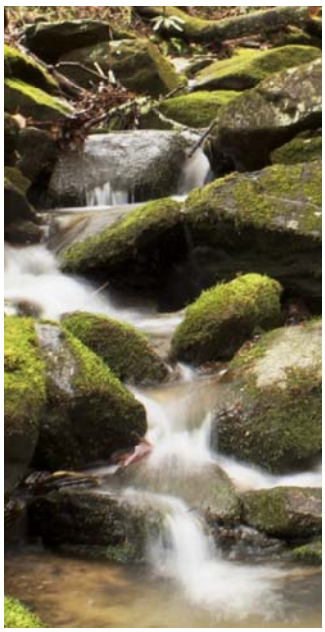
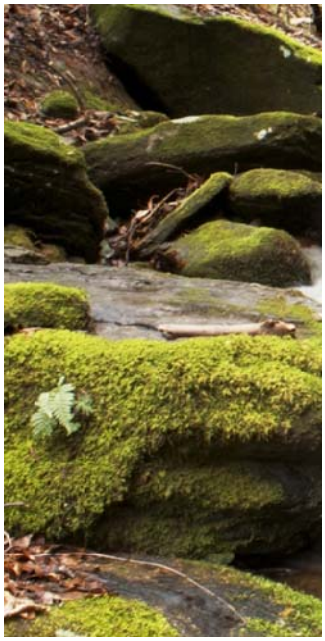
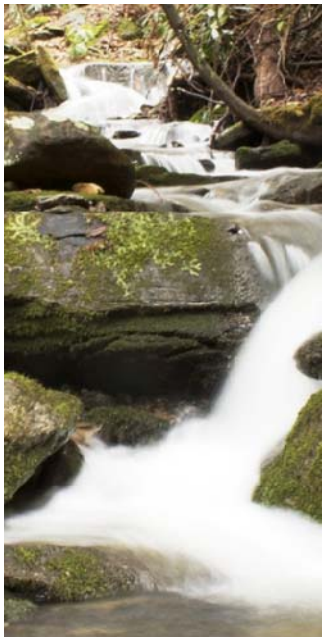






ALTAMONT ENVIRONMENTAL, INC.

ENGINEERING & HYDROGEOLOGY

Spring 2014 Semiannual Water Quality Monitoring Report

Madison County Operating Solid Waste Facility

Madison County, North Carolina Permit No. 58-03

August 13, 2014

Prepared for
Madison County, North Carolina
Project Number 2313.1302

Prepared by
Altamont Environmental, Inc.
231 Haywood Street
Asheville, NC 28801
828.281.3350

Spring 2014 Semiannual Water Quality Monitoring Report

Madison County Operating Solid Waste Facility

Madison County, North Carolina Permit No. 58-03

August 13, 2014

Stuart Ryman, P.G.
Project Geologist

Table of Contents

1.0 Introduction 1

2.0 Methods 2

2.1 Groundwater Purging and Sampling Methods 2

2.2 Surface Water Sampling Methods 2

2.3 Leachate Sampling Methods 2

2.4 Sample Handling, Documentation, and Analysis 3

3.0 Findings 4

3.1 Analytical Results 4

3.1.1 Groundwater Monitoring Wells 4

3.1.2 Surface Water 5

3.1.3 Leachate 5

4.0 Hydrogeology 7

5.0 Summary 8

5.1 Future Activities 8

6.0 References 9

Figures

1. Site Location Map
2. Sample Locations
3. Generalized Groundwater Flow

Tables

1. Well Construction Details and Corresponding Elevations
2. Summary of Laboratory Analyses Performed on Samples
3. Groundwater and Surface Water Summary of Detected Compounds
4. Leachate Summary of Detected Compounds
5. Groundwater and Surface Water Solid Waste Section Limits Exceedances Notification
6. Groundwater and Surface Water Quality Standards Exceedances Notification

Appendices

A. Sampling Logs and Equipment Documentation and Instrument Calibration Data Sheet(s)
B. Report of Laboratory Analysis and Chain-of-Custody Documentation
C. Environmental Monitoring Reporting Form and Electronic Submittal of Environmental Monitoring Data 5803Apr2014 (Electronic Only)

1.0 Introduction

The Madison County Solid Waste Department operates a solid waste facility (Operating Landfill) located on Craig Rudisill Road, west of U.S. Highway 25/70 near Marshall, North Carolina. The site location map is included as Figure 1. The Operating Landfill includes the following permitted components:

- Operating Construction and Demolition Debris (C&D) landfill cell (Permit No. 58-03)
- Operating Transfer Station (Permit No. 58-03T)
- Closed C&D landfill cell (Permit No. 58-03)
- Closed Municipal Solid Waste (MSW) landfill cell (Permit No. 58-03)

The Operating Landfill also contains a leachate underground holding tank that was installed in August 2011. Previously, the leachate was stored in a lined leachate basin that is no longer in use.

State regulations applicable to landfills are enforced by the North Carolina Department of Environment and Natural Resources (DENR), Division of Waste Management (DWM). This solid waste facility is permitted by the DENR DWM under Permit No. 58-03. The permit requires semiannual monitoring of groundwater, surface water, and leachate quality.

This report documents the first semiannual groundwater, surface water, and leachate monitoring event for 2014 and is being submitted in accordance with requirements stipulated in the DENR Solid Waste Management Rules, Title 15A, Subchapter 13B, of the North Carolina Administrative Code (15A NCAC 13B).

This semiannual report provides an evaluation of groundwater, surface water, and leachate quality for the solid waste facility.

The water quality monitoring network for the Operating Landfill consists of nine compliance monitoring wells (MW-01, MW-02, MW-03, MW-04, MW-05, MW-06R, MW-07R, MW-08, and MW-09), two surface water sample locations (SW-01 and SW-02R) located along a tributary to Walnut Creek, and a leachate sampling location (LT-01) which is the fill port on the underground holding tank. Monitoring well construction details are summarized in Table 1.

2.0 Methods

On April 16 and 17, 2014, Altamont Environmental, Inc. (Altamont) collected nine groundwater samples from monitoring wells, two surface water samples from a tributary to Walnut Creek, and one aqueous sample from the leachate underground holding tank located at the Madison County Operating Solid Waste Facility. One of the monitoring wells sampled, MW-06R, is considered upgradient from the landfill. Groundwater collected from this well is assumed to represent background groundwater quality at the site. This monitoring well was installed on September 30, 2008 as a replacement for the pre-existing background monitoring well, MW-06, which has historically been dry and contained only approximately 0.10 feet of water during this sampling event. Groundwater and surface water sampling locations are shown on Figures 2 and 3.

2.1 Groundwater Purging and Sampling Methods

Prior to collecting groundwater samples from the monitoring wells, the static water level was measured and recorded for each well. The monitoring wells were purged and sampled using low-flow techniques in accordance with the procedures described in *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, United States Environmental Protection Agency (EPA), Groundwater Issues (Puls and Barcelona 1996). During purging, pH, specific conductivity (SC), dissolved oxygen (DO), oxidation-reduction potential (ORP), turbidity, and temperature were measured and recorded approximately every 3 minutes. Well purging continued until these parameters stabilized for three consecutive readings. The required stabilization criteria are as follows:

- pH values within +/- 0.1 pH unit
- SC values within +/- 3 percent
- Temperature, DO, and turbidity values within +/- 10 percent
- ORP values within +/- 10 millivolts

Following stabilization of these parameters, a groundwater sample was collected by a technician wearing a new pair of non-reactive nitrile gloves. Each sample was placed directly into laboratory-supplied sample containers. Low-flow sampling logs are included in Appendix A.

2.2 Surface Water Sampling Methods

Surface water samples SW-01 and SW-02R were collected at designated locations from an unnamed tributary to Walnut Creek, which flows in a northerly direction adjacent to the western border of the Operating Landfill (Figure 2). Sample SW-01 is considered representative of surface water quality upstream of the Operating Landfill, while sample SW-02R is considered representative of surface water quality downstream from the facility. Surface water samples were collected in laboratory-supplied sample containers by a technician wearing a new pair of non-reactive nitrile gloves. As with groundwater sampling, temperature, pH, SC, DO, ORP, and turbidity were measured and recorded at each surface water sampling location prior to sample collection. Field parameters and observations pertaining to surface water quality are provided on sampling logs included in Appendix A.

2.3 Leachate Sampling Methods

One aqueous sample was collected from the leachate underground holding tank, designated as LT-01. Historically leachate was collected from a lined storage basin. On August 12, 2011, a leachate underground holding tank was installed and connected to the leachate collection piping associated with the closed MSW landfill cell. Shortly thereafter, the lined leachate basin was closed. Sample LT-01 was collected on April 17,

2014 from one of the tank's fill ports using a new disposable polyethylene bailer. One round of field parameters (as described above) was measured and recorded for sample LT-01 (see Appendix A). Leachate collected in the holding tank at the site is trucked, as needed, to the Metropolitan Sewerage District (MSD) treatment facility for the town of Marshall, North Carolina.

2.4 Sample Handling, Documentation, and Analysis

Field parameters for groundwater and surface water were measured and the results are provided on the sampling logs provided in Appendix A. Following sample collection, each sample was immediately placed on ice in a sample cooler for transport to Pace Analytical Laboratories (Pace), a North Carolina certified laboratory located in Asheville, North Carolina. Altamont submitted the groundwater, surface water, and leachate samples for the required analyses summarized in Table 2.

Proper chain-of-custody documentation procedures were followed during collection and transport of each sample. Two trip blanks provided by the laboratory, each stored in a separate sample cooler, were analyzed for Appendix I volatile organic compounds (VOCs). The reports of laboratory analysis and chain-of-custody documentation are provided in Appendix B.

3.0 Findings

3.1 Analytical Results

The field parameter data and laboratory analytical results for groundwater, surface water, the leachate sample collected at the Operating Landfill and the trip blanks are included in Appendices A and B, respectively (in hard copy) and also in Appendix C in the Electronic Data Deliverable (EDD) format specified by the DENR Solid Waste Section (SWS) of the DWM (in a memorandum dated October 27, 2006 and its addendum dated February 23, 2007).

As stipulated in the DWM documents referenced above, non-detections were reported at the laboratory-specific method detection limit (MDL), and all concentrations exceeding the MDL were reported and appropriately qualified (Tables 3, 4, 5, and 6). The MDL is the minimum concentration of a substance that can be measured and reported by a laboratory with 99 percent confidence that the analyte concentration is greater than zero. The laboratory's method reporting limit (MRL) is the minimum concentration of a target analyte that can be accurately determined by the referenced method. MRL is listed as the "Practical Quantitation Limit" (PQL) column in the Pace report of laboratory analysis (Appendix B). All detections were compared to analyte-specific Solid Waste Section Limits (SWSLs) established by the SWS. The SWSL is the lowest concentration, determined by the SWS, of an analyte in a sample that can be quantitatively determined with suitable precision and accuracy. If the reported concentration is greater than the laboratory MRL and less than the SWSL, the analytical result is qualified as estimated, and is flagged with a "*J*" qualifier (italicized *J*-flag) by Altamont per the DENR requirement. A "J" qualifier (non-italicized) is assigned by the laboratory and is used for parameters detected at estimated concentrations greater than the MDL but less than the MRL. Detected concentrations of constituents below the applicable SWSLs are not discussed in the text of this report, unless they exceed their applicable North Carolina water quality standard.

Detected concentrations of analytes in groundwater samples were compared to the values specified by 15A NCAC 2L.0202 groundwater quality standards (2L standard). Detected concentrations of analytes in groundwater with no established 2L standards were compared to an updated list of the interim maximum allowable concentrations (IMACs) for Class GA and GSA groundwater (in accordance with 15A NCAC 02L .0202 [c]). Detections of analytes in surface water samples were compared to the standard from the 15A NCAC 2B.0200 surface water quality standards (2B standard) established for class C waters.

Table 3 presents the summary of detected compounds only. Table 4 presents the summary of detected compounds for the leachate sample. Table 5 presents the concentrations of analytes that were above the applicable SWSLs. Table 6 presents the concentrations of analytes detected in the groundwater and/or surface water samples that exceeded their respective 2L standard, IMAC, or 2B standard.

In the EDD (Appendix C), the identification of a well ("WELL ID") consists of the name of the well prefaced by the un-hyphenated permit number for the facility. For example, monitoring well MW-01 is identified on the EDD as 5803-MW01. In the tables, figures, and text of this report, however, the identification of a well consists only of the name of the well (MW-01) and does not include the permit number for the facility.

3.1.1 Groundwater Monitoring Wells

The following sections summarize the results of laboratory and field parameter analyses of groundwater samples.

3.1.1.1 Appendix I Metals

Six metals (antimony, barium, cobalt, thallium, vanadium, and zinc) were detected above their respective MDLs in one or more of the monitoring wells (Table 3). Four metals (antimony, barium, cobalt, and zinc) were detected above their SWSLs in one or more of the monitoring wells (Table 5). Antimony and cobalt

were detected above the respective 2L standards in MW-03 (Table 6). Vanadium was detected above its 2L standard in MW-07R (Table 6). As noted on Table 6, the metals that were detected are consistent with historical results.

3.1.1.2 Appendix I VOCs

No VOCs were detected in any of the groundwater samples collected from the monitoring wells.

3.1.1.3 Field Parameters

Field parameters were recorded during sampling activities on April 16 and 17, 2014. Measured pH values for all samples collected from monitoring wells were slightly below the 2L standard pH range of 6.5 to 8.5 Standard Units (SU) (Table 3).

3.1.2 Surface Water

The following sections summarize the results of laboratory and field parameter analyses of surface water samples SW-01 and SW-02R.

3.1.2.1 Appendix I Metals

One metal, barium was detected in both surface water samples above the MRL, but below the SWSL (Table 3). No metals were detected above the 2B standard (Tables 6).

3.1.2.2 Appendix I VOCs

No VOCs were detected in either of the surface water samples.

3.1.2.3 Field Parameters

The pH values recorded for both samples were within the 2B standard pH range of 6.0 to 9.0 SU (Table 3). The measured turbidity values for the surface water samples were below the 2B standard for turbidity. In both samples dissolved oxygen was above the minimum allowable standard of 5.0 milligrams per liter established in the 2B standard (Table 6).

3.1.3 Leachate

Analytical results for the leachate sample (LT-01) collected from the leachate underground holding tank are summarized in Table 4 and discussed below.

3.1.3.1 Appendix I Metals

Seven metals (antimony, barium, cobalt, copper, nickel, thallium, and zinc) were detected in the aqueous sample collected from the leachate storage tank. Three metals (barium, cobalt, and zinc) were detected above their associated SWSLs (Table 5).

3.1.3.2 Appendix I VOCs

No VOCs were detected in this LT-01.

3.1.3.3 Inorganics

The aqueous leachate sample (LT-01) was also analyzed for biological oxygen demand (BOD), chemical oxygen demand (COD), nitrogen/nitrate, phosphorus, and sulfate. The analytical results for detected parameters are summarized in Table 4.

3.1.3.4 Field Parameters

Field parameters were measured and recorded for the leachate sample on April 17, 2014. Dissolved oxygen, pH, and turbidity results are summarized in Table 4. No standards exist for leachate; therefore, the recorded results are not evaluated.

4.0 Hydrogeology

The predominant groundwater flow direction within the regolith overlying the bedrock at the Operating Landfill appears to be west-northwest, toward an unnamed tributary of Walnut Creek. Figure 3 depicts the generalized groundwater flow direction based on groundwater measurements taken by Altamont on April 16 and 17, 2014. Water level data are summarized on Table 1.

5.0 Summary

Altamont completed the first semiannual water quality monitoring event of 2014 at the Madison County Operating Solid Waste Landfill on April 16 and 17, 2014.

Tables 3, 4, 5, and 6 of this report, sampling logs in Appendix A, the Pace Report of Laboratory Analysis in Appendix B, and the EDD in Appendix C provide detailed analytical results and field data used to interpret groundwater and surface water quality at the Operating Landfill.

5.1 Future Activities

Altamont has discussed the analytical results with Madison County personnel. Altamont will continue to measure field parameters and collect water quality samples from groundwater, surface water, and leachate monitoring points associated with the Operating Landfill. Water quality samples will be submitted to a North Carolina certified laboratory for analysis for Appendix I metals and VOCs on a semiannual basis unless directed otherwise by Madison County. The next sampling event is scheduled for October 2014.

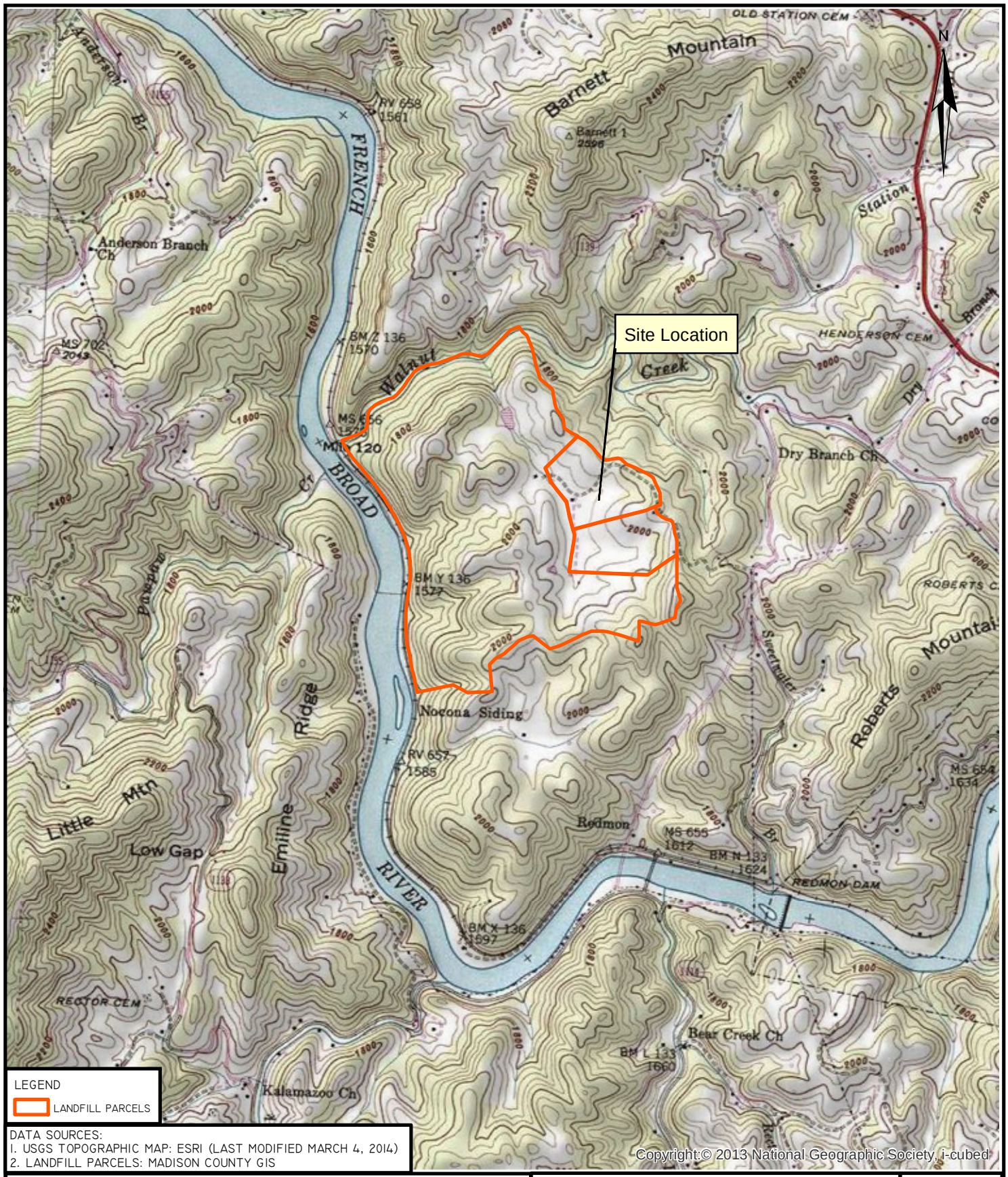
6.0 References

DENR DWM Solid Waste Section (SWS). October 27, 2006. *New Guidelines for Electronic Submittal of Environmental Monitoring Data.*

DENR DWM SWS, February 23, 2007. *Addendum to October 27, 2006, NC SWS Memorandum Regarding New Guidelines for Electronic Submittal of Environmental Data.*

Puls, R.W., and M. J. Barcelona. 1996. *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, U.S. Environmental Protection Agency, OSWER, EPA/540/S-95/504.

