.10	42.30	30.95	-
Water Column Height	Feet	10.73	30.79	25.30	-
Volume Purged	Liters	19	33	44	-
Purging Status	-	Finished Purging	Purged Dry	Finished Purging	-
Physical Property	Units	MW-22	MW-22A	MW-23	SW-1
pH	SU	5.83	6.70	6.02	7.31
Temperature	°C	14.0	14.6	14.1	16.2
Conductivity	umhos/cm	118.6	546	272	117.9
Turbidity	NTU	>800	29.60	39.1	23.1
Appearance	-	Muddy	Cloudy	Cloudy	Clear
Odor	-	No Odor	No Odor	No Odor	No Odor
Total Suspended Solids (TSS)	mg/L	888	30	16	<5

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	6.59	6.70	6.73	8.82
Temperature	°C	15.9	16.8	18.1	19.2
Conductivity	umhos/cm	28.2	46.2	46.8	6110
Turbidity	NTU	15.18	16.72	6.52	17.53
Appearance	-	Clear	Clear	Clear	Clear
Odor	-	No Odor	No Odor	No Odor	Slight Odor
Total Suspended Solids (TSS)	mg/L	<5	9.5	5.5	25

TABLE 2: SUMMARY OF DETECTIONS

MSW Landfill - Permit No: 57-03
Macon County, North Carolina

VOCs	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
1,4-Dichlorobenzene	6	1	1.5	1.1	3.1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Benzene	1	1	*	*	1.1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Chlorobenzene	50	3	*	*	3.4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
METALs	**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**
Barium	700	100	*	*	146	166	*	140	407	117	897	151	115	368	*	*	*	574	*	*	*	*	*	*
Beryllium	4	1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.6	*	*	*	*	*	*
Chromium	10	10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	32.5	*	*	*	*	*	*
Cobalt	1	10	19.8	*	*	26.1	*	*	*	*	31.9	*	*	*	*	*	23.4	35.1	*	*	*	*	*	*
Copper	1000	10	*	*	*	*	*	*	*	*	44.2	*	*	*	*	*	*	32.2	*	*	*	*	*	*
Lead	15	10	*	*	*	*	*	*	*	*	20.4	*	*	18.2	*	*	*	17.1	*	*	*	*	*	*
Vanadium	0.3	25	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	46.8	*	*	*	*	*	*
Zinc	1000	10	*	*	23.4	10.0	*	30.2	38.7	15.5	45.7	44.4	31.9	46.0	17.2	*	*	93.1	30.7	14.4	16.7	*	11.0	18.4
Total Suspended Solids (TSS)		1	*	7	283	36	*	53	559	120	1510	458	104	416	41	24	12	888	30	16	*	*	10	6

NOTES:

SWSL - Solid Waste Section Limit
NL - constituent does not have a NC 2L Standard
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)
2701.7	-791.0	
2717.7	-759.3	35.5
2729.7	-735.2	26.9
2749.2	-697.5	42.5
2788.9	-627.7	80.3
2825.0	-566.5	71.0
2867.5	-497.7	80.8
2907.8	-435.9	73.8
2944.6	-383.5	64.1
2985.0	-330.7	66.5
3016.8	-287.5	53.7
3048.2	-244.6	53.1
3084.4	-200.5	57.1
3112.1	-169.9	41.2
3138.2	-144.5	36.4
3165.2	-122.4	34.9
3193.4	-104.3	33.5
3228.3	-90.4	37.6
3272.2	-79.7	45.2
3319.3	-69.5	48.2

Hydraulic gradient, I =	0.061	ft / ft
K =	4.9E-05	cm / sec
n_{eff} =	0.27	
V = KI / n_{eff} =	10	ft / yr

Horizontal Distance	982.3	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

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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			Concrete/Grout Pad Present	x	
Cap on Well Riser	x		2" PVC Casing	x	

Comments:

PURGING DATA

Date/Time: 4/18/2013 07:29 | Weather Conditions: Cloudy 59 °F

Static Depth (Depth to Water)	4.65	(Ft)	Volume	15.31	(Liters)
Well Depth	31.10	(Ft)	3 Volumes	45.94	(Liters)
Water Column Height	26.45	(Ft)	Volume Purged	47.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
07:43	5.71	163.3	12.5	5.70	1
07:45	5.71	160.5	13.1	103.00	9
07:47	5.63	157.5	13.4	27.00	18
07:50	5.66	155.1	13.1	15.28	27
07:52	5.64	154.6	13.7	7.06	36
07:55	5.66	153.9	13.6	6.20	45
07:55		Finished Purging			47

SAMPLING DATA

Date: 4/18/2013 | Time: 08:00

Method: Teflon Bailer | Sampling Depth: 4.69'

pH: 5.62 / Dup 5.63 ***(SU)*** | Conductivity: 152.9 / Dup 153.6 ***(umhos/cm)***

Temperature: 14.2 / Dup 14.1 ***(^{o} C)*** | Turbidity: 3.47 / Dup 3.47 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Clear | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 07:34 | Weather Conditions: Cloudy 59 °F

Static Depth (Depth to Water)	4.60	(Ft)	Volume	7.44	(Liters)
Well Depth	17.45	(Ft)	3 Volumes	22.32	(Liters)
Water Column Height	12.85	(Ft)	Volume Purged	23.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
08:08	5.59	130.5	14.2	1.16	1
08:09	5.64	132.1	12.4	6.02	4
08:10	5.61	132.1	12.1	6.64	8
08:11	5.60	131.3	12.4	10.93	12
08:12	5.60	131.2	12.5	11.08	16
08:13	5.60	131.1	12.6	9.81	20
08:14		Finished Purging			23

SAMPLING DATA

Date: 4/18/2013 | Time: 08:20

Method: Teflon Bailer | Sampling Depth: 4.60'

pH: 5.59 / Dup 5.61 ***(SU)*** | Conductivity: 130.3 / Dup 130.2 ***(umhos/cm)***

Temperature: 13.4 / Dup 13.4 ***(^{o} C)*** | Turbidity: 7.67 / Dup 7.80 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Clear | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 07:20 | Weather Conditions: Cloudy 58 °F

Static Depth (Depth to Water)	1.60	(Ft)	Volume	35.57	(Liters)
Well Depth	63.05	(Ft)	3 Volumes	106.73	(Liters)
Water Column Height	61.45	(Ft)	Volume Purged	48.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
07:25	7.73	621.0	15.4	1.40	1
07:28	7.44	626.0	14.4	2.52	16
07:32	7.03	655.0	14.3	15.31	32
07:37	7.01	748.0	14.4	>800	48
07:37		Stopped Purging			48

SAMPLING DATA

Date: 4/18/2013 | Time: 11:32

Method: Teflon Bailer | Sampling Depth: 53.52'

pH: 7.04 ***(SU)*** | Conductivity: 596 ***(umhos/cm)***

Temperature: 15.3 ***(^{o} C)*** | Turbidity: 390 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 12:08 | Weather Conditions: Cloudy 70 °F

Static Depth (Depth to Water)	12.35	(Ft)	Volume	4.51	(Liters)
Well Depth	20.15	(Ft)	3 Volumes	13.54	(Liters)
Water Column Height	7.80	(Ft)	Volume Purged	12.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
12:12	6.26	472.0	14.6	3.39	1
12:13	6.27	482.0	13.7	48.10	4
12:15	6.29	522.0	13.9	14.00	8
12:17	6.37	550.0	14.0	186.00	12
12:17		Purged Dry			12

SAMPLING DATA

Date: 4/18/2013 | Time: 12:28

Method: Teflon Bailer | Sampling Depth: 13.17'

pH: 6.28 ***(SU)*** | Conductivity: 501 ***(umhos/cm)***

Temperature: 14.2 ***(^{o} C)*** | Turbidity: 8.09 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Clear | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 13:27 | Weather Conditions: Cloudy 72 °F

Static Depth (Depth to Water)	59.91	(Ft)	Volume	4.46	(Liters)
Well Depth	67.62	(Ft)	3 Volumes	13.39	(Liters)
Water Column Height	7.71	(Ft)	Volume Purged	14.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
13:30	5.48	28.1	17.1	17.00	1
13:31	5.39	27.5	16.4	4.45	3
13:32	5.36	27.4	16.1	4.46	5
13:33	5.40	27.7	16.0	5.12	7
13:34	5.38	28.0	15.9	8.62	9
13:35	5.39	28.0	15.9	7.01	11
13:36		Finished Purging			14

SAMPLING DATA

Date: 4/18/2013 | Time: 13:40

Method: Teflon Bailer | Sampling Depth: 59.91'

pH: 5.45 / Dup 5.44 ***(SU)*** | Conductivity: 28.2 / Dup 28.3 ***(umhos/cm)***

Temperature: 16.6 / Dup 16.7 ***(^{o} C)*** | Turbidity: 7.26 / Dup 7.62 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Clear | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 13:15 | Weather Conditions: °F

Static Depth (Depth to Water)	55.04	(Ft)	Volume	N/A (Liters)
Well Depth	55.20	(Ft)	3 Volumes	N/A (Liters)
Water Column Height	N/A	(Ft)	Volume Purged	N/A (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
		No Sample			

SAMPLING DATA

Date: N/A | Time: N/A

Method: N/A | Sampling Depth: N/A

pH: N/A ***(SU)*** | Conductivity: N/A ***(umhos/cm)***

Temperature: N/A ***(^{o} C)*** | Turbidity: N/A ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: No Sample | Odor: No Sample

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 13:05 | Weather Conditions: Cloudy 72 °F

Static Depth (Depth to Water)	58.54	(Ft)	Volume	6.53	(Liters)
Well Depth	69.82	(Ft)	3 Volumes	19.59	(Liters)
Water Column Height	11.28	(Ft)	Volume Purged	20.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
13:09	5.85	131.7	19.7	3.13	1
13:11	5.83	83.1	19.5	47.90	4
13:12	5.74	66.9	19.6	39.50	8
13:14	5.75	67.7	19.5	54.60	12
13:16	5.73	66.1	19.4	61.70	16
13:18	5.71	65.9	19.4	66.40	20
13:18		Finished Purging			20

SAMPLING DATA

Date: 4/18/2013 | Time: 13:21

Method: Teflon Bailer | Sampling Depth: 58.70'

pH: 5.72 ***(SU)*** | Conductivity: 63.6 ***(umhos/cm)***

Temperature: 19.7 ***(^{o} C)*** | Turbidity: 39.4 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 14:47 | Weather Conditions: Cloudy 72 °F

Static Depth (Depth to Water)	56.71	(Ft)	Volume	6.30 (Liters)
Well Depth	67.60	(Ft)	3 Volumes	18.91 (Liters)
Water Column Height	10.89	(Ft)	Volume Purged	8.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
14:51	5.45	113.5	15.1	167.00	1
14:52	5.56	120.8	15.0	>800	4
14:54	5.90	130.1	14.8	>800	8
14:54		Purged Dry			8

SAMPLING DATA

Date: 4/18/2013 | Time: 15:15

Method: Teflon Bailer | Sampling Depth: 58.29'

pH: 5.57 ***(SU)*** | Conductivity: 118.9 ***(umhos/cm)***

Temperature: 15.4 ***(^{o} C)*** | Turbidity: >800 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Muddy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 16:07 | Weather Conditions: Cloudy 72 °F

Static Depth (Depth to Water)	34.12	(Ft)	Volume	4.89	(Liters)
Well Depth	42.57	(Ft)	3 Volumes	14.67	(Liters)
Water Column Height	8.45	(Ft)	Volume Purged	6.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
16:08	5.04	49.30	16.0	85.70	1
16:10	5.09	48.30	15.2	>800	3
16:11	5.16	47.90	14.6	>800	5
16:12		Purged Dry			6

SAMPLING DATA

Date: 4/18/2013 | Time: 16:23

Method: Teflon Bailer | Sampling Depth: 37.95'

pH: 5.37 ***(SU)*** | Conductivity: 41.2 ***(umhos/cm)***

Temperature: 16.1 ***(^{o} C)*** | Turbidity: 145 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 15:51 | Weather Conditions: Cloudy 72 °F

Static Depth (Depth to Water)	13.05	(Ft)	Volume	2.84 (Liters)
Well Depth	17.97	(Ft)	3 Volumes	8.54 (Liters)
Water Column Height	4.92	(Ft)	Volume Purged	9.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
15:54	4.85	50.70	14.0	64.60	1
15:55	4.76	59.30	13.0	>800	3
15:56	4.74	60.50	12.6	>800	5
15:57	4.75	62.10	12.7	>800	7
15:58	4.70	62.90	12.7	>800	9
15:58		Finished Purging			9

SAMPLING DATA

Date: 4/18/2013 | Time: 16:00

Method: Teflon Bailer | Sampling Depth: 14.14'

pH: 4.75 ***(SU)*** | Conductivity: 63.2 ***(umhos/cm)***

Temperature: 14.4 ***(^{o} C)*** | Turbidity: >800 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Muddy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 14:00 | Weather Conditions: Cloudy 72 °F

Static Depth (Depth to Water)	69.81	(Ft)	Volume	7.81	(Liters)
Well Depth	83.30	(Ft)	3 Volumes	23.43	(Liters)
Water Column Height	13.49	(Ft)	Volume Purged	25.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
14:03	5.02	71.9	16.4	6.35	1
14:05	5.03	71.8	15.7	507.00	5
14:08	5.02	68.7	15.6	386.00	10
14:10	4.99	67.0	15.4	306.00	15
14:12	5.06	66.4	15.4	447.00	20
14:15	4.99	66.7	15.4	357.00	25
14:15		Finished Purging			25

SAMPLING DATA

Date: 4/18/2013 | Time: 14:18

Method: Teflon Bailer | Sampling Depth: 74.74'

pH: 5.01 ***(SU)*** | Conductivity: 67.5 ***(umhos/cm)***

Temperature: 16.0 ***(^{o} C)*** | Turbidity: 374 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 14:27 | Weather Conditions: Cloudy 72 °F

Static Depth (Depth to Water)	51.08	(Ft)	Volume	6.36	(Liters)
Well Depth	62.08	(Ft)	3 Volumes	19.10	(Liters)
Water Column Height	11.00	(Ft)	Volume Purged	20.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
14:30	5.55	36.9	16.1	4.54	1
14:32	5.60	40.5	15.4	117.00	4
14:34	5.61	37.4	15.2	90.00	8
14:36	5.70	36.1	14.9	106.00	12
14:38	5.73	40.8	15.0	80.10	16
14:40	5.82	46.1	15.0	52.20	20
14:40		Finished Purging			20

SAMPLING DATA

Date: 4/18/2013 | Time: 14:42

Method: Teflon Bailer | Sampling Depth: 57.05'

pH: 5.84 ***(SU)*** | Conductivity: 46.8 ***(umhos/cm)***

Temperature: 15.2 ***(^{o} C)*** | Turbidity: 64.9 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 09:09 | Weather Conditions: Cloudy 65 °F

Static Depth (Depth to Water)	20.50	(Ft)	Volume	3.06	(Liters)
Well Depth	25.80	(Ft)	3 Volumes	9.20	(Liters)
Water Column Height	5.30	(Ft)	Volume Purged	9.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
09:11	5.43	41.7	14.7	29.20	1
09:13	5.39	40.5	14.4	446.00	3
09:14	5.38	41.1	14.2	540.00	5
09:15	5.42	40.1	14.2	>800	7
09:16	5.40	39.7	14.2	>800	9
09:16		Finished Purging			9

SAMPLING DATA

Date: 4/18/2013 | Time: 09:19

Method: Teflon Bailer | Sampling Depth: 20.76'

pH: 5.42 ***(SU)*** | Conductivity: 39.5 ***(umhos/cm)***

Temperature: 14.7 ***(^{o} C)*** | Turbidity: 522 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 08:42 | Weather Conditions: Cloudy 65 °F

Static Depth (Depth to Water)	20.19	(Ft)	Volume	21.36	(Liters)
Well Depth	57.09	(Ft)	3 Volumes	64.09	(Liters)
Water Column Height	36.90	(Ft)	Volume Purged	22.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
08:54	6.20	42.1	14.8	69.40	1
09:00	6.17	41.5	14.6	113.00	10
09:06	6.22	42.4	14.6	153.00	20
09:07		Purged Dry			22

SAMPLING DATA

Date: 4/18/2013 | Time: 11:47

Method: Teflon Bailer | Sampling Depth: 47.23'

pH: 6.37 ***(SU)*** | Conductivity: 48.9 ***(umhos/cm)***

Temperature: 16.7 ***(^{o} C)*** | Turbidity: 83.6 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 09:32 | Weather Conditions: Cloudy 65 °F

Static Depth (Depth to Water)	10.91	(Ft)	Volume	7.01	(Liters)
Well Depth	23.30	(Ft)	3 Volumes	21.05	(Liters)
Water Column Height	12.12	(Ft)	Volume Purged	22.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
09:34	5.25	74.2	10.0	>800	1
09:35	5.35	69.1	9.3	188.00	4
09:36	5.40	69.3	9.1	61.00	8
09:37	5.43	71.4	8.9	67.70	12
09:38	5.45	72.8	8.9	46.10	16
09:40	5.44		9.1	47.30	20
09:40		Finished Purging			22

SAMPLING DATA

Date: 4/18/2013 | Time: 09:42

Method: Teflon Bailer | Sampling Depth: 12.30'

pH: 5.45 ***(SU)*** | Conductivity: 75.5 ***(umhos/cm)***

Temperature: 09.5 ***(^{o} C)*** | Turbidity: 28.3 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 09:47 | Weather Conditions: Cloudy 65 °F

Static Depth (Depth to Water)	14.05	(Ft)	Volume	7.45	(Liters)
Well Depth	26.93	(Ft)	3 Volumes	22.37	(Liters)
Water Column Height	12.88	(Ft)	Volume Purged	23.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
09:51	5.48	48.3	13.3	28.20	1
09:52	5.64	53.0	12.8	47.30	4
09:53	5.99	66.3	12.6	57.20	8
09:54	6.09	71.9	12.7	66.70	12
09:56	6.04	70.7	12.8	59.70	16
09:57	6.11	73.3	13.0	49.00	20
09:58		Finished Purging			23

SAMPLING DATA

Date: 4/18/2013 | Time: 10:00

Method: Teflon Bailer | Sampling Depth: 20.00'

pH: 6.11 ***(SU)*** | Conductivity: 73.8 ***(umhos/cm)***

Temperature: 13.4 ***(^{o} C)*** | Turbidity: 42.9 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 10:13 | Weather Conditions: Cloudy 67 °F

