

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)
Old Fort Industrial Solid Waste Landfill	State Road 1240, Old Fort McDowell County, North Carolina	56-03	.0500	April 30, 2012

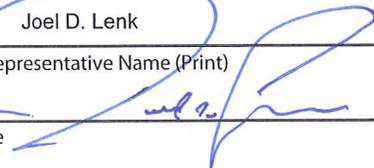
Environmental Status: (Check all that apply)
 Initial/Background Monitoring Detection Monitoring Assessment Monitoring Corrective Action

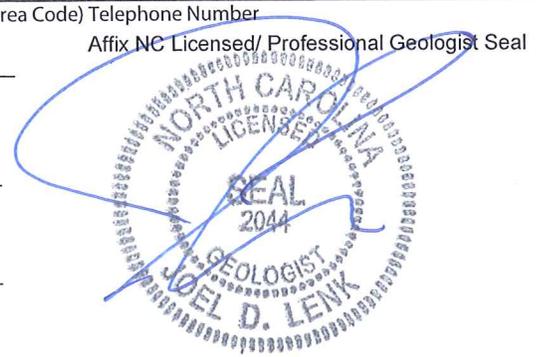
Type of data submitted: (Check all that apply)
 Groundwater monitoring data from monitoring wells Methane gas monitoring data
 Groundwater monitoring data from private water supply wells Corrective action data (specify) _____
 Leachate monitoring data Other(specify) _____
 Surface water monitoring data

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.

Joel D. Lenk P.G. 828-281-3350
 Facility Representative Name (Print) Title (Area Code) Telephone Number
 Signature  Date 6/25/12
 Affix NC Licensed/ Professional Geologist Seal
 231 Haywood Street, Asheville, North Carolina 28801
 Facility Representative Address
 C-2185
 NC PE Firm License Number (if applicable effective May 1, 2009)



ALTAMONT ENVIRONMENTAL, INC.

ENGINEERING & HYDROGEOLOGY



Spring 2012 Water Quality Monitoring Report

Old Fort Industrial
Solid Waste Landfill

McDowell County, North Carolina
Permit #56-03

June 25, 2012

Prepared for
IAC Group North America
1506 East Main Street
Old Fort, North Carolina 28762
Project Number 2082.04

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

Spring 2012
Water Quality Monitoring Report
Old Fort Industrial
Solid Waste Landfill
McDowell County, North Carolina
Permit #56-03
June 25, 2012



Joel Lenk, P.G.
Project Geologist

Table of Contents

1.0	Introduction	1
2.0	Methods.....	2
2.1	Groundwater and Surface Water Sampling	2
2.1.1	Groundwater Purging and Sampling Methods	2
2.1.2	Surface Water Sampling Methods.....	2
2.2	Sample Handling, Documentation, and Analysis	2
3.0	Findings	3
3.1	Analytical Results.....	3
3.1.1	Groundwater Samples	3
3.1.1.1	RCRA Metals.....	3
3.1.1.2	Field Parameters.....	4
3.1.2	Surface Water Samples	4
3.1.2.1	RCRA Metals.....	4
3.1.2.2	Field Parameters.....	4
4.0	Summary	5
4.1	Future Activities.....	5
5.0	References	6

Figures

1. Site Location Map
2. Sample Location Map

Tables

1. Summary of Laboratory Analyses Performed on Samples
2. Solid Waste Section Limits Exceedances Notification
3. Water Quality Standards Exceedances Notification

Appendices

- A. Laboratory Analytical Reports and Chain-of-Custody Documentation
- B. Environmental Monitoring Reporting Form and Electronic Submittal of Environmental Monitoring Data 5603Apr2012 (CD Only)

1.0 Introduction

The International Automotive Components (IAC) Group North America owns and manages the Old Fort Industrial Solid Waste Landfill (Old Fort Landfill) located on State Road 1240 in Old Fort, in McDowell County, North Carolina (Figure 1). The landfill is approximately 86 acres in size and is located approximately five miles from the IAC plant.

Previously, the landfill was owned and operated by Collins & Aikman (C&A) for the disposal of solid waste carpet products. In 2007, IAC acquired the landfill and has not utilized it for waste disposal since the acquisition. As a result, a *Revised Workplan for Landfill Investigation and Closure* dated November 4, 2010 and a *Final Investigation Report* dated June 7, 2011 were prepared by the consulting firm RJN Environmental, Inc. to initiate landfill closure activities. The *Final Investigation Report* summarizes landfill closure investigation procedures, completed activities, and sampled media analytical results.

State regulations applicable to landfills are enforced by the North Carolina Department of Environment and Natural Resources (DENR), Division of Waste Management (DWM). The subject landfill is permitted by the DENR DWM under Permit No. 56-03. The monitoring of groundwater and surface water is conducted at the landfill on a semiannual basis according to the *Water Quality Monitoring Plan* submitted to DENR by Collins and Aikman, dated December 18, 1997. The most recent report documenting water quality monitoring event at the landfill, *Fall 2011 Water Quality Monitoring Report*, was submitted to DENR on June 22, 2012.

This report is being submitted in accordance with: (1) monitoring requirements as stipulated in the DENR Division of Waste Management (DWM) Permit No. 56-03 and (2) requirements stipulated in the DENR Solid Waste Management Rules Title 15A, Subchapter 13B, Section .0500, of the North Carolina Administrative Code (15A NCAC 13B.0500).

The water quality monitoring network for the Old Fort Landfill consists of four compliance monitoring wells (MW-1, MW-2, MW-3, and MW-4) and two surface water sampling locations (SW-1 and SW-2) located upstream and downstream of the landfill, respectively, along Brevard Creek, which flows north/northwest through the site. The approximate sample locations at the landfill are shown on Figure 2.

This report describes the groundwater and surface water quality sampling event conducted in April 2012.

2.0 Methods

2.1 Groundwater and Surface Water Sampling

Old Fort landfill monitoring wells (MW-1, MW-2, MW-3, and MW-4) and surface water sample locations (SW-1 and SW-2) were sampled by personnel of the Pace Analytical Services, Inc. (Pace) office in Asheville, North Carolina on April 30, 2012 (Table 1). Approximate sample locations are depicted on Figure 2. Table 1 provides a list of all groundwater and surface water samples that were collected and the analyses performed on each sample.

2.1.1 Groundwater Purging and Sampling Methods

At each monitoring well, field parameters consisting of pH, static water level, specific conductance, and temperature were measured and recorded. Field data are provided in the *Pace Report of Laboratory Analysis* included in Appendix A. Water-level measurements and field parameters are summarized in Appendix B. The well purging methods and sample collection procedures were developed and performed by Pace.