FIGURES



ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

SITE LOCATION MAP

MADISON COUNTY OPERATING
SOLID WASTE FACILITY
PERMIT No. 58-03

271 CRAIG RUDISILL ROAD, MARSHALL
NORTH CAROLINA 28753

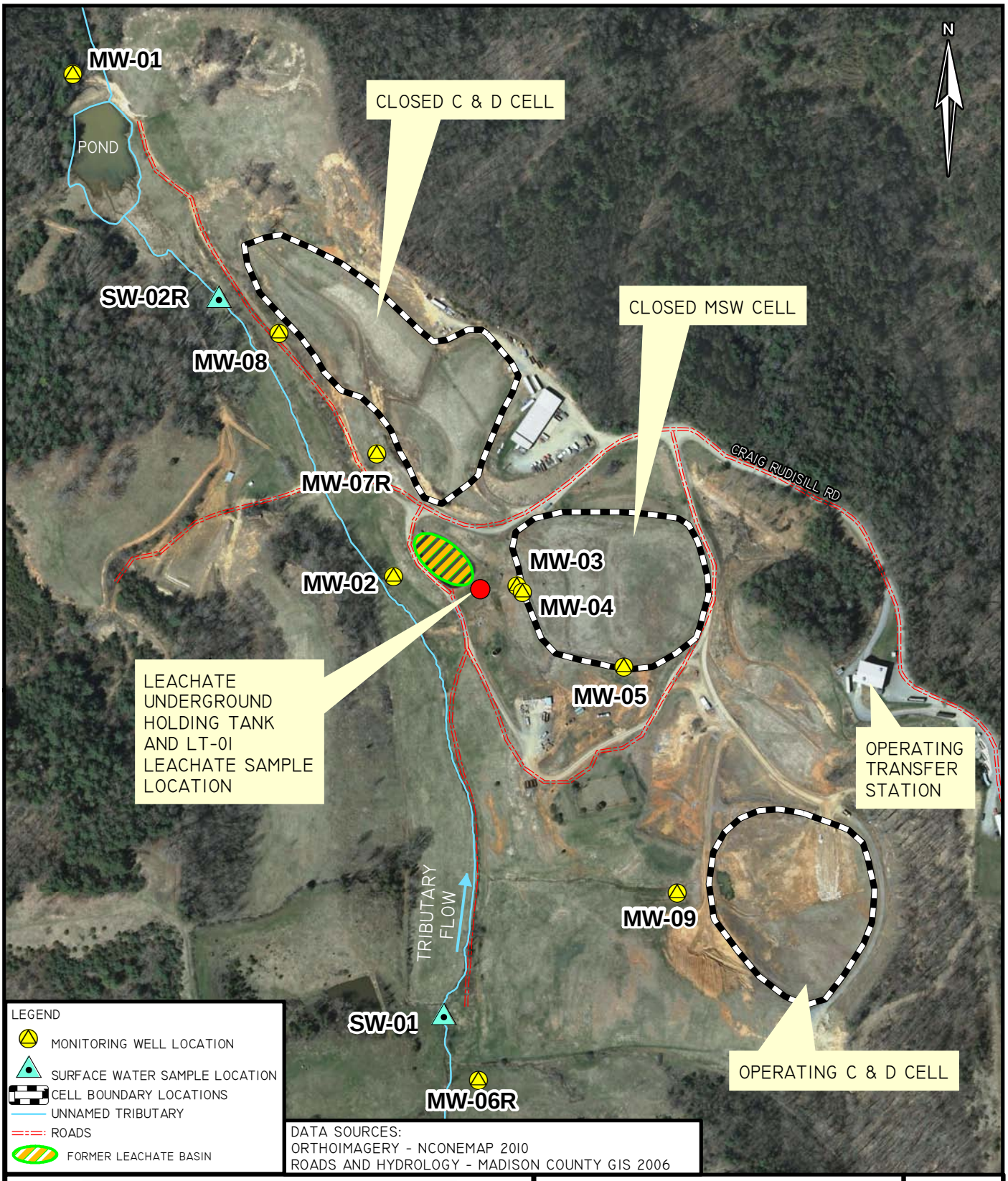
FIGURE

1

DRAWN BY: NATALIE BOUCHARD
PROJECT MANAGER: BRIAN GANT
CLIENT: MADISON COUNTY
DATE: 07/07/2014

SCALE
0 500 1,000 2,000
FEET

P:\MADISON COUNTY\FIGURES\GIS\GIS USER\MXDS\2014\SPRING\5803APR FIGURE 1-SITE LOCATION MAP OPERATING.MXD



ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

SAMPLE LOCATIONS

MADISON COUNTY OPERATING
SOLID WASTE FACILITY
PERMIT No. 58-03

271 CRAIG RUDISILL ROAD, MARSHALL
NORTH CAROLINA 28753

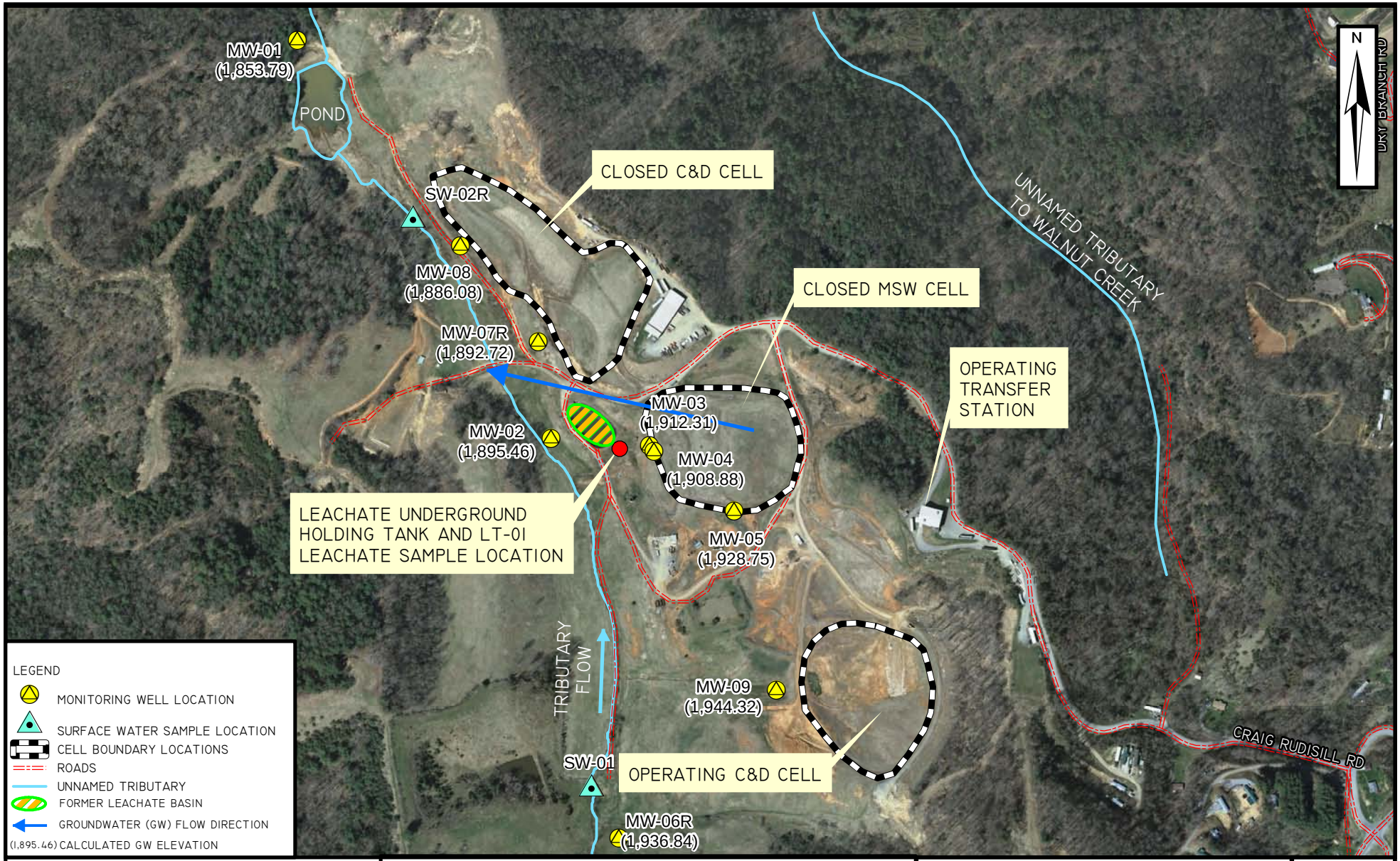
FIGURE

2

DRAWN BY: NATALIE BOUCHARD
PROJECT MANAGER: BRIAN GANT
CLIENT: MADISON COUNTY
DATE: 07/07/2014

SCALE
0 100 200 400 FEET

P:\MADISON COUNTY\FIGURES\GIS\GIS USER\MXDS\2014\SPRING\5803APR FIGURE 2-SAMPLE LOCATION MAP OPERATING.MXD



DATA SOURCES:
ORTHOIMAGERY-NCONEMAP 2010
ROADS AND HYDROLOGY-MADISON COUNTY GIS 2006
CONTOURS-NCDOT 2007

NOTES:
1. GROUNDWATER (GW) FLOW DIRECTION BASED ON GW ELEVATIONS IN WATER TABLE WELLS: MW-02, MW-03, MW-05, MW-08, MW-06R, AND MW-07R.
2. GW ELEVATIONS BASED ON DEPTH TO WATER MEASURED ON APRIL 16 AND 17, 2014.

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

DRAWN BY: NATALIE BOUCHARD
PROJECT MANAGER: BRIAN GANT
CLIENT: MADISON COUNTY
DATE: 07/07/2014

SCALE
0 250 500 FEET

GENERALIZED GROUNDWATER FLOW

MADISON COUNTY OPERATING
SOLID WASTE FACILITY
PERMIT No. 58-03

271 CRAIG RUDISILL ROAD, MARSHALL
NORTH CAROLINA 28753

FIGURE
3

P:\MADISON COUNTY\FIGURES\GIS\GIS USER\MXDS\2014\SPRING\5803APR FIGURE 3-GROUNDWATER FLOW.MXD

TABLES

Table 1
Well Construction Details and Corresponding Elevations
Madison County Operating Solid Waste Facility, Madison County, North Carolina

Facility Permit	Well ID	TOC Elevation	Ground Elevation	Depth to Water (from TOC)	Groundwater Elevation	Depth to Bedrock	Top of Bedrock Elevation	Screened Interval	Top of Screen Elevation
58-03	MW-01	1,859.04	1,857.04	5.25	1,853.79	7	1,850.0	2 to 17	1,855.04
58-03	MW-02	1,898.94	1,895.94	3.48	1,895.46	6	1,889.9	1 to 16	1,892.94
58-03	MW-03	1,932.96	1,929.46	20.65	1,912.31	NA	NA	15.5 to 25.5	1,913.96
58-03	MW-04	1,935.64	1,932.04	26.76	1,908.88	35.2	1,896.8	70.7 to 80.7	1,861.34
58-03	MW-05	1,972.76	1,969.26	44.01	1,928.75	NA	NA	46.5 to 61.5	1,922.76
58-03	MW-06	2,082.87	2,081.87	NA	NA	28	2,053.9	80 to 100	2,001.87
58-03	MW-06R	1,942.19	1,942.19	5.35	1,936.84	NA	NA	10 to 25	1,932.19
58-03	MW-07R	1,919.34	1,916.64	26.62	1,892.72	NA	NA	26 to 41	1,890.64
58-03	MW-08	1,899.92	1,896.92	13.84	1,886.08	NA	NA	16 to 26	1,880.92
58-03	MW-09	1,949.43	1,946.43	5.11	1,944.32	NA	NA	12.4 to 22.4	1,934.03

Notes:

1. Elevations are in feet, based on the NAVD 88 datum.
2. "TOC" means top of casing; "NA" means Not Applicable.
3. "Depth to Bedrock" and "Screened Interval" depths are measured in feet below ground surface.
4. For MW-01, MW-02, MW-05, and MW-06, TOC elevations are based on the report, Transition Plan Application (Law Engineering, April 1994). "Depth to Bedrock" and "Screened Interval" data were taken from boring logs completed on September 26, 27, 28, and 29, 1992 by Metro Drill, Inc. and April 12, 1995 by Engineering Tectonics.
5. MW-03 and MW-04 were installed during closure of MSW cell. TOC elevations are from the survey performed on December 14, 2006 by McGill Associates staff (J. Dallas Gordon, PLS). Ground survey data is included on the Closure Plan drawing generated by McGill Associates on January 4, 2007. Adjusted "Depth to Bedrock" and "Screened Interval" elevations were calculated using original data from September 1992 boring logs and new data from the December 14, 2006 survey.
6. For MW-07R and MW-08, TOC elevations were taken from survey data included on boring logs completed by Bunnell-Lammons Engineering, Inc. on July 28, 29, and 30, 2003.
7. For MW-09, TOC elevation was taken from survey data included on boring log completed by Bunnell-Lammons Engineering, Inc. on October 13, 2006.
8. Monitoring of background well MW-06 was terminated in Fall 2008 because the well was dry. MW-06R was installed on September 27, 2008 to replace MW-06. Survey data for MW-06R are based on a survey conducted on April 16, 2009 by Wes Cole Land Surveying, PA.
9. Ground elevations were calculated based on TOC elevations and field measurements.
10. Depth to water measurements were obtained in the field on April 16, and 17, 2014. MW-06 was gauged and recorded if water was present, but not sampled.

Table 2
Summary of Laboratory Analyses Performed on Samples
Madison County Operating Solid Waste Facility, Madison County, North Carolina

Groundwater Samples

Sample Name	Collect Date	Metals	VOCs
		EPA 6010 EPA 6020 EPA 7470	EPA 8260
MW-01	04/16/2014	X	X
MW-02	04/16/2014	X	X
MW-03	04/16/2014	X	X
MW-04	04/16/2014	X	X
MW-05	04/17/2014	X	X
MW-06R	04/17/2014	X	X
MW-07R	04/16/2014	X	X
MW-08	04/16/2014	X	X
MW-09	04/17/2014	X	X

Surface Water Samples

Sample Name	Collect Date	Metals	VOCs
		EPA 6010 EPA 6020 EPA 7470	EPA 8260
SW-01	04/17/2014	X	X
SW-02R	04/16/2014	X	X

Quality Control Sample

Sample Name	Collect Date	VOCs
		EPA 8260
TRIP BLANK	04/17/2014	X
TRIP BLANK (LT-01)	04/17/2014	X

Leachate Sample

Sample Name	Collect Date	Metals	VOCs	Biochemical Oxygen Demand (BOD)	Chemical Oxygen Demand (COD)	Nitrogen/ Nitrate	Total Phosphorus	Sulfate
		EPA 6010 EPA 6020 EPA 7470	EPA 8260	SM 5210B	SM 5220D	EPA 353.2	EPA 365.1	EPA 300.0
LT-01	04/17/2014	X	X	X	X	X	X	X

Notes:

1. Metals analyses include Appendix I metals per 40 CFR Part 258 *"Appendix I Constituents for Detection Monitoring"* and mercury.
2. VOCs = volatile organic compounds.
3. VOCs analyses include Appendix I constituents per 40 CFR Part 258 and tetrahydrofuran.
4. Leachate sample (LT-1) was collected from the leachate underground holding tank.

Table 3
Groundwater and Surface Water Summary of Detected Compounds
Madison County Operating Solid Waste Facility, Madison County, North Carolina

		Metals						Field Parameters		
Lab Certification		40 and 530						5445 (pH only)		
Lab Method		EPA 6010/ 6020 (Thallium)								
Parameter		Antimony	Barium	Cobalt	Thallium	Vanadium	Zinc	Dissolved Oxygen	pH	Turbidity
CAS Number		7440-36-0	7440-39-3	7440-48-4	7440-28-0	7440-62-2	7440-66-6	7782-44-7	SW320	SW330
SWS ID		13	15	53	194	209	213	356	320	330
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	SU	NTU
Sample Name	Collect Date	Result	Result	Result	Result	Result	Result	Result	Result	Result
MW-01	04/16/2014	5.0 U	**93.7 J**	5.0 U	0.025 U	5.0 U	10.0 U	**1.92**	**5.08**	**4.34**
MW-02	04/16/2014	5.0 U	**87.6 J**	5.0 U	**0.037 J**	5.0 U	10.0 U	**0.74**	**6.11**	**12.07**
MW-03	04/16/2014	**7.1**	**248**	**114**	**0.068 J**	5.0 U	10.0 U	**0.41**	**6.24**	0.00
MW-04	04/16/2014	5.0 U	**136**	5.0 U	0.025 U	5.0 U	10.0 U	**2.41**	**6.34**	0.00
MW-05	04/17/2014	5.0 U	**109**	5.0 U	0.025 U	5.0 U	10.0 U	**0.57**	**5.89**	**7.81**
MW-06R	04/17/2014	5.0 U	**34.5 J**	5.0 U	0.025 U	5.0 U	10.0 U	**5.09**	**6.23**	**19.78**
MW-07R	04/16/2014	5.0 U	**173**	5.0 U	**0.037 J**	**5.4 J**	**19.5**	**7.83**	**5.73**	**164.8**
MW-08	04/16/2014	5.0 U	**28.6 J**	5.0 U	0.025 U	5.0 U	10.0 U	**6.32**	**6.46**	**3.89**
MW-09	04/17/2014	5.0 U	**167**	5.0 U	0.025 U	5.0 U	10.0 U	**1.47**	**6.33**	**20.19**
SW-01	04/17/2014	5.0 U	**42.0 J**	5.0 U	0.025 U	5.0 U	10.0 U	**7.64**	**6.57**	**19.38**
SW-02R	04/16/2014	5.0 U	**36.7 J**	5.0 U	0.025 U	5.0 U	10.0 U	**5.81**	**6.46**	**12.92**
MDL		5.0	5.0	5.0	0.025	5.0	10.0	NA	NA	NA
MRL		5.0	5.0	5.0	0.10	5.0	10.0	NA	NA	NA
SWSL		6	100	10	5.5	25	10	NE	NE	NE
2L		NE	700	NE	NE	NE	1,000	NE	6.5-8.5	NE
IMAC		1	NE	1	0.2	0.3	NE	NE	NE	NE
GWPS		1	NE	1	0.28	0.3	NE	NE	NE	NE
2B		5.6	1,000	3	0.24	NE	50	> 5.0	6.0-9.0	50

Notes:

1. Only detected constituents are listed on this table. Please refer to Pace Analytical Services, Inc. Report of Laboratory Analysis for further details.
2. "Lab Method" is the analytical method used to analyze the constituents.
3. "CAS Number" is a unique number assigned by the Chemical Abstracts Service (CAS) to all identified parameters.
4. "SWS ID" is the Solid Waste Section Identification Number.

