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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: Marta A. VanDussen, EIT Phone: (828) 281-3350

E-mail: mvandussen@altamontenvironmental.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Jackson County Municipal Solid Waste Landfill	US Highway 441 Dillsboro, NC 28725	50-02	.1600	April 11-12, 2012

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) Natural Attenuation Parameters
☐ 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.

Christopher F. Gilbert, P.E. Project Engineer (828) 281-3350

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

Signature 12/03/2012 Date

Affix NC Licensed/ Professional ~~Geologist~~ ENGINEER Seal

NORTH CAROLINA PROFESSIONAL SEAL 030224 ENGINEER CHRISTOPHER F. GILBERT

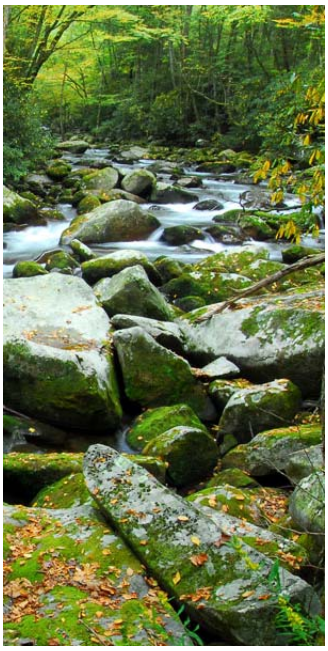
231 Haywood Street, Asheville, North Carolina 28801

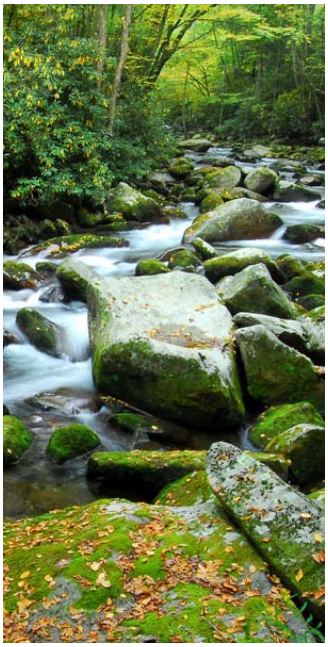
Facility Representative Address

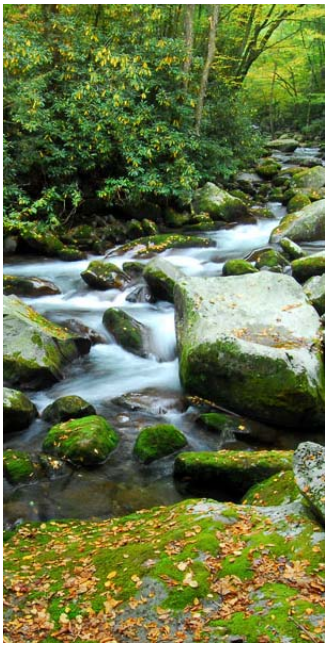
C-2185

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

Revised 6/2009







ALTAMONT ENVIRONMENTAL, INC.

ENGINEERING & HYDROGEOLOGY

Spring 2012 Semiannual Water Quality Monitoring Report

Jackson County Closed Municipal Solid Waste Landfill Permit # 50-02

December 3, 2012

Prepared for
Jackson County Solid Waste Department
Project Number 2040.3021

Prepared by
Altamont Environmental, Inc.
231 Haywood Street
Asheville, NC 28801
(828) 281-3350

Spring 2012 Semiannual Water Quality Monitoring Report

Jackson County Closed Municipal Solid Waste Landfill Permit # 50-02

December 3, 2012

Christopher F. Gilbert, P.E.
Project Engineer

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1.0 Introduction

The Jackson County Solid Waste Department maintains a closed Municipal Solid Waste Landfill (MSWLF) located approximately 0.75 miles west of Dillsboro, North Carolina, on the northeast side of Old Dillsboro Road (Old U.S. Highway 74; Figure 1). The water quality monitoring at the landfill is governed by the North Carolina Department of Environment and Natural Resources (DENR), Division of Waste Management (DWM), Solid Waste Section (SWS), under Permit No. 50-02 issued to Jackson County. The landfill permit requires semiannual monitoring of groundwater and surface water quality.

Over time, groundwater quality monitoring indicated persistent low-level exceedances of constituents in groundwater samples. In response to the continued exceedances of analyzed constituents, the following recent activities have occurred:

- September 7, 2010—An Assessment of Corrective Measures (ACM) report was submitted to the DENR DWM SWS. The ACM stated that volatile organic compounds (VOCs) and metals have been historically detected in excess of the North Carolina groundwater quality standards. Individual metals are not persistently detected over time and, historically, elevated turbidity levels in the samples may have affected the results. Therefore, the ACM suggested that the objective of the remedy focus on VOCs. The ACM evaluated several potential remedies.
- November 12, 2010—Based on the ACM report, the SWS requested a remedy to restore groundwater quality and effectively reduce contamination.
- May 13, 2011—Following advertisement and solicitation for public comment on the assessment of corrective measures, a Corrective Action Permit Modification application was submitted. The Corrective Action Permit Modification application indicated that the selected remedy was leachate removal and monitoring of natural attenuation parameters.
- June 2, 2011—The SWS approved the selected remedy. The SWS requested the preparation of a Corrective Action Plan (CAP).
- June 30, 2011—A CAP was submitted to the SWS (Altamont 2011). Based upon the property currently owned by Jackson County relative to monitoring locations, the CAP established a compliance and review boundary for the closed landfill by referencing the North Carolina Administrative Code (NCAC), Title 15A, Subchapter 2L.0107. The CAP offered a remedy to restore groundwater quality and effectively reduce contamination for VOC constituents in excess of groundwater quality standards outside the compliance boundary. The CAP offered implementation of the remedy in a three-phase approach over a five-year time span. Implementation will utilize wells associated with an existing landfill gas extraction system. Dedicated pumps will be installed into each of the landfill gas extraction wells and leachate will be disposed of in the Tuckaseegee Water & Sewer Authority collection system. In addition to leachate extraction, groundwater natural attenuation parameters will be monitored and natural attenuation process will be evaluated.
- September 1, 2011—The CAP was approved by the SWS. After five years, the corrective actions discussed in the CAP shall be evaluated and reviewed. If VOC concentrations are not reduced, contingency plans may be required.
- June 30, 2012—The first phase of CAP implementation was completed. The leachate extraction pumps were acquired.
- September 1, 2012—The second phase of CAP implementation was completed. The leachate extraction pumps were installed in 10 Landfill Gas (LFG) extraction wells and leachate extraction was initiated. The third and final phase of CAP implementation will involve the replacement of the temporary collection tank (from which the leachate is pumped and hauled for disposal) with a

permanent connection to the Tuckaseegee Water & Sewer Authority (tentatively scheduled for completion in July 2013).

This report serves as the first semiannual water quality monitoring report for 2012 and as a second report following approval of the Corrective Action Plan. This report provides an evaluation of groundwater and surface water quality and describes initiation of establishing monitoring of natural attenuation. The water quality monitoring network is presented on Figure 2. The generalized groundwater flow direction in the upper parts of the underlying aquifer system (Figure 3) is also provided in the report.

The water samples are collected from selected monitoring points during the spring and again in the fall of each year. The analytical suites associated with the current sampling event (Table 1) are as follows:

- Appendix I VOCs
- Appendix I Metals
- Monitored natural attenuation (MNA) parameters: alkalinity, biochemical oxygen demand (BOD), chloride, carbon dioxide, cyanide, ethane, ethene, ferrous iron, hydrogen, methane, nitrate, sulfate, sulfide, total organic carbon (TOC), and volatile fatty acids

The Spring 2012 sampling event was conducted and is being reported in accordance with requirements stipulated in the North Carolina DENR Solid Waste Management Rules codified under Title 15A Subchapter 13B of the North Carolina Administrative Code (15A NCAC 13B).

2.0 Semiannual Monitoring

2.1 Groundwater and Surface Water Sampling

The closed MSWLF monitoring wells (MW-01, MW-02, MW-03, MW-04, MW-05R, MW-06, and MW-07), and surface water sample locations (SW-01 and SW-02) were sampled on April 11 and 12, 2012 by Altamont Environmental, Inc. (Altamont). The monitoring wells and surface water sample locations are depicted on Figure 2.

2.1.1 Monitoring Well Purging and Sampling Methods

Prior to sampling the monitoring wells, the static water level was gauged in each well and an initial round of field parameters consisting of pH, specific conductivity, dissolved oxygen (DO), turbidity, temperature, and oxidation reduction potential (ORP) were measured. Static water level measurements and all field parameter data are included on the well sampling logs in Appendix A. The full suite of the groundwater and surface water analytical results is presented in the analysis report in Appendix B. The field parameter measurements and analytical results are tabulated in the Electronic Data Deliverable (EDD) in Appendix C.

Altamont personnel used a bladder pump or disposable bailer at each monitoring well to purge the well and collect a groundwater sample. Total depth, condition of the casing, and the groundwater recharge rate determined the purging and sample collection method employed at each monitoring well.

2.1.1.1 Monitoring Wells

A bladder pump and low-flow techniques were used to purge and sample the monitoring wells, MW-01, MW-02, MW-03, MW-04, MW-05R, MW-06, and MW-07. The monitoring wells were purged using low-flow techniques in accordance with the procedures described in the US Environmental Protection Agency's (EPA's) *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures* (EPA 1996). During purging, the pH, specific conductivity, DO, ORP, turbidity, and temperature were measured and recorded approximately every three minutes. Well purging continued until these parameters generally stabilized for three consecutive readings. The required stabilization criteria were as follows:

- pH values within +/- 0.1 unit
- Specific conductivity values within +/- 5 percent
- Temperature, DO, and turbidity values within +/- 10 percent
- ORP values within +/- 10 millivolts

Once the parameters had stabilized, a groundwater sample was collected using laboratory-supplied sample bottles by a technician wearing a new pair of nitrile gloves.

2.1.2 Surface Water Sampling Methods

Surface water samples SW-01 and SW-02 were collected at designated locations from the Tuckaseegee River, which is adjacent to the landfill to the southwest. Surface water sample SW-01 is representative of surface water quality upstream of the landfill; SW-02 is representative of surface water quality downstream from the landfill. One round of field parameters, consisting of temperature, pH, specific conductivity, DO, ORP, and turbidity, were measured and recorded at each surface-water sampling location prior to collecting the sample (Appendix C). The surface water samples were collected in laboratory-provided sample containers by a technician wearing a new pair of nitrile gloves.

2.2 Sample Handling, Documentation, and Analysis

Field parameters and additional observations pertaining to the closed MSWLF sampling locations are provided on sampling logs (Appendix A). Following sample collection, each groundwater and surface water 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. The groundwater samples collected from the monitoring wells were analyzed for the following parameters:

- Appendix I Metals using EPA Methods 6010, 200.8, and 7470
- Appendix I VOCs using EPA Method 8260
- Natural Attenuation Parameters:
    - Alkalinity using Standard Method (SM) 2320B
    - BOD, 5-day using SM 5210 B
    - Carbon dioxide and hydrogen using Analytical Method (AM) AM20GAX
    - Chloride using SM 4500-Cl-E
    - Cyanide using SM 4500-CN-E
    - Ethane, ethane, and methane using RSK 175 Air Headspace
    - Ferrous iron using SM 3500-Fe D#4
    - Fatty volatile acids using AM23G
    - Nitrate using EPA Method 353.2
    - Sulfide using SM 4500-S2D
    - Sulfate using EPA Method 300.0
    - Total organic carbon using SM 5310B

The surface water samples were analyzed for Appendix I Metals and VOCs parameters only.

Proper chain-of-custody documentation procedures were followed during collection and transportation of each sample (Appendix B). A trip blank was included in the sample cooler and analyzed for Appendix I VOCs. The reports of laboratory analysis are provided in Appendix B. Laboratory analyses performed on the samples are summarized in Table 1.

3.0 Findings

3.1 Analytical Results

The laboratory analytical results and field parameter data for the groundwater samples (from monitoring wells MW-01 through MW-07), and surface water samples (SW-01 and SW-02), collected at the landfill are included in Appendices A and B in hard copy and also in Appendix C, in the Electronic Data Deliverable (EDD) format specified by the Solid Waste Section 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, all laboratory analytical results were reported and appropriately qualified. Non-detections (non-detects), which are values reported by the laboratory as below method detection limits (MDLs), are tabulated on the Table 2 and EDD at MDL levels, and are qualified with the "U" qualifier. The MDL is the minimum concentration of a substance that can be measured and reported by a laboratory with 99 percent confidence that the constituent concentration is greater than zero. All detections (values above the MDL) were compared to constituent-specific Solid Waste Section Limits (SWSLs) established by DENR. The SWSL is defined as the lowest concentration of a constituent in a sample that can be quantitatively determined with suitable precision and accuracy. A "J" qualifier is used for parameters that are detected at estimated concentrations greater than the MDL but less than the laboratory's method reporting limit (MRL). The MRL is the minimum concentration of a target analyte that can be accurately determined by the referenced method. If the reported concentration is greater than the laboratory MDL and less than the SWSL, the analytical result is qualified as estimated, and is flagged with a "*J*" qualifier (italicized J-flag). In addition to non-detects, detected concentrations of constituents below the applicable SWSLs are included in Table 2. They are not, however, reported in the text of this report, unless they exceed their applicable North Carolina water quality standards (defined below).

Detected concentrations of constituents in groundwater samples were compared to the applicable North Carolina groundwater quality standards. For most constituents, this standard is the 2L Standard, from 15A NCAC 2L.0202. Detected concentrations of analytes in groundwater with no established 2L Standard were compared either to the interim maximum allowable concentrations (IMACs) for Class GA and GSA groundwater (in accordance with 15A NCAC 02L .0202 [c]) or Groundwater Protection Standards (GWPS), pursuant to 15A NCAC 13B.1634.

Detections of analytes in surface-water samples were compared to the surface-water quality standards described in 15A NCAC 2B (2B Standards).

Table 2 presents the summary of detected compounds only. Table 3 presents all analytical results that were above the applicable SWSLs. Table 4 presents only the concentrations of analytes detected in groundwater and/or surface water samples that exceeded their respective 2L Standards (including IMACs, if applicable), GWPSs, or 2B Standards.

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 tables as 5002-MW01. In the tables and figures, however, the identification of a well consists of the name of the well without the permit number associated with the facility.

3.1.1 Groundwater Monitoring Wells

Analytical results for groundwater samples collected from the monitoring wells are discussed in the following sections.

3.1.1.1 Appendix I Metals

Twelve metals were detected in the groundwater samples collected from one or more of the monitoring wells. Ten metals (barium, beryllium, cadmium, chromium, cobalt, copper, lead, selenium, vanadium, and zinc) were detected in samples collected from one or more of the monitoring wells at concentrations at or above the associated SWSLs (Tables 2 and 3).

Six metals (cadmium, chromium, cobalt, lead, thallium, and vanadium) were detected in samples collected from one or more of the monitoring wells at concentrations above their associated groundwater quality standards (Tables 2 and 4).

3.1.1.2 Appendix I VOCs

Thirteen VOCs were detected in the groundwater samples collected from one or more of the monitoring wells (Table 2).

Seven VOCs (1,1-dichloroethane, 1,2-dichlorobenzene, 1,4-dichlorobenzene, benzene, chlorobenzene, cis-1,2-dichloroethene, and trichloroethene) were detected at concentrations at or above their respective SWSLs (Tables 2 and 3).

Five VOCs (1,1-dichloroethane, 1,4-dichlorobenzene, benzene, tetrachloroethene, and vinyl chloride) were detected at concentrations above their respective 2L Standards (Table 4). Concentration-versus-time graphs were created for samples from those monitoring wells that had VOC concentrations over their 2L Standards. The graphs are shown on Figures 4 through 14.

3.1.1.3 Natural Attenuation Parameters

Groundwater samples collected from all monitoring wells were analyzed for additional parameters as follows: alkalinity, BOD, carbon dioxide, chloride, cyanide, iron (ferrous), ethane, ethene, hydrogen, methane, nitrogen, sulfate, sulfide, TOC, and volatile fatty acids. Cyanide, ethane, ethene, and sulfide were not detected in any of the samples. The remaining parameters were detected in one or more groundwater samples collected from the monitoring wells. The results will be used as part of the baseline results for the CAP and will be further evaluated in a separate report after four sampling events have been conducted.

3.1.1.4 Field Parameters

The pH readings were obtained on April 11 and 12, 2012 for the groundwater samples. The pH readings obtained from samples collected from wells MW-01 (5.80 Standard Units [SU]), MW-02 (6.28 SU), MW-03 (5.58 SU), MW-04 (5.66 SU), MW-06 (6.03 SU) and MW-07 (6.41 SU) were outside the acceptable pH range of 6.5 to 8.5 SU specified in 15A NCAC 02L .0202[c].

The highest turbidity (850.8 nephelometric turbidity units [NTUs]) was measured in the groundwater sample collected from well MW-05R. The lowest turbidity was measured (0.00 NTU) in the groundwater sample collected from well MW-04.

3.1.2 Surface Water

The following statements summarize analytical results in the two surface water samples collected during the April 2012 sampling event.

3.1.2.1 Appendix I Metals

Only barium was detected in both surface water samples collected from downstream and upstream surface water locations (Table 2). Concentrations of barium in both samples (SW-01 and SW-02) were found below the respective SWSL and 2B Standard. No other metals were detected in surface water (Table 3).

3.1.2.2 Appendix I VOCs

VOCs were not detected in either of the surface water samples (SW-01 and SW-02).

3.1.2.3 Field Parameters

The pH readings were obtained on April 12, 2012 for surface water samples. The pH readings measured in both samples were within the 2B Standard range established at 6.0 SU to 9.0 SU.

Turbidity was measured at 9.73 NTU in SW-01 and 7.33 NTU in SW-02 surface water samples and the 2B standard for turbidity is established at 50/25 NTU.

Dissolved oxygen was measured at 5.03 mg/L in SW-02 and 4.36 mg/L in SW-01. The 2B Standard indicates “not less than 5.0 mg/L.”.

2B Standards do not exist for the remaining field parameters measured in surface water samples.

4.0 Hydrogeology

Groundwater quality in the saprolite and bedrock is monitored at the closed MSWLF. Three bedrock monitoring wells, MW-01, MW-02, and MW-06, are located in the northern and northwestern portions of the site (Figure 3 and Table 5). Bedrock monitoring well (MW-07) has been installed (Figure 3) to the southwest of the landfill. These four bedrock wells were used to determine bedrock flow directions based on the spring 2012 water-level data.

Monitoring wells MW-03, MW-04, and MW-05R (Figure 3), located in the central, southwest, and southern parts of the landfill, are in the saprolite (including partially weathered rock [PWR]) water-bearing zone). The spring 2012 water-level data collected from monitoring wells MW-03, MW-04 and MW-05R (Table 5) indicate that groundwater flow direction in the saprolite and PWR is generally to the southwest, toward the Tuckaseegee River (Figure 3). The monitoring well MW-05R was surveyed by Wes Cole Land Surveying, PA on September 28, 2012 and the survey record is included in Appendix D of this report.

5.0 Summary

The first semiannual water quality monitoring event of 2012 was conducted on April 11 and 12, 2012 at the Jackson County closed MSWLF. Tables 2, 3, and 4 of this report, Pace Reports of Laboratory Analysis (Appendix B), and the EDD (Appendix C) provide detailed analytical results and field data summarizing the groundwater and surface water quality at the landfill.

5.1 Groundwater Quality

5.1.1 Metals

Six metals (cadmium, cobalt, chromium, lead, vanadium, and thallium) were detected at concentrations above their respective water quality standards (more specifically the IMACs for cobalt, thallium, and vanadium) in the groundwater samples collected from one or more of the monitoring wells during the spring 2012 water quality monitoring event.

Cobalt was detected in five groundwater samples at concentrations ranging between 7.9 *J* µg/L (the lowest) detected in MW-02 to 205 µg/L (the highest) in MW-06, exceeding its IMAC of 1 µg/L.

Thallium was detected in three groundwater samples (wells MW-01, MW-05R and MW-06) at concentrations ranging between 0.28 J µg/L (the lowest) detected in MW-06 to 1.4 J µg/L (the highest) in MW-05R, exceeding its IMAC of 0.2 µg/L. Historically, thallium has been present above its water quality standard in the MW-01 groundwater monitoring well.

Cadmium, chromium, lead and vanadium were detected in one groundwater sample (MW-05R) at concentrations above their established water quality standards.

The turbidity was measured at a range of 0.00 NTU (the lowest) detected in well MW-04 to 850.8 NTUs (the highest) in well MW-05R.

5.1.2 VOCs

Five VOCs (1,1-dichloroethane, 1,4-dichlorobenzene, benzene, tetrachloroethene, and vinyl chloride) were detected at concentrations above their respective 2L Standards.

Two VOCs, 1,4-dichlorobenzene and tetrachloroethene, were found only in the MW-01 groundwater sample.

Benzene was detected in four groundwater samples (MW-01, MW-05R, MW-06, and MW-07) during this sampling event, showing a slight increase in detected concentrations in all monitoring wells, except MW-05R, compared to MW-05 from the last sampling event in October 2011. Overall the historical benzene concentration trends in MW-05R (Figure 9), MW-06 (Figure 12), and MW-07 (Figure 13) have been relatively stable and slightly over the 2L Standard. Monitoring well MW-01 (Figure 6) has been showing a consistent decrease in benzene concentration since April 2007 until a slight increase in concentration during this sampling event.

Vinyl chloride was detected above its 2L Standard in three groundwater samples (MW-04, MW-05R, and MW-07). During this sampling event the concentration of vinyl chloride in MW-04 and MW-05R decreased from the last sampling event in October 2011, while the concentration in MW-07 increased from the October 2011 sampling event. In April 2011, this constituent was not present in groundwater (with the exception of MW-05, a sample collected from a well that has since been abandoned).

A review of historical groundwater data indicates that four VOCs (1,1-dichloroethane, 1,4-dichlorobenzene, benzene, and vinyl chloride) have been detected at comparable concentrations for the past several years. Historical surface water samples from the Tuckaseegee River, which likely receives discharge from the

saprolite groundwater-bearing zone, have consistently shown no detections of these compounds, or any other VOCs.

5.1.3 Other Constituents

The pH results obtained for all sampled wells (except for well MW-05R) were outside the acceptable pH range established as the 2L Standard. Although the results were outside the acceptable range, they appear to be consistent with historic pH readings and ranges that may be expected to be naturally occurring in the region.

Some natural attenuation parameters (alkalinity, BOD, chloride, iron, methane, nitrogen, sulfate, and TOC) were detected in groundwater samples collected from one or more of the monitoring wells at various concentrations. Further evaluation of these parameters will be conducted in the future monitoring events. Natural attenuation parameters are being obtained as part of the CAP. After four sampling events have been conducted, the parameters will be further evaluated. The initial MNA Corrective Action Evaluation Report will be prepared and submitted to DENR after the spring 2013 monitoring event. The spring 2013 monitoring event will be the fourth event following approval of the CAP.

