PREPARED FOR:

GRANVILLE COUNTY
SOLID WASTE DEPARTMENT
P.O. BOX 906
OXFORD, NORTH CAROLINA 27565

BUTNER LANDFILL
PERMIT NO. 39-02

SECOND SEMIANNUAL WATER QUALITY MONITORING REPORT OF 2013

SEPTEMBER 2013

PREPARED BY:

JOYCE ENGINEERING

2211 WEST MEADOWVIEW ROAD, SUITE 101
GREENSBORO, NORTH CAROLINA 27407
NC LICENSE NUMBER C-0782
PHONE: (336) 323-0092
FAX: (336) 323-0093

JOYCE PROJECT NO. 660.1302.12

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):

Joyce Engineering, Inc.

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

Name: G. Van Ness Burbach, Ph.D., P.G. Phone: (336) 323-0092

E-mail: vburbach@joyceengineering.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Butner Landfill	State Road 1004 Butner, NC	39-02	.1600	August 5, 2013

Environmental Status: (Check all that apply)

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

Type of data submitted: (Check all that apply)

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

Notification attached?

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

Certification

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

G. VanNess Burbach, Ph.D., PG — Technical Consultant — (336) 323-0092

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

Signature — Date: 9/4/13

Affix NC Licensed Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 1349 GEOLOGIST G. VAN NESS BURBACH

2211 W. Meadowview Rd., Ste. 101 Greensboro, NC 27407

Facility Representative Address

C-0782

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

Second Semiannual Groundwater Monitoring Report of 2013
Butner Landfill
Granville County, North Carolina

TABLE OF CONTENTS

1.0 INTRODUCTION....1
1.1 Site Information....1
1.2 Site Geology....1
1.3 Groundwater Monitoring History....1
1.4 Regulatory Status....2
2.0 FACILITY MONITORING PROGRAM....2
2.1 Groundwater Monitoring Program....2
2.2 Surface Water Monitoring Program....3
3.0 SECOND SEMIANNUAL SAMPLING EVENT OF 2013....3
3.1 Field Work....3
3.2 Laboratory Analysis and JOYCE Quality Control....3
4.0 ANALYTICAL RESULTS AND STATISTICAL ANALYSES....4
4.1 Analytical Results for Groundwater and Comparisons to Standards....4
4.1.1 Inorganic Analyses....4
4.1.2 Organic Analyses....5
4.2 Statistical Analyses....5
4.2.1 Statistical Methods....5
4.2.2 Results of Statistical Analyses....5
4.3 Analytical Results for Surface Water and Comparisons to Standards....6
5.0 HYDROGEOLOGICAL CONDITIONS....6
6.0 CONCLUSION....7
7.0 REFERENCES....7
8.0 ACRONYMS....9

Tables
Table 1 Historical Inorganic Constituents in Groundwater
Table 2 Historical Organic Constituents in Groundwater
Table 3 Historical Constituents in Surface Water
Table 4 Summary of Statistical Analyses
Table 5 Historical Groundwater Elevation Data
Table 6 Estimated Hydraulic Gradients and Groundwater Flow Velocities

Figure
Figure 1 Site Location Map

Drawing
Drawing 1 Potentiometric Surface Map

Appendices
Appendix A Laboratory Analytical Reports and Field Data Logs
Appendix B Statistical Analyses Worksheets

1.0 INTRODUCTION

1.1 Site Information

The Butner Landfill is a closed municipal solid waste (MSW) landfill, located off State Route 1004 near the town of Butner, in Granville County, North Carolina (Figure No. 1). The Butner facility started receiving waste prior to May 1973. Permit Number 39-02, was issued from the State of North Carolina on March 3, 1982. The facility stopped receiving waste in August 1998. A small recycling center and transfer station are operated by the County of Granville at the entrance of the closed landfill.

In accordance with North Carolina Solid Waste Management Regulations (NCSWMR), the Butner Landfill entered an Assessment Monitoring Program in December of 1997 as a result of detections of volatile organic compounds and pesticide above 15A-NCAC-2L (NC-2L) Groundwater Standards. An Assessment of Corrective Measures (ACM) was initiated in 2003, and then suspended by North Carolina Department of Environment and Natural Resources (DENR) since there had been no more NC-2L exceedances. The Nature and Extent Study (NES) and ACM recommenced in 2007 when apparent volatile organic compound (VOC) exceedances of the NC-2L Standards began to appear; however, they were again suspended when it was determined that the apparent exceedances were not statistically significant increases (SSIs) above background. An ACM was reinitiated after an exceedance of benzene in MW-2R in December 2012, and was submitted to NC DENR in May 2013. Approval of the ACM was granted in a letter from NC DENR dated June 27, 2013.

1.2 Site Geology

The Butner Landfill lies within the Piedmont physiographic province. The topography of the area consists of rolling hills that support farmland and forest. The majority of the landfill area is underlain by Carolina Slate Belt felsic volcanic rocks, which have been metamorphosed into greenish grey foliated tuffs. The southeastern portion of the site is underlain by Triassic Sanford Formation (conglomerate, sandstone, and mudstone), which unconformably overlies the Carolina Slate Belt felsic volcanic rocks. There is no exposure of the Sanford Formation at the site; however, float material consisting of grey, coarse-grained sandstone with quartz pebbles was observed. Diabase dikes have also been observed in the vicinity of the site. Geologic descriptions were taken from GAI Consultants-NC, Inc. December 1993 *Groundwater and Surface Water Monitoring System* report.

1.3 Groundwater Monitoring History

- **April 1994** – Current Monitoring Well Network installed.
- **Dec. 1997 -** The facility entered Assessment Monitoring.
- **June 2003** – NC-2L exceedances for heptachlor in MW-2R and MW-3R initiated an ACM.
- **Dec. 2004 & June 2005** – There were no NC-2L exceedances, so DENR agreed to put the ACM on hold pending future monitoring results. At first, DENR said the facility needed deed restrictions on adjoining property owned by the County, but this was

apparently based on false information (the County did not own the property) so the requirement for deed restrictions was dropped.

- **Dec. 2006** – Benzene in MW-2R and 1,4-dichlorobenzene in MW-2R and MW-3R detected above NC-2L standards.
- **June 14, 2007 -** Granville County and JOYCE met with DENR to discuss a strategy for performing a Nature and Extent Study (NES) and an ACM.
- **Nov. 2007** – Nature & Extent well NES-1 was installed downgradient of MW-2R & MW-3R.
- **Dec. 2007** – NES & MNA sampling event on selected wells.
- **Dec. 2008** – Organic results above the NC-2L standards were determined to not represent statistically significant exceedances, so corrective action and ACM were suspended with the concurrence of the DENR and in accordance with the NCSWMR.
- **Dec**. **2012 –** Benzene detections above the NC-2L in MW-2R initiated the ACM.
- **May 17, 2013** – ACM addressing the benzene detections above the NC 2L in MW-2R submitted to DENR.
- **June 27, 2013** – ACM approved by NC DENR.
- **September 3, 2013** – Public meeting and selection of remedy.

1.4 Regulatory Status

Groundwater and surface water monitoring at the Butner Landfill is completed in accordance with North Carolina Solid Waste Management Regulations (NCSWMR) §.1634. The site is currently in an Assessment Monitoring Program. Groundwater samples are collected semiannually and analyzed for all constituents listed in NCSWMR Appendix I plus previously detected Appendix II constituents during the fall sampling event, and all NCSWMR Appendix I and Appendix II constituents during the spring sampling event. Surface water samples are collected and sampled for Appendix I constituents during each sampling event.

2.0 FACILITY MONITORING PROGRAM

2.1 Groundwater Monitoring Program

Six active groundwater monitoring wells comprise the monitoring network at the Butner Landfill. The current compliance network consists of the following monitoring wells: MW-1R (facility background well), MW-2R, MW-3R, MW-4, MW-5, and MW-6. An additional well, NES-1, was installed as part of a Nature and Extent Study on November 14, 2007.

Monitoring Well	Date Installed	Classification	Monitoring Program	Total Depth from TOC (ft)	Lithology of Screened Interval
MW-1R	4/21/94	Background	Assessment	45.1	Saprolite
MW-2R	4/12/94	Compliance	Assessment	19.0	Saprolite
MW-3R	4/14/94	Compliance	Assessment	37.2	Bedrock
MW-4	4/18/94	Compliance	Assessment	31.5	Bedrock
MW-5	4/18/94	Compliance	Assessment	23.4	Saprolite
MW-6	4/19/94	Compliance	Assessment	31.7	Saprolite/Bedrock
NES-1	11/14/07	Nature & Extent	---	33.0	Saprolite/Bedrock

2.2 Surface Water Monitoring Program

Two surface water samples have been collected semiannually since September 1994 at the Butner Landfill. The points SW-1 and SW-2 are located respectively upstream and downstream of the facility, along an unnamed tributary of Picture Creek.

3.0 SECOND SEMIANNUAL SAMPLING EVENT OF 2013

3.1 Field Work

On August 5, 2013 Joyce Engineering, (JOYCE) personnel visited Butner Landfill to purge and sample monitoring wells MW-1R, MW-2R, MW-3R, MW-4, MW-5, and MW-6.

All monitoring wells were purged and sampled using new, disposable bailers. Measurements of temperature, pH, turbidity and specific conductivity were recorded in a field log. Prior to sampling, laboratory-supplied containers were prepared with the following information:

- Monitoring well number (completed by laboratory/field personnel),
- Date and time of sample collection (completed by laboratory/field personnel),
- Initials of sampling personnel (completed by laboratory/field personnel),
- Project name and number (completed by the laboratory/field personnel),
- Chemical preservative (completed by the laboratory/field personnel); and
- Requested chemical analysis (completed by the laboratory/field personnel).

Groundwater samples from each monitoring well were collected directly from the bailers into the provided laboratory containers, either immediately after purging or within 24 hours of the final purge volume. Immediately after collection, the samples were placed in a laboratory provided cooler and chilled on ice. Field Logs are provided in Appendix A.

Surface water points SW-1 and SW-2 were sampled using a decontaminated graduated dipper. Laboratory-prepared sampling containers were filled, placed in a cooler, and chilled on ice. JOYCE personnel measured temperature, pH, specific conductivity, and turbidity of the surface water in the field at the time of sampling. Field Logs are included in Appendix A.

3.2 Laboratory Analysis and JOYCE Quality Control

Pace Analytical Services Inc. of Huntersville, North Carolina, analyzed the August 2013, groundwater and surface water samples under chain-of-custody control. The groundwater samples were analyzed for NC Appendix I plus previously detected Appendix II constituents. The surface water samples were analyzed for NC Appendix I constituents only. The samples were received by the laboratory on August 8, 2013, in good condition, properly preserved, at proper temperatures, and within analysis hold times.

In addition to samples collected for compliance monitoring at the Butner Landfill, JOYCE personnel collected a Field Blank as part of the August 2013 sampling event. The Field Blank

was analyzed for the NC Appendix I plus historically detected NC Appendix II constituents. Also, a Trip Blank that was prepared by the laboratory accompanied the volatile sampling containers to and from the laboratory. The Trip Blank was analyzed for the NC Appendix I plus previously detected Appendix II constituents volatile organic compounds. Upon receipt of the laboratory data package, JOYCE personnel reviewed the following data:

- General typographical errors;
- Correct analyses performed and within method specified hold times;
- Biased data results based on Matrix Spike, Matrix Spike Duplicate, and Laboratory Control Samples;
- Blank qualified data (B-flags);
- Detections above the NC-2L Groundwater Standards or DENR Groundwater Water Protection Standards (GWPS); and
- Detections that are above historical levels.

Based on the data review, JOYCE determined that no verification sampling event were required for the second semiannual 2013 sampling event.

4.0 ANALYTICAL RESULTS AND STATISTICAL ANALYSES

4.1 Analytical Results for Groundwater and Comparisons to Standards

4.1.1 Inorganic Analyses

The inorganic constituents listed below were detected at quantified concentrations in one or more down-gradient monitoring wells during the August 2013 sampling event. Complete historical analytical results for inorganic constituents are presented in Table 1. The laboratory analytical reports and the chains of custody are included in Appendix A. Cobalt was detected above the GWPS in MW-2R and MW-5; however, not above the calculated background concentration (see section 4.2). Since the cobalt detections were below the site specific calculated background value, there was no inorganic exceendence of the site GPS.

Constituent	NC-2L /GWPS*	Background	Downgradient					Blanks
		MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	
Barium	700	ND	111	65.1 J	ND	95.6 J	ND	ND
Cobalt	1*	ND	24.7	ND	ND	50.9	ND	ND
Copper	1,000	ND	ND	14.3	ND	10.2	ND	ND
Nickel	100	ND	87.9	28.1 J	9.0 J	8.4 J	ND	ND

All concentrations are reported in micrograms per liter (µg/L).
NC-2L= Groundwater Standard from 15NCAC 2l.0202
GWPS = Groundwater Protection Standard – for constituents with no NC-2L Standard (indicted by *).
J = Estimated concentration below the SWSL. ND = Not detected above laboratory detection limits.
Highlighted data are above the NC-2L Standard or GWPS.

4.1.2 Organic Analyses

The following table summarizes the organic constituents that were detected at quantified concentrations in one or more down-gradient monitoring well samples for the August 2013 sampling event.

Constituent	NC-2L	Background	Downgradient					Blanks
		MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	
Benzene	1	ND	1.6	0.64 J	0.44 J	ND	ND	ND
Chlorobenzene	50	ND	14.4	15.9	4.6	ND	ND	ND
1,4- Dichlorobenzene	6	ND	2.0	1.3	ND	ND	ND	ND

All concentrations are reported in micrograms per liter (µg/L).
J = Estimated concentration below the Solid Waste Section Limit (SWSL).
ND = Not detected above laboratory detection limits.
Highlighted data are above the NC-2L Standard.

Historical analytical results for organic constituents are presented in Table 2. The laboratory analytical reports, the laboratory quality assurance/quality control information, and the chains of custody, are included in the Appendix A. Benzene in MW-2R was detected above its GPS. The benzene exceedance in MW-2R was addressed in the ACM submitted on May 17, 2013.No other organic constitutents were detected above their GPS during the August 2013 sampling event.

4.2 Statistical Analyses

4.2.1 Statistical Methods

Monitoring well MW-1R is designated as the up-gradient background well for the facility. Data from MW-1R between September 1994 and August 2013 have been used to determine statistical background concentrations for constituents detected at the facility.

The background data were evaluated using the Shapiro-Wilk Test, Parametric Prediction Limits, Parametric Tolerance Intervals, Aitchison's Adjustment, Non-Parametric Prediction Limits, and Poisson Prediction Limits as appropriate. Background data, tests for normality, outliers, Aitchison's adjustment, tolerance interval, or prediction limits are used, as appropriate based on the background data. The statistical test by which downgradient data are compared to facility background data is based upon the nature of the data and the number of data values that are less than the laboratory limit of detection. All statistical tests are evaluated at the 0.05 level of significance, 95% confidence level, and are conducted as one-tailed tests. The data set was evaluated to determine the appropriate procedure for calculation of the background value for each parameter.

4.2.2 Results of Statistical Analyses

A summary of the August 2013 statistical background calculations are provided in the table below. Statistical analysis worksheets can be found in Appendix B.

Constituent	Data Distribution	Statistical Method used to Establish Background	Background Concentration	GWPS	GPS	GPS Exceedances
Cobalt	68% ND	Nonparametric Prediction Interval	130	1	130	None

GWPS = Solid Waste Section Groundwater Standard for constituents with no listed NC 2L.
GPS = Groundwater Protection Standard as defined in 15A NCAC .1634(g).
%ND = percentage of background data that is truncated (non-detect).
All concentrations are in µg/L (micrograms per liter).

The calculated background concentration for Cobalt is proposed as the Groundwater Protection Standard specific to the site per rule .1634(g) of the NCSWMR.

4.3 Analytical Results for Surface Water and Comparisons to Standards

The surface water samples from the Butner Landfill were collected from an unnamed tributary to Picture Creek, which has its confluence with Picture Creek approximately ½ mile south of the site. Picture Creek at this location is classified WS-IV/NSW. Surface water analytical results from the site were compared to the 15A-NCAC-2B (NC2B) surface water standards for water supply-classified waters, human health, or fresh-water aquatic life, whichever is lowest for a given constituent.

No other inorganic or organic constitutents were detected above the SWSL in the surface water samples during the August 2013 sampling event. The historical analytical results for surface water are included in Tables 3. The laboratory analytical reports, the laboratory quality assurance/quality control information, and the chain of custody, are included in the Appendix A.

5.0 HYDROGEOLOGICAL CONDITIONS

Groundwater in the saprolite feeds the fractures in the bedrock and discharges into creeks northeast of the landfill. Groundwater flow direction at deeper levels within the fractured bedrock is controlled by fracture orientation. A groundwater surface contour map, developed with static water level data obtained August 5, 2013, is presented as *Drawing 1*. The static water elevations depict groundwater flow to the southeast.

Depth to groundwater was measured in the compliance monitoring wells at the site prior to purging. The groundwater elevations were calculated relative to the surveyed measuring point (top of casing) for each monitoring well. The historical groundwater elevations are summarized in Table 5. The groundwater elevation contours shown on Drawing 1 are based on data from the August 2013 sampling event. Horizontal groundwater gradients along representative flow paths were estimated from the August 2013 groundwater contours shown on Drawing 1 and are summarized in Table 6. Horizontal gradients across the site ranged from 0.0496 to 0.0555 ft/ft, with an average of approximately 0.0526 ft/ft. This is consistent with previous estimates.

Linear groundwater flow velocities were computed using the modified Darcy equation: $\boldsymbol{V} = \boldsymbol{Ki/n_e}$, where **V** = average linear velocity (feet/day), $\boldsymbol{K}$ = hydraulic conductivity (feet/day), $\boldsymbol{i}$ = horizontal hydraulic gradient, and $\boldsymbol{n_e}$ = effective porosity. The average of hydraulic conductivities ($\boldsymbol{K}$ = 2.18×10^{-05} cm/sec = 6.18×10^{-02} feet/day) from slug-tests conducted in 1994 (GAI, 1994) was used in these calculation.. The average effective porosity ($\boldsymbol{n_e}$ = 18%) based on 90% of reported total porosity for soils (GAI, 1994), and 10% for fractured bedrock was also used. Although the regolith and bedrock are hydraulically connected, the effective porosity generally decreases with depth into the underlying fractured bedrock. The modified Darcy equation makes the simplifying assumption of a homogeneous and isotropic aquifer. The calculated linear groundwater velocities range from approximately 6.2 to 7.0 feet/year, and the average estimated linear groundwater flow velocity under the facility was calculated at approximately 6.6 feet/year (see Table 6). Groundwater flow direction beneath the landfill is predominantly to the south and southeast.

Because of our conservative estimate of effective porosity, actual groundwater velocities may be significantly less than those calculated. Also, the linear velocity equation and resulting rates make the simplified assumptions of a homogeneous and isotropic aquifer. This equation can over estimate velocity when applied to heterogeneous and/or anisotropic conditions such as are believed to exist at this site.

6.0 CONCLUSION

The only inorganic constituent detected above the SWS NC-2L or GWPS at the closed Butner Landfill during the August 2013 sampling event was cobalt in MW-2R and MW-5. The County of Granville requests that the background value for cobalt at the Butner facility be considered the GPS for cobalt at this site; in which case there are no exceedances of the GPS for inorganic constituents from the second semiannual monitoring period of 2013. There were no exceedances of surface water standards during the August 2013 sampling event.

Benzene was detected above the NC-2L in MW-2R during the August 2013 sampling event. In response to the historical benzene exceedances in MW-2R, Granville County submitted an ACM on May 17, 2013. Approval of the ACM was granted in a letter from NC DENR dated June 27, 2013.

The groundwater flow regime is consistent with previous events and the groundwater monitoring network remains adequate to monitor the site. The next semiannual sampling event is scheduled for February 2014.

7.0 REFERENCES

Brady, P.V., M. V. Brady, D. J. Borns. 1998. *Natural Attenuation-CERCLA, RBCA's, and the Future of Environmental Remediation*. Lewis Publishers, New York.

GAI Consultants – NC, 1994. *Ground and Surface Water Monitoring System, Granville County, Butner Landfill, NC Permit No. 39-02.* June, 1994.

Hinchee, R.E., A. Leeson, L. Semprini, and S.K. Ong. 1994. *Bioremediation of Chlorinated and Polycyclic Aromatic Hydrocarbon Compounds*. Lewis Publishers, Boca Raton.

Interstate Technology and Regulatory Cooperation Work Group (ITRC). September 1999. *Natural Attenuation of Chlorinated Solvents in Groundwater: Principles and Practices. Technical/Regulatory Guidelines*.

Interstate Technical Regulatory Council (ITRC). 2003. *Technical and Regulatory Guidance Document for Constucted Treatment Wetlands*.

Joyce Engineering (JOYCE). May 2005. *Preliminary Site Evaluation for a Potential C&D, Granville County Butner Landfill, Permit Number 39-02.*

JOYCE. July 2008. *Assessment of Corrective Measures Report, Granville County Butner Landfill, Permit Number 39-02.*

JOYCE. August 2008. *Second Semiannual Groundwater Monitoring Report of 2007, Granville County Butner Landfill, Permit Number 39-02.*

U.S. Department of Energy (USDE). May 1999. *Decision-Making Framework Guide for the Evaluation and Selection of Monitored Natural Attenuation Remedies at Department of Energy Sites*.

USEPA. May 1996. *Seminars on Bioremediation of Hazardous Waste Sites: Practical Approaches to Implementation*. ORD,EPA/625/K-96/001. Chapters 15 (Natural Attenuation of Groundwater) and 17 (Natural Attenuation of Landfills).

USEPA. May 1995. *How to Evaluate Alternative Cleanup Technologies for Underground Storage Tank Sites: A Guide for Corrective Action Plan Reviewers*. Chapters 2 (Soil Vapor Extraction) and 10 (In-Situ Groundwater Bioremediation).

USEPA. February 1991. *Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites*. OSWER Directive 9355.3-11, EPA/540/P-91/001.