2.1.2 Surface Water Sampling Methods

Surface water samples SW-1 (upstream) and SW-2 (downstream) were collected at designated locations along Brevard Creek, which flows through the landfill parcel, adjacent to the western site-boundary in a south-to-north direction toward the Catawba River (Figure 2). The surface water sample collected at the upstream (southwest) location is assumed to represent surface water quality upstream of the landfill, while the surface water sample SW-2, collected at the downstream (northwest) location, is assumed to represent surface water quality downstream of the landfill. One set of field parameters, including temperature, pH, and specific conductance were measured and recorded by Pace for each surface water sample collected (Appendix B).

2.2 Sample Handling, Documentation, and Analysis

Field parameters were measured and reported by Pace. Static water-level measurements were collected and reported by Pace as well. Field parameters and water-level measurements are presented in Appendix B. Water quality samples were also collected by Pace and following sample collection, groundwater and surface water samples were transported to Pace laboratory certified in North Carolina, by Pace staff. Pace personnel submitted the water samples collected from the monitoring wells and the surface water sampling locations for analysis as follows:

- Resource Conservation and Recovery Act (RCRA) metals using US Environmental Protection Agency (EPA) Methods 200.7 and 245.1
- Field pH, field temperature, and field specific conductance

One additional sample, an equipment blank, was analyzed for RCRA metals. Proper chain-of-custody documentation procedures were reportedly followed during collection and transport of each sample. The *Report of Laboratory Analysis*, chain-of-custody documentation, and *Report Form for Field Monitoring* are included in Appendix A. 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 and surface water samples collected at the landfill are included in Appendix B, in the Electronic Data Deliverable (EDD) format specified by the Solid Waste Section (SWS) of the DWM in a memorandum dated October 27, 2006 and its addendum dated February 23, 2007.

As stipulated in the DWM documents referenced above, non-detections were reported at the method detection limit (MDL), and all concentrations exceeding the MDL were reported and appropriately qualified. The MDL is the minimum concentration of a substance that can be measured and reported by a laboratory with 99 percent confidence that the analyte concentration is greater than zero. All detections were compared to the analyte-specific Solid Waste Section Limit (SWSL) established by the SWS. Per the DWM, the SWSL is the lowest concentration of an analyte in a sample that can be quantitatively determined with suitable precision and accuracy. If the reported concentration is above the laboratory MDL and below the method reporting limit (MRL), the analytical result is qualified as estimated, and is flagged with a "J" qualifier (J-flag). MRL is the minimum concentration of a target analyte that can be accurately determined by the referenced method. If the reported concentration is above the laboratory MRL and below the SWSL, the analytical result is qualified as estimated, and is flagged with an italicized "J" qualifier (italicized J-flag). Concentrations below the respective SWSLs are not discussed in the text of this report unless they also exceed their contaminant-specific water quality standards.

Detected concentrations of analytes in groundwater samples were compared to current groundwater quality standards specified in 15A NCAC 2L.0202, which are referred to as 2L standards. 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]). Detections of analytes in surface-water samples were compared to 15A NCAC 2B surface-water quality standards (2B standards).

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

In the EDD (Appendix B), the identification of a well ("WELL ID" on the table) consists of the name of the well prefaced by the un-hyphenated permit number for the facility. For example, monitoring well MW-1 is identified in the EDD as 5603-MW1. In the tables and figures of this report, 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 Samples

The following statements summarize detections of RCRA metals, and field parameters in groundwater.

3.1.1.1 RCRA Metals

Three metals (barium, chromium, and lead) were detected in the groundwater samples collected from one or more of the monitoring wells above SWSLs (Table 2).

Concentration of chromium was found above its 2L standard in only one groundwater sample collected from monitoring well MW-1 (Table 3).

3.1.1.2 Field Parameters

The field pH readings obtained from the groundwater samples collected from all monitoring wells were outside the acceptable range of 6.5 to 8.5 Standard Units (SU) specified in 15A NCAC 02L .0202[c] (Table 3).

3.1.2 Surface Water Samples

The following statements summarize detections of RCRA metals and field parameters in surface water.

3.1.2.1 RCRA Metals

No metals were detected at concentrations that exceeded their respective SWSLs or 2B standards in either of the surface water samples collected (EDD in Appendix B).

3.1.2.2 Field Parameters

The field pH readings measured in both surface water samples were within the 2B standard range established at 6.0 SU to 9.0 SU (EDD in Appendix B). Detailed field parameter measurements are provided in Appendix B of this report.

4.0 Summary

Altamont completed reporting the results of the spring 2012 water quality monitoring event at the Old Fort Industrial Solid Waste Landfill.

Tables 1, 2, and 3 of this report, the *Pace Report of Laboratory Analysis* in Appendix A, and the EDD in Appendix B provide detailed presentation of analytical results and field data representing the groundwater and surface water quality at the Old Fort Landfill.

4.1 Future Activities

Pace will continue to collect groundwater and surface water samples on a semiannual basis at the Old Fort Industrial Solid Waste Landfill. Altamont will continue to report the analytical results for groundwater and surface water monitoring on a semiannual basis. The next sampling event is scheduled for the month of October 2012.