5.2 Surface Water

Metals (except barium, which was detected below standards) and VOCs were not detected in the surface water samples collected from either SW-01 (upstream of the landfill) or SW-02 (downstream of the landfill) locations.

On the basis of these data it appears likely that the groundwater discharging from under the landfill into the Tuckaseegee River is not impacting the surface water quality in the Tuckaseegee River with regard to metals and VOCs.

The pH readings measured in both surface water samples were within the 2B Standard pH range.

6.0 Future Activities

Altamont will continue to monitor the water quality on a semiannual basis at the Jackson County Closed Municipal Solid Waste landfill. The groundwater samples from the two domestic wells (DW-01 and DW-02) will be collected during the fall of each year and analyzed for VOCs only. Samples will be collected from monitoring wells and surface water monitoring points during the fall and again in the spring of each year. In addition to the natural attenuation parameters that were added as part of the approved corrective action, the analytical suites associated with the current and future sampling events are as follows:

Sampling Event	Analytical Suite (not inclusive of natural attenuation parameters)
Spring 2012	Appendix I VOCs Appendix I metals
Fall 2012	Appendix II VOCs Appendix II metals Appendix II herbicides Cyanide and sulfide Appendix II semivolatile organic compounds (SVOCs) Appendix II polychlorinated biphenyls (PCBs) Appendix II pesticides Appendix II organochloropesticides
Spring 2013	Appendix I VOCs Appendix I metals
Fall 2013	Appendix II volatile organic compounds (VOCs) Appendix II metals Appendix II herbicides Cyanide and sulfide

Based on the approved corrective action remedy, a leachate extraction system was partially installed in June through September 2012 (the final phase may be installed in July 2013). In addition to groundwater and surface water monitoring, the next report will include VOC analysis of the extracted leachate. The leachate sample analysis, along with available leachate removal volume measurements, will be used to estimate the mass of VOC extracted by the active portion of the approved corrective action remedy.

7.0 References

Altamont Environmental, Inc. June 30, 2011. Corrective Action Plan.

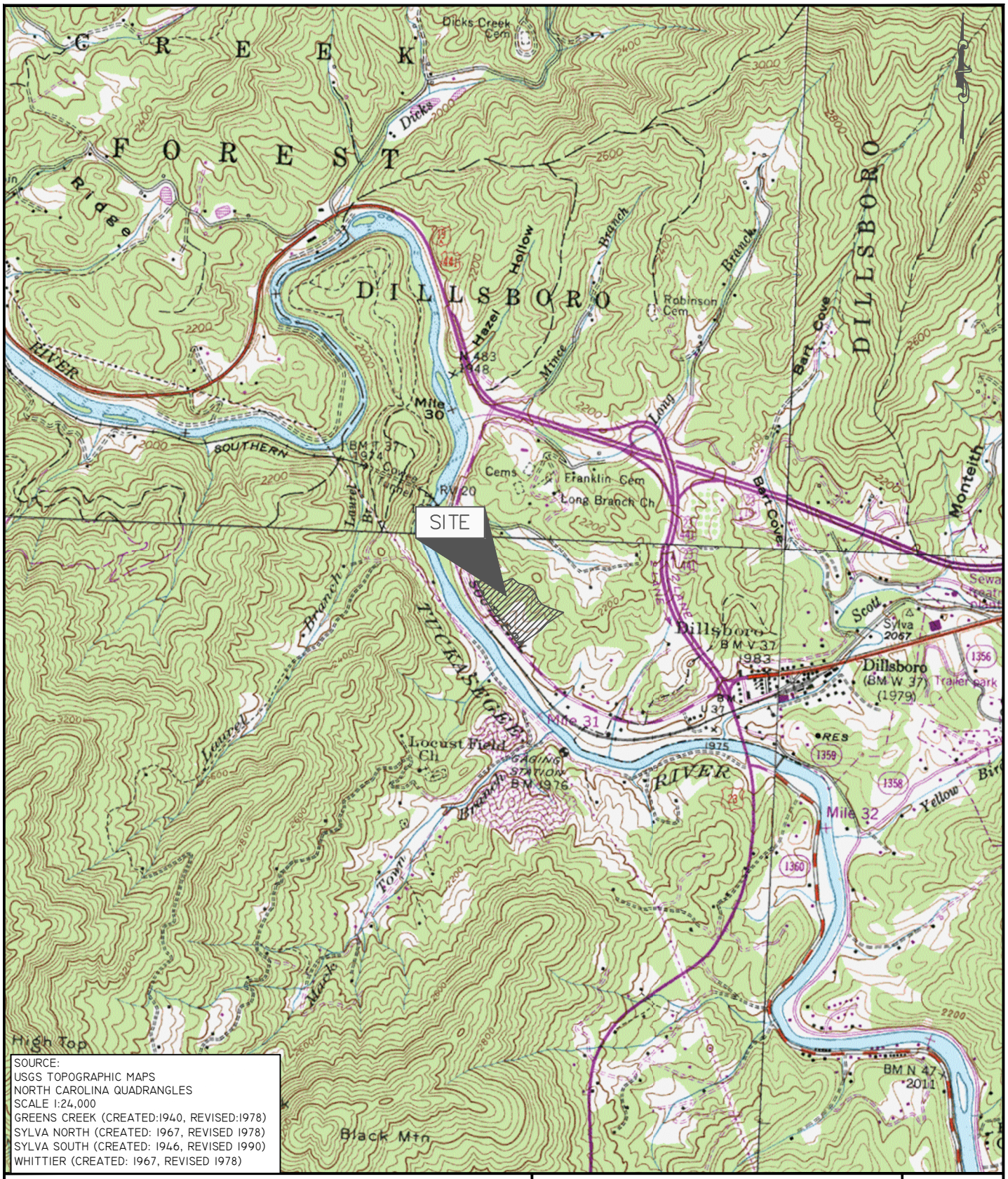
North Carolina Department of Environment and Natural Resources (DENR) Division of Waste Management (DWM) Solid Waste Section (SWS). 2006. Memorandum to SW Director/County Manager/Consultant/Laboratory, *Re: New Guidelines for Electronic Submittal of Environmental Monitoring Data,* dated October 27, 2006.

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

DENR DWM SWS. Rev 4-08. *Solid Waste Section Guidelines for Groundwater, Soil, and Surface Water Sampling.*

U. S. Environmental Protection Agency (EPA). 1996. *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, OSWER, EPA/540/S-95/504.

FIGURES



SOURCE:
USGS TOPOGRAPHIC MAPS
NORTH CAROLINA QUADRANGLES
SCALE 1:24,000
GREENS CREEK (CREATED:1940, REVISED:1978)
SYLVA NORTH (CREATED: 1967, REVISED 1978)
SYLVA SOUTH (CREATED: 1946, REVISED 1990)
WHITTIER (CREATED: 1967, REVISED 1978)

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

DRAWN BY: MARTA VANDUSSEN
PROJECT MANAGER: CHRIS GILBERT
CLIENT: JACKSON COUNTY
DATE: 11/30/2012

SCALE (FEET)
1000 0 1000 2000

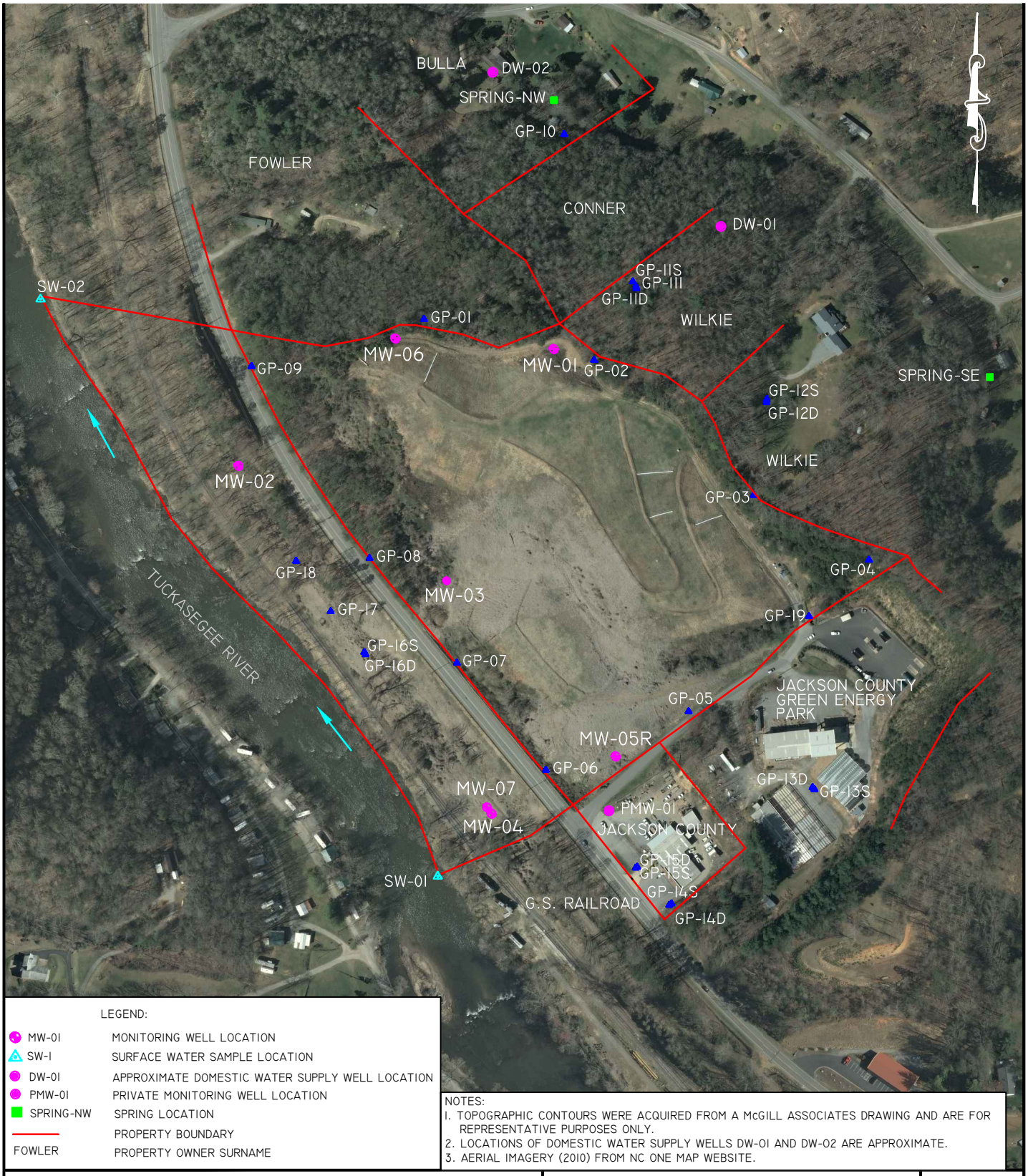
SITE LOCATION MAP

JACKSON COUNTY CLOSED MUNICIPAL SOLID WASTE LANDFILL
PERMIT #50-02

JACKSON COUNTY, NORTH CAROLINA

FIGURE
1

P:\JACKSON COUNTY\DILLSBORO GW\FIGURES\CAD\2012\SPRING/FIGURE 1



LEGEND:

MW-01	MONITORING WELL LOCATION
SW-1	SURFACE WATER SAMPLE LOCATION
DW-01	APPROXIMATE DOMESTIC WATER SUPPLY WELL LOCATION
PMW-01	PRIVATE MONITORING WELL LOCATION
SPRING-NW	SPRING LOCATION
	PROPERTY BOUNDARY
FOWLER	PROPERTY OWNER SURNAME

NOTES:
1. TOPOGRAPHIC CONTOURS WERE ACQUIRED FROM A McGILL ASSOCIATES DRAWING AND ARE FOR REPRESENTATIVE PURPOSES ONLY.
2. LOCATIONS OF DOMESTIC WATER SUPPLY WELLS DW-01 AND DW-02 ARE APPROXIMATE.
3. AERIAL IMAGERY (2010) FROM NC ONE MAP WEBSITE.

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WWW.ALTAMONTENVIRONMENTAL.COM

MONITORING WELL LOCATION MAP

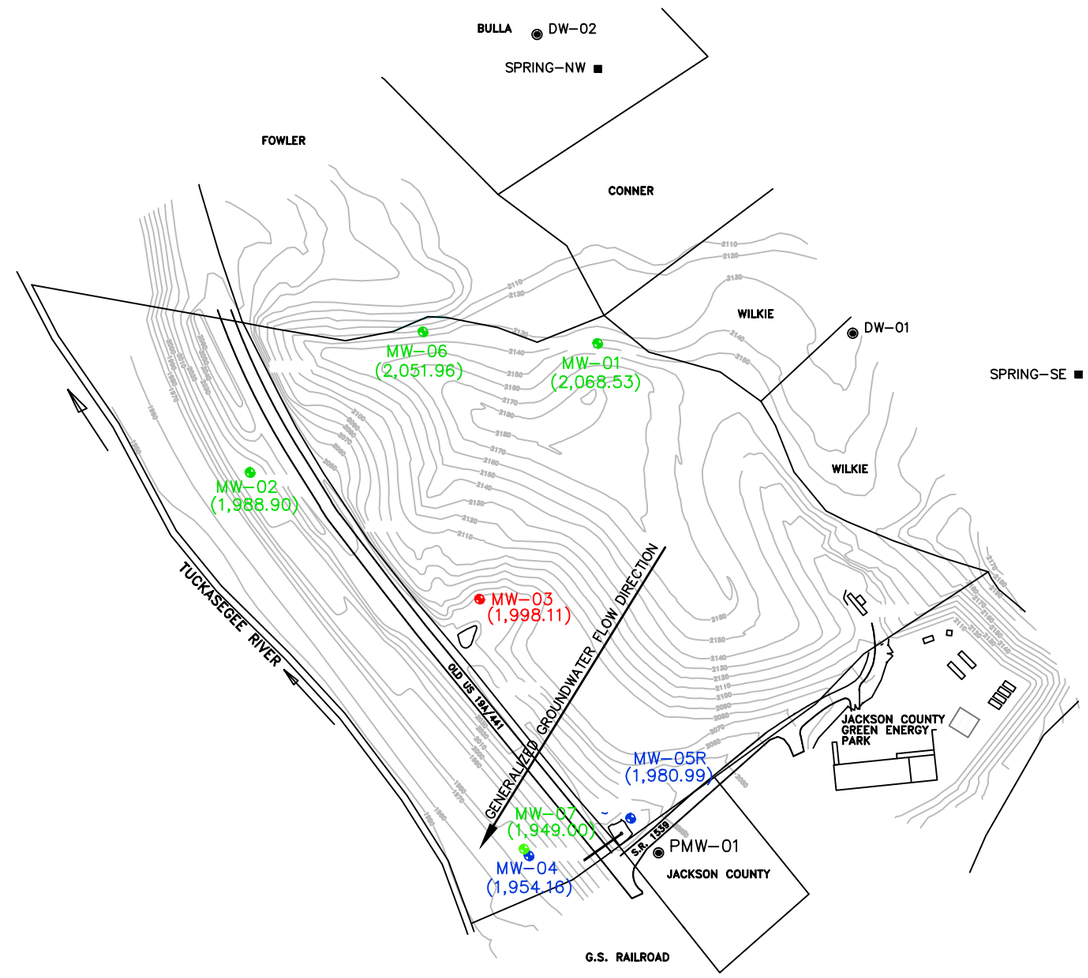
JACKSON COUNTY CLOSED MUNICIPAL SOLID WASTE LANDFILL
PERMIT #50-02
JACKSON COUNTY, NORTH CAROLINA

FIGURE 2

DRAWN BY: MARTA A. VANDUSSEN
PROJECT MANAGER: CHRIS GILBERT
CLIENT: JACKSON COUNTY
DATE: 11/30/2012

SCALE (FEET)
150' 0 150' 300'
1" = 300'

FILE PATH: P:\JACKSON COUNTY\DILLSBORO GW\FIGURES\CAD\2012\SPRING\FIGURE 2-MONITORING WELL LOCATION MAP.DWG



LEGEND:

- MW-01 MONITORING WELL LOCATION
- SW-1 SURFACE WATER SAMPLE LOCATION
- PMW-01 PRIVATE MONITORING WELL LOCATION
- DW-1 DOMESTIC WATER SUPPLY WELL
- SPRING-NW SPRING LOCATION
- (2,068.53) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL ON APRIL 11 OR 12, 2012
- FOWLER PROPERTY OWNER SURNAME
- SAPROLITE MONITORING WELL LOCATION
- PARTIALLY WEATHERED ROCK MONITORING WELL LOCATION
- BEDROCK MONITORING WELL LOCATION

NOTES:

1. TOPOGRAPHIC CONTOURS ARE OBTAINED FROM McGILL ASSOCIATES AND ARE FOR REPRESENTATIVE PURPOSES ONLY.
2. GROUNDWATER FLOW DIRECTION BASED ON GROUNDWATER ELEVATIONS IN FEET IN MONITORING WELLS MW-03, MW-04, AND MW-05R CALCULATED BASED ON DEPTH TO WATER MEASURED ON APRIL 11 AND 12, 2012.
3. GROUNDWATER ELEVATIONS AND FLOW DIRECTION ARE UPDATED ON A SEMIANNUAL BASIS EVERY APRIL AND OCTOBER FOLLOWING THE SAMPLE COLLECTION EVENTS.
4. MONITORING WELL MW-05R WAS INSTALLED ON JANUARY 26, 2012 AS A REPLACEMENT TO THE WELL MW-05 (ABANDONED ON JANUARY 26, 2012). WELL MW-05R WAS SURVEYED BY WES COLE LAND SURVEYING, P.A. ON SEPTEMBER 28, 2012.

REV.	DATE	DESCRIPTION	BY	CHK	APV
8	10-04-12	UPDATE GROUNDWATER ELEVATIONS	MVD	NB	CFG
7	07-23-12	UPDATE	MVD	AKB	CFG
6	06-18-11	UPDATE	MVD	AKB	CFG
5	11-11-09	UPDATE	KRM	APM	
4	06-01-09	UPDATE	MAV	JDH	
3	06-09-08	UPDATE	KM	JDH	
2	10-30-06	NEW TITLE BLOCK	JK	JDH	
1	11-12-01	ORIGINAL	JMC	JPM	

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ENGINEERING & HYDROGEOLOGY
231 HAYWOOD STREET, ASHEVILLE, NC 28801
TEL.828.281.3350 FAC.828.281.3351
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DRAWN BY: MARTA VANDUSSEN
PROJECT MANAGER: CHRIS GILBERT
CLIENT: JACKSON COUNTY
DATE: 11/30/2012

SCALE (FEET)
150 0 150 300

GENERALIZED GROUNDWATER FLOW DIRECTION
SAPROLITE AND PARTIALLY WEATHERED BEDROCK ZONES

JACKSON COUNTY CLOSED MUNICIPAL SOLID WASTE LANDFILL
PERMIT #50-02
JACKSON COUNTY, NORTH CAROLINA

FIGURE
3

P:\JACKSON COUNTY\DILLSBORO GW\FIGURES\CAD\2012\SPRING\FIGURE 3

TABLES

Table 1
Summary of Laboratory Analyses Performed on Samples
Jackson County Municipal Solid Waste Landfill, Jackson County, North Carolina

GROUNDWATER SAMPLES

Analysis		VOCs	Metals
Sample Name	Date Collected	EPA 8260	EPA 6010 EPA 200.8 EPA 7470
MW-01	04/11/2012	X	X
MW-02	04/12/2012	X	X
MW-03	04/11/2012	X	X
MW-04	04/12/2012	X	X
MW-05R	04/12/2012	X	X
MW-06	04/11/2012	X	X
MW-07	04/12/2012	X	X

SURFACE WATER AND QUALITY CONTROL SAMPLES

Analysis		VOCs	Metals
Sample Name	Date Collected	EPA 8260	EPA 6010 EPA 200.8 EPA 7470
SW-01	04/12/2012	X	X
SW-02	04/12/2012	X	X
TRIP BLANK	04/12/2012	X	

GROUNDWATER SAMPLES

Analysis		Natural Attenuation Parameters											
		Ethane Ethene Methane	Alkalinity	BOD	Cyanide	Chloride	Carbon Dioxide Hydrogen	Fatty Volatile Acids	Iron Ferrous	Nitrogen Nitrate	Sulfate	Sulfide	TOC
Sample Name	Date Collected	RSK 175 Air Headspace	SM 2320B	SM 5210B	SM 4500-CN-E	SM 4500-Cl-E	AM20GAX	AM23G	SM 3500-Fe D#4	EPA 353.2	EPA 300.0	SM 4500-S2D	SM 5310B
MW-01	04/11/2012	X	X	X	X	X	X	X	X	X	X	X	X
MW-02	04/12/2012	X	X	X	X	X	X	X	X	X	X	X	X
MW-03	04/11/2012	X	X	X	X	X	X	X	X	X	X	X	X
MW-04	04/12/2012	X	X	X	X	X	X	X	X	X	X	X	X
MW-05R	04/12/2012	X	X	X	X	X	X	X	X	X	X	X	X
MW-06	04/11/2012	X	X	X	X	X	X	X	X	X	X	X	X
MW-07	04/12/2012	X	X	X	X	X	X	X	X	X	X	X	X

Notes:
1. VOCs = volatile organic compounds.
2. TOC = total organic carbon.
3. BOD = biochemical oxygen demand.
4. During spring 2012 monitoring event VOCs and Metals analysis include Appendix I constituents per 40 CFR Part 258.