Table 3
Groundwater and Surface Water Summary of Detected Compounds
Madison County Operating Solid Waste Facility, Madison County, North Carolina

5. "Units" are micrograms per liter (µg/L) for analytical results, milligrams per liter (mg/L) for dissolved oxygen, Standard Units (SU) for pH, and nephelometric turbidity units (NTU) for turbidity.
6. "Collect Date" is the date on which the sample was collected in the field.
7. "Result" is analytical data reported by the laboratory or field data collected by Altamont.
8. "MDL" is the method detection limit, which is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.
9. "MRL" is the method reporting limit, which is the minimum concentration of a target analyte that can be accurately determined by the referenced method. MRL equals practical quantitation level (PQL) values in the Pace Reports of Laboratory Analysis.
10. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
11. "U" is a laboratory data qualifier used for parameters not detected at concentrations above MDL.
12. "J" is a laboratory data qualifier used for parameters detected at estimated concentrations above MDL but below MRL and SWSL. An italicized "*J*" qualifier is assigned by Altamont to reflect a detected concentration that is greater than MRL and MDL but less than the SWSL.
13. "2L" and "IMAC" (Interim Maximum Allowable Concentration) are groundwater standards from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L - Groundwater Classifications and Standards," DENR (Amended April 1, 2013).
14. "GWPS" is the Groundwater Protection Standard pursuant to "15A NCAC 13B .1634," DENR. Current standards were obtained from http://portal.ncdenr.org/web/sw/envmonitoringlist (last updated June 13, 2011).
15. "2B" indicates surface water standard per "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2B - Surface Water and Wetland Standards," (last amended on May 1, 2007). For compounds with no 2B standard established, the NC and Environmental Protection Agency (EPA) National Criteria Table (Current as of 5/15/2013) was used for the most stringent of fresh water and human health.
16. "NE" means Not Established. "NA" means Not Applicable.
17. **Bold** numbers indicate a detection. Grayed cells indicate result in exceedance of the 2L or IMAC or 2B (surface water) standards, or greater than or equal to the GWPS (if no 2L or IMAC exist).

Table 4
Leachate Summary of Detected Compounds
Madison County Operating Solid Waste Facility, Madison County, North Carolina

		Metals							Inorganics					Field Parameters		
	Lab Certification	40 and 530							40					5445 (pH only)		
	Lab Method	EPA 6010/ 6020 (Thallium)							SM 5210B	SM 5220D	EPA 353.2	EPA 365.1	EPA 300.0			
	Parameter	**Antimony**	**Barium**	**Cobalt**	**Copper**	**Nickel**	**Thallium**	**Zinc**	**BOD**	**COD**	**Nitrogen/ Nitrate**	**Phosphorus**	**Sulfate**	**Dissolved Oxygen**	**pH**	**Turbidity**
	CAS Number	7740-36-0	7440-39-3	7440-48-4	7440-50-8	7440-02-0	7440-28-0	7440-66-6	SW316	SW317	SW419	7723-14-0	14808-79-8	7782-44-7	SW320	SW330
	SWS ID	13	15	53	54	152	194	213	316	317	419	412	315	356	320	330
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	SU	NTU
Sample Name	**Collect Date**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
LT-01	04/17/2014	**5.3 *J***	**152**	**18.2**	**6.1 *J***	**31.1 *J***	**0.086 J**	**24.9**	**9.3**	**200**	**40.1**	**1.5**	**189 *J***	**7.98**	**6.88**	**71.74**
	MDL	5.0	5.0	5.0	5.0	5.0	0.025	10.0	2.0	25.0	0.020	0.050	20.0	NA	NA	NA
	MRL	5.0	5.0	5.0	5.0	5.0	0.10	10.0	2.0	25.0	0.020	0.050	20.0	NA	NA	NA
	SWSL	6	100	10	10	50	5.5	10	NE	NE	NE	NE	250	NE	NE	NE

Notes:

1. Only detected constituents are listed on this table. Please refer to Pace Report of Laboratory Analysis for further details.
2. "Lab Method" is the analytical method used to analyze the constituents.
3. "CAS Number" is a unique number assigned by the Chemical Abstracts Service (CAS) to all identified parameters.
4. "SWS ID" is the Solid Waste Section Identification Number.
5. "Units" are micrograms per liter (µg/L) for analytical results, milligrams per liter (mg/L) for dissolved oxygen, Standard Units (SU) for pH, and nephelometric turbidity units (NTU) for turbidity.
6. "Collect Date" is the date on which the sample was collected in the field.
7. "Result" is analytical data reported by the laboratory or field data collected by Altamont.
8. "MDL" is the method detection limit, which is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.
9. "MRL" is the method reporting limit, which is the minimum concentration of a target analyte that can be accurately determined by the referenced method. MRL equals practical quantitation level (PQL) values in the Pace Analytical Reports.
10. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
11. "U" is a laboratory data qualifier used for parameters not detected at concentrations above MDL.
12. "J" is a laboratory data qualifier used for parameters detected at estimated concentrations above MDL but below MRL and SWSL.
    An italicized "*J*" qualifier is assigned by Altamont to reflect a detected concentration that is greater than MRL and MDL but less than the SWSL.
13. VOCs indicates volatile organic compounds. BOD means biological oxygen demand. COD means chemical oxygen demand.
14. "NE" means Not Established.

Table 5
Groundwater and Surface Water Solid Waste Section Limits Exceedances Notification
Madison County Operating Solid Waste Facility, Madison County, North Carolina

FACILITY PERMIT	WELL ID	CAS NUMBER	SWS ID	PARAMETER	RESULT	UNITS	METHOD	MDL	MRL	SWSL	COLLECT DATE
58-03	MW-03	7740-36-0	13	Antimony	7.1	µg/L	EPA 6010	5.0	5.0	6	04/16/2014
58-03	MW-03	7440-39-3	15	Barium	248	µg/L	EPA 6010	5.0	5.0	100	04/16/2014
58-03	MW-03	7440-48-4	53	Cobalt	114	µg/L	EPA 6010	5.0	5.0	10	04/16/2014
58-03	MW-04	7440-39-3	15	Barium	136	µg/L	EPA 6010	5.0	5.0	100	04/16/2014
58-03	MW-05	7440-39-3	15	Barium	109	µg/L	EPA 6010	5.0	5.0	100	04/17/2014
58-03	MW-07R	7440-39-3	15	Barium	173	µg/L	EPA 6010	5.0	5.0	100	04/16/2014
58-03	MW-07R	7440-66-6	213	Zinc	19.5	µg/L	EPA 6010	10.0	10.0	10	04/16/2014
58-03	MW-09	7440-39-3	15	Barium	167	µg/L	EPA 6010	5.0	5.0	100	04/17/2014
58-03	LT-01	7440-39-3	15	Barium	152	µg/L	EPA 6010	5.0	5.0	100	04/17/2014
58-03	LT-01	7440-48-4	53	Cobalt	18.2	µg/L	EPA 6010	5.0	5.0	10	04/17/2014
58-03	LT-01	7440-66-6	213	Zinc	24.9	µg/L	EPA 6010	10.0	10.0	10	04/17/2014

Notes:

1. "CAS NUMBER" is a unique number assigned by the Chemical Abstracts Service (CAS) to all identified parameters.
2. "SWS ID" is the Solid Waste Section Identification Number.
3. "RESULT" is the analytical data reported by the laboratory.
4. "UNITS" are micrograms per liter (µg/L) for analytical results, and milligrams per liter (mg/L) for nitrogen.
5. "METHOD" is the analytical method used to analyze the constituents.
6. "MDL" is the method detection limit, which is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.
7. "MRL" is the method reporting limit, which is the minimum concentration of a target analyte that can be accurately determined by the referenced method.
8. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
9. "COLLECT DATE" is the date on which the sample was collected in the field.
10. Grayed cells indicate result in exceedance of the 2B standard for surface water, 2L or Interim Maximum Allowable Concentration (IMAC) standards, or greater than or equal to the Groundwater Protection Standard (GWPS [if no 2L or IMAC exist]) for groundwater.
11. 2L standard and IMAC are from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L-Groundwater Classifications and Standards," DENR (Amended April 1, 2013).
12. GWPS is pursuant to "15A NCAC 13B .1634," DENR. Current standards were obtained from http://portal.ncdenr.org/web/sw/envmonitoringlist (last updated June 13, 2011)
13. 2B standard is per "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2B - Surface Water and Wetland Standards" (last amended on May 1, 2007). For constituents with no 2B standard established, the NC and Environmental Protection Agency (EPA) National Criteria Table (Current as of 5/15/2013) for the most stringent of fresh water and human health was used.

Table 6
Groundwater and Surface Water Quality Standards Exceedances Notification
Madison County Operating Solid Waste Facility, Madison County, North Carolina

FACILITY PERMIT	WELL ID	CAS NUMBER	SWS ID	PARAMETER	RESULT	UNITS	QUALIFIER	METHOD	MDL	MRL	SWSL	WATER QUALITY STANDARD	COLLECT DATE	CAUSE AND SIGNIFICANCE
GROUNDWATER SAMPLES - 2L STANDARD, IMAC OR GWPS (µg/L)														
58-03	MW-01	SW320	320	pH	5.08	SU					NE	6.5 - 8.5	04/16/2014	Consistent with historic readings.
58-03	MW-02	SW320	320	pH	6.11	SU					NE	6.5 - 8.5	04/16/2014	Consistent with historic readings.
58-03	MW-03	7440-36-0	13	Antimony	7.1	ug/L		EPA 6010	5.0	5.0	6	1	04/16/2014	Possibly naturally occurring.
58-03	MW-03	7440-48-4	53	Cobalt	114	ug/L		EPA 6010	5.0	5.0	10	1	04/16/2014	
58-03	MW-03	SW320	320	pH	6.24	SU					NE	6.5 - 8.5	04/16/2014	Consistent with historic readings.
58-03	MW-04	SW320	320	pH	6.34	SU					NE	6.5 - 8.5	04/16/2014	Consistent with historic readings.
58-03	MW-05	SW320	320	pH	5.89	SU					NE	6.5 - 8.5	04/17/2014	Consistent with historic readings.
58-03	MW-06R	SW320	320	pH	6.23	SU					NE	6.5 - 8.5	04/17/2014	Consistent with historic readings.
58-03	MW-07R	7440-62-2	209	Vanadium	5.4	ug/L		EPA 6010	5.0	5.0	25	0.3	04/16/2014	Possibly naturally occurring.
58-03	MW-07R	SW320	320	pH	5.73	SU						6.5 - 8.5	04/16/2014	Consistent with historic readings.
58-03	MW-08	SW320	320	pH	6.46	SU					NE	6.5 - 8.5	04/16/2014	Consistent with historic readings.
58-03	MW-09	SW320	320	pH	6.33	SU					NE	6.5 - 8.5	04/17/2014	Consistent with historic readings.

Notes:

1. "CAS NUMBER" is a unique number assigned by the Chemical Abstracts Service (CAS) to all identified parameters.
2. "SWS ID" is the Solid Waste Section Identification Number.
3. "RESULT" is analytical data reported by the laboratory or field data collected by Altamont.
4. "UNITS" are micrograms per liter (µg/L) for analytical results, Standard Units (SU) for pH, and milligrams per liter (mg/L) for dissolved oxygen.
5. "QUALIFIER" is a data qualifier or "flag". A blank cell indicates that there is no qualifier associated with the reported result.
6. "METHOD" is the analytical method used to analyze the constituents.
7. "MDL" is the method detection limit, which is the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.
8. "MRL" is the method reporting limit, which is the minimum concentration of a target analyte that can be accurately determined by the referenced method.
9. "SWSL" is the Solid Waste Section Limit. This limit (identified by DENR) is the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accuracy.
10. "WATER QUALITY STANDARD" refers to the 2L standard, Interim Maximum Allowable Concentration (IMAC), or Groundwater Protection Standard (GWPS) for groundwater.
11. "COLLECT DATE" is the date on which the sample was collected in the field.
12. "NE" means Not Established.
13. "J" is a laboratory data qualifier used for parameters detected at estimated concentrations above MDL but below MRL and SWSL.
    An italicized "*J*" qualifier is assigned by Altamont to reflect a detected concentration that is greater than MRL and MDL but less than the SWSL.
14. 2L standard and IMAC are from "North Carolina Administrative Code, Title 15A: Department of Environment and Natural Resources, Subchapter 2L - Groundwater Classifications and Standards," DENR (Amended April 1, 2013).
15. GWPS is pursuant to "15A NCAC 13B .1634," DENR. Current standards were obtained from http://portal.ncdenr.org/web/sw/envmonitoringlist (last updated June 13, 2011).

APPENDICES

APPENDIX A

Sampling Logs and
Equipment Documentation
and Instrument Calibration Data Sheet(s)

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Low-Flow Sampling Log

PROJECT NAME:	Madison Co. Operating LF	PROJECT NUMBER:	2313
LOCATION:	Marshall, NC	DATE:	4/16/14
SAMPLING PERSONNEL:	T Brooks	WEATHER:	50's clear

Well ID:	MW-01		Arrive at Well:	921
Screen Interval:	2-17	bgs	Start Time:	938
Depth to Water:	5.25	toc	Sample Time:	959
Stickup:			Finish Sample Time:	1002
Depth of Pump Intake:	10	toc	Leave Well:	1010
Drawdown Set:	5.85	toc	Well Diameter:	2"

COMMENTS:

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) *report to 0.1 S.U.*	ORP (mV)	Turbidity (NTU)
938	5.31	9.74	92	3.48	6.80	206.5	29.56
941	5.55	9.81	40	1.94	6.14	218.9	42.72
944	5.55	9.56	36	1.63	5.18	228.9	36.53
947	5.85	9.68	33	2.12	5.07	228.7	12.43
950	5.85	9.67	33	2.09	5.07	228.5	11.88
953	5.85	9.66	33	2.01	5.07	227.9	4.72
956	5.85	9.65	33	1.89	5.07	227.6	4.52
959	5.85	9.66	33	1.92	5.08	227.3	4.34

Time between recharge during sample collection: 20 sec @ 4GPM

Sampling Personnel Signature: [signature] Date: 4/16/14

NOTES:

STABILIZATION

3 successive readings, 3 minutes apart:

within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP

from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Low-Flow Sampling Log

PROJECT NAME: Madison Co. Operating LF
PROJECT NUMBER: 2313
LOCATION: Marshall, NC
DATE: 4/16/14
SAMPLING PERSONNEL: P Brooks
WEATHER: 50s clear

Well ID: MW-02
Screen Interval: 1-16 bgs
Depth to Water: 3.48 toc
Stickup:
Depth of Pump Intake: 9' toc
Drawdown Set: 3.78 toc

Arrive at Well: 1238
Start Time: 1244
Sample Time: 1317
Finish Sample Time: 1321
Leave Well: 1331
Well Diameter: 2"

COMMENTS: bright orange color to water; fast recharge; changed lock

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU)
1244	3.51	12.51	133	5.29	6.19	109.6	184.8
1247	3.78	11.06	130	1.42	6.14	114.8	197.0
1250	3.78	10.77	129	0.99	6.05	116.9	270.8
1253	3.78	10.96	127	0.81	6.15	103.8	89.25
1256	3.78	10.65	124	0.80	6.12	93.1	42.97
1259	3.78	10.67	125	0.78	6.11	90.8	28.74
1302	3.78	10.72	126	0.70	6.11	81.2	25.66
1305	3.78	10.85	127	0.76	6.11	73.6	21.80
1308	3.78	10.90	127	0.75	6.12	72.8	17.41
1311	3.78	10.84	126	0.76	6.12	72.1	12.99
1314	3.78	10.75	126	0.75	6.11	71.1	11.45
1317	3.78	10.69	126	0.74	6.11	71.0	12.07

Time between recharge during sample collection: 20 sec @ 4CPM

Sampling Personnel Signature:
Date: 4/16/14

NOTES:

STABILIZATION
3 successive readings, 3 minutes apart:
within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP
from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Low-Flow Sampling Log

PROJECT NAME:	Madison Co. Opportunity LF	PROJECT NUMBER:	2313
LOCATION:	Marshall, NC	DATE:	4/16/14
SAMPLING PERSONNEL:	P Brooks	WEATHER:	50s clear

Well ID:	MW-03	Arrive at Well:	1335
Screen Interval:	15.5-25.5 bgs	Start Time:	1341
Depth to Water:	20.65 toc	Sample Time:	1411
Stickup:		Finish Sample Time:	1415
Depth of Pump Intake:	25 toc	Leave Well:	1423
Drawdown Set:	20.95 toc	Well Diameter:	2"

COMMENTS: broken hinge; changed lock

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU)
1341	20.84	15.24	190	5.77	6.21	59.3	66.58
1344	20.95	14.96	196	1.83	5.89	63.5	68.03
1347	20.95	14.87	278	0.86	5.99	7.4	52.85
1350	20.95	14.81	352	0.76	6.14	-18.1	6.63
1353	20.95	14.82	369	0.63	6.17	-24.7	4.16
1356	20.95	14.81	383	0.54	6.21	-29.8	2.18
1359	20.95	14.77	388	0.51	6.22	-31.6	3.52
1402	20.95	14.82	394	0.48	6.23	-32.4	0.05
1405	20.95	14.75	398	0.42	6.24	-33.2	0.00
1408	20.95	14.78	398	0.42	6.24	-33.5	0.00
1411	20.95	14.81	398	0.41	6.24	-33.6	0.00

Time between recharge during sample collection: 12 sec @ 3GPM

Sampling Personnel Signature: [signature] Date: 4/16/14

NOTES:

STABILIZATION

3 successive readings, 3 minutes apart:

within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP

from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Low-Flow Sampling Log

PROJECT NAME: Madison Co. LF (operating) PROJECT NUMBER: 2313
LOCATION: Marshall, NC DATE: 4/16/14
SAMPLING PERSONNEL: P Brooks WEATHER: 50s clear

Well ID: MW-04 Arrive at Well: 1426
Screen Interval: 70.7 - 80.7 bgs Start Time: 1435
Depth to Water: 26.76 toc Sample Time: 1459
Stickup: ~~22~~ Finish Sample Time:
Depth of Pump Intake: 79.7 toc Leave Well:
Drawdown Set: 27.06 toc Well Diameter: 2"

COMMENTS: well is bent; changed lock; fast recharge

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) *report to 0.1 S.U.*	ORP (mV)	Turbidity (NTU)
1435	26.91	16.15	174	6.02	6.96	-27.7	1.32
1438	27.06	15.85	166	3.50	6.50	44.9	9.13
1441	27.06	15.86	167	2.64	6.42	60.7	4.28
1444	27.06	15.81	166	2.61	6.39	68.4	3.17
1447	27.06	15.75	167	2.49	6.36	75.8	1.07
1450	27.06	15.79	164	2.39	6.35	83.3	0.68
1453	27.06	15.66	165	2.49	6.34	90.2	0.00
1456	27.06	15.74	166	2.43	6.34	91.7	0.00
1459	27.06	15.69	166	2.41	6.34	92.6	0.00

Time between recharge during sample collection: 5 sec @ 3 GPM

Sampling Personnel Signature: Date: 4/16/14

NOTES:

STABILIZATION
3 successive readings, 3 minutes apart:
within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP
from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Low-Flow Sampling Log

PROJECT NAME: Madison Co. Operating LF
PROJECT NUMBER: 2313
LOCATION: Marshall, NC
DATE: 4/17/14
SAMPLING PERSONNEL: P Brooks
WEATHER: 50s pt cloudy

Well ID: MW-05
Screen Interval: 46.5-61.5 bgs
Depth to Water: 44.01 toc
Stickup:
Depth of Pump Intake: 55 toc
Drawdown Set: 45.01 toc

Arrive at Well: 1104
Start Time: 1112
Sample Time: 1135
Finish Sample Time: 1145
Leave Well: 1158
Well Diameter: 2"

COMMENTS:

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU)
1112	44.48	14.01	~~186~~ 186	8.96	6.61	118.7	15.22
1115	44.61	14.30	189	3.65	6.25	129.3	14.15
1118	45.01	14.47	192	1.04	5.94	138.4	21.59
1121	45.01	14.63	187	0.69	5.90	140.7	14.36
1124	45.01	14.73	186	0.64	5.90	139.2	15.71
1127	45.01	14.55	184	0.60	5.90	138.6	12.95
1130	45.01	14.57	183	0.59	5.90	138.1	8.36
1133	45.01	14.55	184	0.57	5.89	138.9	7.92
1135	45.01	14.56	185	0.57	5.89	138.8	7.81

Time between recharge during sample collection: 1 min @ 4 GPM

Sampling Personnel Signature: [signature]
Date: 4/17/14

NOTES:

STABILIZATION
3 successive readings, 3 minutes apart:
within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP
from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Low-Flow Sampling Log

PROJECT NAME: Madison Co. Operating LF
PROJECT NUMBER: 2313
LOCATION: 23 Marshall, NC
DATE: 4/16/14
SAMPLING PERSONNEL: P Brooks
WEATHER: 50s clear, windy

Well ID: MW-6
Arrive at Well: 910
Screen Interval: NA bgs
Start Time:
Depth to Water: 101.58 toc
Sample Time:
Stickup:
Finish Sample Time:
Depth of Pump Intake: toc
Leave Well:
Drawdown Set: toc
Well Diameter: 2"