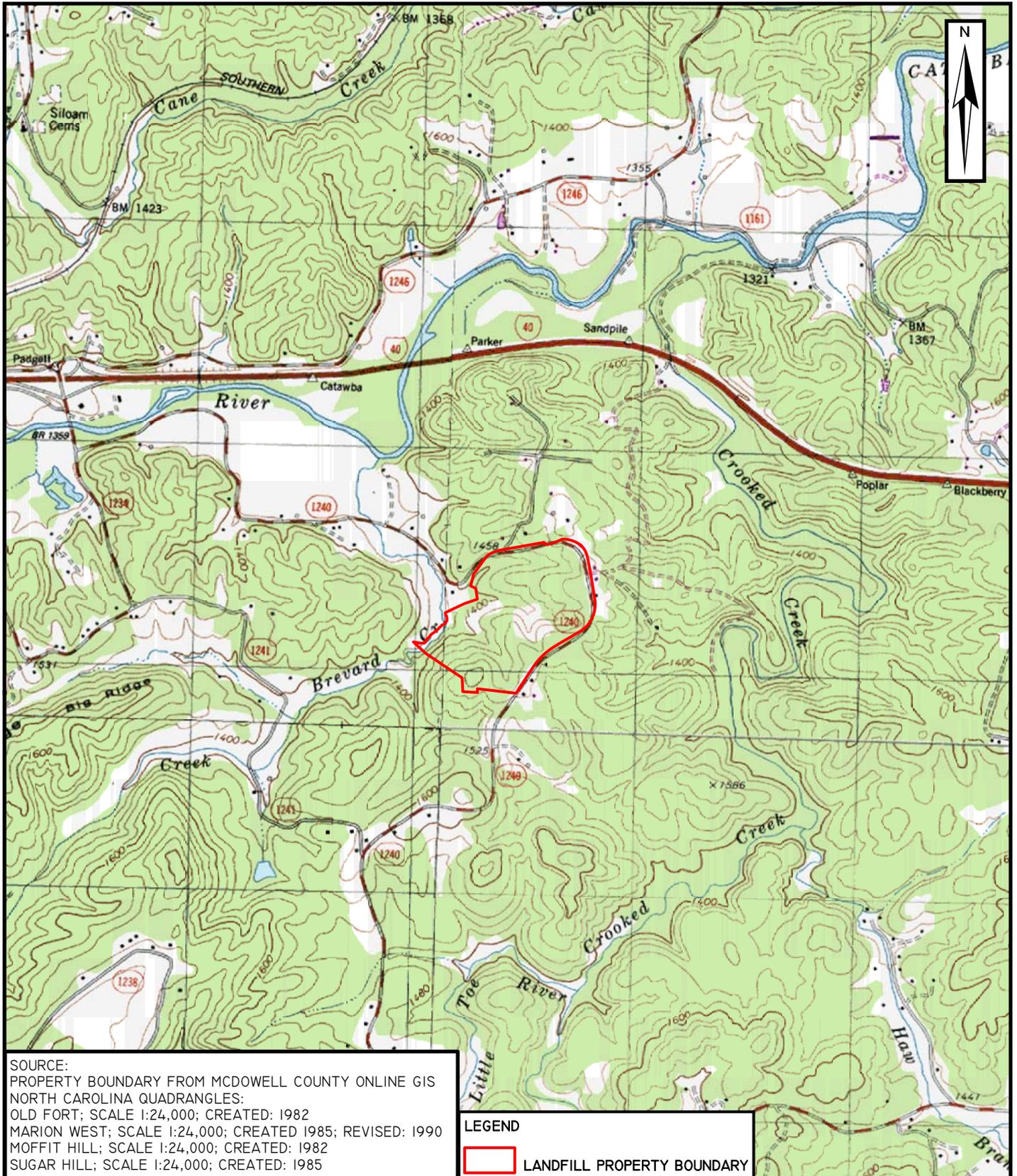
5.0 References

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

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

RJN Environmental, Inc. June 7, 2011. *Final Investigation Report.*

FIGURES



SOURCE:
 PROPERTY BOUNDARY FROM MCDOWELL COUNTY ONLINE GIS
 NORTH CAROLINA QUADRANGLES:
 OLD FORT; SCALE 1:24,000; CREATED: 1982
 MARION WEST; SCALE 1:24,000; CREATED 1985; REVISED: 1990
 MOFFIT HILL; SCALE 1:24,000; CREATED: 1982
 SUGAR HILL; SCALE 1:24,000; CREATED: 1985

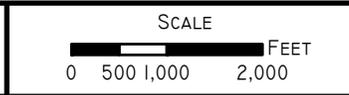
LEGEND
 LANDFILL PROPERTY BOUNDARY

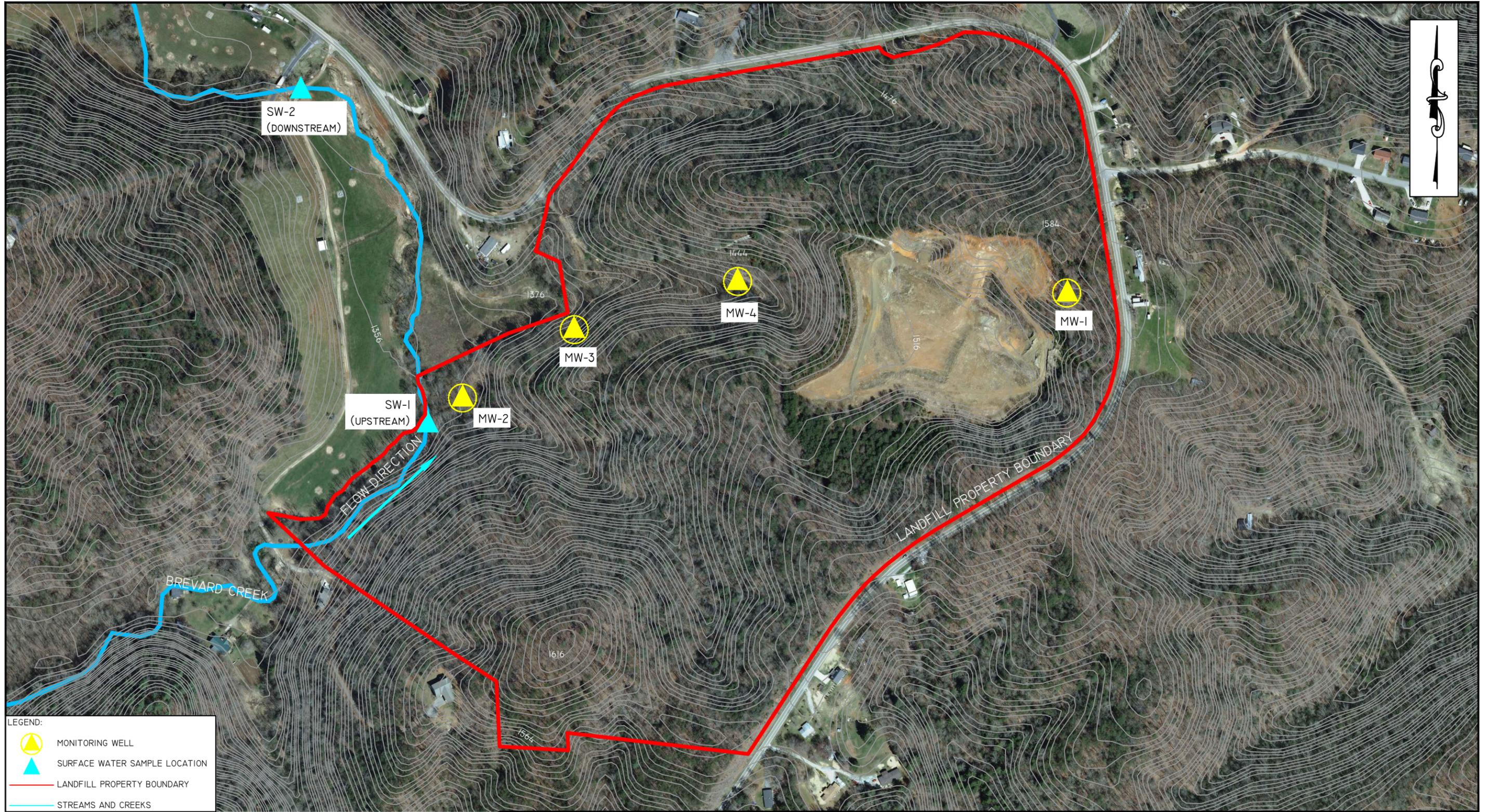
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SITE LOCATION MAP
 OLD FORT LANDFILL
 PERMIT NUMBER 56-03
 STATE ROAD 1240, OLD FORT
 MCDOWELL COUNTY, NORTH CAROLINA