Table 2
Summary of Detected Compounds
Jackson County Municipal Solid Waste Landfill, Jackson County, North Carolina

	Lab Certification	Metals 40 and 530 (Thallium)											
	Lab Method	EPA 6010, 7470, 200.8 (Thallium)											
	Parameter	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Thallium	Vanadium	Zinc
	CAS Number	7440-39-3	7440-41-7	7440-43-9	7440-47-3	7440-48-4	7440-50-8	7439-92-1	7440-02-0	7782-49-2	7440-28-0	7440-62-2	7440-66-6
	SWS ID	15	23	34	51	53	54	131	152	183	194	209	213
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample Name	Collect Date	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
MW-01	04/11/2012	88.5 J	1.0 U	1.0 U	5.0 U	113	5.0 U	5.0 U	9.9 J	10.0 U	0.55 J	5.0 U	47.4
MW-02	04/12/2012	41.1 J	1.0 U	1.0 U	5.0 U	7.9 J	5.0 U	5.0 U	5.0 U	10.0 U	0.14 J	5.0 U	66.9
MW-03	04/11/2012	141	1.0 U	1.0 U	5.0 U	40.1	5.0 U	5.0 U	5.0 U	10.0 U	0.15 J	5.0 U	72.7
MW-04	04/12/2012	168	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	0.060 J	5.0 U	46.1
MW-05R	04/12/2012	635	2.0	2.5	64.5	73.0	97.4	22.1	49.0 J	12.3	1.4 J	76.1	260
MW-06	04/11/2012	103	1.0 U	1.0 U	5.0 U	205	5.0 U	5.0 U	30.6 J	10.0 U	0.28 J	5.0 U	90.6
MW-07	04/12/2012	309	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	0.050 U	5.0 U	10.0 U
SW-01	04/12/2012	16.1 J	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	0.050 U	5.0 U	10.0 U
SW-02	04/12/2012	15.7 J	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10.0 U	0.050 U	5.0 U	10.0 U
TRIP BLANK	04/12/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MDL	5.0	1.0	1.0	5.0	5.0	5.0	5.0	5.0	10.0	0.050/0.25	5.0	10.0
	MRL	5.0	1.0	1.0	5.0	5.0	5.0	5.0	5.0	10.0	0.10/0.50	5.0	10.0
	SWSL	100	1	1	10	10	10	10	50	10	5.5	25	10
	2L	700	NE	2	10	NE	1,000	15	100	20	NE	NE	1,000
	IMAC	NE	4	NE	NE	1	NE	NE	NE	NE	0.2	0.3	NE
	GWPS	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	2B	200,000	6.5	2	50	4	7	25	88	5	0.47	NE	50

	Lab Certification	Volatile Organic Compounds (VOCs) 12												
	Lab Method	EPA 8260												
	Parameter	1,1-Dichloro-ethane	1,2-Dichloro-benzene	1,2-Dichloro-ethane	1,4-Dichloro-benzene	Acetone	Benzene	Chloro-benzene	cis-1,2-Dichloroethene	Tetrachloro-ethene	Toluene	Trichloro-ethene	Vinyl Chloride	Xylene
	CAS Number	75-34-3	95-50-1	107-06-2	106-46-7	67-64-1	71-43-2	108-90-7	156-59-2	127-18-4	108-88-3	79-01-6	75-01-4	1330-20-7
	SWS ID	75	69	76	71	3	16	39	78	192	196	201	211	346
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Sample Name	Collect Date	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
MW-01	04/11/2012	6.1	0.30 U	0.21 J	10.9	2.2 U	2.8	3.6	8.6	0.78 J	0.26 U	1.1	0.62 U	1.6 J
MW-02	04/12/2012	0.45 J	0.30 U	0.12 U	0.33 U	2.2 U	0.25 U	0.23 U	0.44 J	0.46 U	0.27 J	0.47 U	0.62 U	0.66 U
MW-03	04/11/2012	0.44 J	0.30 U	0.12 U	2.5	2.2 U	0.58 J	3.7	0.81 J	0.46 U	0.26 U	0.47 U	0.62 U	0.66 U
MW-04	04/12/2012	0.32 U	0.30 U	0.12 U	4.0	2.2 U	0.64 J	3.0	5.0	0.46 U	0.26 U	0.47 U	0.69 J	0.66 U
MW-05R	04/12/2012	0.32 U	0.30 U	0.12 U	2.5	4.5 J	1.3	3.3	14.3	0.46 U	0.26 U	0.47 U	0.82 J	0.66 U
MW-06	04/11/2012	6.7	5.0	0.12 U	4.3	2.2 U	2.5	1.9 J	8.6	0.46 U	0.26 U	0.47 U	0.62 U	0.66 U
MW-07	04/12/2012	0.54 J	0.47 J	0.12 U	5.7	2.2 U	1.4	5.9	10.5	0.46 U	0.26 U	0.47 U	0.82 J	0.66 U
SW-01	04/12/2012	0.32 U	0.30 U	0.12 U	0.33 U	2.2 U	0.25 U	0.23 U	0.19 U	0.46 U	0.26 U	0.47 U	0.62 U	0.66 U
SW-02	04/12/2012	0.32 U	0.30 U	0.12 U	0.33 U	2.2 U	0.25 U	0.23 U	0.19 U	0.46 U	0.26 U	0.47 U	0.62 U	0.66 U
TRIP BLANK	04/12/2012	0.32 U	0.30 U	0.12 U	0.33 U	6.4 J	0.25 U	0.23 U	0.19 U	0.46 U	0.26 U	0.47 U	0.62 U	0.66 U
	MDL	0.32	0.30	0.12	0.33	2.2	0.25	0.23	0.19	0.46	0.26	0.47	0.62	0.66
	MRL	1.0	1.0	1.0	1.0	25.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0
	SWSL	5	5	1	1	100	1	3	5	1	1	1	1	5
	2L	6	20	0.4	6	6,000	1	50	70	0.7	600	3	0.03	500
	IMAC	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	GWPS	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	2B	100	470	0.38	100	2,000	51	140	720	3.3	11	30	2.4	670

Table 2
Summary of Detected Compounds
Jackson County Municipal Solid Waste Landfill, Jackson County, North Carolina

		Inorganics and Natural Attenuation Parameters								Field Parameters		
	Lab Certification	40 and 530 (Methane)								5445 (pH only)		
	Lab Method	SM 2320B	SM 5210B	SM 4500-Cl-E	SM 3500-Fe D#4	RSK 175	EPA 353.2	EPA 300.0	SM 5310B			
	Parameter	**Alkalinity**	**Biochemical Oxygen Demand**	**Chloride**	**Iron, Ferrous**	**Methane**	**Nitrogen, Nitrate**	**Sulfate**	**Total Organic Carbon**	**Dissolved Oxygen**	**pH**	**Turbidity**
	CAS Number	SW337	SW316	16887-00-6	SW334	74-82-8	SW419	14808-79-8	7440-44-0	7782-44-7	SW320	SW330
	SWS ID	337	316	455	334	456	419	315	357	356	320	330
	Units	µg/L	µg/L	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	Result	Result
MW-01	04/11/2012	**85,800**	**8,300**	5,000 U	**2,800**	**5,360**	200 U	5,000 U	**4,600**	**1.19**	**5.80**	**22.22**
MW-02	04/12/2012	**24,500**	2,000 U	**26,200**	500 U	**2.5 J**	**250**	**6,600**	**1,700**	**4.30**	**6.28**	**7.60**
MW-03	04/11/2012	**68,900**	2,000 U	**37,000**	500 U	**21.8**	**3,200**	5,000 U	**5,500**	**0.99**	**5.58**	**29.52**
MW-04	04/12/2012	**70,400**	2,000 U	**71,700**	500 U	**544**	**7,700**	10,000 U	**6,500**	**1.09**	**5.66**	**0.00**
MW-05R	04/12/2012	**313,000**	**69,000**	**82,300**	**1,200**	**850**	200 U	5,000 U	**30,600**	**3.50**	**6.89**	**850.8**
MW-06	04/11/2012	**125,000**	2,000 U	5,000 U	**13,200**	**313**	200 U	5,000 U	**4,600**	**2.19**	**6.03**	**52.28**
MW-07	04/12/2012	**204,000**	2,000 U	**51,400**	500 U	**1,090**	200 U	**24,600**	**5,900**	**0.72**	**6.41**	**4.74**
SW-01	04/12/2012	NA	NA	NA	NA	NA	NA	NA	NA	**4.36**	**6.96**	**9.73**
SW-02	04/12/2012	NA	NA	NA	NA	NA	NA	NA	NA	**5.03**	**6.79**	**7.33**
	MDL	5,000	2,000	5,000/25,000	500	0.69	200	5,000	1,000	NA	NA	NA
	MRL	5,000	2,000	5,000/25,000	500	6.6	200	5,000	1,000	NA	NA	NA
	SWSL	NE	NE	NE	NE	NE	10,000	250,000	NE	NE	NE	NE
	2L	NE	NE	250,000	NE	NE	10,000	250,000	NE	NE	6.5-8.5	NE
	IMAC	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	GWPS	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
	2B	NE	NE	230,000	NE	NE	NE	NE	NE	not less than 5	6.0-9.0	50/25

Notes:

1. Only results, MDLs, MRLs, certification numbers, and methods for 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, 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 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. "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 Eff January 1, 2010).
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).
    Where no 2B standard exists, the National Criteria per Environmental Protection Agency (EPA) from standards Table (Current as of 8/16/12) for the most stringent of fresh water and human health was used.
16. Blank cells indicate that there is no information relevant to the respective row.
17. **Bold** numbers indicate any detection. Grayed cell indicates result in exceedance of the 2L or IMAC standard or greater than or equal to the GWPS (if no 2L or IMAC exist), and 2B standard if applicable.
18. "NA" means Not Analyzed. "NE" indicates Not Established.

Table 3
Solid Waste Limits Exceedances Notification
Jackson County Municipal Solid Waste Landfill, Jackson County, North Carolina

FACILITY PERMIT	WELL ID	CAS Number	SWS ID	PARAMETER	RESULT	UNITS	METHOD	MDL	MRL	SWSL	COLLECT DATE
50-02	5002-MW01	7440-48-4	53	Cobalt	**113**	µg/L	EPA 6010	5.0	5.0	10	04/11/2012
50-02	5002-MW01	7440-66-6	213	Zinc	**47.4**	µg/L	EPA 6010	10.0	10.0	10	04/11/2012
50-02	5002-MW01	75-34-3	75	1,1-Dichloroethane	**6.1**	µg/L	EPA 8260	0.32	1.0	5	04/11/2012
50-02	5002-MW01	106-46-7	71	1,4-Dichlorobenzene	**10.9**	µg/L	EPA 8260	0.33	1.0	1	04/11/2012
50-02	5002-MW01	71-43-2	16	Benzene	**2.8**	µg/L	EPA 8260	0.25	1.0	1	04/11/2012
50-02	5002-MW01	108-90-7	39	Chlorobenzene	**3.6**	µg/L	EPA 8260	0.23	1.0	3	04/11/2012
50-02	5002-MW01	156-59-2	78	cis-1,2-Dichloroethene	**8.6**	µg/L	EPA 8260	0.19	1.0	5	04/11/2012
50-02	5002-MW01	79-01-6	201	Trichloroethene	**1.1**	µg/L	EPA 8260	0.47	1.0	1	04/11/2012
50-02	5002-MW02	7440-66-6	213	Zinc	**66.9**	µg/L	EPA 6010	10.0	10.0	10	04/12/2012
50-02	5002-MW03	7440-39-3	15	Barium	**141**	µg/L	EPA 6010	5.0	5.0	100	04/11/2012
50-02	5002-MW03	7440-48-4	53	Cobalt	**40.1**	µg/L	EPA 6010	5.0	5.0	10	04/11/2012
50-02	5002-MW03	7440-66-6	213	Zinc	**72.7**	µg/L	EPA 6010	10.0	10.0	10	04/11/2012
50-02	5002-MW03	106-46-7	71	1,4-Dichlorobenzene	**2.5**	µg/L	EPA 8260	0.33	1.0	1	04/11/2012
50-02	5002-MW03	108-90-7	39	Chlorobenzene	**3.7**	µg/L	EPA 8260	0.23	1.0	3	04/11/2012
50-02	5002-MW04	7440-39-3	15	Barium	**168**	µg/L	EPA 6010	5.0	5.0	100	04/12/2012
50-02	5002-MW04	7440-66-6	213	Zinc	**46.1**	µg/L	EPA 6010	10.0	10.0	10	04/12/2012
50-02	5002-MW04	106-46-7	71	1,4-Dichlorobenzene	**4.0**	µg/L	EPA 8260	0.33	1.0	1	04/12/2012
50-02	5002-MW04	108-90-7	39	Chlorobenzene	**3.0**	µg/L	EPA 8260	0.23	1.0	3	04/12/2012
50-02	5002-MW04	156-59-2	78	cis-1,2-Dichloroethene	**5.0**	µg/L	EPA 8260	0.19	1.0	5	04/12/2012
50-02	5002-MW05R	7440-39-3	15	Barium	**635**	µg/L	EPA 6010	5.0	5.0	100	04/12/2012
50-02	5002-MW05R	7440-41-7	23	Beryllium	**2.0**	µg/L	EPA 6010	1.0	1.0	1	04/12/2012
50-02	5002-MW05R	7440-43-9	34	Cadmium	**2.5**	µg/L	EPA 6010	1.0	1.0	1	04/12/2012
50-02	5002-MW05R	7440-47-3	51	Chromium	**64.5**	µg/L	EPA 6010	5.0	5.0	10	04/12/2012
50-02	5002-MW05R	7440-48-4	53	Cobalt	**73.0**	µg/L	EPA 6010	5.0	5.0	10	04/12/2012
50-02	5002-MW05R	7440-50-8	54	Copper	**97.4**	µg/L	EPA 6010	5.0	5.0	10	04/12/2012
50-02	5002-MW05R	7439-92-1	131	Lead	**22.1**	µg/L	EPA 6010	5.0	5.0	10	04/12/2012
50-02	5002-MW05R	7782-49-2	183	Selenium	**12.3**	µg/L	EPA 6010	10.0	10.0	10	04/12/2012
50-02	5002-MW05R	7440-62-2	209	Vanadium	**76.1**	µg/L	EPA 6010	5.0	5.0	25	04/12/2012
50-02	5002-MW05R	7440-66-6	213	Zinc	**260**	µg/L	EPA 6010	10.0	10.0	10	04/12/2012
50-02	5002-MW05R	106-46-7	71	1,4-Dichlorobenzene	**2.5**	µg/L	EPA 8260	0.33	1.0	1	04/12/2012
50-02	5002-MW05R	71-43-2	16	Benzene	**1.3**	µg/L	EPA 8260	0.25	1.0	1	04/12/2012
50-02	5002-MW05R	108-90-7	39	Chlorobenzene	**3.3**	µg/L	EPA 8260	0.23	1.0	3	04/12/2012
50-02	5002-MW05R	156-59-2	78	cis-1,2-Dichloroethene	**14.3**	µg/L	EPA 8260	0.19	1.0	5	04/12/2012
50-02	5002-MW06	7440-39-3	15	Barium	**103**	µg/L	EPA 6010	5.0	5.0	100	04/11/2012
50-02	5002-MW06	7440-48-4	53	Cobalt	**205**	µg/L	EPA 6010	5.0	5.0	10	04/11/2012
50-02	5002-MW06	7440-66-6	213	Zinc	**90.6**	µg/L	EPA 6010	10.0	10.0	10	04/11/2012
50-02	5002-MW06	75-34-3	75	1,1-Dichloroethane	**6.7**	µg/L	EPA 8260	0.32	1.0	5	04/11/2012
50-02	5002-MW06	95-50-1	69	1,2-Dichlorobenzene	**5.0**	µg/L	EPA 8260	0.30	1.0	5	04/11/2012
50-02	5002-MW06	106-46-7	71	1,4-Dichlorobenzene	**4.3**	µg/L	EPA 8260	0.33	1.0	1	04/11/2012
50-02	5002-MW06	71-43-2	16	Benzene	**2.5**	µg/L	EPA 8260	0.25	1.0	1	04/11/2012
50-02	5002-MW06	156-59-2	78	cis-1,2-Dichloroethene	**8.6**	µg/L	EPA 8260	0.19	1.0	5	04/11/2012
50-02	5002-MW07	7440-39-3	15	Barium	**309**	µg/L	EPA 6010	5.0	5.0	100	04/12/2012
50-02	5002-MW07	106-46-7	71	1,4-Dichlorobenzene	**5.7**	µg/L	EPA 8260	0.33	1.0	1	04/12/2012
50-02	5002-MW07	71-43-2	16	Benzene	**1.4**	µg/L	EPA 8260	0.25	1.0	1	04/12/2012
50-02	5002-MW07	108-90-7	39	Chlorobenzene	**5.9**	µg/L	EPA 8260	0.23	1.0	3	04/12/2012
50-02	5002-MW07	156-59-2	78	cis-1,2-Dichloroethene	**10.5**	µg/L	EPA 8260	0.19	1.0	5	04/12/2012

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.
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 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]).
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 Eff January 1, 2010).
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).

Table 4
Water Quality Standards Exceedances Notification
Jackson County Municipal Solid Waste Landfill, Jackson County, North Carolina

FACILITY PERMIT	WELL ID	CAS Number	SWS ID	PARAMETER	RESULT	UNITS	QUALIFIER	METHOD	MDL	MRL	SWSL	GROUNDWATER QUALITY STANDARD	COLLECT DATE	CAUSE AND SIGNIFICANCE
50-02	5002-MW01	7440-48-4	53	Cobalt	**113**	µg/L		EPA 6010	5.0	5.0	10	1	04/11/2012	Possibly naturally occurring. Turbidity of sample 22.22 NTU.
50-02	5002-MW01	7440-28-0	194	Thallium	**0.55**	µg/L	J	EPA 200.8	0.05	0.10	5.5	0.2	04/11/2012	
50-02	5002-MW01	75-34-3	75	1,1-Dichloroethane	**6.1**	µg/L		EPA 8260	0.32	1.0	5	6	04/11/2012	Anthropogenic.
50-02	5002-MW01	106-46-7	71	1,4-Dichlorobenzene	**10.9**	µg/L		EPA 8260	0.33	1.0	1	6	04/11/2012	
50-02	5002-MW01	71-43-2	16	Benzene	**2.8**	µg/L		EPA 8260	0.25	1.0	1	1	04/11/2012	
50-02	5002-MW01	127-18-4	192	Tetrachloroethene	**0.78**	µg/L	J	EPA 8260	0.46	1.0	1	0.7	04/11/2012	
50-02	5002-MW01	SW320	320	pH	**5.80**	SU					NE	6.5 - 8.5	04/11/2012	Consistent with historic measurements.
50-02	5002-MW02	7440-48-4	53	Cobalt	**7.9**	µg/L	J	EPA 6010	5.0	5.0	10	1	04/12/2012	Possibly naturally occurring. Turbidity of sample 7.60 NTU.
50-02	5002-MW02	SW320	320	pH	**6.28**	SU					NE	6.5 - 8.5	04/12/2012	Consistent with historic measurements.
50-02	5002-MW03	7440-48-4	53	Cobalt	**40.1**	µg/L		EPA 6010	5.0	5.0	10	1	04/11/2012	Possibly naturally occurring. Turbidity of sample 29.52 NTU.
50-02	5002-MW03	SW320	320	pH	**5.58**	SU					NE	6.5 - 8.5	04/11/2012	Consistent with historic measurements.
50-02	5002-MW04	75-01-4	211	Vinyl chloride	**0.69**	µg/L	J	EPA 8260	0.62	1.0	1	0.03	04/12/2012	Anthropogenic.
50-02	5002-MW04	SW320	320	pH	**5.66**	SU					NE	6.5 - 8.5	04/12/2012	Consistent with historic measurements.
50-02	5002-MW05R	7440-43-9	34	Cadmium	**2.5**	µg/L		EPA 6010	1.0	1.0	1	2	04/12/2012	Possibly naturally occurring. Turbidity of sample 850.8 NTU.
50-02	5002-MW05R	7440-47-3	51	Chromium	**64.5**	µg/L		EPA 6010	5.0	5.0	10	10	04/12/2012	
50-02	5002-MW05R	7440-48-4	53	Cobalt	**73.0**	µg/L		EPA 6010	5.0	5.0	10	1	04/12/2012	
50-02	5002-MW05R	7439-92-1	131	Lead	**22.1**	µg/L		EPA 6010	5.0	5.0	10	15	04/12/2012	
50-02	5002-MW05R	7440-28-0	194	Thallium	**1.4**	µg/L	J	EPA 200.8	0.25	0.50	5.5	0.2	04/12/2012	
50-02	5002-MW05R	7440-62-2	209	Vanadium	**76.1**	µg/L		EPA 6010	5.0	5.0	25	0.3	04/12/2012	
50-02	5002-MW05R	71-43-2	16	Benzene	**1.3**	µg/L		EPA 8260	0.25	1.0	1	1	04/12/2012	Anthropogenic.
50-02	5002-MW05R	75-01-4	211	Vinyl chloride	**0.82**	µg/L	J	EPA 8260	0.62	1.0	1	0.03	04/12/2012	
50-02	5002-MW06	7440-48-4	53	Cobalt	**205**	µg/L		EPA 6010	5.0	5.0	10	1	04/11/2012	Possibly naturally occurring. Turbidity of sample 52.28 NTU.
50-02	5002-MW06	7440-28-0	194	Thallium	**0.28**	µg/L	J	EPA 200.8	0.05	0.10	5.5	0.2	04/11/2012	
50-02	5002-MW06	75-34-3	75	1,1-Dichloroethane	**6.7**	µg/L		EPA 8260	0.32	1.0	5	6	04/11/2012	Anthropogenic.
50-02	5002-MW06	71-43-2	16	Benzene	**2.5**	µg/L		EPA 8260	0.25	1.0	1	1	04/11/2012	
50-02	5002-MW06	SW320	320	pH	**6.03**	SU					NE	6.5 - 8.5	04/11/2012	Consistent with historic measurements.
50-02	5002-MW07	71-43-2	16	Benzene	**1.4**	µg/L		EPA 8260	0.25	1.0	1	1	04/12/2012	Anthropogenic.
50-02	5002-MW07	75-01-4	211	Vinyl chloride	**0.82**	µg/L	J	EPA 8260	0.62	1.0	1	0.03	04/12/2012	
50-02	5002-MW07	SW320	320	pH	**6.41**	SU					NE	6.5 - 8.5	04/12/2012	Consistent with historic measurements.

Table 4
Water Quality Standards Exceedances Notification
Jackson County Municipal Solid Waste Landfill, Jackson County, North Carolina

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 and Standard Units (SU) for pH.
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. "GROUNDWATER 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. **Bold** numbers indicate a detection. Grayed cells indicate result in exceedance of the 2L, IMAC (groundwater) or greater than or equal to the GWPS (if no 2L or IMAC exist).
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 Eff January 1, 2010).
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).

Table 5
Well Construction Details and Corresponding Elevations
Jackson County Municipal Solid Waste Landfill, Jackson County, North Carolina

Facility Permit	Well ID	Date Drilled	Ground Surface Elevation	TOC Elevation	Stick Up	Total Well Depth	Depth To Water	Groundwater Elevation	Approx. Depth to Bedrock	Approx. Top of Bedrock Elevation	Depth to Top of Screened Interval	Depth to Bottom of Screened Interval	Top Elevation of Screened Interval	Elevation of Bottom of Screened Interval	Geology of Screened Interval	Source of Well Construction Information
		(mm/dd/yyyy)	(feet)	(feet)	(feet above gs)	(feet bgs)	(feet below TOC)	(feet)	(feet bgs)	(feet)	(feet bgs)	(feet bgs)	(feet)	(feet)		
50-02	MW-01	04/23/1992	2,169.40	2,171.42	2.0	110.5	102.89	2,068.53	83.0	2,086.40	95.0	110.0	2,074.40	2,059.40	bedrock	S&ME, Inc.
50-02	MW-02	04/22/1992	2,013.15	2,015.38	2.3	63.0	26.48	1,988.90	13.0	2,000.15	45.0	60.0	1,968.15	1,953.15	bedrock	S&ME, Inc.
50-02	MW-03	04/21/1992	2,044.16	2,045.53	1.3	65.5	47.42	1,998.11	57.0	1,987.16	48.5	63.5	1,995.66	1,980.66	partially weathered	S&ME, Inc.
50-02	MW-04	04/21/1992	1,978.68	1,980.77	2.0	43.0	26.61	1,954.16	NA	NA	25.0	40.0	1,953.68	1,938.68	saprolite	S&ME, Inc.
50-02	MW-05R	01/26/2012	2,027.98	2,030.95	2.8	54.0	49.96	1,980.99	NA	NA	44.0	54.0	1,983.98	1,973.98	saprolite	Altamont Environmental, Inc.
50-02	MW-06	03/23/2004	2,136.58	2,139.57	3.0	94.0	87.61	2,051.96	47.6	2,088.98	84.6	94.6	2,051.98	2,041.98	bedrock	Altamont Environmental, Inc.
50-02	MW-07	07/30/2010	1,978.71	1,981.29	2.6	95.0	32.29	1,949.00	44.0	1,935.00	70.0	95.0	1,908.71	1,883.71	bedrock	

Notes:

1. Elevations associated with wells MW-01, MW-02, MW-03, MW-04, and MW-06 are measured relative to mean sea level (msl) and are based on surveying completed by Davenport & Associates, Inc..
2. Elevations associated with wells MW-05R and MW-07 are measured relative to horizontal North American Datum (NAD) 83 and are based on surveying completed by Wes Cole Land Surveying, P.A..
3. "TOC" means Top of Casing.
4. "bgs" means below ground surface.
5. "NA" means Not Applicable.
6. MW-01 through MW-04 Depth to Bedrock and Screened Interval taken from S&ME boring logs completed April 21, 22, and 23, 1992.
7. MW-06 Depth to Bedrock and Screened Interval taken from Altamont boring log completed March 23, 2004.
8. MW-07 Depth to Bedrock and Screened Interval taken from Altamont boring log completed July 30, 2010.
9. MW-05R Screened Interval taken from Altamont boring log completed January 26, 2012.
10. Depth to water measured on April 11 and 12, 2012.