Static Depth (Depth to Water)	14.37	(Ft)	Volume	6.21 (Liters)
Well Depth	25.10	(Ft)	3 Volumes	18.63 (Liters)
Water Column Height	10.73	(Ft)	Volume Purged	19.00 (Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
10:26	5.92	115.0	13.9	3.90	1
10:28	5.88	98.9	13.5	656.00	4
10:29	5.88	95.3	13.5	>800	8
10:31	5.86	104.5	13.5	>800	12
10:33	5.84	108.3	13.5	>800	16
10:34		Finished Purging			19

SAMPLING DATA

Date: 4/18/2013 | Time: 10:36

Method: Teflon Bailer | Sampling Depth: 16.00'

pH: 5.83 ***(SU)*** | Conductivity: 118.6 ***(umhos/cm)***

Temperature: 14.0 ***(^{o} C)*** | Turbidity: >800 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Muddy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 10:09 | Weather Conditions: Cloudy 67 °F

Static Depth (Depth to Water)	11.51	(Ft)	Volume	17.82	(Liters)
Well Depth	42.30	(Ft)	3 Volumes	53.48	(Liters)
Water Column Height	30.79	(Ft)	Volume Purged	33.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
10:12	7.51	197.2	13.4	5.20	1
10:15	7.76	265.0	14.0	43.50	10
10:17	6.51	307.0	14.4	24.00	20
10:19	6.43	368.0	14.3	602.00	30
10:20		Purged Dry			33

SAMPLING DATA

Date: 4/18/2013 | Time: 10:41

Method: Teflon Bailer | Sampling Depth: 30.30'

pH: 6.70 ***(SU)*** | Conductivity: 546 ***(umhos/cm)***

Temperature: 14.6 ***(^{o} C)*** | Turbidity: 29.6 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

REI CONSULTANTS, INC. GROUNDWATER SAMPLING LOG

Project Name: MSW Landfill | Project : 1st Semi 2013 | 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: 4/18/2013 10:47 | Weather Conditions: Cloudy 69 °F

Static Depth (Depth to Water)	5.65	(Ft)	Volume	14.64	(Liters)
Well Depth	30.95	(Ft)	3 Volumes	43.94	(Liters)
Water Column Height	25.30	(Ft)	Volume Purged	44.00	(Liters)

EVACUATION/STABILIZATION TEST DATA

Time	pH (SU)	Temperature Corrected Conductivity (umhos/cm)	Temperature (^oC)	Turbidity (NTU)	Volume Purged (Liters)
10:49	6.04	272.0	12.8	1.48	1
10:51	6.03	199.0	12.8	30.10	8
10:53	6.03	270.0	13.7	416.00	16
10:55	6.06	272.0	13.9	207.00	24
10:58	6.07	272.0	14.2	193.00	32
11:00	6.09	272.0	14.1	214.00	40
11:01		Finished Purging			44

SAMPLING DATA

Date: 4/18/2013 | Time: 11:25

Method: Teflon Bailer | Sampling Depth: 5.97'

pH: 6.02 ***(SU)*** | Conductivity: 272 ***(umhos/cm)***

Temperature: 14.1 ***(^{o} C)*** | Turbidity: 39.1 ***(NTU)***

PHYSICAL CHARACTERISTICS OF SAMPLE

Appearance: Cloudy | Odor: No Odor

Comments:

Sampled By: Randy Farley / Allen McBride / Billy Shirley

Sampler's Signature: Allen McBride | Date: 4/18/2013

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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Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.777.1276

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Thursday, May 02, 2013

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

TEL: (828) 349-2100
FAX: (828) 349-2185

RE: 1 ST SEMI 2013

Work Order #: 1304L11

Dear Mr. Chris Stahl:

REI Consultants, Inc. received 26 sample(s) on 4/19/2013 for the analyses presented in the following report.

Sincerely,

Michelle Ellison

Michelle Ellison

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 12:00:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-01A	**Matrix:**	Groundwater
Client Sample ID:	MW-1A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 4:54 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 4:54 PM
Barium	0.0500	0.0010	0.100	NA	J	mg/L	4/23/2013 4:54 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 4:54 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 4:54 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 4:54 PM
Cobalt	0.0198	0.0010	0.0100	NA		mg/L	4/23/2013 4:54 PM
Copper	ND	0.0010	0.0100	NA		mg/L	4/23/2013 4:54 PM
Lead	ND	0.0002	0.0100	NA		mg/L	4/23/2013 4:54 PM
Nickel	0.0030	0.0020	0.0500	NA	J	mg/L	4/23/2013 4:54 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 4:54 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 4:54 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 4:54 PM
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/23/2013 4:54 PM
Zinc	0.0057	0.0030	0.0100	NA	J	mg/L	4/23/2013 4:54 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: TC**
Acetone	ND	4.88	100	NA		µg/L	4/22/2013 10:50 PM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/22/2013 10:50 PM
Benzene	0.420	0.129	1.00	NA	J	µg/L	4/22/2013 10:50 PM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/22/2013 10:50 PM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/22/2013 10:50 PM
Bromoform	ND	0.400	3.00	NA		µg/L	4/22/2013 10:50 PM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/22/2013 10:50 PM
2-Butanone	ND	4.68	100	NA		µg/L	4/22/2013 10:50 PM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/22/2013 10:50 PM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/22/2013 10:50 PM
Chlorobenzene	1.90	0.177	3.00	NA	J	µg/L	4/22/2013 10:50 PM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/22/2013 10:50 PM
Chloroform	ND	0.253	5.00	NA		µg/L	4/22/2013 10:50 PM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/22/2013 10:50 PM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/22/2013 10:50 PM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/22/2013 10:50 PM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/22/2013 10:50 PM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/22/2013 10:50 PM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/22/2013 10:50 PM
1,4-Dichlorobenzene	1.54	0.287	1.00	NA		µg/L	4/22/2013 10:50 PM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/22/2013 10:50 PM
1,1-Dichloroethane	0.490	0.383	5.00	NA	J	µg/L	4/22/2013 10:50 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 12:00:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-01A	**Matrix:**	Groundwater
Client Sample ID:	MW-1A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/22/2013 10:50 PM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/22/2013 10:50 PM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/22/2013 10:50 PM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/22/2013 10:50 PM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/22/2013 10:50 PM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/22/2013 10:50 PM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/22/2013 10:50 PM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/22/2013 10:50 PM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/22/2013 10:50 PM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/22/2013 10:50 PM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/22/2013 10:50 PM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/22/2013 10:50 PM
Styrene	ND	0.240	1.00	NA		µg/L	4/22/2013 10:50 PM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/22/2013 10:50 PM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/22/2013 10:50 PM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/22/2013 10:50 PM
Toluene	ND	0.167	1.00	NA		µg/L	4/22/2013 10:50 PM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/22/2013 10:50 PM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/22/2013 10:50 PM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/22/2013 10:50 PM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/22/2013 10:50 PM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/22/2013 10:50 PM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/22/2013 10:50 PM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/22/2013 10:50 PM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/22/2013 10:50 PM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/22/2013 10:50 PM
Surr: 1,2-Dichloroethane-d4	106	NA	68.7-129	NA		%REC	4/22/2013 10:50 PM
Surr: 4-Bromofluorobenzene	98.6	NA	71.8-127	NA		%REC	4/22/2013 10:50 PM
Surr: Dibromofluoromethane	106	NA	74.3-124	NA		%REC	4/22/2013 10:50 PM
Surr: Toluene-d8	97.9	NA	71.4-129	NA		%REC	4/22/2013 10:50 PM

TOTAL SUSPENDED SOLIDS **Method: SM2540 D** **Analyst: SF**

Total Suspended Solids	1.0	1.0	5.0	NA	J	mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 8:20:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-02A	**Matrix:**	Groundwater
Client Sample ID:	MW-1B	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 5:11 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:11 PM
Barium	0.0534	0.0010	0.100	NA	J	mg/L	4/23/2013 5:11 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 5:11 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 5:11 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:11 PM
Cobalt	0.0074	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:11 PM
Copper	0.0011	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:11 PM
Lead	ND	0.0002	0.0100	NA		mg/L	4/23/2013 5:11 PM
Nickel	0.0028	0.0020	0.0500	NA	J	mg/L	4/23/2013 5:11 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:11 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:11 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 5:11 PM
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/23/2013 5:11 PM
Zinc	0.0030	0.0030	0.0100	NA	J	mg/L	4/23/2013 5:11 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: TC**
Acetone	ND	4.88	100	NA		µg/L	4/22/2013 11:24 PM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/22/2013 11:24 PM
Benzene	0.330	0.129	1.00	NA	J	µg/L	4/22/2013 11:24 PM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/22/2013 11:24 PM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/22/2013 11:24 PM
Bromoform	ND	0.400	3.00	NA		µg/L	4/22/2013 11:24 PM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/22/2013 11:24 PM
2-Butanone	ND	4.68	100	NA		µg/L	4/22/2013 11:24 PM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/22/2013 11:24 PM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/22/2013 11:24 PM
Chlorobenzene	1.63	0.177	3.00	NA	J	µg/L	4/22/2013 11:24 PM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/22/2013 11:24 PM
Chloroform	ND	0.253	5.00	NA		µg/L	4/22/2013 11:24 PM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/22/2013 11:24 PM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/22/2013 11:24 PM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/22/2013 11:24 PM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/22/2013 11:24 PM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/22/2013 11:24 PM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/22/2013 11:24 PM
1,4-Dichlorobenzene	1.13	0.287	1.00	NA		µg/L	4/22/2013 11:24 PM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/22/2013 11:24 PM
1,1-Dichloroethane	0.400	0.383	5.00	NA	J	µg/L	4/22/2013 11:24 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 8:20:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-02A	**Matrix:**	Groundwater
Client Sample ID:	MW-1B	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/22/2013 11:24 PM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/22/2013 11:24 PM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/22/2013 11:24 PM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/22/2013 11:24 PM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/22/2013 11:24 PM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/22/2013 11:24 PM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/22/2013 11:24 PM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/22/2013 11:24 PM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/22/2013 11:24 PM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/22/2013 11:24 PM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/22/2013 11:24 PM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/22/2013 11:24 PM
Styrene	ND	0.240	1.00	NA		µg/L	4/22/2013 11:24 PM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/22/2013 11:24 PM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/22/2013 11:24 PM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/22/2013 11:24 PM
Toluene	ND	0.167	1.00	NA		µg/L	4/22/2013 11:24 PM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/22/2013 11:24 PM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/22/2013 11:24 PM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/22/2013 11:24 PM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/22/2013 11:24 PM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/22/2013 11:24 PM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/22/2013 11:24 PM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/22/2013 11:24 PM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/22/2013 11:24 PM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/22/2013 11:24 PM
Surr: 1,2-Dichloroethane-d4	106	NA	68.7-129	NA		%REC	4/22/2013 11:24 PM
Surr: 4-Bromofluorobenzene	95.5	NA	71.8-127	NA		%REC	4/22/2013 11:24 PM
Surr: Dibromofluoromethane	110	NA	74.3-124	NA		%REC	4/22/2013 11:24 PM
Surr: Toluene-d8	97.4	NA	71.4-129	NA		%REC	4/22/2013 11:24 PM

TOTAL SUSPENDED SOLIDS **Method: SM2540 D** **Analyst: SF**

Total Suspended Solids	6.5	1.0	5.0	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 11:30:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-03A	**Matrix:**	Groundwater
Client Sample ID:	MW-1D	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 5:27 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:27 PM
Barium	0.146	0.0010	0.100	NA		mg/L	4/23/2013 5:27 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 5:27 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 5:27 PM
Chromium	0.0068	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:27 PM
Cobalt	0.0098	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:27 PM
Copper	0.0046	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:27 PM
Lead	0.0021	0.0002	0.0100	NA	J	mg/L	4/23/2013 5:27 PM
Nickel	0.0117	0.0020	0.0500	NA	J	mg/L	4/23/2013 5:27 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:27 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:27 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 5:27 PM
Vanadium	0.0222	0.0010	0.0250	NA	J	mg/L	4/23/2013 5:27 PM
Zinc	0.0234	0.0030	0.0100	NA		mg/L	4/23/2013 5:27 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: TC**
Acetone	ND	4.88	100	NA		µg/L	4/22/2013 11:58 PM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/22/2013 11:58 PM
Benzene	1.14	0.129	1.00	NA		µg/L	4/22/2013 11:58 PM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/22/2013 11:58 PM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/22/2013 11:58 PM
Bromoform	ND	0.400	3.00	NA		µg/L	4/22/2013 11:58 PM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/22/2013 11:58 PM
2-Butanone	ND	4.68	100	NA		µg/L	4/22/2013 11:58 PM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/22/2013 11:58 PM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/22/2013 11:58 PM
Chlorobenzene	3.44	0.177	3.00	NA		µg/L	4/22/2013 11:58 PM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/22/2013 11:58 PM
Chloroform	ND	0.253	5.00	NA		µg/L	4/22/2013 11:58 PM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/22/2013 11:58 PM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/22/2013 11:58 PM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/22/2013 11:58 PM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/22/2013 11:58 PM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/22/2013 11:58 PM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/22/2013 11:58 PM
1,4-Dichlorobenzene	3.14	0.287	1.00	NA		µg/L	4/22/2013 11:58 PM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/22/2013 11:58 PM
1,1-Dichloroethane	1.75	0.383	5.00	NA	J	µg/L	4/22/2013 11:58 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 11:30:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-03A	**Matrix:**	Groundwater
Client Sample ID:	MW-1D	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/22/2013 11:58 PM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/22/2013 11:58 PM
cis-1,2-Dichloroethene	0.710	0.226	5.00	NA	J	µg/L	4/22/2013 11:58 PM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/22/2013 11:58 PM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/22/2013 11:58 PM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/22/2013 11:58 PM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/22/2013 11:58 PM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/22/2013 11:58 PM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/22/2013 11:58 PM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/22/2013 11:58 PM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/22/2013 11:58 PM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/22/2013 11:58 PM
Styrene	ND	0.240	1.00	NA		µg/L	4/22/2013 11:58 PM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/22/2013 11:58 PM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/22/2013 11:58 PM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/22/2013 11:58 PM
Toluene	ND	0.167	1.00	NA		µg/L	4/22/2013 11:58 PM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/22/2013 11:58 PM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/22/2013 11:58 PM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/22/2013 11:58 PM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/22/2013 11:58 PM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/22/2013 11:58 PM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/22/2013 11:58 PM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/22/2013 11:58 PM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/22/2013 11:58 PM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/22/2013 11:58 PM
Surr: 1,2-Dichloroethane-d4	108	NA	68.7-129	NA		%REC	4/22/2013 11:58 PM
Surr: 4-Bromofluorobenzene	95.3	NA	71.8-127	NA		%REC	4/22/2013 11:58 PM
Surr: Dibromofluoromethane	110	NA	74.3-124	NA		%REC	4/22/2013 11:58 PM
Surr: Toluene-d8	96.0	NA	71.4-129	NA		%REC	4/22/2013 11:58 PM

TOTAL SUSPENDED SOLIDS **Method: SM2540 D** **Analyst: SF**

Total Suspended Solids	283	2.0	10	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 12:28:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-04A	**Matrix:**	Groundwater
Client Sample ID:	MW-2	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 5:33 PM
Arsenic	0.0015	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:33 PM
Barium	0.166	0.0010	0.100	NA		mg/L	4/23/2013 5:33 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 5:33 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 5:33 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:33 PM
Cobalt	0.0261	0.0010	0.0100	NA		mg/L	4/23/2013 5:33 PM
Copper	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:33 PM
Lead	ND	0.0002	0.0100	NA		mg/L	4/23/2013 5:33 PM
Nickel	ND	0.0020	0.0500	NA		mg/L	4/23/2013 5:33 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:33 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:33 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 5:33 PM
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/23/2013 5:33 PM
Zinc	0.0100	0.0030	0.0100	NA		mg/L	4/23/2013 5:33 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: TC**
Acetone	ND	4.88	100	NA		µg/L	4/23/2013 12:32 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/23/2013 12:32 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/23/2013 12:32 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/23/2013 12:32 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/23/2013 12:32 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/23/2013 12:32 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/23/2013 12:32 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/23/2013 12:32 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/23/2013 12:32 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/23/2013 12:32 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/23/2013 12:32 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/23/2013 12:32 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/23/2013 12:32 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/23/2013 12:32 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/23/2013 12:32 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/23/2013 12:32 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/23/2013 12:32 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/23/2013 12:32 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/23/2013 12:32 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/23/2013 12:32 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/23/2013 12:32 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/23/2013 12:32 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 12:28:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-04A	**Matrix:**	Groundwater
Client Sample ID:	MW-2	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/23/2013 12:32 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/23/2013 12:32 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/23/2013 12:32 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/23/2013 12:32 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/23/2013 12:32 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/23/2013 12:32 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/23/2013 12:32 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/23/2013 12:32 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/23/2013 12:32 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/23/2013 12:32 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/23/2013 12:32 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/23/2013 12:32 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/23/2013 12:32 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/23/2013 12:32 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/23/2013 12:32 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/23/2013 12:32 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/23/2013 12:32 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/23/2013 12:32 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/23/2013 12:32 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/23/2013 12:32 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/23/2013 12:32 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/23/2013 12:32 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/23/2013 12:32 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/23/2013 12:32 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/23/2013 12:32 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/23/2013 12:32 AM
Surr: 1,2-Dichloroethane-d4	109	NA	68.7-129	NA		%REC	4/23/2013 12:32 AM
Surr: 4-Bromofluorobenzene	96.7	NA	71.8-127	NA		%REC	4/23/2013 12:32 AM
Surr: Dibromofluoromethane	106	NA	74.3-124	NA		%REC	4/23/2013 12:32 AM
Surr: Toluene-d8	95.9	NA	71.4-129	NA		%REC	4/23/2013 12:32 AM
TOTAL SUSPENDED SOLIDS		**Method: SM2540 D**					**Analyst: SF**
Total Suspended Solids	36.0	2.0	10	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 1:40:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-05A	**Matrix:**	Groundwater
Client Sample ID:	MW-3A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 5:38 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:38 PM
Barium	0.0522	0.0010	0.100	NA	J	mg/L	4/23/2013 5:38 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 5:38 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 5:38 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:38 PM
Cobalt	0.0017	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:38 PM
Copper	0.0011	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:38 PM
Lead	ND	0.0002	0.0100	NA		mg/L	4/23/2013 5:38 PM
Nickel	ND	0.0020	0.0500	NA		mg/L	4/23/2013 5:38 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:38 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:38 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 5:38 PM
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/23/2013 5:38 PM
Zinc	0.0072	0.0030	0.0100	NA	J	mg/L	4/23/2013 5:38 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: TC**
Acetone	ND	4.88	100	NA		µg/L	4/23/2013 10:09 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/23/2013 10:09 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/23/2013 10:09 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/23/2013 10:09 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/23/2013 10:09 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/23/2013 10:09 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/23/2013 10:09 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/23/2013 10:09 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/23/2013 10:09 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/23/2013 10:09 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/23/2013 10:09 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/23/2013 10:09 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/23/2013 10:09 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/23/2013 10:09 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/23/2013 10:09 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/23/2013 10:09 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/23/2013 10:09 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/23/2013 10:09 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/23/2013 10:09 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/23/2013 10:09 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/23/2013 10:09 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/23/2013 10:09 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 1:40:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-05A	**Matrix:**	Groundwater
Client Sample ID:	MW-3A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/23/2013 10:09 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/23/2013 10:09 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/23/2013 10:09 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/23/2013 10:09 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/23/2013 10:09 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/23/2013 10:09 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/23/2013 10:09 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/23/2013 10:09 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/23/2013 10:09 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/23/2013 10:09 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/23/2013 10:09 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/23/2013 10:09 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/23/2013 10:09 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/23/2013 10:09 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/23/2013 10:09 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/23/2013 10:09 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/23/2013 10:09 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/23/2013 10:09 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/23/2013 10:09 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/23/2013 10:09 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/23/2013 10:09 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/23/2013 10:09 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/23/2013 10:09 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/23/2013 10:09 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/23/2013 10:09 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/23/2013 10:09 AM
Surr: 1,2-Dichloroethane-d4	104	NA	68.7-129	NA		%REC	4/23/2013 10:09 AM
Surr: 4-Bromofluorobenzene	98.2	NA	71.8-127	NA		%REC	4/23/2013 10:09 AM
Surr: Dibromofluoromethane	109	NA	74.3-124	NA		%REC	4/23/2013 10:09 AM
Surr: Toluene-d8	97.8	NA	71.4-129	NA		%REC	4/23/2013 10:09 AM