COMMENTS: bottom of well is at 101.68' TOC; 1/10 of a foot of water is not enough to collect sample; changed lock

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) *report to 0.1 S.U.*	ORP (mV)	Turbidity (NTU)

Time between recharge during sample collection:

Sampling Personnel Signature: [signature] Date: 4/16/14

NOTES:

STABILIZATION

3 successive readings, 3 minutes apart:

within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP

from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Low-Flow Sampling Log

PROJECT NAME: Madison Co Operating LF
PROJECT NUMBER: 2313
LOCATION: Marshall, NC
DATE: 4/17/14
SAMPLING PERSONNEL: P. Brooks
WEATHER: 50s pt cloudy

Well ID:	MW-06R	Arrive at Well:	1203
Screen Interval:	10-25 bgs	Start Time:	1213
Depth to Water:	5.35 toc	Sample Time:	
Stickup:	— Flush	Finish Sample Time:	
Depth of Pump Intake:	17.5 toc	Leave Well:	
Drawdown Set:	5.75 toc	Well Diameter:	2"

COMMENTS:

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU) 306.7
1213	5.57	13.14	96	12.69	7.04	84.9	~~30.69~~
1216	5.75	12.77	93	6.28	6.69	110.2	252.2
1219	5.75	12.81	92	6.71	6.55	119.4	374.1
1222	5.75	12.56	92	5.20	6.31	130.6	272.5
1225	5.75	12.46	92	5.70	6.29	116.0	116.2
1228	5.75	12.38	91	5.21	6.25	127.8	118.2
1231	5.75	12.45	92	5.14	6.24	128.9	59.36
1234	5.75	12.43	90	5.19	6.24	129.1	28.78
1237	5.75	12.47	91	5.10	6.23	130.1	30.63
1240	5.75	12.47	92	5.06	6.24	129.4	32.17
1243	5.75	12.46	92	5.01	6.23	129.9	25.48
1246	5.75	12.49	91	4.93	6.24	130.1	20.11
1249	5.75	12.51	91	4.91	6.24	130.2	20.49
1252	5.75	12.49	91	5.09	6.23	130.7	19.78

Time between recharge during sample collection: 3 sec @ 4 GPM

Sampling Personnel Signature: [signature] Date: 4/17/14

NOTES:

STABILIZATION
3 successive readings, 3 minutes apart:
within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP
from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Low-Flow Sampling Log

PROJECT NAME: Madison Co. Operating LF		PROJECT NUMBER: 2313	
LOCATION: Marshall, NC		DATE: 4/16/14	
SAMPLING PERSONNEL: P Brooks		WEATHER: 50s clear	
Well ID: MW-07R		Arrive at Well: 1114	
Screen Interval: 26-41	bgs	Start Time: 1121	
Depth to Water: 26.62	toc	Sample Time: 1215	
Stickup:		Finish Sample Time: 1224	
Depth of Pump Intake: 36.2	toc	Leave Well: 1232	
Drawdown Set: 27.62	toc	Well Diameter: 2"	

COMMENTS: gave well time for turbidity to drop; did not drop much; changed lock

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU)
1121	27.04	13.83	38	10.02	7.13	27.1	162.1
1124	27.12	14.02	42	9.27	6.53	88.2	223.6
1127	27.62	14.13	39	8.63	6.14	118.7	291.7
1130	27.62	13.86	39	8.54	5.94	135.4	441.9
1133	27.62	13.64	38	8.21	5.83	148.2	300.6
1136	27.62	13.71	38	8.20	5.81	150.7	374.7
1139	27.62	13.90	38	8.02	5.78	155.7	316.3
1142	27.62	13.99	38	8.12	5.77	157.9	238.1
1145	27.62	14.02	38	8.16	5.76	160.2	265.7
1148	27.62	13.96	38	8.10	5.75	163.4	291.3
1151	27.62	14.02	38	7.97	5.74	166.3	257.6
1154	27.62	14.01	38	7.89	5.74	167.7	209.1
1157	27.62	13.77	38	7.92	5.74	169.7	224.6
1200	27.62	13.76	37	7.99	5.74	169.4	198.0
1203	27.62	13.93	38	7.83	5.73	170.3	188.4
1206	27.62	13.81	38	7.91	5.73	171.0	213.6
1209	27.62	13.74	38	7.86	5.73	172.2	171.9
1212	27.62	13.87	38	7.87	5.73	172.6	157.2
1215	27.62	13.89	38	7.83	5.73	173.0	164.8

Time between recharge during sample collection: 1 min 40 sec @ 3GPM

Sampling Personnel Signature: [signature] Date: 4/16/14

NOTES:

STABILIZATION

3 successive readings, 3 minutes apart:

within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP

from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface

toc = top of casing

°C = degrees Celsius

µS = micro-Siemen

DO = dissolved oxygen

mg/L = milligrams per liter

S.U. = standard units

ORP = oxidation reduction potential

mV = millivolt

NTU = nephelometric turbidity units

Samples are analyzed immediately upon collection.

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Low-Flow Sampling Log

PROJECT NAME:	Madison Co. Operating LF	PROJECT NUMBER:	2313
LOCATION:	Marshall, NC	DATE:	4/16/14
SAMPLING PERSONNEL:	P Brooks	WEATHER:	50s clear

Well ID:	MW-08	Arrive at Well:	1028
Screen Interval:	16-26 bgs	Start Time:	1036
Depth to Water:	~~13.84~~ 13.84 toc	Sample Time:	1054
Stickup:		Finish Sample Time:	1058
Depth of Pump Intake:	23.4 toc	Leave Well:	1110
Drawdown Set:	14.84 toc	Well Diameter:	2"

COMMENTS: changed lock ; slow recharge

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU)
1036	13.92	11.99	225	7.58	6.46	-3.4	20.00
1039	~~12.13~~ 12.13	12.13	229	7.24	6.45	12.3	11.12
14.34	~~14.34~~						
1042	14.34	12.27	232	6.61	6.45	27.8	5.97
1045	14.84	12.41	235	6.86	6.46	34.0	5.74
1048	14.84	12.55	236	6.39	6.45	47.6	4.31
1051	14.84	12.62	237	6.35	6.45	53.2	4.15
1054	14.84	12.66	237	6.32	6.46	57.2	3.89

Time between recharge during sample collection: 1 min 50 sec @ 3GPM

Sampling Personnel Signature: [signature] Date: 4/16/14

NOTES:

STABILIZATION

3 successive readings, 3 minutes apart:

within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP

from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
Samples are analyzed immediately upon collection.

S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Low-Flow Sampling Log

PROJECT NAME: Madison Co. Operating LF
PROJECT NUMBER: 2313
LOCATION: Marshall, NC
DATE: 4/17/14
SAMPLING PERSONNEL: P Brooks
WEATHER: 50s pt cloudy

Well ID: MW-09
Screen Interval: 12-24 bgs
Depth to Water: 5.11 toc
Stickup:
Depth of Pump Intake: 22 toc
Drawdown Set: 6.11 toc

Arrive at Well: 955
Start Time: 1006
Sample Time: 1048
Finish Sample Time: 1053
Leave Well: 1101
Well Diameter: 2"

COMMENTS: changed lock; gave well time for turbidity to drop

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) report to 0.1 S.U.	ORP (mV)	Turbidity (NTU)
1006	5.41	11.98	125	4.34	6.77	129.2	81.04
1009	6.11	12.45	127	1.89	6.53	137.7	96.50
1012	6.11	12.41	127	1.81	6.50	137.2	104.6
1015	6.11	12.37	125	1.92	6.43	138.5	84.31
1018	6.11	12.26	126	1.75	6.40	136.0	95.83
1021	6.11	12.38	126	1.56	6.36	135.2	74.28
1024	6.11	12.47	126	1.52	6.35	135.2	76.58
1027	6.11	12.48	125	1.52	6.35	133.7	60.73
1030	6.11	12.49	126	1.48	6.34	129.3	39.53
1033	6.11	12.52	126	1.54	6.33	129.6	44.41
1036	6.11	12.58	125	1.42	6.33	126.2	32.45
1039	6.11	12.66	126	1.41	6.33	124.7	38.51
1042	6.11	12.56	127	1.45	6.33	122.7	19.47
1045	6.11	12.55	126	1.47	6.33	121.3	18.41
1048	6.11	12.51	126	1.47	6.33	121.1	20.19

Time between recharge during sample collection: 45 sec @ 30PM

Sampling Personnel Signature:
Date: 4/17/14

NOTES:

STABILIZATION
3 successive readings, 3 minutes apart:
within +/- 10% DO and turbidity; +/- 3% Conductivity; +/- 0.1 pH unit; +/- 10 mV for ORP
from *EPA - Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, April 1996

bgs = below ground surface
toc = top of casing
°C = degrees Celsius
µS = micro-Siemen
DO = dissolved oxygen
mg/L = milligrams per liter
S.U. = standard units
ORP = oxidation reduction potential
mV = millivolt
NTU = nephelometric turbidity units
Samples are analyzed immediately upon collection.

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Sampling Log

PROJECT NAME: Madison Co. Operating LF
DATE: 4/17/14
PROJECT NUMBER: 2313
WEATHER: 50s pt cloudy, windy
SAMPLING PERSONNEL: P Brooks

SAMPLE NAME: LT-01

COMMENTS: taken from leachate tank using bailer

SAMPLE METHOD: GRAB SYRINGE PUMP BAILER-DISP. OTHER:

TIME	TEMP (°C)	SPECIFIC COND. (µS)	DISSOLVED OXYGEN (mg/L)	pH (S.U.) *report to 0.1 S.U.*	OXIDATION REDUCTION POTENTIAL (mV)	TURBIDITY (NTU)	COMMENTS
1310	12.15	2029	7.98	6.88	21.0	71.74	

SAMPLING CONTAINER	NUMBER OF CONTAINERS	REQUESTED ANALYSIS
500 mL PLASTIC		
250 mL PLASTIC	1	
125 mL PLASTIC		
40 mL GLASS		
1 L GLASS		
OTHER		

VEGETATION: ok ACCESS: ok

Sampling Personnel Signature: [signature] Date: 4/17/14

Notes: °C = degrees Celsius
mS = micro-Siemen per cubic centimeter
mg/L = milligrams per liter
S.U. = standard units
mV = millivolt
NTU = nephelometric turbidity units

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Surface Water Sampling Log

PROJECT NAME: Madison Co. LF (Operating) DATE: 4/17/14
PROJECT NUMBER: 2313 WEATHER: 50s pt cloudy
SAMPLING PERSONNEL: P Brooks

SAMPLE NAME: SW-01

COMMENTS: taken upstream of landfill as indicated on map

SAMPLE METHOD: GRAB SYRINGE PUMP BAILER-DISP. OTHER:

TIME	TEMP (°C)	SPECIFIC COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	pH (S.U.) *report to 0.1 S.U.*	OXIDATION REDUCTION POTENTIAL (mV)	TURBIDITY (NTU)	COMMENTS
1258	14.31	83	7.64	6.57	40.3	19.38	

SAMPLING CONTAINER	NUMBER OF CONTAINERS	REQUESTED ANALYSIS
500 mL PLASTIC		
250 mL PLASTIC	1	
125 mL PLASTIC		
40 mL GLASS	3	
1 L GLASS		
OTHER		

VEGETATION: ok ACCESS: ok

Sampling Personnel Signature: Date: 4/17/14

Notes: °C = degrees Celsius
µS/cm = micro-Siemen per cubic centimeter
mg/L = milligrams per liter
S.U. = standard units
mV = millivolt
NTU = nephelometric turbidity units
Samples are analyzed immediately upon collection.

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Surface Water Sampling Log

PROJECT NAME: Madison Co. Operating LF
DATE: 4/16/14
PROJECT NUMBER: 2313
WEATHER: 50s clear
SAMPLING PERSONNEL: P Brooks

SAMPLE NAME: SW-02R

COMMENTS: taken downstream of landfill as indicated on map

SAMPLE METHOD: GRAB SYRINGE PUMP BAILER-DISP. OTHER:

TIME	TEMP (°C)	SPECIFIC COND. (µS/cm)	DISSOLVED OXYGEN (mg/L)	pH (S.U.) *report to 0.1 S.U.*	OXIDATION REDUCTION POTENTIAL (mV)	TURBIDITY (NTU)	COMMENTS
1012	9.77	86	5.81	6.46	22.4	12.92	

SAMPLING CONTAINER	NUMBER OF CONTAINERS	REQUESTED ANALYSIS
500 mL PLASTIC		
250 mL PLASTIC	1	App I Metals
125 mL PLASTIC		
40 mL GLASS	3	App I VOCs
1 L GLASS		
OTHER		

VEGETATION: ok ACCESS: ok

Sampling Personnel Signature: [signature] Date: 4/16/14

Notes: °C = degrees Celsius
µS/cm = micro-Siemen per cubic centimeter
mg/L = milligrams per liter
S.U. = standard units
mV = millivolt
NTU = nephelometric turbidity units
Samples are analyzed immediately upon collection.

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Equipment Documentation & Instrument Calibration Data Sheet

Project Name: Madison Co Operating LF
Project Number: 2313
Project Location: Marshall, NC

Calibration Documentation
Person Conducting Calibration: f Brook
Date of Calibration: 4/16/14
Date of Field Measurements: 4/16/14

Equipment Documentation

Equipment or meters used to take measurements (e.g. water level meters, survey equipment, etc.):

Equipment Type	Serial Number	Brand	Date of Use
150-ft Water Level	26154	Solinist	
150-ft Water Level	22754	Solinist	
150-ft Water Level	150	Testwell	
150-ft Drawdown	MP30-1527	QED	4/16/14
Other			

Micro TPW Turbidity Meter

Calibration Standards Exp Date	Instrument Serial #	Instrument Reading		
		0.02 NTU	10.0 NTU	1000 NTU
6/15	200601045	Initial: 2.64	Initial: 15.77	Initial: 733.8
		Cal: 0.02	Cal: 10.0	Cal: 1000
		Time: 810	Time: 805	Time: 806

YSI 556 Multiparameter Meter

Instrument Serial Number	12L101057						
	Instrument Readings =1023.2 mb						Calibration Expiration Date
Dissolved Oxygen	Initial: 9.79	Cal: 9.74	mmHg: 767.46	Time: 823			NA
pH 7 S.U. *report to 0.1 S.U.*	Initial: 7.02	pHmV:	Cal: 7.00	pHmV:	Time: 803		5/15
pH 4 S.U. *report to 0.1 S.U.*	Initial: 4.02	pHmV:	Cal: 4.00	pHmV:	Time: 810		4/15
pH 10 S.U. *report to 0.1 S.U.*	Initial: 10.17	pHmV:	Cal: 10.03	pHmV:	Time: 815		5/15
QC* pH 7 S.U. *report to 0.1 S.U.*	AM Time: 838	Meas: 7.01	Mid Day Time:	Check:	PM Time:	Check:	
Spec. Cond. 1413/447/84/23 µS/cm**	Initial: 1404	Cal: 1413	Time: 748				~~2/15~~ 9/14
QC* 84 µS/cm	AM Time: 835	Meas: 1428	Mid Day Time:	Check:	PM Time:	Check:	
ORP 240 mV	Initial: 242.3	Cal: 240.0	Time: 833				2/13

Comments:

Signature: [signature] Date: 4/16/14

Notes:

1. Electronic equipment calibrated according to the manufacturer's operation manual.
2. Specific Conductivity should be calibrated according to values representative of historic range.
3. Order of Calibration is as follows : Specific Conductivity, pH 7, pH 4, pH 10, ORP, QC checks.
4. QC Acceptable Ranges: pH +/- 0.1 S.U. and Specific Conductivity 10% of the true value. If readings are out of these ranges, meter needs to be recalibrated.
5. * Indicates that a QC check must be performed in the morning, afternoon, and the end of the day, or every four hours.
6. ** Indicates to choose a Specific Conductivity buffer of 1413, 447, 84, or 23 mS which is closest to historical readings from the project location.

ALTAMONT ENVIRONMENTAL, INC.
ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAX.828.281.3351
WWW.ALTAMONTENVIRONMENTAL.COM

Equipment Documentation & Instrument Calibration Data Sheet

Project Name: Madison Co. Operating LF
Project Number: 2313
Project Location: Marshall, NC

Calibration Documentation
Person Conducting Calibration: P Brooks
Date of Calibration: 4/17/14
Date of Field Measurements: 4/17/14

Equipment Documentation

Equipment or meters used to take measurements (e.g. water level meters, survey equipment, etc.):

Equipment Type	Serial Number	Brand	Date of Use
150-ft Water Level	26154	Solinist	
150-ft Water Level	22754	Solinist	
150-ft Water Level	150	Testwell	
150-ft Drawdown	MP30-1527	QED	4/17/14
Other			

Micro TPW Turbidity Meter

Calibration Standards Exp Date	Instrument Serial #	Instrument Reading		
		0.02 NTU	10.0 NTU	1000 NTU
6/15	200601045	Initial: 0.03	Initial: 5.94	Initial: 1085
		Cal: 0.02	Cal: 10.0	Cal: 1000
		Time: 821	Time: 819	Time: 817

YSI 556 Multiparameter Meter

Instrument Serial Number	12L101057						
Instrument Readings							Calibration Expiration Date
Dissolved Oxygen	Initial: 9.70	Cal: 9.42	mmHg: 760.0	Time: 818			NA
pH 7 S.U. *report to 0.1 S.U.*	Initial: 7.01	pHmV:	Cal: 7.00	pHmV:	Time: 756		5/15
pH 4 S.U. *report to 0.1 S.U.*	Initial: 3.99	pHmV:	Cal: 4.00	pHmV:	Time: 805		4/15
pH 10 S.U. *report to 0.1 S.U.*	Initial: 9.97	pHmV:	Cal: 9.99	pHmV:	Time: 811		5/15
QC* pH 7 S.U. *report to 0.1 S.U.*	AM Time: ~~820~~ 822	Meas: ~~1405~~	Mid Day Time:	Check:	PM Time:	Check:	
Spec. Cond. 1413/447/84/23 µS/cm**	Initial: 1445	Cal: 1413	Time: 748				9/14
QC* 84 µS/cm	AM Time: 820	Meas: 1405	Mid Day Time:	Check:	PM Time:	Check:	
ORP 240 mV	Initial:	Cal:	Time:				04/16

Comments:
Signature: [signature] Date: 4/17/14

Notes:
1. Electronic equipment calibrated according to the manufacturer's operation manual.
2. Specific Conductivity should be calibrated according to values representative of historic range.
3. Order of Calibration is as follows : Specific Conductivity, pH 7, pH 4, pH 10, ORP, QC checks.
4. QC Acceptable Ranges: pH +/- 0.1 S.U. and Specific Conductivity 10% of the true value. If readings are out of these ranges, meter needs to be recalibrated.
5. * Indicates that a QC check must be performed in the morning, afternoon, and the end of the day, or every four hours.
6. ** Indicates to choose a Specific Conductivity buffer of 1413, 447, 84, or 23 mS which is closest to historical readings from the project location.