APPENDICES

APPENDIX A
Well 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: Jackson Co. Landfill GW
PROJECT NUMBER: 2040.0302
LOCATION: Hillsboro, NC
DATE: 4/11/12
SAMPLING PERSONNEL: A. Moore + P. Brooks
WEATHER: ~~50's~~ clear 60's

Well ID: MW-01
Screen Interval: 95 to 110' bgs
Depth to Water: 102.89' toc
Stickup: 2.0
Depth of Pump Intake: 107' toc
Drawdown Set: 103.19 toc

Arrive at Well: 1208
Start Time: 1225
Sample Time: 1246
Finish Sample Time: 1322
Leave Well: 1333

COMMENTS: ~~bad~~ gaseous odor from well; well recharges quickly

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) *report to 0.1 S.U.*	ORP (mV)	Turbidity (NTU)
1228	103.19	16.34	133	6.38	5.94	-58.9	37.92
1231	103.19	15.74	132	3.19	5.87	-86.0	22.89
1234	103.19	15.39	133	1.74	5.88	-96.0	42.81
1237	103.19	15.31	133	1.52	5.87	-107.8	25.92
1240	103.19	15.25	134	1.34	5.84	-107.6	22.59
1243	103.19	15.19	135	1.23	5.83	-109.3	19.95
1246	105.19	15.13	136	1.19	5.80	-111.1	22.22

Time between recharge during sample collection: 2 sec @ 3CPM

Sampling Personnel Signature: [signature] **Date:** 4/11/12

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

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Low-Flow Sampling Log

PROJECT NAME: Jackson Co. LF GW Sampling PROJECT NUMBER: 2040.0302
LOCATION: Dillsboro, NC DATE: 4/12/12
SAMPLING PERSONNEL: P Brooks WEATHER: 60's clear

Well ID:	MW-02		Arrive at Well:	1250
Screen Interval:	45-60'	bgs	Start Time:	1301
Depth to Water:	26.48	toc	Sample Time:	1330
Stickup:	2.3'		Finish Sample Time:	1447
Depth of Pump Intake:	~~40'~~ 50'	toc	Leave Well:	1520
Drawdown Set:	29.48	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)
1303	26.78	14.61	157	10.10	6.15	-81.3	9.17
1306	27.08	14.11	156	4.64	6.17	-89.5	12.54
1309	27.48	14.03	156	4.39	6.18	-88.0	7.28
1312	28.48	14.13	158	4.37	6.20	-85.8	10.24
1315	28.48	14.43	156	4.33	6.22	-88.4	5.88
1318	29.48	14.80	156	4.21	6.24	-86.6	7.08
1321	29.48	15.36	156	4.24	6.24	-85.3	8.77
1324	29.48	15.40	157	4.26	6.24	-83.4	8.89
1327	29.48	15.61	156	4.31	6.26	-84.3	7.92
1330	29.48	15.72	156	4.30	6.28	-85.5	7.60

Time between recharge during sample collection: 3 minutes

Sampling Personnel Signature: [signature] Date: 4/12/12

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.

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WWW.ALTAMONTENVIRONMENTAL.COM

Low-Flow Sampling Log

PROJECT NAME: Jackson Co. LF GW Sampling
PROJECT NUMBER: 2040.0302
LOCATION: Dillsboro, NC
DATE: 4/11/12
SAMPLING PERSONNEL: A. Moore, P. Brooks
WEATHER: 60's clear

Well ID:	MW-03	Arrive at Well:	1359
Screen Interval:	48.5 - 63.5 bgs	Start Time:	1412
Depth to Water:	47.42 toc	Sample Time:	1437
Stickup:	1.0 ft.	Finish Sample Time:	1515
Depth of Pump Intake:	60.5 toc	Leave Well:	1537
Drawdown Set:	47.72 toc		

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)
1413	47.72	16.73	239	7.60	5.57	-81.1	13.71
1416	47.72	15.53	241	3.97	5.65	-91.0	17.28
1419	47.72	15.16	243	2.34	5.63	-95.4	38.00
1422	47.72	14.98	237	1.82	5.60	-97.6	37.40
1425	47.72	14.93	235	1.45	5.58	-98.6	30.44
1428	47.72	14.97	234	1.24	5.59	-102.1	26.34
1431	47.72	14.90	234	1.08	5.59	-108.4	28.23
1434	47.72	14.87	234	1.05	5.58	-107.1	30.16
1437	47.72	14.85	235	0.99	5.58	-109.3	29.52

Time between recharge during sample collection: 8sec @ 3CPM

Sampling Personnel Signature: [signature] **Date:** 4/11/12

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: Jackson Co. Landfill
PROJECT NUMBER: 2040.0302
LOCATION: Dillsboro, NC
DATE: 4/12/12
SAMPLING PERSONNEL: P Brooks
WEATHER: 50's clear

Well ID: MW-04
Screen Interval: 27 to 43' bgs
Depth to Water: 26.61 toc
Stickup: 2.0
Depth of Pump Intake: ~~26.91~~ 37' toc
Drawdown Set: 26.91 toc

Arrive at Well: 930
Start Time: 943
Sample Time: 1009
Finish Sample Time: 1045
Leave Well: 1050

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)
945	26.91	12.71	567	6.00	5.54	-10.2	8.16
948	26.91	13.08	573	3.87	5.66	-26.1	6.42
951	26.91	13.36	569	2.37	5.75	-34.7	3.13
954	26.91	13.43	571	1.83	5.80	-39.8	2.37
957	26.91	13.44	573	1.66	5.79	-36.0	0.00
1000	26.91	13.49	579	1.45	5.68	-17.9	0.00
1003	26.91	13.52	581	1.28	5.67	-3.5	0.00
1006	26.91	13.59	584	1.17	5.65	4.2	0.00
1009	26.91	13.62	585	1.09	5.66	6.8	0.00

Time between recharge during sample collection: 3 sec @ 3CPM

Sampling Personnel Signature: [signature] **Date:** 4/12/12

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

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Low-Flow Sampling Log

PROJECT NAME: Jackson Co. EGW Sampling
PROJECT NUMBER: 2040
LOCATION: Dillsboro LF
DATE: 4/11/12
SAMPLING PERSONNEL: A. Moore, P. Brooks
WEATHER: clear 50's

Well ID: MW-05R
Screen Interval: 46.8 - 56.8 bgs
Depth to Water: 49.96 toc
Stickup: 3.0'
Depth of Pump Intake: toc
Drawdown Set: toc

Arrive at Well:
Start Time:
Sample Time: 1530 - 4/12/12
Finish Sample Time: 1552
Leave Well: 1555 4/12/12
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)
bailed dry 4/11/12	0 gallon purged		15.86	707	3.62	6.57	-157.9	19.74
	3/4 gallon purged dry							
4/12/12	1552 bailed dry (got all samples)	49.81	17.92	854	3.50	6.89	-130.9	850.8

Time between recharge during sample collection: —

Sampling Personnel Signature: [signature] Date: 4/12/12

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

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Low-Flow Sampling Log

PROJECT NAME: Jackson Co. LF GW Sampling
PROJECT NUMBER: 2040
LOCATION: Dillsboro LF
DATE: 4/11/12
SAMPLING PERSONNEL: A. Moore, P. Brooks
WEATHER: 50's clear

Well ID:	MW-06	Arrive at Well:	1020
Screen Interval:	84.6 to 94.6 bgs	Start Time:	1033
Depth to Water:	87.61 toc	Sample Time:	1103
Stickup:	3.0	Finish Sample Time:	1152
Depth of Pump Intake:	92.6 toc	Leave Well:	1203
Drawdown Set:	88.61 toc		

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)
~~1040~~ 1042	88.61	14.41	209	7.45	6.71	-66.6	8.60
1045	88.61	14.42	207	3.08	6.37	-70.9	3.42
1048	88.61	14.98	205	2.67	6.18	-61.5	22.92
1051	88.61	14.76	206	2.37	6.23	-80.1	15.07
1054	88.61	14.56	205	2.42	6.16	-88.5	21.88
1057	88.61	14.52	205	2.33	6.12	-97.4	63.21
1100	88.61	14.47	204	2.23	6.05	-105.4	58.27
1103	88.61	14.29	204	2.19	6.03	-108.4	52.28

Time between recharge during sample collection: 1 Min 10 Sec @ 3CPM

Sampling Personnel Signature: [signature] **Date:** 4/11/12

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
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Samples are analyzed immediately upon collection.

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

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Low-Flow Sampling Log

PROJECT NAME: Jackson Co. LF GW Sampling
PROJECT NUMBER: 2040.0302
LOCATION: Dillsboro, NC
DATE: 4/12/12
SAMPLING PERSONNEL: PBrooks
WEATHER: 60s clear

Well ID:	MW-07		Arrive at Well:	1100
Screen Interval:	70 to 95	bgs	Start Time:	1115
Depth to Water:	32.29	toc	Sample Time:	1141
Stickup:	2.7'		Finish Sample Time:	1215
Depth of Pump Intake:	~~38~~, 47'	toc	Leave Well:	1230
Drawdown Set:	33.29	toc		

COMMENTS: Well recharges quickly

Time	DTW (feet)	Temp (°C)	Specific Cond. (µS)	DO (mg/L)	pH (S.U.) *report to 0.1 S.U.*	ORP (mV)	Turbidity (NTU)
	~~32.59~~						
1120	33.29	14.54	432	8.32	6.88	-202.1	15.46
1123	33.29	14.48	449	2.06	6.96	-201.0	11.23
1126	33.29	14.44	497	1.08	6.88	-196.1	19.55
1129	33.29	14.51	550	0.86	6.77	-188.7	12.76
1132	33.29	14.48	590	0.80	6.58	-180.7	4.19
1135	33.29	14.43	599	0.78	6.52	-176.4	7.08
1138	33.29	14.49	601	0.74	6.50	-173.5	6.79
1141	33.29	14.44	604	0.72	6.41	-164.0	4.74
~~1144~~							

Time between recharge during sample collection: 2sec @ 3 CPM

Sampling Personnel Signature: [signature] **Date:** 4/12/12

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

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Surface Water Sampling Log

PROJECT NAME: Jackson Co. LF (Dillsboro, NC) DATE: 4/12/12
PROJECT NUMBER: 2040.0302 WEATHER: 60s clear
SAMPLING PERSONNEL: P Brooks

SAMPLE NAME: SW-01

COMMENTS: taken from upstream of landfill on river bank as indicated on map

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
1520	11.72	27	4.36	6.96	-72.0	9.73	

SAMPLING CONTAINER	NUMBER OF CONTAINERS	REQUESTED ANALYSIS
500 mL PLASTIC		
250 mL PLASTIC	1	Metals (6010)
125 mL PLASTIC		
40 mL GLASS	3	App. II VOCs
1 L GLASS		
OTHER		

VEGETATION: ok ACCESS: ok

Sampling Personnel Signature: Date: 4/12/12

Notes: °C = degrees Celsius
µS = 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.

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Surface Water Sampling Log

PROJECT NAME: Jackson Co. LF GW Sampling
DATE: 4/12/12
PROJECT NUMBER: 2040.0302
WEATHER: 60's clear
SAMPLING PERSONNEL: P. Brooks

SAMPLE NAME: SW-02

COMMENTS: taken from downstream of landfill as indicated on map

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
1450	11.58	30	5.03	6.79	-61.0	7.33	

SAMPLING CONTAINER	NUMBER OF CONTAINERS	REQUESTED ANALYSIS
500 mL PLASTIC		
250 mL PLASTIC	1	Metals (6010)
125 mL PLASTIC	~~1~~	~~Metals (6010)~~
40 mL GLASS	3	App. II VOCs
1 L GLASS		
OTHER		

VEGETATION: dc ACCESS: dc

Sampling Personnel Signature: Date: 4/12/12

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
Samples are analyzed immediately upon collection.

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Equipment Documentation & Instrument Calibration Data Sheet

Project Name: Jackson Co. GW Sampling
Project Number: 2040
Project Location: Dillsboro LF

Calibration Documentation
Person Conducting Calibration: P. Brooks
Date of Calibration: 4/11/12
Date of Field Measurements: 4/11/12

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	4/11/12
Other			

Micro TPW Turbidity Meter

Calibration Standards Exp Date	Instrument Serial #	Instrument Reading		
		0.02 NTU	10.0 NTU	1000 NTU
	200601045	Initial: 0.00	Initial: 12.41	Initial: 1068
		Cal: 0.02	Cal: 10.0	Cal: 1000
		Time: 827	Time: 826	Time: 825

YSI 556 Multiparameter Meter

Instrument Serial Number	07D100979						
Instrument Readings							Calibration Expiration Date
Dissolved Oxygen	Initial: 6.29	Cal: 8.26	mmHg: 704.9	Time: 829			NA
QC*	AM Time:	Meas:	Mid Day Time:	Check:	PM Time:	Check:	NA
pH 7 S.U. *report to 0.1 S.U.*	Initial: 7.40	pHmV: 7.00	Cal: 7.00	pHmV:	Time: 805		3/13
pH 4 S.U. *report to 0.1 S.U.*	Initial: 3.98	pHmV: 4.	Cal: 4.01	pHmV:	Time: 811		8/13
pH 10 S.U. *report to 0.1 S.U.*	Initial: 9.46	pHmV:	Cal: 9.96	pHmV:	Time: 819		11/12
QC* pH 7 S.U. *report to 0.1 S.U.*	AM Time: 836	Meas: 7.06	Mid Day Time:	Check:	PM Time:	Check:	
Spec. Cond. 1413/447/84/23 mS**	Initial: 1401	Cal: 1413	Time: 755				9/12
QC* 84 mS	AM Time: 835	Meas: 95	Mid Day Time:	Check:	PM Time:	Check:	
ORP 200 mV	Initial: 197.5	Cal: 200.0	Time: 832				8/16

Comments:

Signature: [signature] Date: 4/11/12

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 447, 84, or 23 mS which is closest to historical readings from the project location.

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WWW.ALTAMONTENVIRONMENTAL.COM

Equipment Documentation & Instrument Calibration Data Sheet

Project Name: Jackson Co. LF GW Sampling
Project Number: 2040.0502
Project Location: Dillsboro, NC

Calibration Documentation
Person Conducting Calibration: P. Brooks
Date of Calibration: 4/12/12
Date of Field Measurements: 4/12/12

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	4/12/12
Other			

Micro TPW Turbidity Meter

Calibration Standards Exp Date	Instrument Serial #	Instrument Reading		
		0.02 NTU	10.0 NTU	1000 NTU
6/13	200601045	Initial: 0.24	Initial: 10.77	Initial: 956.0
		Cal: 0.02	Cal: 10.0	Cal: 1000
		Time: 758	Time: 745	Time: 745

YSI 556 Multiparameter Meter

Instrument Serial Number	07D100979						
Instrument Readings							Calibration Expiration Date
Dissolved Oxygen	Initial: 12.52	Cal: 9.06	mmHg: 710.1	Time: 757			NA
QC*	AM Time:	Meas:	Mid Day Time:	Check:	PM Time:	Check:	NA
pH 7 S.U. *report to 0.1 S.U.*	Initial: 6.80	pHmV:	Cal: 7.00	pHmV:	Time: 743		3/13
pH 4 S.U. *report to 0.1 S.U.*	Initial: 4.02	pHmV:	Cal: 4.00	pHmV:	Time: 747		3/13
pH 10 S.U. *report to 0.1 S.U.*	Initial: 9.49	pHmV:	Cal: 9.99	pHmV:	Time: 751		11/12
QC* pH 7 S.U. *report to 0.1 S.U.*	AM Time: 817 ~~6.95~~	Meas: 6.98	Mid Day Time:	Check:	PM Time:	Check:	
Spec. Cond. 1413/447/84/23 mS**	Initial: 1186	Cal: 1413	Time: 741				7/12
QC* 84 mS	AM Time: 820	Meas: 91	Mid Day Time:	Check:	PM Time:	Check:	
240 → ORP ~~200 mV~~ 240	Initial: 246.0	Cal: 240	Time: 800				

Comments:
Signature: Date: 4/12/12

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 447, 84, or 23 mS which is closest to historical readings from the project location.

APPENDIX B
Reports of Laboratory Analysis and Chain-of-Custody Documentation

Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

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

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

May 03, 2012

Mr. Joel Lenk
Altamont Environmental
321 Haywood Street
Asheville, NC 28801

RE: Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Dear Mr. Lenk:
Enclosed are the analytical results for sample(s) received by the laboratory on April 13, 2012. 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.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

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

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CERTIFICATIONS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Idaho Certification #: MN00064
Illinois Certification #: 200011
Iowa Certification #: 368
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT CERT0092
Nebraska Certification #: Pace
Nevada Certification #: MN_00064
New Jersey Certification #: MN-002
New Mexico Certification #: Pace
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
North Dakota Certification #: R-036A
Ohio VAP Certification #: CL101
Oklahoma Certification #: D9921
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Washington Certification #: C754
Wisconsin Certification #: 999407970

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
South Carolina Drinking Water Cert. #: 99006003
Virginia Drinking Water Certification #: 00213
Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DHH Drinking Water # LA 100031
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460144

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
Virginia Certification #: 00072
West Virginia Certification #: 356
Virgina/VELAP Certification #: 460147

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92116376001	**MW-01**	Water	04/11/12 12:46	04/13/12 09:20
92116376002	**MW-02**	Water	04/12/12 13:30	04/13/12 09:20
92116376003	**MW-03**	Water	04/11/12 14:37	04/13/12 09:20
92116376004	**MW-04**	Water	04/12/12 10:09	04/13/12 09:20
92116376005	**MW-05R**	Water	04/12/12 15:30	04/13/12 09:20
92116376006	**MW-06**	Water	04/11/12 11:03	04/13/12 09:20
92116376007	**MW-07**	Water	04/12/12 11:41	04/13/12 09:20
92116376008	**SW-01**	Water	04/12/12 15:20	04/13/12 09:20
92116376009	**SW-02**	Water	04/12/12 14:50	04/13/12 09:20
92116376010	**Trip Blank**	Water	04/12/12 14:50	04/13/12 09:20

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SAMPLE ANALYTE COUNT

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92116376001	**MW-01**	RSK 175	SK4	3	PASI-M
		EPA 6010	JDA	14	PASI-A
		EPA 200.8	RJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	51	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		SM 5210B	SDH	1	PASI-A
		EPA 300.0	SAE	1	PASI-A
		EPA 353.2	EWS	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5310B	SAE	1	PASI-A
92116376002	**MW-02**	RSK 175	SK4	3	PASI-M
		EPA 6010	JDA	14	PASI-A
		EPA 200.8	RJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	51	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		SM 5210B	LMD	1	PASI-A
		EPA 300.0	SAE	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5310B	SAE	1	PASI-A
92116376003	**MW-03**	RSK 175	SK4	3	PASI-M
		EPA 6010	JDA	14	PASI-A
		EPA 200.8	RJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	51	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		SM 5210B	SDH	1	PASI-A

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Eden, NC 27288
(336)623-8921

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

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 300.0	SAE	1	PASI-A
		EPA 353.2	EWS	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5310B	SAE	1	PASI-A
92116376004	**MW-04**	RSK 175	SK4	3	PASI-M
		EPA 6010	JDA	14	PASI-A
		EPA 200.8	RJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	51	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		SM 5210B	LMD	1	PASI-A
		EPA 300.0	SAE	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5310B	SAE	1	PASI-A
92116376005	**MW-05R**	RSK 175	SK4	3	PASI-M
		EPA 6010	JDA	14	PASI-A
		EPA 200.8	RJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	51	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		SM 5210B	LMD	1	PASI-A
		EPA 300.0	SAE	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5310B	SAE	1	PASI-A
92116376006	**MW-06**	RSK 175	SK4	3	PASI-M
		EPA 6010	JDA	14	PASI-A
		EPA 200.8	RJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8260	MCK	51	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		SM 5210B	SDH	1	PASI-A
		EPA 300.0	SAE	1	PASI-A
		EPA 353.2	EWS	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5310B	SAE	1	PASI-A
92116376007	**MW-07**	RSK 175	SK4	3	PASI-M
		EPA 6010	JDA	14	PASI-A
		EPA 200.8	RJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	51	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 3500-Fe D#4	SDH	1	PASI-A
		SM 4500-S2D	AES	1	PASI-A
		SM 5210B	LMD	1	PASI-A
		EPA 300.0	SAE	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 4500-CN-E	JDA	1	PASI-A
		SM 5310B	SAE	1	PASI-A
92116376008	**SW-01**	EPA 6010	JDA	14	PASI-A
		EPA 200.8	RJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	51	PASI-C
92116376009	**SW-02**	EPA 6010	JDA	14	PASI-A
		EPA 200.8	RJS	1	PASI-M
		EPA 7470	SHB	1	PASI-A
		EPA 8260	MCK	51	PASI-C
92116376010	**Trip Blank**	EPA 8260	MCK	51	PASI-C