FIGURE
1

DRAWN BY: MARTA A. VANDUSSEN
 PROJECT MANAGER: CHRIS GILBERT
 CLIENT: IAC GROUP NORTH AMERICA
 DATE: 06/25/2012





LEGEND:

- MONITORING WELL
- SURFACE WATER SAMPLE LOCATION
- LANDFILL PROPERTY BOUNDARY
- STREAMS AND CREEKS

- NOTES:**
1. LANDFILL PROPERTY BOUNDARY OBTAINED FROM MCDOWELL COUNTY ONLINE GIS.
 2. TOPOGRAPHY OBTAINED FROM NC DOT ONLINE GIS (MAY 2007 LIDAR).
 3. IMAGERY OBTAINED FROM NC ONE MAP DATA DOWNLOAD WEBSITE (2010).
 4. STREAM AND RIVERS LAYER OBTAINED FROM NC DENR ONLINE GIS.
 5. MONITORING WELL LOCATIONS ARE BASED ON THE SITE PLAN MAP PREPARED BY RJN ENVIRONMENTAL, INC. INCLUDED IN THE FINAL INVESTIGATION REPORT, DATED JUNE 7, 2011.
 6. SURFACE WATER SAMPLE LOCATIONS CONFIRMED BY PACE STAFF.

REV.	DATE	DESCRIPTION	BY	CHK	APV

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DRAWN BY: MARTA A. VANDUSSEN
 PROJECT MANAGER: CHRIS GILBERT
 CLIENT: IAC GROUP NORTH AMERICA
 DATE: 06/25/2012

SCALE (FEET)

150' 0 150' 300'

1" = 300'

SAMPLE LOCATION MAP

OLD FORT LANDFILL
 PERMIT NUMBER 56-03
 STATE ROAD 1240, OLD FORT
 MCDOWELL COUNTY, NORTH CAROLINA

FIGURE
2

TABLES

Table 1
Summary of Laboratory Analyses Performed on Samples
Old Fort Landfill, McDowell County, North Carolina

GROUNDWATER SAMPLES

FACILITY PERMIT	WELL ID	COLLECT DATE	METALS		FIELD PARAMETERS
			EPA 200.7	EPA 245.1	
56-03	MW-1	04/30/2012	X	X	X
56-03	MW-2	04/30/2012	X	X	X
56-03	MW-3	04/30/2012	X	X	X
56-03	MW-4	04/30/2012	X	X	X

SURFACE WATER SAMPLES

FACILITY PERMIT	SAMPLE ID	COLLECT DATE	METALS		FIELD PARAMETERS
			EPA 200.7	EPA 245.1	
56-03	SW-1	04/30/2012	X	X	X
56-03	SW-2	04/30/2012	X	X	X

QUALITY CONTROL SAMPLE

FACILITY PERMIT	SAMPLE ID	COLLECT DATE	METALS	
			EPA 200.7	EPA 245.1
56-03	EQUIP BLK	04/30/2012	X	X

Notes:

1. Metals analysis include the following RCRA metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver, per December 18, 1997 *Water Quality Monitoring Plan* and permit requirements.
2. Field Parameters include the following: pH, temperature, static water level, and specific conductance.

Table 2
Solid Waste Section Limits Exceedances Notification
Old Fort Landfill, McDowell County, North Carolina

FACILITY PERMIT	WELL ID	CAS Number	SWS ID	PARAMETER	RESULT	UNITS	QUALIFIER	METHOD	MDL	MRL	SWSL	COLLECT DATE
56-03	MW-1	7440-39-3	15	Barium	314	µg/L		EPA 200.7	0.2	5.0	100	04/30/2012
56-03	MW-1	7440-47-3	51	Chromium	31.4	µg/L		EPA 200.7	0.4	5.0	10	04/30/2012
56-03	MW-1	7439-92-1	131	Lead	14.8	µg/L		EPA 200.7	4.0	5.0	10	04/30/2012
56-03	MW-3	7440-39-3	15	Barium	161	µg/L		EPA 200.7	0.2	5.0	100	04/30/2012

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. "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. "COLLECT DATE" is the date on which the sample was collected in the field.
11. Grayed cells indicate result in exceedance of the 2L or Interim Maximum Allowable Concentration (IMAC) standards
12. 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).

Table 3
Water Quality Standards Exceedances Notification
Old Fort Landfill, McDowell 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
56-03	MW-1	7440-47-3	51	Chromium	31.4	µg/L		EPA 200.7	0.4	5.0	10	10	04/30/2012	Naurally occurring
56-03	MW-1	SW320	320	Field pH	6.1	SU			0.05	0.10	NE	6.5 - 8.5	04/30/2012	Consistent with historic pH readings
56-03	MW-2	SW320	320	Field pH	6.4	SU			0.05	0.10	NE	6.5 - 8.5	04/30/2012	Consistent with historic pH readings
56-03	MW-3	SW320	320	Field pH	5.8	SU			0.05	0.10	NE	6.5 - 8.5	04/30/2012	Consistent with historic pH readings
56-03	MW-4	SW320	320	Field pH	5.1	SU			0.05	0.10	NE	6.5 - 8.5	04/30/2012	Consistent with historic pH readings

Notes:

1. "CAS NUMBER" is a unique number assigned by the Chemical Abstracts Service (CAS) to all identified parameters.
2. "SWS ID" is the Solid Waste Section Identification Number.
3. "RESULT" is analytical data reported by the laboratory or field data collected by Altamont.
4. "UNITS" are micrograms per liter (µg/L) for analytical results 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 or Interim Maximum Allowable Concentration (IMAC).
11. "COLLECT DATE" is the date on which the sample was collected in the field.
12. "NE" means Not Established.
13. **Bold** numbers indicate any detection. Grayed cells indicate result in exceedance of the 2L or IMAC standards.
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).