TOTAL SUSPENDED SOLIDS **Method: SM2540 D** **Analyst: SF**

Total Suspended Solids	4.0	1.0	5.0	NA	J	mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 1:21:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-06A	**Matrix:**	Groundwater
Client Sample ID:	MW-5D	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 5:44 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:44 PM
Barium	0.140	0.0010	0.100	NA		mg/L	4/23/2013 5:44 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 5:44 PM
Cadmium	0.0007	0.0002	0.0010	NA	J	mg/L	4/23/2013 5:44 PM
Chromium	0.0039	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:44 PM
Cobalt	0.0043	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:44 PM
Copper	0.0046	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:44 PM
Lead	0.0019	0.0002	0.0100	NA	J	mg/L	4/23/2013 5:44 PM
Nickel	0.0031	0.0020	0.0500	NA	J	mg/L	4/23/2013 5:44 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:44 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:44 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 5:44 PM
Vanadium	0.0040	0.0010	0.0250	NA	J	mg/L	4/23/2013 5:44 PM
Zinc	0.0302	0.0030	0.0100	NA		mg/L	4/23/2013 5:44 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: TC**
Acetone	ND	4.88	100	NA		µg/L	4/23/2013 10:43 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/23/2013 10:43 AM
Benzene	0.470	0.129	1.00	NA	J	µg/L	4/23/2013 10:43 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/23/2013 10:43 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/23/2013 10:43 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/23/2013 10:43 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/23/2013 10:43 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/23/2013 10:43 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/23/2013 10:43 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/23/2013 10:43 AM
Chlorobenzene	0.330	0.177	3.00	NA	J	µg/L	4/23/2013 10:43 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/23/2013 10:43 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/23/2013 10:43 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/23/2013 10:43 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/23/2013 10:43 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/23/2013 10:43 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/23/2013 10:43 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/23/2013 10:43 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/23/2013 10:43 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/23/2013 10:43 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/23/2013 10:43 AM
1,1-Dichloroethane	0.520	0.383	5.00	NA	J	µg/L	4/23/2013 10:43 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 1:21:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-06A	**Matrix:**	Groundwater
Client Sample ID:	MW-5D	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/23/2013 10:43 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/23/2013 10:43 AM
cis-1,2-Dichloroethene	0.580	0.226	5.00	NA	J	µg/L	4/23/2013 10:43 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/23/2013 10:43 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/23/2013 10:43 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/23/2013 10:43 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/23/2013 10:43 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/23/2013 10:43 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/23/2013 10:43 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/23/2013 10:43 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/23/2013 10:43 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/23/2013 10:43 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/23/2013 10:43 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/23/2013 10:43 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/23/2013 10:43 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/23/2013 10:43 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/23/2013 10:43 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/23/2013 10:43 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/23/2013 10:43 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/23/2013 10:43 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/23/2013 10:43 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/23/2013 10:43 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/23/2013 10:43 AM
Vinyl chloride	0.310	0.223	1.00	NA	J	µg/L	4/23/2013 10:43 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/23/2013 10:43 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/23/2013 10:43 AM
Surr: 1,2-Dichloroethane-d4	106	NA	68.7-129	NA		%REC	4/23/2013 10:43 AM
Surr: 4-Bromofluorobenzene	97.3	NA	71.8-127	NA		%REC	4/23/2013 10:43 AM
Surr: Dibromofluoromethane	109	NA	74.3-124	NA		%REC	4/23/2013 10:43 AM
Surr: Toluene-d8	96.2	NA	71.4-129	NA		%REC	4/23/2013 10:43 AM

TOTAL SUSPENDED SOLIDS **Method: SM2540 D** **Analyst: SF**

Total Suspended Solids	53.0	2.0	10	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 3:15:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-07A	**Matrix:**	Groundwater
Client Sample ID:	MW-10	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 5:49 PM
Arsenic	0.0024	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:49 PM
Barium	0.407	0.0010	0.100	NA		mg/L	4/23/2013 5:49 PM
Beryllium	0.0003	0.0002	0.0010	NA	J	mg/L	4/23/2013 5:49 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 5:49 PM
Chromium	0.0096	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:49 PM
Cobalt	0.0049	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:49 PM
Copper	0.0065	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:49 PM
Lead	0.0028	0.0002	0.0100	NA	J	mg/L	4/23/2013 5:49 PM
Nickel	0.0037	0.0020	0.0500	NA	J	mg/L	4/23/2013 5:49 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:49 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:49 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 5:49 PM
Vanadium	0.0172	0.0010	0.0250	NA	J	mg/L	4/23/2013 5:49 PM
Zinc	0.0387	0.0030	0.0100	NA		mg/L	4/23/2013 5:49 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: TC**
Acetone	ND	4.88	100	NA		µg/L	4/23/2013 11:17 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/23/2013 11:17 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/23/2013 11:17 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/23/2013 11:17 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/23/2013 11:17 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/23/2013 11:17 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/23/2013 11:17 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/23/2013 11:17 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/23/2013 11:17 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/23/2013 11:17 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/23/2013 11:17 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/23/2013 11:17 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/23/2013 11:17 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/23/2013 11:17 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/23/2013 11:17 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/23/2013 11:17 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/23/2013 11:17 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/23/2013 11:17 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/23/2013 11:17 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/23/2013 11:17 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/23/2013 11:17 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/23/2013 11:17 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 3:15:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-07A	**Matrix:**	Groundwater
Client Sample ID:	MW-10	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/23/2013 11:17 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/23/2013 11:17 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/23/2013 11:17 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/23/2013 11:17 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/23/2013 11:17 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/23/2013 11:17 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/23/2013 11:17 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/23/2013 11:17 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/23/2013 11:17 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/23/2013 11:17 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/23/2013 11:17 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/23/2013 11:17 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/23/2013 11:17 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/23/2013 11:17 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/23/2013 11:17 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/23/2013 11:17 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/23/2013 11:17 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/23/2013 11:17 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/23/2013 11:17 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/23/2013 11:17 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/23/2013 11:17 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/23/2013 11:17 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/23/2013 11:17 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/23/2013 11:17 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/23/2013 11:17 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/23/2013 11:17 AM
Surr: 1,2-Dichloroethane-d4	108	NA	68.7-129	NA		%REC	4/23/2013 11:17 AM
Surr: 4-Bromofluorobenzene	95.0	NA	71.8-127	NA		%REC	4/23/2013 11:17 AM
Surr: Dibromofluoromethane	112	NA	74.3-124	NA		%REC	4/23/2013 11:17 AM
Surr: Toluene-d8	97.6	NA	71.4-129	NA		%REC	4/23/2013 11:17 AM

TOTAL SUSPENDED SOLIDS **Method: SM2540 D** **Analyst: SF**

Total Suspended Solids	559	2.0	10	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 4:23:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-08A	**Matrix:**	Groundwater
Client Sample ID:	MW-14	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 5:55 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:55 PM
Barium	0.117	0.0010	0.100	NA		mg/L	4/23/2013 5:55 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 5:55 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 5:55 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:55 PM
Cobalt	0.0030	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:55 PM
Copper	0.0021	0.0010	0.0100	NA	J	mg/L	4/23/2013 5:55 PM
Lead	0.0014	0.0002	0.0100	NA	J	mg/L	4/23/2013 5:55 PM
Nickel	0.0035	0.0020	0.0500	NA	J	mg/L	4/23/2013 5:55 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:55 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 5:55 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 5:55 PM
Vanadium	0.0017	0.0010	0.0250	NA	J	mg/L	4/23/2013 5:55 PM
Zinc	0.0155	0.0030	0.0100	NA		mg/L	4/23/2013 5:55 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: TC**
Acetone	ND	4.88	100	NA		µg/L	4/23/2013 11:51 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/23/2013 11:51 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/23/2013 11:51 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/23/2013 11:51 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/23/2013 11:51 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/23/2013 11:51 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/23/2013 11:51 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/23/2013 11:51 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/23/2013 11:51 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/23/2013 11:51 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/23/2013 11:51 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/23/2013 11:51 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/23/2013 11:51 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/23/2013 11:51 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/23/2013 11:51 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/23/2013 11:51 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/23/2013 11:51 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/23/2013 11:51 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/23/2013 11:51 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/23/2013 11:51 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/23/2013 11:51 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/23/2013 11:51 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 4:23:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-08A	**Matrix:**	Groundwater
Client Sample ID:	MW-14	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/23/2013 11:51 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/23/2013 11:51 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/23/2013 11:51 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/23/2013 11:51 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/23/2013 11:51 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/23/2013 11:51 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/23/2013 11:51 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/23/2013 11:51 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/23/2013 11:51 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/23/2013 11:51 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/23/2013 11:51 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/23/2013 11:51 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/23/2013 11:51 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/23/2013 11:51 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/23/2013 11:51 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/23/2013 11:51 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/23/2013 11:51 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/23/2013 11:51 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/23/2013 11:51 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/23/2013 11:51 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/23/2013 11:51 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/23/2013 11:51 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/23/2013 11:51 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/23/2013 11:51 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/23/2013 11:51 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/23/2013 11:51 AM
Surr: 1,2-Dichloroethane-d4	108	NA	68.7-129	NA		%REC	4/23/2013 11:51 AM
Surr: 4-Bromofluorobenzene	96.0	NA	71.8-127	NA		%REC	4/23/2013 11:51 AM
Surr: Dibromofluoromethane	110	NA	74.3-124	NA		%REC	4/23/2013 11:51 AM
Surr: Toluene-d8	96.7	NA	71.4-129	NA		%REC	4/23/2013 11:51 AM