USEPA. October 1988. *Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA*. Office of Solid Waste and Emergency Response (OSWER) Directive 9355.3-01, EPA/540/G-89/004.

USEPA and U.S. Air Force (USAF). July 1993. *Remediation Technologies Screening Matrix Reference Guide, Version I*. Joint Project of OSWER and Environics Directorate, PB93-2118212.

8.0 ACRONYMS

ACM	Assessment of Corrective Measures (Report)
AOC	Area of Concern
C&D	Construction and Demolition Waste
CAP	Corrective Action Plan (Report)
CAER	Corrective Action Evaluation Report (Report)
COC	Constituent of Concern
DENR	North Carolina Department of Environment and Natural Resources
DL	Detection Limit (for laboratory data)
DO	Dissolved Oxygen
EPA	United States Environmental Protection Agency
GPS	Site specific Groundwater Protection Standards
GWPS	Groundwater Protection Standards (established by DENR-SWS)
JOYCE	Joyce Engineering
LFG	Landfill Gas
MNA	Monitored Natural Attenuation
MSW	Municipal Solid Waste
MW	Monitoring Well
NC2B	North Carolina Surface Water Standards found in 15A NCAC 2B
NC-2L	North Carolina Groundwater Standards found in 15A NCAC 2L
NCAC	North Carolina Administrative Code
NCSWMR	North Carolina Solid Waste Management Regulations (15A NCAC 13B.1600)
ND	Not Detected (for laboratory data)
NES	Nature and Extent Study (Report)
O&M	Operations and Maintenance
QL	Quantitation Limit (for laboratory data)
QRA	Quantitative Risk Assessment (Report)
RL	Reporting Limit (for laboratory data)
SWQS	Surface Water Quality Standards
SWS	Solid Waste Section (of DENR)
SWSL	North Carolina Solid Waste Section Reporting Limits
VOC	Volatile Organic Compound
WQMP	Water Quality Monitoring Plan (Report)

TABLES

Table 1	Historical Inorganic Constituents in Groundwater
Table 2	Historical Organic Constituents in Groundwater
Table 3	Historical Constituents in Surface Water
Table 4	Summary of Statistical Analyses
Table 5	Historical Groundwater Elevation Data
Table 6	Estimated Hydraulic Gradients and Groundwater Flow Velocities

TABLE 1:
HISTORICAL INORGANIC CONSTITUENTS IN GROUNDWATER

Constituent	Date	Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Antimony	8-Sep-94	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	1-Dec-94	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	9-Feb-95	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	2-Mar-95	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	15-Nov-95	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	28-May-96	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	22-Nov-96	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	17-Jun-97	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	1-Dec-97	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	20-May-98	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-98	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	21-Jul-99	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	30	ND	80.0	38.0	32.0	33.0	31.0	NI	NS
	26-Oct-00	NR	30	30.0	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	30	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	30	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	30	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	30	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	30	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	30	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	30	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	6	ND	ND	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	6	ND	ND	ND	ND	ND	ND	NI	ND
GWPS = 1.4 ug/L (10/23/07)	19-Dec-07	NR	6	ND	ND	ND	ND	ND	ND	ND	ND
	8-Jul-08	NR	6	ND	ND	ND	ND	ND	ND	NS	ND
	17-Dec-08	2.6	6.0	ND	ND	ND	ND	ND	ND	NS	ND
	9-Jul-09	2.6	6.0	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	2.6	6.0	ND	ND	ND	ND	ND	ND	NS	ND
NC 2B = NE (03/24/10)	24-Jun-10	2.6	6.0	ND	ND	ND	2.9 J	ND	ND	NS	ND
GWPS = 1 ug/L (8/1/10)	13-Dec-10	2.6	6.0	ND	ND	3.0 J	ND	2.8 J	ND	NS	ND
	20-Jun-11	5.0	6.0	ND	ND	ND	ND	6.0	ND	NS	ND
	5-Dec-11	5.0	6.0	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	5.0	6.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	5.0	6.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	5.0	6.0	ND	ND	ND	ND	ND	ND	ND	ND
	5-Aug-13	5.0	6.0	ND	ND	ND	ND	ND	ND	NS	ND
Arsenic	8-Sep-94	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	1-Dec-94	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	9-Feb-95	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	2-Mar-95	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	15-Nov-95	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	28-May-96	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	22-Nov-96	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	17-Jun-97	NR	10	6.0 J	15.0	ND	ND	ND	ND	NI	NS
	1-Dec-97	NR	10	ND	5.0 J	ND	ND	ND	ND	NI	NS
	20-May-98	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-98	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	21-Jul-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	10	2.0 J	ND	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = 50 ug/L (10/23/07)	19-Dec-07	NR	10	ND	4.1 J	ND	ND	ND	ND	ND	ND
	8-Jul-08	NR	10	ND	4.9 J	ND	ND	ND	ND	NS	ND
	17-Dec-08	2.7	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	9-Jul-09	2.7	10.0	ND	13.5	10.9	5.6 J	ND	4.0 J	ND	ND
	16-Dec-09	2.7	10.0	ND	10.6	6.4 J	5.0 J	ND	3.6 J	NS	ND
NC 2L = 10 ug/L (02/05/10)	24-Jun-10	2.7	10.0	ND	11.8	8.1 J	8.2 J	3.3 J	3.1 J	NS	ND
Resample >	12-Aug-10	2.7	10.0	NS	NS	7.2 J	NS	NS	NS	NS	ND
Resample >	31-Aug-10	2.7	10.0	NS	15.4	NS	NS	NS	NS	NS	ND
	13-Dec-10	2.7	10.0	ND	4.9 J	2.7 J	5.4 J	ND	ND	NS	ND
	20-Jun-11	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	5.0	10.0	ND	5.4 J	ND	ND	ND	ND	ND	ND
	12-Dec-12	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	5.0	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	5-Aug-13	5.0	10.0	ND	ND	5.6 J	ND	ND	ND	NS	ND

TABLE 1:
HISTORICAL INORGANIC CONSTITUENTS IN GROUNDWATER

Constituent	Date	Concentration (µg/L)																	
		DL	RL	Background		Downgradient												Blanks	
				MW-1R		MW-2R		MW-3R		MW-4		MW-5		MW-6		NES-1			
Barium	8-Sep-94	NR	500	ND		270		ND		ND		830		860		NI		NS	
	1-Dec-94	NR	500	ND		ND		ND		ND		ND		ND		NI		NS	
	9-Feb-95	NR	500	ND		ND		ND		ND		510		ND		NI		NS	
	2-Mar-95	NR	500	ND		ND		ND		ND		ND		ND		NI		NS	
	15-Nov-95	NR	500	ND		ND		ND		ND		ND		ND		NI		NS	
	28-May-96	NR	500	ND		ND		ND		ND		ND		ND		NI		NS	
	22-Nov-96	NR	500	ND		82.0		30.0		ND		15.0		ND		NI		NS	
	17-Jun-97	NR	500	200		320		37.0		17.0		210		31.0		NI		NS	
	1-Dec-97	NR	500	61.0		180		43.0		46.0		220		33.0		NI		NS	
	20-May-98	NR	500	30.0		150		45.0		13.0		180		22.0		NI		NS	
	19-Nov-98	NR	500	48.0		120		42.0		ND		380		12.0		NI		NS	
	21-Jul-99	NR	500	ND		ND		ND		ND		ND		ND		NI		NS	
	16-Nov-99	NR	500	ND		ND		ND		ND		ND		ND		NI		NS	
	10-May-00	NR	500	ND		ND		ND		ND		ND		ND		NI		NS	
	26-Oct-00	NR	500	ND		ND		ND		ND		ND		ND		NI		NS	
	18-Apr-01	NR	500	ND		ND		ND		ND		ND		ND		NI		NS	
	27-Oct-01	NR	500	ND		ND		ND		ND		ND		ND		NI		NS	
	13-Jun-02	NR	500	ND		ND		ND		ND		ND		ND		NI		NS	
	19-Nov-02	NR	500	ND		ND		ND		ND		ND		ND		NI		NS	
	27-Jun-03	NR	500	ND		ND		ND		ND		ND		ND		NI		NS	
	30-Dec-03	NR	500	ND		ND		ND		ND		ND		ND		NI		ND	
	30-Jun-04	NR	500	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-04	NR	500	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-04	NR	500	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Jun-05	NR	500	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-05	NR	500	ND		ND		ND		ND		ND		ND		NI		ND	
	28-Jun-06	NR	500	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-06	NR	100	5.2	J	120		64.9		1.5	J	64.1		1.8	J	NI		0.20	J
	12-Jul-07	NR	100	2.5	J	129		65.7	J	1.1	J	77.0	J	1.3	J	NI		ND	
NC 2L = 2,000 ug/L (10/23/07)	19-Dec-07	NR	100	2.8	B	99.2		50.0	B	1.4	B	49.6	B	1.7	B	87.8		11.7	
	8-Jul-08	NR	100	5.8	J	102		58.4	J	1.1	B	57.9	J	1.2	B	NS		0.29	J
	17-Dec-08	0.20	100	2.7	B	92.9	J	53.1	B	1.2	B	55.5	J	1.1	B	NS		10.7	J
	9-Jul-09	0.20	100	4.6	B	121		63.4	B	0.37	B	81.4	B	0.94	B	72.4	B	17.6	J
	16-Dec-09	0.20	100	2.9	B	108		62.8	B	0.61	B	56.8	B	0.87	B	NS		17.1	J
NC 2L = 700 ug/L (02/05/10)	24-Jun-10	0.20	100	2.5	B	115	B	61.1	B	1.6	B	93.5	B	1.4	B	NS		27.3	J
	13-Dec-10	0.20	100	4.3	B	122		67.9	J	1.3	B	90.6	J	1.5	B	NS		12.1	J
	20-Jun-11	5.0	100	ND		108		70.7	J	ND		84.7	J	ND		NS		ND	
	5-Dec-11	5.0	100	ND		118		73.0	J	ND		90.6	J	ND		NS		ND	
	11-Jun-12	5.0	100	ND		138		65.2	J	ND		76.4	J	ND		61.3	J	ND	
	12-Dec-12	5.0	100	ND		113		64.7	J	ND		73.6	J	ND		NS		ND	
	1-May-13	5.0	100	ND		118		69.1	J	ND		84.2	J	ND		81.2	J	ND	
	5-Aug-13	5.0	100	ND		111		65.1	J	ND		95.6	J	ND		NS		ND	
Beryllium	8-Sep-94	NR	2	ND		ND		ND		ND		ND		ND		NI		NS	
	1-Dec-94	NR	2	ND		ND		ND		ND		4.0		ND		NI		NS	
	9-Feb-95	NR	2	ND		ND		ND		ND		ND		ND		NI		NS	
	2-Mar-95	NR	2	ND		ND		ND		ND		2.0		ND		NI		NS	
	15-Nov-95	NR	2	ND		ND		ND		ND		ND		ND		NI		NS	
	28-May-96	NR	2	ND		ND		ND		ND		6.0		ND		NI		NS	
	22-Nov-96	NR	2	ND		ND		ND		ND		3.0		ND		NI		NS	
	17-Jun-97	NR	2	2.0		3.0		ND		ND		1.0		ND		NI		NS	
	1-Dec-97	NR	2	ND		ND		ND		ND		ND		ND		NI		NS	
	20-May-98	NR	2	ND		ND		ND		ND		ND		ND		NI		NS	
	19-Nov-98	NR	2	ND		ND		ND		ND		2.0		ND		NI		NS	
	21-Jul-99	NR	2	ND		ND		ND		ND		ND		ND		NI		NS	
	16-Nov-99	NR	2	ND		ND		ND		ND		ND		ND		NI		NS	
	10-May-00	NR	2	ND		ND		ND		ND		ND		ND		NI		NS	
	26-Oct-00	NR	2	ND		ND		ND		ND		ND		ND		NI		NS	
	18-Apr-01	NR	2	ND		12.0		ND		ND		ND		ND		NI		NS	
	27-Oct-01	NR	2	ND		ND		ND		ND		ND		ND		NI		NS	
	13-Jun-02	NR	2	ND		ND		ND		ND		ND		ND		NI		NS	
	19-Nov-02	NR	2	ND		ND		ND		ND		ND		ND		NI		NS	
	27-Jun-03	NR	2	ND		ND		ND		ND		ND		ND		NI		NS	
	30-Dec-03	NR	2	ND		ND		ND		ND		ND		ND		NI		ND	
	30-Jun-04	NR	2	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-04	NR	2	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-04	NR	2	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Jun-05	NR	2	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-05	NR	2	ND		ND		ND		ND		ND		ND		NI		ND	
	28-Jun-06	NR	2	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-06	NR	1	ND		ND		ND		ND		ND		ND		NI		ND	
	12-Jul-07	NR	1	ND		ND		ND		ND		ND		ND		NI		ND	
GWPS = 4 ug/L (10/23/07)	19-Dec-07	NR	1	ND		ND		ND		ND		ND		ND		ND		ND	
	8-Jul-08	NR	1	ND		ND		ND		ND		ND		ND		NS		ND	
	17-Dec-08	0.10	1.0	ND		ND		ND		ND		0.14	J	ND		NS		ND	
	9-Jul-09	0.10	1.0	ND		0.18	J	0.22	J	0.17	J	ND		ND		0.23	J	ND	
	16-Dec-09	0.10	1.0	ND		0.15	J	0.17	J	0.15	J	0.25	J	ND		NS		ND	
NC 2B = 6.5 ug/L (02/05/10)	24-Jun-10	0.10	1.0	ND		ND		0.27	J	0.16	J	ND		ND		NS		ND	
	13-Dec-10	0.10	1.0	ND		ND		ND		ND		ND		ND		NS		ND	
	20-Jun-11	1.0	1.0	ND		ND		ND		ND		ND		ND		NS		ND	
	5-Dec-11	1.0	1.0	ND		ND		ND		ND		ND		ND		NS		ND	
	11-Jun-12	1.0	1.0	ND		ND		ND		ND		ND		ND		ND		ND	
	12-Dec-12	1.0	1.0	ND		ND		ND		ND		ND		ND		NS		ND	
	1-May-13	1.0	1.0	ND		ND		ND		ND		ND		ND		ND		ND	
	5-Aug-13	1.0	1.0	ND		ND		ND		ND		ND		ND		NS		ND	

TABLE 1:
HISTORICAL INORGANIC CONSTITUENTS IN GROUNDWATER

Constituent	Date	Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Cadmium	8-Sep-94	NR	1	ND	ND	ND	ND	ND	4.0	NI	NS
	1-Dec-94	NR	1	ND	ND	ND	ND	ND	ND	NI	NS
	9-Feb-95	NR	1	ND	ND	ND	ND	ND	ND	NI	NS
	2-Mar-95	NR	1	ND	ND	ND	ND	ND	ND	NI	NS
	15-Nov-95	NR	1	ND	ND	ND	ND	ND	ND	NI	NS
	28-May-96	NR	1	ND	ND	ND	ND	ND	ND	NI	NS
	22-Nov-96	NR	1	ND	ND	ND	ND	ND	ND	NI	NS
	17-Jun-97	NR	1	ND	3.0	1.0	ND	ND	ND	NI	NS
	1-Dec-97	NR	1	ND	2.0	ND	ND	ND	ND	NI	NS
	20-May-98	NR	1	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-98	NR	1	ND	ND	ND	ND	ND	ND	NI	NS
	21-Jul-99	NR	1	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	1	ND	3.0	3.0	ND	2.0	ND	NI	NS
	10-May-00	NR	1	5.0	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	1	ND	2.0	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	1	ND	11.0	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	1	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	1	ND	2.0	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	1	2.0	2.0	ND	ND	2.0	ND	NI	NS
	27-Jun-03	NR	1	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	1	ND	1.0	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	1	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	1	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	1	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	1	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	1	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	1	ND	ND	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	1	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = 1.75 ug/L (10/23/07)	19-Dec-07	NR	1	ND	ND	ND	ND	ND	ND	ND	ND
	8-Jul-08	NR	1	ND	ND	ND	ND	ND	ND	NS	ND
	17-Dec-08	0.50	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	9-Jul-09	0.50	1.0	ND	1.4	ND	ND	ND	ND	ND	ND
	16-Dec-09	0.50	1.0	ND	ND	ND	ND	ND	ND	NS	ND
NC 2L = 2 ug/L (02/05/10)	24-Jun-10	0.50	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	13-Dec-10	0.50	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	1.0	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	1.0	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	1.0	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	1.0	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	1.0	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	5-Aug-13	1.0	1.0	ND	ND	ND	ND	ND	ND	NS	ND
Chromium	8-Sep-94	NR	10	8.0	44.0	ND	6.0	48.0	80.0	NI	NS
	1-Dec-94	NR	10	14.0	ND	ND	ND	18.0	ND	NI	NS
	9-Feb-95	NR	10	14.0	ND	ND	10.0	ND	ND	NI	NS
	2-Mar-95	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	15-Nov-95	NR	10	13.0	13.0	ND	ND	ND	ND	NI	NS
	28-May-96	NR	10	33.0	ND	ND	ND	ND	ND	NI	NS
	22-Nov-96	NR	10	3.0	ND	ND	ND	ND	3.0	NI	NS
	17-Jun-97	NR	10	57.0	43.0	ND	3.0	2.0	6.0	NI	NS
	1-Dec-97	NR	10	29.0	ND	ND	ND	ND	ND	NI	NS
	20-May-98	NR	10	10.0	3.0	ND	ND	12.0	ND	NI	NS
	19-Nov-98	NR	10	17.0	3.0	ND	ND	5.0	ND	NI	NS
	21-Jul-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	10	ND	12.0	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = 50 ug/L (10/23/07)	19-Dec-07	NR	10	ND	2.0 B	ND	ND	ND	ND	1.1 B	1.4 J
	8-Jul-08	NR	10	ND	0.54 J	0.58 J	ND	ND	ND	NS	ND
	17-Dec-08	0.40	10.0	0.73 J	1.8 J	0.96 J	ND	0.96 J	0.70 J	NS	ND
	9-Jul-09	0.40	10.0	1.2 J	2.4 J	1.1 J	1.6 J	0.68 J	0.53 J	4.8 J	ND
	16-Dec-09	0.40	10.0	1.3 J	ND	ND	ND	0.95 J	ND	NS	ND
NC 2L = 10 ug/L (02/05/10)	24-Jun-10	0.40	10.0	1.1 B	3.5 B	2.8 B	2.4 B	1.2 B	1.4 B	NS	0.71 J
	13-Dec-10	0.40	10.0	2.5 J	1.3 J	1.8 J	0.69 J	0.57 J	1.2 J	NS	ND
	20-Jun-11	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	5.0	10.0	ND	8.6 J	ND	ND	ND	ND	ND	ND
	12-Dec-12	5.0	10.0	ND	5.2 J	ND	ND	ND	ND	NS	ND
	1-May-13	5.0	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	5-Aug-13	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND

TABLE 1:
HISTORICAL INORGANIC CONSTITUENTS IN GROUNDWATER

Constituent	Date	Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Cobalt	8-Sep-94	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	1-Dec-94	NR	10	11.0	ND	13.0	16.0	22.0	ND	NI	NS
	9-Feb-95	NR	10	20.0	14.0	ND	48.0	39.0	ND	NI	NS
	2-Mar-95	NR	10	16.0	21.0	ND	29.0	121.0	ND	NI	NS
	15-Nov-95	NR	10	20.0	21.0	ND	ND	27.0	ND	NI	NS
	28-May-96	NR	10	30.0	16.0	ND	ND	122	ND	NI	NS
	22-Nov-96	NR	10	6.0	13.0	ND	4.7	93.0	ND	NI	NS
	17-Jun-97	NR	10	130	38.0	ND	6.0	45.0	3.0	NI	NS
	1-Dec-97	NR	10	32.0	21.0	ND	12.0	36.0	4.0	NI	NS
	20-May-98	NR	10	15.0	16.0	2.0	9.0	100	3.0	NI	NS
	19-Nov-98	NR	10	21.0	16.0	2.0	7.0	180	3.0	NI	NS
	21-Jul-99	NR	10	ND	16.0	ND	ND	100	ND	NI	NS
	16-Nov-99	NR	10	ND	15.0	ND	ND	38.0	ND	NI	NS
	10-May-00	NR	10	ND	17.0	ND	ND	61.0	ND	NI	NS
	26-Oct-00	NR	10	ND	15.0	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	10	ND	27.0	ND	ND	74.0	ND	NI	NS
	27-Oct-01	NR	10	ND	12.0	ND	ND	47.0	ND	NI	NS
	13-Jun-02	NR	10	ND	14.0	ND	ND	251	ND	NI	NS
	19-Nov-02	NR	10	ND	10.0	ND	ND	57.0	ND	NI	NS
	27-Jun-03	NR	10	ND	15.0	ND	ND	75.0	ND	NI	NS
	30-Dec-03	NR	10	ND	17.0	ND	ND	52.0	ND	NI	ND
	30-Jun-04	NR	10	ND	16.0	ND	ND	31.0	ND	NI	ND
	29-Dec-04	NR	10	ND	11.0	ND	ND	46.0	ND	NI	ND
	29-Jun-05	NR	10	ND	11.0	ND	ND	43.0	ND	NI	ND
	29-Dec-05	NR	10	ND	12.0	ND	ND	30.0	ND	NI	ND
	28-Jun-06	NR	10	ND	ND	ND	ND	72.5	ND	NI	ND
	29-Dec-06	NR	10	ND	11.4	ND	ND	37.5	ND	NI	ND
	12-Jul-07	NR	10	ND	11.8	ND	2.7	58.4	ND	NI	ND
GWPS = 70 ug/L (10/23/07)	19-Dec-07	NR	10	2.5 B	ND	ND	2.0 B	103	2.6 B	8.0 B	1.8 J
	8-Jul-08	NR	10	10.3 B	12.1 B	2.0 B	9.0 B	130	4.8 B	NS	6.2 J
	17-Dec-08	0.60	10.0	2.1 B	11.8 B	2.3 B	3.6 B	43.7	1.6 B	NS	2.5 J
	9-Jul-09	0.60	10.0	ND	6.2 J	ND	ND	100	ND	2.2 J	ND
	16-Dec-09	0.60	10.0	ND	4.7 J	ND	ND	6.6 J	ND	NS	ND
	24-Jun-10	0.60	10.0	ND	16.3	ND	ND	25.0	ND	NS	ND
GWPS = 1 ug/L (10/23/07)	13-Dec-10	0.60	10.0	2.5 B	15.5	ND	ND	{129}	{ND}	NS	1.6 {1.0 J} J
	20-Jun-11	5.0	10.0	ND	14.2	ND	ND	81.8	ND	NS	ND
	5-Dec-11	5.0	10.0	ND	12.7	ND	ND	146	ND	NS	ND
Resample >	25-Jan-12	5.0	10.0	NS	NS	NS	NS	47.5	NS	NS	ND
	11-Jun-12	5.0	10.0	ND	14.2	ND	ND	101	ND	ND	ND
	12-Dec-12	5.0	10.0	ND	11.3	ND	ND	113	ND	NS	ND
	1-May-13	5.0	10.0	ND	24.3	ND	ND	34.0	ND	ND	ND
	5-Aug-13	5.0	10.0	ND	24.7	ND	ND	50.9	ND	NS	ND
Copper	8-Sep-94	NR	200	ND	ND	ND	ND	ND	660	NI	NS
	1-Dec-94	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	9-Feb-95	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	2-Mar-95	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	15-Nov-95	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	28-May-96	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	22-Nov-96	NR	200	ND	ND	32.0	13.0	100	ND	NI	NS
	17-Jun-97	NR	200	34.0	350	13.0	37.0	28.0	77.0	NI	NS
	1-Dec-97	NR	200	19.0	72.0	14.0	88.0	15.0	34.0	NI	NS
	20-May-98	NR	200	12.0	48.0	380	41.0	53.0	28.0	NI	NS
	19-Nov-98	NR	200	10.0	ND	410	28.0	53.0	14.0	NI	NS
	21-Jul-99	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	200	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	200	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	200	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	200	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	200	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	200	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	200	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	10	ND	ND	11.3	5.50 J	10.4	1.90 B	NI	0.60 J
	12-Jul-07	NR	10	ND	ND	13.4	7.90	2.6 J	ND	NI	ND
NC 2L = 1,000 ug/L (10/23/07)	19-Dec-07	NR	10	2.0 B	ND	8.6 B	3.8 B	7.0 B	0.73 B	5.8 B	9.8
	8-Jul-08	NR	10	0.64 J	ND	12.1	3.7 J	8.5 J	ND	NS	ND
	17-Dec-08	0.30	10.0	0.80 J	13.6	10.2	3.9 J	11.9	0.37 J	NS	ND
	9-Jul-09	0.30	10.0	ND	ND	6.3 J	ND	5.7 J	ND	8.8 J	ND
	16-Dec-09	0.30	10.0	ND	ND	9.2 J	1.6 J	5.7 J	ND	NS	ND
	24-Jun-10	0.30	10.0	ND	ND	10	1.2 J	5.1 J	ND	NS	ND
	13-Dec-10	0.30	10.0	1.1 B	ND	13.6	5.8 J	5.6 J	0.59 B	NS	0.49 J
	20-Jun-11	5.0	10.0	ND	ND	15.3	8.1 J	8.7 J	ND	NS	ND
	5-Dec-11	5.0	10.0	ND	ND	16.9	10.0 J	7.6 J	ND	NS	ND
	11-Jun-12	5.0	10.0	ND	10.7	12.2	6.3 J	7.4 J	ND	ND	ND
	12-Dec-12	5.0	10.0	ND	ND	11.6	8.5 J	10.4	ND	NS	ND
	1-May-13	5.0	10.0	ND	ND	13.6	5.8 J	9.6 J	ND	ND	ND
	5-Aug-13	5.0	10.0	ND	ND	14.3	ND	10.2	ND	NS	ND

TABLE 1:
HISTORICAL INORGANIC CONSTITUENTS IN GROUNDWATER

Constituent	Date	Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Lead	8-Sep-94	NR	10	ND	13.0	ND	ND	30.0	36.0	NI	NS
	1-Dec-94	NR	10	11.0	ND	ND	ND	36.0	ND	NI	NS
	9-Feb-95	NR	10	ND	ND	ND	10.0	37.0	ND	NI	NS
	2-Mar-95	NR	10	ND	ND	ND	ND	44.0	ND	NI	NS
	15-Nov-95	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	28-May-96	NR	10	ND	ND	ND	ND	42.0	ND	NI	NS
	22-Nov-96	NR	10	ND	ND	ND	ND	13.0	ND	NI	NS
	17-Jun-97	NR	10	20.0	29.0	ND	ND	13.0	ND	NI	NS
	1-Dec-97	NR	10	8.0	14.0	ND	5.0	14.0	ND	NI	NS
	20-May-98	NR	10	ND	6.0	ND	6.0	21.0	ND	NI	NS
	19-Nov-98	NR	10	5.0	ND	ND	ND	58.0	ND	NI	NS
	21-Jul-99	NR	10	ND	12.0	14.0	ND	ND	ND	NI	NS
	16-Nov-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	10	11.0	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	10	ND	ND	ND	ND	12.0	ND	NI	NS
	27-Jun-03	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	10	ND	ND	ND	ND	ND	2.1 J	NI	ND
	12-Jul-07	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = 15 ug/L (10/23/07)	19-Dec-07	NR	10	ND	ND	ND	ND	ND	ND	ND	ND
	8-Jul-08	NR	10	ND	ND	ND	ND	ND	ND	NS	ND
	17-Dec-08	4.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	9-Jul-09	4.0	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	4.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	24-Jun-10	4.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	13-Dec-10	4.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	5.0	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	5.0	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	5-Aug-13	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
Mercury*	1-Dec-97	NR	0.5	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-98	NR	0.5	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	0.5	ND	0.59	0.65	0.65	0.76	ND	NI	NS
	10-May-00	NR	0.5	NS	ND	ND	ND	ND	NS	NI	NS
	26-Oct-00	NR	0.5	NS	ND	ND	ND	ND	NS	NI	NS
	18-Apr-01	NR	0.5	NS	ND	ND	ND	ND	NS	NI	NS
	13-Jun-02	NR	0.5	NS	ND	ND	ND	ND	NS	NI	NS
	27-Jun-03	NR	0.5	NS	ND	ND	ND	ND	NS	NI	NS
	30-Dec-03	NR	0.5	NS	NS	NS	NS	NS	NS	NI	NS
	30-Jun-04	NR	0.5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS
	29-Jun-05	NR	0.5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS
	28-Jun-06	NR	2	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS
	12-Jul-07	NR	0.2	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = 1.05 ug/L (10/23/07)	19-Dec-07	NR	NR	NS	NS	NS	NS	NS	NS	ND	NS
	8-Jul-08	NR	0.2	ND	ND	ND	ND	ND	ND	NS	ND
	17-Dec-08	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	9-Jul-09	0.070	0.2	ND	ND	ND	ND	ND	ND	NS	ND
	16-Dec-09	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
NC 2L = 1 ug/L (02/05/10)	24-Jun-10	0.070	0.20	ND	ND	ND	ND	ND	0.098 J	NS	ND
	13-Dec-10	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	20-Jun-11	0.10	0.20	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	11-Jun-12	0.10	0.20	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	1-May-13	0.10	0.20	ND	ND	ND	ND	ND	ND	NS	ND
	5-Aug-13	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS

TABLE 1:
HISTORICAL INORGANIC CONSTITUENTS IN GROUNDWATER

Constituent	Date	Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Nickel	8-Sep-94	NR	50	ND	ND	ND	ND	ND	ND	NI	NS
	1-Dec-94	NR	50	ND	ND	ND	ND	ND	ND	NI	NS
	9-Feb-95	NR	50	ND	72	ND	ND	ND	ND	NI	NS
	2-Mar-95	NR	50	ND	100	ND	ND	ND	ND	NI	NS
	15-Nov-95	NR	50	ND	61.0	ND	ND	ND	ND	NI	NS
	28-May-96	NR	50	ND	85.0	ND	ND	ND	ND	NI	NS
	22-Nov-96	NR	50	ND	72.0	ND	ND	ND	ND	NI	NS
	17-Jun-97	NR	50	75	98.0	ND	ND	ND	ND	NI	NS
	1-Dec-97	NR	50	ND	89.0	ND	ND	ND	ND	NI	NS
	20-May-98	NR	50	ND	91.0	ND	ND	ND	ND	NI	NS
	19-Nov-98	NR	50	ND	83.0	ND	ND	ND	ND	NI	NS
	21-Jul-99	NR	50	ND	109	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	50	ND	122	ND	ND	ND	ND	NI	NS
	10-May-00	NR	50	ND	104	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	50	ND	93.0	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	50	ND	107	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	50	ND	92.0	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	50	ND	98.0	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	50	ND	74.0	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	50	ND	85.0	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	50	ND	100	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	50	ND	120 (81.0)	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	50	ND	100	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	50	ND	150 (92.0)	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	50	ND	96.0	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	50	ND	88.7	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	50	ND	94.7	30.1	14.2	8.9 J	ND	NI	ND
	12-Jul-07	NR	50	ND	99.0	30.6 J	13.9 J	13.7 J	ND	NI	ND
NC 2L = 100 ug/L (10/23/07)	19-Dec-07	NR	50	ND	83.4	23.7	11.0	18.3	ND	11.4	ND
	8-Jul-08	NR	50	ND	76.0	28.1 J	11.5 J	27.0 J	ND	NS	ND
	17-Dec-08	1.7	50.0	ND	75.5	27.8 J	12.2 J	11.0 B	ND	NS	2.4 J
	9-Jul-09	1.7	50.0	2.2 J	93.5	29.4 J	11.7 J	23.2 J	ND	13.1 J	ND
	16-Dec-09	1.7	50.0	ND	81.2	28.2 J	11.8 B	2.6 B	ND	NS	3.0 J
	24-Jun-10	1.7	50.0	ND	76.3	19.7 J	9.0 J	7.0 J	4.5 J	NS	ND
	13-Dec-10	1.7	50.0	ND	83.0	23.5 J	6.8 B	20.7 J	ND	NS	2.7 J
	20-Jun-11	5.0	50.0	ND	78.8	30.1 J	11.2 J	15.3 J	ND	NS	ND
	5-Dec-11	5.0	50.0	ND	89.1	32.8 J	11.7 J	24.3 J	ND	NS	ND
	11-Jun-12	5.0	50.0	ND	91.8	28.9 J	10.0 J	17.3 J	ND	ND	ND
	12-Dec-12	5.0	50.0	ND	91.8	29.2 J	9.3 J	21.1 J	ND	NS	ND
	1-May-13	5.0	50.0	ND	89.6	31.9 J	10.4 J	5.7 J	ND	ND	ND
	5-Aug-13	5.0	50.0	ND	87.9	28.1 J	9.0 J	8.4 J	ND	NS	ND
Selenium	8-Sep-94	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	1-Dec-94	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	9-Feb-95	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	2-Mar-95	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	15-Nov-95	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	28-May-96	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	22-Nov-96	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	17-Jun-97	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	1-Dec-97	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	20-May-98	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-98	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	21-Jul-99	NR	20	ND	ND	ND	ND	36.0	ND	NI	NS
	16-Nov-99	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	20	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	20	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	20	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	20	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	20	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	20	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	20	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = 50 ug/L (10/23/07)	19-Dec-07	NR	10	ND	11.5	ND	ND	ND	ND	ND	ND
	8-Jul-08	NR	10	ND	ND	ND	ND	ND	ND	NS	ND
	17-Dec-08	3.8	10.0	4.8 B	5.1 B	4.8 B	ND	ND	ND	NS	4.9 J
	9-Jul-09	3.8	10.0	ND	ND	4.2 J	ND	ND	ND	ND	ND
	16-Dec-09	3.8	10.0	ND	ND	ND	5.1 J	ND	ND	NS	ND
NC 2L = 20 ug/L (02/05/10)	24-Jun-10	3.8	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	13-Dec-10	3.8	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	10.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	10.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	10.0	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	10.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	10.0	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	5-Aug-13	10.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND

TABLE 1:
HISTORICAL INORGANIC CONSTITUENTS IN GROUNDWATER

Constituent	Date	Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Silver	8-Sep-94	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	1-Dec-94	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	9-Feb-95	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	2-Mar-95	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	15-Nov-95	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	28-May-96	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	22-Nov-96	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	17-Jun-97	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	1-Dec-97	NR	10	ND	8.0	ND	ND	ND	3	NI	NS
	20-May-98	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-98	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	21-Jul-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	10	ND	15.0	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = 17.5 ug/L (10/23/07)	19-Dec-07	NR	10	ND	0.57 J	0.60 J	0.55 J	ND	0.33 J	ND	ND
	8-Jul-08	NR	10	ND	2.7 J	2.3 J	1.1 J	0.22 J	0.69 J	NS	0.12 J
	17-Dec-08	0.10	10.0	0.13 J	1.8 J	1.4 J	0.85 J	0.12 J	0.51 J	NS	ND
	9-Jul-09	0.10	10.0	ND	0.84 J	0.63 J	0.45 J	ND	0.11 J	ND	ND
	16-Dec-09	0.10	10.0	0.12 J	2.0 J	1.6 J	1.0 J	0.12 J	0.52 J	NS	ND
NC 2L = 20 ug/L (02/05/10)	24-Jun-10	0.10	10.0	ND	0.38 J	0.33 J	0.35 J	ND	ND	NS	ND
	13-Dec-10	0.10	10.0	0.15 B	1.3 J	0.99 J	0.45 B	{ND}	{ND}	NS	0.21 {0.19 J} J
	20-Jun-11	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	5.0	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	5.0	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	5-Aug-13	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
Thallium	8-Sep-94	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	1-Dec-94	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	9-Feb-95	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	2-Mar-95	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	15-Nov-95	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	28-May-96	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	22-Nov-96	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	17-Jun-97	NR	10	ND	3.0	ND	ND	ND	ND	NI	NS
	1-Dec-97	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	20-May-98	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-98	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	21-Jul-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	10	ND	10 J (ND)	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	10	ND	22.0 (30.0)	13.0 (24.0)	ND	ND	ND	NI	ND
	29-Dec-05	NR	10	ND	23.0	20.0	ND	ND	ND	NI	ND
	28-Jun-06	NR	10	ND	25.7	12.6	ND	ND	ND	NI	ND
	29-Dec-06	NR	6	ND	ND	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	5.5	ND	ND	ND	ND	ND	ND	NI	ND
GWPS = 0.28 ug/L (10/23/07)	19-Dec-07	NR	5.5	ND	4.0 J	ND	ND	ND	ND	ND	ND
	8-Jul-08	NR	5.5	ND	ND	ND	ND	ND	ND	NS	ND
	17-Dec-08	3.0	5.5	ND	3.2 J	3.2 J	ND	ND	ND	NS	ND
	9-Jul-09	3.0	5.5	ND	ND	ND	4.1 J	ND	ND	ND	ND
	16-Dec-09	3.0	5.5	ND	ND	ND	ND	ND	ND	NS	ND
	24-Jun-10	3.0	5.5	ND	ND	5.2 J	3.1 J	ND	ND	NS	ND
GWPS = 0.2 ug/L (10/1/10)	13-Dec-10	3.0	5.5	ND	ND	7.7	ND	ND	ND	NS	ND
	20-Jun-11	5.4	5.5	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	5.4	5.5	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	5.4	5.5	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	5.4	5.5	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	5.4	5.5	ND	ND	ND	ND	ND	ND	ND	ND
	5-Aug-13	5.4	5.5	ND	ND	ND	ND	ND	ND	NS	ND

TABLE 1:
HISTORICAL INORGANIC CONSTITUENTS IN GROUNDWATER

Constituent	Date	Concentration (µg/L)																	
		DL	RL	Background		Downgradient												Blanks	
				MW-1R		MW-2R		MW-3R		MW-4		MW-5		MW-6		NES-1			
Tin*	1-Dec-97	NR	100	ND		ND		ND		ND		ND		ND		NI		NS	
	19-Nov-98	NR	100	ND		ND		ND		ND		ND		ND		NI		NS	
	16-Nov-99	NR	100	ND		ND		ND		ND		ND		ND		NI		NS	
	26-Oct-00	NR	100	NS		ND		ND		ND		ND		NS		NI		NS	
	18-Apr-01	NR	100	NS		ND		ND		ND		ND		NS		NI		NS	
	27-Oct-01	NR	100	NS		NS		NS		NS		NS		NS		NI		NS	
	13-Jun-02	NR	100	ND		ND		ND		ND		ND		ND		NI		NS	
	19-Nov-02	NR	100	NS		NS		NS		NS		NS		NS		NI		NS	
	27-Jun-03	NR	100	ND		149		127		ND		ND		ND		NI		NS	
	30-Dec-03	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
	30-Jun-04	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-04	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Jun-05	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-05	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
	28-Jun-06	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-06	NR	100	ND		41.1		14.4		3.2	J	ND		ND		NI		ND	
	12-Jul-07	NR	100	ND		35.2	J	13.9	J	5.2	J	ND		ND		NI		ND	
NC 2L = NE ug/L (10/23/07)	19-Dec-07	NR	100	ND		33.6		7.4		ND		ND		ND		ND		ND	
	8-Jul-08	NR	100	4.4	J	28.6	J	15.1	J	5.4	J	3.0	J	3.6	J	NS		ND	
	17-Dec-08	1.8	100	ND		22.5	J	9.2	J	ND		ND		ND		NS		ND	
	9-Jul-09	1.8	100	ND		21.4	J	8.6	J	ND		ND		ND		NS		ND	
	16-Dec-09	1.8	100	ND		26.3	J	10.7	J	ND		ND		ND		NS		ND	
GWPS = 2100 ug/L (02/05/10)	24-Jun-10	1.8	100	ND		23.4	J	10.7	J	3.2	J	2.2	J	1.9	J	NS		ND	
	13-Dec-10	1.8	100	ND		30.3	J	12.1	J	5.8	J	ND		ND		NS		ND	
	20-Jun-11	5.0	100	ND		26.8	J	13.8	J	ND		ND		ND		NS		ND	
	5-Dec-11	5.0	100	ND		25.8	J	13.9	J	ND		ND		ND		NS		ND	
	11-Jun-12	5.0	100	ND		22.2	J	9.0	J	ND		ND		ND		ND		ND	
	12-Dec-12	5.0	100	ND		30.0	J	13.2	J	ND		ND		ND		NS		ND	
	1-May-13	5.0	100	ND		25.8	J	12.2	J	ND		ND		ND		NS		ND	
	5-Aug-13	5.0	100	ND		22.7	J	12.5	J	ND		ND		ND		NS		ND	
Vanadium	8-Sep-94	NR	40	ND		ND		ND		ND		ND		130		NI		NS	
	1-Dec-94	NR	40	63.0		ND		ND		45.0		ND		ND		NI		NS	
	9-Feb-95	NR	40	ND		ND		ND		ND		ND		ND		NI		NS	
	2-Mar-95	NR	40	41.0		ND		ND		45.0		ND		ND		NI		NS	
	15-Nov-95	NR	40	ND		ND		ND		ND		ND		ND		NI		NS	
	28-May-96	NR	40	83.0		ND		ND		ND		ND		ND		NI		NS	
	22-Nov-96	NR	40	7.0		17		ND		21.0		ND		ND		NI		NS	
	17-Jun-97	NR	40	450		560		ND		19.0		ND		ND		NI		NS	
	1-Dec-97	NR	40	62.0		88.0		ND		41.0		ND		10.0		NI		NS	
	20-May-98	NR	40	25.0		15.0		ND		10.0		5.0		ND		NI		NS	
	19-Nov-98	NR	40	33.0		29.0		5.0		16.0		9.0		5.0		NI		NS	
	21-Jul-99	NR	40	ND		ND		ND		ND		ND		ND		NI		NS	
	16-Nov-99	NR	40	ND		ND		ND		ND		ND		ND		NI		NS	
	10-May-00	NR	40	ND		ND		ND		ND		ND		ND		NI		NS	
	26-Oct-00	NR	40	ND		ND		ND		ND		ND		ND		NI		NS	
	18-Apr-01	NR	40	ND		ND		ND		ND		ND		ND		NI		NS	
	27-Oct-01	NR	40	ND		ND		ND		ND		ND		ND		NI		NS	
	13-Jun-02	NR	40	ND		ND		ND		ND		ND		ND		NI		NS	
	19-Nov-02	NR	40	ND		ND		ND		ND		ND		ND		NI		NS	
	27-Jun-03	NR	40	ND		ND		ND		ND		ND		ND		NI		NS	
	30-Dec-03	NR	40	ND		ND		ND		ND		ND		ND		NI		ND	
	30-Jun-04	NR	40	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-04	NR	40	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Jun-05	NR	40	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-05	NR	40	ND		ND		ND		ND		ND		ND		NI		ND	
	28-Jun-06	NR	40	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-06	NR	25	2.7	J	ND		ND		14.5		ND		1.0	J	NI		ND	
	12-Jul-07	NR	25	ND		ND		ND		19.4	J	ND		ND		NI		ND	
GWPS = 3.5 ug/L (10/23/07)	19-Dec-07	NR	25	2.2	B	2.2	B	ND		15.7	J	3.0	B	1.2	B	4.0	J	0.62	J
	8-Jul-08	NR	25	2.6	J	2.4	J	ND		14.6	J	1.4	J	1.2	J	NS		0.20	J
	17-Dec-08	0.20	25.0	1.9	B	2.3	B	ND		13.9	J	2.5	B	1.2	B	NS		0.76	J
	9-Jul-09	0.20	25.0	3.9	B	9.7	J	2.5	B	18.4	J	2.9	B	2.2	B	8.5	J	1.30	J
	16-Dec-09	0.20	25.0	2.0	B	4.4	J	1.3	B	14.0	J	2.2	B	1.5	B	NS		0.53	J
	24-Jun-10	0.20	25.0	1.8	J	4.4	J	1.5	J	13.3	J	2.2	J	1.3	J	NS		ND	
GWPS = 0.3 ug/L (10/1/10)	13-Dec-10	0.20	25.0	3.2	J	3.6	J	0.35	B	16.6	J	1.8	B	1.0	B	NS		0.36	J
	20-Jun-11	5.0	25.0	ND		ND		ND		14.5	J	ND		ND		NS		ND	
	5-Dec-11	5.0	25.0	ND		ND		ND		13.5	J	ND		ND		NS		ND	
	11-Jun-12	5.0	25.0	ND		18.0	J	ND		12.3	J	ND		ND		ND		ND	
	12-Dec-12	5.0	25.0	ND		ND		ND		13.6	J	ND		ND		NS		ND	
	1-May-13	5.0	25.0	ND		ND		ND		6.3	J	ND		ND		ND		ND	
	5-Aug-13	5.0	25.0	ND		ND		ND		10.2	J	ND		ND		NS		ND	