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-01 **Lab ID: 92116376001** Collected: 04/11/12 12:46 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND	ug/L	12.4	6.2	1		04/16/12 10:27	74-84-0	
Ethene	ND	ug/L	12.4	6.2	1		04/16/12 10:27	74-85-1	
Methane	**5360**	ug/L	6.6	0.69	1		04/16/12 10:27	74-82-8	E
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:19	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:19	7440-38-2	
Barium	**88.5**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:19	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	04/19/12 10:30	04/20/12 23:19	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	04/19/12 10:30	04/20/12 23:19	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:19	7440-47-3	
Cobalt	**113**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:19	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:19	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:19	7439-92-1	
Nickel	**9.9**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:19	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	04/19/12 10:30	04/20/12 23:19	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:19	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:19	7440-62-2	
Zinc	**47.4**	ug/L	10.0	10.0	1	04/19/12 10:30	04/20/12 23:19	7440-66-6	
200.8 MET ICPMS	Analytical Method: EPA 200.8								
Thallium	**0.55**	ug/L	0.10	0.050	1	04/18/12 10:00	04/19/12 17:50	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	04/23/12 16:10	04/24/12 11:59	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		04/23/12 04:57	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		04/23/12 04:57	107-13-1	
Benzene	**2.8**	ug/L	1.0	0.25	1		04/23/12 04:57	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/23/12 04:57	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/23/12 04:57	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/23/12 04:57	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/23/12 04:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/23/12 04:57	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		04/23/12 04:57	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/23/12 04:57	56-23-5	
Chlorobenzene	**3.6**	ug/L	1.0	0.23	1		04/23/12 04:57	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/23/12 04:57	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/23/12 04:57	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/23/12 04:57	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		04/23/12 04:57	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/23/12 04:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/23/12 04:57	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/23/12 04:57	74-95-3	

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-01 **Lab ID: 92116376001** Collected: 04/11/12 12:46 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/23/12 04:57	95-50-1	
1,4-Dichlorobenzene	**10.9**	ug/L	1.0	0.33	1		04/23/12 04:57	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		04/23/12 04:57	110-57-6	
1,1-Dichloroethane	**6.1**	ug/L	1.0	0.32	1		04/23/12 04:57	75-34-3	
1,2-Dichloroethane	**0.21J**	ug/L	1.0	0.12	1		04/23/12 04:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/23/12 04:57	75-35-4	
cis-1,2-Dichloroethene	**8.6**	ug/L	1.0	0.19	1		04/23/12 04:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/23/12 04:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/23/12 04:57	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/23/12 04:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/23/12 04:57	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/23/12 04:57	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/23/12 04:57	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		04/23/12 04:57	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/23/12 04:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/23/12 04:57	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/23/12 04:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/23/12 04:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/23/12 04:57	79-34-5	
Tetrachloroethene	**0.78J**	ug/L	1.0	0.46	1		04/23/12 04:57	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/23/12 04:57	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/23/12 04:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/23/12 04:57	79-00-5	
Trichloroethene	**1.1**	ug/L	1.0	0.47	1		04/23/12 04:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/23/12 04:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/23/12 04:57	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/23/12 04:57	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/23/12 04:57	75-01-4	
Xylene (Total)	**1.6J**	ug/L	2.0	0.66	1		04/23/12 04:57	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		04/23/12 04:57	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		04/23/12 04:57	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		04/23/12 04:57	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		04/23/12 04:57	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**85.8**	mg/L	5.0	5.0	1		04/20/12 12:50		
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	**2.8**	mg/L	0.50	0.50	1		04/24/12 14:22		N2
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		04/17/12 11:30	18496-25-8	

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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-01 **Lab ID: 92116376001** Collected: 04/11/12 12:46 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**8.3**	mg/L	2.0	2.0	1	04/13/12 13:30	04/18/12 09:33		H1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	ND	mg/L	5.0	5.0	1		04/24/12 13:53	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.20	0.20	1		04/13/12 13:40		H1
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	5.0	5.0	1		04/24/12 10:45	16887-00-6	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/L	0.0050	0.0050	1		04/24/12 15:21	57-12-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**4.6**	mg/L	1.0	1.0	1		04/23/12 10:44	7440-44-0	

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Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-02 **Lab ID: 92116376002** Collected: 04/12/12 13:30 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND	ug/L	12.4	6.2	1		04/16/12 10:48	74-84-0	
Ethene	ND	ug/L	12.4	6.2	1		04/16/12 10:48	74-85-1	
Methane	**2.5J**	ug/L	6.6	0.69	1		04/16/12 10:48	74-82-8	
6010 ICP Groundwater	Analytical Method: EPA 6010	Preparation Method: EPA 3010							
Antimony	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:23	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:23	7440-38-2	
Barium	**41.1**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:23	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	04/19/12 10:30	04/20/12 23:23	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	04/19/12 10:30	04/20/12 23:23	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:23	7440-47-3	
Cobalt	**7.9**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:23	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:23	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:23	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:23	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	04/19/12 10:30	04/20/12 23:23	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:23	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:23	7440-62-2	
Zinc	**66.9**	ug/L	10.0	10.0	1	04/19/12 10:30	04/20/12 23:23	7440-66-6	
200.8 MET ICPMS	Analytical Method: EPA 200.8								
Thallium	**0.14**	ug/L	0.10	0.050	1	04/18/12 10:00	04/19/12 17:54	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470	Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	0.10	1	04/23/12 16:10	04/24/12 12:02	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		04/23/12 05:14	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		04/23/12 05:14	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		04/23/12 05:14	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/23/12 05:14	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/23/12 05:14	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/23/12 05:14	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/23/12 05:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/23/12 05:14	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		04/23/12 05:14	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/23/12 05:14	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		04/23/12 05:14	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/23/12 05:14	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/23/12 05:14	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/23/12 05:14	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		04/23/12 05:14	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/23/12 05:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/23/12 05:14	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/23/12 05:14	74-95-3	

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205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

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

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-02 **Lab ID: 92116376002** Collected: 04/12/12 13:30 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/23/12 05:14	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		04/23/12 05:14	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		04/23/12 05:14	110-57-6	
1,1-Dichloroethane	**0.45J**	ug/L	1.0	0.32	1		04/23/12 05:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/23/12 05:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/23/12 05:14	75-35-4	
cis-1,2-Dichloroethene	**0.44J**	ug/L	1.0	0.19	1		04/23/12 05:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/23/12 05:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/23/12 05:14	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/23/12 05:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/23/12 05:14	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/23/12 05:14	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/23/12 05:14	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		04/23/12 05:14	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/23/12 05:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/23/12 05:14	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/23/12 05:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/23/12 05:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/23/12 05:14	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/23/12 05:14	127-18-4	
Toluene	**0.27J**	ug/L	1.0	0.26	1		04/23/12 05:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/23/12 05:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/23/12 05:14	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/23/12 05:14	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/23/12 05:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/23/12 05:14	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/23/12 05:14	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/23/12 05:14	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		04/23/12 05:14	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		04/23/12 05:14	460-00-4	
Dibromofluoromethane (S)	98	%	70-130		1		04/23/12 05:14	1868-53-7	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		04/23/12 05:14	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/23/12 05:14	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**24.5**	mg/L	5.0	5.0	1		04/24/12 10:45		
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	ND	mg/L	0.50	0.50	1		04/24/12 14:27		N2
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		04/17/12 11:30	18496-25-8	

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-02 **Lab ID: 92116376002** Collected: 04/12/12 13:30 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	ND	mg/L	2.0	2.0	1	04/13/12 20:55	04/18/12 17:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**6.6**	mg/L	5.0	5.0	1		04/24/12 14:34	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**0.25**	mg/L	0.20	0.20	1		04/13/12 21:38		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**26.2**	mg/L	5.0	5.0	1		04/24/12 10:45	16887-00-6	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/L	0.0050	0.0050	1		04/24/12 15:56	57-12-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**1.7**	mg/L	1.0	1.0	1		04/23/12 11:01	7440-44-0	

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Eden, NC 27288
(336)623-8921

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

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-03 **Lab ID: 92116376003** Collected: 04/11/12 14:37 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND	ug/L	12.4	6.2	1		04/16/12 10:59	74-84-0	
Ethene	ND	ug/L	12.4	6.2	1		04/16/12 10:59	74-85-1	
Methane	**21.8**	ug/L	6.6	0.69	1		04/16/12 10:59	74-82-8	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:26	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:26	7440-38-2	
Barium	**141**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:26	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	04/19/12 10:30	04/20/12 23:26	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	04/19/12 10:30	04/20/12 23:26	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:26	7440-47-3	
Cobalt	**40.1**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:26	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:26	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:26	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:26	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	04/19/12 10:30	04/20/12 23:26	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:26	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:26	7440-62-2	
Zinc	**72.7**	ug/L	10.0	10.0	1	04/19/12 10:30	04/20/12 23:26	7440-66-6	
200.8 MET ICPMS	Analytical Method: EPA 200.8								
Thallium	**0.15**	ug/L	0.10	0.050	1	04/18/12 10:00	04/19/12 17:59	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	04/23/12 16:10	04/24/12 12:10	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		04/23/12 05:31	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		04/23/12 05:31	107-13-1	
Benzene	**0.58J**	ug/L	1.0	0.25	1		04/23/12 05:31	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/23/12 05:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/23/12 05:31	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/23/12 05:31	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/23/12 05:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/23/12 05:31	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		04/23/12 05:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/23/12 05:31	56-23-5	
Chlorobenzene	**3.7**	ug/L	1.0	0.23	1		04/23/12 05:31	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/23/12 05:31	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/23/12 05:31	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/23/12 05:31	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		04/23/12 05:31	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/23/12 05:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/23/12 05:31	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/23/12 05:31	74-95-3	

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(336)623-8921

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

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-03 **Lab ID: 92116376003** Collected: 04/11/12 14:37 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/23/12 05:31	95-50-1	
1,4-Dichlorobenzene	**2.5**	ug/L	1.0	0.33	1		04/23/12 05:31	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		04/23/12 05:31	110-57-6	
1,1-Dichloroethane	**0.44J**	ug/L	1.0	0.32	1		04/23/12 05:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/23/12 05:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/23/12 05:31	75-35-4	
cis-1,2-Dichloroethene	**0.81J**	ug/L	1.0	0.19	1		04/23/12 05:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/23/12 05:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/23/12 05:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/23/12 05:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/23/12 05:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/23/12 05:31	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/23/12 05:31	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		04/23/12 05:31	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/23/12 05:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/23/12 05:31	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/23/12 05:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/23/12 05:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/23/12 05:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/23/12 05:31	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/23/12 05:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/23/12 05:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/23/12 05:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/23/12 05:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/23/12 05:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/23/12 05:31	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/23/12 05:31	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/23/12 05:31	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		04/23/12 05:31	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		04/23/12 05:31	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		04/23/12 05:31	1868-53-7	
1,2-Dichloroethane-d4 (S)	105	%	70-130		1		04/23/12 05:31	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		04/23/12 05:31	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**68.9**	mg/L	5.0	5.0	1		04/20/12 12:50		
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	ND	mg/L	0.50	0.50	1		04/24/12 14:22		N2
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		04/17/12 11:30	18496-25-8	

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Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-03 **Lab ID: 92116376003** Collected: 04/11/12 14:37 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	ND	mg/L	2.0	2.0	1	04/13/12 13:30	04/18/12 09:33		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	ND	mg/L	5.0	5.0	1		04/24/12 14:48	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**3.2**	mg/L	0.20	0.20	1		04/13/12 13:40		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**37.0**	mg/L	5.0	5.0	1		04/24/12 10:46	16887-00-6	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/L	0.0050	0.0050	1		04/24/12 15:25	57-12-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**5.5**	mg/L	1.0	1.0	1		04/24/12 18:36	7440-44-0	

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ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-04 **Lab ID: 92116376004** Collected: 04/12/12 10:09 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND	ug/L	12.4	6.2	1		04/16/12 11:10	74-84-0	
Ethene	ND	ug/L	12.4	6.2	1		04/16/12 11:10	74-85-1	
Methane	**544**	ug/L	6.6	0.69	1		04/16/12 11:10	74-82-8	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:29	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:29	7440-38-2	
Barium	**168**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:29	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	04/19/12 10:30	04/20/12 23:29	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	04/19/12 10:30	04/20/12 23:29	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:29	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:29	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:29	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:29	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:29	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	04/19/12 10:30	04/20/12 23:29	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:29	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:29	7440-62-2	
Zinc	**46.1**	ug/L	10.0	10.0	1	04/19/12 10:30	04/20/12 23:29	7440-66-6	
200.8 MET ICPMS	Analytical Method: EPA 200.8								
Thallium	**0.060J**	ug/L	0.10	0.050	1	04/18/12 10:00	04/19/12 18:04	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	04/23/12 16:10	04/24/12 12:12	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		04/23/12 05:47	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		04/23/12 05:47	107-13-1	
Benzene	**0.64J**	ug/L	1.0	0.25	1		04/23/12 05:47	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/23/12 05:47	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/23/12 05:47	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/23/12 05:47	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/23/12 05:47	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/23/12 05:47	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		04/23/12 05:47	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/23/12 05:47	56-23-5	
Chlorobenzene	**3.0**	ug/L	1.0	0.23	1		04/23/12 05:47	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/23/12 05:47	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/23/12 05:47	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/23/12 05:47	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		04/23/12 05:47	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/23/12 05:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/23/12 05:47	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/23/12 05:47	74-95-3	

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205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

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

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-04 **Lab ID: 92116376004** Collected: 04/12/12 10:09 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/23/12 05:47	95-50-1	
1,4-Dichlorobenzene	**4.0**	ug/L	1.0	0.33	1		04/23/12 05:47	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		04/23/12 05:47	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		04/23/12 05:47	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/23/12 05:47	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/23/12 05:47	75-35-4	
cis-1,2-Dichloroethene	**5.0**	ug/L	1.0	0.19	1		04/23/12 05:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/23/12 05:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/23/12 05:47	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/23/12 05:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/23/12 05:47	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/23/12 05:47	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/23/12 05:47	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		04/23/12 05:47	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/23/12 05:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/23/12 05:47	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/23/12 05:47	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/23/12 05:47	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/23/12 05:47	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/23/12 05:47	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/23/12 05:47	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/23/12 05:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/23/12 05:47	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/23/12 05:47	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/23/12 05:47	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/23/12 05:47	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/23/12 05:47	108-05-4	
Vinyl chloride	**0.69J**	ug/L	1.0	0.62	1		04/23/12 05:47	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		04/23/12 05:47	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		04/23/12 05:47	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		04/23/12 05:47	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		04/23/12 05:47	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		04/23/12 05:47	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**70.4**	mg/L	5.0	5.0	1		04/24/12 10:45		
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	ND	mg/L	0.50	0.50	1		04/24/12 14:24		N2
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		04/17/12 11:30	18496-25-8	

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Eden, NC 27288
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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-04 **Lab ID: 92116376004** Collected: 04/12/12 10:09 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	ND	mg/L	2.0	2.0	1	04/13/12 20:55	04/18/12 17:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	ND	mg/L	10.0	10.0	2		04/25/12 09:08	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**7.7**	mg/L	0.20	0.20	1		04/13/12 21:29		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**71.7**	mg/L	25.0	25.0	5		04/24/12 11:23	16887-00-6	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/L	0.0050	0.0050	1		04/24/12 15:57	57-12-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**6.5**	mg/L	1.0	1.0	1		04/24/12 18:55	7440-44-0	

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2225 Riverside Dr.
Asheville, NC 28804
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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-05R **Lab ID: 92116376005** Collected: 04/12/12 15:30 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND	ug/L	12.4	6.2	1		04/16/12 12:47	74-84-0	
Ethene	ND	ug/L	12.4	6.2	1		04/16/12 12:47	74-85-1	
Methane	**850**	ug/L	6.6	0.69	1		04/16/12 12:47	74-82-8	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:33	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:33	7440-38-2	
Barium	**635**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:33	7440-39-3	
Beryllium	**2.0**	ug/L	1.0	1.0	1	04/19/12 10:30	04/20/12 23:33	7440-41-7	
Cadmium	**2.5**	ug/L	1.0	1.0	1	04/19/12 10:30	04/20/12 23:33	7440-43-9	
Chromium	**64.5**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:33	7440-47-3	
Cobalt	**73.0**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:33	7440-48-4	
Copper	**97.4**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:33	7440-50-8	
Lead	**22.1**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:33	7439-92-1	
Nickel	**49.0**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:33	7440-02-0	
Selenium	**12.3**	ug/L	10.0	10.0	1	04/19/12 10:30	04/20/12 23:33	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:33	7440-22-4	
Vanadium	**76.1**	ug/L	5.0	5.0	1	04/19/12 10:30	04/20/12 23:33	7440-62-2	
Zinc	**260**	ug/L	10.0	10.0	1	04/19/12 10:30	04/20/12 23:33	7440-66-6	
200.8 MET ICPMS	Analytical Method: EPA 200.8								
Thallium	**1.4**	ug/L	0.50	0.25	5	04/18/12 10:00	04/20/12 15:04	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	04/23/12 16:10	04/24/12 12:15	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**4.5J**	ug/L	25.0	2.2	1		04/23/12 06:04	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		04/23/12 06:04	107-13-1	
Benzene	**1.3**	ug/L	1.0	0.25	1		04/23/12 06:04	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/23/12 06:04	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/23/12 06:04	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/23/12 06:04	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/23/12 06:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/23/12 06:04	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		04/23/12 06:04	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/23/12 06:04	56-23-5	
Chlorobenzene	**3.3**	ug/L	1.0	0.23	1		04/23/12 06:04	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/23/12 06:04	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/23/12 06:04	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/23/12 06:04	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		04/23/12 06:04	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/23/12 06:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/23/12 06:04	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/23/12 06:04	74-95-3	

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

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-05R **Lab ID: 92116376005** Collected: 04/12/12 15:30 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/23/12 06:04	95-50-1	
1,4-Dichlorobenzene	**2.5**	ug/L	1.0	0.33	1		04/23/12 06:04	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		04/23/12 06:04	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		04/23/12 06:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/23/12 06:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/23/12 06:04	75-35-4	
cis-1,2-Dichloroethene	**14.3**	ug/L	1.0	0.19	1		04/23/12 06:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/23/12 06:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/23/12 06:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/23/12 06:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/23/12 06:04	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/23/12 06:04	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/23/12 06:04	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		04/23/12 06:04	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/23/12 06:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/23/12 06:04	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/23/12 06:04	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/23/12 06:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/23/12 06:04	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/23/12 06:04	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/23/12 06:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/23/12 06:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/23/12 06:04	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/23/12 06:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/23/12 06:04	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/23/12 06:04	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/23/12 06:04	108-05-4	
Vinyl chloride	**0.82J**	ug/L	1.0	0.62	1		04/23/12 06:04	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		04/23/12 06:04	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		04/23/12 06:04	460-00-4	
Dibromofluoromethane (S)	100	%	70-130		1		04/23/12 06:04	1868-53-7	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		04/23/12 06:04	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/23/12 06:04	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**313**	mg/L	5.0	5.0	1		04/24/12 10:45		
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	**1.2**	mg/L	0.50	0.50	1		04/24/12 14:27		N2
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		04/17/12 11:30	18496-25-8	

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Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-05R **Lab ID: 92116376005** Collected: 04/12/12 15:30 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**69.0**	mg/L	2.0	2.0	1	04/13/12 20:55	04/18/12 17:25		B2
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	ND	mg/L	5.0	5.0	1		04/24/12 15:42	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.20	0.20	1		04/13/12 21:41		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**82.3**	mg/L	25.0	25.0	5		04/24/12 11:25	16887-00-6	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/L	0.0050	0.0050	1		04/24/12 15:58	57-12-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**30.6**	mg/L	1.0	1.0	1		04/24/12 19:22	7440-44-0	

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ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-06 **Lab ID: 92116376006** Collected: 04/11/12 11:03 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND	ug/L	12.4	6.2	1		04/16/12 12:58	74-84-0	
Ethene	ND	ug/L	12.4	6.2	1		04/16/12 12:58	74-85-1	
Methane	**313**	ug/L	6.6	0.69	1		04/16/12 12:58	74-82-8	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:30	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:30	7440-38-2	
Barium	**103**	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:30	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	04/20/12 12:30	04/21/12 23:30	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	04/20/12 12:30	04/21/12 23:30	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:30	7440-47-3	
Cobalt	**205**	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:30	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:30	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:30	7439-92-1	
Nickel	**30.6**	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:30	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	04/20/12 12:30	04/21/12 23:30	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:30	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:30	7440-62-2	
Zinc	**90.6**	ug/L	10.0	10.0	1	04/20/12 12:30	04/21/12 23:30	7440-66-6	
200.8 MET ICPMS	Analytical Method: EPA 200.8								
Thallium	**0.28**	ug/L	0.10	0.050	1	04/18/12 10:00	04/19/12 18:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	04/23/12 16:10	04/24/12 12:17	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		04/23/12 06:21	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		04/23/12 06:21	107-13-1	
Benzene	**2.5**	ug/L	1.0	0.25	1		04/23/12 06:21	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/23/12 06:21	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/23/12 06:21	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/23/12 06:21	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/23/12 06:21	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/23/12 06:21	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		04/23/12 06:21	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/23/12 06:21	56-23-5	
Chlorobenzene	**1.9**	ug/L	1.0	0.23	1		04/23/12 06:21	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/23/12 06:21	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/23/12 06:21	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/23/12 06:21	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		04/23/12 06:21	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/23/12 06:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/23/12 06:21	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/23/12 06:21	74-95-3	

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(828)254-7176

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-06 **Lab ID: 92116376006** Collected: 04/11/12 11:03 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichlorobenzene	**5.0**	ug/L	1.0	0.30	1		04/23/12 06:21	95-50-1	
1,4-Dichlorobenzene	**4.3**	ug/L	1.0	0.33	1		04/23/12 06:21	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		04/23/12 06:21	110-57-6	
1,1-Dichloroethane	**6.7**	ug/L	1.0	0.32	1		04/23/12 06:21	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/23/12 06:21	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/23/12 06:21	75-35-4	
cis-1,2-Dichloroethene	**8.6**	ug/L	1.0	0.19	1		04/23/12 06:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/23/12 06:21	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/23/12 06:21	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/23/12 06:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/23/12 06:21	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/23/12 06:21	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/23/12 06:21	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		04/23/12 06:21	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/23/12 06:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/23/12 06:21	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/23/12 06:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/23/12 06:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/23/12 06:21	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/23/12 06:21	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/23/12 06:21	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/23/12 06:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/23/12 06:21	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/23/12 06:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/23/12 06:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/23/12 06:21	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/23/12 06:21	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/23/12 06:21	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		04/23/12 06:21	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		04/23/12 06:21	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		04/23/12 06:21	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		04/23/12 06:21	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		04/23/12 06:21	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**125**	mg/L	5.0	5.0	1		04/20/12 12:50		
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	**13.2**	mg/L	0.50	0.50	1		04/24/12 15:49		N2
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		04/17/12 11:30	18496-25-8	

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(828)254-7176

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-06 **Lab ID: 92116376006** Collected: 04/11/12 11:03 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	ND	mg/L	2.0	2.0	1	04/13/12 13:30	04/18/12 09:33		H1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	ND	mg/L	5.0	5.0	1		04/24/12 15:56	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.20	0.20	1		04/13/12 13:40		H1
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	5.0	5.0	1		04/24/12 10:49	16887-00-6	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/L	0.0050	0.0050	1		04/24/12 15:26	57-12-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**4.6**	mg/L	1.0	1.0	1		04/24/12 19:37	7440-44-0	