TOTAL SUSPENDED SOLIDS **Method: SM2540 D** **Analyst: SF**

Total Suspended Solids	120	2.0	10	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 4:00:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-09A	**Matrix:**	Groundwater
Client Sample ID:	MW-15	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 6:00 PM
Arsenic	0.0053	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:00 PM
Barium	0.897	0.0010	0.100	NA		mg/L	4/23/2013 6:00 PM
Beryllium	0.0007	0.0002	0.0010	NA	J	mg/L	4/23/2013 6:00 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 6:00 PM
Chromium	0.0042	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:00 PM
Cobalt	0.0319	0.0010	0.0100	NA		mg/L	4/23/2013 6:00 PM
Copper	0.0442	0.0010	0.0100	NA		mg/L	4/23/2013 6:00 PM
Lead	0.0204	0.0002	0.0100	NA		mg/L	4/23/2013 6:00 PM
Nickel	0.0056	0.0020	0.0500	NA	J	mg/L	4/23/2013 6:00 PM
Selenium	0.0017	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:00 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:00 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 6:00 PM
Vanadium	0.0132	0.0010	0.0250	NA	J	mg/L	4/23/2013 6:00 PM
Zinc	0.0457	0.0030	0.0100	NA		mg/L	4/23/2013 6:00 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 3:34 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 3:34 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 3:34 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 3:34 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 3:34 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 3:34 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 3:34 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 3:34 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 3:34 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 3:34 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/24/2013 3:34 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 3:34 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 3:34 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 3:34 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 3:34 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 3:34 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 3:34 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 3:34 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 3:34 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 3:34 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 3:34 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 3:34 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 4:00:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-09A	**Matrix:**	Groundwater
Client Sample ID:	MW-15	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 3:34 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 3:34 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 3:34 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 3:34 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 3:34 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 3:34 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 3:34 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 3:34 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 3:34 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 3:34 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 3:34 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 3:34 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 3:34 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 3:34 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 3:34 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 3:34 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 3:34 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 3:34 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 3:34 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 3:34 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 3:34 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 3:34 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 3:34 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 3:34 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 3:34 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 3:34 AM
Surr: 1,2-Dichloroethane-d4	109	NA	68.7-129	NA		%REC	4/24/2013 3:34 AM
Surr: 4-Bromofluorobenzene	98.3	NA	71.8-127	NA		%REC	4/24/2013 3:34 AM
Surr: Dibromofluoromethane	108	NA	74.3-124	NA		%REC	4/24/2013 3:34 AM
Surr: Toluene-d8	97.2	NA	71.4-129	NA		%REC	4/24/2013 3:34 AM
TOTAL SUSPENDED SOLIDS		**Method: SM2540 D**					**Analyst: SF**
Total Suspended Solids	1,510	4.0	20.0	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 2:18:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-10A	**Matrix:**	Groundwater
Client Sample ID:	MW-17	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 6:06 PM
Arsenic	0.0031	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:06 PM
Barium	0.151	0.0010	0.100	NA		mg/L	4/23/2013 6:06 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 6:06 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 6:06 PM
Chromium	0.0058	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:06 PM
Cobalt	0.0099	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:06 PM
Copper	0.0086	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:06 PM
Lead	0.0027	0.0002	0.0100	NA	J	mg/L	4/23/2013 6:06 PM
Nickel	0.0042	0.0020	0.0500	NA	J	mg/L	4/23/2013 6:06 PM
Selenium	0.0037	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:06 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:06 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 6:06 PM
Vanadium	0.0075	0.0010	0.0250	NA	J	mg/L	4/23/2013 6:06 PM
Zinc	0.0444	0.0030	0.0100	NA		mg/L	4/23/2013 6:06 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 4:08 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 4:08 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 4:08 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 4:08 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 4:08 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 4:08 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 4:08 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 4:08 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 4:08 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 4:08 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/24/2013 4:08 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 4:08 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 4:08 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 4:08 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 4:08 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 4:08 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 4:08 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 4:08 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 4:08 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 4:08 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 4:08 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 4:08 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 2:18:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-10A	**Matrix:**	Groundwater
Client Sample ID:	MW-17	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 4:08 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 4:08 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 4:08 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 4:08 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 4:08 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 4:08 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 4:08 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 4:08 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 4:08 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 4:08 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 4:08 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 4:08 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 4:08 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 4:08 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 4:08 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 4:08 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 4:08 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 4:08 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 4:08 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 4:08 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 4:08 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 4:08 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 4:08 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 4:08 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 4:08 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 4:08 AM
Surr: 1,2-Dichloroethane-d4	111	NA	68.7-129	NA		%REC	4/24/2013 4:08 AM
Surr: 4-Bromofluorobenzene	95.1	NA	71.8-127	NA		%REC	4/24/2013 4:08 AM
Surr: Dibromofluoromethane	111	NA	74.3-124	NA		%REC	4/24/2013 4:08 AM
Surr: Toluene-d8	94.7	NA	71.4-129	NA		%REC	4/24/2013 4:08 AM
TOTAL SUSPENDED SOLIDS		**Method: SM2540 D**					**Analyst: SF**
Total Suspended Solids	458	4.0	20.0	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 2:42:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-11A	**Matrix:**	Groundwater
Client Sample ID:	MW-18	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 6:11 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:11 PM
Barium	0.115	0.0010	0.100	NA		mg/L	4/23/2013 6:11 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 6:11 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 6:11 PM
Chromium	0.0039	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:11 PM
Cobalt	0.0013	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:11 PM
Copper	0.0020	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:11 PM
Lead	0.0009	0.0002	0.0100	NA	J	mg/L	4/23/2013 6:11 PM
Nickel	0.0020	0.0020	0.0500	NA	J	mg/L	4/23/2013 6:11 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:11 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:11 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 6:11 PM
Vanadium	0.0045	0.0010	0.0250	NA	J	mg/L	4/23/2013 6:11 PM
Zinc	0.0319	0.0030	0.0100	NA		mg/L	4/23/2013 6:11 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 4:42 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 4:42 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 4:42 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 4:42 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 4:42 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 4:42 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 4:42 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 4:42 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 4:42 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 4:42 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/24/2013 4:42 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 4:42 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 4:42 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 4:42 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 4:42 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 4:42 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 4:42 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 4:42 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 4:42 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 4:42 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 4:42 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 4:42 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 2:42:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-11A	**Matrix:**	Groundwater
Client Sample ID:	MW-18	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 4:42 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 4:42 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 4:42 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 4:42 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 4:42 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 4:42 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 4:42 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 4:42 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 4:42 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 4:42 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 4:42 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 4:42 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 4:42 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 4:42 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 4:42 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 4:42 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 4:42 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 4:42 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 4:42 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 4:42 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 4:42 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 4:42 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 4:42 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 4:42 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 4:42 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 4:42 AM
Surr: 1,2-Dichloroethane-d4	110	NA	68.7-129	NA		%REC	4/24/2013 4:42 AM
Surr: 4-Bromofluorobenzene	96.9	NA	71.8-127	NA		%REC	4/24/2013 4:42 AM
Surr: Dibromofluoromethane	109	NA	74.3-124	NA		%REC	4/24/2013 4:42 AM
Surr: Toluene-d8	98.4	NA	71.4-129	NA		%REC	4/24/2013 4:42 AM
TOTAL SUSPENDED SOLIDS		**Method: SM2540 D**					**Analyst: SF**
Total Suspended Solids	104	2.0	10	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 9:19:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-12A	**Matrix:**	Groundwater
Client Sample ID:	MW-19	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 6:17 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:17 PM
Barium	0.368	0.0010	0.100	NA		mg/L	4/23/2013 6:17 PM
Beryllium	0.0007	0.0002	0.0010	NA	J	mg/L	4/23/2013 6:17 PM
Cadmium	0.0002	0.0002	0.0010	NA	J	mg/L	4/23/2013 6:17 PM
Chromium	0.0078	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:17 PM
Cobalt	0.0082	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:17 PM
Copper	0.0079	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:17 PM
Lead	0.0182	0.0002	0.0100	NA		mg/L	4/23/2013 6:17 PM
Nickel	0.0036	0.0020	0.0500	NA	J	mg/L	4/23/2013 6:17 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:17 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:17 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 6:17 PM
Vanadium	0.0138	0.0010	0.0250	NA	J	mg/L	4/23/2013 6:17 PM
Zinc	0.0460	0.0030	0.0100	NA		mg/L	4/23/2013 6:17 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 5:16 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 5:16 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 5:16 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 5:16 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 5:16 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 5:16 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 5:16 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 5:16 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 5:16 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 5:16 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/24/2013 5:16 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 5:16 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 5:16 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 5:16 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 5:16 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 5:16 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 5:16 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 5:16 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 5:16 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 5:16 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 5:16 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 5:16 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 9:19:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-12A	**Matrix:**	Groundwater
Client Sample ID:	MW-19	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 5:16 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 5:16 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 5:16 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 5:16 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 5:16 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 5:16 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 5:16 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 5:16 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 5:16 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 5:16 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 5:16 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 5:16 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 5:16 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 5:16 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 5:16 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 5:16 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 5:16 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 5:16 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 5:16 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 5:16 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 5:16 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 5:16 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 5:16 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 5:16 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 5:16 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 5:16 AM
Surr: 1,2-Dichloroethane-d4	112	NA	68.7-129	NA		%REC	4/24/2013 5:16 AM
Surr: 4-Bromofluorobenzene	96.1	NA	71.8-127	NA		%REC	4/24/2013 5:16 AM
Surr: Dibromofluoromethane	110	NA	74.3-124	NA		%REC	4/24/2013 5:16 AM
Surr: Toluene-d8	96.1	NA	71.4-129	NA		%REC	4/24/2013 5:16 AM
TOTAL SUSPENDED SOLIDS		**Method: SM2540 D**					**Analyst: SF**
Total Suspended Solids	416	4.0	20.0	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 11:47:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-13A	**Matrix:**	Groundwater
Client Sample ID:	MW-19A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 6:33 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:33 PM
Barium	0.0940	0.0010	0.100	NA	J	mg/L	4/23/2013 6:33 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 6:33 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 6:33 PM
Chromium	0.0034	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:33 PM
Cobalt	0.0015	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:33 PM
Copper	0.0026	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:33 PM
Lead	0.0013	0.0002	0.0100	NA	J	mg/L	4/23/2013 6:33 PM
Nickel	ND	0.0020	0.0500	NA		mg/L	4/23/2013 6:33 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:33 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:33 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 6:33 PM
Vanadium	0.0038	0.0010	0.0250	NA	J	mg/L	4/23/2013 6:33 PM
Zinc	0.0172	0.0030	0.0100	NA		mg/L	4/23/2013 6:33 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 5:50 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 5:50 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 5:50 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 5:50 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 5:50 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 5:50 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 5:50 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 5:50 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 5:50 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 5:50 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/24/2013 5:50 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 5:50 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 5:50 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 5:50 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 5:50 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 5:50 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 5:50 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 5:50 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 5:50 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 5:50 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 5:50 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 5:50 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 11:47:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-13A	**Matrix:**	Groundwater
Client Sample ID:	MW-19A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 5:50 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 5:50 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 5:50 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 5:50 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 5:50 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 5:50 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 5:50 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 5:50 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 5:50 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 5:50 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 5:50 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 5:50 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 5:50 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 5:50 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 5:50 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 5:50 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 5:50 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 5:50 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 5:50 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 5:50 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 5:50 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 5:50 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 5:50 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 5:50 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 5:50 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 5:50 AM
Surr: 1,2-Dichloroethane-d4	108	NA	68.7-129	NA		%REC	4/24/2013 5:50 AM
Surr: 4-Bromofluorobenzene	97.3	NA	71.8-127	NA		%REC	4/24/2013 5:50 AM
Surr: Dibromofluoromethane	110	NA	74.3-124	NA		%REC	4/24/2013 5:50 AM
Surr: Toluene-d8	96.2	NA	71.4-129	NA		%REC	4/24/2013 5:50 AM
TOTAL SUSPENDED SOLIDS		**Method: SM2540 D**					**Analyst: SF**
Total Suspended Solids	41.0	2.0	10	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 9:42:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-14A	**Matrix:**	Groundwater
Client Sample ID:	MW-20	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 6:39 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:39 PM
Barium	0.0527	0.0010	0.100	NA	J	mg/L	4/23/2013 6:39 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 6:39 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 6:39 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:39 PM
Cobalt	0.0025	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:39 PM
Copper	0.0016	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:39 PM
Lead	0.0003	0.0002	0.0100	NA	J	mg/L	4/23/2013 6:39 PM
Nickel	ND	0.0020	0.0500	NA		mg/L	4/23/2013 6:39 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:39 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:39 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 6:39 PM
Vanadium	0.0012	0.0010	0.0250	NA	J	mg/L	4/23/2013 6:39 PM
Zinc	0.0053	0.0030	0.0100	NA	J	mg/L	4/23/2013 6:39 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 6:24 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 6:24 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 6:24 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 6:24 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 6:24 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 6:24 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 6:24 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 6:24 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 6:24 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 6:24 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/24/2013 6:24 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 6:24 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 6:24 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 6:24 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 6:24 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 6:24 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 6:24 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 6:24 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 6:24 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 6:24 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 6:24 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 6:24 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 9:42:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-14A	**Matrix:**	Groundwater
Client Sample ID:	MW-20	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 6:24 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 6:24 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 6:24 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 6:24 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 6:24 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 6:24 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 6:24 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 6:24 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 6:24 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 6:24 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 6:24 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 6:24 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 6:24 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 6:24 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 6:24 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 6:24 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 6:24 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 6:24 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 6:24 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 6:24 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 6:24 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 6:24 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 6:24 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 6:24 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 6:24 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 6:24 AM
Surr: 1,2-Dichloroethane-d4	108	NA	68.7-129	NA		%REC	4/24/2013 6:24 AM
Surr: 4-Bromofluorobenzene	97.3	NA	71.8-127	NA		%REC	4/24/2013 6:24 AM
Surr: Dibromofluoromethane	109	NA	74.3-124	NA		%REC	4/24/2013 6:24 AM
Surr: Toluene-d8	96.0	NA	71.4-129	NA		%REC	4/24/2013 6:24 AM
TOTAL SUSPENDED SOLIDS		**Method: SM2540 D**					**Analyst: SF**
Total Suspended Solids	24.0	2.0	10	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 10:00:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-15A	**Matrix:**	Groundwater
Client Sample ID:	MW-21	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 6:44 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:44 PM
Barium	0.0292	0.0010	0.100	NA	J	mg/L	4/23/2013 6:44 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 6:44 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 6:44 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:44 PM
Cobalt	0.0234	0.0010	0.0100	NA		mg/L	4/23/2013 6:44 PM
Copper	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:44 PM
Lead	ND	0.0002	0.0100	NA		mg/L	4/23/2013 6:44 PM
Nickel	ND	0.0020	0.0500	NA		mg/L	4/23/2013 6:44 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:44 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:44 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 6:44 PM
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/23/2013 6:44 PM
Zinc	0.0099	0.0030	0.0100	NA	J	mg/L	4/23/2013 6:44 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 6:58 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 6:58 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 6:58 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 6:58 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 6:58 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 6:58 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 6:58 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 6:58 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 6:58 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 6:58 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/24/2013 6:58 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 6:58 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 6:58 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 6:58 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 6:58 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 6:58 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 6:58 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 6:58 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 6:58 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 6:58 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 6:58 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 6:58 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 10:00:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-15A	**Matrix:**	Groundwater
Client Sample ID:	MW-21	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 6:58 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 6:58 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 6:58 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 6:58 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 6:58 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 6:58 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 6:58 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 6:58 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 6:58 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 6:58 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 6:58 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 6:58 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 6:58 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 6:58 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 6:58 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 6:58 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 6:58 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 6:58 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 6:58 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 6:58 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 6:58 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 6:58 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 6:58 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 6:58 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 6:58 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 6:58 AM
Surr: 1,2-Dichloroethane-d4	110	NA	68.7-129	NA		%REC	4/24/2013 6:58 AM
Surr: 4-Bromofluorobenzene	98.3	NA	71.8-127	NA		%REC	4/24/2013 6:58 AM
Surr: Dibromofluoromethane	110	NA	74.3-124	NA		%REC	4/24/2013 6:58 AM
Surr: Toluene-d8	96.8	NA	71.4-129	NA		%REC	4/24/2013 6:58 AM

TOTAL SUSPENDED SOLIDS **Method: SM2540 D** **Analyst: SF**

Total Suspended Solids	12.0	2.0	10	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 10:36:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-16A	**Matrix:**	Groundwater
Client Sample ID:	MW-22	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 6:50 PM
Arsenic	0.0037	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:50 PM
Barium	0.574	0.0010	0.100	NA		mg/L	4/23/2013 6:50 PM
Beryllium	0.0026	0.0002	0.0010	NA		mg/L	4/23/2013 6:50 PM
Cadmium	0.0003	0.0002	0.0010	NA	J	mg/L	4/23/2013 6:50 PM
Chromium	0.0325	0.0010	0.0100	NA		mg/L	4/23/2013 6:50 PM
Cobalt	0.0351	0.0010	0.0100	NA		mg/L	4/23/2013 6:50 PM
Copper	0.0322	0.0010	0.0100	NA		mg/L	4/23/2013 6:50 PM
Lead	0.0171	0.0002	0.0100	NA		mg/L	4/23/2013 6:50 PM
Nickel	0.0199	0.0020	0.0500	NA	J	mg/L	4/23/2013 6:50 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:50 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:50 PM
Thallium	0.0004	0.0002	0.0055	NA	J	mg/L	4/23/2013 6:50 PM
Vanadium	0.0468	0.0010	0.0250	NA		mg/L	4/23/2013 6:50 PM
Zinc	0.0931	0.0030	0.0100	NA		mg/L	4/23/2013 6:50 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 7:32 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 7:32 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 7:32 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 7:32 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 7:32 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 7:32 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 7:32 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 7:32 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 7:32 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 7:32 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/24/2013 7:32 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 7:32 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 7:32 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 7:32 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 7:32 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 7:32 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 7:32 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 7:32 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 7:32 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 7:32 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 7:32 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 7:32 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 10:36:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-16A	**Matrix:**	Groundwater
Client Sample ID:	MW-22	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 7:32 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 7:32 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 7:32 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 7:32 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 7:32 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 7:32 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 7:32 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 7:32 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 7:32 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 7:32 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 7:32 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 7:32 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 7:32 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 7:32 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 7:32 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 7:32 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 7:32 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 7:32 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 7:32 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 7:32 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 7:32 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 7:32 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 7:32 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 7:32 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 7:32 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 7:32 AM
Surr: 1,2-Dichloroethane-d4	112	NA	68.7-129	NA		%REC	4/24/2013 7:32 AM
Surr: 4-Bromofluorobenzene	97.0	NA	71.8-127	NA		%REC	4/24/2013 7:32 AM
Surr: Dibromofluoromethane	106	NA	74.3-124	NA		%REC	4/24/2013 7:32 AM
Surr: Toluene-d8	95.0	NA	71.4-129	NA		%REC	4/24/2013 7:32 AM
TOTAL SUSPENDED SOLIDS		**Method: SM2540 D**					**Analyst: SF**
Total Suspended Solids	888	4.0	20.0	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 10:41:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-17A	**Matrix:**	Groundwater
Client Sample ID:	MW-22A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 6:55 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:55 PM
Barium	0.0925	0.0010	0.100	NA	J	mg/L	4/23/2013 6:55 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 6:55 PM
Cadmium	0.0002	0.0002	0.0010	NA	J	mg/L	4/23/2013 6:55 PM
Chromium	0.0021	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:55 PM
Cobalt	0.0016	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:55 PM
Copper	0.0028	0.0010	0.0100	NA	J	mg/L	4/23/2013 6:55 PM
Lead	0.0005	0.0002	0.0100	NA	J	mg/L	4/23/2013 6:55 PM
Nickel	0.0032	0.0020	0.0500	NA	J	mg/L	4/23/2013 6:55 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:55 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 6:55 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 6:55 PM
Vanadium	0.0032	0.0010	0.0250	NA	J	mg/L	4/23/2013 6:55 PM
Zinc	0.0307	0.0030	0.0100	NA		mg/L	4/23/2013 6:55 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 8:06 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 8:06 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 8:06 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 8:06 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 8:06 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 8:06 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 8:06 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 8:06 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 8:06 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 8:06 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/24/2013 8:06 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 8:06 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 8:06 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 8:06 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 8:06 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 8:06 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 8:06 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 8:06 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 8:06 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 8:06 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 8:06 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 8:06 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 10:41:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-17A	**Matrix:**	Groundwater
Client Sample ID:	MW-22A	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 8:06 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 8:06 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 8:06 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 8:06 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 8:06 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 8:06 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 8:06 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 8:06 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 8:06 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 8:06 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 8:06 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 8:06 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 8:06 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 8:06 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 8:06 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 8:06 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 8:06 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 8:06 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 8:06 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 8:06 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 8:06 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 8:06 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 8:06 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 8:06 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 8:06 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 8:06 AM
Surr: 1,2-Dichloroethane-d4	112	NA	68.7-129	NA		%REC	4/24/2013 8:06 AM
Surr: 4-Bromofluorobenzene	97.5	NA	71.8-127	NA		%REC	4/24/2013 8:06 AM
Surr: Dibromofluoromethane	110	NA	74.3-124	NA		%REC	4/24/2013 8:06 AM
Surr: Toluene-d8	97.1	NA	71.4-129	NA		%REC	4/24/2013 8:06 AM
TOTAL SUSPENDED SOLIDS		**Method: SM2540 D**					**Analyst: SF**
Total Suspended Solids	30.0	2.0	10	NA		mg/L	4/20/2013 1:36 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 11:25:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-18A	**Matrix:**	Groundwater
Client Sample ID:	MW-23	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 7:01 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 7:01 PM
Barium	0.0859	0.0010	0.100	NA	J	mg/L	4/23/2013 7:01 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 7:01 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 7:01 PM
Chromium	0.0012	0.0010	0.0100	NA	J	mg/L	4/23/2013 7:01 PM
Cobalt	0.0018	0.0010	0.0100	NA	J	mg/L	4/23/2013 7:01 PM
Copper	0.0016	0.0010	0.0100	NA	J	mg/L	4/23/2013 7:01 PM
Lead	0.0006	0.0002	0.0100	NA	J	mg/L	4/23/2013 7:01 PM
Nickel	0.0020	0.0020	0.0500	NA	J	mg/L	4/23/2013 7:01 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 7:01 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 7:01 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 7:01 PM
Vanadium	0.0023	0.0010	0.0250	NA	J	mg/L	4/23/2013 7:01 PM
Zinc	0.0144	0.0030	0.0100	NA		mg/L	4/23/2013 7:01 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 8:14 PM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 8:14 PM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 8:14 PM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 8:14 PM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 8:14 PM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 8:14 PM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 8:14 PM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 8:14 PM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 8:14 PM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 8:14 PM
Chlorobenzene	0.630	0.177	3.00	NA	J	µg/L	4/24/2013 8:14 PM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 8:14 PM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 8:14 PM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 8:14 PM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 8:14 PM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 8:14 PM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 8:14 PM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 8:14 PM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 8:14 PM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 8:14 PM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 8:14 PM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 8:14 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 11:25:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-18A	**Matrix:**	Groundwater
Client Sample ID:	MW-23	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 8:14 PM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 8:14 PM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 8:14 PM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 8:14 PM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 8:14 PM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 8:14 PM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 8:14 PM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 8:14 PM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 8:14 PM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 8:14 PM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 8:14 PM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 8:14 PM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 8:14 PM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 8:14 PM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 8:14 PM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 8:14 PM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 8:14 PM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 8:14 PM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 8:14 PM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 8:14 PM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 8:14 PM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 8:14 PM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 8:14 PM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 8:14 PM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 8:14 PM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 8:14 PM
Surr: 1,2-Dichloroethane-d4	108	NA	68.7-129	NA		%REC	4/24/2013 8:14 PM
Surr: 4-Bromofluorobenzene	97.5	NA	71.8-127	NA		%REC	4/24/2013 8:14 PM
Surr: Dibromofluoromethane	112	NA	74.3-124	NA		%REC	4/24/2013 8:14 PM
Surr: Toluene-d8	96.4	NA	71.4-129	NA		%REC	4/24/2013 8:14 PM
TOTAL SUSPENDED SOLIDS		**Method: SM2540 D**					**Analyst: SF**
Total Suspended Solids	16.0	2.0	10	NA		mg/L	4/20/2013 1:36 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 12:21:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-19A	**Matrix:**	Groundwater
Client Sample ID:	SW-1	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 7:06 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 7:06 PM
Barium	0.0160	0.0010	0.100	NA	J	mg/L	4/23/2013 7:06 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 7:06 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 7:06 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 7:06 PM
Cobalt	ND	0.0010	0.0100	NA		mg/L	4/23/2013 7:06 PM
Copper	0.0022	0.0010	0.0100	NA	J	mg/L	4/23/2013 7:06 PM
Lead	0.0005	0.0002	0.0100	NA	J	mg/L	4/23/2013 7:06 PM
Nickel	0.0026	0.0020	0.0500	NA	J	mg/L	4/23/2013 7:06 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 7:06 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 7:06 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 7:06 PM
Vanadium	0.0015	0.0010	0.0250	NA	J	mg/L	4/23/2013 7:06 PM
Zinc	0.0167	0.0030	0.0100	NA		mg/L	4/23/2013 7:06 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 8:48 PM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 8:48 PM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 8:48 PM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 8:48 PM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 8:48 PM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 8:48 PM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 8:48 PM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 8:48 PM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 8:48 PM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 8:48 PM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/24/2013 8:48 PM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 8:48 PM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 8:48 PM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 8:48 PM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 8:48 PM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 8:48 PM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 8:48 PM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 8:48 PM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 8:48 PM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 8:48 PM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 8:48 PM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 8:48 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 12:21:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-19A	**Matrix:**	Groundwater
Client Sample ID:	SW-1	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 8:48 PM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 8:48 PM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 8:48 PM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 8:48 PM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 8:48 PM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 8:48 PM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 8:48 PM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 8:48 PM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 8:48 PM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 8:48 PM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 8:48 PM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 8:48 PM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 8:48 PM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 8:48 PM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 8:48 PM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 8:48 PM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 8:48 PM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 8:48 PM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 8:48 PM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 8:48 PM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 8:48 PM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 8:48 PM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 8:48 PM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 8:48 PM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 8:48 PM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 8:48 PM
Surr: 1,2-Dichloroethane-d4	110	NA	68.7-129	NA		%REC	4/24/2013 8:48 PM
Surr: 4-Bromofluorobenzene	100	NA	71.8-127	NA		%REC	4/24/2013 8:48 PM
Surr: Dibromofluoromethane	110	NA	74.3-124	NA		%REC	4/24/2013 8:48 PM
Surr: Toluene-d8	97.0	NA	71.4-129	NA		%REC	4/24/2013 8:48 PM