TABLE 1:
HISTORICAL INORGANIC CONSTITUENTS IN GROUNDWATER

Constituent	Date	Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Zinc	8-Sep-94	NR	50	110	160	ND	ND	320	430	NI	NS
	1-Dec-94	NR	50	132	ND	ND	70	164	ND	NI	NS
	9-Feb-95	NR	50	144	89	ND	91	79	74	NI	NS
	2-Mar-95	NR	50	67	ND	ND	ND	111	ND	NI	NS
	15-Nov-95	NR	50	ND	50	ND	ND	ND	ND	NI	NS
	28-May-96	NR	50	136	ND	ND	ND	122	ND	NI	NS
	22-Nov-96	NR	50	79.0	48.0	28.0	ND	38.0	ND	NI	NS
	17-Jun-97	NR	50	370	410	33.0	39.0	36.0	69.0	NI	NS
	1-Dec-97	NR	50	140	110	11.0	45.0	34.0	30.0	NI	NS
	20-May-98	NR	50	70.0	63.0	23.0	31.0	47.0	34.0	NI	NS
	19-Nov-98	NR	50	61.0	33.0	21.0	17.0	53.0	10.0	NI	NS
	21-Jul-99	NR	50	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	50	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	50	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	50	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	50	ND	ND	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	50	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	50	ND	ND	ND	ND	382	ND	NI	NS
	19-Nov-02	NR	50	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	50	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	50	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	50	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	50	ND	ND	ND	66.0	ND	ND	NI	ND
	29-Jun-05	NR	50	ND	54.0	56.0	ND	ND	ND	NI	ND
	29-Dec-05	NR	50	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	50	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	50	8.0 J	ND	ND	4.1 J	4.3 J	4.1 J	NI	ND
	12-Jul-07	NR	10	9.6 J	ND	ND	ND	ND	ND	NI	ND
NC 2L = 1,050 ug/L (10/23/07)	19-Dec-07	NR	10	4.3 B	14.3 B	6.3 B	ND	ND	ND	2.4 B	102
	8-Jul-08	NR	10	5.9 B	ND	ND	ND	4.1 B	ND	NS	1.2 J
	17-Dec-08	0.40	10.0	2.4 B	6.3 J	ND	ND	4.6 J	0.60 B	NS	0.49 J
	9-Jul-09	0.40	10.0	3.4 B	ND	ND	ND	ND	ND	6.1 B	1.6 J
	16-Dec-09	0.40	10.0	4.6 B	ND	ND	ND	7.4 B	ND	NS	7.7 J
NC 2L = 1,000 ug/L (02/05/10)	24-Jun-10	0.40	10.0	0.58 J	ND	ND	ND	ND	1.3 J	NS	ND
	13-Dec-10	0.40	10.0	4.5 B	ND	ND	ND	ND	ND	NS	6.7 J
	20-Jun-11	10.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	10.0	10.0	ND	ND	ND	ND	ND	ND	NS	12.4
	11-Jun-12	10.0	10.0	ND	20.9	ND	ND	ND	ND	ND	ND
	12-Dec-12	10.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	10.0	10.0	ND	ND	ND	ND	11.8	ND	10.0	ND
	5-Aug-13	10.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
Cyanide*	9-Jul-09	5.0	10	ND	ND	ND	ND	46.9	ND	ND	ND
Resample >	28-Sep-09	5.0	10	NS	NS	NS	NS	ND	NS	NS	ND
NC 2L = 70 ug/L (10/23/07)	16-Dec-09	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	24-Jun-10	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	13-Dec-10	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
Resample >	20-Jun-11	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	11-Jun-12	5.0	10.0	ND	6.4 J	ND	ND	8.7 J	ND	NS	ND
	12-Dec-12	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	1-May-13	5.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Aug-13	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS

Notes:
1. All concentrations are in micrograms per liter (mg/L).
2. RL = Laboratory reporting limit (NC SWSL from October 2007 to present).
3. ND = Not detected above laboratory reporting limit.
4. B = Blank-qualified data; result is expected to be biased high based on concentrations in the blanks
5. NC 2L = North Carolina 2L Groundwater Standards.
6. GWPS = Groundwater Protection Standards.
7. When the NC 2L has not been established, the GWPS will be used.
8. Shaded values for groundwater are above the NC 2L Groundwater Standards or Groundwater Protection Standards.
7. Shaded values for surface water are above the NC 2B Surface Water Standards (NC2B) or National Criteria per EPA (EPA NC).
9. DL = Laboratory detection limit.
10. J = Estimated value between the DL and the RL
11. NI = Well/Piezometer not installed.
12. NS = Not sampled.
13. NR = Not Reported.
14. DRY = Monitoring well or surface water point considered to be dry.
15. Surface waters are classified as WS-IV/NSW (WS, human health, and fresh-water aquatic life).

TABLE 2:
HISTORICAL ORGANIC CONSTITUENTS IN GROUNDWATER

Constituent		Concentration (µg/L)																	
		DL	RL	Background		Downgradient												Blanks	
				MW-1R		MW-2R		MW-3R		MW-4		MW-5		MW-6		NES-1			
Acetone	27-Oct-01	NR	100	244	B	109	B	ND		130	B	128	B	476	B	NI		479	
	13-Jun-02	NR	100	ND		ND		ND		ND		ND		ND		NI		NS	
	13-Jun-02	NR	100	ND		ND		ND		ND		ND		ND		NI		NS	
	19-Nov-02	NR	100	ND		ND		ND		ND		ND		ND		NI		NS	
	27-Jun-03	NR	100	ND		ND		ND		ND		ND		ND		NI		NS	
	30-Dec-03	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
	30-Jun-04	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-04	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Jun-05	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-05	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
	28-Jun-06	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-06	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
	12-Jul-07	NR	100	ND		ND		ND		ND		ND		ND		NI		ND	
NC 2L = 700 ug/L (10/23/07)	19-Dec-07	NR	100	ND		ND		ND		ND		ND		ND		ND		4.5	J
	8-Jul-08	NR	100	ND		ND		ND		ND		ND		ND		NS		ND	
	17-Dec-08	20.0	100	ND		ND		ND		ND		ND		ND		NS		ND	
	9-Jul-09	20.0	100	ND		ND		ND		ND		ND		ND		ND		ND	
	16-Dec-09	2.2	100	ND		ND		ND		ND		ND		ND		NS		2.8	J
NC 2L = 6,000 ug/L (02/05/10)	24-Jun-10	2.2	100	ND		18.5	B	6.5	B	ND		2.2	B	ND		NS		7.7	J
	13-Dec-10	2.2	100	ND		ND		ND		ND		ND		ND		NS		ND	
	20-Jun-11	2.2	100	ND		ND		ND		ND		ND		2.4	B	NS		3.9	J
	5-Dec-11	2.2	100	ND		2.3	B	ND		ND		ND		ND		NS		8.8	J
	11-Jun-12	2.2	100	ND		3.5	B	ND		ND		ND		ND		ND		4.7	J
	12-Dec-12	10.0	100	ND		ND		ND		ND		ND		ND		NS		ND	
	1-May-13	10.0	100	ND		ND		ND		ND		ND		ND		ND		14.6	J
	8-May-13	10.0	100	ND		ND		ND		ND		ND		ND		NS		ND	
Benzene	8-Sep-94	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	1-Dec-94	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	9-Feb-95	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	2-Mar-95	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	15-Nov-95	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	28-May-96	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	22-Nov-96	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	17-Jun-97	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	1-Dec-97	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	20-May-98	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	19-Nov-98	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	21-Jul-99	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	16-Nov-99	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	10-May-00	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	26-Oct-00	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	18-Apr-01	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	27-Oct-01	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	13-Jun-02	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	19-Nov-02	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	27-Jun-03	NR	5	ND		ND		ND		ND		ND		ND		NI		NS	
	30-Dec-03	NR	5	ND		ND		ND		ND		ND		ND		NI		ND	
	30-Jun-04	NR	5	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-04	NR	5	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Jun-05	NR	5	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-05	NR	5	ND		ND		ND		ND		ND		ND		NI		ND	
	28-Jun-06	NR	5	ND		ND		ND		ND		ND		ND		NI		ND	
	29-Dec-06	NR	3	ND		1.5		ND		ND		ND		ND		NI		ND	
Resample >	23-Feb-07	NR	3	NS		1.2		NS		NS		NS		NS		NI		ND	
	12-Jul-07	NR	1	ND		1.9		ND		ND		ND		ND		NI		ND	
NC 2L = 1 ug/L (10/23/07)	19-Dec-07	NR	1	ND		1.8		0.48	J	0.26	J	ND		ND		ND		ND	
	8-Jul-08	NR	1	ND		1.4		0.51	J	0.32	J	ND		ND		NS		ND	
	17-Dec-08	0.25	1.0	ND		1.7		0.54	J	ND		ND		ND		NS		ND	
	9-Jul-09	0.25	1.0	ND		1.7		0.34	J	ND		ND		ND		ND		ND	
	16-Dec-09	0.25	1.0	ND		1.7		0.60	J	0.29	J	ND		ND		NS		ND	
	24-Jun-10	0.25	1.0	ND		0.77	J	0.49	J	0.33	J	ND		ND		NS		ND	
	13-Dec-10	0.25	1.0	ND		1.8		0.59	J	0.37	J	ND		ND		NS		ND	
Resample >	8-Feb-11	0.25	1.0	NS		1.4		NS		NS		NS		NS		NS		ND	
	20-Jun-11	0.25	1.0	ND		1.7		0.60	J	0.39	J	ND		ND		NS		ND	
	5-Dec-11	0.25	1.0	ND		1.4		0.69	J	0.40	J	ND		ND		NS		ND	
	11-Jun-12	0.25	1.0	ND		ND		0.51	J	ND		ND		ND		ND		ND	
	12-Dec-12	0.25	1.0	ND		1.6		0.73	J	0.32	J	ND		ND		NS		ND	
Resample >	10-Jan-13	0.25	1.0	ND		1.4		NS		NS		NS		NS		ND		ND	
	1-May-13	0.25	1.0	ND		1.3		0.56	J	0.27	J	ND		ND		ND		ND	
	8-May-13	0.25	1.0	ND		1.6		0.64	J	0.44	J	ND		ND		NS		ND	

TABLE 2:
HISTORICAL ORGANIC CONSTITUENTS IN GROUNDWATER

Constituent		Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Bromomethane	17-Dec-08	0.29	10.0	ND	ND	0.58 J	ND	ND	ND	NS	ND
NC 2L = NE ug/L (10/23/07)	9-Jul-09	0.29	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	0.29	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	24-Jun-10	0.29	10.0	ND	ND	ND	ND	ND	ND	NS	ND
GWPS = 10 ug/L (8/1/10)	13-Dec-10	0.29	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	0.29	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	0.29	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	11-Jun-12	0.29	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	0.29	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	0.29	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	8-May-13	0.29	10.0	ND	ND	ND	ND	ND	ND	NS	ND
2-Butanone	17-Dec-08	0.96	100	ND	ND	ND	ND	1.2 J	ND	NS	ND
NC 2L = 4,200 ug/L (10/23/07)	9-Jul-09	0.96	100	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	0.96	100	ND	ND	ND	ND	ND	ND	NS	ND
NC 2L = 4,000 ug/L (02/05/10)	24-Jun-10	0.96	100	ND	ND	ND	ND	ND	ND	NS	ND
	13-Dec-10	0.96	100	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	0.96	100	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	0.96	100	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	0.96	100	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	0.96	100	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	0.96	100	ND	ND	ND	ND	ND	ND	ND	ND
	8-May-13	0.96	100	ND	ND	ND	ND	ND	ND	NS	ND
Carbon Disulfide	17-Jun-97	NR	100	ND	64.0	ND	ND	ND	ND	NI	NS
	1-Dec-97	NR	100	ND	5.0	8.0	ND	ND	ND	NI	NS
	20-May-98	NR	100	ND	7.5	6.2	ND	ND	ND	NI	NS
	19-Nov-98	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	21-Jul-99	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = 700 ug/L (10/23/07)	19-Dec-07	NR	100	ND	ND	ND	ND	ND	ND	ND	ND
	8-Jul-08	NR	100	ND	ND	ND	ND	ND	ND	NS	ND
	17-Dec-08	1.2	100	ND	ND	ND	ND	ND	ND	NS	ND
	9-Jul-09	1.2	100	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	1.2	100	ND	ND	ND	ND	ND	ND	NS	ND
	24-Jun-10	1.2	100	ND	ND	ND	ND	ND	ND	NS	ND
	13-Dec-10	1.2	100	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	1.2	100	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	1.2	100	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	1.2	100	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	1.2	100	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	1.2	100	ND	ND	ND	ND	ND	ND	ND	ND
	8-May-13	1.2	100	ND	ND	ND	ND	ND	ND	NS	ND

TABLE 2:
HISTORICAL ORGANIC CONSTITUENTS IN GROUNDWATER

Constituent		Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Chlorobenzene	8-Sep-94	NR	5	ND	10.0	7.0	ND	ND	ND	NI	NS
	1-Dec-94	NR	5	ND	ND	7.0	ND	ND	ND	NI	NS
	9-Feb-95	NR	5	ND	13.0	8.0	6.0	ND	ND	NI	NS
	2-Mar-95	NR	5	ND	12.0	9.0	ND	ND	ND	NI	NS
	15-Nov-95	NR	5	ND	14.0	8.0	9.0	ND	ND	NI	NS
	28-May-96	NR	5	ND	15.0	9.0	10.0	ND	ND	NI	NS
	22-Nov-96	NR	5	ND	15.0	ND	11.0	ND	ND	NI	NS
	17-Jun-97	NR	5	ND	19.0	11.0	14.0	ND	ND	NI	NS
	1-Dec-97	NR	5	ND	17.0	9.0	14.0	ND	ND	NI	NS
	20-May-98	NR	5	ND	20.0	8.6	12.0	ND	ND	NI	NS
	19-Nov-98	NR	5	ND	17.2	9.2	10.0	ND	ND	NI	NS
	21-Jul-99	NR	5	ND	14.0	10.0	11.0	ND	ND	NI	NS
	16-Nov-99	NR	5	ND	16.0	10.0	8.0	ND	ND	NI	NS
	10-May-00	NR	5	ND	17.0	11.0	10.0	ND	ND	NI	NS
	26-Oct-00	NR	5	ND	16.0	12.0	9.0	ND	ND	NI	NS
	18-Apr-01	NR	5	ND	16.0	13.0	6.0	ND	ND	NI	NS
	27-Oct-01	NR	0.5	ND	17.0	12.0	9.0	ND	ND	NI	NS
	13-Jun-02	NR	0.5	ND	16.0	11.0	8.0	ND	ND	NI	NS
	19-Nov-02	NR	0.5	ND	18.0	15.0	9.0	ND	ND	NI	NS
	27-Jun-03	NR	0.5	ND	17.7	13.3	7.4	ND	ND	NI	ND
	30-Dec-03	NR	5	ND	20.0	15.0	6.1	ND	ND	NI	ND
	30-Jun-04	NR	5	ND	18.0	15.0	9.9	ND	ND	NI	ND
	29-Dec-04	NR	5	ND	19.0	16.0	9.4	ND	ND	NI	ND
	29-Jun-05	NR	5	ND	15.0	13.0	8.0	ND	ND	NI	ND
	29-Dec-05	NR	5	ND	18.0	16.0	5.0	ND	ND	NI	ND
	28-Jun-06	NR	5	ND	16.5	10.8	7.8	ND	ND	NI	ND
	29-Dec-06	NR	3	ND	17.0	17.0	4.2	ND	ND	NI	ND
	12-Jul-07	NR	3	ND	17.0	16.0	ND	ND	ND	NI	ND
NC 2L = 50 ug/L (10/23/07)	19-Dec-07	NR	3	ND	17.3	16.9	4.7	ND	ND	ND	ND
	8-Jul-08	NR	3	ND	17.2	17.4	6.5	ND	ND	NS	ND
	17-Dec-08	0.23	3.0	ND	15.9	15.6	2.6 J	ND	ND	NS	ND
	9-Jul-09	0.23	3.0	ND	16.1	17.2	6.1	ND	ND	ND	ND
	16-Dec-09	0.23	3.0	ND	15.5	17.7	4.8	ND	ND	NS	ND
	24-Jun-10	0.23	3.0	ND	8.3	15.7	6.3	ND	ND	NS	ND
	13-Dec-10	0.23	3.0	ND	17.7	18.2	6.4	ND	ND	NS	0.28 J
	20-Jun-11	0.23	3.0	ND	16.3	17.2	6.7	ND	ND	NS	ND
	5-Dec-11	0.23	3.0	ND	14.2	17.0	5.8	ND	ND	NS	ND
	11-Jun-12	0.23	3.0	ND	12	14.8	4.4	ND	ND	ND	ND
	12-Dec-12	0.23	3.0	ND	15.8	17.9	4.5	ND	ND	NS	ND
	1-May-13	0.23	3.0	ND	14.0	16.6	3.0 J	ND	ND	ND	ND
	8-May-13	0.23	3.0	ND	14.4	15.9	4.6	ND	ND	NS	ND
Chloroethane	1-Dec-97	NR	10	ND	5.0	2.0	2.0	ND	ND	NI	NS
	20-May-98	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-98	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	21-Jul-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	10	ND	2.2	1.9	ND	ND	ND	NI	ND
	12-Jul-07	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = 2,800 ug/L (10/23/07)	19-Dec-07	NR	10	ND	1.9	1.9	1.5	ND	ND	ND	ND
	8-Jul-08	NR	10	ND	2.2 J	2.5 J	1.8 J	ND	ND	NS	ND
	17-Dec-08	0.54	10.0	ND	1.6 J	ND	ND	ND	ND	NS	ND
	9-Jul-09	0.54	10.0	ND	ND	ND	3.8 J	ND	ND	ND	ND
	16-Dec-09	0.54	10.0	ND	ND	2.2 J	2.0 J	ND	ND	NS	ND
NC 2L = 3,000 ug/L (02/05/10)	24-Jun-10	0.54	10.0	ND	ND	2.1 J	2.0 J	ND	ND	NS	ND
	13-Dec-10	0.54	10.0	ND	1.8 J	2.0 J	1.7 J	ND	ND	NS	ND
	20-Jun-11	0.54	10.0	ND	1.2 J	2.2 J	2.0 J	ND	ND	NS	ND
	5-Dec-11	0.54	10.0	ND	1.3 J	2.0 J	1.7 J	ND	ND	NS	ND
	11-Jun-12	0.54	10.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	0.54	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	0.54	10.0	ND	ND	1.9 J	2.7 J	ND	ND	ND	ND
	8-May-13	0.54	10.0	ND	ND	2.0 J	2.2 J	ND	ND	NS	ND

TABLE 2:
HISTORICAL ORGANIC CONSTITUENTS IN GROUNDWATER

Constituent		Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Chloromethane	9-Jul-09	0.11	1.0	ND	ND	ND	ND	ND	ND	ND	ND
NC 2L = 2.6 ug/L (10/23/07)	16-Dec-09	0.11	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	24-Jun-10	0.11	1.0	ND	ND	ND	ND	ND	0.11 J	NS	ND
NC 2L = 3 ug/L (02/05/10)	13-Dec-10	0.11	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	0.11	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	0.11	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	0.11	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	0.11	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	0.11	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	8-May-13	0.11	1.0	ND	ND	ND	ND	ND	ND	NS	ND
1,2-Dichlorobenzene	1-Dec-97	NR	5	ND	3.0	2.0	1.0	ND	ND	NI	NS
	20-May-98	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-98	NR	5	ND	2.4	2.3	ND	ND	ND	NI	NS
	21-Jul-99	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	5	ND	1.5	2.3	ND	ND	ND	NI	ND
	12-Jul-07	NR	5	ND	1.4 J	1.7 J	0.31 J	ND	ND	NI	ND
NC 2L = 24 ug/L (10/23/07)	19-Dec-07	NR	5	ND	1.6	2.0	0.37 J	ND	ND	ND	ND
	8-Jul-08	NR	5	ND	1.6 J	2.0 J	0.39 J	ND	ND	NS	ND
	17-Dec-08	0.30	5.0	ND	1.4 J	1.9 J	ND	ND	ND	NS	ND
	9-Jul-09	0.30	5.0	ND	1.6 J	2.0 J	0.36 J	ND	ND	ND	ND
	16-Dec-09	0.30	5.0	ND	1.6 J	2.0 J	0.33 J	ND	ND	NS	ND
NC 2L = 20 ug/L (02/05/10)	24-Jun-10	0.30	5.0	ND	0.96 J	1.7 J	0.31 J	ND	ND	NS	ND
	13-Dec-10	0.30	5.0	ND	1.9 J	1.9 J	0.43 J	ND	ND	NS	ND
	20-Jun-11	0.30	5.0	ND	1.5 J	1.7 J	0.37 J	ND	ND	NS	ND
	5-Dec-11	0.30	5.0	ND	1.3 J	1.6 J	ND	ND	ND	NS	ND
	11-Jun-12	0.30	5.0	ND	1.0 J	1.5 J	ND	ND	ND	ND	ND
	12-Dec-12	0.30	5.0	ND	1.3 J	1.7 J	ND	ND	ND	NS	ND
	1-May-13	0.30	5.0	ND	1.2 J	1.6 J	ND	ND	ND	ND	ND
	8-May-13	0.30	5.0	ND	1.2 J	1.6 J	0.30 J	ND	ND	NS	ND