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ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-07 **Lab ID: 92116376007** Collected: 04/12/12 11:41 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace	Analytical Method: RSK 175								
Ethane	ND	ug/L	12.4	6.2	1		04/16/12 13:19	74-84-0	
Ethene	ND	ug/L	12.4	6.2	1		04/16/12 13:19	74-85-1	
Methane	**1090**	ug/L	6.6	0.69	1		04/16/12 13:19	74-82-8	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:34	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:34	7440-38-2	
Barium	**309**	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:34	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	04/20/12 12:30	04/21/12 23:34	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	04/20/12 12:30	04/21/12 23:34	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:34	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:34	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:34	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:34	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:34	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	04/20/12 12:30	04/21/12 23:34	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:34	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:34	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	04/20/12 12:30	04/21/12 23:34	7440-66-6	
200.8 MET ICPMS	Analytical Method: EPA 200.8								
Thallium	ND	ug/L	0.10	0.050	1	04/18/12 10:00	04/19/12 18:18	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	04/23/12 16:10	04/24/12 12:20	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		04/23/12 06:37	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		04/23/12 06:37	107-13-1	
Benzene	**1.4**	ug/L	1.0	0.25	1		04/23/12 06:37	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/23/12 06:37	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/23/12 06:37	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/23/12 06:37	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/23/12 06:37	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/23/12 06:37	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		04/23/12 06:37	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/23/12 06:37	56-23-5	
Chlorobenzene	**5.9**	ug/L	1.0	0.23	1		04/23/12 06:37	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/23/12 06:37	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/23/12 06:37	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/23/12 06:37	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		04/23/12 06:37	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/23/12 06:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/23/12 06:37	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/23/12 06:37	74-95-3	

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-07 **Lab ID: 92116376007** Collected: 04/12/12 11:41 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
1,2-Dichlorobenzene	**0.47J**	ug/L	1.0	0.30	1		04/23/12 06:37	95-50-1	
1,4-Dichlorobenzene	**5.7**	ug/L	1.0	0.33	1		04/23/12 06:37	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		04/23/12 06:37	110-57-6	
1,1-Dichloroethane	**0.54J**	ug/L	1.0	0.32	1		04/23/12 06:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/23/12 06:37	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/23/12 06:37	75-35-4	
cis-1,2-Dichloroethene	**10.5**	ug/L	1.0	0.19	1		04/23/12 06:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/23/12 06:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/23/12 06:37	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/23/12 06:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/23/12 06:37	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/23/12 06:37	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/23/12 06:37	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		04/23/12 06:37	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/23/12 06:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/23/12 06:37	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/23/12 06:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/23/12 06:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/23/12 06:37	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/23/12 06:37	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/23/12 06:37	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/23/12 06:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/23/12 06:37	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/23/12 06:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/23/12 06:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/23/12 06:37	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/23/12 06:37	108-05-4	
Vinyl chloride	**0.82J**	ug/L	1.0	0.62	1		04/23/12 06:37	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		04/23/12 06:37	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	105	%	70-130		1		04/23/12 06:37	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		04/23/12 06:37	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		04/23/12 06:37	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/23/12 06:37	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**204**	mg/L	5.0	5.0	1		04/24/12 10:45		
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	ND	mg/L	0.50	0.50	1		04/24/12 14:25		N2
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		04/17/12 11:30	18496-25-8	

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Eden, NC 27288
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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: MW-07 **Lab ID: 92116376007** Collected: 04/12/12 11:41 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	ND	mg/L	2.0	2.0	1	04/13/12 20:55	04/18/12 17:25		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**24.6**	mg/L	5.0	5.0	1		04/24/12 16:09	14808-79-8	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.20	0.20	1		04/13/12 21:31		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**51.4**	mg/L	25.0	25.0	5		04/24/12 11:28	16887-00-6	
4500CNE Cyanide, Total	Analytical Method: SM 4500-CN-E								
Cyanide	ND	mg/L	0.0050	0.0050	1		04/24/12 15:59	57-12-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**5.9**	mg/L	1.0	1.0	1		04/24/12 20:38	7440-44-0	

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Asheville, NC 28804
(828)254-7176

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: SW-01 **Lab ID: 92116376008** Collected: 04/12/12 15:20 Received: 04/13/12 09:20 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	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:38	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:38	7440-38-2	
Barium	**16.1**	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:38	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	04/20/12 12:30	04/21/12 23:38	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	04/20/12 12:30	04/21/12 23:38	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:38	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:38	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:38	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:38	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:38	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	04/20/12 12:30	04/21/12 23:38	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:38	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:38	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	04/20/12 12:30	04/21/12 23:38	7440-66-6	
200.8 MET ICPMS	Analytical Method: EPA 200.8								
Thallium	ND	ug/L	0.10	0.050	1	04/18/12 10:00	04/19/12 18:46	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	04/23/12 16:10	04/24/12 12:23	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		04/23/12 06:54	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		04/23/12 06:54	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		04/23/12 06:54	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/23/12 06:54	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/23/12 06:54	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/23/12 06:54	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/23/12 06:54	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/23/12 06:54	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		04/23/12 06:54	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/23/12 06:54	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		04/23/12 06:54	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/23/12 06:54	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/23/12 06:54	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/23/12 06:54	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		04/23/12 06:54	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/23/12 06:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/23/12 06:54	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/23/12 06:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/23/12 06:54	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		04/23/12 06:54	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		04/23/12 06:54	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		04/23/12 06:54	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/23/12 06:54	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/23/12 06:54	75-35-4	

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Eden, NC 27288
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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: SW-01 **Lab ID: 92116376008** Collected: 04/12/12 15:20 Received: 04/13/12 09:20 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	ND	ug/L	1.0	0.19	1		04/23/12 06:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/23/12 06:54	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/23/12 06:54	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/23/12 06:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/23/12 06:54	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/23/12 06:54	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/23/12 06:54	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		04/23/12 06:54	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/23/12 06:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/23/12 06:54	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/23/12 06:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/23/12 06:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/23/12 06:54	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/23/12 06:54	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/23/12 06:54	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/23/12 06:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/23/12 06:54	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/23/12 06:54	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/23/12 06:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/23/12 06:54	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/23/12 06:54	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/23/12 06:54	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		04/23/12 06:54	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		04/23/12 06:54	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		04/23/12 06:54	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		04/23/12 06:54	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		04/23/12 06:54	2037-26-5	

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Eden, NC 27288
(336)623-8921

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

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: SW-02 **Lab ID: 92116376009** Collected: 04/12/12 14:50 Received: 04/13/12 09:20 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	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:52	7440-36-0	
Arsenic	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:52	7440-38-2	
Barium	**15.7**	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:52	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	04/20/12 12:30	04/21/12 23:52	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	04/20/12 12:30	04/21/12 23:52	7440-43-9	
Chromium	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:52	7440-47-3	
Cobalt	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:52	7440-48-4	
Copper	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:52	7440-50-8	
Lead	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:52	7439-92-1	
Nickel	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:52	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	04/20/12 12:30	04/21/12 23:52	7782-49-2	
Silver	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:52	7440-22-4	
Vanadium	ND	ug/L	5.0	5.0	1	04/20/12 12:30	04/21/12 23:52	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	04/20/12 12:30	04/21/12 23:52	7440-66-6	
200.8 MET ICPMS	Analytical Method: EPA 200.8								
Thallium	ND	ug/L	0.10	0.050	1	04/18/12 10:00	04/19/12 18:50	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.10	1	04/23/12 16:10	04/24/12 12:25	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	25.0	2.2	1		04/23/12 07:11	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		04/23/12 07:11	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		04/23/12 07:11	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/23/12 07:11	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/23/12 07:11	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/23/12 07:11	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/23/12 07:11	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/23/12 07:11	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		04/23/12 07:11	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/23/12 07:11	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		04/23/12 07:11	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/23/12 07:11	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/23/12 07:11	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/23/12 07:11	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		04/23/12 07:11	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/23/12 07:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/23/12 07:11	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/23/12 07:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/23/12 07:11	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		04/23/12 07:11	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		04/23/12 07:11	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		04/23/12 07:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/23/12 07:11	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/23/12 07:11	75-35-4	

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Eden, NC 27288
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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: SW-02 **Lab ID: 92116376009** Collected: 04/12/12 14:50 Received: 04/13/12 09:20 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	ND	ug/L	1.0	0.19	1		04/23/12 07:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/23/12 07:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/23/12 07:11	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/23/12 07:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/23/12 07:11	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/23/12 07:11	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/23/12 07:11	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		04/23/12 07:11	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/23/12 07:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/23/12 07:11	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/23/12 07:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/23/12 07:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/23/12 07:11	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/23/12 07:11	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/23/12 07:11	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/23/12 07:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/23/12 07:11	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/23/12 07:11	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/23/12 07:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/23/12 07:11	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/23/12 07:11	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/23/12 07:11	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		04/23/12 07:11	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		04/23/12 07:11	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		04/23/12 07:11	1868-53-7	
1,2-Dichloroethane-d4 (S)	109	%	70-130		1		04/23/12 07:11	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		04/23/12 07:11	2037-26-5	

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: Trip Blank **Lab ID: 92116376010** Collected: 04/12/12 14:50 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**6.4J**	ug/L	25.0	2.2	1		04/23/12 07:28	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1.9	1		04/23/12 07:28	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		04/23/12 07:28	71-43-2	
Bromochloromethane	ND	ug/L	1.0	0.17	1		04/23/12 07:28	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/23/12 07:28	75-27-4	
Bromoform	ND	ug/L	1.0	0.26	1		04/23/12 07:28	75-25-2	
Bromomethane	ND	ug/L	2.0	0.29	1		04/23/12 07:28	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	0.96	1		04/23/12 07:28	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1.2	1		04/23/12 07:28	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/23/12 07:28	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.23	1		04/23/12 07:28	108-90-7	
Chloroethane	ND	ug/L	1.0	0.54	1		04/23/12 07:28	75-00-3	
Chloroform	ND	ug/L	1.0	0.14	1		04/23/12 07:28	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/23/12 07:28	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	2.5	1		04/23/12 07:28	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.21	1		04/23/12 07:28	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/23/12 07:28	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.21	1		04/23/12 07:28	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.30	1		04/23/12 07:28	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		04/23/12 07:28	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1.0	1		04/23/12 07:28	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	0.32	1		04/23/12 07:28	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/23/12 07:28	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	0.56	1		04/23/12 07:28	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.19	1		04/23/12 07:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.49	1		04/23/12 07:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/23/12 07:28	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/23/12 07:28	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/23/12 07:28	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/23/12 07:28	100-41-4	
2-Hexanone	ND	ug/L	5.0	0.46	1		04/23/12 07:28	591-78-6	
Iodomethane	ND	ug/L	5.0	0.32	1		04/23/12 07:28	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/23/12 07:28	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	0.33	1		04/23/12 07:28	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/23/12 07:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.33	1		04/23/12 07:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.40	1		04/23/12 07:28	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/23/12 07:28	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/23/12 07:28	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/23/12 07:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/23/12 07:28	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/23/12 07:28	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/23/12 07:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/23/12 07:28	96-18-4	
Vinyl acetate	ND	ug/L	2.0	0.35	1		04/23/12 07:28	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/23/12 07:28	75-01-4	

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Eden, NC 27288
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Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Sample: Trip Blank **Lab ID: 92116376010** Collected: 04/12/12 14:50 Received: 04/13/12 09:20 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Xylene (Total)	ND	ug/L	2.0	0.66	1		04/23/12 07:28	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		04/23/12 07:28	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		04/23/12 07:28	1868-53-7	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		04/23/12 07:28	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		04/23/12 07:28	2037-26-5	

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QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: AIR/14684 Analysis Method: RSK 175
QC Batch Method: RSK 175 Analysis Description: RSK 175 AIR HEADSPACE
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

METHOD BLANK: 1174454 Matrix: Water
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethane	ug/L	ND	12.4	04/16/12 08:17	
Ethene	ug/L	ND	12.4	04/16/12 08:17	
Methane	ug/L	ND	6.6	04/16/12 08:17	

LABORATORY CONTROL SAMPLE & LCSD: 1174455 1174456

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Ethane	ug/L	114	122	125	107	110	70-130	3	30	
Ethene	ug/L	106	112	116	106	109	70-130	3	30	
Methane	ug/L	60.7	65.9	66.1	109	109	70-130	.2	30	

SAMPLE DUPLICATE: 1175256

Parameter	Units	92116376006 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethane	ug/L	ND	ND		30	
Ethene	ug/L	ND	ND		30	
Methane	ug/L	313	280	11	30	

SAMPLE DUPLICATE: 1175257

Parameter	Units	92116376001 Result	Dup Result	RPD	Max RPD	Qualifiers
Ethane	ug/L	ND	ND		30	
Ethene	ug/L	ND	ND		30	
Methane	ug/L	5360	5970	11	30	E

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QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: ICPM/31821 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007, 92116376008, 92116376009

METHOD BLANK: 1175075 Matrix: Water
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007, 92116376008, 92116376009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Thallium	ug/L	ND	0.10	04/19/12 16:54	

LABORATORY CONTROL SAMPLE: 1175076

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	100	108	108	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1175077 1175078

Parameter	Units	10188855002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Thallium	ug/L		100	100	123	122	123	122	70-130	.9	20	

MATRIX SPIKE SAMPLE: 1176186

Parameter	Units	10188886001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Thallium	ug/L	ND	100	105	105	70-130	

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QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: MERP/4187 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007, 92116376008, 92116376009

METHOD BLANK: 753618 Matrix: Water
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007, 92116376008, 92116376009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	04/24/12 11:19	

LABORATORY CONTROL SAMPLE: 753619

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.6	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 753620 753621

Parameter	Units	92116463008 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	105	101	75-125	4	25	

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(828)254-7176

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QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: MPRP/10396 — Analysis Method: EPA 6010
QC Batch Method: EPA 3010 — Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005

METHOD BLANK: 751895 — Matrix: Water
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	04/20/12 21:53	
Arsenic	ug/L	ND	5.0	04/20/12 21:53	
Barium	ug/L	ND	5.0	04/20/12 21:53	
Beryllium	ug/L	ND	1.0	04/20/12 21:53	
Cadmium	ug/L	ND	1.0	04/20/12 21:53	
Chromium	ug/L	ND	5.0	04/20/12 21:53	
Cobalt	ug/L	ND	5.0	04/20/12 21:53	
Copper	ug/L	ND	5.0	04/20/12 21:53	
Lead	ug/L	ND	5.0	04/20/12 21:53	
Nickel	ug/L	ND	5.0	04/20/12 21:53	
Selenium	ug/L	ND	10.0	04/20/12 21:53	
Silver	ug/L	ND	5.0	04/20/12 21:53	
Vanadium	ug/L	ND	5.0	04/20/12 21:53	
Zinc	ug/L	ND	10.0	04/20/12 21:53	

LABORATORY CONTROL SAMPLE: 751896

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	493	99	80-120	
Arsenic	ug/L	500	492	98	80-120	
Barium	ug/L	500	488	98	80-120	
Beryllium	ug/L	500	508	102	80-120	
Cadmium	ug/L	500	504	101	80-120	
Chromium	ug/L	500	503	101	80-120	
Cobalt	ug/L	500	497	99	80-120	
Copper	ug/L	500	492	98	80-120	
Lead	ug/L	500	506	101	80-120	
Nickel	ug/L	500	496	99	80-120	
Selenium	ug/L	500	498	100	80-120	
Silver	ug/L	250	248	99	80-120	
Vanadium	ug/L	500	500	100	80-120	
Zinc	ug/L	500	495	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 751897 751898

Parameter	Units	92116463001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	498	502	99	100	75-125	1	25	
Arsenic	ug/L	ND	500	500	508	514	101	103	75-125	1	25	
Barium	ug/L	68.0J	500	500	544	550	95	96	75-125	1	25	

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QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 751897 751898

Parameter	Units	92116463001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	ND	500	500	514	515	103	103	75-125	0	25	
Cadmium	ug/L	ND	500	500	499	502	100	100	75-125	1	25	
Chromium	ug/L	ND	500	500	506	509	101	102	75-125	1	25	
Cobalt	ug/L	ND	500	500	491	494	98	99	75-125	1	25	
Copper	ug/L	ND	500	500	497	503	99	100	75-125	1	25	
Lead	ug/L	ND	500	500	479	484	96	97	75-125	1	25	
Nickel	ug/L	ND	500	500	487	490	97	98	75-125	1	25	
Selenium	ug/L	ND	500	500	507	511	101	102	75-125	1	25	
Silver	ug/L	ND	250	250	250	252	100	101	75-125	1	25	
Vanadium	ug/L	8.1J	500	500	510	515	100	101	75-125	1	25	
Zinc	ug/L	17.2	500	500	516	518	100	100	75-125	0	25	

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(828)254-7176

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9800 Kincey Ave. Suite 100
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QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: MPRP/10408 — Analysis Method: EPA 6010
QC Batch Method: EPA 3010 — Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92116376006, 92116376007, 92116376008, 92116376009

METHOD BLANK: 752436 — Matrix: Water
Associated Lab Samples: 92116376006, 92116376007, 92116376008, 92116376009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	5.0	04/21/12 23:23	
Arsenic	ug/L	ND	5.0	04/21/12 23:23	
Barium	ug/L	ND	5.0	04/21/12 23:23	
Beryllium	ug/L	ND	1.0	04/21/12 23:23	
Cadmium	ug/L	ND	1.0	04/21/12 23:23	
Chromium	ug/L	ND	5.0	04/21/12 23:23	
Cobalt	ug/L	ND	5.0	04/21/12 23:23	
Copper	ug/L	ND	5.0	04/21/12 23:23	
Lead	ug/L	ND	5.0	04/21/12 23:23	
Nickel	ug/L	ND	5.0	04/21/12 23:23	
Selenium	ug/L	ND	10.0	04/21/12 23:23	
Silver	ug/L	ND	5.0	04/21/12 23:23	
Vanadium	ug/L	ND	5.0	04/21/12 23:23	
Zinc	ug/L	ND	10.0	04/21/12 23:23	

LABORATORY CONTROL SAMPLE: 752437

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	488	98	80-120	
Arsenic	ug/L	500	481	96	80-120	
Barium	ug/L	500	493	99	80-120	
Beryllium	ug/L	500	496	99	80-120	
Cadmium	ug/L	500	487	97	80-120	
Chromium	ug/L	500	482	96	80-120	
Cobalt	ug/L	500	489	98	80-120	
Copper	ug/L	500	498	100	80-120	
Lead	ug/L	500	489	98	80-120	
Nickel	ug/L	500	485	97	80-120	
Selenium	ug/L	500	490	98	80-120	
Silver	ug/L	250	244	98	80-120	
Vanadium	ug/L	500	497	99	80-120	
Zinc	ug/L	500	473	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 752438 752439

Parameter	Units	92116392005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	473	466	95	93	75-125	1	25	
Arsenic	ug/L	ND	500	500	479	472	96	94	75-125	1	25	
Barium	ug/L	37.6	500	500	524	518	97	96	75-125	1	25	

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QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 752438 752439

Parameter	Units	92116392005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Beryllium	ug/L	ND	500	500	488	485	98	97	75-125	1	25	
Cadmium	ug/L	ND	500	500	477	470	95	94	75-125	1	25	
Chromium	ug/L	ND	500	500	481	473	96	94	75-125	2	25	
Cobalt	ug/L	ND	500	500	484	476	96	95	75-125	2	25	
Copper	ug/L	ND	500	500	501	493	99	98	75-125	2	25	
Lead	ug/L	ND	500	500	474	468	94	93	75-125	1	25	
Nickel	ug/L	ND	500	500	479	471	95	94	75-125	2	25	
Selenium	ug/L	ND	500	500	481	477	95	95	75-125	1	25	
Silver	ug/L	ND	250	250	243	240	97	96	75-125	1	25	
Vanadium	ug/L	7.3	500	500	500	494	99	97	75-125	1	25	
Zinc	ug/L	ND	500	500	474	468	93	92	75-125	1	25	

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: MSV/18878 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007, 92116376008, 92116376009, 92116376010

METHOD BLANK: 753551 Matrix: Water
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007, 92116376008, 92116376009, 92116376010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	04/23/12 00:30	
1,1,1-Trichloroethane	ug/L	ND	1.0	04/23/12 00:30	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/23/12 00:30	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/23/12 00:30	
1,1-Dichloroethane	ug/L	ND	1.0	04/23/12 00:30	
1,1-Dichloroethene	ug/L	ND	1.0	04/23/12 00:30	
1,2,3-Trichloropropane	ug/L	ND	1.0	04/23/12 00:30	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	04/23/12 00:30	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	04/23/12 00:30	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/23/12 00:30	
1,2-Dichloroethane	ug/L	ND	1.0	04/23/12 00:30	
1,2-Dichloropropane	ug/L	ND	1.0	04/23/12 00:30	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/23/12 00:30	
2-Butanone (MEK)	ug/L	ND	5.0	04/23/12 00:30	
2-Hexanone	ug/L	ND	5.0	04/23/12 00:30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	04/23/12 00:30	
Acetone	ug/L	ND	25.0	04/23/12 00:30	
Acrylonitrile	ug/L	ND	10.0	04/23/12 00:30	
Benzene	ug/L	ND	1.0	04/23/12 00:30	
Bromochloromethane	ug/L	ND	1.0	04/23/12 00:30	
Bromodichloromethane	ug/L	ND	1.0	04/23/12 00:30	
Bromoform	ug/L	ND	1.0	04/23/12 00:30	
Bromomethane	ug/L	ND	2.0	04/23/12 00:30	
Carbon disulfide	ug/L	ND	2.0	04/23/12 00:30	
Carbon tetrachloride	ug/L	ND	1.0	04/23/12 00:30	
Chlorobenzene	ug/L	ND	1.0	04/23/12 00:30	
Chloroethane	ug/L	ND	1.0	04/23/12 00:30	
Chloroform	ug/L	ND	1.0	04/23/12 00:30	
Chloromethane	ug/L	ND	1.0	04/23/12 00:30	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/23/12 00:30	
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/23/12 00:30	
Dibromochloromethane	ug/L	ND	1.0	04/23/12 00:30	
Dibromomethane	ug/L	ND	1.0	04/23/12 00:30	
Ethylbenzene	ug/L	ND	1.0	04/23/12 00:30	
Iodomethane	ug/L	ND	5.0	04/23/12 00:30	
Methylene Chloride	ug/L	ND	1.0	04/23/12 00:30	
Styrene	ug/L	ND	1.0	04/23/12 00:30	
Tetrachloroethene	ug/L	ND	1.0	04/23/12 00:30	
Toluene	ug/L	ND	1.0	04/23/12 00:30	
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/23/12 00:30	
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/23/12 00:30	

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

METHOD BLANK: 753551 Matrix: Water

Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007, 92116376008, 92116376009, 92116376010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	04/23/12 00:30	
Trichloroethene	ug/L	ND	1.0	04/23/12 00:30	
Trichlorofluoromethane	ug/L	ND	1.0	04/23/12 00:30	
Vinyl acetate	ug/L	ND	2.0	04/23/12 00:30	
Vinyl chloride	ug/L	ND	1.0	04/23/12 00:30	
Xylene (Total)	ug/L	ND	2.0	04/23/12 00:30	
1,2-Dichloroethane-d4 (S)	%	102	70-130	04/23/12 00:30	
4-Bromofluorobenzene (S)	%	106	70-130	04/23/12 00:30	
Dibromofluoromethane (S)	%	101	70-130	04/23/12 00:30	
Toluene-d8 (S)	%	97	70-130	04/23/12 00:30	