TOTAL SUSPENDED SOLIDS **Method: SM2540 D** **Analyst: SF**

Total Suspended Solids	9.0	2.0	10	NA	J	mg/L	4/20/2013 1:36 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 9:00:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-20A	**Matrix:**	Groundwater
Client Sample ID:	SW-2	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/23/2013 7:12 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/23/2013 7:12 PM
Barium	0.0143	0.0010	0.100	NA	J	mg/L	4/23/2013 7:12 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 7:12 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/23/2013 7:12 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 7:12 PM
Cobalt	ND	0.0010	0.0100	NA		mg/L	4/23/2013 7:12 PM
Copper	0.0013	0.0010	0.0100	NA	J	mg/L	4/23/2013 7:12 PM
Lead	0.0004	0.0002	0.0100	NA	J	mg/L	4/23/2013 7:12 PM
Nickel	ND	0.0020	0.0500	NA		mg/L	4/23/2013 7:12 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/23/2013 7:12 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/23/2013 7:12 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/23/2013 7:12 PM
Vanadium	0.0011	0.0010	0.0250	NA	J	mg/L	4/23/2013 7:12 PM
Zinc	0.0050	0.0030	0.0100	NA	J	mg/L	4/23/2013 7:12 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 9:22 PM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 9:22 PM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 9:22 PM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 9:22 PM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 9:22 PM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 9:22 PM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 9:22 PM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 9:22 PM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 9:22 PM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 9:22 PM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/24/2013 9:22 PM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 9:22 PM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 9:22 PM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 9:22 PM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 9:22 PM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 9:22 PM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 9:22 PM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 9:22 PM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 9:22 PM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 9:22 PM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 9:22 PM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 9:22 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 9:00:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-20A	**Matrix:**	Groundwater
Client Sample ID:	SW-2	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 9:22 PM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 9:22 PM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 9:22 PM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 9:22 PM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 9:22 PM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 9:22 PM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 9:22 PM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 9:22 PM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 9:22 PM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 9:22 PM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 9:22 PM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 9:22 PM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 9:22 PM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 9:22 PM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 9:22 PM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 9:22 PM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 9:22 PM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 9:22 PM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 9:22 PM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 9:22 PM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 9:22 PM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 9:22 PM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 9:22 PM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 9:22 PM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 9:22 PM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 9:22 PM
Surr: 1,2-Dichloroethane-d4	108	NA	68.7-129	NA		%REC	4/24/2013 9:22 PM
Surr: 4-Bromofluorobenzene	97.3	NA	71.8-127	NA		%REC	4/24/2013 9:22 PM
Surr: Dibromofluoromethane	112	NA	74.3-124	NA		%REC	4/24/2013 9:22 PM
Surr: Toluene-d8	96.6	NA	71.4-129	NA		%REC	4/24/2013 9:22 PM

TOTAL SUSPENDED SOLIDS — **Method: SM2540 D** — **Analyst: SF**

Total Suspended Solids	8.0	2.0	10	NA	J	mg/L	4/20/2013 1:36 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 3:35:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-21A	**Matrix:**	Groundwater
Client Sample ID:	SW-3	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/24/2013 4:15 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:15 PM
Barium	0.0396	0.0010	0.100	NA	J	mg/L	4/24/2013 4:15 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/24/2013 4:15 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/24/2013 4:15 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:15 PM
Cobalt	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:15 PM
Copper	0.0016	0.0010	0.0100	NA	J	mg/L	4/24/2013 4:15 PM
Lead	0.0004	0.0002	0.0100	NA	J	mg/L	4/24/2013 4:15 PM
Nickel	ND	0.0020	0.0500	NA		mg/L	4/24/2013 4:15 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:15 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:15 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/24/2013 4:15 PM
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/24/2013 4:15 PM
Zinc	0.0110	0.0030	0.0100	NA		mg/L	4/24/2013 4:15 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/25/2013 1:54 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/25/2013 1:54 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/25/2013 1:54 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/25/2013 1:54 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/25/2013 1:54 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/25/2013 1:54 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/25/2013 1:54 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/25/2013 1:54 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/25/2013 1:54 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/25/2013 1:54 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/25/2013 1:54 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/25/2013 1:54 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/25/2013 1:54 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/25/2013 1:54 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/25/2013 1:54 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/25/2013 1:54 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/25/2013 1:54 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/25/2013 1:54 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/25/2013 1:54 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/25/2013 1:54 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/25/2013 1:54 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/25/2013 1:54 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 3:35:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-21A	**Matrix:**	Groundwater
Client Sample ID:	SW-3	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/25/2013 1:54 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/25/2013 1:54 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/25/2013 1:54 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/25/2013 1:54 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/25/2013 1:54 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/25/2013 1:54 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/25/2013 1:54 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/25/2013 1:54 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/25/2013 1:54 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/25/2013 1:54 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/25/2013 1:54 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/25/2013 1:54 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/25/2013 1:54 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/25/2013 1:54 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/25/2013 1:54 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/25/2013 1:54 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/25/2013 1:54 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/25/2013 1:54 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/25/2013 1:54 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/25/2013 1:54 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/25/2013 1:54 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/25/2013 1:54 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/25/2013 1:54 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/25/2013 1:54 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/25/2013 1:54 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/25/2013 1:54 AM
Surr: 1,2-Dichloroethane-d4	107	NA	68.7-129	NA		%REC	4/25/2013 1:54 AM
Surr: 4-Bromofluorobenzene	99.3	NA	71.8-127	NA		%REC	4/25/2013 1:54 AM
Surr: Dibromofluoromethane	112	NA	74.3-124	NA		%REC	4/25/2013 1:54 AM
Surr: Toluene-d8	98.7	NA	71.4-129	NA		%REC	4/25/2013 1:54 AM

TOTAL SUSPENDED SOLIDS — **Method: SM2540 D** — **Analyst: SF**

Total Suspended Solids	9.5	1.0	5.0	NA		mg/L	4/20/2013 1:36 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 4:10:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-22A	**Matrix:**	Groundwater
Client Sample ID:	SW-4	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/24/2013 4:21 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:21 PM
Barium	0.0356	0.0010	0.100	NA	J	mg/L	4/24/2013 4:21 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/24/2013 4:21 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/24/2013 4:21 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:21 PM
Cobalt	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:21 PM
Copper	0.0015	0.0010	0.0100	NA	J	mg/L	4/24/2013 4:21 PM
Lead	0.0003	0.0002	0.0100	NA	J	mg/L	4/24/2013 4:21 PM
Nickel	ND	0.0020	0.0500	NA		mg/L	4/24/2013 4:21 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:21 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:21 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/24/2013 4:21 PM
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/24/2013 4:21 PM
Zinc	0.0184	0.0030	0.0100	NA		mg/L	4/24/2013 4:21 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/25/2013 2:27 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/25/2013 2:27 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/25/2013 2:27 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/25/2013 2:27 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/25/2013 2:27 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/25/2013 2:27 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/25/2013 2:27 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/25/2013 2:27 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/25/2013 2:27 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/25/2013 2:27 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/25/2013 2:27 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/25/2013 2:27 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/25/2013 2:27 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/25/2013 2:27 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/25/2013 2:27 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/25/2013 2:27 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/25/2013 2:27 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/25/2013 2:27 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/25/2013 2:27 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/25/2013 2:27 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/25/2013 2:27 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/25/2013 2:27 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 4:10:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-22A	**Matrix:**	Groundwater
Client Sample ID:	SW-4	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/25/2013 2:27 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/25/2013 2:27 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/25/2013 2:27 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/25/2013 2:27 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/25/2013 2:27 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/25/2013 2:27 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/25/2013 2:27 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/25/2013 2:27 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/25/2013 2:27 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/25/2013 2:27 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/25/2013 2:27 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/25/2013 2:27 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/25/2013 2:27 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/25/2013 2:27 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/25/2013 2:27 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/25/2013 2:27 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/25/2013 2:27 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/25/2013 2:27 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/25/2013 2:27 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/25/2013 2:27 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/25/2013 2:27 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/25/2013 2:27 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/25/2013 2:27 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/25/2013 2:27 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/25/2013 2:27 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/25/2013 2:27 AM
Surr: 1,2-Dichloroethane-d4	108	NA	68.7-129	NA		%REC	4/25/2013 2:27 AM
Surr: 4-Bromofluorobenzene	99.3	NA	71.8-127	NA		%REC	4/25/2013 2:27 AM
Surr: Dibromofluoromethane	109	NA	74.3-124	NA		%REC	4/25/2013 2:27 AM
Surr: Toluene-d8	97.6	NA	71.4-129	NA		%REC	4/25/2013 2:27 AM

TOTAL SUSPENDED SOLIDS — **Method: SM2540 D** — **Analyst: SF**

Total Suspended Solids	5.5	1.0	5.0	NA		mg/L	4/20/2013 1:36 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 8:00:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-23A	**Matrix:**	Groundwater
Client Sample ID:	MW-1A DUP	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/24/2013 4:26 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:26 PM
Barium	0.0501	0.0010	0.100	NA	J	mg/L	4/24/2013 4:26 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/24/2013 4:26 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/24/2013 4:26 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:26 PM
Cobalt	0.0193	0.0010	0.0100	NA		mg/L	4/24/2013 4:26 PM
Copper	0.0011	0.0010	0.0100	NA	J	mg/L	4/24/2013 4:26 PM
Lead	ND	0.0002	0.0100	NA		mg/L	4/24/2013 4:26 PM
Nickel	0.0028	0.0020	0.0500	NA	J	mg/L	4/24/2013 4:26 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:26 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:26 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/24/2013 4:26 PM
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/24/2013 4:26 PM
Zinc	0.0090	0.0030	0.0100	NA	J	mg/L	4/24/2013 4:26 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 8:40 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 8:40 AM
Benzene	0.440	0.129	1.00	NA	J	µg/L	4/24/2013 8:40 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 8:40 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 8:40 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 8:40 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 8:40 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 8:40 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 8:40 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 8:40 AM
Chlorobenzene	1.88	0.177	3.00	NA	J	µg/L	4/24/2013 8:40 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 8:40 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 8:40 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 8:40 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 8:40 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 8:40 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 8:40 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 8:40 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 8:40 AM
1,4-Dichlorobenzene	1.46	0.287	1.00	NA		µg/L	4/24/2013 8:40 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 8:40 AM
1,1-Dichloroethane	0.580	0.383	5.00	NA	J	µg/L	4/24/2013 8:40 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 8:00:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-23A	**Matrix:**	Groundwater
Client Sample ID:	MW-1A DUP	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 8:40 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 8:40 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 8:40 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 8:40 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 8:40 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 8:40 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 8:40 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 8:40 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 8:40 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 8:40 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 8:40 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 8:40 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 8:40 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 8:40 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 8:40 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 8:40 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 8:40 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 8:40 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 8:40 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 8:40 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 8:40 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 8:40 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 8:40 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 8:40 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 8:40 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 8:40 AM
Surr: 1,2-Dichloroethane-d4	113	NA	68.7-129	NA		%REC	4/24/2013 8:40 AM
Surr: 4-Bromofluorobenzene	97.7	NA	71.8-127	NA		%REC	4/24/2013 8:40 AM
Surr: Dibromofluoromethane	109	NA	74.3-124	NA		%REC	4/24/2013 8:40 AM
Surr: Toluene-d8	96.9	NA	71.4-129	NA		%REC	4/24/2013 8:40 AM

TOTAL SUSPENDED SOLIDS — **Method: SM2540 D** — **Analyst: SF**

Total Suspended Solids	2.5	1.0	5.0	NA	J	mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 8:20:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-24A	**Matrix:**	Groundwater
Client Sample ID:	MW-1B DUPLICATE	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/24/2013 4:43 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:43 PM
Barium	0.0626	0.0010	0.100	NA	J	mg/L	4/24/2013 4:43 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/24/2013 4:43 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/24/2013 4:43 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:43 PM
Cobalt	0.0085	0.0010	0.0100	NA	J	mg/L	4/24/2013 4:43 PM
Copper	0.0016	0.0010	0.0100	NA	J	mg/L	4/24/2013 4:43 PM
Lead	0.0002	0.0002	0.0100	NA	J	mg/L	4/24/2013 4:43 PM
Nickel	ND	0.0020	0.0500	NA		mg/L	4/24/2013 4:43 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:43 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:43 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/24/2013 4:43 PM
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/24/2013 4:43 PM
Zinc	0.0092	0.0030	0.0100	NA	J	mg/L	4/24/2013 4:43 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/25/2013 3:01 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/25/2013 3:01 AM
Benzene	0.320	0.129	1.00	NA	J	µg/L	4/25/2013 3:01 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/25/2013 3:01 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/25/2013 3:01 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/25/2013 3:01 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/25/2013 3:01 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/25/2013 3:01 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/25/2013 3:01 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/25/2013 3:01 AM
Chlorobenzene	1.61	0.177	3.00	NA	J	µg/L	4/25/2013 3:01 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/25/2013 3:01 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/25/2013 3:01 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/25/2013 3:01 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/25/2013 3:01 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/25/2013 3:01 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/25/2013 3:01 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/25/2013 3:01 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/25/2013 3:01 AM
1,4-Dichlorobenzene	1.09	0.287	1.00	NA		µg/L	4/25/2013 3:01 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/25/2013 3:01 AM
1,1-Dichloroethane	0.420	0.383	5.00	NA	J	µg/L	4/25/2013 3:01 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 8:20:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-24A	**Matrix:**	Groundwater
Client Sample ID:	MW-1B DUPLICATE	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/25/2013 3:01 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/25/2013 3:01 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/25/2013 3:01 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/25/2013 3:01 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/25/2013 3:01 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/25/2013 3:01 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/25/2013 3:01 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/25/2013 3:01 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/25/2013 3:01 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/25/2013 3:01 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/25/2013 3:01 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/25/2013 3:01 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/25/2013 3:01 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/25/2013 3:01 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/25/2013 3:01 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/25/2013 3:01 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/25/2013 3:01 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/25/2013 3:01 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/25/2013 3:01 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/25/2013 3:01 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/25/2013 3:01 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/25/2013 3:01 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/25/2013 3:01 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/25/2013 3:01 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/25/2013 3:01 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/25/2013 3:01 AM
Surr: 1,2-Dichloroethane-d4	110	NA	68.7-129	NA		%REC	4/25/2013 3:01 AM
Surr: 4-Bromofluorobenzene	97.2	NA	71.8-127	NA		%REC	4/25/2013 3:01 AM
Surr: Dibromofluoromethane	112	NA	74.3-124	NA		%REC	4/25/2013 3:01 AM
Surr: Toluene-d8	94.9	NA	71.4-129	NA		%REC	4/25/2013 3:01 AM