APPENDICES

APPENDIX A
Laboratory Analytical Reports
and Chain-of-Custody Documentation



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Asheville, NC 28804
(828)254-7176

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

May 11, 2012

Ms. Carolyn Bradley
IAC of North America
Hwy 70 E
Old Fort, NC 28762

RE: Project: Landfill MWs 4/30
Pace Project No.: 92117503

Dear Ms. Bradley:

Enclosed are the analytical results for sample(s) received by the laboratory on April 30, 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.

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

Sincerely,

Tom Williams

tom.williams@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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



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

CERTIFICATIONS

Project: Landfill MWs 4/30
 Pace Project No.: 92117503

Charlotte Certification IDs

9800 Kinsey 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
 Virginia/VELAP Certification #: 460147



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Huntersville, NC 28078
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SAMPLE SUMMARY

Project: Landfill MWs 4/30
Pace Project No.: 92117503

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92117503001	MW-1	Water	04/30/12 14:30	04/30/12 17:00
92117503002	MW-2	Water	04/30/12 13:50	04/30/12 17:00
92117503003	MW-3	Water	04/30/12 14:00	04/30/12 17:00
92117503004	MW-4	Water	04/30/12 14:15	04/30/12 17:00
92117503005	SW-1	Water	04/30/12 13:30	04/30/12 17:00
92117503006	SW-2	Water	04/30/12 14:40	04/30/12 17:00
92117503007	EQUIP BLK	Water	04/30/12 00:00	04/30/12 17:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Landfill MWs 4/30
Pace Project No.: 92117503

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92117503001	MW-1	EPA 200.7	JMW	7
		EPA 245.1	SHB	1
92117503002	MW-2	EPA 200.7	JMW	7
		EPA 245.1	SHB	1
92117503003	MW-3	EPA 200.7	JMW	7
		EPA 245.1	SHB	1
92117503004	MW-4	EPA 200.7	JMW	7
		EPA 245.1	SHB	1
92117503005	SW-1	EPA 200.7	JMW	7
		EPA 245.1	SHB	1
92117503006	SW-2	EPA 200.7	JMW	7
		EPA 245.1	SHB	1
92117503007	EQUIP BLK	EPA 200.7	JMW	7
		EPA 245.1	SHB	1

REPORT OF LABORATORY ANALYSIS



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ANALYTICAL RESULTS

Project: Landfill MWs 4/30

Pace Project No.: 92117503

Sample: MW-1	Lab ID: 92117503001	Collected: 04/30/12 14:30	Received: 04/30/12 17:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data								
	Analytical Method:							
Collected By	MPS			1		05/11/12 15:35		
Collected Date	4/30/12			1		05/11/12 15:35		
Collected Time	14:30			1		05/11/12 15:35		
Field pH	6.1	Std. Units	0.10	1		05/11/12 15:35		
Field Temperature	15.6	deg C	0.50	1		05/11/12 15:35		
Static Water Level	54.31	feet		1		05/11/12 15:35		
Field Specific Conductance	21	umhos/cm	1.0	1		05/11/12 15:35		
200.7 MET ICP								
	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Arsenic	ND	ug/L	5.0	1	05/02/12 10:10	05/02/12 20:56	7440-38-2	
Barium	314	ug/L	5.0	1	05/02/12 10:10	05/02/12 20:56	7440-39-3	
Cadmium	ND	ug/L	1.0	1	05/02/12 10:10	05/02/12 20:56	7440-43-9	
Chromium	31.4	ug/L	5.0	1	05/02/12 10:10	05/02/12 20:56	7440-47-3	
Lead	14.8	ug/L	5.0	1	05/02/12 10:10	05/02/12 20:56	7439-92-1	
Selenium	ND	ug/L	10.0	1	05/02/12 10:10	05/02/12 20:56	7782-49-2	
Silver	ND	ug/L	5.0	1	05/02/12 10:10	05/02/12 20:56	7440-22-4	
245.1 Mercury								
	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1							
Mercury	ND	ug/L	0.20	1	05/03/12 11:55	05/04/12 11:08	7439-97-6	

ANALYTICAL RESULTS

Project: Landfill MWs 4/30

Pace Project No.: 92117503

Sample: MW-2 **Lab ID: 92117503002** Collected: 04/30/12 13:50 Received: 04/30/12 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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Monitoring Well Data

Analytical Method:

Collected By	MPS			1		05/11/12 15:40		
Collected Date	4/30/12			1		05/11/12 15:40		
Collected Time	13:50			1		05/11/12 15:40		
Field pH	6.4 Std. Units		0.10	1		05/11/12 15:40		
Field Temperature	15.5 deg C		0.50	1		05/11/12 15:40		
Field Specific Conductance	134 umhos/cm		1.0	1		05/11/12 15:40		

200.7 MET ICP

Analytical Method: EPA 200.7 Preparation Method: EPA 200.7

Arsenic	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:00	7440-38-2	
Barium	58.2 ug/L		5.0	1	05/02/12 10:10	05/02/12 21:00	7440-39-3	
Cadmium	ND ug/L		1.0	1	05/02/12 10:10	05/02/12 21:00	7440-43-9	
Chromium	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:00	7440-47-3	
Lead	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:00	7439-92-1	
Selenium	ND ug/L		10.0	1	05/02/12 10:10	05/02/12 21:00	7782-49-2	
Silver	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:00	7440-22-4	

245.1 Mercury

Analytical Method: EPA 245.1 Preparation Method: EPA 245.1

Mercury	ND ug/L		0.20	1	05/03/12 11:55	05/04/12 11:11	7439-97-6	
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ANALYTICAL RESULTS