LABORATORY CONTROL SAMPLE: 753552

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	52.1	104	70-130	
1,1,1-Trichloroethane	ug/L	50	45.8	92	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	51.3	103	70-130	
1,1,2-Trichloroethane	ug/L	50	55.2	110	70-130	
1,1-Dichloroethane	ug/L	50	44.8	90	70-130	
1,1-Dichloroethene	ug/L	50	49.6	99	70-132	
1,2,3-Trichloropropane	ug/L	50	51.1	102	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	49.7	99	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	50.4	101	70-130	
1,2-Dichlorobenzene	ug/L	50	49.7	99	70-130	
1,2-Dichloroethane	ug/L	50	51.6	103	70-130	
1,2-Dichloropropane	ug/L	50	53.1	106	70-130	
1,4-Dichlorobenzene	ug/L	50	49.5	99	70-130	
2-Butanone (MEK)	ug/L	100	104	104	70-145	
2-Hexanone	ug/L	100	110	110	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	106	106	70-140	
Acetone	ug/L	100	108	108	50-175	
Acrylonitrile	ug/L	250	259	104	70-143	
Benzene	ug/L	50	54.1	108	70-130	
Bromochloromethane	ug/L	50	49.9	100	70-130	
Bromodichloromethane	ug/L	50	50.9	102	70-130	
Bromoform	ug/L	50	56.6	113	70-130	
Bromomethane	ug/L	50	55.2	110	54-130	
Carbon disulfide	ug/L	50	52.9	106	70-131	
Carbon tetrachloride	ug/L	50	52.7	105	70-132	
Chlorobenzene	ug/L	50	48.7	97	70-130	
Chloroethane	ug/L	50	56.8	114	64-134	
Chloroform	ug/L	50	48.0	96	70-130	
Chloromethane	ug/L	50	44.8	90	64-130	
cis-1,2-Dichloroethene	ug/L	50	48.2	96	70-131	

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Eden, NC 27288
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Asheville, NC 28804
(828)254-7176

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

LABORATORY CONTROL SAMPLE: 753552

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,3-Dichloropropene	ug/L	50	53.2	106	70-130	
Dibromochloromethane	ug/L	50	52.5	105	70-130	
Dibromomethane	ug/L	50	55.6	111	70-131	
Ethylbenzene	ug/L	50	50.3	101	70-130	
Iodomethane	ug/L	100	108	108	49-180	
Methylene Chloride	ug/L	50	49.9	100	63-130	
Styrene	ug/L	50	51.0	102	70-130	
Tetrachloroethene	ug/L	50	50.7	101	70-130	
Toluene	ug/L	50	50.9	102	70-130	
trans-1,2-Dichloroethene	ug/L	50	46.1	92	70-130	
trans-1,3-Dichloropropene	ug/L	50	54.4	109	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	51.9	104	70-141	
Trichloroethene	ug/L	50	52.2	104	70-130	
Trichlorofluoromethane	ug/L	50	57.5	115	62-133	
Vinyl acetate	ug/L	100	93.0	93	66-157	
Vinyl chloride	ug/L	50	53.0	106	69-130	
Xylene (Total)	ug/L	150	146	97	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Dibromofluoromethane (S)	%			95	70-130	
Toluene-d8 (S)	%			98	70-130	

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(828)254-7176

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WET/20546 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 92116376001, 92116376003, 92116376006

METHOD BLANK: 752850 Matrix: Water
Associated Lab Samples: 92116376001, 92116376003, 92116376006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	04/20/12 12:50	

LABORATORY CONTROL SAMPLE: 752851

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	50.8	102	90-110	

SAMPLE DUPLICATE: 752852

Parameter	Units	92116463001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	139000 ug/L	141	2	20	

SAMPLE DUPLICATE: 752853

Parameter	Units	92116464005 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	154000 ug/L	139	10	20	

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(704)875-9092

QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WET/20582 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 92116376002, 92116376004, 92116376005, 92116376007

METHOD BLANK: 754072 Matrix: Water
Associated Lab Samples: 92116376002, 92116376004, 92116376005, 92116376007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	04/24/12 10:45	

LABORATORY CONTROL SAMPLE: 754073

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.0	96	90-110	

SAMPLE DUPLICATE: 754087

Parameter	Units	92116412003 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	190000 ug/L	190	0	20	

SAMPLE DUPLICATE: 754088

Parameter	Units	92116376005 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	313	322	3	20	

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(704)875-9092

QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WET/20588 Analysis Method: SM 3500-Fe D#4
QC Batch Method: SM 3500-Fe D#4 Analysis Description: Iron, Ferrous
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

METHOD BLANK: 754194 Matrix: Water
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Ferrous	mg/L	ND	0.50	04/24/12 14:18	N2

LABORATORY CONTROL SAMPLE: 754195

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	1.5	1.6	104	90-110	N2

SAMPLE DUPLICATE: 754196

Parameter	Units	92116851013 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	ND	ND		20	N2

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(704)875-9092

QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WET/20489 Analysis Method: SM 4500-S2D
QC Batch Method: SM 4500-S2D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

METHOD BLANK: 750897 Matrix: Water
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	04/17/12 11:30	

LABORATORY CONTROL SAMPLE: 750898

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	.5	0.54	107	90-110	

MATRIX SPIKE SAMPLE: 750899

Parameter	Units	92116363005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	.5	0.54	108	75-125	

SAMPLE DUPLICATE: 750900

Parameter	Units	92116363005 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WET/20453 Analysis Method: SM 5210B
QC Batch Method: SM 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 92116376001, 92116376003, 92116376006

METHOD BLANK: 750033 Matrix: Water
Associated Lab Samples: 92116376001, 92116376003, 92116376006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	ND	2.0	04/18/12 09:33	

LABORATORY CONTROL SAMPLE: 750034

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	178	90	84-115	

SAMPLE DUPLICATE: 750035

Parameter	Units	92116376001 Result	Dup Result	RPD	Max RPD	Qualifiers
BOD, 5 day	mg/L	8.3	7.1	16	20	H1

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Asheville, NC 28804
(828)254-7176

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9800 Kincey Ave. Suite 100
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(704)875-9092

QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WET/20460 Analysis Method: SM 5210B
QC Batch Method: SM 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 92116376002, 92116376004, 92116376005, 92116376007

METHOD BLANK: 750395 Matrix: Water
Associated Lab Samples: 92116376002, 92116376004, 92116376005, 92116376007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	ND	2.0	04/18/12 17:25	

LABORATORY CONTROL SAMPLE: 750396

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	182	92	84-115	

SAMPLE DUPLICATE: 750397

Parameter	Units	92116306001 Result	Dup Result	RPD	Max RPD	Qualifiers
BOD, 5 day	mg/L	55.8	59.4	6	20	

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WETA/11996 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

METHOD BLANK: 753582 Matrix: Water
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	5.0	04/24/12 10:16	

LABORATORY CONTROL SAMPLE: 753583

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.3	96	90-110	

MATRIX SPIKE SAMPLE: 753584

Parameter	Units	92116464004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	59900J ug/L	20	79.8	99	90-110	

MATRIX SPIKE SAMPLE: 753586

Parameter	Units	92116376001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	ND	20	20.0	85	90-110	M1

SAMPLE DUPLICATE: 753585

Parameter	Units	92116464004 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	mg/L	59900J ug/L	76.7	25	20	D6

SAMPLE DUPLICATE: 753587

Parameter	Units	92116376001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	mg/L	ND	ND		20	

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(704)875-9092

QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WETA/11934 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 92116376001, 92116376003, 92116376006

METHOD BLANK: 750042 Matrix: Water
Associated Lab Samples: 92116376001, 92116376003, 92116376006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.20	04/13/12 13:37	

LABORATORY CONTROL SAMPLE: 750043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	5	5.1	101	90-110	

MATRIX SPIKE SAMPLE: 750044

Parameter	Units	92116376003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	3.2	5	8.3	102	90-110	

SAMPLE DUPLICATE: 750045

Parameter	Units	92116376003 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	3.2	3.1	0	20	

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WETA/11938 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 92116376002, 92116376004, 92116376005, 92116376007

METHOD BLANK: 750398 Matrix: Water
Associated Lab Samples: 92116376002, 92116376004, 92116376005, 92116376007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.20	04/13/12 21:20	

LABORATORY CONTROL SAMPLE: 750399

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	5	5.3	106	90-110	

MATRIX SPIKE SAMPLE: 750400

Parameter	Units	92116306001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	ND	5	5.4	108	90-110	

SAMPLE DUPLICATE: 750401

Parameter	Units	92116306001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WETA/12008 Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

METHOD BLANK: 754037 Matrix: Water
Associated Lab Samples: 92116376001, 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	5.0	04/24/12 10:29	

LABORATORY CONTROL SAMPLE: 754038

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	18.5	93	90-110	

MATRIX SPIKE SAMPLE: 754039

Parameter	Units	92116463002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	ND	20	23.9	100	75-125	

SAMPLE DUPLICATE: 754040

Parameter	Units	92116463003 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WETA/12003
QC Batch Method: SM 4500-CN-E
Analysis Method: SM 4500-CN-E
Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92116376001

METHOD BLANK: 753774
Matrix: Water
Associated Lab Samples: 92116376001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	04/24/12 15:03	

LABORATORY CONTROL SAMPLE: 753775

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.091	91	80-120	

MATRIX SPIKE SAMPLE: 753776

Parameter	Units	92116480001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	.1	0.087	85	75-125	

SAMPLE DUPLICATE: 753777

Parameter	Units	92116481001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WETA/12004 Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

METHOD BLANK: 753786 Matrix: Water
Associated Lab Samples: 92116376002, 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	04/24/12 15:21	

LABORATORY CONTROL SAMPLE: 753787

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.093	93	80-120	

MATRIX SPIKE SAMPLE: 753789

Parameter	Units	92116392005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	.1	0.096	95	75-125	

SAMPLE DUPLICATE: 753788

Parameter	Units	92116392005 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	ND	ND		20	

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(704)875-9092

QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WETA/11975 | Analysis Method: SM 5310B
QC Batch Method: SM 5310B | Analysis Description: 5310B TOC
Associated Lab Samples: 92116376001, 92116376002

METHOD BLANK: 751808 | Matrix: Water
Associated Lab Samples: 92116376001, 92116376002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	04/20/12 13:14	

LABORATORY CONTROL SAMPLE: 751809

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	25	23.6	94	90-110	

MATRIX SPIKE SAMPLE: 751810

Parameter	Units	92116121006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	231	25	254	90	75-125	

MATRIX SPIKE SAMPLE: 751812

Parameter	Units	92116121016 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	814	25	806	-30	75-125	M6

SAMPLE DUPLICATE: 751811

Parameter	Units	92116121007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	1520	1540	2	20	

SAMPLE DUPLICATE: 751813

Parameter	Units	92116400001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	4.7	3.8	20	20	

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

QC Batch: WETA/11998 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC
Associated Lab Samples: 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

METHOD BLANK: 753594 Matrix: Water
Associated Lab Samples: 92116376003, 92116376004, 92116376005, 92116376006, 92116376007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	04/24/12 15:20	

LABORATORY CONTROL SAMPLE: 753595

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	25	24.6	98	90-110	

MATRIX SPIKE SAMPLE: 753596

Parameter	Units	92116843001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	13.3	25	37.6	97	75-125	

MATRIX SPIKE SAMPLE: 753598

Parameter	Units	92116376007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	5.9	25	29.0	92	75-125	

SAMPLE DUPLICATE: 753597

Parameter	Units	92116843002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	13.9	14.0	1	20	

SAMPLE DUPLICATE: 753599

Parameter	Units	92116920001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	3.1	3.2	1	20	

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALIFIERS

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

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.

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

B2	Oxygen usage is less than 2.0 for all dilutions set. The reported value is an estimated less than value and is calculated for the dilution using the most amount of sample.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H1	Analysis conducted outside the EPA method holding time.
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.
N2	The lab does not hold TNI accreditation for this parameter.

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(828)254-7176

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92116376001	**MW-01**	RSK 175	AIR/14684		
92116376002	**MW-02**	RSK 175	AIR/14684		
92116376003	**MW-03**	RSK 175	AIR/14684		
92116376004	**MW-04**	RSK 175	AIR/14684		
92116376005	**MW-05R**	RSK 175	AIR/14684		
92116376006	**MW-06**	RSK 175	AIR/14684		
92116376007	**MW-07**	RSK 175	AIR/14684		
92116376001	**MW-01**	EPA 3010	MPRP/10396	EPA 6010	ICP/9577
92116376002	**MW-02**	EPA 3010	MPRP/10396	EPA 6010	ICP/9577
92116376003	**MW-03**	EPA 3010	MPRP/10396	EPA 6010	ICP/9577
92116376004	**MW-04**	EPA 3010	MPRP/10396	EPA 6010	ICP/9577
92116376005	**MW-05R**	EPA 3010	MPRP/10396	EPA 6010	ICP/9577
92116376006	**MW-06**	EPA 3010	MPRP/10408	EPA 6010	ICP/9584
92116376007	**MW-07**	EPA 3010	MPRP/10408	EPA 6010	ICP/9584
92116376008	**SW-01**	EPA 3010	MPRP/10408	EPA 6010	ICP/9584
92116376009	**SW-02**	EPA 3010	MPRP/10408	EPA 6010	ICP/9584
92116376001	**MW-01**	EPA 200.8	ICPM/31821	EPA 200.8	ICPM/12630
92116376002	**MW-02**	EPA 200.8	ICPM/31821	EPA 200.8	ICPM/12630
92116376003	**MW-03**	EPA 200.8	ICPM/31821	EPA 200.8	ICPM/12630
92116376004	**MW-04**	EPA 200.8	ICPM/31821	EPA 200.8	ICPM/12630
92116376005	**MW-05R**	EPA 200.8	ICPM/31821	EPA 200.8	ICPM/12630
92116376006	**MW-06**	EPA 200.8	ICPM/31821	EPA 200.8	ICPM/12630
92116376007	**MW-07**	EPA 200.8	ICPM/31821	EPA 200.8	ICPM/12630
92116376008	**SW-01**	EPA 200.8	ICPM/31821	EPA 200.8	ICPM/12630
92116376009	**SW-02**	EPA 200.8	ICPM/31821	EPA 200.8	ICPM/12630
92116376001	**MW-01**	EPA 7470	MERP/4187	EPA 7470	MERC/4109
92116376002	**MW-02**	EPA 7470	MERP/4187	EPA 7470	MERC/4109
92116376003	**MW-03**	EPA 7470	MERP/4187	EPA 7470	MERC/4109
92116376004	**MW-04**	EPA 7470	MERP/4187	EPA 7470	MERC/4109
92116376005	**MW-05R**	EPA 7470	MERP/4187	EPA 7470	MERC/4109
92116376006	**MW-06**	EPA 7470	MERP/4187	EPA 7470	MERC/4109
92116376007	**MW-07**	EPA 7470	MERP/4187	EPA 7470	MERC/4109
92116376008	**SW-01**	EPA 7470	MERP/4187	EPA 7470	MERC/4109
92116376009	**SW-02**	EPA 7470	MERP/4187	EPA 7470	MERC/4109
92116376001	**MW-01**	EPA 8260	MSV/18878		
92116376002	**MW-02**	EPA 8260	MSV/18878		
92116376003	**MW-03**	EPA 8260	MSV/18878		
92116376004	**MW-04**	EPA 8260	MSV/18878		
92116376005	**MW-05R**	EPA 8260	MSV/18878		
92116376006	**MW-06**	EPA 8260	MSV/18878		
92116376007	**MW-07**	EPA 8260	MSV/18878		
92116376008	**SW-01**	EPA 8260	MSV/18878		
92116376009	**SW-02**	EPA 8260	MSV/18878		
92116376010	**Trip Blank**	EPA 8260	MSV/18878		
92116376001	**MW-01**	SM 2320B	WET/20546		

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(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92116376002	**MW-02**	SM 2320B	WET/20582		
92116376003	**MW-03**	SM 2320B	WET/20546		
92116376004	**MW-04**	SM 2320B	WET/20582		
92116376005	**MW-05R**	SM 2320B	WET/20582		
92116376006	**MW-06**	SM 2320B	WET/20546		
92116376007	**MW-07**	SM 2320B	WET/20582		
92116376001	**MW-01**	SM 3500-Fe D#4	WET/20588		
92116376002	**MW-02**	SM 3500-Fe D#4	WET/20588		
92116376003	**MW-03**	SM 3500-Fe D#4	WET/20588		
92116376004	**MW-04**	SM 3500-Fe D#4	WET/20588		
92116376005	**MW-05R**	SM 3500-Fe D#4	WET/20588		
92116376006	**MW-06**	SM 3500-Fe D#4	WET/20588		
92116376007	**MW-07**	SM 3500-Fe D#4	WET/20588		
92116376001	**MW-01**	SM 4500-S2D	WET/20489		
92116376002	**MW-02**	SM 4500-S2D	WET/20489		
92116376003	**MW-03**	SM 4500-S2D	WET/20489		
92116376004	**MW-04**	SM 4500-S2D	WET/20489		
92116376005	**MW-05R**	SM 4500-S2D	WET/20489		
92116376006	**MW-06**	SM 4500-S2D	WET/20489		
92116376007	**MW-07**	SM 4500-S2D	WET/20489		
92116376001	**MW-01**	SM 5210B	WET/20453	SM 5210B	WET/20454
92116376002	**MW-02**	SM 5210B	WET/20460	SM 5210B	WET/20461
92116376003	**MW-03**	SM 5210B	WET/20453	SM 5210B	WET/20454
92116376004	**MW-04**	SM 5210B	WET/20460	SM 5210B	WET/20461
92116376005	**MW-05R**	SM 5210B	WET/20460	SM 5210B	WET/20461
92116376006	**MW-06**	SM 5210B	WET/20453	SM 5210B	WET/20454
92116376007	**MW-07**	SM 5210B	WET/20460	SM 5210B	WET/20461
92116376001	**MW-01**	EPA 300.0	WETA/11996		
92116376002	**MW-02**	EPA 300.0	WETA/11996		
92116376003	**MW-03**	EPA 300.0	WETA/11996		
92116376004	**MW-04**	EPA 300.0	WETA/11996		
92116376005	**MW-05R**	EPA 300.0	WETA/11996		
92116376006	**MW-06**	EPA 300.0	WETA/11996		
92116376007	**MW-07**	EPA 300.0	WETA/11996		
92116376001	**MW-01**	EPA 353.2	WETA/11934		
92116376002	**MW-02**	EPA 353.2	WETA/11938		
92116376003	**MW-03**	EPA 353.2	WETA/11934		
92116376004	**MW-04**	EPA 353.2	WETA/11938		
92116376005	**MW-05R**	EPA 353.2	WETA/11938		
92116376006	**MW-06**	EPA 353.2	WETA/11934		

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Asheville, NC 28804
(828)254-7176

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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Jackson Co. LF GW 4/12/12
Pace Project No.: 92116376

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92116376007	**MW-07**	EPA 353.2	WETA/11938		
92116376001	**MW-01**	SM 4500-Cl-E	WETA/12008		
92116376002	**MW-02**	SM 4500-Cl-E	WETA/12008		
92116376003	**MW-03**	SM 4500-Cl-E	WETA/12008		
92116376004	**MW-04**	SM 4500-Cl-E	WETA/12008		
92116376005	**MW-05R**	SM 4500-Cl-E	WETA/12008		
92116376006	**MW-06**	SM 4500-Cl-E	WETA/12008		
92116376007	**MW-07**	SM 4500-Cl-E	WETA/12008		
92116376001	**MW-01**	SM 4500-CN-E	WETA/12003		
92116376002	**MW-02**	SM 4500-CN-E	WETA/12004		
92116376003	**MW-03**	SM 4500-CN-E	WETA/12004		
92116376004	**MW-04**	SM 4500-CN-E	WETA/12004		
92116376005	**MW-05R**	SM 4500-CN-E	WETA/12004		
92116376006	**MW-06**	SM 4500-CN-E	WETA/12004		
92116376007	**MW-07**	SM 4500-CN-E	WETA/12004		
92116376001	**MW-01**	SM 5310B	WETA/11975		
92116376002	**MW-02**	SM 5310B	WETA/11975		
92116376003	**MW-03**	SM 5310B	WETA/11998		
92116376004	**MW-04**	SM 5310B	WETA/11998		
92116376005	**MW-05R**	SM 5310B	WETA/11998		
92116376006	**MW-06**	SM 5310B	WETA/11998		
92116376007	**MW-07**	SM 5310B	WETA/11998		

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 1

1545964

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:

Section B Required Project Information:

Report To: Chris Gilbert
Copy To: Evan Yurkovich
Purchase Order No.:
Project Name: Jackson Co. LF GW Sampling
Project Number: 2040.0302

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

Requested Analysis Filtered (Y/N)

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)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	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	Appendix I VOCs	Appendix I Metals	Alkalinity	BOD	Carbon Dioxide	Methane, Ethane, Ethene	Ferrous Iron	Cyanide	Nitrate	Sulfate, Chloride, Sulfide	Volatile Fatty Acid	TOC Hydrogen	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92116376
1	MW-01	WT	G			4/11/12	1246		19	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X	X		001
2	MW-02	WT	G			4/12/12	1330		19	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X	X		002
3	MW-03	WT	G			4/11/12	1437		19	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X	X		003
4	MW-04	WT	G			4/12/12	1009		19	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X	X		004
5	MW-05R	WT	G			4/12/12	1530		18	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X	X		005
6	MW-06	WT	G			4/11/12	1103		19	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X	X		006
7	MW-07	WT	G			4/12/12	1141		19	X		X	X	X					X	X	X	X	X	X	X	X	X	X	X	X		007
8	SW-01	WT	G	~~4/12/12~~	~~1520~~	4/12/12	1520		4			X	X						X	X												008
9	SW-02	WT	G			4/12/12	1450		4			X	X						X	X												009
10	TRIP BLANK LAB →								2				X						X													010
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
MW-05R contains only two	Parker Brooks / Altamont	4/13/12	~~9:00~~	[signature]	4/13/12	0920	2.8	Y	N	Y
Methane, Ethane samples due			09:20				2.5			
to missing cap										

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Parker Brooks

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 4/12/12

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.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical www.pacelabs.com	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: October 19, 2011 Page 1 of 2
	Document No.: F-ASV-CS-003-rev.07	Issuing Authorities: Pace Asheville Quality Office

Client Name: Altamont Project # 92116376

Where Received: ☐ Huntersville ☑ Asheville ☐ Eden

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

Optional
Proj. Due Date:
Proj. Name:

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#2 -80344039 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

IR Gun Back Up- 111565135

Temp Correction Factor: Add / Subtract 0.2 C

Corrected Cooler Temp.: 2.8/2.5 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 4/13/12 TW

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. BOD, NO3
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
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: -Includes date/time/ID/Analysis Matrix: WT	☑Yes ☐No ☐N/A	12.
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	LP
exceptions: (VOA) coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	Initial when completed
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: LP **Date:** 4/16/12 **SRF Review:** LP **Date:** 4/16/12

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)

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

May 1, 2012

Lorri Patton
Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804

RE: **JACKSON CO LF / 92116376**

Microseeps Workorder: 4927

Dear Lorri Patton:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, April 17, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Robbin Robl 05/01/2012
rrobl@microseeps.com

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 26

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	NELAP: State of Florida, Department of Health, Bureau of Laboratories
Accreditation ID:	E87832
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality
Accreditation ID:	04104
Scope:	Solid and Chemical Materials; Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID	Sample ID	Matrix	Date Collected	Date Received
49270001	MW-01	Bubble Strip	4/11/2012 12:46	4/17/2012 11:50
49270002	MW-01	Water	4/11/2012 12:46	4/17/2012 11:50
49270003	MW-02	Bubble Strip	4/12/2012 13:30	4/17/2012 11:50
49270004	MW-02	Water	4/12/2012 13:30	4/17/2012 11:50
49270005	MW-03	Bubble Strip	4/11/2012 14:37	4/17/2012 11:50
49270006	MW-03	Water	4/11/2012 14:37	4/17/2012 11:50
49270007	MW-04	Bubble Strip	4/12/2012 10:09	4/17/2012 11:50
49270008	MW-04	Water	4/12/2012 10:09	4/17/2012 11:50
49270009	MW-05R	Water	4/12/2012 15:30	4/17/2012 11:50
49270010	MW-06	Bubble Strip	4/11/2012 11:03	4/17/2012 11:50
49270011	MW-06	Water	4/11/2012 11:03	4/17/2012 11:50
49270012	MW-07	Bubble Strip	4/12/2012 11:41	4/17/2012 11:50
49270013	MW-07	Water	4/12/2012 11:41	4/17/2012 11:50

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PROJECT SUMMARY

Workorder: 4927 JACKSON CO LF / 92116376

Batch Comments

Batch: EDON/1365 - Low Level Volatile Fatty Acids

The percent recovery for the laboratory control sample was below laboratory control limits. Analytes iso-Hexanoic and Hexanoic acids. Results associated to the analytes in samples may be bias low.