TOTAL SUSPENDED SOLIDS **Method: SM2540 D** **Analyst: SF**

Total Suspended Solids	8.0	1.0	5.0	NA		mg/L	4/20/2013 1:18 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 1:40:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-25A	**Matrix:**	Groundwater
Client Sample ID:	MW-3A DUP	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	ND	0.0002	0.0060	NA		mg/L	4/24/2013 4:59 PM
Arsenic	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:59 PM
Barium	0.0510	0.0010	0.100	NA	J	mg/L	4/24/2013 4:59 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/24/2013 4:59 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/24/2013 4:59 PM
Chromium	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:59 PM
Cobalt	0.0015	0.0010	0.0100	NA	J	mg/L	4/24/2013 4:59 PM
Copper	0.0016	0.0010	0.0100	NA	J	mg/L	4/24/2013 4:59 PM
Lead	0.0002	0.0002	0.0100	NA	J	mg/L	4/24/2013 4:59 PM
Nickel	0.0021	0.0020	0.0500	NA	J	mg/L	4/24/2013 4:59 PM
Selenium	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:59 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/24/2013 4:59 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/24/2013 4:59 PM
Vanadium	ND	0.0010	0.0250	NA		mg/L	4/24/2013 4:59 PM
Zinc	0.0049	0.0030	0.0100	NA	J	mg/L	4/29/2013 7:04 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 7:06 PM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 7:06 PM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 7:06 PM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 7:06 PM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 7:06 PM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 7:06 PM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 7:06 PM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 7:06 PM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 7:06 PM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 7:06 PM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/24/2013 7:06 PM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 7:06 PM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 7:06 PM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 7:06 PM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 7:06 PM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 7:06 PM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 7:06 PM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 7:06 PM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 7:06 PM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 7:06 PM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 7:06 PM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 7:06 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 1:40:00 PM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-25A	**Matrix:**	Groundwater
Client Sample ID:	MW-3A DUP	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 7:06 PM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 7:06 PM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 7:06 PM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 7:06 PM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 7:06 PM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 7:06 PM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 7:06 PM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 7:06 PM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 7:06 PM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 7:06 PM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 7:06 PM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 7:06 PM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 7:06 PM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 7:06 PM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 7:06 PM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 7:06 PM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 7:06 PM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 7:06 PM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 7:06 PM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 7:06 PM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 7:06 PM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 7:06 PM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 7:06 PM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 7:06 PM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 7:06 PM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 7:06 PM
Surr: 1,2-Dichloroethane-d4	112	NA	68.7-129	NA		%REC	4/24/2013 7:06 PM
Surr: 4-Bromofluorobenzene	98.7	NA	71.8-127	NA		%REC	4/24/2013 7:06 PM
Surr: Dibromofluoromethane	114	NA	74.3-124	NA		%REC	4/24/2013 7:06 PM
Surr: Toluene-d8	95.7	NA	71.4-129	NA		%REC	4/24/2013 7:06 PM
TOTAL SUSPENDED SOLIDS		**Method: SM2540 D**					**Analyst: SF**
Total Suspended Solids	4.5	1.0	5.0	NA	J	mg/L	4/20/2013 1:36 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 12:00:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-26A	**Matrix:**	Trip Blank
Client Sample ID:	TRIP BLANK	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: AS**
Acetone	ND	4.88	100	NA		µg/L	4/24/2013 7:40 PM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/24/2013 7:40 PM
Benzene	ND	0.129	1.00	NA		µg/L	4/24/2013 7:40 PM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/24/2013 7:40 PM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/24/2013 7:40 PM
Bromoform	ND	0.400	3.00	NA		µg/L	4/24/2013 7:40 PM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/24/2013 7:40 PM
2-Butanone	ND	4.68	100	NA		µg/L	4/24/2013 7:40 PM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/24/2013 7:40 PM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/24/2013 7:40 PM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/24/2013 7:40 PM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/24/2013 7:40 PM
Chloroform	ND	0.253	5.00	NA		µg/L	4/24/2013 7:40 PM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/24/2013 7:40 PM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/24/2013 7:40 PM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/24/2013 7:40 PM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/24/2013 7:40 PM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/24/2013 7:40 PM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/24/2013 7:40 PM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/24/2013 7:40 PM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/24/2013 7:40 PM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/24/2013 7:40 PM
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/24/2013 7:40 PM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/24/2013 7:40 PM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/24/2013 7:40 PM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/24/2013 7:40 PM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/24/2013 7:40 PM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/24/2013 7:40 PM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/24/2013 7:40 PM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/24/2013 7:40 PM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/24/2013 7:40 PM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/24/2013 7:40 PM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/24/2013 7:40 PM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/24/2013 7:40 PM
Styrene	ND	0.240	1.00	NA		µg/L	4/24/2013 7:40 PM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/24/2013 7:40 PM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/24/2013 7:40 PM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/24/2013 7:40 PM
Toluene	ND	0.167	1.00	NA		µg/L	4/24/2013 7:40 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L11

Date Reported: 5/2/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 12:00:00 AM
Project:	1 ST SEMI 2013	**Date Received:**	4/19/2013 9:42:07 AM
Lab ID:	1304L11-26A	**Matrix:**	Trip Blank
Client Sample ID:	TRIP BLANK	**Site ID:**	MSW LANDFILL

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/24/2013 7:40 PM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/24/2013 7:40 PM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/24/2013 7:40 PM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/24/2013 7:40 PM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/24/2013 7:40 PM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/24/2013 7:40 PM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/24/2013 7:40 PM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/24/2013 7:40 PM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/24/2013 7:40 PM
Surr: 1,2-Dichloroethane-d4	107	NA	68.7-129	NA		%REC	4/24/2013 7:40 PM
Surr: 4-Bromofluorobenzene	97.9	NA	71.8-127	NA		%REC	4/24/2013 7:40 PM
Surr: Dibromofluoromethane	111	NA	74.3-124	NA		%REC	4/24/2013 7:40 PM
Surr: Toluene-d8	95.9	NA	71.4-129	NA		%REC	4/24/2013 7:40 PM

CHAIN OF CUSTODY RECORD

v5-1109 REIC use ONLY — CLIENT ID MAC 006 — DATE _____ — SHEET 1 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
209 15th 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

Client: MACON CO DEPT OF SWM — PO # _____
Contact Person: CHRIS STAHL — Phone: 828-439-2100
Address: 109 SIERRA DRIVE — City: FRANKLIN — State: NC — Zip: 28734
Billing Address (if different) _____
City: FRANKLIN — State: NC — Zip: 28734
Site ID & State: MSW LANDFILL — Project ID: 1 st Semi 2013 — Sampler: Mcbride / Farley / Shirley

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

ANALYSIS & METHOD REQUESTED: NC APPENDIX 1; TSS

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	1/2	0							
MW-1A	6	4-18-13 / 0800	G/Water	Grab	✓	✓							
MW-1B	6	0820	G/Water	Grab	✓	✓							
MW-1D	6	1132	G/Water	Grab	✓	✓							
MW-2	6	1228	G/Water	Grab	✓	✓							
MW-3A	6	1340	G/Water	Grab	✓	✓							
MW-5D	6	1321	G/Water	Grab	✓	✓							
MW-10	6	1515	G/Water	Grab	✓	✓							
MW-14	6	1623	G/Water	Grab	✓	✓							
MW-15	6	1600	G/Water	Grab	✓	✓							

ENTER PRESERVATIVE CODE:
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide
6 Zinc Acetate
7 EDTA

COMMENTS:
ANALYZE DIS METALS FOR ANY TOTAL METAL DETECTIONS

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

Temperature at arrival: 5 °C — ICED? Y ✓ N___

1		2		3	
Relinquished by (signature)	4-19-13 0830 Date/Time	Relinquished by (signature)	Date/Time	Relinquished by (signature)	Date/Time
Received by (signature)	4-19-13 0830 Date/Time	Received by (signature)	Date/Time	Received by (signature)	Date/Time

CHAIN OF CUSTODY RECORD

v5-1109 REIC use ONLY CLIENT ID MAC 006 DATE _____ SHEET 2OF 3

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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

Client: MACON CO DEPT OF SWM PO # _____
Contact Person CHRIS STAHL Phone 828-439-2100
Address 109 SIERRA DRIVE City FRANKLIN State NC Zip 28734
Billing Address (if different) _____
City FRANKLIN State NC Zip 28734
Site ID & State MSW LANDFILL Project ID 1 st Semi 2013 Sampler Mcbride / Farley / Shirley

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

ANALYSIS & METHOD REQUESTED: NC APPENDIX 1; TSS

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	1/2	0							
MW-17	6	4-18-13 / 1418	GWater	Grab	✓	✓							
MW-18	6	1442	GWater	Grab	✓	✓							
MW-19	6	0919	GWater	Grab	✓	✓							
MW-19A	6	1147	GWater	Grab	✓	✓							
MW-20	6	0942	GWater	Grab	✓	✓							
MW-21	6	1000	GWater	Grab	✓	✓							
MW-22	6	1036	GWater	Grab	✓	✓							
MW-22A	6	1041	GWater	Grab	✓	✓							
MW-23	6	1125	GWater	Grab	✓	✓							

ENTER PRESERVATIVE CODE:
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide
6 Zinc Acetate
7 EDTA

COMMENTS:
ANALYZE DIS METALS FOR ANY TOTAL METAL DETECTIONS

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

Temperature at arrival: 1.5 °C ICED? Y ✓ N ___

1		2		3	
Relinquished by (signature)	4-19-13 0830	Relinquished by (signature)	Date/Time	Relinquished by (signature)	Date/Time
Received by (signature)	4-19-13 0830	Received by (signature)	Date/Time	Received by (signature)	Date/Time

CHAIN OF CUSTODY RECORD

v5-1109 REIC use ONLY CLIENT ID MAC 006 DATE _____ SHEET 3OF 3

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Client: MACON CO DEPT OF SWM PO # _____
Contact Person CHRIS STAHL Phone 828-439-2100
Address 109 SIERRA DRIVE City FRANKLIN State NC Zip 28734
Billing Address (if different) _____
City FRANKLIN State NC Zip 28734
Site ID & State MSW LANDFILL Project ID 1 st Semi 2013 Sampler Mcbride / Farley / Shirley

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

ANALYSIS & METHOD REQUESTED: NC APPENDIX 1; TSS

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	1/2	0							
SW-1	6	4-18-13 / 1221	GWater	Grab	✓	✓							
SW-2	6	0900	GWater	Grab	✓	✓							
SW-3	6	1535	GWater	Grab	✓	✓							
SW-4	6	1610	GWater	Grab	✓	✓							
MW- 1A DUPLICATE	18	0800	GWater	Grab	✓	✓							
MW- 1B DUPLICATE	18	0820	GWater	Grab	✓	✓							
MW- 3A DUPLICATE	18	1340	GWater	Grab	✓	✓							
TRIP BLANK #2	2 VOA		Choose	Choose			✓						
			Choose	Choose									

ENTER PRESERVATIVE CODE:
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide
6 Zinc Acetate
7 EDTA

COMMENTS:
ANALYZE DIS METALS FOR ANY TOTAL METAL DETECTIONS

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Temperature at arrival: °C ICED? Y___ N___

1	Relinquished by (signature)	4-19-13 0830	2	Relinquished by (signature)	Date/Time	3	Relinquished by (signature)	Date/Time
	Received by (signature)	4-19-13 0830		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. P.O Box 286, Beaver, WV 25813 800-999-0105 www.reiclabs.com

REI Consultants, Inc.
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Website: www.reiclabs.com

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101 17th Street
Ashland, KY 41101
TEL: 606.393.5027

1557 Commerce Road, Suite 201
Verona, VA 24482
TEL: 540.777.1276

16 Commerce Drive
Westover, WV 26501
TEL: 304.241.5861

Tuesday, April 30, 2013

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

TEL: (828) 349-2100
FAX: (828) 349-2185

RE: 1ST SEMI 2013

Work Order #: 1304L32

Dear Mr. Chris Stahl:

REI Consultants, Inc. received 1 sample(s) on 4/19/2013 for the analyses presented in the following report.

Sincerely,

Michelle Ellison

Michelle Ellison

REI Consultants, Inc. - Analytical Report

WO#: 1304L32

Date Reported: 4/30/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 12:40:00 PM
Project:	1ST SEMI 2013	**Date Received:**	4/19/2013 1:33:41 PM
Lab ID:	1304L32-01A	**Matrix:**	Liquid
Client Sample ID:	LEACHATE	**Site ID:**	MSW LEACHATE

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
TOTAL METALS by ICP-MS		**Method: SW6020A**			**SW3020A**		**Analyst: JD**
Antimony	0.0008	0.0002	0.0060	NA	J	mg/L	4/24/2013 6:05 PM
Arsenic	0.0067	0.0010	0.0100	NA	J	mg/L	4/24/2013 6:05 PM
Barium	0.453	0.0010	0.100	NA		mg/L	4/24/2013 6:05 PM
Beryllium	ND	0.0002	0.0010	NA		mg/L	4/24/2013 6:05 PM
Cadmium	ND	0.0002	0.0010	NA		mg/L	4/24/2013 6:05 PM
Chromium	0.0204	0.0010	0.0100	NA		mg/L	4/24/2013 6:05 PM
Cobalt	0.0357	0.0010	0.0100	NA		mg/L	4/24/2013 6:05 PM
Copper	0.0040	0.0010	0.0100	NA	J	mg/L	4/24/2013 6:05 PM
Lead	0.0003	0.0002	0.0100	NA	J	mg/L	4/24/2013 6:05 PM
Nickel	0.103	0.0020	0.0500	NA		mg/L	4/24/2013 6:05 PM
Selenium	0.0017	0.0010	0.0100	NA	J	mg/L	4/24/2013 6:05 PM
Silver	ND	0.0010	0.0100	NA		mg/L	4/24/2013 6:05 PM
Thallium	ND	0.0002	0.0055	NA		mg/L	4/24/2013 6:05 PM
Vanadium	0.0151	0.0010	0.0250	NA	J	mg/L	4/24/2013 6:05 PM
Zinc	0.0317	0.0030	0.0100	NA		mg/L	4/24/2013 6:05 PM
VOLATILE ORGANIC COMPOUNDS-8260		**Method: SW8260B**					**Analyst: RB**
Acetone	26.0	4.88	100	NA	J	µg/L	4/25/2013 11:50 AM
Acrylonitrile	ND	4.24	200	NA		µg/L	4/25/2013 11:50 AM
Benzene	ND	0.129	1.00	NA		µg/L	4/25/2013 11:50 AM
Bromochloromethane	ND	0.346	3.00	NA		µg/L	4/25/2013 11:50 AM
Bromodichloromethane	ND	0.162	1.00	NA		µg/L	4/25/2013 11:50 AM
Bromoform	ND	0.400	3.00	NA		µg/L	4/25/2013 11:50 AM
Bromomethane	ND	0.497	10.0	NA		µg/L	4/25/2013 11:50 AM
2-Butanone	ND	4.68	100	NA		µg/L	4/25/2013 11:50 AM
Carbon disulfide	ND	1.27	100	NA		µg/L	4/25/2013 11:50 AM
Carbon tetrachloride	ND	0.250	1.00	NA		µg/L	4/25/2013 11:50 AM
Chlorobenzene	ND	0.177	3.00	NA		µg/L	4/25/2013 11:50 AM
Chloroethane	ND	0.942	10.0	NA		µg/L	4/25/2013 11:50 AM
Chloroform	ND	0.253	5.00	NA		µg/L	4/25/2013 11:50 AM
Chloromethane	ND	0.327	1.00	NA		µg/L	4/25/2013 11:50 AM
Dibromochloromethane	ND	0.419	3.00	NA		µg/L	4/25/2013 11:50 AM
1,2-Dibromo-3-chloropropane	ND	0.499	13.0	NA		µg/L	4/25/2013 11:50 AM
1,2-Dibromoethane	ND	0.341	1.00	NA		µg/L	4/25/2013 11:50 AM
Dibromomethane	ND	0.293	10.0	NA		µg/L	4/25/2013 11:50 AM
1,2-Dichlorobenzene	ND	0.450	5.00	NA		µg/L	4/25/2013 11:50 AM
1,4-Dichlorobenzene	ND	0.287	1.00	NA		µg/L	4/25/2013 11:50 AM
trans-1,4-Dichloro-2-butene	ND	2.81	100	NA		µg/L	4/25/2013 11:50 AM
1,1-Dichloroethane	ND	0.383	5.00	NA		µg/L	4/25/2013 11:50 AM

REI Consultants, Inc. - Analytical Report

WO#: 1304L32

Date Reported: 4/30/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 12:40:00 PM
Project:	1ST SEMI 2013	**Date Received:**	4/19/2013 1:33:41 PM
Lab ID:	1304L32-01A	**Matrix:**	Liquid
Client Sample ID:	LEACHATE	**Site ID:**	MSW LEACHATE

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
1,2-Dichloroethane	ND	0.428	1.00	NA		µg/L	4/25/2013 11:50 AM
1,1-Dichloroethene	ND	0.328	5.00	NA		µg/L	4/25/2013 11:50 AM
cis-1,2-Dichloroethene	ND	0.226	5.00	NA		µg/L	4/25/2013 11:50 AM
trans-1,2-Dichloroethene	ND	0.392	5.00	NA		µg/L	4/25/2013 11:50 AM
1,2-Dichloropropane	ND	0.461	1.00	NA		µg/L	4/25/2013 11:50 AM
cis-1,3-Dichloropropene	ND	0.220	1.00	NA		µg/L	4/25/2013 11:50 AM
trans-1,3-Dichloropropene	ND	0.216	1.00	NA		µg/L	4/25/2013 11:50 AM
Ethylbenzene	ND	0.178	1.00	NA		µg/L	4/25/2013 11:50 AM
2-Hexanone	ND	4.11	50.0	NA		µg/L	4/25/2013 11:50 AM
Iodomethane	ND	3.44	10.0	NA		µg/L	4/25/2013 11:50 AM
Methylene chloride	ND	0.539	1.00	NA		µg/L	4/25/2013 11:50 AM
4-Methyl-2-pentanone	ND	4.40	100	NA		µg/L	4/25/2013 11:50 AM
Styrene	ND	0.240	1.00	NA		µg/L	4/25/2013 11:50 AM
1,1,1,2-Tetrachloroethane	ND	0.360	5.00	NA		µg/L	4/25/2013 11:50 AM
1,1,2,2-Tetrachloroethane	ND	0.384	3.00	NA		µg/L	4/25/2013 11:50 AM
Tetrachloroethene	ND	0.196	1.00	NA		µg/L	4/25/2013 11:50 AM
Toluene	ND	0.167	1.00	NA		µg/L	4/25/2013 11:50 AM
1,1,1-Trichloroethane	ND	0.354	1.00	NA		µg/L	4/25/2013 11:50 AM
1,1,2-Trichloroethane	ND	0.492	1.00	NA		µg/L	4/25/2013 11:50 AM
Trichloroethene	ND	0.302	1.00	NA		µg/L	4/25/2013 11:50 AM
Trichlorofluoromethane	ND	0.299	1.00	NA		µg/L	4/25/2013 11:50 AM
1,2,3-Trichloropropane	ND	0.358	1.00	NA		µg/L	4/25/2013 11:50 AM
Vinyl acetate	ND	4.87	50.0	NA		µg/L	4/25/2013 11:50 AM
Vinyl chloride	ND	0.223	1.00	NA		µg/L	4/25/2013 11:50 AM
o-Xylene	ND	0.186	1.00	NA		µg/L	4/25/2013 11:50 AM
m,p-Xylene	ND	0.287	2.00	NA		µg/L	4/25/2013 11:50 AM
Surr: 1,2-Dichloroethane-d4	101	NA		NA		%REC	4/25/2013 11:50 AM
Surr: 4-Bromofluorobenzene	97.8	NA		NA		%REC	4/25/2013 11:50 AM
Surr: Dibromofluoromethane	106	NA		NA		%REC	4/25/2013 11:50 AM
Surr: Toluene-d8	97.7	NA		NA		%REC	4/25/2013 11:50 AM
BOD, 5 Day, 20°C		**Method: SM5210 B**					**Analyst: CB**
Biochemical Oxygen Demand	20	2	5	NA		mg/L	4/19/2013 3:46 PM
Chemical Oxygen Demand		**Method: EPA410.4**					**Analyst: BA**
Chemical Oxygen Demand	638	40	100	NA		mg/L	4/22/2013 11:30 AM
ANIONS by ION CHROMATOGRAPHY		**Method: E300.0**					**Analyst: CF**
Sulfate	18.4	1.00	5.00	NA		mg/L	4/19/2013 2:08 PM