APPENDIX B

Report of Laboratory Analysis and Chain-of-Custody Documentation

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

April 24, 2014

Mr. Stu Ryman
Altamont Environmental
321 Haywood Street
Asheville, NC 28801

RE: Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Dear Mr. Ryman:
Enclosed are the analytical results for sample(s) received by the laboratory on April 17, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

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

Sincerely,

Lorri Patton

Lorri Patton
lorri.patton@pacelabs.com
Project Manager

Enclosures

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

CERTIFICATIONS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alabama Certification #40770
Alabama Certification #40770
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #: Pace
Georgia Certification #: 959
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nebraska Certification #: Pace
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
Wisconsin Certification #: 999407970
West Virginia Certification #: 382
West Virginia TO-15 Approval
West Virginia DHHR #:9952C

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs

2225 Riverside Dr., Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

SAMPLE SUMMARY

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92197901001	**MW-01**	Water	04/16/14 09:59	04/17/14 14:22
92197901002	**MW-02**	Water	04/16/14 13:17	04/17/14 14:22
92197901003	**MW-03**	Water	04/16/14 14:11	04/17/14 14:22
92197901004	**MW-04**	Water	04/16/14 14:59	04/17/14 14:22
92197901005	**MW-05**	Water	04/17/14 11:35	04/17/14 14:22
92197901006	**MW-06R**	Water	04/17/14 12:52	04/17/14 14:22
92197901007	**MW-07R**	Water	04/16/14 12:15	04/17/14 14:22
92197901008	**MW-08**	Water	04/16/14 10:54	04/17/14 14:22
92197901009	**MW-09**	Water	04/17/14 10:48	04/17/14 14:22
92197901010	**SW-01**	Water	04/17/14 12:58	04/17/14 14:22
92197901011	**SW-02R**	Water	04/16/14 10:12	04/17/14 14:22
92197901012	**TRIP BLANK**	Water	04/17/14 00:00	04/17/14 14:22

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

SAMPLE ANALYTE COUNT

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92197901001	**MW-01**	EPA 6010	JMW	14	PASI-A
		EPA 6020	TT3	1	PASI-M
		EPA 7470	MTS	1	PASI-A
		EPA 8260	MCK	51	PASI-C
92197901002	**MW-02**	EPA 6010	JMW	14	PASI-A
		EPA 6020	TT3	1	PASI-M
		EPA 7470	MTS	1	PASI-A
		EPA 8260	MCK	51	PASI-C
92197901003	**MW-03**	EPA 6010	JMW	14	PASI-A
		EPA 6020	TT3	1	PASI-M
		EPA 7470	MTS	1	PASI-A
		EPA 8260	MCK	51	PASI-C
92197901004	**MW-04**	EPA 6010	JMW	14	PASI-A
		EPA 6020	TT3	1	PASI-M
		EPA 7470	MTS	1	PASI-A
		EPA 8260	MCK	51	PASI-C
92197901005	**MW-05**	EPA 6010	JMW	14	PASI-A
		EPA 6020	TT3	1	PASI-M
		EPA 7470	MTS	1	PASI-A
		EPA 8260	MCK	51	PASI-C
92197901006	**MW-06R**	EPA 6010	JMW	14	PASI-A
		EPA 6020	TT3	1	PASI-M
		EPA 7470	MTS	1	PASI-A
		EPA 8260	MCK	51	PASI-C
92197901007	**MW-07R**	EPA 6010	JMW	14	PASI-A
		EPA 6020	TT3	1	PASI-M
		EPA 7470	MTS	1	PASI-A
		EPA 8260	MCK	51	PASI-C
92197901008	**MW-08**	EPA 6010	JMW	14	PASI-A
		EPA 6020	TT3	1	PASI-M
		EPA 7470	MTS	1	PASI-A
		EPA 8260	MCK	51	PASI-C
92197901009	**MW-09**	EPA 6010	JMW	14	PASI-A
		EPA 6020	TT3	1	PASI-M
		EPA 7470	MTS	1	PASI-A
		EPA 8260	MCK	51	PASI-C
92197901010	**SW-01**	EPA 6010	JMW	14	PASI-A

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

SAMPLE ANALYTE COUNT

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020	TT3	1	PASI-M
		EPA 7470	MTS	1	PASI-A
		EPA 8260	MCK	51	PASI-C
92197901011	**SW-02R**	EPA 6010	JMW	14	PASI-A
		EPA 6020	TT3	1	PASI-M
		EPA 7470	MTS	1	PASI-A
		EPA 8260	MCK	51	PASI-C
92197901012	**TRIP BLANK**	EPA 8260	MCK	51	PASI-C

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-01 **Lab ID: 92197901001** Collected: 04/16/14 09:59 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:12	7440-36-0	
Arsenic	**<5.0**	ug/L	10.0	5.0	1	04/22/14 14:05	04/23/14 18:12	7440-38-2	
Barium	**93.7**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:12	7440-39-3	
Beryllium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:12	7440-41-7	
Cadmium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:12	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:12	7440-47-3	
Cobalt	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:12	7440-48-4	
Copper	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:12	7440-50-8	
Lead	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:12	7439-92-1	
Nickel	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:12	7440-02-0	
Selenium	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:12	7782-49-2	
Silver	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:12	7440-22-4	
Vanadium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:12	7440-62-2	
Zinc	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:12	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020		Preparation Method: EPA 3020						
Thallium	**<0.025**	ug/L	0.10	0.025	1	04/22/14 11:30	04/23/14 12:53	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	**<0.10**	ug/L	0.20	0.10	1	04/21/14 21:00	04/23/14 16:31	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/18/14 22:52	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/18/14 22:52	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/18/14 22:52	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/18/14 22:52	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/18/14 22:52	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/18/14 22:52	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/18/14 22:52	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/18/14 22:52	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/18/14 22:52	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/18/14 22:52	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/18/14 22:52	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/18/14 22:52	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/18/14 22:52	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/18/14 22:52	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/18/14 22:52	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 22:52	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/18/14 22:52	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 22:52	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 22:52	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/18/14 22:52	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/18/14 22:52	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/18/14 22:52	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/18/14 22:52	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/18/14 22:52	75-35-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-01 **Lab ID: 92197901001** Collected: 04/16/14 09:59 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/18/14 22:52	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/18/14 22:52	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/18/14 22:52	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/18/14 22:52	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 22:52	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 22:52	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/18/14 22:52	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/18/14 22:52	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/18/14 22:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/18/14 22:52	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 22:52	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/18/14 22:52	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/18/14 22:52	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/18/14 22:52	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/18/14 22:52	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 22:52	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/18/14 22:52	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/18/14 22:52	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/18/14 22:52	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/18/14 22:52	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/18/14 22:52	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/18/14 22:52	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/18/14 22:52	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/18/14 22:52	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/18/14 22:52	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		04/18/14 22:52	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/18/14 22:52	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-02 **Lab ID: 92197901002** Collected: 04/16/14 13:17 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:21	7440-36-0	
Arsenic	**<5.0**	ug/L	10.0	5.0	1	04/22/14 14:05	04/23/14 18:21	7440-38-2	
Barium	**87.6**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:21	7440-39-3	
Beryllium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:21	7440-41-7	
Cadmium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:21	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:21	7440-47-3	
Cobalt	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:21	7440-48-4	
Copper	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:21	7440-50-8	
Lead	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:21	7439-92-1	
Nickel	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:21	7440-02-0	
Selenium	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:21	7782-49-2	
Silver	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:21	7440-22-4	
Vanadium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:21	7440-62-2	
Zinc	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:21	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020		Preparation Method: EPA 3020						
Thallium	**0.037J**	ug/L	0.10	0.025	1	04/22/14 11:30	04/23/14 12:56	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	**<0.10**	ug/L	0.20	0.10	1	04/21/14 21:00	04/23/14 16:39	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/18/14 23:09	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/18/14 23:09	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/18/14 23:09	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/18/14 23:09	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/18/14 23:09	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:09	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/18/14 23:09	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/18/14 23:09	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/18/14 23:09	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/18/14 23:09	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/18/14 23:09	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/18/14 23:09	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/18/14 23:09	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/18/14 23:09	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/18/14 23:09	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 23:09	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/18/14 23:09	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 23:09	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 23:09	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/18/14 23:09	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/18/14 23:09	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/18/14 23:09	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/18/14 23:09	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/18/14 23:09	75-35-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-02 **Lab ID: 92197901002** Collected: 04/16/14 13:17 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/18/14 23:09	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/18/14 23:09	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/18/14 23:09	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/18/14 23:09	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:09	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 23:09	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/18/14 23:09	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/18/14 23:09	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/18/14 23:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/18/14 23:09	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:09	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/18/14 23:09	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/18/14 23:09	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/18/14 23:09	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/18/14 23:09	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:09	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/18/14 23:09	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/18/14 23:09	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/18/14 23:09	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/18/14 23:09	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/18/14 23:09	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/18/14 23:09	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/18/14 23:09	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/18/14 23:09	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/18/14 23:09	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		04/18/14 23:09	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/18/14 23:09	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-03 **Lab ID: 92197901003** Collected: 04/16/14 14:11 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	**7.1**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:24	7440-36-0	
Arsenic	**<5.0**	ug/L	10.0	5.0	1	04/22/14 14:05	04/23/14 18:24	7440-38-2	
Barium	**248**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:24	7440-39-3	
Beryllium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:24	7440-41-7	
Cadmium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:24	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:24	7440-47-3	
Cobalt	**114**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:24	7440-48-4	
Copper	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:24	7440-50-8	
Lead	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:24	7439-92-1	
Nickel	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:24	7440-02-0	
Selenium	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:24	7782-49-2	
Silver	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:24	7440-22-4	
Vanadium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:24	7440-62-2	
Zinc	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:24	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020		Preparation Method: EPA 3020						
Thallium	**0.068J**	ug/L	0.10	0.025	1	04/22/14 11:30	04/23/14 13:05	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	**<0.10**	ug/L	0.20	0.10	1	04/21/14 21:00	04/23/14 16:41	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/18/14 23:25	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/18/14 23:25	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/18/14 23:25	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/18/14 23:25	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/18/14 23:25	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:25	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/18/14 23:25	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/18/14 23:25	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/18/14 23:25	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/18/14 23:25	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/18/14 23:25	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/18/14 23:25	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/18/14 23:25	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/18/14 23:25	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/18/14 23:25	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 23:25	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/18/14 23:25	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 23:25	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 23:25	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/18/14 23:25	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/18/14 23:25	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/18/14 23:25	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/18/14 23:25	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/18/14 23:25	75-35-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-03 **Lab ID: 92197901003** Collected: 04/16/14 14:11 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/18/14 23:25	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/18/14 23:25	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/18/14 23:25	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/18/14 23:25	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:25	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 23:25	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/18/14 23:25	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/18/14 23:25	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/18/14 23:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/18/14 23:25	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:25	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/18/14 23:25	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/18/14 23:25	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/18/14 23:25	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/18/14 23:25	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:25	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/18/14 23:25	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/18/14 23:25	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/18/14 23:25	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/18/14 23:25	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/18/14 23:25	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/18/14 23:25	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/18/14 23:25	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/18/14 23:25	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/18/14 23:25	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		04/18/14 23:25	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/18/14 23:25	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-04 **Lab ID: 92197901004** Collected: 04/16/14 14:59 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:36	7440-36-0	
Arsenic	**<5.0**	ug/L	10.0	5.0	1	04/22/14 14:05	04/23/14 18:36	7440-38-2	
Barium	**136**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:36	7440-39-3	
Beryllium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:36	7440-41-7	
Cadmium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:36	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:36	7440-47-3	
Cobalt	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:36	7440-48-4	
Copper	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:36	7440-50-8	
Lead	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:36	7439-92-1	
Nickel	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:36	7440-02-0	
Selenium	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:36	7782-49-2	
Silver	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:36	7440-22-4	
Vanadium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:36	7440-62-2	
Zinc	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:36	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020		Preparation Method: EPA 3020						
Thallium	**<0.025**	ug/L	0.10	0.025	1	04/22/14 11:30	04/23/14 13:08	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	**<0.10**	ug/L	0.20	0.10	1	04/21/14 21:00	04/23/14 16:44	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/18/14 23:42	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/18/14 23:42	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/18/14 23:42	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/18/14 23:42	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/18/14 23:42	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:42	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/18/14 23:42	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/18/14 23:42	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/18/14 23:42	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/18/14 23:42	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/18/14 23:42	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/18/14 23:42	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/18/14 23:42	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/18/14 23:42	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/18/14 23:42	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 23:42	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/18/14 23:42	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 23:42	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 23:42	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/18/14 23:42	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/18/14 23:42	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/18/14 23:42	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/18/14 23:42	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/18/14 23:42	75-35-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-04 **Lab ID: 92197901004** Collected: 04/16/14 14:59 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/18/14 23:42	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/18/14 23:42	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/18/14 23:42	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/18/14 23:42	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:42	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 23:42	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/18/14 23:42	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/18/14 23:42	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/18/14 23:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/18/14 23:42	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:42	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/18/14 23:42	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/18/14 23:42	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/18/14 23:42	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/18/14 23:42	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:42	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/18/14 23:42	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/18/14 23:42	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/18/14 23:42	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/18/14 23:42	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/18/14 23:42	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/18/14 23:42	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/18/14 23:42	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/18/14 23:42	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		04/18/14 23:42	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		04/18/14 23:42	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/18/14 23:42	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-05 **Lab ID: 92197901005** Collected: 04/17/14 11:35 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:39	7440-36-0	
Arsenic	**<5.0**	ug/L	10.0	5.0	1	04/22/14 14:05	04/23/14 18:39	7440-38-2	
Barium	**109**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:39	7440-39-3	
Beryllium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:39	7440-41-7	
Cadmium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:39	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:39	7440-47-3	
Cobalt	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:39	7440-48-4	
Copper	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:39	7440-50-8	
Lead	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:39	7439-92-1	
Nickel	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:39	7440-02-0	
Selenium	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:39	7782-49-2	
Silver	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:39	7440-22-4	
Vanadium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:39	7440-62-2	
Zinc	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:39	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020		Preparation Method: EPA 3020						
Thallium	**<0.025**	ug/L	0.10	0.025	1	04/22/14 11:30	04/23/14 13:11	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	**<0.10**	ug/L	0.20	0.10	1	04/21/14 21:00	04/23/14 16:47	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/18/14 23:58	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/18/14 23:58	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/18/14 23:58	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/18/14 23:58	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/18/14 23:58	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:58	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/18/14 23:58	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/18/14 23:58	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/18/14 23:58	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/18/14 23:58	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/18/14 23:58	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/18/14 23:58	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/18/14 23:58	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/18/14 23:58	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/18/14 23:58	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 23:58	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/18/14 23:58	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 23:58	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 23:58	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/18/14 23:58	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/18/14 23:58	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/18/14 23:58	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/18/14 23:58	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/18/14 23:58	75-35-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-05 **Lab ID: 92197901005** Collected: 04/17/14 11:35 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/18/14 23:58	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/18/14 23:58	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/18/14 23:58	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/18/14 23:58	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:58	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 23:58	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/18/14 23:58	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/18/14 23:58	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/18/14 23:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/18/14 23:58	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:58	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/18/14 23:58	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/18/14 23:58	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/18/14 23:58	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/18/14 23:58	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 23:58	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/18/14 23:58	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/18/14 23:58	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/18/14 23:58	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/18/14 23:58	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/18/14 23:58	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/18/14 23:58	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/18/14 23:58	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/18/14 23:58	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/18/14 23:58	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		04/18/14 23:58	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		04/18/14 23:58	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-06R **Lab ID: 92197901006** Collected: 04/17/14 12:52 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:43	7440-36-0	
Arsenic	**<5.0**	ug/L	10.0	5.0	1	04/22/14 14:05	04/23/14 18:43	7440-38-2	
Barium	**34.5**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:43	7440-39-3	
Beryllium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:43	7440-41-7	
Cadmium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:43	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:43	7440-47-3	
Cobalt	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:43	7440-48-4	
Copper	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:43	7440-50-8	
Lead	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:43	7439-92-1	
Nickel	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:43	7440-02-0	
Selenium	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:43	7782-49-2	
Silver	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:43	7440-22-4	
Vanadium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:43	7440-62-2	
Zinc	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:43	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020		Preparation Method: EPA 3020						
Thallium	**<0.025**	ug/L	0.10	0.025	1	04/22/14 11:30	04/23/14 13:14	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	**<0.10**	ug/L	0.20	0.10	1	04/21/14 21:00	04/23/14 16:49	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/19/14 00:15	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/19/14 00:15	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/19/14 00:15	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/19/14 00:15	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/19/14 00:15	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/19/14 00:15	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/19/14 00:15	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/19/14 00:15	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/19/14 00:15	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/19/14 00:15	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/19/14 00:15	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/19/14 00:15	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/19/14 00:15	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/19/14 00:15	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/19/14 00:15	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 00:15	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/19/14 00:15	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 00:15	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 00:15	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/19/14 00:15	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/19/14 00:15	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/19/14 00:15	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/19/14 00:15	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/19/14 00:15	75-35-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-06R **Lab ID: 92197901006** Collected: 04/17/14 12:52 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/19/14 00:15	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/19/14 00:15	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/19/14 00:15	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/19/14 00:15	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 00:15	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 00:15	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/19/14 00:15	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/19/14 00:15	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/19/14 00:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/19/14 00:15	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 00:15	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/19/14 00:15	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/19/14 00:15	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/19/14 00:15	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/19/14 00:15	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 00:15	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/19/14 00:15	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/19/14 00:15	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/19/14 00:15	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/19/14 00:15	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/19/14 00:15	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/19/14 00:15	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/19/14 00:15	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/19/14 00:15	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/19/14 00:15	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		04/19/14 00:15	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		04/19/14 00:15	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-07R **Lab ID: 92197901007** Collected: 04/16/14 12:15 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:46	7440-36-0	
Arsenic	**<5.0**	ug/L	10.0	5.0	1	04/22/14 14:05	04/23/14 18:46	7440-38-2	
Barium	**173**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:46	7440-39-3	
Beryllium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:46	7440-41-7	
Cadmium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:46	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:46	7440-47-3	
Cobalt	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:46	7440-48-4	
Copper	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:46	7440-50-8	
Lead	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:46	7439-92-1	
Nickel	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:46	7440-02-0	
Selenium	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:46	7782-49-2	
Silver	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:46	7440-22-4	
Vanadium	**5.4**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:46	7440-62-2	
Zinc	**19.5**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:46	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020								
Thallium	**0.037J**	ug/L	0.10	0.025	1	04/22/14 11:30	04/23/14 13:17	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	**<0.10**	ug/L	0.20	0.10	1	04/21/14 21:00	04/23/14 16:52	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/19/14 00:31	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/19/14 00:31	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/19/14 00:31	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/19/14 00:31	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/19/14 00:31	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/19/14 00:31	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/19/14 00:31	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/19/14 00:31	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/19/14 00:31	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/19/14 00:31	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/19/14 00:31	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/19/14 00:31	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/19/14 00:31	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/19/14 00:31	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/19/14 00:31	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 00:31	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/19/14 00:31	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 00:31	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 00:31	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/19/14 00:31	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/19/14 00:31	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/19/14 00:31	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/19/14 00:31	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/19/14 00:31	75-35-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-07R **Lab ID: 92197901007** Collected: 04/16/14 12:15 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/19/14 00:31	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/19/14 00:31	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/19/14 00:31	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/19/14 00:31	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 00:31	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 00:31	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/19/14 00:31	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/19/14 00:31	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/19/14 00:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/19/14 00:31	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 00:31	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/19/14 00:31	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/19/14 00:31	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/19/14 00:31	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/19/14 00:31	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 00:31	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/19/14 00:31	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/19/14 00:31	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/19/14 00:31	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/19/14 00:31	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/19/14 00:31	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/19/14 00:31	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/19/14 00:31	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/19/14 00:31	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/19/14 00:31	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		04/19/14 00:31	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/19/14 00:31	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-08 **Lab ID: 92197901008** Collected: 04/16/14 10:54 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010	Preparation Method: EPA 3010							
Antimony	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:49	7440-36-0	
Arsenic	**<5.0**	ug/L	10.0	5.0	1	04/22/14 14:05	04/23/14 18:49	7440-38-2	
Barium	**28.6**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:49	7440-39-3	
Beryllium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:49	7440-41-7	
Cadmium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:49	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:49	7440-47-3	
Cobalt	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:49	7440-48-4	
Copper	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:49	7440-50-8	
Lead	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:49	7439-92-1	
Nickel	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:49	7440-02-0	
Selenium	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:49	7782-49-2	
Silver	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:49	7440-22-4	
Vanadium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:49	7440-62-2	
Zinc	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:49	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020	Preparation Method: EPA 3020							
Thallium	**<0.025**	ug/L	0.10	0.025	1	04/22/14 11:30	04/23/14 13:22	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470	Preparation Method: EPA 7470							
Mercury	**<0.10**	ug/L	0.20	0.10	1	04/21/14 21:00	04/23/14 16:54	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/19/14 00:48	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/19/14 00:48	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/19/14 00:48	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/19/14 00:48	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/19/14 00:48	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/19/14 00:48	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/19/14 00:48	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/19/14 00:48	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/19/14 00:48	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/19/14 00:48	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/19/14 00:48	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/19/14 00:48	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/19/14 00:48	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/19/14 00:48	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/19/14 00:48	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 00:48	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/19/14 00:48	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 00:48	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 00:48	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/19/14 00:48	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/19/14 00:48	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/19/14 00:48	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/19/14 00:48	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/19/14 00:48	75-35-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-08 **Lab ID: 92197901008** Collected: 04/16/14 10:54 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/19/14 00:48	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/19/14 00:48	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/19/14 00:48	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/19/14 00:48	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 00:48	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 00:48	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/19/14 00:48	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/19/14 00:48	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/19/14 00:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/19/14 00:48	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 00:48	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/19/14 00:48	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/19/14 00:48	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/19/14 00:48	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/19/14 00:48	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 00:48	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/19/14 00:48	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/19/14 00:48	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/19/14 00:48	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/19/14 00:48	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/19/14 00:48	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/19/14 00:48	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/19/14 00:48	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/19/14 00:48	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		04/19/14 00:48	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		04/19/14 00:48	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		04/19/14 00:48	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-09 **Lab ID: 92197901009** Collected: 04/17/14 10:48 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:52	7440-36-0	
Arsenic	**<5.0**	ug/L	10.0	5.0	1	04/22/14 14:05	04/23/14 18:52	7440-38-2	
Barium	**167**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:52	7440-39-3	
Beryllium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:52	7440-41-7	
Cadmium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:52	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:52	7440-47-3	
Cobalt	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:52	7440-48-4	
Copper	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:52	7440-50-8	
Lead	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:52	7439-92-1	
Nickel	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:52	7440-02-0	
Selenium	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:52	7782-49-2	
Silver	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:52	7440-22-4	
Vanadium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:52	7440-62-2	
Zinc	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:52	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020		Preparation Method: EPA 3020						
Thallium	**<0.025**	ug/L	0.10	0.025	1	04/22/14 11:30	04/23/14 13:25	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	**<0.10**	ug/L	0.20	0.10	1	04/21/14 21:00	04/23/14 16:57	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/19/14 01:04	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/19/14 01:04	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/19/14 01:04	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/19/14 01:04	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/19/14 01:04	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:04	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/19/14 01:04	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/19/14 01:04	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/19/14 01:04	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/19/14 01:04	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/19/14 01:04	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/19/14 01:04	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/19/14 01:04	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/19/14 01:04	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/19/14 01:04	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 01:04	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/19/14 01:04	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 01:04	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 01:04	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/19/14 01:04	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/19/14 01:04	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/19/14 01:04	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/19/14 01:04	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/19/14 01:04	75-35-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: MW-09 **Lab ID: 92197901009** Collected: 04/17/14 10:48 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/19/14 01:04	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/19/14 01:04	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/19/14 01:04	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/19/14 01:04	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:04	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 01:04	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/19/14 01:04	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/19/14 01:04	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/19/14 01:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/19/14 01:04	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:04	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/19/14 01:04	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/19/14 01:04	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/19/14 01:04	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/19/14 01:04	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:04	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/19/14 01:04	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/19/14 01:04	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/19/14 01:04	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/19/14 01:04	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/19/14 01:04	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/19/14 01:04	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/19/14 01:04	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/19/14 01:04	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/19/14 01:04	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		04/19/14 01:04	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		04/19/14 01:04	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: SW-01 **Lab ID: 92197901010** Collected: 04/17/14 12:58 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:55	7440-36-0	
Arsenic	**<5.0**	ug/L	10.0	5.0	1	04/22/14 14:05	04/23/14 18:55	7440-38-2	
Barium	**42.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:55	7440-39-3	
Beryllium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:55	7440-41-7	
Cadmium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:55	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:55	7440-47-3	
Cobalt	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:55	7440-48-4	
Copper	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:55	7440-50-8	
Lead	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:55	7439-92-1	
Nickel	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:55	7440-02-0	
Selenium	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:55	7782-49-2	
Silver	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:55	7440-22-4	
Vanadium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:55	7440-62-2	
Zinc	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:55	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020		Preparation Method: EPA 3020						
Thallium	**<0.025**	ug/L	0.10	0.025	1	04/22/14 11:30	04/23/14 13:28	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	**<0.10**	ug/L	0.20	0.10	1	04/21/14 21:00	04/23/14 17:00	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/19/14 01:21	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/19/14 01:21	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/19/14 01:21	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/19/14 01:21	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/19/14 01:21	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:21	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/19/14 01:21	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/19/14 01:21	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/19/14 01:21	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/19/14 01:21	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/19/14 01:21	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/19/14 01:21	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/19/14 01:21	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/19/14 01:21	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/19/14 01:21	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 01:21	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/19/14 01:21	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 01:21	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 01:21	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/19/14 01:21	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/19/14 01:21	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/19/14 01:21	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/19/14 01:21	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/19/14 01:21	75-35-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: SW-01 **Lab ID: 92197901010** Collected: 04/17/14 12:58 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/19/14 01:21	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/19/14 01:21	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/19/14 01:21	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/19/14 01:21	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:21	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 01:21	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/19/14 01:21	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/19/14 01:21	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/19/14 01:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/19/14 01:21	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:21	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/19/14 01:21	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/19/14 01:21	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/19/14 01:21	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/19/14 01:21	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:21	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/19/14 01:21	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/19/14 01:21	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/19/14 01:21	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/19/14 01:21	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/19/14 01:21	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/19/14 01:21	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/19/14 01:21	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/19/14 01:21	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		04/19/14 01:21	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		04/19/14 01:21	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		04/19/14 01:21	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: SW-02R **Lab ID: 92197901011** Collected: 04/16/14 10:12 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:58	7440-36-0	
Arsenic	**<5.0**	ug/L	10.0	5.0	1	04/22/14 14:05	04/23/14 18:58	7440-38-2	
Barium	**36.7**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:58	7440-39-3	
Beryllium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:58	7440-41-7	
Cadmium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 18:58	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:58	7440-47-3	
Cobalt	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:58	7440-48-4	
Copper	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:58	7440-50-8	
Lead	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:58	7439-92-1	
Nickel	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:58	7440-02-0	
Selenium	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:58	7782-49-2	
Silver	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:58	7440-22-4	
Vanadium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 18:58	7440-62-2	
Zinc	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 18:58	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020		Preparation Method: EPA 3020						
Thallium	**<0.025**	ug/L	0.10	0.025	1	04/22/14 11:30	04/23/14 13:31	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	**<0.10**	ug/L	0.20	0.10	1	04/21/14 21:00	04/23/14 17:02	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/19/14 01:38	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/19/14 01:38	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/19/14 01:38	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/19/14 01:38	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/19/14 01:38	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:38	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/19/14 01:38	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/19/14 01:38	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/19/14 01:38	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/19/14 01:38	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/19/14 01:38	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/19/14 01:38	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/19/14 01:38	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/19/14 01:38	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/19/14 01:38	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 01:38	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/19/14 01:38	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 01:38	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 01:38	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/19/14 01:38	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/19/14 01:38	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/19/14 01:38	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/19/14 01:38	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/19/14 01:38	75-35-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: SW-02R **Lab ID: 92197901011** Collected: 04/16/14 10:12 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/19/14 01:38	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/19/14 01:38	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/19/14 01:38	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/19/14 01:38	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:38	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 01:38	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/19/14 01:38	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/19/14 01:38	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/19/14 01:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/19/14 01:38	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:38	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/19/14 01:38	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/19/14 01:38	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/19/14 01:38	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/19/14 01:38	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:38	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/19/14 01:38	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/19/14 01:38	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/19/14 01:38	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/19/14 01:38	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/19/14 01:38	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/19/14 01:38	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/19/14 01:38	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/19/14 01:38	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		04/19/14 01:38	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		04/19/14 01:38	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		04/19/14 01:38	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: TRIP BLANK **Lab ID: 92197901012** Collected: 04/17/14 00:00 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/19/14 01:54	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/19/14 01:54	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/19/14 01:54	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/19/14 01:54	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/19/14 01:54	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:54	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/19/14 01:54	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/19/14 01:54	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/19/14 01:54	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/19/14 01:54	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/19/14 01:54	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/19/14 01:54	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/19/14 01:54	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/19/14 01:54	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/19/14 01:54	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 01:54	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/19/14 01:54	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/19/14 01:54	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 01:54	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/19/14 01:54	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/19/14 01:54	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/19/14 01:54	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/19/14 01:54	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/19/14 01:54	75-35-4	
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/19/14 01:54	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/19/14 01:54	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/19/14 01:54	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/19/14 01:54	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:54	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/19/14 01:54	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/19/14 01:54	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/19/14 01:54	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/19/14 01:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/19/14 01:54	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:54	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/19/14 01:54	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/19/14 01:54	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/19/14 01:54	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/19/14 01:54	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/19/14 01:54	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/19/14 01:54	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/19/14 01:54	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/19/14 01:54	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/19/14 01:54	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/19/14 01:54	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/19/14 01:54	108-05-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Sample: TRIP BLANK **Lab ID: 92197901012** Collected: 04/17/14 00:00 Received: 04/17/14 14:22 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/19/14 01:54	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/19/14 01:54	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		04/19/14 01:54	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		04/19/14 01:54	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		04/19/14 01:54	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