TABLE 2:
HISTORICAL ORGANIC CONSTITUENTS IN GROUNDWATER

Constituent		Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
1,4-Dichlorobenzene	8-Sep-94	NR	5	ND	ND	5.0	ND	ND	ND	NI	NS
	1-Dec-94	NR	5	ND	ND	5.0	ND	ND	ND	NI	NS
	9-Feb-95	NR	5	ND	8.0	6.0	ND	ND	ND	NI	NS
	2-Mar-95	NR	5	ND	7.0	6.0	ND	ND	ND	NI	NS
	15-Nov-95	NR	5	ND	7.0	6.0	ND	ND	ND	NI	NS
	28-May-96	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	22-Nov-96	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	17-Jun-97	NR	5	ND	7.6	6.2	ND	ND	ND	NI	NS
	1-Dec-97	NR	5	ND	6.0	5.0	4.0	ND	ND	NI	NS
	20-May-98	NR	5	ND	7.6	ND	ND	ND	ND	NI	NS
	19-Nov-98	NR	5	ND	3.7	2.8	ND	ND	ND	NI	NS
	21-Jul-99	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	5	ND	5.0	6.0	ND	ND	ND	NI	NS
	18-Apr-01	NR	5	ND	ND	5.0	6.0	ND	ND	NI	NS
	27-Oct-01	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	3	ND	3.0	3.3	ND	ND	ND	NI	ND
Resample >	23-Feb-07	NR	3	NS	3.2	3.3	NS	NS	NS	NI	ND
	12-Jul-07	NR	1	ND	3.3	2.9	0.31 J	ND	ND	NI	ND
NC 2L = 1.4 ug/L (10/23/07)	19-Dec-07	NR	1	ND	3.0	2.7	ND	ND	ND	ND	ND
	8-Jul-08	NR	1	ND	3.0	2.4	ND	ND	ND	NS	ND
	17-Dec-08	0.33	1.0	ND	2.9	2.5	ND	ND	ND	NS	ND
	9-Jul-09	0.33	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	0.33	1.0	ND	2.8	2.2	ND	ND	ND	NS	ND
NC 2L = 6 ug/L (02/05/10)	24-Jun-10	0.33	1.0	ND	1.6	ND	ND	ND	ND	NS	ND
	13-Dec-10	0.33	1.0	ND	3.1	1.9	ND	ND	ND	NS	ND
	20-Jun-11	0.33	1.0	ND	2.7	1.6	ND	ND	ND	NS	ND
	5-Dec-11	0.33	1.0	ND	2.2	1.4	ND	ND	ND	NS	ND
	11-Jun-12	0.33	1.0	ND	1.8	1.4	ND	ND	ND	ND	ND
	12-Dec-12	0.33	1.0	ND	2.4	1.3	ND	ND	ND	NS	ND
	1-May-13	0.33	1.0	ND	2.1	1.2	ND	ND	ND	ND	ND
	8-May-13	0.33	1.0	ND	2.0	1.3	ND	ND	ND	NS	ND
Trans-1,4-Dichloro-2-Butene	20-May-98	NR	100	ND	ND	5.1	ND	ND	ND	NI	NS
	19-Nov-98	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	21-Jul-99	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	100	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	100	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = NE ug/L (10/23/07)	19-Dec-07	NR	100	ND	ND	ND	ND	ND	ND	ND	ND
	8-Jul-08	NR	100	ND	ND	ND	ND	ND	ND	NS	ND
	17-Dec-08	1.0	100	ND	ND	ND	ND	ND	ND	NS	ND
	9-Jul-09	1.0	100	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	1.0	100	ND	ND	ND	ND	ND	ND	NS	ND
	24-Jun-10	1.0	100	ND	ND	ND	ND	ND	ND	NS	ND
	13-Dec-10	1.0	100	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	1.0	100	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	1.0	100	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	1.0	100	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	1.0	100	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	1.0	100	ND	ND	ND	ND	ND	ND	ND	ND
	8-May-13	1.0	100	ND	ND	ND	ND	ND	ND	NS	ND

TABLE 2:
HISTORICAL ORGANIC CONSTITUENTS IN GROUNDWATER

Constituent		Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
1,1-Dichloroethane	1-Dec-97	NR	5	ND	ND	1.0	ND	ND	ND	NI	NS
	20-May-98	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-98	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	21-Jul-99	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	5	ND	ND	0.36 J	0.52 J	ND	ND	NI	ND
NC 2L = 70 ug/L (10/23/07)	19-Dec-07	NR	5	ND	ND	ND	0.57 J	ND	ND	ND	ND
	8-Jul-08	NR	5	ND	ND	ND	0.60 J	ND	ND	NS	ND
	17-Dec-08	0.32	5.0	ND	ND	ND	0.51 J	ND	ND	NS	ND
	9-Jul-09	0.32	5.0	ND	ND	ND	0.84 J	ND	ND	ND	ND
	16-Dec-09	0.32	5.0	ND	ND	ND	0.73 J	ND	ND	NS	ND
NC 2L = 6 ug/L (02/05/10)	24-Jun-10	0.32	5.0	ND	ND	ND	0.53 J	ND	ND	NS	ND
	13-Dec-10	0.32	5.0	ND	ND	ND	0.60 J	ND	ND	NS	ND
	20-Jun-11	0.32	5.0	ND	ND	ND	0.63 J	ND	ND	NS	ND
	5-Dec-11	0.32	5.0	ND	ND	ND	0.67 J	ND	ND	NS	ND
	11-Jun-12	0.32	5.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	0.32	5.0	ND	ND	ND	0.61 J	ND	ND	NS	ND
	1-May-13	0.32	5.0	ND	ND	ND	0.62 J	ND	ND	ND	ND
	8-May-13	0.32	5.0	ND	ND	ND	0.53 J	ND	ND	NS	ND
1,2-Dichloroethane	17-Dec-08	0.12	1.0	ND	ND	0.15 J	ND	ND	ND	NS	ND
NC 2L = 0.38 ug/L (10/23/07)	9-Jul-09	0.12	1.0	ND	ND	ND	ND	ND	ND	ND	0.19 J
	16-Dec-09	0.12	1.0	ND	ND	0.14 J	ND	ND	ND	NS	ND
NC 2L = 0.4 ug/L (02/05/10)	24-Jun-10	0.12	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	13-Dec-10	0.12	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	0.12	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	0.12	1.0	ND	ND	ND	ND	0.18 J	ND	NS	ND
	11-Jun-12	0.12	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	0.12	1.0	ND	ND	ND	ND	(0.20) J	ND	NS	0.20 (ND) J
	1-May-13	0.12	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	8-May-13	0.12	1.0	ND	ND	ND	ND	ND	ND	NS	ND
Ethylbenzene	17-Dec-08	0.30	1.0	ND	0.31 J	ND	ND	ND	ND	NS	ND
NC 2L = 550 ug/L (10/23/07)	9-Jul-09	0.30	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	0.30	1.0	ND	ND	ND	ND	ND	ND	NS	ND
NC 2L = 600 ug/L (02/05/10)	24-Jun-10	0.30	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	13-Dec-10	0.30	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	0.30	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	0.30	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	0.30	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	0.30	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	0.30	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	8-May-13	0.30	1.0	ND	ND	ND	ND	ND	ND	NS	ND
Isobutanol*	24-Jun-10	35.0	100	ND	59.0 J	ND	ND	ND	ND	NS	ND
NC 2L = NE ug/L (02/05/10)	13-Dec-10	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	20-Jun-11	35.0	100	ND	39.5 J	ND	ND	ND	ND	NS	ND
	5-Dec-11	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	11-Jun-12	35.0	100.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	1-May-13	35.0	100	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
Methylene Chloride	9-Jul-09	0.97	2.0	ND	ND	ND	ND	ND	ND	ND	9.6
NC 2L = 4.3 ug/L (10/23/07)	16-Dec-09	0.97	2.0	ND	ND	ND	ND	ND	ND	NS	ND
	24-Jun-10	0.97	1.0	ND	19.0	ND	ND	ND	ND	NS	ND
NC 2L = 5 ug/L (02/05/10) *Resample >*	12-Aug-10	0.97	1.0	NS	ND	NS	NS	NS	NS	NS	ND
	13-Dec-10	0.97	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	0.97	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	0.97	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	0.97	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	0.97	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	0.97	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	8-May-13	0.97	1.0	ND	ND	ND	ND	ND	ND	NS	ND

TABLE 2:
HISTORICAL ORGANIC CONSTITUENTS IN GROUNDWATER

Constituent		Concentration (µg/L)												
		DL	RL	Background	Downgradient									Blanks
				MW-1R	MW-2R		MW-3R	MW-4	MW-5		MW-6	NES-1		
Naphthalene*	8-Jul-08	NR	10	ND	3.8	J	ND	ND	ND		ND	NS		ND
NC 2L = 21 ug/L (10/23/07)	17-Dec-08	NR	NR	NS	NS		NS	NS	NS		NS	NS		NS
	9-Jul-09	0.24	10.0	ND	2.4	J	ND	ND	ND		ND	NS		ND
	16-Dec-09	NR	NR	NS	NS		NS	NS	NS		NS	NS		NS
NC 2L = 6 ug/L (02/05/10)	24-Jun-10	0.24	10.0	ND	7.4	J	ND	ND	ND		ND	NS		ND
	13-Dec-10	NR	NR	NS	NS		NS	NS	NS		NS	NS		NS
	20-Jun-11	0.24	10.0	ND	4.6	J	ND	ND	ND		ND	NS		0.39 J
	5-Dec-11	NR	NR	NS	NS		NS	NS	NS		NS	NS		NS
	11-Jun-12	0.2	10.0	ND	4.6	J	ND	ND	ND		ND	ND		ND
	12-Dec-12	NR	NR	NS	NS		NS	NS	NS		NS	NS		NS
	1-May-13	0.24	10.0	ND	5.1	J	ND	ND	ND		ND	NS		ND
	8-May-13	NR	NR	NS	NS		NS	NS	NS		NS	NS		NS
Toluene	20-May-98	NR	5	ND	ND		8.1	ND	ND		ND	NI		NS
	19-Nov-98	NR	5	ND	ND		ND	ND	ND		ND	NI		NS
	21-Jul-99	NR	5	ND	ND		ND	ND	ND		ND	NI		NS
	16-Nov-99	NR	5	ND	ND		ND	ND	ND		ND	NI		NS
	10-May-00	NR	5	ND	ND		ND	ND	ND		ND	NI		NS
	26-Oct-00	NR	5	ND	ND		ND	ND	ND		ND	NI		NS
	18-Apr-01	NR	5	ND	ND		ND	ND	ND		ND	NI		NS
	27-Oct-01	NR	5	ND	ND		ND	ND	ND		ND	NI		NS
	13-Jun-02	NR	5	ND	ND		ND	ND	ND		ND	NI		NS
	19-Nov-02	NR	5	ND	ND		ND	ND	ND		ND	NI		NS
	27-Jun-03	NR	5	ND	ND		ND	ND	ND		ND	NI		-
	30-Dec-03	NR	5	ND	ND		ND	ND	ND		ND	NI		ND
	30-Jun-04	NR	5	ND	ND		ND	ND	ND		ND	NI		ND
	29-Dec-04	NR	5	ND	ND		ND	ND	ND		ND	NI		ND
	29-Jun-05	NR	5	ND	ND		ND	ND	ND		ND	NI		ND
	29-Dec-05	NR	5	ND	ND		ND	ND	ND		ND	NI		ND
	28-Jun-06	NR	5	ND	ND		ND	ND	ND		ND	NI		ND
	29-Dec-06	NR	5	ND	ND		ND	ND	ND		ND	NI		ND
	12-Jul-07	NR	1	ND	0.49	B	ND	ND	ND		ND	NI		0.34 J
NC 2L = 1,000 ug/L (10/23/07)	19-Dec-07	NR	1	ND	0.51	J	ND	ND	ND		ND	ND		ND
	8-Jul-08	NR	1	ND	0.39	J	ND	ND	1.3		ND	NS		ND
	17-Dec-08	0.26	1.0	1.4	1.6		ND	ND	11.7		ND	NS		ND
	9-Jul-09	0.26	1.0	ND	0.46	J	ND	ND	ND		ND	ND		ND
	16-Dec-09	0.26	1.0	ND	0.42	J	ND	ND	ND		ND	NS		ND
NC 2L = 600 ug/L (02/05/10)	24-Jun-10	0.26	1.0	ND	ND		ND	ND	ND		ND	NS		ND
	13-Dec-10	0.26	1.0	ND	0.54	J	ND	ND	ND		ND	NS		ND
	20-Jun-11	0.26	1.0	ND	0.34	J	ND	ND	ND		ND	NS		ND
	5-Dec-11	0.26	1.0	ND	0.28	J	ND	ND	0.30	J	ND	NS		ND
	11-Jun-12	0.26	1.0	ND	0.28	J	ND	ND	ND		ND	ND		ND
	12-Dec-12	0.26	1.0	ND	0.29	J	ND	ND	0.36	J	ND	NS		ND
	1-May-13	0.26	1.0	ND	ND		ND	ND	ND		ND	ND		ND
	8-May-13	0.26	1.0	ND	0.29	J	ND	ND	ND		ND	NS		ND

TABLE 2:
HISTORICAL ORGANIC CONSTITUENTS IN GROUNDWATER

Constituent		Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Vinyl Chloride	8-Sep-94	NR	10	ND	ND	12.0	ND	ND	ND	NI	NS
	1-Dec-94	NR	10	ND	ND	13.0	ND	ND	ND	NI	NS
	9-Feb-95	NR	10	ND	ND	15.0	ND	ND	ND	NI	NS
	2-Mar-95	NR	10	ND	ND	14.0	ND	ND	ND	NI	NS
	15-Nov-95	NR	10	ND	ND	11.0	ND	ND	ND	NI	NS
	28-May-96	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	22-Nov-96	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	17-Jun-97	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	1-Dec-97	NR	10	ND	ND	7.0	4.0	ND	ND	NI	NS
	20-May-98	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-98	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	21-Jul-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	16-Nov-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	10-May-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	26-Oct-00	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	18-Apr-01	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	19-Nov-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	10	ND	ND	ND	ND	ND	ND	NI	NS
	30-Dec-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	5.5	ND	ND	0.98 J	ND	ND	ND	NI	ND
Resample >	23-Feb-07	NR	5.5	NS	NS	1.0	NS	NS	NS	NI	ND
	12-Jul-07	NR	1	ND	ND	ND	ND	ND	ND	NS	ND
NC 2L = 0.015 ug/L (10/23/07)	19-Dec-07	NR	1	ND	ND	ND	ND	ND	ND	ND	ND
	8-Jul-08	NR	1	ND	ND	0.76 J	ND	ND	ND	NS	ND
	17-Dec-08	0.62	1.0	ND	ND	0.76 J	ND	ND	ND	NS	ND
	9-Jul-09	0.62	1.0	ND	ND	0.99 J	ND	ND	ND	ND	ND
	16-Dec-09	0.62	1.0	ND	ND	0.81 J	ND	ND	ND	NS	ND
NC 2L = 0.03 ug/L (02/05/10)	24-Jun-10	0.62	1.0	ND	ND	0.77 J	ND	ND	ND	NS	ND
	13-Dec-10	0.62	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	0.62	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	0.62	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	0.62	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	12-Dec-12	0.62	1.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	0.62	1.0	ND	ND	ND	ND	ND	ND	ND	ND
	8-May-13	0.62	1.0	ND	ND	ND	ND	ND	ND	NS	ND
Total Xylenes	29-Dec-06	NR	5	ND	1.4	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	4	ND	1.2 J	ND	ND	ND	ND	NI	ND
NC 2L = 530 ug/L (10/23/07)	19-Dec-07	NR	4	ND	2.0	ND	ND	ND	ND	ND	ND
	8-Jul-08	NR	4	ND	1.1 J	ND	ND	ND	ND	NS	ND
	17-Dec-08	0.66	2.0	1.4 J	2.7	ND	ND	ND	ND	NS	ND
	9-Jul-09	0.66	2.0	ND	1.5 J	ND	ND	ND	ND	ND	ND
	16-Dec-09	0.66	2.0	ND	2.2	ND	ND	ND	ND	NS	ND
NC 2L = 500 ug/L (02/05/10)	24-Jun-10	0.66	2.0	ND	0.73 J	ND	ND	ND	ND	NS	ND
	13-Dec-10	0.66	2.0	ND	2.0	ND	ND	ND	ND	NS	ND
	20-Jun-11	0.66	2.0	ND	1.4 J	ND	ND	ND	ND	NS	ND
	5-Dec-11	0.66	2.0	ND	1.1 J	ND	ND	ND	ND	NS	ND
	11-Jun-12	0.66	2.0	ND	0.91 J	ND	ND	ND	ND	ND	ND
	12-Dec-12	0.66	5.0	ND	0.97 J	ND	ND	ND	ND	NS	ND
	1-May-13	0.66	5.0	ND	0.68 J	ND	ND	ND	ND	ND	ND
	8-May-13	0.66	5.0	ND	ND	ND	ND	ND	ND	NS	ND

TABLE 2:
HISTORICAL ORGANIC CONSTITUENTS IN GROUNDWATER

Constituent		Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Benzo(g,h,i)perylene*	20-Jun-11	0.4	10.0	ND	ND	ND	ND	ND	1.4 J	NS	ND
NC 2L = 200 ug/L (2/5/10)	5-Dec-11	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	11-Jun-12	0.38	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	12-Dec-12	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	1-May-13	0.38	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
Dibenz(a,h)anthracene*	20-Jun-11	0.55	10.0	ND	ND	ND	ND	ND	1.5 J	NS	ND
NC 2L = 0.005 ug/L (2/5/10)	5-Dec-11	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	11-Jun-12	0.55	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	12-Dec-12	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	1-May-13	0.55	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
Fluorene*	24-Jun-10	3.8	12.2	ND	4.3 J	ND	ND	ND	ND	NS	ND
NC 2L = 300 ug/L (2/5/10) *Resample >*	12-Aug-10	3.1	10.0	NS	ND	NS	NS	NS	NS	NS	ND
	13-Dec-10	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	20-Jun-11	0.2	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	11-Jun-12	0.21	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	12-Dec-12	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	1-May-13	0.21	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
Indeno(1,2,3-cd)pyrene*	20-Jun-11	0.29	10.0	ND	ND	ND	ND	ND	1.3 J	NS	ND
NC 2L = 0.05 ug/L (2/5/10)	5-Dec-11	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	11-Jun-12	0.29	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	12-Dec-12	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	1-May-13	0.29	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
2-Methylnaphthalene*	24-Jun-10	5.1	12.2	ND	38.9	ND	ND	ND	ND	NS	ND
NC 2L = 30 ug/L (02/05/10) *Resample >*	12-Aug-10	4.2	10	NS	ND	NS	NS	NS	NS	NS	ND
	13-Dec-10	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	20-Jun-11	0.3	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	11-Jun-12	0.28	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	12-Dec-12	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	1-May-13	0.28	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
Phorate*	18-Apr-01	NR	10	NS	3.2	ND	ND	ND	NS	NI	NS
	27-Oct-01	NR	5	ND	8.1	ND	ND	ND	ND	NI	NS
	27-Oct-01	NR	0.5	NS	8.1	1.3	ND	ND	NS	NI	NS
	13-Jun-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	13-Jun-02	NR	0.5	NS	ND	ND	ND	ND	NS	NI	NS
	19-Nov-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS
	27-Jun-03	NR	5	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS
	28-Jun-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS
	12-Jul-07	NR	10	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = 1.4 ug/L (10/23/07)	19-Dec-07	NR	NR	NS	NS	NS	NS	NS	NS	ND	NS
	8-Jul-08	NR	10	ND	ND	ND	ND	ND	ND	NS	ND
	17-Dec-08	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	9-Jul-09	6.6	22.2	ND	ND	ND	ND	ND	ND	NS	ND
	16-Dec-09	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
NC 2L = 1 ug/L (02/05/10)	24-Jun-10	6.5	24.1	ND	ND	ND	ND	ND	ND	NS	ND
	13-Dec-10	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	20-Jun-11	5.4	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	11-Jun-12	5.4	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	12-Dec-12	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	1-May-13	5.4	10.0	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
Beta-BHC*	11-Jun-12	0.050	0.050	ND	ND	0.16	ND	ND	ND	NS	ND
NC 2L = 0.019 ug/L (10/23/07) Resample>	19-Jul-12	0.050	0.050	NS	NS	ND	NS	NS	NS	NS	NS
	12-Dec-12	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	1-May-13	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
Delta-BHC*	11-Jun-12	0.050	0.050	ND	ND	0.090	ND	ND	ND	NS	ND
NC 2L = 0.019 ug/L (10/23/07) Resample>	19-Jul-12	0.050	0.050	NS	NS	ND	NS	NS	NS	NS	NS
	12-Dec-12	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	1-May-13	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS

TABLE 2:
HISTORICAL ORGANIC CONSTITUENTS IN GROUNDWATER

Constituent		Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Gamma-BHC*	27-Jun-03	NR	1.05	ND	0.085	ND	ND	ND	ND	NI	ND
	30-Dec-03	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = 0.2 ug/L (10/23/07)	19-Dec-07	NR	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	8-Jul-08	NR	0.50	ND	ND	ND	ND	ND	ND	NS	ND
	17-Dec-08	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
	9-Jul-09	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
	16-Dec-09	0.01	0.1	ND	ND	ND	ND	ND	ND	NS	ND
NC 2L = 0.03 ug/L (02/05/10)	24-Jun-10	0.00021	0.010	ND	ND	0.052	ND	ND	ND	NS	ND
Resample >	12-Aug-10	0.00020	0.010	NS	NS	ND	NS	NS	NS	NS	ND
	13-Dec-10	0.00020	0.050	ND	ND	0.013 J	ND	ND	ND	NS	ND
	20-Jun-11	0.00020	0.050	ND	ND	0.066	ND	ND	ND	NS	ND
Resample >	28-Jul-11	0.00020	0.010	NS	NS	ND	NS	NS	NS	NS	ND
	5-Dec-11	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
	12-Dec-12	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
Heptachlor*	27-Jun-03	NR	1.05	ND	0.03	0.17	ND	ND	ND	NI	ND
	30-Dec-03	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = 0.0078 ug/L (10/23/07)	19-Dec-07	NR	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	8-Jul-08	NR	0.05	ND	ND	ND	ND	ND	ND	NS	ND
	17-Dec-08	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
	9-Jul-09	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
	16-Dec-09	0.02	0.1	ND	ND	ND	ND	ND	ND	NS	ND
NC 2L = 0.008 ug/L (02/05/10)	24-Jun-10	0.0015	0.010	ND	ND	ND	ND	ND	ND	NS	ND
	13-Dec-10	0.0500	0.0015	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	0.050	0.0015	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	0.050	0.056	ND	0.062	ND	ND	ND	ND	NS	ND
Resample >	25-Jan-12	0.050	0.0500	NS	ND	NS	NS	NS	NS	NS	ND
	11-Jun-12	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
	12-Dec-12	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	ND
2,4-D*	27-Jun-03	NR	3	NS	5.9	ND	ND	ND	NS	NI	NS
	30-Dec-03	NR	2	ND	ND	ND	ND	ND	ND	NI	ND
	30-Jun-04	NR	2	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-04	NR	2	ND	ND	ND	ND	ND	ND	NI	ND
	29-Jun-05	NR	2	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-05	NR	2	ND	ND	ND	ND	ND	ND	NI	ND
	28-Jun-06	NR	2	ND	ND	ND	ND	ND	ND	NI	ND
	29-Dec-06	NR	2	ND	ND	ND	ND	ND	ND	NI	ND
	12-Jul-07	NR	2	ND	ND	ND	ND	ND	ND	NI	ND
NC 2L = 70 ug/L (10/23/07)	19-Dec-07	NR	2	ND	ND	ND	ND	ND	ND	ND	ND
	8-Apr-08	NR	2	ND	ND	ND	ND	ND	ND	NS	ND
	17-Dec-08	NR	2.0	ND	ND	ND	ND	ND	ND	NS	ND
	9-Jul-09	NR	2.0	ND	ND	ND	ND	ND	ND	NS	ND
	16-Dec-09	0.11	5.0	ND	ND	ND	ND	ND	ND	NS	ND
	24-Jun-10	0.23	2.1	ND	ND	ND	ND	ND	ND	NS	ND
	10-Dec-10	0.22	2.0	ND	ND	ND	ND	ND	ND	NS	ND
	20-Jun-11	0.22	2.0	ND	ND	ND	ND	ND	ND	NS	ND
	5-Dec-11	0.22	2.0	ND	ND	ND	ND	ND	ND	NS	ND
	11-Jun-12	0.22	2.0	ND	ND	ND	ND	ND	ND	NS	ND
	12-Dec-12	0.22	2.0	ND	ND	ND	ND	ND	ND	NS	ND
	1-May-13	0.22	2.0	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	0.23	2.1	ND	ND	ND	ND	ND	ND	NS	ND

TABLE 2:
HISTORICAL ORGANIC CONSTITUENTS IN GROUNDWATER

Constituent		Concentration (µg/L)									
		DL	RL	Background	Downgradient						Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
4,4'-DDD*	11-Jun-12	0.05	0.05	ND	ND	0.13	ND	ND	ND	NS	ND
NC 2L = 0.1 µg/L (2/5/10) *Resample>*	19-Jul-12	0.05	0.10	NS	NS	ND	NS	NS	NS	NS	NS
	12-Dec-12	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	1-May-13	0.050	0.10	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
4,4'-DDT*	11-Jun-12	0.05	0.05	ND	ND	0.10	ND	ND	ND	NS	ND
NC 2L = 0.1 µg/L (2/5/10) *Resample>*	19-Jul-12	0.05	0.10	NS	NS	0.063 J	NS	NS	NS	NS	NS
	12-Dec-12	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
	1-May-13	0.050	0.10	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS
Endrin aldehyde*	11-Jun-12	0.050	0.050	ND	ND	0.14	ND	ND	ND	NS	NS
NC 2L= 2 (2/5/10)	12-Dec-12	0.050	0.10	ND	ND	ND	ND	ND	ND	NS	NS
	1-May-13	0.050	0.10	ND	ND	ND	ND	ND	ND	NS	ND
	8-May-13	0.050	0.10	ND	ND	ND	ND	ND	ND	NS	ND

Notes:
1. All concentrations are in micrograms per liter (mg/L).
2. RL = Laboratory reporting limit (NC SWSL from October 2007 to present).
3. ND = Not detected above laboratory reporting limit.
4. B = Blank-qualified data; result is expected to be biased high based on concentrations in the blanks
5. NC 2L = North Carolina 2L Groundwater Standards.
6. GWPS = Groundwater Protection Standards.
7. When the NC 2L has not been established, the GWPS will be used.
8. Shaded values for groundwater are above the NC 2L Groundwater Standards or Groundwater Protection Standards.
7. Shaded values for surface water are above the NC 2B Surface Water Standards (NC2B) or National Criteria per EPA (EPA NC).
9. DL = Laboratory detection limit.
10. J = Estimated value between the DL and the RL
11. NI = Well/Piezometer not installed.
12. NS = Not sampled.
13. NR = Not Reported.
14. DRY = Monitoring well or surface water point considered to be dry.
15. Surface waters are classified as WS-IV/NSW (WS, human health, and fresh-water aquatic life).
16. When results for a constituent are reported by both acceptable methods from the lab, the higher result is entered into the historical table.

TABLE 3:
HISTORICAL CONSTITUENTS IN SURFACE WATER

Constituent	Date	Concentration (µg/L)							
		DL	RL	Surface Water				Blanks	
				SW-1		SW-2			
Arsenic	24-Jun-10	2.7	10.0	4.3	J	2.9	J	ND	
NC 2B = 10 ug/L (03/28/08)	13-Dec-10	2.7	10.0	ND		ND		ND	
	20-Jun-11	5.0	10.0	ND		ND		ND	
	5-Dec-11	5.0	10.0	ND		ND		ND	
	11-Jun-12	5.0	10.0	ND		ND		ND	
	12-Dec-12	5.0	10.0	ND		ND		ND	
	1-May-13	5.0	10.0	ND		ND		ND	
	5-Aug-13	5.0	10.0	ND		ND		ND	
Barium	22-Nov-96	NR	500	37.0		37.0		NS	
	17-Jun-97	NR	500	37.0		62.0		NS	
	1-Dec-97	NR	500	53.0		45.0		NS	
	20-May-98	NR	500	24.0		69.0		NS	
	19-Nov-98	NR	500	ND		100		NS	
	21-Jul-99	NR	500	ND		ND		NS	
	16-Nov-99	NR	500	ND		ND		NS	
	10-May-00	NR	500	ND		ND		NS	
	26-Oct-00	NR	500	ND		ND		NS	
	18-Apr-01	NR	500	ND		ND		NS	
	27-Oct-01	NR	500	ND		ND		NS	
	13-Jun-02	NR	500	NS		NS		NS	
	19-Nov-02	NR	500	ND		ND		NS	
	27-Jun-03	NR	500	ND		ND		NS	
	30-Dec-03	NR	500	ND		ND		ND	
	30-Jun-04	NR	500	ND		ND		ND	
	29-Dec-04	NR	500	ND		ND		ND	
	29-Dec-04	NR	500	ND		ND		ND	
	29-Jun-05	NR	500	ND		ND		ND	
	29-Dec-05	NR	500	ND		ND		ND	
	28-Jun-06	NR	500	ND		ND		ND	
	29-Dec-06	NR	100	37.5		40.6		0.20	J
	12-Jul-07	NR	100	33.3	J	DRY		ND	
	19-Dec-07	NR	100	52.6	B	149		11.7	
NC 2B = 1,000 ug/L (03/28/08)	8-Jul-08	NR	100	33.8	J	161		0.29	J
	17-Dec-08	0.20	100	30.2	B	33.5	B	10.7	J
	9-Jul-09	0.20	100	36.8	B	78.4	B	17.6	J
	16-Dec-09	0.20	100	31.2	B	36.2	B	17.1	J
	24-Jun-10	0.20	100	34.5	B	71.3	B	27.3	J
	13-Dec-10	0.20	100	36.1	B	91.0	J	12.1	J
	20-Jun-11	5.0	100	40.3	J	93.0	J	ND	
	5-Dec-11	5.0	100	32.9	J	59.0	J	ND	
	11-Jun-12	5.0	100	40.0	J	95.6	J	ND	
	12-Dec-12	5.0	100	45.0	J	97.8	J	ND	
	1-May-13	5.0	100	32.7	J	43.1	J	ND	
	5-Aug-13	5.0	100	49.9	J	79.8	J	ND	

TABLE 3:
HISTORICAL CONSTITUENTS IN SURFACE WATER

Constituent	Date	Concentration (µg/L)							
		DL	RL	Surface Water				Blanks	
				SW-1		SW-2			
Beryllium	8-Jul-08	NR	1	0.32	J	ND		ND	
	17-Dec-08	0.10	1.0	ND		ND		ND	
	9-Jul-09	0.10	1.0	ND		ND		ND	
	16-Dec-09	0.10	1.0	0.12	J	ND		ND	
NC 2B = 6.5 ug/L (02/05/10)	24-Jun-10	0.10	1.0	ND		ND		ND	
	13-Dec-10	0.10	1.0	ND		ND		ND	
	20-Jun-11	1.0	1.0	ND		ND		ND	
	5-Dec-11	1.0	1.0	ND		ND		ND	
	11-Jun-12	1.0	1.0	ND		ND		ND	
	12-Dec-12	1.0	1.0	ND		ND		ND	
	1-May-13	1.0	1.0	ND		ND		ND	
	5-Aug-13	1.0	1.0	ND		ND		ND	
Chromium	17-Jun-97	NR	10	ND		3.0		NS	
	1-Dec-97	NR	10	ND		ND		NS	
	20-May-98	NR	10	ND		ND		NS	
	19-Nov-98	NR	10	ND		ND		NS	
	21-Jul-99	NR	10	ND		ND		NS	
	16-Nov-99	NR	10	ND		ND		NS	
	10-May-00	NR	10	ND		ND		NS	
	26-Oct-00	NR	10	ND		ND		NS	
	18-Apr-01	NR	10	ND		ND		NS	
	27-Oct-01	NR	10	ND		ND		NS	
	13-Jun-02	NR	10	NS		NS		NS	
	19-Nov-02	NR	10	ND		ND		NS	
	27-Jun-03	NR	10	ND		ND		NS	
	30-Dec-03	NR	10	ND		ND		ND	
	30-Jun-04	NR	10	ND		ND		ND	
	29-Dec-04	NR	10	ND		ND		ND	
	29-Jun-05	NR	10	ND		ND		ND	
	29-Dec-05	NR	10	ND		ND		ND	
	28-Jun-06	NR	10	ND		ND		ND	
	29-Dec-06	NR	10	ND		ND		ND	
	12-Jul-07	NR	10	ND		DRY		ND	
	19-Dec-07	NR	10	2.2	B	2.6	B	1.4	J
NC 2B = 50 ug/L (03/28/08)	8-Jul-08	NR	10	2.5	J	2.2	J	ND	
	17-Dec-08	0.40	10.0	1.4	J	2.6	J	ND	
	9-Jul-09	0.40	10.0	2.6	J	1.2	J	ND	
	16-Dec-09	0.40	10.0	4.1	J	3.4	J	ND	
	24-Jun-10	0.40	10.0	3.3	B	7.3	J	0.71	J
	13-Dec-10	0.40	10.0	1.4	J	1.5	J	ND	
	20-Jun-11	5.0	10.0	ND		ND		ND	
	5-Dec-11	5.0	10.0	ND		ND		ND	
	11-Jun-12	5.0	10.0	ND		7.2	J	ND	
	12-Dec-12	5.0	10.0	ND		8.2	J	ND	
	1-May-13	5.0	10.0	5.7	J	ND		ND	
	5-Aug-13	5.0	10.0	ND		ND		ND	

TABLE 3:
HISTORICAL CONSTITUENTS IN SURFACE WATER

Constituent	Date	Concentration (µg/L)							
		DL	RL	Surface Water				Blanks	
				SW-1		SW-2			
Cobalt	20-May-98	NR	10	2.0		2.0		NS	
	19-Nov-98	NR	10	ND		3.0		NS	
	21-Jul-99	NR	10	ND		ND		NS	
	16-Nov-99	NR	10	ND		ND		NS	
	10-May-00	NR	10	ND		ND		NS	
	26-Oct-00	NR	10	ND		ND		NS	
	18-Apr-01	NR	10	ND		ND		NS	
	27-Oct-01	NR	10	ND		22.0		NS	
	13-Jun-02	NR	10	NS		NS		NS	
	19-Nov-02	NR	10	ND		ND		NS	
	27-Jun-03	NR	10	ND		10.0		NS	
	30-Dec-03	NR	10	ND		ND		ND	
	30-Jun-04	NR	10	ND		ND		ND	
	29-Dec-04	NR	10	ND		ND		ND	
	29-Jun-05	NR	10	ND		ND		ND	
	29-Dec-05	NR	10	ND		ND		ND	
	28-Jun-06	NR	10	ND		ND		ND	
	29-Dec-06	NR	10	ND		ND		ND	
	12-Jul-07	NR	10	ND		DRY		ND	
	19-Dec-07	NR	10	4.2	B	1.2	B	1.8	J
	8-Jul-08	NR	10	4.8	B	10.5	B	6.2	J
	17-Dec-08	0.60	10.0	1.7	B	1.1	B	2.5	J
	9-Jul-09	0.60	10.0	ND		ND		ND	
	16-Dec-09	0.60	10.0	ND		1.0	J	ND	
NC 2B = NE ug/L (03/24/10)	24-Jun-10	0.60	10.0	ND		ND		ND	
	13-Dec-10	0.60	10.0	{4.4}	B	{ND}		1.6 {1.0 J}	J
	20-Jun-11	5.0	10.0	ND		ND		ND	
	5-Dec-11	5.0	10.0	ND		ND		ND	
Resample >	25-Jan-12	5.0	10.0	NS		NS		ND	
	11-Jun-12	5.0	10.0	ND		5.1	J	ND	
	12-Dec-12	5.0	10.0	ND		ND		ND	
	1-May-13	5.0	10.0	ND		ND		ND	
	5-Aug-13	5.0	10.0	ND		ND		ND	
Copper	29-Dec-06	NR	10	1.30	B	1.10	B	0.60	J
	12-Jul-07	NR	10	ND		DRY		ND	
	19-Dec-07	NR	10	5.3	B	ND		9.8	
NC 2B = 7 ug/L (03/28/08)	8-Jul-08	NR	10	1.7	J	4.2	J	ND	
	17-Dec-08	0.30	10.0	1.4	J	1.5	J	ND	
	9-Jul-09	0.30	10.0	ND		ND		ND	
	16-Dec-09	0.30	10.0	1.9	J	2.0	J	ND	
	24-Jun-10	0.30	10.0	ND		3.1	J	ND	
	13-Dec-10	0.30	10.0	0.31	B	ND		0.49	J
	20-Jun-11	5.0	10.0	ND		ND		ND	
	5-Dec-11	5.0	10.0	ND		ND		ND	
	11-Jun-12	5.0	10.0	ND		5.5	J	ND	
	12-Dec-12	5.0	10.0	ND		ND		ND	
	1-May-13	5.0	10.0	ND		ND		ND	
	5-Aug-13	5.0	10.0	ND		ND		ND	

TABLE 3:
HISTORICAL CONSTITUENTS IN SURFACE WATER

Constituent	Date	Concentration (µg/L)				
		DL	RL	Surface Water		Blanks
				SW-1	SW-2	
Lead	20-May-98	NR	10	ND	8	NS
	19-Nov-98	NR	10	ND	ND	NS
	21-Jul-99	NR	10	ND	10	NS
	16-Nov-99	NR	10	ND	ND	NS
	10-May-00	NR	10	ND	ND	NS
	26-Oct-00	NR	10	ND	ND	NS
	18-Apr-01	NR	10	ND	ND	NS
	27-Oct-01	NR	10	ND	ND	NS
	13-Jun-02	NR	10	NS	NS	NS
	19-Nov-02	NR	10	ND	ND	NS
	27-Jun-03	NR	10	ND	ND	NS
	30-Dec-03	NR	10	ND	ND	ND
	30-Jun-04	NR	10	ND	ND	ND
	29-Dec-04	NR	10	ND	ND	ND
	29-Jun-05	NR	10	ND	ND	ND
	29-Dec-05	NR	10	ND	ND	ND
	28-Jun-06	NR	10	ND	ND	ND
	29-Dec-06	NR	10	ND	ND	ND
	12-Jul-07	NR	10	ND	DRY	ND
	19-Dec-07	NR	10	ND	ND	ND
NC 2B = 25 ug/L (03/28/08)	8-Jul-08	NR	10	ND	ND	ND
	17-Dec-08	4.0	10.0	ND	ND	ND
	9-Jul-09	4.0	10.0	ND	ND	ND
	16-Dec-09	4.0	10.0	ND	ND	ND
	24-Jun-10	4.0	10.0	ND	ND	ND
	13-Dec-10	4.0	10.0	ND	ND	ND
	20-Jun-11	5.0	10.0	ND	ND	ND
	5-Dec-11	5.0	10.0	ND	ND	ND
	11-Jun-12	5.0	10.0	ND	ND	ND
	12-Dec-12	5.0	10.0	ND	ND	ND
	1-May-13	5.0	10.0	ND	ND	ND
	5-Aug-13	5.0	10.0	ND	ND	ND

TABLE 3:
HISTORICAL CONSTITUENTS IN SURFACE WATER

Constituent	Date	Concentration (µg/L)							
		DL	RL	Surface Water				Blanks	
				SW-1		SW-2			
Nickel	29-Dec-04	NR	50	ND		50.0 (ND)		ND	
	29-Jun-05	NR	50	ND		ND		ND	
	29-Dec-05	NR	50	ND		ND		ND	
	28-Jun-06	NR	50	ND		ND		ND	
	29-Dec-06	NR	50	ND		2.9	J	ND	
	12-Jul-07	NR	50	3.8	J	DRY		ND	
	19-Dec-07	NR	50	6.0		31.5		ND	
NC 2B = 25 ug/L (03/28/08)	8-Jul-08	NR	50	3.2	J	29.8	J	ND	
	17-Dec-08	1.7	50.0	2.4	B	4.0	B	2.4	J
	9-Jul-09	1.7	50.0	4.1	J	12.3	J	ND	
	16-Dec-09	1.7	50.0	3.8	B	4.4	B	3.0	J
	24-Jun-10	1.7	50.0	ND		2.0	J	ND	
	13-Dec-10	1.7	50.0	ND		14.2	J	2.7	J
	20-Jun-11	5.0	50.0	ND		7.8	J	ND	
	5-Dec-11	5.0	50.0	ND		5.3	J	ND	
	11-Jun-12	5.0	50.0	ND		11.0	J	ND	
	12-Dec-12	5.0	50.0	ND		13.8	J	ND	
	1-May-13	5.0	50.0	ND		ND		ND	
	5-Aug-13	5.0	50.0	ND		5.6	J	ND	
Silver	12-Jul-07	NR	10	2.2	J	DRY		ND	
	19-Dec-07	NR	10	ND		0.34	J	ND	
NC 2B = 0.06 ug/L (03/28/08)	8-Jul-08	NR	10	0.35	B	1.0	J	0.12	J
	17-Dec-08	0.10	10.0	ND		ND		ND	
	9-Jul-09	0.10	10.0	ND		0.10	J	ND	
	16-Dec-09	0.10	10.0	ND		0.16	J	ND	
	24-Jun-10	0.10	10.0	ND		0.26	J	ND	
	13-Dec-10	0.10	10.0	{ND}		{0.28}	B	0.21 {0.19 J}	J
	20-Jun-11	5.0	10.0	ND		ND		ND	
	5-Dec-11	5.0	10.0	ND		ND		ND	
	11-Jun-12	5.0	10.0	ND		ND		ND	
	12-Dec-12	5.0	10.0	ND		ND		ND	
	1-May-13	5.0	10.0	ND		ND		ND	
	5-Aug-13	5.0	10.0	ND		ND		ND	

TABLE 3:
HISTORICAL CONSTITUENTS IN SURFACE WATER

Constituent	Date	Concentration (µg/L)							
		DL	RL	Surface Water				Blanks	
				SW-1		SW-2			
Thallium	29-Dec-04	NR	10	ND		10.0 (ND)		ND	
	29-Jun-05	NR	10	ND		ND		ND	
	29-Dec-05	NR	10	ND		ND		ND	
	28-Jun-06	NR	10	ND		ND		ND	
	29-Dec-06	NR	6	ND		ND		ND	
	12-Jul-07	NR	5.5	ND		DRY		ND	
	19-Dec-07	NR	5.5	3.6	J	ND		ND	
	8-Jul-08	NR	5.5	3.4	J	ND		ND	
	17-Dec-08	3.0	5.5	ND		ND		ND	
	9-Jul-09	3.0	5.5	ND		ND		ND	
	16-Dec-09	3.0	5.5	ND		ND		ND	
NC 2B = NE (03/24/10)	24-Jun-10	3.0	5.5	ND		ND		ND	
	13-Dec-10	3.0	5.5	3.8	J	ND		ND	
	20-Jun-11	5.4	5.5	ND		ND		ND	
	5-Dec-11	5.4	5.5	ND		ND		ND	
	11-Jun-12	5.4	5.5	ND		ND		ND	
	12-Dec-12	5.4	5.5	ND		ND		ND	
	1-May-13	5.4	5.5	ND		ND		ND	
	5-Aug-13	5.4	5.5	ND		ND		ND	
Vanadium	29-Dec-06	NR	25	1.6	J	2.0	J	ND	
	12-Jul-07	NR	25	4.6	J	DRY		ND	
	19-Dec-07	NR	25	3.3	J	1.4	B	0.62	J
NC 2B = NE ug/L (03/28/08)	8-Jul-08	NR	25	5.2	J	2.3	J	0.20	J
	17-Dec-08	0.20	25.0	1.8	B	2.7	B	0.76	J
	9-Jul-09	0.20	25.0	5.0	B	3.4	B	1.30	J
	16-Dec-09	0.20	25.0	3.6	J	3.5	J	0.53	J
	24-Jun-10	0.20	25.0	5.8	J	2.6	J	ND	
	13-Dec-10	0.20	25.0	1.6	B	0.67	B	0.36	J
	20-Jun-11	5.0	25.0	ND		ND		ND	
	5-Dec-11	5.0	25.0	ND		ND		ND	
	11-Jun-12	5.0	25.0	ND		11.5	J	ND	
	12-Dec-12	5.0	25.0	ND		ND		ND	
	1-May-13	5.0	25.0	ND		ND		ND	
	5-Aug-13	5.0	25.0	ND		ND		ND	