Project: Landfill MWs 4/30
 Pace Project No.: 92117503

Sample: MW-3	Lab ID: 92117503003	Collected: 04/30/12 14:00	Received: 04/30/12 17:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data								
Analytical Method:								
Collected By	MPS			1		05/11/12 15:45		
Collected Date	4/30/12			1		05/11/12 15:45		
Collected Time	14:00			1		05/11/12 15:45		
Field pH	5.8 Std. Units		0.10	1		05/11/12 15:45		
Field Temperature	14.8 deg C		0.50	1		05/11/12 15:45		
Static Water Level	16.61 feet			1		05/11/12 15:45		
Field Specific Conductance	95 umhos/cm		1.0	1		05/11/12 15:45		
200.7 MET ICP								
Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Arsenic	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:04	7440-38-2	
Barium	161 ug/L		5.0	1	05/02/12 10:10	05/02/12 21:04	7440-39-3	
Cadmium	ND ug/L		1.0	1	05/02/12 10:10	05/02/12 21:04	7440-43-9	
Chromium	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:04	7440-47-3	
Lead	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:04	7439-92-1	
Selenium	ND ug/L		10.0	1	05/02/12 10:10	05/02/12 21:04	7782-49-2	
Silver	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:04	7440-22-4	
245.1 Mercury								
Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury	ND ug/L		0.20	1	05/03/12 11:55	05/04/12 11:13	7439-97-6	



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ANALYTICAL RESULTS

Project: Landfill MWs 4/30
 Pace Project No.: 92117503

Sample: MW-4		Lab ID: 92117503004	Collected: 04/30/12 14:15	Received: 04/30/12 17:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data		Analytical Method:						
Collected By	MPS			1		05/11/12 15:46		
Collected Date	4/30/12			1		05/11/12 15:46		
Collected Time	14:15			1		05/11/12 15:46		
Field pH	5.1 Std. Units		0.10	1		05/11/12 15:46		
Field Temperature	14.9 deg C		0.50	1		05/11/12 15:46		
Static Water Level	13.49 feet			1		05/11/12 15:46		
Field Specific Conductance	32 umhos/cm		1.0	1		05/11/12 15:46		
200.7 MET ICP		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Arsenic	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:07	7440-38-2	
Barium	63.0 ug/L		5.0	1	05/02/12 10:10	05/02/12 21:07	7440-39-3	
Cadmium	ND ug/L		1.0	1	05/02/12 10:10	05/02/12 21:07	7440-43-9	
Chromium	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:07	7440-47-3	
Lead	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:07	7439-92-1	
Selenium	ND ug/L		10.0	1	05/02/12 10:10	05/02/12 21:07	7782-49-2	
Silver	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:07	7440-22-4	
245.1 Mercury		Analytical Method: EPA 245.1 Preparation Method: EPA 245.1						
Mercury	ND ug/L		0.20	1	05/03/12 11:55	05/04/12 11:16	7439-97-6	



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ANALYTICAL RESULTS

Project: Landfill MWs 4/30
 Pace Project No.: 92117503

Sample: SW-1		Lab ID: 92117503005	Collected: 04/30/12 13:30	Received: 04/30/12 17:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data		Analytical Method:						
Collected By	MPS			1		05/11/12 15:50		
Collected Date	4/30/12			1		05/11/12 15:50		
Collected Time	13:30			1		05/11/12 15:50		
Field pH	7.4 Std. Units		0.10	1		05/11/12 15:50		
Field Temperature	17.5 deg C		0.50	1		05/11/12 15:50		
Field Specific Conductance	50 umhos/cm		1.0	1		05/11/12 15:50		
200.7 MET ICP		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Arsenic	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:11	7440-38-2	
Barium	19.1 ug/L		5.0	1	05/02/12 10:10	05/02/12 21:11	7440-39-3	
Cadmium	ND ug/L		1.0	1	05/02/12 10:10	05/02/12 21:11	7440-43-9	
Chromium	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:11	7440-47-3	
Lead	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:11	7439-92-1	
Selenium	ND ug/L		10.0	1	05/02/12 10:10	05/02/12 21:11	7782-49-2	
Silver	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 21:11	7440-22-4	
245.1 Mercury		Analytical Method: EPA 245.1 Preparation Method: EPA 245.1						
Mercury	ND ug/L		0.20	1	05/03/12 11:55	05/04/12 11:21	7439-97-6	



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ANALYTICAL RESULTS

Project: Landfill MWs 4/30
 Pace Project No.: 92117503

Sample: SW-2		Lab ID: 92117503006	Collected: 04/30/12 14:40	Received: 04/30/12 17:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Monitoring Well Data		Analytical Method:						
Collected By	MPS			1		05/11/12 15:51		
Collected Date	4/30/12			1		05/11/12 15:51		
Collected Time	14:40			1		05/11/12 15:51		
Field pH	7.4 Std. Units		0.10	1		05/11/12 15:51		
Field Temperature	19.1 deg C		0.50	1		05/11/12 15:51		
Field Specific Conductance	54 umhos/cm		1.0	1		05/11/12 15:51		
200.7 MET ICP		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Arsenic	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 23:28	7440-38-2	
Barium	22.9 ug/L		5.0	1	05/02/12 10:10	05/02/12 23:28	7440-39-3	
Cadmium	ND ug/L		1.0	1	05/02/12 10:10	05/02/12 23:28	7440-43-9	
Chromium	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 23:28	7440-47-3	
Lead	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 23:28	7439-92-1	
Selenium	ND ug/L		10.0	1	05/02/12 10:10	05/02/12 23:28	7782-49-2	
Silver	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 23:28	7440-22-4	
245.1 Mercury		Analytical Method: EPA 245.1 Preparation Method: EPA 245.1						
Mercury	ND ug/L		0.20	1	05/03/12 11:55	05/04/12 11:27	7439-97-6	



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ANALYTICAL RESULTS

Project: Landfill MWs 4/30

Pace Project No.: 92117503

Sample: EQUIP BLK		Lab ID: 92117503007	Collected: 04/30/12 00:00	Received: 04/30/12 17:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 MET ICP		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Arsenic	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 23:46	7440-38-2	
Barium	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 23:46	7440-39-3	
Cadmium	ND ug/L		1.0	1	05/02/12 10:10	05/02/12 23:46	7440-43-9	
Chromium	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 23:46	7440-47-3	
Lead	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 23:46	7439-92-1	
Selenium	ND ug/L		10.0	1	05/02/12 10:10	05/02/12 23:46	7782-49-2	
Silver	ND ug/L		5.0	1	05/02/12 10:10	05/02/12 23:46	7440-22-4	
245.1 Mercury		Analytical Method: EPA 245.1 Preparation Method: EPA 245.1						
Mercury	ND ug/L		0.20	1	05/03/12 11:55	05/04/12 11:29	7439-97-6	