QC Batch: MERP/6491 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 92197901001, 92197901002, 92197901003, 92197901004, 92197901005, 92197901006, 92197901007, 92197901008, 92197901009, 92197901010, 92197901011

METHOD BLANK: 1182529 Matrix: Water
Associated Lab Samples: 92197901001, 92197901002, 92197901003, 92197901004, 92197901005, 92197901006, 92197901007, 92197901008, 92197901009, 92197901010, 92197901011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.10	0.20	04/23/14 16:07	

LABORATORY CONTROL SAMPLE: 1182530

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.5	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1182531 1182532

Parameter	Units	92197627001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.6	2.5	102	99	75-125	3	25	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

QC Batch: MPRP/15752 | Analysis Method: EPA 6010
QC Batch Method: EPA 3010 | Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92197901001, 92197901002, 92197901003, 92197901004, 92197901005, 92197901006, 92197901007, 92197901008, 92197901009, 92197901010, 92197901011

METHOD BLANK: 1182845 | Matrix: Water
Associated Lab Samples: 92197901001, 92197901002, 92197901003, 92197901004, 92197901005, 92197901006, 92197901007, 92197901008, 92197901009, 92197901010, 92197901011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	<5.0	5.0	04/23/14 18:06	
Arsenic	ug/L	<5.0	10.0	04/23/14 18:06	
Barium	ug/L	<5.0	5.0	04/23/14 18:06	
Beryllium	ug/L	<1.0	1.0	04/23/14 18:06	
Cadmium	ug/L	<1.0	1.0	04/23/14 18:06	
Chromium	ug/L	<5.0	5.0	04/23/14 18:06	
Cobalt	ug/L	<5.0	5.0	04/23/14 18:06	
Copper	ug/L	<5.0	5.0	04/23/14 18:06	
Lead	ug/L	<5.0	5.0	04/23/14 18:06	
Nickel	ug/L	<5.0	5.0	04/23/14 18:06	
Selenium	ug/L	<10.0	10.0	04/23/14 18:06	
Silver	ug/L	<5.0	5.0	04/23/14 18:06	
Vanadium	ug/L	<5.0	5.0	04/23/14 18:06	
Zinc	ug/L	<10.0	10.0	04/23/14 18:06	

LABORATORY CONTROL SAMPLE: 1182846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	481	96	80-120	
Arsenic	ug/L	500	462	92	80-120	
Barium	ug/L	500	470	94	80-120	
Beryllium	ug/L	500	468	94	80-120	
Cadmium	ug/L	500	464	93	80-120	
Chromium	ug/L	500	466	93	80-120	
Cobalt	ug/L	500	465	93	80-120	
Copper	ug/L	500	482	96	80-120	
Lead	ug/L	500	465	93	80-120	
Nickel	ug/L	500	477	95	80-120	
Selenium	ug/L	500	468	94	80-120	
Silver	ug/L	250	242	97	80-120	
Vanadium	ug/L	500	474	95	80-120	
Zinc	ug/L	500	464	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1182847 1182848

Parameter	Units	92197901001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<5.0	500	500	477	484	95	97	75-125	1	25	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1182847 1182848

Parameter	Units	92197901001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	<5.0	500	500	461	464	92	93	75-125	1	25	
Barium	ug/L	93.7	500	500	554	576	92	96	75-125	4	25	
Beryllium	ug/L	<1.0	500	500	464	480	93	96	75-125	3	25	
Cadmium	ug/L	<1.0	500	500	463	474	93	95	75-125	2	25	
Chromium	ug/L	<5.0	500	500	466	474	93	95	75-125	2	25	
Cobalt	ug/L	<5.0	500	500	464	473	93	94	75-125	2	25	
Copper	ug/L	<5.0	500	500	478	493	95	98	75-125	3	25	
Lead	ug/L	<5.0	500	500	462	475	92	95	75-125	3	25	
Nickel	ug/L	<5.0	500	500	478	481	95	96	75-125	1	25	
Selenium	ug/L	<10.0	500	500	466	470	93	94	75-125	1	25	
Silver	ug/L	<5.0	250	250	240	245	96	98	75-125	2	25	
Vanadium	ug/L	<5.0	500	500	475	481	95	96	75-125	1	25	
Zinc	ug/L	<10.0	500	500	468	475	93	94	75-125	1	25	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

QC Batch: MPRP/45316 Analysis Method: EPA 6020
QC Batch Method: EPA 3020 Analysis Description: 6020 MET
Associated Lab Samples: 92197901001, 92197901002, 92197901003, 92197901004, 92197901005, 92197901006, 92197901007, 92197901008, 92197901009, 92197901010, 92197901011

METHOD BLANK: 1661272 Matrix: Water
Associated Lab Samples: 92197901001, 92197901002, 92197901003, 92197901004, 92197901005, 92197901006, 92197901007, 92197901008, 92197901009, 92197901010, 92197901011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Thallium	ug/L	<0.025	0.10	04/23/14 12:05	

LABORATORY CONTROL SAMPLE: 1661273

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	80	82.7	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1661274 1661275

Parameter	Units	4094879001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Thallium	ug/L	<0.10	80	80	83.8	81.8	105	102	75-125	2	20	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

QC Batch: MSV/26508 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92197901001, 92197901002, 92197901003, 92197901004, 92197901005, 92197901006, 92197901007, 92197901008, 92197901009, 92197901010, 92197901011, 92197901012

METHOD BLANK: 1181589 | Matrix: Water
Associated Lab Samples: 92197901001, 92197901002, 92197901003, 92197901004, 92197901005, 92197901006, 92197901007, 92197901008, 92197901009, 92197901010, 92197901011, 92197901012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.33	1.0	04/18/14 15:42	
1,1,1-Trichloroethane	ug/L	<0.48	1.0	04/18/14 15:42	
1,1,2,2-Tetrachloroethane	ug/L	<0.40	1.0	04/18/14 15:42	
1,1,2-Trichloroethane	ug/L	<0.29	1.0	04/18/14 15:42	
1,1-Dichloroethane	ug/L	<0.32	1.0	04/18/14 15:42	
1,1-Dichloroethene	ug/L	<0.56	1.0	04/18/14 15:42	
1,2,3-Trichloropropane	ug/L	<0.41	1.0	04/18/14 15:42	
1,2-Dibromo-3-chloropropane	ug/L	<2.5	5.0	04/18/14 15:42	
1,2-Dibromoethane (EDB)	ug/L	<0.27	1.0	04/18/14 15:42	
1,2-Dichlorobenzene	ug/L	<0.30	1.0	04/18/14 15:42	
1,2-Dichloroethane	ug/L	<0.12	1.0	04/18/14 15:42	
1,2-Dichloropropane	ug/L	<0.27	1.0	04/18/14 15:42	
1,4-Dichlorobenzene	ug/L	<0.33	1.0	04/18/14 15:42	
2-Butanone (MEK)	ug/L	<0.96	5.0	04/18/14 15:42	
2-Hexanone	ug/L	<0.46	5.0	04/18/14 15:42	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.33	5.0	04/18/14 15:42	
Acetone	ug/L	<10.0	25.0	04/18/14 15:42	
Acrylonitrile	ug/L	<1.9	10.0	04/18/14 15:42	
Benzene	ug/L	<0.25	1.0	04/18/14 15:42	
Bromochloromethane	ug/L	<0.17	1.0	04/18/14 15:42	
Bromodichloromethane	ug/L	<0.18	1.0	04/18/14 15:42	
Bromoform	ug/L	<0.26	1.0	04/18/14 15:42	
Bromomethane	ug/L	<0.29	2.0	04/18/14 15:42	
Carbon disulfide	ug/L	<1.2	2.0	04/18/14 15:42	
Carbon tetrachloride	ug/L	<0.25	1.0	04/18/14 15:42	
Chlorobenzene	ug/L	<0.23	1.0	04/18/14 15:42	
Chloroethane	ug/L	<0.54	1.0	04/18/14 15:42	
Chloroform	ug/L	<0.14	1.0	04/18/14 15:42	
Chloromethane	ug/L	<0.11	1.0	04/18/14 15:42	
cis-1,2-Dichloroethene	ug/L	<0.19	1.0	04/18/14 15:42	
cis-1,3-Dichloropropene	ug/L	<0.13	1.0	04/18/14 15:42	
Dibromochloromethane	ug/L	<0.21	1.0	04/18/14 15:42	
Dibromomethane	ug/L	<0.21	1.0	04/18/14 15:42	
Ethylbenzene	ug/L	<0.30	1.0	04/18/14 15:42	
Iodomethane	ug/L	<0.32	5.0	04/18/14 15:42	
Methylene Chloride	ug/L	<0.97	1.0	04/18/14 15:42	
Styrene	ug/L	<0.26	1.0	04/18/14 15:42	
Tetrachloroethene	ug/L	<0.46	1.0	04/18/14 15:42	
Tetrahydrofuran	ug/L	<3.1	10.0	04/18/14 15:42	
Toluene	ug/L	<0.26	1.0	04/18/14 15:42	
trans-1,2-Dichloroethene	ug/L	<0.49	1.0	04/18/14 15:42	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

METHOD BLANK: 1181589 Matrix: Water

Associated Lab Samples: 92197901001, 92197901002, 92197901003, 92197901004, 92197901005, 92197901006, 92197901007, 92197901008, 92197901009, 92197901010, 92197901011, 92197901012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,3-Dichloropropene	ug/L	<0.26	1.0	04/18/14 15:42	
trans-1,4-Dichloro-2-butene	ug/L	<1.0	1.0	04/18/14 15:42	
Trichloroethene	ug/L	<0.47	1.0	04/18/14 15:42	
Trichlorofluoromethane	ug/L	<0.20	1.0	04/18/14 15:42	
Vinyl acetate	ug/L	<0.35	2.0	04/18/14 15:42	
Vinyl chloride	ug/L	<0.62	1.0	04/18/14 15:42	
Xylene (Total)	ug/L	<0.66	2.0	04/18/14 15:42	
1,2-Dichloroethane-d4 (S)	%	93	70-130	04/18/14 15:42	
4-Bromofluorobenzene (S)	%	98	70-130	04/18/14 15:42	
Toluene-d8 (S)	%	98	70-130	04/18/14 15:42	