TABLE 3:
HISTORICAL CONSTITUENTS IN SURFACE WATER

Constituent	Date	Concentration (µg/L)							
		DL	RL	Surface Water				Blanks	
				SW-1		SW-2			
Zinc	22-Nov-96	NR	50	11.0		ND		NS	
	17-Jun-97	NR	50	ND		ND		NS	
	1-Dec-97	NR	50	20.0		ND		NS	
	20-May-98	NR	50	20.0		28.0		NS	
	19-Nov-98	NR	50	ND		ND		NS	
	21-Jul-99	NR	50	ND		ND		NS	
	16-Nov-99	NR	50	ND		ND		NS	
	10-May-00	NR	50	ND		ND		NS	
	26-Oct-00	NR	50	ND		ND		NS	
	18-Apr-01	NR	50	ND		ND		NS	
	27-Oct-01	NR	50	ND		ND		NS	
	13-Jun-02	NR	50	NS		NS		NS	
	19-Nov-02	NR	50	ND		ND		NS	
	27-Jun-03	NR	50	ND		ND		NS	
	30-Dec-03	NR	50	ND		ND		ND	
	30-Jun-04	NR	50	ND		ND		ND	
	29-Dec-04	NR	50	ND		ND		ND	
	29-Jun-05	NR	50	ND		ND		ND	
	29-Dec-05	NR	50	ND		ND		ND	
	28-Jun-06	NR	50	ND		ND		ND	
	29-Dec-06	NR	50	ND		ND		ND	
	12-Jul-07	NR	10	ND		DRY		ND	
	19-Dec-07	NR	10	24.6	B	ND		102	
NC 2B = 50 ug/L (03/28/08)	8-Jul-08	NR	10	ND		ND		1.2	J
	17-Dec-08	0.40	10.0	ND		0.89	B	0.49	J
	9-Jul-09	0.40	10.0	ND		4.9	B	1.6	J
	16-Dec-09	0.40	10.0	2.6	B	2.6	B	7.7	J
	24-Jun-10	0.40	10.0	ND		14.9		ND	
	13-Dec-10	0.40	10.0	ND		9.8	B	6.7	J
	20-Jun-11	10.0	10.0	ND		ND		ND	
	5-Dec-11	10.0	10.0	ND		ND		12.4	
	11-Jun-12	10.0	10.0	ND		ND		ND	
	12-Dec-12	10.0	10.0	ND		ND		ND	
	1-May-13	10.0	10.0	ND		16.8		ND	
	5-Aug-13	10.0	10.0	ND		ND		ND	

TABLE 3:
HISTORICAL CONSTITUENTS IN SURFACE WATER

Constituent	Date	Concentration (µg/L)							
		DL	RL	Surface Water				Blanks	
				SW-1		SW-2			
Acetone	27-Oct-01	NR	100	168	B	337	B	479	
	13-Jun-02	NR	100	NS		NS		NS	
	13-Jun-02	NR	100	NS		NS		NS	
	19-Nov-02	NR	100	ND		ND		NS	
	27-Jun-03	NR	100	ND		ND		NS	
	30-Dec-03	NR	100	ND		ND		ND	
	30-Jun-04	NR	100	ND		ND		ND	
	29-Dec-04	NR	100	ND		ND		ND	
	29-Jun-05	NR	100	ND		ND		ND	
	29-Dec-05	NR	100	ND		ND		ND	
	28-Jun-06	NR	100	ND		ND		ND	
	29-Dec-06	NR	100	ND		ND		ND	
	12-Jul-07	NR	100	ND		DRY		ND	
	19-Dec-07	NR	100	12.7	B	ND		4.5	J
NC 2B = 2,000 ug/L (03/28/08)	8-Jul-08	NR	100	ND		ND		ND	
	17-Dec-08	20.0	100	ND		ND		ND	
	9-Jul-09	20.0	100	ND		ND		ND	
NC 2B = NE (03/24/10)	16-Dec-09	2.2	100	ND		ND		2.8	J
	24-Jun-10	2.2	100	2.8	B	ND		7.7	J
	13-Dec-10	2.2	100	ND		3.0	J	ND	
	20-Jun-11	2.2	100	ND		3.8	B	3.9	J
	5-Dec-11	2.2	100	ND		7.2	B	8.8	J
	11-Jun-12	2.2	100	ND		5.5	B	4.7	J
	12-Dec-12	10.0	100	ND		ND		ND	
	1-May-13	10.0	100	ND		ND		14.6	J
	5-Aug-13	10.0	100	ND		ND		ND	
Chlorobenzene	27-Jun-03	NR	0.5	ND		7.2		ND	
	30-Dec-03	NR	5	ND		ND		ND	
	30-Jun-04	NR	5	ND		ND		ND	
	29-Dec-04	NR	5	ND		ND		ND	
	29-Jun-05	NR	5	ND		ND		ND	
	29-Dec-05	NR	5	ND		ND		ND	
	28-Jun-06	NR	5	ND		ND		ND	
	29-Dec-06	NR	3	ND		ND		ND	
	12-Jul-07	NR	3	ND		DRY		ND	
	19-Dec-07	NR	3	ND		ND		ND	
NC 2B = 130 ug/L (03/28/08)	8-Jul-08	NR	3	ND		ND		ND	
	17-Dec-08	0.23	3.0	ND		ND		ND	
	9-Jul-09	0.23	3.0	ND		ND		ND	
	16-Dec-09	0.23	3.0	ND		ND		ND	
	24-Jun-10	0.23	3.0	ND		ND		ND	
	13-Dec-10	0.23	3.0	ND		ND		0.28	J
	20-Jun-11	0.23	3.0	ND		ND		ND	
	5-Dec-11	0.23	3.0	ND		ND		ND	
	11-Jun-12	0.23	3.0	ND		ND		ND	
	12-Dec-12	0.23	3.0	ND		ND		ND	
	1-May-13	0.23	3.0	ND		ND		ND	
	5-Aug-13	0.23	3.0	ND		ND		ND	

TABLE 3:
HISTORICAL CONSTITUENTS IN SURFACE WATER

Constituent	Date	Concentration (µg/L)					
		DL	RL	Surface Water			Blanks
				SW-1	SW-2		
Chloromethane	9-Jul-09	0.11	1.0	ND	0.19	J	ND
	16-Dec-09	0.11	1.0	ND	ND		ND
NC 2B = NE (03/24/10)	24-Jun-10	0.11	1.0	ND	ND		ND
	13-Dec-10	0.11	1.0	ND	ND		ND
	20-Jun-11	0.11	1.0	ND	ND		ND
	5-Dec-11	0.11	1.0	ND	ND		ND
	11-Jun-12	0.11	1.0	ND	ND		ND
	12-Dec-12	0.11	1.0	ND	ND		ND
	1-May-13	0.11	1.0	ND	ND		ND
	5-Aug-13	0.11	1.0	ND	ND		ND

Notes:
1. RL = Laboratory reporting limit (NC SWSL from October 2007 to present).
2. ND = Not detected above laboratory reporting limit.
3. B = Blank-qualified data; result is expected to be biased high based on concentrations in the blanks
4. Shaded values for surface water are above the NC 2B Surface Water Standards (NC2B)
5. DL = Laboratory detection limit.
6. J = Estimated value between the DL and the RL
7. NS = Not sampled.
8. NR = Not Reported.
9. DRY = Monitoring well or surface water point considered to be dry.
10. Surface waters are classified as WS-IV/NSW (WS, human health, and fresh-water aquatic life).

TABLE 4
Summary of Statistical Analyses
Butner Landfill - Second Semiannual Sampling Event

Analyte	Data Distribution	Statistical Method used to Establish Background	Background (µg/L)	GWPS (µg/L)	Point(s) Above Background	Point(s) above NC 2L or GWPS
Cobalt	68% Truncated	Non-parametric Prediction Limit	130	1	None	MW-2R, MW-5

Notes:
GWPS = Groundwater Protection Standard
SWSL = NC Solid Waste Section Limit

TABLE 5:
HISTORICAL GROUNDWATER ELEVATION DATA

Well No.	Background	Downgradient					
	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1
Well TOC Elev.	460.51	331.60	330.96	340.80	343.88	362.53	328.40
Well Depth	56.00	18.85	35.83	31.43	23.52	32.63	32.80
21-Aug-99	418.68	329.13	328.06	330.50	330.83	352.10	NI
16-Nov-99	419.75	325.38	324.51	331.53	334.33	352.97	NI
10-May-00	424.53	329.60	328.83	334.15	334.49	355.72	NI
26-Oct-00	419.21	329.26	328.15	331.33	330.94	352.78	NI
18-Apr-01	418.76	329.42	328.63	333.57	334.36	354.22	NI
26-Oct-01	412.53	329.04	327.94	330.57	330.23	350.92	NI
13-Jun-02	413.70	328.38	327.41	330.21	330.29	351.04	NI
19-Nov-02	413.40	329.25	328.35	331.57	337.17	350.94	NI
27-Jun-03	423.61	329.57	328.93	334.24	333.99	355.21	NI
29-Dec-03	420.23	329.70	329.11	334.49	334.78	354.92	NI
30-Jun-04	418.81	329.38	328.48	332.26	331.39	353.10	NI
28-Dec-04	418.02	329.50	328.91	333.45	334.14	355.14	NI
29-Jun-05	418.81	329.10	329.26	331.62	330.90	352.76	NI
29-Dec-05	413.38	329.29	328.71	332.78	334.27	351.52	NI
27-Jun-06	414.75	329.17	328.40	332.18	333.56	353.43	NI
28-Dec-06	415.54	329.40	328.86	333.57	335.24	354.02	NI
12-Jul-07	438.64	328.69	327.97	331.31	330.52	352.30	NI
18-Dec-07	412.59	328.94	328.08	330.32	327.92	347.90	306.54
8-Jul-08	414.52	329.20	326.00	331.46	330.85	351.03	NM
17-Dec-08	412.79	329.39	328.84	333.15	335.03	350.82	NM
9-Jul-09	417.16	329.17	329.48	332.30	331.36	352.17	310.12
16-Dec-09	418.11	329.55	329.09	334.57	336.94	352.87	NM
24-Jun-10	422.42	329.41	328.77	333.65	333.15	353.62	NM
13-Dec-10	415.96	329.49	328.85	332.81	330.34	350.08	NM
20-Jun-11	416.00	328.95	328.18	336.77	331.38	351.83	NM
5-Dec-11	412.94	329.31	328.65	332.32	329.51	349.87	NM
11-Jun-12	414.56	329.10	328.35	332.52	331.33	351.75	312.50
12-Dec-12	412.83	329.19	328.36	331.67	330.35	349.48	NM
1-May-13	415.69	329.65	329.13	334.49	335.15	353.63	317.11
5-Aug-13	417.97	329.02	328.41	333.32	332.83	353.01	NM

Notes:
TOC = top of casing
Water levels are measured from TOC.
NM = water level not measured.
NI = well not yet installed.

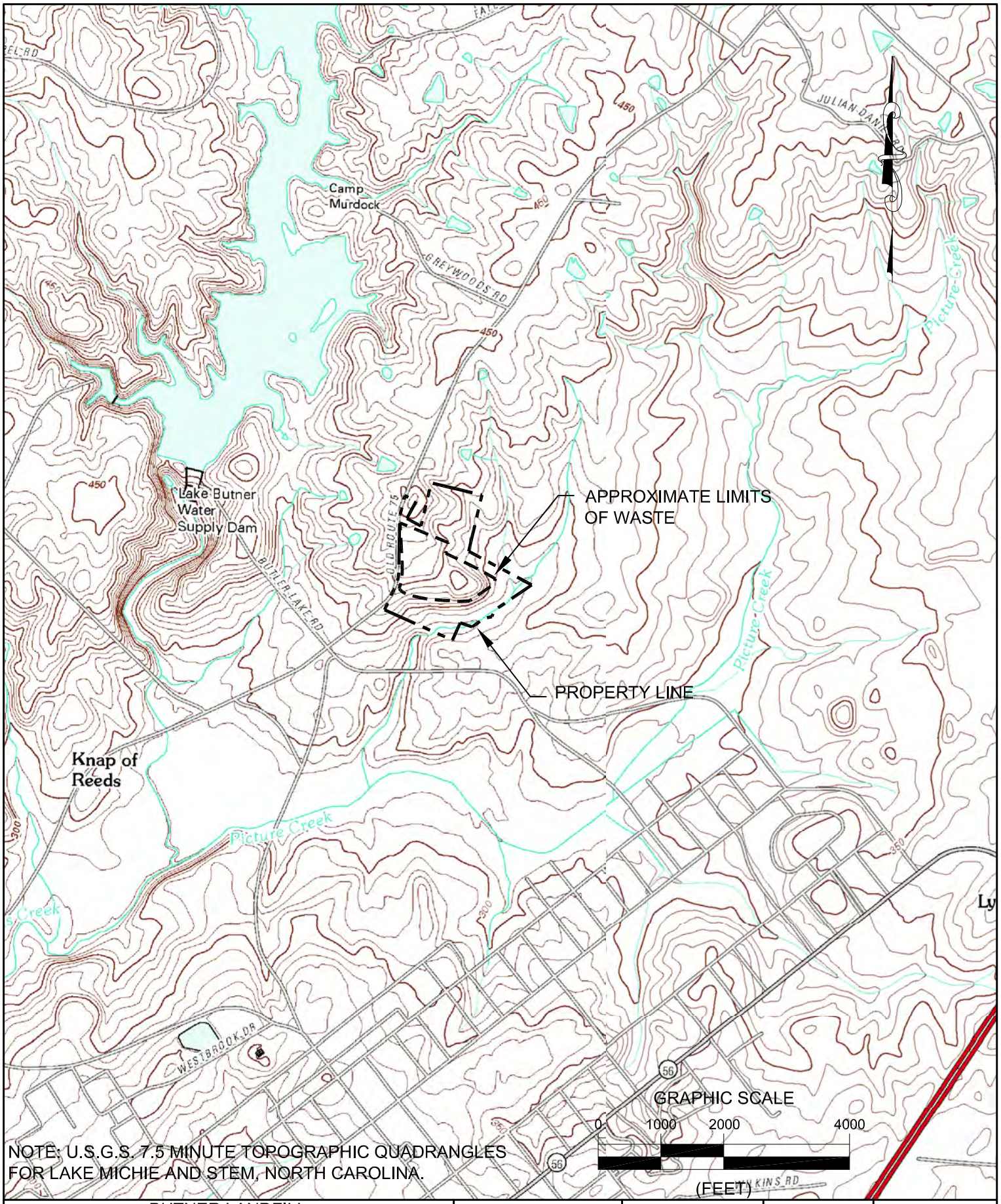
TABLE 6:
ESTIMATED HYDRAULIC GRADIENTS AND GROUNDWATER FLOW VELOCITIES

			May 1, 2013				
GRADIENT CALCULATION SEGMENT	FLOW LINE LENGTH (feet)	FLOW DIRECTION	GROUND-WATER ELEVATION (feet)	HORIZ. GRADIENT, **i** (ft/ft)	HYDRAULIC CONDUCTIVITY, **K** (ft/day)	EFFECTIVE POROSITY $\mathbf{n_e}$	LINEAR VELOCITY, **V** (ft/year)
i_1	1325	ESE	410 340	0.0528	6.18E-02	0.18	6.63
i_2	1614	SE	400 320	0.0496	6.18E-02	0.18	6.22
i_3	1621	SSE	410 320	0.0555	6.18E-02	0.18	6.96
			Average	0.0526		Average	6.60

Notes:
Hydraulic conductivity (K) value is the average of results from slug-tests conducted in 1994 (GAI, 1994).
Effective Porosity based on average of 90% of reported Total Porosity (GAI, 1995) for soils, or 10% (estimated) for fractured rock.
Linear flow velocity = Ki/n (modified Darcy equation).
Refer to Figure 4 for gradient segments.

FIGURE

Figure 1 Site Location Map



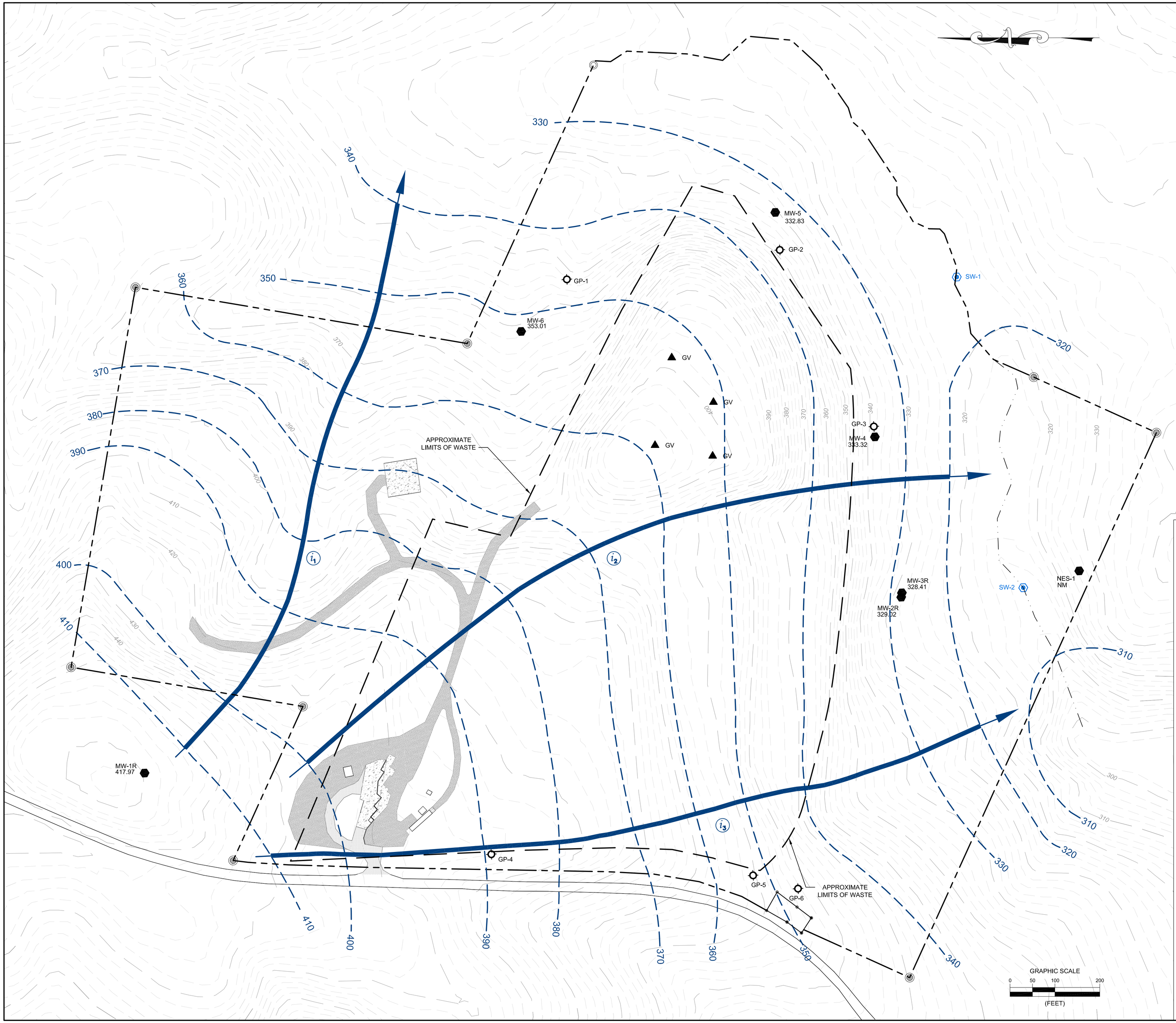
NOTE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLES FOR LAKE MICHIE AND STEM, NORTH CAROLINA.

BUTNER LANDFILL GRANVILLE COUNTY, NORTH CAROLINA	JOYCE ENGINEERING 2211 W. MEADOWVIEW ROAD GREENSBORO, NC 27407 PHONE: (336) 323-0092	DESIGNED HRW DRAWN HRW CHECKED ACE APPROVED GVB DATE 04/10/13	SCALE 1" = 2000'	PROJECT NO. 660.1302.12
SITE LOCATION MAP		© 2013 Joyce Engineering, Inc. All rights reserved.	NC CORP LIC: C-0782	FIGURE NO. 1

L:\Granville\dwg\Butner\, Site Location Maps.dwg

DRAWING

Drawing 1 Potentiometric Surface Map



LEGEND

130	EXISTING 25' TOPOGRAPHIC CONTOUR
	EXISTING 5' TOPOGRAPHIC CONTOUR
	PROPERTY LINE
	APPROXIMATE LIMITS OF WASTE
380	GROUNDWATER SURFACE CONTOUR (FEET ABOVE MEAN SEA LEVEL)
	GROUNDWATER FLOW DIRECTION WITH GRADIENT CALCULATION SEGMENT
	EXISTING ROAD
	CENTERLINE OF STREAM
MW-1R 417.97	GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION
i_1	SEGMENT USED FOR GRADIENT CALCULATIONS
GP-1	GAS PROBE LOCATION AND IDENTIFICATION
GV	GAS VENT
SW-1	SURFACE WATER MONITORING POINT
(NM)	NOT MEASURED

NOTES

1. TOPOGRAPHIC CONTOUR INTERVAL = 5 FEET
2. GROUNDWATER SURFACE CONTOUR INTERVAL = 5 FEET
3. STATIC WATER LEVELS MEASURED ON 08/05/13.
4. GROUNDWATER CONTOURS BASED ON KNOWN DATA, TOPOGRAPHIC CONTOURS, AND LINEAR INTERPOLATION AND EXTRAPOLATION FROM KNOWN FIELD CONDITIONS.
5. ELEVATION RELATIVE TO MEAN SEA LEVEL.
6. GROUNDWATER ELEVATION IS BASED ON A WELL SURVEY PERFORMED IN APRIL 2008
7. TOPOGRAPHIC CONTOURS SHOWN IN THIS MAP ARE BASED ON 2007 DATA OBTAINED FROM NCDOT WEBSITE.
8. BOUNDARY SURVEY PROVIDED BY BATEMAN CIVIL SURVEY COMPANY DATED MARCH 15, 2013.