QUALITY CONTROL DATA

Project: Landfill MWs 4/30
Pace Project No.: 92117503

QC Batch: MERP/4209 Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury
Associated Lab Samples: 92117503001, 92117503002, 92117503003, 92117503004, 92117503005, 92117503006, 92117503007

METHOD BLANK: 758554 Matrix: Water
Associated Lab Samples: 92117503001, 92117503002, 92117503003, 92117503004, 92117503005, 92117503006, 92117503007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	05/04/12 10:30	

LABORATORY CONTROL SAMPLE: 758555

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.2	88	85-115	

MATRIX SPIKE SAMPLE: 758556

Parameter	Units	92117554002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.0	81	70-130	

MATRIX SPIKE SAMPLE: 758558

Parameter	Units	92117503004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.1	84	70-130	

SAMPLE DUPLICATE: 758557

Parameter	Units	92117554003 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

SAMPLE DUPLICATE: 758559

Parameter	Units	92117503005 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

QUALITY CONTROL DATA

Project: Landfill MWs 4/30

Pace Project No.: 92117503

QC Batch: MPRP/10491 Analysis Method: EPA 200.7
 QC Batch Method: EPA 200.7 Analysis Description: 200.7 MET
 Associated Lab Samples: 92117503001, 92117503002, 92117503003, 92117503004, 92117503005

METHOD BLANK: 757785 Matrix: Water
 Associated Lab Samples: 92117503001, 92117503002, 92117503003, 92117503004, 92117503005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	5.0	05/02/12 19:21	
Barium	ug/L	ND	5.0	05/02/12 19:21	
Cadmium	ug/L	ND	1.0	05/02/12 19:21	
Chromium	ug/L	ND	5.0	05/02/12 19:21	
Lead	ug/L	ND	5.0	05/02/12 19:21	
Selenium	ug/L	ND	10.0	05/02/12 19:21	
Silver	ug/L	ND	5.0	05/02/12 19:21	

LABORATORY CONTROL SAMPLE: 757786

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	500	519	104	85-115	
Barium	ug/L	500	512	102	85-115	
Cadmium	ug/L	500	518	104	85-115	
Chromium	ug/L	500	515	103	85-115	
Lead	ug/L	500	520	104	85-115	
Selenium	ug/L	500	513	103	85-115	
Silver	ug/L	250	257	103	85-115	

MATRIX SPIKE SAMPLE: 757787

Parameter	Units	92117452002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	ND	500	600	120	70-130	
Barium	ug/L	228	500	780	110	70-130	
Cadmium	ug/L	ND	500	505	101	70-130	
Chromium	ug/L	21.0J	500	535	103	70-130	
Lead	ug/L	ND	500	500	100	70-130	
Selenium	ug/L	ND	500	202	40	70-130 M1	
Silver	ug/L	10.5J	250	304	118	70-130	

MATRIX SPIKE SAMPLE: 757789

Parameter	Units	92117425002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	ND	500	541	108	70-130	
Barium	ug/L	0.021 mg/L	500	552	106	70-130	
Cadmium	ug/L	ND	500	537	107	70-130	
Chromium	ug/L	ND	500	539	108	70-130	
Lead	ug/L	ND	500	534	107	70-130	

QUALITY CONTROL DATA

Project: Landfill MWs 4/30
Pace Project No.: 92117503

MATRIX SPIKE SAMPLE: 757789		92117425002	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Selenium	ug/L	ND	500	532	106	70-130	
Silver	ug/L	ND	250	268	107	70-130	

SAMPLE DUPLICATE: 757788		92117426001	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Arsenic	ug/L	ND	ND		20	
Barium	ug/L	ND	.86J		20	
Cadmium	ug/L	ND	ND		20	
Chromium	ug/L	ND	.55J		20	
Lead	ug/L	ND	ND		20	
Selenium	ug/L	ND	ND		20	
Silver	ug/L	ND	ND		20	

SAMPLE DUPLICATE: 757790		92117425005	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Arsenic	ug/L	ND	ND		20	
Barium	ug/L	0.020 mg/L	19.5	2	20	
Cadmium	ug/L	ND	ND		20	
Chromium	ug/L	ND	.89J		20	
Lead	ug/L	ND	ND		20	
Selenium	ug/L	ND	ND		20	
Silver	ug/L	ND	ND		20	

QUALITY CONTROL DATA

Project: Landfill MWs 4/30

Pace Project No.: 92117503

QC Batch: MPRP/10492

Analysis Method: EPA 200.7

QC Batch Method: EPA 200.7

Analysis Description: 200.7 MET

Associated Lab Samples: 92117503006, 92117503007

METHOD BLANK: 757793

Matrix: Water

Associated Lab Samples: 92117503006, 92117503007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	5.0	05/02/12 23:21	
Barium	ug/L	ND	5.0	05/02/12 23:21	
Cadmium	ug/L	ND	1.0	05/02/12 23:21	
Chromium	ug/L	ND	5.0	05/02/12 23:21	
Lead	ug/L	ND	5.0	05/02/12 23:21	
Selenium	ug/L	ND	10.0	05/02/12 23:21	
Silver	ug/L	ND	5.0	05/02/12 23:21	

LABORATORY CONTROL SAMPLE: 757794

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	500	506	101	85-115	
Barium	ug/L	500	510	102	85-115	
Cadmium	ug/L	500	506	101	85-115	
Chromium	ug/L	500	503	101	85-115	
Lead	ug/L	500	507	101	85-115	
Selenium	ug/L	500	504	101	85-115	
Silver	ug/L	250	252	101	85-115	

MATRIX SPIKE SAMPLE: 757795

Parameter	Units	92117503006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	ND	500	548	110	70-130	
Barium	ug/L	22.9	500	568	109	70-130	
Cadmium	ug/L	ND	500	543	109	70-130	
Chromium	ug/L	ND	500	544	109	70-130	
Lead	ug/L	ND	500	538	108	70-130	
Selenium	ug/L	ND	500	539	107	70-130	
Silver	ug/L	ND	250	270	108	70-130	

MATRIX SPIKE SAMPLE: 757797

Parameter	Units	92117560001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	ND	500	567	113	70-130	
Barium	ug/L	46.5	500	576	106	70-130	
Cadmium	ug/L	ND	500	545	109	70-130	
Chromium	ug/L	ND	500	545	109	70-130	
Lead	ug/L	ND	500	538	108	70-130	