LABORATORY CONTROL SAMPLE: 1181590

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	45.5	91	70-130	
1,1,1-Trichloroethane	ug/L	50	45.2	90	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	46.4	93	70-130	
1,1,2-Trichloroethane	ug/L	50	45.1	90	70-130	
1,1-Dichloroethane	ug/L	50	44.4	89	70-130	
1,1-Dichloroethene	ug/L	50	45.8	92	70-132	
1,2,3-Trichloropropane	ug/L	50	45.5	91	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	46.2	92	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	46.2	92	70-130	
1,2-Dichlorobenzene	ug/L	50	46.2	92	70-130	
1,2-Dichloroethane	ug/L	50	43.4	87	70-130	
1,2-Dichloropropane	ug/L	50	45.5	91	70-130	
1,4-Dichlorobenzene	ug/L	50	45.7	91	70-130	
2-Butanone (MEK)	ug/L	100	102	102	70-145	
2-Hexanone	ug/L	100	91.3	91	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	89.6	90	70-140	
Acetone	ug/L	100	88.4	88	50-175	
Acrylonitrile	ug/L	250	224	90	70-143	
Benzene	ug/L	50	47.3	95	70-130	
Bromochloromethane	ug/L	50	45.0	90	70-130	
Bromodichloromethane	ug/L	50	45.2	90	70-130	
Bromoform	ug/L	50	47.8	96	70-130	
Bromomethane	ug/L	50	53.6	107	54-130	
Carbon disulfide	ug/L	50	50.2	100	70-131	
Carbon tetrachloride	ug/L	50	45.8	92	70-132	
Chlorobenzene	ug/L	50	44.9	90	70-130	
Chloroethane	ug/L	50	44.2	88	64-134	
Chloroform	ug/L	50	45.0	90	70-130	
Chloromethane	ug/L	50	43.9	88	64-130	
cis-1,2-Dichloroethene	ug/L	50	44.5	89	70-131	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

LABORATORY CONTROL SAMPLE: 1181590

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,3-Dichloropropene	ug/L	50	46.8	94	70-130	
Dibromochloromethane	ug/L	50	44.6	89	70-130	
Dibromomethane	ug/L	50	44.3	89	70-131	
Ethylbenzene	ug/L	50	45.5	91	70-130	
Iodomethane	ug/L	100	98.0	98	49-180	
Methylene Chloride	ug/L	50	42.0	84	63-130	
Styrene	ug/L	50	48.1	96	70-130	
Tetrachloroethene	ug/L	50	45.8	92	70-130	
Tetrahydrofuran	ug/L	500	456	91	70-130	
Toluene	ug/L	50	45.6	91	70-130	
trans-1,2-Dichloroethene	ug/L	50	45.2	90	70-130	
trans-1,3-Dichloropropene	ug/L	50	47.4	95	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	46.5	93	70-141	
Trichloroethene	ug/L	50	44.9	90	70-130	
Trichlorofluoromethane	ug/L	50	42.1	84	62-133	
Vinyl acetate	ug/L	100	109	109	66-157	
Vinyl chloride	ug/L	50	59.2	118	69-130	
Xylene (Total)	ug/L	150	140	94	70-130	
1,2-Dichloroethane-d4 (S)	%			93	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1181591 1181592

Parameter	Units	92197901011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	<0.56	100	100	97.0	96.6	97	97	70-166	0	30	
Benzene	ug/L	<0.25	100	100	107	107	107	107	70-148	1	30	
Chlorobenzene	ug/L	<0.23	100	100	105	104	105	104	70-146	1	30	
Toluene	ug/L	<0.26	100	100	100	98.3	100	98	70-155	2	30	
Trichloroethene	ug/L	<0.47	100	100	110	107	110	107	69-151	3	30	
1,2-Dichloroethane-d4 (S)	%						96	95	70-130			
4-Bromofluorobenzene (S)	%						101	100	70-130			
Toluene-d8 (S)	%						99	98	70-130			

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALIFIERS

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

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

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte
PASI-M	Pace Analytical Services - Minneapolis

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Madison Co Operating LF 4/16
Pace Project No.: 92197901

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92197901001	**MW-01**	EPA 3010	MPRP/15752	EPA 6010	ICP/14268
92197901002	**MW-02**	EPA 3010	MPRP/15752	EPA 6010	ICP/14268
92197901003	**MW-03**	EPA 3010	MPRP/15752	EPA 6010	ICP/14268
92197901004	**MW-04**	EPA 3010	MPRP/15752	EPA 6010	ICP/14268
92197901005	**MW-05**	EPA 3010	MPRP/15752	EPA 6010	ICP/14268
92197901006	**MW-06R**	EPA 3010	MPRP/15752	EPA 6010	ICP/14268
92197901007	**MW-07R**	EPA 3010	MPRP/15752	EPA 6010	ICP/14268
92197901008	**MW-08**	EPA 3010	MPRP/15752	EPA 6010	ICP/14268
92197901009	**MW-09**	EPA 3010	MPRP/15752	EPA 6010	ICP/14268
92197901010	**SW-01**	EPA 3010	MPRP/15752	EPA 6010	ICP/14268
92197901011	**SW-02R**	EPA 3010	MPRP/15752	EPA 6010	ICP/14268
92197901001	**MW-01**	EPA 3020	MPRP/45316	EPA 6020	ICPM/19692
92197901002	**MW-02**	EPA 3020	MPRP/45316	EPA 6020	ICPM/19692
92197901003	**MW-03**	EPA 3020	MPRP/45316	EPA 6020	ICPM/19692
92197901004	**MW-04**	EPA 3020	MPRP/45316	EPA 6020	ICPM/19692
92197901005	**MW-05**	EPA 3020	MPRP/45316	EPA 6020	ICPM/19692
92197901006	**MW-06R**	EPA 3020	MPRP/45316	EPA 6020	ICPM/19692
92197901007	**MW-07R**	EPA 3020	MPRP/45316	EPA 6020	ICPM/19692
92197901008	**MW-08**	EPA 3020	MPRP/45316	EPA 6020	ICPM/19692
92197901009	**MW-09**	EPA 3020	MPRP/45316	EPA 6020	ICPM/19692
92197901010	**SW-01**	EPA 3020	MPRP/45316	EPA 6020	ICPM/19692
92197901011	**SW-02R**	EPA 3020	MPRP/45316	EPA 6020	ICPM/19692
92197901001	**MW-01**	EPA 7470	MERP/6491	EPA 7470	MERC/6257
92197901002	**MW-02**	EPA 7470	MERP/6491	EPA 7470	MERC/6257
92197901003	**MW-03**	EPA 7470	MERP/6491	EPA 7470	MERC/6257
92197901004	**MW-04**	EPA 7470	MERP/6491	EPA 7470	MERC/6257
92197901005	**MW-05**	EPA 7470	MERP/6491	EPA 7470	MERC/6257
92197901006	**MW-06R**	EPA 7470	MERP/6491	EPA 7470	MERC/6257
92197901007	**MW-07R**	EPA 7470	MERP/6491	EPA 7470	MERC/6257
92197901008	**MW-08**	EPA 7470	MERP/6491	EPA 7470	MERC/6257
92197901009	**MW-09**	EPA 7470	MERP/6491	EPA 7470	MERC/6257
92197901010	**SW-01**	EPA 7470	MERP/6491	EPA 7470	MERC/6257
92197901011	**SW-02R**	EPA 7470	MERP/6491	EPA 7470	MERC/6257
92197901001	**MW-01**	EPA 8260	MSV/26508		
92197901002	**MW-02**	EPA 8260	MSV/26508		
92197901003	**MW-03**	EPA 8260	MSV/26508		
92197901004	**MW-04**	EPA 8260	MSV/26508		
92197901005	**MW-05**	EPA 8260	MSV/26508		
92197901006	**MW-06R**	EPA 8260	MSV/26508		
92197901007	**MW-07R**	EPA 8260	MSV/26508		
92197901008	**MW-08**	EPA 8260	MSV/26508		
92197901009	**MW-09**	EPA 8260	MSV/26508		
92197901010	**SW-01**	EPA 8260	MSV/26508		
92197901011	**SW-02R**	EPA 8260	MSV/26508		
92197901012	**TRIP BLANK**	EPA 8260	MSV/26508		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1793452

Section A Required Client Information:

Company: Altement Environmental
Address: 231 Haywood St
Asheville, NC 28801
Email To: cgilbert@altementenvironmental.com
Phone: 828 281 3350 Fax: 828 281 3351
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Chris Gilbert
Copy To: Brian Gant
Purchase Order No.:
Project Name: Madison Co. Operating LF
Project Number: 2313

Section C Invoice Information:

Attention: Sue Brewer
Company Name: Altement
Address: same
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N): Analysis Test: App I VOCs by 8260; App I Metals by 6020/7000

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	App I VOCs by 8260	App I Metals by 6020/7000	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-01	WT	G	4/16/14	959			10	4			X	X					X	X		92197901
2	MW-02	WT	G	4/16/14	1317			11	4			X	X					X	X		92197901001
3	MW-03	WT	G	4/16/14	1411			15	4			X	X					X	X		92197901002
4	MW-04	WT	G	4/16/14	1459			16	4			X	X					X	X		92197901003
5	MW-05	WT	G	4/17/14	1135			15	4			X	X					X	X		92197901004
6	MW-06R	WT	G	4/17/14	1252			12	4			X	X					X	X		92197901005
7	MW-07R	WT	G	4/16/14	1215			14	4			X	X					X	X		92197901006
8	MW-08	WT	G	4/16/14	1054			13	4			X	X					X	X		92197901007
9	MW-09	WT	G	4/17/14	1048			13	4			X	X					X	X		92197901008
10	SW-01	WT	G	4/17/14	1258			14	4			X	X					X	X		92197901009
11	SW-02R	WT	G	4/16/14	1012			10	4			X	X					X	X		92197901010
12	Trip Blank	WT							2				X					X			92197901011
																					92197901012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Parker Brooks / Altemat	4/17/14	1422	[signature]	4/17/14	1422	.8	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: June 4, 2013 Page 1 of 2
	Document No.: F-ASV-CS-003-rev.11	Issuing Authorities: Pace Asheville Quality Office

Client Name: Altamont Environment

Where Received: ☐ Huntersville ☑ Asheville ☐ Eden ☐ Raleigh

Courier (Circle): Fed Ex UPS USPS Client Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other_____

Circle Thermometer Used: IR Gun#3 -130265963 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

IR Gun #2- 80344039

Temp Correction Factor: Add / Subtract _____C

Corrected Cooler Temp.: 18 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 4/17/14 J.S.

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☑Yes ☐No ☐N/A	7. Standard
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: Water		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☑Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: [signature] **Date:** 4/17/14

SRF Review: [signature] **Date:** 4/17/14

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

WO#: 92197901

92197901

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

April 30, 2014

Mr. Stu Ryman
Altamont Environmental
321 Haywood Street
Asheville, NC 28801

RE: Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

Dear Mr. Ryman:
Enclosed are the analytical results for sample(s) received by the laboratory on April 17, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

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

Sincerely,

Lorri Patton

Lorri Patton
lorri.patton@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

CERTIFICATIONS

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alabama Certification #40770
Alabama Certification #40770
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #: Pace
Georgia Certification #: 959
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nebraska Certification #: Pace
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
Wisconsin Certification #: 999407970
West Virginia Certification #: 382
West Virginia TO-15 Approval
West Virginia DHHR #:9952C

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460221

Asheville Certification IDs

2225 Riverside Dr., Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
West Virginia Certification #: 356
Virginia/VELAP Certification #: 460222

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

SAMPLE SUMMARY

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92197906001	**LT-01**	Water	04/17/14 13:10	04/17/14 14:21
92197906002	**TRIP BLANK**	Water	04/17/14 00:00	04/17/14 14:21

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

SAMPLE ANALYTE COUNT

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92197906001	**LT-01**	EPA 6010	JMW	14	PASI-A
		EPA 6020	TT3	1	PASI-M
		EPA 7470	MTS	1	PASI-A
		EPA 8260	MCK	51	PASI-C
		SM 5210B	TEP	1	PASI-A
		EPA 300.0	SAE	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		EPA 365.1	JDA	1	PASI-A
		SM 5220D	EWS	1	PASI-A
92197906002	**TRIP BLANK**	EPA 8260	MCK	51	PASI-C

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

Sample: LT-01 **Lab ID: 92197906001** Collected: 04/17/14 13:10 Received: 04/17/14 14:21 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010		Preparation Method: EPA 3010						
Antimony	**5.3**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 19:01	7440-36-0	
Arsenic	**<5.0**	ug/L	10.0	5.0	1	04/22/14 14:05	04/23/14 19:01	7440-38-2	
Barium	**152**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 19:01	7440-39-3	
Beryllium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 19:01	7440-41-7	
Cadmium	**<1.0**	ug/L	1.0	1.0	1	04/22/14 14:05	04/23/14 19:01	7440-43-9	
Chromium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 19:01	7440-47-3	
Cobalt	**18.2**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 19:01	7440-48-4	
Copper	**6.1**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 19:01	7440-50-8	
Lead	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 19:01	7439-92-1	
Nickel	**31.1**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 19:01	7440-02-0	
Selenium	**<10.0**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 19:01	7782-49-2	
Silver	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 19:01	7440-22-4	
Vanadium	**<5.0**	ug/L	5.0	5.0	1	04/22/14 14:05	04/23/14 19:01	7440-62-2	
Zinc	**24.9**	ug/L	10.0	10.0	1	04/22/14 14:05	04/23/14 19:01	7440-66-6	
6020 MET ICPMS	Analytical Method: EPA 6020		Preparation Method: EPA 3020						
Thallium	**0.086J**	ug/L	0.10	0.025	1	04/22/14 11:30	04/23/14 12:35	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470		Preparation Method: EPA 7470						
Mercury	**<0.10**	ug/L	0.20	0.10	1	04/21/14 21:00	04/23/14 17:10	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/18/14 22:19	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/18/14 22:19	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/18/14 22:19	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/18/14 22:19	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/18/14 22:19	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/18/14 22:19	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/18/14 22:19	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/18/14 22:19	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/18/14 22:19	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/18/14 22:19	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/18/14 22:19	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/18/14 22:19	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/18/14 22:19	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/18/14 22:19	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/18/14 22:19	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 22:19	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/18/14 22:19	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 22:19	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 22:19	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/18/14 22:19	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/18/14 22:19	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/18/14 22:19	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/18/14 22:19	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/18/14 22:19	75-35-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

Sample: LT-01 **Lab ID: 92197906001** Collected: 04/17/14 13:10 Received: 04/17/14 14:21 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/18/14 22:19	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/18/14 22:19	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/18/14 22:19	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/18/14 22:19	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 22:19	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 22:19	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/18/14 22:19	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/18/14 22:19	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/18/14 22:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/18/14 22:19	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 22:19	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/18/14 22:19	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/18/14 22:19	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/18/14 22:19	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/18/14 22:19	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 22:19	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/18/14 22:19	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/18/14 22:19	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/18/14 22:19	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/18/14 22:19	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/18/14 22:19	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/18/14 22:19	108-05-4	
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/18/14 22:19	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/18/14 22:19	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		04/18/14 22:19	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		04/18/14 22:19	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		04/18/14 22:19	2037-26-5	
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**9.3**	mg/L	2.0	2.0	1	04/18/14 14:55	04/23/14 10:22		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**189**	mg/L	20.0	20.0	10		04/28/14 19:35	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**40.1**	mg/L	0.020	0.020	1		04/17/14 23:31		
365.1 Phosphorus, Total	Analytical Method: EPA 365.1								
Phosphorus	**1.5**	mg/L	0.050	0.050	1		04/28/14 15:11	7723-14-0	
5220D COD	Analytical Method: SM 5220D								
Chemical Oxygen Demand	**200**	mg/L	25.0	25.0	1		04/30/14 17:00		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

Sample: TRIP BLANK **Lab ID: 92197906002** Collected: 04/17/14 00:00 Received: 04/17/14 14:21 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**<10.0**	ug/L	25.0	10.0	1		04/18/14 22:36	67-64-1	
Acrylonitrile	**<1.9**	ug/L	10.0	1.9	1		04/18/14 22:36	107-13-1	
Benzene	**<0.25**	ug/L	1.0	0.25	1		04/18/14 22:36	71-43-2	
Bromochloromethane	**<0.17**	ug/L	1.0	0.17	1		04/18/14 22:36	74-97-5	
Bromodichloromethane	**<0.18**	ug/L	1.0	0.18	1		04/18/14 22:36	75-27-4	
Bromoform	**<0.26**	ug/L	1.0	0.26	1		04/18/14 22:36	75-25-2	
Bromomethane	**<0.29**	ug/L	2.0	0.29	1		04/18/14 22:36	74-83-9	
2-Butanone (MEK)	**<0.96**	ug/L	5.0	0.96	1		04/18/14 22:36	78-93-3	
Carbon disulfide	**<1.2**	ug/L	2.0	1.2	1		04/18/14 22:36	75-15-0	
Carbon tetrachloride	**<0.25**	ug/L	1.0	0.25	1		04/18/14 22:36	56-23-5	
Chlorobenzene	**<0.23**	ug/L	1.0	0.23	1		04/18/14 22:36	108-90-7	
Chloroethane	**<0.54**	ug/L	1.0	0.54	1		04/18/14 22:36	75-00-3	
Chloroform	**<0.14**	ug/L	1.0	0.14	1		04/18/14 22:36	67-66-3	
Chloromethane	**<0.11**	ug/L	1.0	0.11	1		04/18/14 22:36	74-87-3	
1,2-Dibromo-3-chloropropane	**<2.5**	ug/L	5.0	2.5	1		04/18/14 22:36	96-12-8	
Dibromochloromethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 22:36	124-48-1	
1,2-Dibromoethane (EDB)	**<0.27**	ug/L	1.0	0.27	1		04/18/14 22:36	106-93-4	
Dibromomethane	**<0.21**	ug/L	1.0	0.21	1		04/18/14 22:36	74-95-3	
1,2-Dichlorobenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 22:36	95-50-1	
1,4-Dichlorobenzene	**<0.33**	ug/L	1.0	0.33	1		04/18/14 22:36	106-46-7	
trans-1,4-Dichloro-2-butene	**<1.0**	ug/L	1.0	1.0	1		04/18/14 22:36	110-57-6	
1,1-Dichloroethane	**<0.32**	ug/L	1.0	0.32	1		04/18/14 22:36	75-34-3	
1,2-Dichloroethane	**<0.12**	ug/L	1.0	0.12	1		04/18/14 22:36	107-06-2	
1,1-Dichloroethene	**<0.56**	ug/L	1.0	0.56	1		04/18/14 22:36	75-35-4	
cis-1,2-Dichloroethene	**<0.19**	ug/L	1.0	0.19	1		04/18/14 22:36	156-59-2	
trans-1,2-Dichloroethene	**<0.49**	ug/L	1.0	0.49	1		04/18/14 22:36	156-60-5	
1,2-Dichloropropane	**<0.27**	ug/L	1.0	0.27	1		04/18/14 22:36	78-87-5	
cis-1,3-Dichloropropene	**<0.13**	ug/L	1.0	0.13	1		04/18/14 22:36	10061-01-5	
trans-1,3-Dichloropropene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 22:36	10061-02-6	
Ethylbenzene	**<0.30**	ug/L	1.0	0.30	1		04/18/14 22:36	100-41-4	
2-Hexanone	**<0.46**	ug/L	5.0	0.46	1		04/18/14 22:36	591-78-6	
Iodomethane	**<0.32**	ug/L	5.0	0.32	1		04/18/14 22:36	74-88-4	
Methylene Chloride	**<0.97**	ug/L	1.0	0.97	1		04/18/14 22:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.33**	ug/L	5.0	0.33	1		04/18/14 22:36	108-10-1	
Styrene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 22:36	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.33**	ug/L	1.0	0.33	1		04/18/14 22:36	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.40**	ug/L	1.0	0.40	1		04/18/14 22:36	79-34-5	
Tetrachloroethene	**<0.46**	ug/L	1.0	0.46	1		04/18/14 22:36	127-18-4	
Tetrahydrofuran	**<3.1**	ug/L	10.0	3.1	1		04/18/14 22:36	109-99-9	
Toluene	**<0.26**	ug/L	1.0	0.26	1		04/18/14 22:36	108-88-3	
1,1,1-Trichloroethane	**<0.48**	ug/L	1.0	0.48	1		04/18/14 22:36	71-55-6	
1,1,2-Trichloroethane	**<0.29**	ug/L	1.0	0.29	1		04/18/14 22:36	79-00-5	
Trichloroethene	**<0.47**	ug/L	1.0	0.47	1		04/18/14 22:36	79-01-6	
Trichlorofluoromethane	**<0.20**	ug/L	1.0	0.20	1		04/18/14 22:36	75-69-4	
1,2,3-Trichloropropane	**<0.41**	ug/L	1.0	0.41	1		04/18/14 22:36	96-18-4	
Vinyl acetate	**<0.35**	ug/L	2.0	0.35	1		04/18/14 22:36	108-05-4	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