The matrix spike and/or matrix spike duplicate, recovery or relative percent difference; was outside laboratory control limits. Analytes iso-Hexanoic and Hexanoic acids. Batch acceptance based on laboratory control sample recovery.

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ANALYTICAL RESULTS

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID: **49270001** Date Received: 4/17/2012 11:50 Matrix: Bubble Strip

Sample ID: **MW-01** Date Collected: 4/11/2012 12:46

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
RISK - MICR									
Analysis Desc: AM20GAX		Analytical Method: AM20GAX							
Carbon Dioxide	**250**	mg/l	5.0	0.31	1		4/20/2012 12:27	GT	
Hydrogen	**42**	nM	0.60	0.25	1		4/20/2012 12:27	GT	

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ANALYTICAL RESULTS

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID: **49270002** Date Received: 4/17/2012 11:50 Matrix: Water

Sample ID: **MW-01** Date Collected: 4/11/2012 12:46

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G			Analytical Method: AM23G							
Lactic Acid	**0.062J**	mg/l	0.10	0.010	1			4/24/2012 22:35	KB	
Acetic Acid	**0.022J**	mg/l	0.070	0.0060	1			4/24/2012 22:35	KB	
Propionic Acid	**0.014J**	mg/l	0.050	0.0070	1			4/24/2012 22:35	KB	
Formic Acid	**0.058J**	mg/l	0.10	0.0020	1			4/24/2012 22:35	KB	
Butyric Acid	**0.050 U**	mg/l	0.050	0.0040	1			4/24/2012 22:35	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.033	1			4/24/2012 22:35	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.044	1			4/24/2012 22:35	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.012	1			4/24/2012 22:35	KB	
i-Hexanoic Acid	**0.050 U**	mg/l	0.050	0.0060	1			4/24/2012 22:35	KB	
Hexanoic Acid	**0.050 U**	mg/l	0.050	0.0060	1			4/24/2012 22:35	KB	

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ANALYTICAL RESULTS

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID: **49270003** Date Received: 4/17/2012 11:50 Matrix: Bubble Strip

Sample ID: **MW-02** Date Collected: 4/12/2012 13:30

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Carbon Dioxide	**27**	mg/l	5.0	0.31	1			4/20/2012 12:40	GT	
Hydrogen	**3.9**	nM	0.60	0.25	1			4/20/2012 12:40	GT	

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ANALYTICAL RESULTS

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID: **49270004** Date Received: 4/17/2012 11:50 Matrix: Water

Sample ID: **MW-02** Date Collected: 4/12/2012 13:30

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G			Analytical Method: AM23G							
Lactic Acid	**0.15**	mg/l	0.10	0.010	1			4/25/2012 00:41	KB	
Acetic Acid	**0.12**	mg/l	0.070	0.0060	1			4/25/2012 00:41	KB	
Propionic Acid	**0.050 U**	mg/l	0.050	0.0070	1			4/25/2012 00:41	KB	
Formic Acid	**0.047J**	mg/l	0.10	0.0020	1			4/25/2012 00:41	KB	
Butyric Acid	**0.050 U**	mg/l	0.050	0.0040	1			4/25/2012 00:41	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.033	1			4/25/2012 00:41	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.044	1			4/25/2012 00:41	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.012	1			4/25/2012 00:41	KB	
i-Hexanoic Acid	**0.050 U**	mg/l	0.050	0.0060	1			4/25/2012 00:41	KB	
Hexanoic Acid	**0.050 U**	mg/l	0.050	0.0060	1			4/25/2012 00:41	KB	

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ANALYTICAL RESULTS

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID: **49270005** Date Received: 4/17/2012 11:50 Matrix: Bubble Strip
Sample ID: **MW-03** Date Collected: 4/11/2012 14:37

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Carbon Dioxide	**190**	mg/l	5.0	0.31	1			4/20/2012 12:52	GT	
Hydrogen	**170**	nM	2.4	1.0	4			4/27/2012 12:19	GT	

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ANALYTICAL RESULTS

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID: **49270006** Date Received: 4/17/2012 11:50 Matrix: Water

Sample ID: **MW-03** Date Collected: 4/11/2012 14:37

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G		Analytical Method: AM23G								
Lactic Acid	**0.081J**	mg/l	0.10	0.010	1			4/25/2012 01:23	KB	
Acetic Acid	**0.056J**	mg/l	0.070	0.0060	1			4/25/2012 01:23	KB	
Propionic Acid	**0.050 U**	mg/l	0.050	0.0070	1			4/25/2012 01:23	KB	
Formic Acid	**0.068J**	mg/l	0.10	0.0020	1			4/25/2012 01:23	KB	
Butyric Acid	**0.050 U**	mg/l	0.050	0.0040	1			4/25/2012 01:23	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.033	1			4/25/2012 01:23	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.044	1			4/25/2012 01:23	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.012	1			4/25/2012 01:23	KB	
I-Hexanoic Acid	**0.050 U**	mg/l	0.050	0.0060	1			4/25/2012 01:23	KB	
Hexanoic Acid	**0.073**	mg/l	0.050	0.0060	1			4/25/2012 01:23	KB	

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ANALYTICAL RESULTS

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID: **49270007** Date Received: 4/17/2012 11:50 Matrix: Bubble Strip
Sample ID: **MW-04** Date Collected: 4/12/2012 10:09

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX		Analytical Method: AM20GAX								
Carbon Dioxide	**240**	mg/l	5.0	0.31	1			4/20/2012 13:06	GT	
Hydrogen	**62**	nM	0.60	0.25	1			4/20/2012 13:06	GT	

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ANALYTICAL RESULTS

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID: **49270008** Date Received: 4/17/2012 11:50 Matrix: Water

Sample ID: **MW-04** Date Collected: 4/12/2012 10:09

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G			Analytical Method: AM23G							
Lactic Acid	**0.11**	mg/l	0.10	0.010	1			4/25/2012 02:05	KB	
Acetic Acid	**0.031J**	mg/l	0.070	0.0060	1			4/25/2012 02:05	KB	
Propionic Acid	**0.012J**	mg/l	0.050	0.0070	1			4/25/2012 02:05	KB	
Formic Acid	**0.063J**	mg/l	0.10	0.0020	1			4/25/2012 02:05	KB	
Butyric Acid	**0.050 U**	mg/l	0.050	0.0040	1			4/25/2012 02:05	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.033	1			4/25/2012 02:05	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.044	1			4/25/2012 02:05	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.012	1			4/25/2012 02:05	KB	
i-Hexanoic Acid	**0.050 U**	mg/l	0.050	0.0060	1			4/25/2012 02:05	KB	
Hexanoic Acid	**0.050 U**	mg/l	0.050	0.0060	1			4/25/2012 02:05	KB	

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ANALYTICAL RESULTS

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID: **49270009** Date Received: 4/17/2012 11:50 Matrix: Water
Sample ID: **MW-05R** Date Collected: 4/12/2012 15:30

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX		Analytical Method: AM20GAX								
Carbon Dioxide	**170**	mg/l	5.0	0.070	1			4/25/2012 13:37	BW	
EDonors - MICR										
Analysis Desc: AM23G		Analytical Method: AM23G								
Lactic Acid	**0.14**	mg/l	0.10	0.010	1			4/25/2012 02:48	KB	
Acetic Acid	**0.031J**	mg/l	0.070	0.0060	1			4/25/2012 02:48	KB	
Propionic Acid	**0.050 U**	mg/l	0.050	0.0070	1			4/25/2012 02:48	KB	
Formic Acid	**0.086J**	mg/l	0.10	0.0020	1			4/25/2012 02:48	KB	
Butyric Acid	**0.050 U**	mg/l	0.050	0.0040	1			4/25/2012 02:48	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.033	1			4/25/2012 02:48	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.044	1			4/25/2012 02:48	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.012	1			4/25/2012 02:48	KB	
i-Hexanoic Acid	**0.050 U**	mg/l	0.050	0.0060	1			4/25/2012 02:48	KB	
Hexanoic Acid	**0.081**	mg/l	0.050	0.0060	1			4/25/2012 02:48	KB	

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Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID: **49270010** Date Received: 4/17/2012 11:50 Matrix: Bubble Strip
Sample ID: **MW-06** Date Collected: 4/11/2012 11:03

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Carbon Dioxide	**220**	mg/l	5.0	0.31	1			4/20/2012 13:18	GT	
Hydrogen	**31**	nM	0.60	0.25	1			4/20/2012 13:18	GT	

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ANALYTICAL RESULTS

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID: **49270011** Date Received: 4/17/2012 11:50 Matrix: Water

Sample ID: **MW-06** Date Collected: 4/11/2012 11:03

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G			Analytical Method: AM23G							
Lactic Acid	**0.096J**	mg/l	0.10	0.010	1			4/25/2012 03:30	KB	
Acetic Acid	**0.019J**	mg/l	0.070	0.0060	1			4/25/2012 03:30	KB	
Propionic Acid	**0.050 U**	mg/l	0.050	0.0070	1			4/25/2012 03:30	KB	
Formic Acid	**0.049J**	mg/l	0.10	0.0020	1			4/25/2012 03:30	KB	
Butyric Acid	**0.050 U**	mg/l	0.050	0.0040	1			4/25/2012 03:30	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.033	1			4/25/2012 03:30	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.044	1			4/25/2012 03:30	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.012	1			4/25/2012 03:30	KB	
i-Hexanoic Acid	**0.050 U**	mg/l	0.050	0.0060	1			4/25/2012 03:30	KB	
Hexanoic Acid	**0.050 U**	mg/l	0.050	0.0060	1			4/25/2012 03:30	KB	

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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID: **49270012** Date Received: 4/17/2012 11:50 Matrix: Bubble Strip

Sample ID: **MW-07** Date Collected: 4/12/2012 11:41

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
RISK - MICR									
Analysis Desc: AM20GAX		Analytical Method: AM20GAX							
Carbon Dioxide	**150**	mg/l	5.0	0.31	1		4/20/2012 13:36	GT	
Hydrogen	**4.1**	nM	0.60	0.25	1		4/20/2012 13:36	GT	

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ANALYTICAL RESULTS

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID: **49270013** Date Received: 4/17/2012 11:50 Matrix: Water

Sample ID: **MW-07** Date Collected: 4/12/2012 11:41

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
EDonors - MICR										
Analysis Desc: AM23G			Analytical Method: AM23G							
Lactic Acid	**0.14**	mg/l	0.10	0.010	1			4/25/2012 04:12	KB	
Acetic Acid	**0.032J**	mg/l	0.070	0.0060	1			4/25/2012 04:12	KB	
Propionic Acid	**0.050 U**	mg/l	0.050	0.0070	1			4/25/2012 04:12	KB	
Formic Acid	**0.048J**	mg/l	0.10	0.0020	1			4/25/2012 04:12	KB	
Butyric Acid	**0.050 U**	mg/l	0.050	0.0040	1			4/25/2012 04:12	KB	
Pyruvic Acid	**0.15 U**	mg/l	0.15	0.033	1			4/25/2012 04:12	KB	
i-Pentanoic Acid	**0.15 U**	mg/l	0.15	0.044	1			4/25/2012 04:12	KB	
Pentanoic Acid	**0.070 U**	mg/l	0.070	0.012	1			4/25/2012 04:12	KB	
i-Hexanoic Acid	**0.050 U**	mg/l	0.050	0.0060	1			4/25/2012 04:12	KB	
Hexanoic Acid	**0.050 U**	mg/l	0.050	0.0060	1			4/25/2012 04:12	KB	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 4927 JACKSON CO LF / 92116376

PARAMETER QUALIFIERS

U	Indicates the compound was analyzed for, but not detected.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (RDL).

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QUALITY CONTROL DATA

Workorder: 4927 JACKSON CO LF / 92116376

QC Batch: DISG/2073 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 49270001, 49270003, 49270005, 49270007, 49270010, 49270012

METHOD BLANK: 10536

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Carbon Dioxide	mg/l	5.0 U	5.0	

METHOD BLANK: 10537

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Hydrogen	nM	0.60 U	0.60	

LABORATORY CONTROL SAMPLE & LCSD: 10538 10540

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Carbon Dioxide	mg/l	180	180	180	102	101	80-120	0.99	20	

LABORATORY CONTROL SAMPLE & LCSD: 10539 10541

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Hydrogen	nM	49	57	56	116	116	80-120	0	20	

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QUALITY CONTROL DATA

Workorder: 4927 JACKSON CO LF / 92116376

QC Batch: DISG/2087 Analysis Method: AM20GAX
QC Batch Method: AM20GAX
Associated Lab Samples: 49270009

METHOD BLANK: 10667

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Carbon Dioxide	mg/l	5.0 U	5.0	

LABORATORY CONTROL SAMPLE & LCSD: 10669 10671

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Carbon Dioxide	mg/l	130	120	130	95	102	80-120	7.1	20	

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QUALITY CONTROL DATA

Workorder: 4927 JACKSON CO LF / 92116376

QC Batch: EDON/1365 Analysis Method: AM23G

QC Batch Method: AM23G

Associated Lab Samples: 49270002, 49270004, 49270006, 49270008, 49270009, 49270011, 49270013

METHOD BLANK: 10678

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
EDonors				
Lactic Acid	mg/l	0.075J	0.10	
Acetic Acid	mg/l	0.070 U	0.070	
Propionic Acid	mg/l	0.050 U	0.050	
Formic Acid	mg/l	0.038J	0.10	
Butyric Acid	mg/l	0.050 U	0.050	
Pyruvic Acid	mg/l	0.15 U	0.15	
i-Pentanoic Acid	mg/l	0.15 U	0.15	
Pentanoic Acid	mg/l	0.070 U	0.070	
i-Hexanoic Acid	mg/l	0.050 U	0.050	
Hexanoic Acid	mg/l	0.050 U	0.050	

LABORATORY CONTROL SAMPLE: 10679

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
EDonors						
Lactic Acid	mg/l	2	2.0	101	70-130	
Acetic Acid	mg/l	2	2.0	98	70-130	
Propionic Acid	mg/l	2	2.0	98	70-130	
Formic Acid	mg/l	2	2.0	98	70-130	
Butyric Acid	mg/l	2	1.9	94	70-130	
Pyruvic Acid	mg/l	2	1.9	97	70-130	
i-Pentanoic Acid	mg/l	2	1.8	88	70-130	
Pentanoic Acid	mg/l	2	1.6	79	70-130	
i-Hexanoic Acid	mg/l	2	1.3	65	70-130	
Hexanoic Acid	mg/l	2	1.0	53	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 10680 10681 Original: 49270002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
EDonors											
Lactic Acid	mg/l	0.062	2	2.0	2.0	95	98	70-130	3.1	30	

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QUALITY CONTROL DATA

Workorder: 4927 JACKSON CO LF / 92116376

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 10680 10681 Original: 49270002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Acetic Acid	mg/l	0.022	2	1.9	2.0	96	100	70-130	4.1	30	
Propionic Acid	mg/l	0.014	2	1.9	2.0	94	99	70-130	5.2	30	
Formic Acid	mg/l	0.058	2	1.9	2.0	92	96	70-130	4.3	30	
Butyric Acid	mg/l	0	2	1.8	1.9	89	96	70-130	7.6	30	
Pyruvic Acid	mg/l	0	2	1.9	2.0	96	98	70-130	2.1	30	
i-Pentanoic Acid	mg/l	0	2	1.7	1.9	84	96	70-130	13	30	
Pentanoic Acid	mg/l	0	2	1.6	1.8	78	91	70-130	15	30	
i-Hexanoic Acid	mg/l	0	2	1.3	1.6	65	83	70-130	24	30	
Hexanoic Acid	mg/l	0	2	0.93	1.3	46	64	70-130	33	30	

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QUALITY CONTROL DATA

Workorder: 4927 JACKSON CO LF / 92116376

QC Batch: DISG/2099 Analysis Method: AM20GAX
QC Batch Method: AM20GAX
Associated Lab Samples: 49270005

METHOD BLANK: 10771

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Hydrogen	nM	0.60 U	0.60	

LABORATORY CONTROL SAMPLE & LCSD: 10774 10777

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Hydrogen	nM	49	54	55	110	112	80-120	1.8	20	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 4927 JACKSON CO LF / 92116376

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
49270001	MW-01			AM20GAX	DISG/2073
49270003	MW-02			AM20GAX	DISG/2073
49270005	MW-03			AM20GAX	DISG/2073
49270007	MW-04			AM20GAX	DISG/2073
49270010	MW-06			AM20GAX	DISG/2073
49270012	MW-07			AM20GAX	DISG/2073
49270009	MW-05R			AM20GAX	DISG/2087
49270002	MW-01			AM23G	EDON/1365
49270004	MW-02			AM23G	EDON/1365
49270006	MW-03			AM23G	EDON/1365
49270008	MW-04			AM23G	EDON/1365
49270009	MW-05R			AM23G	EDON/1365
49270011	MW-06			AM23G	EDON/1365
49270013	MW-07			AM23G	EDON/1365
49270005	MW-03			AM20GAX	DISG/2099

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4927

Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 92116376 **Workorder Name:** Jackson Co. LF GW 4/12/12 **Results Requested** 4/27/2012

Report / Invoice To

Lorri Patton
Pace Analytical Asheville
2225 Riverside Dr.
Asheville, NC 28804
Phone (828)254-7176
Email: lorri.patton@pacelabs.com

Subcontract To

P.O. AS9057

MicroSeeps

Item	Sample ID	Collect Date/Time	Lab ID	Matrix	Preserved Containers: HCL	Other	None				Requested Analysis: Hydrogen	Carbon Dioxide	Volatile Fatty Acids									LAB USE ONLY
1	MW-01 1 2	4/11/2012 12:46	92116376001	Water	X	X	X				X	X	X									
2	MW-02 3 4	4/12/2012 13:30	92116376002	Water							X											
3	MW-03 5 6	4/11/2012 14:37	92116376003	Water							X											
4	MW-04 7 8	4/12/2012 10:09	92116376004	Water							X											
5	MW-05R 9	4/12/2012 15:30	92116376005	Water																		
6	MW-06 10 11	4/11/2012 11:03	92116376006	Water							X											
7	MW-07 12 13	4/12/2012 11:41	92116376007	Water							X											

Transfers	Released By	Date/Time	Received By	Date/Time
1	Lorri Patton	4/16/12 1630	[illegible]	4-17-12 1150
2				
3				

Comments

Cooler Temperature on Receipt 4.2 °C | Custody Seal (Y) or N | Received on Ice (Y) or N | Samples Intact (Y) or N

Cooler Receipt Form

Client Name: Pace - H **Project:** 92116376 **Lab Work Order:** 4927

A. Shipping/Container Information (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 7934 5887 8528

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 4.2°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC	✓			
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
Microseeps containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by : HCY **Date:** 4-17-12

Project Manager Review : RR **Date:** 4/19/12

APPENDIX C
Environmental Monitoring Form
and
Electronic Submittal of Environmental Monitoring Data 5002Apr2012 (CD 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: Marta A. VanDussen, EIT Phone: (828) 281-3350

E-mail: mvandussen@altamontenvironmental.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Jackson County Municipal Solid Waste Landfill	US Highway 441 Dillsboro, NC 28725	50-02	.1600	April 11-12, 2012

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) Natural Attenuation Parameters
☐ 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.

Christopher F. Gilbert, P.E. Project Engineer (828) 281-3350

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

Signature 12/03/2012 Date

Affix NC Licensed/ Professional ~~Geologist~~ ENGINEER Seal

NORTH CAROLINA PROFESSIONAL SEAL 030224 ENGINEER CHRISTOPHER F. GILBERT

231 Haywood Street, Asheville, North Carolina 28801

Facility Representative Address

C-2185

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

Revised 6/2009

APPENDIX D
Monitoring Well MW-05R
Survey Record

Wes Cole Land Surveying, PA
Municipal Solid Waste Landfill, Jackson County, NC
Groundwater Monitoring Well Information 8-18-10 (*Updated 9-28-12)
For Altamont Environmental, Inc.

Point Desc	Northing	Easting	Concrete Pad Elevation	PVC Elevation	BM Elevation
MW 04	617105.43	729406.00	1978.69 (GROUND ELEV.)	1980.77*	1980.77
MW 07	617118.83	729395.81	1978.71	1981.29	N/A
MW 05R*	617229.80	729672.73	2027.98	2030.95	N/A

GLOBAL POSITIONING SYSTEM CERTIFICATION (RTK)

THE NETWORK POSITIONAL ACCURACY OF THE RTK DERIVED POSITIONAL INFORMATION IS 0.01' HORIZONTAL

HORIZONTAL POSITIONS ARE REFERENCED TO NAD 83 (NSRS 2007)
*VERTICAL POSITIONS ARE REFERENCED TO EXISTING ELEVATION FOR MW 04. DATA PROVIDED TO WCLS, PA BY ALTAMONT ENVIRONMENTAL AND IS SUBJECT TO THE ACCURACY THEREOF
COMBINED FACTOR 0.9997823

COORDINATES SHOWN ARE NC GRID COORDINATES IN US SURVEY FEET

NORTH CAROLINA PROFESSIONAL SEAL L-4561 LAND SURVEYOR JOHN WESLEY COLE

John Wesley Cole
9-28-12