REI Consultants, Inc. - Analytical Report

WO#: 1304L32

Date Reported: 4/30/2013

Client:	MACON COUNTY SOLID WASTE MANAGEMENT	**Collection Date:**	4/18/2013 12:40:00 PM
Project:	1ST SEMI 2013	**Date Received:**	4/19/2013 1:33:41 PM
Lab ID:	1304L32-01A	**Matrix:**	Liquid
Client Sample ID:	LEACHATE	**Site ID:**	MSW LEACHATE

Analysis	Result	MDL	PQL	MCL	Qual	Units	Date Analyzed
ANIONS by ION CHROMATOGRAPHY		**Method: E300.0**					**Analyst: CF**
Nitrogen, Nitrate	1.86	0.04	0.20	NA		mg/L	4/19/2013 2:08 PM
Orthophosphate (As P)	ND	0.05	0.10	NA		mg/L	4/19/2013 2:08 PM
TOTAL SUSPENDED SOLIDS		**Method: SM2540 D**					**Analyst: SF**
Total Suspended Solids	25.0	2.0	10	NA		mg/L	4/20/2013 1:59 PM

CHAIN OF CUSTODY RECORD

v5-1109 REIC use ONLY CLIENT ID MAC 006 DATE _____ SHEET ____

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
209 15th 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

Client: MACON CO DEPT OF SWM PO # _____
Contact Person CHRIS STAHL Phone 828-439-2100
Address 109 SIERRA DRIVE City FRANKLIN State NC Zip 28734
Billing Address (if different) _____
City FRANKLIN State NC Zip 28734
Site ID & State MSW LEACHATE Project ID 1 ST SEMI 2013 Sampler Mcbride / Farley / Shirley

SAMPLE LOG & ANALYSIS REQUEST

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

ANALYSIS & METHOD REQUESTED: BOD, NITRATE, SULFATE, NC APPENDIX 1 VOL, METALS, COD, ORTHOPHOSPHATE

SAMPLE ID	No. & Type of Containers	Sampling Date/Time	Matrix	Sample Comp/Grab	BOD (0)	NITRATE (0)	SULFATE (0)	NC APPENDIX 1 VOL (1)	METALS (2)	COD (3)	ORTHOPHOSPHATE (3)		
LEACHATE	8	4-18-13 /1240	GWater	Grab	✓	✓	✓	✓	✓	✓	✓		
			Choose	Choose									
			Choose	Choose									
			Choose	Choose									
			Choose	Choose									
			Choose	Choose									
			Choose	Choose									
			Choose	Choose									
			Choose	Choose									

ENTER PRESERVATIVE CODE:
0 None
1 Hydrochloric Acid
2 Nitric Acid
3 Sulfuric Acid
4 Sodium Thiosulfate
5 Sodium Hydroxide
6 Zinc Acetate
7 EDTA

COMMENTS:

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

Temperature at arrival: 4 °C ICED? Y ✓ N ___

	Relinquished by (signature)	Date/Time		Relinquished by (signature)	Date/Time		Relinquished by (signature)	Date/Time
1	Allen McBride	4-19-13 0856	2			3		
	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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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
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
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	*
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**
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
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:

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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

MW-1A

VOCs	Oct-2011	NC 2L	SWSL	Apr-2012	Oct-2012	Apr-2013
1,1-Dichloroethane	*	7	5	*	*	*
1,4-Dichlorobenzene	4.3	6	1	3.0	4.2	1.5
Acetone	*	6000	100	*	*	*
Benzene	*	1	1	*	*	*
Carbon Disulfide	*	700	100	*	*	*
Chlorobenzene	3.5	50	3	*	4.0	*
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	**Oct-2011**	**NC 2L**	**SWSL**	**Apr-2012**	**Oct-2012**	**Apr-2013**
Arsenic	*	10	10	*	*	*
Barium	*	700	100	*	*	*
Cadmium	*	2	1	*	*	*
Chromium	*	10	10	*	*	*
Cobalt	25.1	1	10	20.9	29.7	19.8
Copper	*	1000	10	*	*	*
Lead	*	15	10	*	*	*
Nickel	*	100	50	*	*	*
Selenium	*	20	10	*	*	*
Vanadium	*	0.3	25	*	*	*
Zinc	*	1000	10	*	10.5	*

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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	*

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HISTORICAL ANALYTICAL RESULTS

MACON COUNTY MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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:

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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
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
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**
Antimony	NL	6	*	*	*	*	*	1	6	*	*	*	*	*	*	*
Barium	2000	100	*	668	1720	263	102	700	100	179	255	287	136	*	109	146
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	*	*	*	*
Cobalt	NL	10	12.5	34.5	73.4	17.7	19	1	10	18.2	16.0	16.8	12.0	*	*	*
Copper	1000	10	*	10.6	64.2	*	*	1000	10	*	10.1	*	*	*	*	*
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	*	*	*	*
Zinc	1050	10	29.8	42.9	216	33	*	1000	10	21.7	40.9	34.2	15.0	23.7	*	23.4

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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**
8. **N/A - not applicable**

HISTORICAL ANALYTICAL RESULTS

MACON COUNTY MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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:

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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

MW-2

VOCs	NC 2L	SWSL	Oct-2012	Apr-2013
Acetone	6000	100	*	*
Benzene	1	1	*	*
Carbon Disulfide	700	100	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2012**	**Apr-2013**
Antimony	1	6	*	*
Arsenic	10	10	29.2	*
Barium	700	100	333	166
Cadmium	2	1	*	*
Chromium	10	10	*	*
Cobalt	1	10	38.0	26.1
Copper	1000	10	*	*
Lead	15	10	*	*
Nickel	100	50	*	*
Selenium	20	10	*	*
Vanadium	0.3	25	*	*
Zinc	1000	10	*	10.0

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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:

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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
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**
Barium	2000	100	1410	823	254	214	352	700	100	311	165	665	108	101	174	140
Beryllium	NL	1	*	*	*	*	*	4	1	*	*	*	*	*	*	*
Cadmium	1.75	1	*	*	2.8	*	*	2	1	*	2.7	1.3	6.6	*	1.7	*
Chromium	50	10	*	17	11.9	*	*	10	10	10.8	*	32.1	*	*	*	*
Cobalt	NL	10	17.1		*	*	*	1	10	*	*	10.1	*	*	*	*
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

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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	*	*
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:

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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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	*	*	*	*
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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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

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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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:

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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:

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

MW-19

METALS	NC 2L	SWSL	Apr-2012	Oct-2012	Apr-2013
Antimony	1	6	*	*	*
Arsenic	10	10	*	*	*
Barium	700	100	324	338	368
Beryllium	4	1	*	*	*
Cadmium	2	1	*	*	*
Chromium	10	10	*	*	*
Cobalt	1	10	*	*	*
Copper	1000	10	*	*	*
Lead	15	10	10.8	13.0	18.2
Nickel	100	50	*	*	*
Selenium	20	10	*	*	*
Vanadium	0.3	25	*	*	*
Zinc	1000	10	34	39.3	46.0

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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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HISTORICAL ANALYTICAL RESULTS

MACON COUNTY MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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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6. **All constituents reported in parts per billion (ppb)**
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HISTORICAL ANALYTICAL RESULTS

MACON COUNTY MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

MW-22

METALS	NC 2L	SWSL	Apr-2013
Arsenic	10	10	*
Barium	700	100	574
Beryllium	4	1	2.6
Cadmium	2	1	*
Chromium	10	10	32.5
Cobalt	1	10	35.1
Copper	1000	10	32.2
Lead	15	10	17.1
Nickel	100	50	*
Selenium	20	10	*
Vanadium	0.3	25	46.8
Zinc	1000	10	93.1

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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
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**
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

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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:

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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

MW-23

VOCs	NC 2L	SWSL	Oct-2011	Apr-2012	Oct-2012	Apr-2013
1,1-Dichlorethane	7	5	*	*	*	*
1,4-Dichlorobenzene	6	1	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**
Arsenic	10	10	*	*	*	*
Barium	700	100	*	110	142	*
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

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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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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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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**	*	*

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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:

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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:

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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:

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

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 MUNICIPAL SOLID WASTE (MSW) LANDFILL

PERMIT NO: 57-03

MACON COUNTY, NORTH CAROLINA

SW-4

VOCs	NC 2L	SWSL	Apr-2011	Oct-2011	Apr-2012	Oct-2012	Apr-2013
Carbon Disulfide	700	100	*	*	*	*	*
Styrene	70	10	*	*	*	*	*
METALS	**NC 2L**	**SWSL**	**Apr-2011**	**Oct-2011**	**Apr-2012**	**Oct-2012**	**Apr-2013**
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 Semiannual 2013 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
License No. P-1018
P.O. Box 286
Beaver, WV 25813

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 2013. North Carolina groundwater protection standards include both groundwater standards and interim maximum allowable concentrations (IMACs) given in 15A NCAC 2L .0202, effective January 1, 2010. The following metals exceeded groundwater protection standards in the indicated wells:

Parameter	Well
Barium	MW-15
Chromium	MW-22
Cobalt	MW-1A, MW-2, MW-15, MW-21, MW-22
Lead	MW-22
Vanadium	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. 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

PQLs/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 wells and parameters for which groundwater protection standards were exceeded during the 1st semiannual 2013 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-15	MW-21	MW-22
Barium	0.100	0.7	1.55	-	-	0.897	-	-
Chromium	0.010	0.01	0.140	-	-	-	-	0.0325
Cobalt	0.010	0.001	0.056	0.0198	0.0261	0.0319	0.0234	0.0351
Lead	0.010	0.015	0.044	-	-	-	-	0.0171
Vanadium	0.025	0.003	0.180	-	-	-	-	0.0468

Notes:
All values in mg/L
SWSL – Solid Waste Section Limit
GPS – 15A NCAC 2L .0202 groundwater protection standard
UPL – upper prediction limit
"-" – not detected above GPS

All exceedances of groundwater standards were below background statistical limits. This indicates that the cobalt exceedances in wells MW-1A, MW-2, MW-15, MW-21, and MW-22, the barium exceedance in well MW-15, and the chromium, lead, and vanadium exceedances in well 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.

3.0 CONCLUSIONS

It is the professional opinion of REIC of NC that the groundwater protection standards exceedances of cobalt in wells MW-1A, MW-1B, MW-2, MW-14, MW-15, and MW-22, of barium in well MW-15, and of chromium, lead, and vanadium in well 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. 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 the above metals observed during the 1st semiannual 2013 monitoring event. Since the metals in the affected wells do not exceed background, the presence of the metals is attributed to natural variation.

Prepared by:
REI Consultants of North Carolina, PLLC
License No. P-1018

Under the direct supervision of:
Michael P. Hofe, PE
License No. 028029

NORTH CAROLINA PROFESSIONAL SEAL 028029 7-9-13 ENGINEER MICHAEL P. HOFE

Date: 7/9/2013

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	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Cobalt	Lead	Nickel	Selenium	Vanadium	Zinc	Carbon Disulfide	cis-1,2-Dichloro-ethene
MW-10	Oct-99	0.0150	0.0050	0.673	0.001	0.0005	0.040	0.100	0.005	0.005	0.025	0.010	0.070	0.120	0.005	0.0025
MW-10	Apr-00	0.0150	0.0050	0.652	0.001	0.0005	0.031	0.100	0.005	0.005	0.025	0.010	0.055	0.086	0.005	0.0025
MW-10	Oct-00	0.0150	0.018	0.750	0.001	0.0005	0.026	0.100	0.016	0.005	0.025	0.010	0.020	0.064	0.005	0.0025
MW-10	Apr-01	0.0150	0.0050	0.790	0.001	0.0005	0.024	0.100	0.015	0.011	0.025	0.010	0.020	0.025	0.005	0.0025
MW-10	Oct-01	0.0150	0.0050	0.570	0.001	0.0005	0.005	0.100	0.011	0.022	0.025	0.010	0.020	0.025	0.005	0.0025
MW-10	Apr-03	0.0150	0.0050	1.30	0.001	0.0005	0.100	0.100	0.042	0.029	0.025	0.010	0.020	0.26	0.005	0.0025
MW-10	Oct-03	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-10	Apr-04	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0059
MW-17	Oct-99	0.0150	0.0050	0.250	0.001	0.0005	0.017	0.100	0.005	0.005	0.025	0.010	0.020	0.065	0.005	0.0025
MW-17	Apr-00	0.0150	0.0050	0.250	0.001	0.0005	0.025	0.100	0.005	0.005	0.025	0.010	0.020	0.061	0.005	0.0025
MW-17	Oct-00	0.0150	0.0050	0.250	0.001	0.0005	0.011	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-17	Apr-01	0.0150	0.0050	0.250	0.001	0.0005	0.025	0.100	0.005	0.018	0.025	0.010	0.020	0.071	0.005	0.0025
MW-17	Oct-01	0.0150	0.0050	0.250	0.001	0.0005	0.031	0.100	0.018	0.020	0.025	0.010	0.020	0.140	0.005	0.0025
MW-17	Apr-03	0.0150	0.0050	0.670	0.001	0.0005	0.140	0.100	0.056	0.044	0.025	0.010	0.180	0.260	0.005	0.0025
MW-17	Oct-03	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.011	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-17	Apr-04	0.0150	0.0050	0.250	0.001	0.0039	0.065	0.100	0.026	0.024	0.025	0.010	0.020	0.100	0.005	0.0025
MW-18	Oct-99	0.0150	0.0050	0.250	0.001	0.0005	0.013	0.100	0.005	0.005	0.025	0.010	0.020	0.050	0.005	0.0025
MW-18	Apr-00	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.022	0.005	0.025	0.010	0.020	0.025	0.0035	0.0025
MW-18	Oct-00	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-18	Apr-01	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.005	0.005	0.025	0.010	0.020	0.071	0.005	0.0025
MW-18	Oct-01	0.0150	0.0050	0.250	0.001	0.0005	0.005		0.005	0.014	0.025	0.010	0.020	0.025	0.005	0.0025
MW-18	Apr-03	0.0150	0.0050	0.250	0.001	0.0005	0.011	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-18	Oct-03	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-18	Apr-04	0.0150	0.0050	0.620	0.001	0.0018	0.048	0.100	0.014	0.016	0.025	0.010	0.057	0.082	0.005	0.0025
MW-10	Dec-04	0.0150	0.0050	0.766	0.001	0.0005	0.005	0.100	0.0118	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-17	Dec-04	0.0150	0.0050	0.250	0.001	0.0005	0.0286	0.100	0.0133	0.0122	0.025	0.010	0.020	0.0848	0.005	0.0025
MW-18	Dec-04	0.0150	0.0050	0.250	0.001	0.0005	0.0190	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-10	Apr-05	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-17	Apr-05	0.0150	0.0050	0.250	0.001	0.0005	0.0230	0.100	0.0125	0.005	0.025	0.010	0.020	0.0556	0.005	0.0025
MW-18	Apr-05	0.0150	0.0050	0.250	0.001	0.0005	0.0147	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-10	Oct-05	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-17	Oct-05	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-18	Oct-05	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-10	Apr-06	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-17	Apr-06	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-18	Apr-06	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-10	Oct-06	0.0150	0.0050	0.250	0.001	0.0005	0.005	0.100	0.005	0.005	0.025	0.010	0.020	0.025	0.005	0.0025
MW-17	Oct-06	0.0150	0.0050	0.250	0.001	0.0005	0.0103	0.100	0.0102	0.005	0.025	0.010	0.020	0.0529	0.005	0.0025
MW-18	Oct-06	0.0150	0.0050	0.250	0.001	0.0005	0.0139	0.100	0.005	0.005	0.025	0.010	0.020	0.0681	0.005	0.0025
MW-10	Apr-07	0.0030	0.0050	0.248	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.025	0.005	0.010	0.0110	0.050	0.0025
MW-17	Apr-07	0.0030	0.0050	0.217	0.0005	0.0005	0.0050	0.0121	0.0155	0.005	0.025	0.005	0.010	0.0540	0.050	0.0025
MW-18	Apr-07	0.0030	0.0050	0.213	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.025	0.005	0.010	0.0246	0.050	0.0025
MW-10	Oct-07	0.0030	0.0050	0.226	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.025	0.005	0.010	0.005	0.050	0.0025
MW-17	Oct-07	0.0030	0.0050	0.125	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.025	0.005	0.010	0.0230	0.050	0.0025
MW-18	Oct-07	0.0030	0.0050	0.146	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.025	0.005	0.010	0.0294	0.050	0.0025
MW-10	Apr-08	0.0030	0.0050	0.235	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.025	0.005	0.010	0.005	0.050	0.0025
MW-17	Apr-08	0.0030	0.0050	0.152	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.025	0.005	0.010	0.0241	0.050	0.0025