ANALYTICAL RESULTS

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

Sample: TRIP BLANK **Lab ID: 92197906002** Collected: 04/17/14 00:00 Received: 04/17/14 14:21 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Vinyl chloride	**<0.62**	ug/L	1.0	0.62	1		04/18/14 22:36	75-01-4	
Xylene (Total)	**<0.66**	ug/L	2.0	0.66	1		04/18/14 22:36	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		04/18/14 22:36	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		04/18/14 22:36	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/18/14 22:36	2037-26-5	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

QC Batch: MERP/6491 | Analysis Method: EPA 7470
QC Batch Method: EPA 7470 | Analysis Description: 7470 Mercury
Associated Lab Samples: 92197906001

METHOD BLANK: 1182529 | Matrix: Water
Associated Lab Samples: 92197906001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	<0.10	0.20	04/23/14 16:07	

LABORATORY CONTROL SAMPLE: 1182530

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.5	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1182531 1182532

Parameter	Units	92197627001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.6	2.5	102	99	75-125	3	25	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

QC Batch: MPRP/15752 | Analysis Method: EPA 6010
QC Batch Method: EPA 3010 | Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92197906001

METHOD BLANK: 1182845 | Matrix: Water
Associated Lab Samples: 92197906001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	<5.0	5.0	04/23/14 18:06	
Arsenic	ug/L	<5.0	10.0	04/23/14 18:06	
Barium	ug/L	<5.0	5.0	04/23/14 18:06	
Beryllium	ug/L	<1.0	1.0	04/23/14 18:06	
Cadmium	ug/L	<1.0	1.0	04/23/14 18:06	
Chromium	ug/L	<5.0	5.0	04/23/14 18:06	
Cobalt	ug/L	<5.0	5.0	04/23/14 18:06	
Copper	ug/L	<5.0	5.0	04/23/14 18:06	
Lead	ug/L	<5.0	5.0	04/23/14 18:06	
Nickel	ug/L	<5.0	5.0	04/23/14 18:06	
Selenium	ug/L	<10.0	10.0	04/23/14 18:06	
Silver	ug/L	<5.0	5.0	04/23/14 18:06	
Vanadium	ug/L	<5.0	5.0	04/23/14 18:06	
Zinc	ug/L	<10.0	10.0	04/23/14 18:06	

LABORATORY CONTROL SAMPLE: 1182846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	481	96	80-120	
Arsenic	ug/L	500	462	92	80-120	
Barium	ug/L	500	470	94	80-120	
Beryllium	ug/L	500	468	94	80-120	
Cadmium	ug/L	500	464	93	80-120	
Chromium	ug/L	500	466	93	80-120	
Cobalt	ug/L	500	465	93	80-120	
Copper	ug/L	500	482	96	80-120	
Lead	ug/L	500	465	93	80-120	
Nickel	ug/L	500	477	95	80-120	
Selenium	ug/L	500	468	94	80-120	
Silver	ug/L	250	242	97	80-120	
Vanadium	ug/L	500	474	95	80-120	
Zinc	ug/L	500	464	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1182847 1182848

Parameter	Units	92197901001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	<5.0	500	500	477	484	95	97	75-125	1	25	
Arsenic	ug/L	<5.0	500	500	461	464	92	93	75-125	1	25	
Barium	ug/L	93.7	500	500	554	576	92	96	75-125	4	25	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1182847 1182848

Parameter	Units	92197901001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	<1.0	500	500	464	480	93	96	75-125	3	25	
Cadmium	ug/L	<1.0	500	500	463	474	93	95	75-125	2	25	
Chromium	ug/L	<5.0	500	500	466	474	93	95	75-125	2	25	
Cobalt	ug/L	<5.0	500	500	464	473	93	94	75-125	2	25	
Copper	ug/L	<5.0	500	500	478	493	95	98	75-125	3	25	
Lead	ug/L	<5.0	500	500	462	475	92	95	75-125	3	25	
Nickel	ug/L	<5.0	500	500	478	481	95	96	75-125	1	25	
Selenium	ug/L	<10.0	500	500	466	470	93	94	75-125	1	25	
Silver	ug/L	<5.0	250	250	240	245	96	98	75-125	2	25	
Vanadium	ug/L	<5.0	500	500	475	481	95	96	75-125	1	25	
Zinc	ug/L	<10.0	500	500	468	475	93	94	75-125	1	25	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

QC Batch: MPRP/45316 | Analysis Method: EPA 6020
QC Batch Method: EPA 3020 | Analysis Description: 6020 MET
Associated Lab Samples: 92197906001

METHOD BLANK: 1661272 | Matrix: Water
Associated Lab Samples: 92197906001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Thallium	ug/L	<0.025	0.10	04/23/14 12:05	

LABORATORY CONTROL SAMPLE: 1661273

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	80	82.7	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1661274 1661275

Parameter	Units	4094879001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Thallium	ug/L	<0.10	80	80	83.8	81.8	105	102	75-125	2	20	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

QC Batch: MSV/26508 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92197906001, 92197906002

METHOD BLANK: 1181589 | Matrix: Water
Associated Lab Samples: 92197906001, 92197906002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.33	1.0	04/18/14 15:42	
1,1,1-Trichloroethane	ug/L	<0.48	1.0	04/18/14 15:42	
1,1,2,2-Tetrachloroethane	ug/L	<0.40	1.0	04/18/14 15:42	
1,1,2-Trichloroethane	ug/L	<0.29	1.0	04/18/14 15:42	
1,1-Dichloroethane	ug/L	<0.32	1.0	04/18/14 15:42	
1,1-Dichloroethene	ug/L	<0.56	1.0	04/18/14 15:42	
1,2,3-Trichloropropane	ug/L	<0.41	1.0	04/18/14 15:42	
1,2-Dibromo-3-chloropropane	ug/L	<2.5	5.0	04/18/14 15:42	
1,2-Dibromoethane (EDB)	ug/L	<0.27	1.0	04/18/14 15:42	
1,2-Dichlorobenzene	ug/L	<0.30	1.0	04/18/14 15:42	
1,2-Dichloroethane	ug/L	<0.12	1.0	04/18/14 15:42	
1,2-Dichloropropane	ug/L	<0.27	1.0	04/18/14 15:42	
1,4-Dichlorobenzene	ug/L	<0.33	1.0	04/18/14 15:42	
2-Butanone (MEK)	ug/L	<0.96	5.0	04/18/14 15:42	
2-Hexanone	ug/L	<0.46	5.0	04/18/14 15:42	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.33	5.0	04/18/14 15:42	
Acetone	ug/L	<10.0	25.0	04/18/14 15:42	
Acrylonitrile	ug/L	<1.9	10.0	04/18/14 15:42	
Benzene	ug/L	<0.25	1.0	04/18/14 15:42	
Bromochloromethane	ug/L	<0.17	1.0	04/18/14 15:42	
Bromodichloromethane	ug/L	<0.18	1.0	04/18/14 15:42	
Bromoform	ug/L	<0.26	1.0	04/18/14 15:42	
Bromomethane	ug/L	<0.29	2.0	04/18/14 15:42	
Carbon disulfide	ug/L	<1.2	2.0	04/18/14 15:42	
Carbon tetrachloride	ug/L	<0.25	1.0	04/18/14 15:42	
Chlorobenzene	ug/L	<0.23	1.0	04/18/14 15:42	
Chloroethane	ug/L	<0.54	1.0	04/18/14 15:42	
Chloroform	ug/L	<0.14	1.0	04/18/14 15:42	
Chloromethane	ug/L	<0.11	1.0	04/18/14 15:42	
cis-1,2-Dichloroethene	ug/L	<0.19	1.0	04/18/14 15:42	
cis-1,3-Dichloropropene	ug/L	<0.13	1.0	04/18/14 15:42	
Dibromochloromethane	ug/L	<0.21	1.0	04/18/14 15:42	
Dibromomethane	ug/L	<0.21	1.0	04/18/14 15:42	
Ethylbenzene	ug/L	<0.30	1.0	04/18/14 15:42	
Iodomethane	ug/L	<0.32	5.0	04/18/14 15:42	
Methylene Chloride	ug/L	<0.97	1.0	04/18/14 15:42	
Styrene	ug/L	<0.26	1.0	04/18/14 15:42	
Tetrachloroethene	ug/L	<0.46	1.0	04/18/14 15:42	
Tetrahydrofuran	ug/L	<3.1	10.0	04/18/14 15:42	
Toluene	ug/L	<0.26	1.0	04/18/14 15:42	
trans-1,2-Dichloroethene	ug/L	<0.49	1.0	04/18/14 15:42	
trans-1,3-Dichloropropene	ug/L	<0.26	1.0	04/18/14 15:42	
trans-1,4-Dichloro-2-butene	ug/L	<1.0	1.0	04/18/14 15:42	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

METHOD BLANK: 1181589 Matrix: Water
Associated Lab Samples: 92197906001, 92197906002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Trichloroethene	ug/L	<0.47	1.0	04/18/14 15:42	
Trichlorofluoromethane	ug/L	<0.20	1.0	04/18/14 15:42	
Vinyl acetate	ug/L	<0.35	2.0	04/18/14 15:42	
Vinyl chloride	ug/L	<0.62	1.0	04/18/14 15:42	
Xylene (Total)	ug/L	<0.66	2.0	04/18/14 15:42	
1,2-Dichloroethane-d4 (S)	%	93	70-130	04/18/14 15:42	
4-Bromofluorobenzene (S)	%	98	70-130	04/18/14 15:42	
Toluene-d8 (S)	%	98	70-130	04/18/14 15:42	

LABORATORY CONTROL SAMPLE: 1181590

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	45.5	91	70-130	
1,1,1-Trichloroethane	ug/L	50	45.2	90	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	46.4	93	70-130	
1,1,2-Trichloroethane	ug/L	50	45.1	90	70-130	
1,1-Dichloroethane	ug/L	50	44.4	89	70-130	
1,1-Dichloroethene	ug/L	50	45.8	92	70-132	
1,2,3-Trichloropropane	ug/L	50	45.5	91	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	46.2	92	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	46.2	92	70-130	
1,2-Dichlorobenzene	ug/L	50	46.2	92	70-130	
1,2-Dichloroethane	ug/L	50	43.4	87	70-130	
1,2-Dichloropropane	ug/L	50	45.5	91	70-130	
1,4-Dichlorobenzene	ug/L	50	45.7	91	70-130	
2-Butanone (MEK)	ug/L	100	102	102	70-145	
2-Hexanone	ug/L	100	91.3	91	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	89.6	90	70-140	
Acetone	ug/L	100	88.4	88	50-175	
Acrylonitrile	ug/L	250	224	90	70-143	
Benzene	ug/L	50	47.3	95	70-130	
Bromochloromethane	ug/L	50	45.0	90	70-130	
Bromodichloromethane	ug/L	50	45.2	90	70-130	
Bromoform	ug/L	50	47.8	96	70-130	
Bromomethane	ug/L	50	53.6	107	54-130	
Carbon disulfide	ug/L	50	50.2	100	70-131	
Carbon tetrachloride	ug/L	50	45.8	92	70-132	
Chlorobenzene	ug/L	50	44.9	90	70-130	
Chloroethane	ug/L	50	44.2	88	64-134	
Chloroform	ug/L	50	45.0	90	70-130	
Chloromethane	ug/L	50	43.9	88	64-130	
cis-1,2-Dichloroethene	ug/L	50	44.5	89	70-131	
cis-1,3-Dichloropropene	ug/L	50	46.8	94	70-130	
Dibromochloromethane	ug/L	50	44.6	89	70-130	
Dibromomethane	ug/L	50	44.3	89	70-131	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

LABORATORY CONTROL SAMPLE: 1181590

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ethylbenzene	ug/L	50	45.5	91	70-130	
Iodomethane	ug/L	100	98.0	98	49-180	
Methylene Chloride	ug/L	50	42.0	84	63-130	
Styrene	ug/L	50	48.1	96	70-130	
Tetrachloroethene	ug/L	50	45.8	92	70-130	
Tetrahydrofuran	ug/L	500	456	91	70-130	
Toluene	ug/L	50	45.6	91	70-130	
trans-1,2-Dichloroethene	ug/L	50	45.2	90	70-130	
trans-1,3-Dichloropropene	ug/L	50	47.4	95	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	46.5	93	70-141	
Trichloroethene	ug/L	50	44.9	90	70-130	
Trichlorofluoromethane	ug/L	50	42.1	84	62-133	
Vinyl acetate	ug/L	100	109	109	66-157	
Vinyl chloride	ug/L	50	59.2	118	69-130	
Xylene (Total)	ug/L	150	140	94	70-130	
1,2-Dichloroethane-d4 (S)	%			93	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1181591 1181592

Parameter	Units	92197901011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	<0.56	100	100	97.0	96.6	97	97	70-166	0	30	
Benzene	ug/L	<0.25	100	100	107	107	107	107	70-148	1	30	
Chlorobenzene	ug/L	<0.23	100	100	105	104	105	104	70-146	1	30	
Toluene	ug/L	<0.26	100	100	100	98.3	100	98	70-155	2	30	
Trichloroethene	ug/L	<0.47	100	100	110	107	110	107	69-151	3	30	
1,2-Dichloroethane-d4 (S)	%						96	95	70-130			
4-Bromofluorobenzene (S)	%						101	100	70-130			
Toluene-d8 (S)	%						99	98	70-130			

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

QC Batch: WET/30600 | Analysis Method: SM 5210B
QC Batch Method: SM 5210B | Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 92197906001

METHOD BLANK: 1181158 | Matrix: Water
Associated Lab Samples: 92197906001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	<2.0	2.0	04/23/14 10:22	

LABORATORY CONTROL SAMPLE: 1181159

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	221	112	84.5-115.4	

SAMPLE DUPLICATE: 1181160

Parameter	Units	92197981001 Result	Dup Result	RPD	Max RPD	Qualifiers
BOD, 5 day	mg/L	71.4	69.6	3	20	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

QC Batch: WETA/18782 | Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 | Analysis Description: 300.0 IC Anions
Associated Lab Samples: 92197906001

METHOD BLANK: 1184054 | Matrix: Water
Associated Lab Samples: 92197906001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	<2.0	2.0	04/28/14 13:42	

LABORATORY CONTROL SAMPLE: 1184055

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.1	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1184056 1184057

Parameter	Units	92198181001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	6810	20	20	8730	8580	9565	8858	90-110	2	20	M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1184058 1184059

Parameter	Units	92198181022 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfate	mg/L	22900	20	20	22200	22600	-3940	-1505	90-110	2	20	M6

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

QC Batch: WETA/18732 | Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 | Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 92197906001

METHOD BLANK: 1181015 | Matrix: Water
Associated Lab Samples: 92197906001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	<0.020	0.020	04/17/14 23:10	

LABORATORY CONTROL SAMPLE: 1181016

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	2.5	2.5	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1181017 1181018

Parameter	Units	92197696001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	2.5	2.5	2.5	2.5	99	99	90-110	0	20	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

QC Batch: WETA/18810 | Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1 | Analysis Description: 365.1 Phosphorus, Total
Associated Lab Samples: 92197906001

METHOD BLANK: 1186353 | Matrix: Water
Associated Lab Samples: 92197906001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	<0.050	0.050	04/28/14 15:08	

LABORATORY CONTROL SAMPLE: 1186354

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	2.5	2.6	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1186355 1186356

Parameter	Units	92197906001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	mg/L	1.5	2.5	2.5	4.2	4.2	108	108	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1186357 1186358

Parameter	Units	92198717001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	mg/L	0.160	2.5	2.5	2.8	2.8	107	106	90-110	1	20	

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

QC Batch: WETA/18834 | Analysis Method: SM 5220D
QC Batch Method: SM 5220D | Analysis Description: 5220D COD
Associated Lab Samples: 92197906001

METHOD BLANK: 1187575 | Matrix: Water
Associated Lab Samples: 92197906001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	<25.0	25.0	04/30/14 17:00	

LABORATORY CONTROL SAMPLE: 1187576

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	750	794	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1187577 1187578

Parameter	Units	92198718001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	375	750	750	1130	1130	100	101	75-125	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1187579 1187580

Parameter	Units	92198505001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chemical Oxygen Demand	mg/L	978	1500	1500	3680	3670	180	179	75-125	0	20	M1

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALIFIERS

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

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

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte
PASI-M	Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Madison Co Operating LF 4/17
Pace Project No.: 92197906

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92197906001	**LT-01**	EPA 3010	MPRP/15752	EPA 6010	ICP/14268
92197906001	**LT-01**	EPA 3020	MPRP/45316	EPA 6020	ICPM/19692
92197906001	**LT-01**	EPA 7470	MERP/6491	EPA 7470	MERC/6257
92197906001	**LT-01**	EPA 8260	MSV/26508		
92197906002	**TRIP BLANK**	EPA 8260	MSV/26508		
92197906001	**LT-01**	SM 5210B	WET/30600	SM 5210B	WET/30607
92197906001	**LT-01**	EPA 300.0	WETA/18782		
92197906001	**LT-01**	EPA 353.2	WETA/18732		
92197906001	**LT-01**	EPA 365.1	WETA/18810		
92197906001	**LT-01**	SM 5220D	WETA/18834		

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1793460

Section A
Required Client Information:

Company: Altamont Environmental
Address: 231 Haywood St
Asheville, NC 28801
Email To: cgilbert@altamontenvironmental.com
Phone: 828 281 3350 Fax: 828 281 3351
Requested Due Date/TAT: Standard

Section B
Required Project Information:

Report To: Chris Gilbert
Copy To: Brian Grant
Purchase Order No.:
Project Name: Madison Co. Operating LF
Project Number: 2313

Section C
Invoice Information:

Attention: Sue Brewer
Company Name: Altamont
Address: Same
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☒ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: NC

Section D
Required Client Information

Matrix Codes
MATRIX / CODE
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): VOCs by 8260	App III Metals	BOD	COD	Phosphate	Nitrate	Sulfate	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	LT-01	WT	G	4/17/14	1310			12	10	X	X	X	X					X	X	X	X	X	X	X		92197906.001
2	Trip Blank	WT		4/17/14					2				X					X								
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Parker Brooks / Altamont	4/17/14	1421	[illegible]	4/17/14	1421	6.7	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Parker Brooks
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 04/17/14

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical® www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: June 4, 2013 Page 1 of 2
	Document No.: F-ASV-CS-003-rev.11	Issuing Authorities: Pace Asheville Quality Office

Client Name: Altamont

Where Received: ☐ Huntersville ☑ Asheville ☐ Eden ☐ Raleigh

Courier (Circle): Fed Ex UPS USPS Client Commercial Pace Other_____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Circle Thermometer Used: IR Gun#3 -130265963 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun
IR Gun #2- 80344039

Temp Correction Factor: Add / Subtract _____C

Corrected Cooler Temp.: 6.7 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C Just collected on ice. **Comments:**

Date and Initials of person examining contents: 4/17/14 J.S.

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6. BOD, Nitrate
Rush Turn Around Time Requested:	☑Yes ☐No ☐N/A	7. Standard
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: Water		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	
Samples checked for dechlorination:	☑Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: [signature] **Date:** 4/17/14

SRF Review: [signature] **Date:** 4/17/14

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

WO#: 92197906

92197906

APPENDIX C

Environmental Monitoring Reporting Form
and
Electronic Submittal of Environmental Monitoring Data
5803Apr2014 (Electronic only)

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

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

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

Instructions:

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

Solid Waste Monitoring Data Submittal Information

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

Altamont Environmental, Inc.

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

Name: Brian Gant Phone: 828-281-3350

E-mail: Bgant@altamontenvironmental.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Madison County Operating Solid Waste Facility	271 Craig Rudisill Road Marshall, NC 28753	58-03	.0500 and .1600	April 16-17, 2014

Environmental Status: (Check all that apply)

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

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☒ Leachate monitoring data
☒ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify) _____
☐ Other(specify) _____

Notification attached?

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

Certification

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

Stuart Ryman, P.G. | Project Geologist | 828-281-3350

Facility Representative Name (Print) | Title | (Area Code) Telephone Number

Signature | 8.13.14 Date

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 1654 GEOLOGIST STUART A. RYMAN

231 Haywood Street Asheville, North Carolina 28805

Facility Representative Address

C-2185

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

Revised 6/2009