QUALITY CONTROL DATA

Project: Landfill MWs 4/30
Pace Project No.: 92117503

MATRIX SPIKE SAMPLE: 757797		92117560001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Selenium	ug/L	ND	500	550	110	70-130	
Silver	ug/L	ND	250	269	108	70-130	

SAMPLE DUPLICATE: 757796		92117503007	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Arsenic	ug/L	ND	ND		20	
Barium	ug/L	ND	ND		20	
Cadmium	ug/L	ND	ND		20	
Chromium	ug/L	ND	.99J		20	
Lead	ug/L	ND	ND		20	
Selenium	ug/L	ND	ND		20	
Silver	ug/L	ND	ND		20	

SAMPLE DUPLICATE: 757798		92117562001	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Arsenic	ug/L	ND	ND		20	
Barium	ug/L	86.0	84.0	2	20	
Cadmium	ug/L	ND	ND		20	
Chromium	ug/L	ND	ND		20	
Lead	ug/L	ND	ND		20	
Selenium	ug/L	ND	ND		20	
Silver	ug/L	0.60J	ND		20	



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

QUALIFIERS

Project: Landfill MWs 4/30
Pace Project No.: 92117503

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.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Landfill MWs 4/30

Pace Project No.: 92117503

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92117503001	MW-1		FLD/		
92117503002	MW-2		FLD/		
92117503003	MW-3		FLD/		
92117503004	MW-4		FLD/		
92117503005	SW-1		FLD/		
92117503006	SW-2		FLD/		
92117503001	MW-1	EPA 200.7	MPRP/10491	EPA 200.7	ICP/9658
92117503002	MW-2	EPA 200.7	MPRP/10491	EPA 200.7	ICP/9658
92117503003	MW-3	EPA 200.7	MPRP/10491	EPA 200.7	ICP/9658
92117503004	MW-4	EPA 200.7	MPRP/10491	EPA 200.7	ICP/9658
92117503005	SW-1	EPA 200.7	MPRP/10491	EPA 200.7	ICP/9658
92117503006	SW-2	EPA 200.7	MPRP/10492	EPA 200.7	ICP/9659
92117503007	EQUIP BLK	EPA 200.7	MPRP/10492	EPA 200.7	ICP/9659
92117503001	MW-1	EPA 245.1	MERP/4209	EPA 245.1	MERC/4130
92117503002	MW-2	EPA 245.1	MERP/4209	EPA 245.1	MERC/4130
92117503003	MW-3	EPA 245.1	MERP/4209	EPA 245.1	MERC/4130
92117503004	MW-4	EPA 245.1	MERP/4209	EPA 245.1	MERC/4130
92117503005	SW-1	EPA 245.1	MERP/4209	EPA 245.1	MERC/4130
92117503006	SW-2	EPA 245.1	MERP/4209	EPA 245.1	MERC/4130
92117503007	EQUIP BLK	EPA 245.1	MERP/4209	EPA 245.1	MERC/4130

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A
Client Information:
Company: IAC
Address: 4WY70E
Phone: 668-7601 Fax: _____
Email To: OLA FORT NC
Requested Due Date/TAT: _____

Section B
Required Project Information:
Report To: Steve Davis
Copy To: _____
Purchase Order No.: _____
Project Name: LANO FILL
Project Number: _____

Section C
Invoice Information:
Attention: _____
Company Name: _____
Address: _____
Face Quote Reference: _____
Face Project Manager: _____
Face Profile #: _____

REGULATORY AGENCY
NPDES GROUND WATER DRINKING WATER
UST RCRA

Site Location: _____
STATE: NC

Page: 1 of 1
1447754

ITEM #	Section D Required Client Information	Matrix Codes MATRIX L CODE Drinking Water DW Water WT Waste Water WW Product P Soil/Solid SL Oil OL Wipe WP Air AR Tissue TS Other OT	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP) (see valid codes to left)	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ O ₃ Methanol Other	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
			COMPOSITE START DATE TIME	COMPOSITE END/GRAB DATE TIME						
1	MW-1		4-30-12	1430		1				92117503 Pace Project No./ Lab I.D.
2	MW-2		4-30	1350		1				92117503003
3	MW-3		4-30	1400		1				92117503003
4	MW-4		4-30	1415		1				92117503007
5	SW-1		4-30	1330		1				92117503005
6	SW-2		4-30	1440		1				92117503006
7	EQUIP BIK		4-30			1				92117503007
8										
9										
10										
11										
12										

ADDITIONAL COMMENTS
RR Davis
White Pt p.s.

RELINQUISHED BY / AFFILIATION
Steve Davis

DATE
4-30-12

TIME
1455

ACCEPTED BY / AFFILIATION
[Signature]

DATE
4/30/12

TIME
1700

SAMPLE CONDITIONS
Received on Ice (Y/N)
Sealed Cooler (Y/N)
Custody (Y/N)
Samples Intact (Y/N)

Temp in °C 3.3

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Mark P. Swana
SIGNATURE of SAMPLER: [Signature]
DATE Signed (MM/DD/YY): 4-30-12

ORIGINAL

	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: IAC Project # 92117563

Where Received: Huntersville Asheville Eden
 Courier (Circle): Fed Ex UPS USPS Client Commercial Pace Other
 Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Optional
Proj. Due Date:
Proj. Name:

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.: 3.3 C Biological Tissue is Frozen: Yes No N/A
 Temp should be above freezing to 6°C

Date and Initials of person examining contents: <u>L 8/30/12</u>
--

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

Client Notification/ Resolution: _____ Field Data Required? Y / N
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

SCURF Review: DM Date: 5/2/12 SRF Review: DM Date: 5/2/12

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)

APPENDIX B
Environmental Monitoring Reporting Form
and
Electronic Submittal of Environmental
Monitoring Data 5603Apr2012 (CD Only)

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)
Old Fort Industrial Solid Waste Landfill	State Road 1240, Old Fort McDowell County, North Carolina	56-03	.0500	April 30, 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 Methane gas monitoring data
 Groundwater monitoring data from private water supply wells Corrective action data (specify) _____
 Leachate monitoring data Other(specify) _____
 Surface water monitoring data

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.

Joel D. Lenk P.G. 828-281-3350
 Facility Representative Name (Print) Title (Area Code) Telephone Number

Signature [Signature] Date 6/25/12

231 Haywood Street, Asheville, North Carolina 28801
 Facility Representative Address

C-2185
 NC PE Firm License Number (if applicable effective May 1, 2009)