MSW Landfill

Well	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Cobalt	Lead	Nickel	Selenium	Vanadium	Zinc	Carbon Disulfide	cis-1,2-Dichloro-ethene
MW-18	Apr-08	0.0030	0.0050	0.133	0.0005	0.0005	0.0050	0.005	0.005	0.005	0.025	0.005	0.010	0.005	0.050	0.0025
MW-10	Oct-08	0.0030	0.0050	0.369	0.0005	0.0005	0.0103	0.005	0.005	0.005	0.025	0.005	0.010	0.0315	0.050	0.0025
MW-17	Oct-08	0.0030	0.0050	0.220	0.0005	0.0005	0.0133	0.0147	0.0131	0.005	0.025	0.005	0.010	0.0654	0.050	0.0025
MW-18	Oct-08	0.0030	0.0050	0.237	0.0005	0.0005	0.0111	0.005	0.005	0.005	0.025	0.005	0.010	0.0278	0.050	0.0025
MW-10	Apr-09	0.0030	0.0050	0.315	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0173	0.050	0.0025
MW-17	Apr-09	0.0030	0.0050	0.105	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0285	0.050	0.0025
MW-18	Apr-09	0.0030	0.0050	0.175	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0130	0.050	0.0025
MW-10	Oct-09	0.0030	0.0050	0.254	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.005	0.050	0.0025
MW-17	Oct-09	0.0030	0.0050	0.112	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0242	0.050	0.0025
MW-18	Oct-09	0.0030	0.0050	0.177	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0152	0.050	0.0025
MW-10	Apr-10	0.0030	0.0050	0.408	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0145	0.050	0.0025
MW-17	Apr-10	0.0030	0.0050	0.114	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0299	0.050	0.0025
MW-18	Apr-10	0.0030	0.0050	0.115	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0118	0.050	0.0025
MW-10	Oct-10	0.0030	0.0050	0.840	0.0005	0.0005	0.0250	0.0163	0.0112	0.005	0.025	0.0101	0.0359	0.106	0.050	0.0025
MW-17	Oct-10	0.0030	0.0050	0.170	0.0005	0.0005	0.005	0.0109	0.0119	0.005	0.025	0.005	0.0125	0.0463	0.050	0.0025
MW-18	Oct-10	0.0030	0.0050	0.366	0.0005	0.0005	0.0212	0.005	0.005	0.005	0.025	0.005	0.0125	0.0453	0.050	0.0025
MW-10	Apr-11	0.0030	0.0050	1.51	0.0013	0.0005	0.0422	0.0253	0.0248	0.0164	0.025	0.0254	0.0721	0.165	0.050	0.0025
MW-17	Apr-11	0.0030	0.0050	0.218	0.0005	0.0005	0.0130	0.0129	0.0116	0.005	0.025	0.005	0.010	0.0578	0.050	0.0025
MW-18	Apr-11	0.0030	0.0050	0.183	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0165	0.050	0.0025
MW-10	Oct-11	0.0030	0.0050	0.434	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0124	0.050	0.0025
MW-17	Oct-11	0.0030	0.0050	0.116	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0309	0.050	0.0025
MW-18	Oct-11	0.0030	0.0050	0.050	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0104	0.050	0.0025
MW-10	Apr-12	0.0030	0.0050	0.394	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0309	0.050	0.0025
MW-17	Apr-12	0.0030	0.0050	0.120	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0334	0.050	0.0025
MW-18	Apr-12	0.0030	0.0050	0.110	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.005	0.050	0.0025
MW-10	Oct-12	0.0030	0.0050	0.308	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0250	0.050	0.0025
MW-17	Oct-12	0.0030	0.0050	0.151	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0362	0.050	0.0025
MW-18	Oct-12	0.0030	0.0050	0.110	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0133	0.050	0.0025
MW-10	Apr-13	0.0030	0.0050	0.407	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0387	0.050	0.0025
MW-17	Apr-13	0.0030	0.0050	0.151	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0444	0.050	0.0025
MW-18	Apr-13	0.0030	0.0050	0.115	0.0005	0.0005	0.005	0.005	0.005	0.005	0.025	0.005	0.010	0.0319	0.050	0.0025

PQL	0.030	0.010	0.500	0.002	0.001	0.010	0.200	0.010	0.010	0.050	0.020	0.040	0.050	0.100	0.005
SWSL	0.006	0.010	0.100	0.001	0.001	0.010	0.010	0.010	0.010	0.050	0.010	0.020	0.010	0.100	0.005
# Obs.	78	78	78	78	78	78	39	78	78	78	78	78	78	78	78
# NDs	78	77	31	77	76	50	33	58	67	78	76	58	27	77	77
% NDs	100%	99%	40%	99%	97%	64%	85%	74%	86%	100%	97%	74%	35%	99%	99%
Method	Nonpara-metric	Nonpara-metric	Para-metric	Nonpara-metric	Nonpara-metric	Nonpara-metric	Nonpara-metric	Nonpara-metric	Nonpara-metric	Nonpara-metric	Nonpara-metric	Nonpara-metric	Para-metric	Nonpara-metric	Nonpara-metric
Limit	0.006	0.018	1.55	0.0013	0.0039	0.140	0.0253	0.056	0.044	0.050	0.0254	0.180	0.327	0.100	0.0059

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

1,1-Dichloroethane	Cobalt
1,4-Dichlorobenzene	Copper
Acetone	Ethylbenzene
Antimony	Lead
Arsenic	Methylene Chloride
Barium	Nickel
Benzene	Selenium
Beryllium	Thallium
Cadmium	Vanadium
Carbon Disulfide	Vinyl Chloride
Chlorobenzene	Xylenes, Total
Chloroethane	Zinc
Chromium	
cis-1,2-Dichloroethane	

From Table 19-1, EPA Unified Guidance:

#COCs	ln(#COCs)	κ
1	0	1.55
2	0.693147	1.74
5	1.609438	1.97
10	2.302585	2.13
20	2.995732	2.28
26	3.258097	**2.34**
40	3.688879	2.43

Barium (excluding data points censored at 0.5)

0.05	1.51	1.46	0.3789	0.5532
0.105	1.30	1.20	0.2604	0.3112
0.110	0.840	0.73	0.2281	0.1665
0.110	0.790	0.68	0.2045	0.1391
0.112	0.766	0.65	0.1855	0.1213
0.114	0.750	0.64	0.1693	0.1077
0.115	0.673	0.56	0.1551	0.0865
0.115	0.670	0.56	0.1423	0.0790
0.116	0.652	0.54	0.1306	0.0700
0.120	0.620	0.50	0.1197	0.0599
0.125	0.570	0.45	0.1095	0.0487
0.133	0.434	0.30	0.0998	0.0300
0.146	0.408	0.26	0.0906	0.0237
0.151	0.407	0.26	0.0817	0.0209
0.151	0.394	0.24	0.0731	0.0178
0.152	0.369	0.22	0.0648	0.0141
0.170	0.366	0.20	0.0568	0.0111
0.175	0.315	0.14	0.0489	0.0068
0.177	0.308	0.13	0.0411	0.0054
0.183	0.254	0.07	0.0335	0.0024
0.213	0.248	0.04	0.0259	0.0009
0.217	0.237	0.02	0.0185	0.0004
0.218	0.235	0.02	0.0111	0.0002
0.220	0.226	0.01	0.0037	0.0000
0.226	0.220	-0.01		
0.235	0.218	-0.02	b=	1.8768
0.237	0.217	-0.02		
0.248	0.213	-0.04		
0.254	0.183	-0.07		
0.308	0.177	-0.13		
0.315	0.175	-0.14		
0.366	0.170	-0.20		
0.369	0.152	-0.22		
0.394	0.151	-0.24		
0.407	0.151	-0.26		
0.408	0.146	-0.26		
0.434	0.133	-0.30		
0.570	0.125	-0.45		
0.620	0.120	-0.50		
0.652	0.116	-0.54		
0.670	0.115	-0.56		
0.673	0.115	-0.56		
0.750	0.114	-0.64		
0.766	0.112	-0.65		
0.790	0.110	-0.68		
0.840	0.110	-0.73		
1.30	0.105	-1.20		
1.51	0.05	-1.46		

S.D. 0.31

W 0.773 less than 0.929, normal assumption rejected

ln(Barium)

-2.9957323	0.41211	3.41	0.3789	1.2912
-2.2537949	0.262364	2.52	0.2604	0.6552
-2.2072749	-0.174353	2.03	0.2281	0.4637
-2.2072749	-0.235722	1.97	0.2045	0.4032
-2.1892564	-0.266573	1.92	0.1855	0.3567
-2.1715568	-0.287682	1.88	0.1693	0.3189
-2.1628232	-0.39601	1.77	0.1551	0.2740
-2.1628232	-0.400478	1.76	0.1423	0.2508
-2.1541651	-0.427711	1.73	0.1306	0.2255
-2.1202635	-0.478036	1.64	0.1197	0.1966
-2.0794415	-0.562119	1.52	0.1095	0.1661
-2.0174062	-0.834711	1.18	0.0998	0.1180
-1.9241487	-0.896488	1.03	0.0906	0.0931
-1.8904754	-0.898942	0.99	0.0817	0.0810
-1.8904754	-0.931404	0.96	0.0731	0.0701
-1.8838748	-0.996959	0.89	0.0648	0.0575
-1.7719568	-1.005122	0.77	0.0568	0.0436
-1.7429693	-1.155183	0.59	0.0489	0.0287
-1.7316055	-1.177655	0.55	0.0411	0.0228
-1.6982691	-1.370421	0.33	0.0335	0.0110
-1.5464631	-1.394327	0.15	0.0259	0.0039
-1.5278579	-1.439695	0.09	0.0185	0.0016
-1.5232602	-1.44817	0.08	0.0111	0.0008
-1.5141277	-1.48722	0.03	0.0037	0.0001
-1.4872203	-1.514128	-0.03		
-1.4481698	-1.52326	-0.08	b=	5.1342
-1.4396951	-1.527858	-0.09		
-1.3943265	-1.546463	-0.15		
-1.370421	-1.698269	-0.33		
-1.1776555	-1.731606	-0.55		
-1.1551826	-1.742969	-0.59		
-1.0051219	-1.771957	-0.77		
-0.9969586	-1.883875	-0.89		
-0.9314044	-1.890475	-0.96		
-0.8989421	-1.890475	-0.99		
-0.8964881	-1.924149	-1.03		
-0.8347107	-2.017406	-1.18		
-0.5621189	-2.079442	-1.52		
-0.4780358	-2.120264	-1.64		
-0.4277107	-2.154165	-1.73		
-0.4004776	-2.162823	-1.76		
-0.3960099	-2.162823	-1.77		
-0.2876821	-2.171557	-1.88		
-0.2665731	-2.189256	-1.92		
-0.2357223	-2.207275	-1.97		
-0.1743534	-2.207275	-2.03		
0.2623643	-2.253795	-2.52		
0.4121097	-2.995732	-3.41		

S.D.	0.77	
W	0.951	greater than 0.929, lognormal assumption not rejected

Mean	-1.353
Std. Dev.	0.768
K	2.34
ln(Pr. Lim.)	0.441
Pr. Lim.	1.55

Zinc (excluding data points censored at 0.05)

1	0.005	0.0175	-2.107	-0.0105	4.4409
2	0.005	0.0351	-1.811	-0.0091	3.2789
3	0.005	0.0526	-1.620	-0.0081	2.6239
4	0.005	0.0702	-1.474	-0.0074	2.1741
5	0.005	0.0877	-1.355	-0.0068	1.8358
6	0.0104	0.1053	-1.252	-0.0130	1.5678
7	0.0110	0.1228	-1.161	-0.0128	1.3481
8	0.0118	0.1404	-1.079	-0.0127	1.1637
9	0.0124	0.1579	-1.003	-0.0124	1.0063
10	0.0130	0.1754	-0.933	-0.0121	0.8703
11	0.0133	0.1930	-0.867	-0.0115	0.7516
12	0.0145	0.2105	-0.805	-0.0117	0.6474
13	0.0152	0.2281	-0.745	-0.0113	0.5553
14	0.0165	0.2456	-0.688	-0.0114	0.4738
15	0.0173	0.2632	-0.634	-0.0110	0.4015
16	0.0230	0.2807	-0.581	-0.0134	0.3373
17	0.0241	0.2982	-0.529	-0.0128	0.2803
18	0.0242	0.3158	-0.480	-0.0116	0.2299
19	0.0246	0.3333	-0.431	-0.0106	0.1855
20	0.0250	0.3509	-0.383	-0.0096	0.1467
21	0.0278	0.3684	-0.336	-0.0093	0.1129
22	0.0285	0.3860	-0.290	-0.0083	0.0840
23	0.0294	0.4035	-0.244	-0.0072	0.0597
24	0.0299	0.4211	-0.199	-0.0060	0.0397
25	0.0309	0.4386	-0.155	-0.0048	0.0239
26	0.0309	0.4561	-0.110	-0.0034	0.0121
27	0.0315	0.4737	-0.066	-0.0021	0.0044
28	0.0319	0.4912	-0.022	-0.0007	0.0005
29	0.0334	0.5088	0.022	0.0007	0.0005
30	0.0362	0.5263	0.066	0.0024	0.0044
31	0.0387	0.5439	0.110	0.0043	0.0121
32	0.0444	0.5614	0.155	0.0069	0.0239
33	0.0453	0.5789	0.199	0.0090	0.0397
34	0.0463	0.5965	0.244	0.0113	0.0597
35	0.050	0.6140	0.290	0.0145	0.0840
36	0.0529	0.6316	0.336	0.0178	0.1129
37	0.0540	0.6491	0.383	0.0207	0.1467
38	0.0556	0.6667	0.431	0.0239	0.1855
39	0.0578	0.6842	0.480	0.0277	0.2299
40	0.061	0.7018	0.529	0.0323	0.2803
41	0.064	0.7193	0.581	0.0372	0.3373
42	0.065	0.7368	0.634	0.0412	0.4015
43	0.0654	0.7544	0.688	0.0450	0.4738
44	0.0681	0.7719	0.745	0.0507	0.5553
45	0.071	0.7895	0.805	0.0571	0.6474
46	0.071	0.8070	0.867	0.0616	0.7516
47	0.082	0.8246	0.933	0.0765	0.8703
48	0.0848	0.8421	1.003	0.0851	1.0063
49	0.086	0.8596	1.079	0.0928	1.1637
50	0.100	0.8772	1.161	0.1161	1.3481
51	0.106	0.8947	1.252	0.1327	1.5678
52	0.120	0.9123	1.355	0.1626	1.8358
53	0.140	0.9298	1.474	0.2064	2.1741
54	0.165	0.9474	1.620	0.2673	2.6239
55	0.26	0.9649	1.811	0.4708	3.2789
56	0.260	0.9825	2.107	0.5479	4.4409
			sum	2.3611	49.3128

S.D. = 0.053

W' = 0.724 ⇒ less than 0.942, normal assumption rejected

ln(Zn)					
1	-5.2983174	0.0175	-2.107	11.1654	4.4409
2	-5.2983174	0.0351	-1.811	9.5941	3.2789
3	-5.2983174	0.0526	-1.620	8.5825	2.6239
4	-5.2983174	0.0702	-1.474	7.8123	2.1741
5	-5.2983174	0.0877	-1.355	7.1789	1.8358
6	-4.5659495	0.1053	-1.252	5.7171	1.5678
7	-4.50986	0.1228	-1.161	5.2363	1.3481
8	-4.4396557	0.1404	-1.079	4.7893	1.1637
9	-4.3900588	0.1579	-1.003	4.4039	1.0063
10	-4.3428059	0.1754	-0.933	4.0514	0.8703
11	-4.3199912	0.1930	-0.867	3.7453	0.7516
12	-4.2336066	0.2105	-0.805	3.4063	0.6474
13	-4.1864599	0.2281	-0.745	3.1198	0.5553
14	-4.1043949	0.2456	-0.688	2.8253	0.4738
15	-4.0570488	0.2632	-0.634	2.5707	0.4015
16	-3.7722611	0.2807	-0.581	2.1908	0.3373
17	-3.7255434	0.2982	-0.529	1.9725	0.2803
18	-3.7214026	0.3158	-0.480	1.7844	0.2299
19	-3.7050088	0.3333	-0.431	1.5958	0.1855
20	-3.6888795	0.3509	-0.383	1.4127	0.1467
21	-3.5827193	0.3684	-0.336	1.2039	0.1129
22	-3.5578512	0.3860	-0.290	1.0312	0.0840
23	-3.5267606	0.4035	-0.244	0.8615	0.0597
24	-3.5098968	0.4211	-0.199	0.6992	0.0397
25	-3.4769991	0.4386	-0.155	0.5373	0.0239
26	-3.4769991	0.4561	-0.110	0.3830	0.0121
27	-3.4577677	0.4737	-0.066	0.2283	0.0044
28	-3.4451493	0.4912	-0.022	0.0758	0.0005
29	-3.3991994	0.5088	0.022	-0.0747	0.0005
30	-3.3186962	0.5263	0.066	-0.2191	0.0044
31	-3.2519157	0.5439	0.110	-0.3582	0.0121
32	-3.1145158	0.5614	0.155	-0.4813	0.0239
33	-3.0944482	0.5789	0.199	-0.6164	0.0397
34	-3.0726133	0.5965	0.244	-0.7506	0.0597
35	-2.9957323	0.6140	0.290	-0.8683	0.0840
36	-2.9393519	0.6316	0.336	-0.9877	0.1129
37	-2.9187712	0.6491	0.383	-1.1178	0.1467
38	-2.8895721	0.6667	0.431	-1.2446	0.1855
39	-2.8507665	0.6842	0.480	-1.3670	0.2299
40	-2.7968814	0.7018	0.529	-1.4808	0.2803
41	-2.7488722	0.7193	0.581	-1.5964	0.3373
42	-2.733368	0.7368	0.634	-1.7320	0.4015
43	-2.727233	0.7544	0.688	-1.8773	0.4738
44	-2.6867781	0.7719	0.745	-2.0022	0.5553
45	-2.6450754	0.7895	0.805	-2.1282	0.6474
46	-2.6450754	0.8070	0.867	-2.2932	0.7516
47	-2.501036	0.8246	0.933	-2.3332	0.8703
48	-2.4674597	0.8421	1.003	-2.4752	1.0063
49	-2.453408	0.8596	1.079	-2.6466	1.1637
50	-2.3025851	0.8772	1.161	-2.6735	1.3481
51	-2.2443162	0.8947	1.252	-2.8102	1.5678
52	-2.1202635	0.9123	1.355	-2.8728	1.8358
53	-1.9661129	0.9298	1.474	-2.8990	2.1741
54	-1.8018098	0.9474	1.620	-2.9187	2.6239
55	-1.3470736	0.9649	1.811	-2.4392	3.2789
56	-1.3470736	0.9825	2.107	-2.8387	4.4409
			sum	50.0718	49.3128

S.D. = 0.971

W' = 0.980 ⇒ greater than 0.942, lognormal assumption not rejected

Mean	-3.387
Std. Dev.	0.971
K	2.34
ln(Pr. Lim.)	-1.118
Pr. Lim.	0.327