DATE	REVISIONS AND RECORD OF ISSUE	NO	BY	CK	APP

DESIGNED	ALF
DRAWN	RWH
CHECKED	DSG
APPROVED	GVB
DATE	08/26/13

© 2013 Joyce Engineering, Inc.
All rights reserved.

JOYCE ENGINEERING
2211 W. MEADOWVIEW ROAD
GREENSBORO, NC 27407
PHONE: (336) 323-0092
NC CORP LIC: C-0782

BUTNER LANDFILL
GRANVILLE COUNTY, NORTH CAROLINA

POTENTIOMETRIC SURFACE MAP
AUGUST 8, 2013

PROJECT NO.
660.1302.12

SCALE
AS NOTED

DRAWING NO.
1

L:\Granville\dwg\Butner\GW Event Maps\GW Event 08-13.dwg Layout=Layout1

APPENDICES

Appendix A	Laboratory Analytical Reports and Field Data Logs
Appendix B	Statistical Analysis Worksheets

Appendix A

Laboratory Analytical Reports and Field Data Logs

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

August 23, 2013

Mr. Van Burbach
Joyce Engineering-NC
2211 West Meadowview Rd
Boone Bldg, Suite 101
Greensboro, NC 27407

RE: Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Dear Mr. Burbach:
Enclosed are the analytical results for sample(s) received by the laboratory on August 08, 2013. 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,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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

CERTIFICATIONS

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Arizona Certification #: AZ0735
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL01264
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New Jersey Certification #: FL765
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Washington Certification #: C955
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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

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

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

Pace Analytical Services, Inc.
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

SAMPLE SUMMARY

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92168177001	**3902-MW1R**	Water	08/05/13 11:24	08/08/13 16:30
92168177002	**3902-MW2R**	Water	08/05/13 13:00	08/08/13 16:30
92168177003	**3902-MW3R**	Water	08/05/13 12:45	08/08/13 16:30
92168177004	**3902-MW4**	Water	08/05/13 12:25	08/08/13 16:30
92168177005	**3902-MW5**	Water	08/05/13 12:01	08/08/13 16:30
92168177006	**3902-MW6**	Water	08/05/13 11:43	08/08/13 16:30
92168177007	**3902-FIELD BLANK**	Water	08/05/13 13:40	08/08/13 16:30
92168177008	**3902-SW1**	Water	08/05/13 12:15	08/08/13 16:30
92168177009	**3902-SW2**	Water	08/05/13 13:15	08/08/13 16:30
92168177010	**3902-TRIP BLANK**	Water	08/05/13 06:00	08/08/13 16:30

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

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

SAMPLE ANALYTE COUNT

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92168177001	**3902-MW1R**	EPA 8081	RES	5	PASI-C
		EPA 8151	LJM	2	PASI-O
		EPA 6010	JDA	16	PASI-A
		EPA 8260	MCK	51	PASI-C
92168177002	**3902-MW2R**	EPA 8081	RES	5	PASI-C
		EPA 8151	LJM	2	PASI-O
		EPA 6010	JDA	16	PASI-A
		EPA 8260	MCK	51	PASI-C
92168177003	**3902-MW3R**	EPA 8081	RES	5	PASI-C
		EPA 8151	LJM	2	PASI-O
		EPA 6010	JDA	16	PASI-A
		EPA 8260	MCK	51	PASI-C
92168177004	**3902-MW4**	EPA 8081	RES	5	PASI-C
		EPA 8151	LJM	2	PASI-O
		EPA 6010	JDA	16	PASI-A
		EPA 8260	MCK	51	PASI-C
92168177005	**3902-MW5**	EPA 8081	RES	5	PASI-C
		EPA 8151	LJM	2	PASI-O
		EPA 6010	JDA	16	PASI-A
		EPA 8260	MCK	51	PASI-C
92168177006	**3902-MW6**	EPA 8081	RES	5	PASI-C
		EPA 8151	LJM	2	PASI-O
		EPA 6010	JDA	16	PASI-A
		EPA 8260	MCK	51	PASI-C
92168177007	**3902-FIELD BLANK**	EPA 8081	RES	5	PASI-C
		EPA 8151	LJM	2	PASI-O
		EPA 6010	JDA	16	PASI-A
		EPA 8260	MCK	51	PASI-C
92168177008	**3902-SW1**	EPA 6010	JDA	15	PASI-A
		EPA 8260	MCK	51	PASI-C
92168177009	**3902-SW2**	EPA 6010	JDA, JMW	15	PASI-A
		EPA 8260	MCK	51	PASI-C
92168177010	**3902-TRIP BLANK**	EPA 8260	MCK	51	PASI-C

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

Pace Analytical Services, Inc.
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

HITS ONLY

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92168177002	**3902-MW2R**					
EPA 6010	Barium	111	ug/L	100	08/10/13 17:33	
EPA 6010	Cobalt	24.7	ug/L	10.0	08/10/13 17:33	
EPA 6010	Nickel	87.9	ug/L	50.0	08/10/13 17:33	
EPA 6010	Tin	22.7J	ug/L	100	08/10/13 17:33	
EPA 8260	Benzene	1.6	ug/L	1.0	08/13/13 06:47	
EPA 8260	Chlorobenzene	14.4	ug/L	3.0	08/13/13 06:47	
EPA 8260	1,2-Dichlorobenzene	1.2J	ug/L	5.0	08/13/13 06:47	
EPA 8260	1,4-Dichlorobenzene	2.0	ug/L	1.0	08/13/13 06:47	
EPA 8260	Toluene	0.29J	ug/L	1.0	08/13/13 06:47	
92168177003	**3902-MW3R**					
EPA 6010	Arsenic	5.6J	ug/L	10.0	08/10/13 17:37	
EPA 6010	Barium	65.1J	ug/L	100	08/10/13 17:37	
EPA 6010	Copper	14.3	ug/L	10.0	08/10/13 17:37	
EPA 6010	Nickel	28.1J	ug/L	50.0	08/10/13 17:37	
EPA 6010	Tin	12.5J	ug/L	100	08/10/13 17:37	
EPA 8260	Benzene	0.64J	ug/L	1.0	08/13/13 07:02	
EPA 8260	Chlorobenzene	15.9	ug/L	3.0	08/13/13 07:02	
EPA 8260	Chloroethane	2.0J	ug/L	10.0	08/13/13 07:02	
EPA 8260	1,2-Dichlorobenzene	1.6J	ug/L	5.0	08/13/13 07:02	
EPA 8260	1,4-Dichlorobenzene	1.3	ug/L	1.0	08/13/13 07:02	
92168177004	**3902-MW4**					
EPA 6010	Nickel	9.0J	ug/L	50.0	08/10/13 17:41	
EPA 6010	Vanadium	10.2J	ug/L	25.0	08/10/13 17:41	
EPA 8260	Benzene	0.44J	ug/L	1.0	08/13/13 07:18	
EPA 8260	Chlorobenzene	4.6	ug/L	3.0	08/13/13 07:18	
EPA 8260	Chloroethane	2.2J	ug/L	10.0	08/13/13 07:18	
EPA 8260	1,2-Dichlorobenzene	0.30J	ug/L	5.0	08/13/13 07:18	
EPA 8260	1,1-Dichloroethane	0.53J	ug/L	5.0	08/13/13 07:18	
92168177005	**3902-MW5**					
EPA 6010	Barium	95.6J	ug/L	100	08/10/13 17:44	
EPA 6010	Cobalt	50.9	ug/L	10.0	08/10/13 17:44	
EPA 6010	Copper	10.2	ug/L	10.0	08/10/13 17:44	
EPA 6010	Nickel	8.4J	ug/L	50.0	08/10/13 17:44	
92168177008	**3902-SW1**					
EPA 6010	Barium	49.9J	ug/L	100	08/10/13 17:54	
92168177009	**3902-SW2**					
EPA 6010	Barium	79.8J	ug/L	100	08/10/13 18:08	
EPA 6010	Nickel	5.6J	ug/L	50.0	08/10/13 18:08	

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

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

ANALYTICAL RESULTS

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-MW1R **Lab ID: 92168177001** Collected: 08/05/13 11:24 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 Organochlorine Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
gamma-BHC (Lindane)	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 18:01	58-89-9	
Endrin aldehyde	ND	ug/L	0.10	0.050	1	08/09/13 13:50	08/12/13 18:01	7421-93-4	
Heptachlor	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 18:01	76-44-8	
Surrogates									
Tetrachloro-m-xylene (S)	57	%	20-130		1	08/09/13 13:50	08/12/13 18:01	877-09-8	
Decachlorobiphenyl (S)	90	%	20-130		1	08/09/13 13:50	08/12/13 18:01	2051-24-3	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	ND	ug/L	2.1	0.23	1	08/12/13 12:20	08/12/13 23:47	94-75-7	
Surrogates									
2,4-DCAA (S)	84	%	42-142		1	08/12/13 12:20	08/12/13 23:47	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	08/09/13 13:00	08/10/13 17:30	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:30	7440-38-2	
Barium	ND	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:30	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:30	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:30	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:30	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:30	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:30	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:30	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	08/09/13 13:00	08/10/13 17:30	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:30	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:30	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	08/09/13 13:00	08/10/13 17:30	7440-28-0	
Tin	ND	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:30	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	08/09/13 13:00	08/10/13 17:30	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:30	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	10.0	1		08/13/13 06:31	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/13/13 06:31	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/13/13 06:31	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/13/13 06:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/13/13 06:31	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/13/13 06:31	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/13/13 06:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/13/13 06:31	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/13/13 06:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/13/13 06:31	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/13/13 06:31	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/13/13 06:31	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/13/13 06:31	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/13/13 06:31	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/13/13 06:31	96-12-8	

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

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

ANALYTICAL RESULTS

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-MW1R **Lab ID: 92168177001** Collected: 08/05/13 11:24 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/13/13 06:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/13/13 06:31	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/13/13 06:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/13/13 06:31	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/13/13 06:31	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/13/13 06:31	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/13/13 06:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/13/13 06:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/13/13 06:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/13/13 06:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/13/13 06:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/13/13 06:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/13/13 06:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/13/13 06:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/13/13 06:31	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/13/13 06:31	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/13/13 06:31	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/13/13 06:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/13/13 06:31	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/13/13 06:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/13/13 06:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/13/13 06:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/13/13 06:31	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/13/13 06:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/13/13 06:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/13/13 06:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/13/13 06:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/13/13 06:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/13/13 06:31	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/13/13 06:31	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/13/13 06:31	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/13/13 06:31	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		08/13/13 06:31	460-00-4	
Dibromofluoromethane (S)	92	%	70-130		1		08/13/13 06:31	1868-53-7	
1,2-Dichloroethane-d4 (S)	93	%	70-130		1		08/13/13 06:31	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		08/13/13 06:31	2037-26-5	

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

Pace Analytical Services, Inc.
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: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-MW2R **Lab ID: 92168177002** Collected: 08/05/13 13:00 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 Organochlorine Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
gamma-BHC (Lindane)	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 18:53	58-89-9	
Endrin aldehyde	ND	ug/L	0.10	0.050	1	08/09/13 13:50	08/12/13 18:53	7421-93-4	
Heptachlor	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 18:53	76-44-8	
Surrogates									
Tetrachloro-m-xylene (S)	73	%	20-130		1	08/09/13 13:50	08/12/13 18:53	877-09-8	
Decachlorobiphenyl (S)	103	%	20-130		1	08/09/13 13:50	08/12/13 18:53	2051-24-3	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	ND	ug/L	2.1	0.24	1	08/12/13 12:20	08/13/13 01:17	94-75-7	
Surrogates									
2,4-DCAA (S)	11	%	42-142		1	08/12/13 12:20	08/13/13 01:17	19719-28-9	S5
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	08/09/13 13:00	08/10/13 17:33	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:33	7440-38-2	
Barium	**111**	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:33	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:33	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:33	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:33	7440-47-3	
Cobalt	**24.7**	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:33	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:33	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:33	7439-92-1	
Nickel	**87.9**	ug/L	50.0	5.0	1	08/09/13 13:00	08/10/13 17:33	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:33	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:33	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	08/09/13 13:00	08/10/13 17:33	7440-28-0	
Tin	**22.7J**	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:33	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	08/09/13 13:00	08/10/13 17:33	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:33	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	10.0	1		08/13/13 06:47	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/13/13 06:47	107-13-1	
Benzene	**1.6**	ug/L	1.0	0.25	1		08/13/13 06:47	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/13/13 06:47	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/13/13 06:47	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/13/13 06:47	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/13/13 06:47	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/13/13 06:47	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/13/13 06:47	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/13/13 06:47	56-23-5	
Chlorobenzene	**14.4**	ug/L	3.0	0.23	1		08/13/13 06:47	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/13/13 06:47	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/13/13 06:47	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/13/13 06:47	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/13/13 06:47	96-12-8	

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

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

ANALYTICAL RESULTS

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-MW2R **Lab ID: 92168177002** Collected: 08/05/13 13:00 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/13/13 06:47	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/13/13 06:47	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/13/13 06:47	74-95-3	
1,2-Dichlorobenzene	**1.2J**	ug/L	5.0	0.30	1		08/13/13 06:47	95-50-1	
1,4-Dichlorobenzene	**2.0**	ug/L	1.0	0.33	1		08/13/13 06:47	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/13/13 06:47	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/13/13 06:47	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/13/13 06:47	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/13/13 06:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/13/13 06:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/13/13 06:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/13/13 06:47	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/13/13 06:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/13/13 06:47	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/13/13 06:47	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/13/13 06:47	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/13/13 06:47	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/13/13 06:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/13/13 06:47	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/13/13 06:47	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/13/13 06:47	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/13/13 06:47	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/13/13 06:47	127-18-4	
Toluene	**0.29J**	ug/L	1.0	0.26	1		08/13/13 06:47	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/13/13 06:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/13/13 06:47	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/13/13 06:47	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/13/13 06:47	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/13/13 06:47	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/13/13 06:47	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/13/13 06:47	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/13/13 06:47	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		08/13/13 06:47	460-00-4	
Dibromofluoromethane (S)	93	%	70-130		1		08/13/13 06:47	1868-53-7	
1,2-Dichloroethane-d4 (S)	90	%	70-130		1		08/13/13 06:47	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		08/13/13 06:47	2037-26-5	

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

Pace Analytical Services, Inc.
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: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-MW3R **Lab ID: 92168177003** Collected: 08/05/13 12:45 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 Organochlorine Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
gamma-BHC (Lindane)	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 19:11	58-89-9	
Endrin aldehyde	ND	ug/L	0.10	0.050	1	08/09/13 13:50	08/12/13 19:11	7421-93-4	
Heptachlor	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 19:11	76-44-8	
Surrogates									
Tetrachloro-m-xylene (S)	54	%	20-130		1	08/09/13 13:50	08/12/13 19:11	877-09-8	
Decachlorobiphenyl (S)	126	%	20-130		1	08/09/13 13:50	08/12/13 19:11	2051-24-3	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	ND	ug/L	2.1	0.23	1	08/12/13 12:20	08/13/13 01:48	94-75-7	
Surrogates									
2,4-DCAA (S)	9	%	42-142		1	08/12/13 12:20	08/13/13 01:48	19719-28-9	S5
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	08/09/13 13:00	08/10/13 17:37	7440-36-0	
Arsenic	**5.6J**	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:37	7440-38-2	
Barium	**65.1J**	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:37	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:37	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:37	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:37	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:37	7440-48-4	
Copper	**14.3**	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:37	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:37	7439-92-1	
Nickel	**28.1J**	ug/L	50.0	5.0	1	08/09/13 13:00	08/10/13 17:37	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:37	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:37	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	08/09/13 13:00	08/10/13 17:37	7440-28-0	
Tin	**12.5J**	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:37	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	08/09/13 13:00	08/10/13 17:37	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:37	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	10.0	1		08/13/13 07:02	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/13/13 07:02	107-13-1	
Benzene	**0.64J**	ug/L	1.0	0.25	1		08/13/13 07:02	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/13/13 07:02	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/13/13 07:02	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/13/13 07:02	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/13/13 07:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/13/13 07:02	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/13/13 07:02	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/13/13 07:02	56-23-5	
Chlorobenzene	**15.9**	ug/L	3.0	0.23	1		08/13/13 07:02	108-90-7	
Chloroethane	**2.0J**	ug/L	10.0	0.54	1		08/13/13 07:02	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/13/13 07:02	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/13/13 07:02	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/13/13 07:02	96-12-8	

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

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

ANALYTICAL RESULTS

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-MW3R **Lab ID: 92168177003** Collected: 08/05/13 12:45 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/13/13 07:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/13/13 07:02	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/13/13 07:02	74-95-3	
1,2-Dichlorobenzene	**1.6J**	ug/L	5.0	0.30	1		08/13/13 07:02	95-50-1	
1,4-Dichlorobenzene	**1.3**	ug/L	1.0	0.33	1		08/13/13 07:02	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/13/13 07:02	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/13/13 07:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/13/13 07:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/13/13 07:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/13/13 07:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/13/13 07:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/13/13 07:02	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/13/13 07:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/13/13 07:02	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/13/13 07:02	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/13/13 07:02	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/13/13 07:02	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/13/13 07:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/13/13 07:02	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/13/13 07:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/13/13 07:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/13/13 07:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/13/13 07:02	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/13/13 07:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/13/13 07:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/13/13 07:02	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/13/13 07:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/13/13 07:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/13/13 07:02	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/13/13 07:02	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/13/13 07:02	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/13/13 07:02	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		08/13/13 07:02	460-00-4	
Dibromofluoromethane (S)	91	%	70-130		1		08/13/13 07:02	1868-53-7	
1,2-Dichloroethane-d4 (S)	87	%	70-130		1		08/13/13 07:02	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		08/13/13 07:02	2037-26-5	

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

Pace Analytical Services, Inc.
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: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-MW4 **Lab ID: 92168177004** Collected: 08/05/13 12:25 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 Organochlorine Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
gamma-BHC (Lindane)	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 19:28	58-89-9	
Endrin aldehyde	ND	ug/L	0.10	0.050	1	08/09/13 13:50	08/12/13 19:28	7421-93-4	
Heptachlor	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 19:28	76-44-8	
Surrogates									
Tetrachloro-m-xylene (S)	81	%	20-130		1	08/09/13 13:50	08/12/13 19:28	877-09-8	
Decachlorobiphenyl (S)	134	%	20-130		1	08/09/13 13:50	08/12/13 19:28	2051-24-3	S5
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	ND	ug/L	2.1	0.23	1	08/12/13 12:20	08/13/13 02:18	94-75-7	
Surrogates									
2,4-DCAA (S)	10	%	42-142		1	08/12/13 12:20	08/13/13 02:18	19719-28-9	S5
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	08/09/13 13:00	08/10/13 17:41	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:41	7440-38-2	
Barium	ND	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:41	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:41	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:41	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:41	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:41	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:41	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:41	7439-92-1	
Nickel	**9.0J**	ug/L	50.0	5.0	1	08/09/13 13:00	08/10/13 17:41	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:41	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:41	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	08/09/13 13:00	08/10/13 17:41	7440-28-0	
Tin	ND	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:41	7440-31-5	
Vanadium	**10.2J**	ug/L	25.0	5.0	1	08/09/13 13:00	08/10/13 17:41	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:41	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	10.0	1		08/13/13 07:18	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/13/13 07:18	107-13-1	
Benzene	**0.44J**	ug/L	1.0	0.25	1		08/13/13 07:18	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/13/13 07:18	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/13/13 07:18	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/13/13 07:18	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/13/13 07:18	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/13/13 07:18	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/13/13 07:18	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/13/13 07:18	56-23-5	
Chlorobenzene	**4.6**	ug/L	3.0	0.23	1		08/13/13 07:18	108-90-7	
Chloroethane	**2.2J**	ug/L	10.0	0.54	1		08/13/13 07:18	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/13/13 07:18	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/13/13 07:18	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/13/13 07:18	96-12-8	

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

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

ANALYTICAL RESULTS

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-MW4 **Lab ID: 92168177004** Collected: 08/05/13 12:25 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/13/13 07:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/13/13 07:18	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/13/13 07:18	74-95-3	
1,2-Dichlorobenzene	**0.30J**	ug/L	5.0	0.30	1		08/13/13 07:18	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/13/13 07:18	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/13/13 07:18	110-57-6	
1,1-Dichloroethane	**0.53J**	ug/L	5.0	0.32	1		08/13/13 07:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/13/13 07:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/13/13 07:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/13/13 07:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/13/13 07:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/13/13 07:18	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/13/13 07:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/13/13 07:18	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/13/13 07:18	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/13/13 07:18	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/13/13 07:18	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/13/13 07:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/13/13 07:18	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/13/13 07:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/13/13 07:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/13/13 07:18	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/13/13 07:18	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/13/13 07:18	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/13/13 07:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/13/13 07:18	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/13/13 07:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/13/13 07:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/13/13 07:18	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/13/13 07:18	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/13/13 07:18	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/13/13 07:18	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		08/13/13 07:18	460-00-4	
Dibromofluoromethane (S)	90	%	70-130		1		08/13/13 07:18	1868-53-7	
1,2-Dichloroethane-d4 (S)	88	%	70-130		1		08/13/13 07:18	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		08/13/13 07:18	2037-26-5	

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

Pace Analytical Services, Inc.
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: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-MW5 **Lab ID: 92168177005** Collected: 08/05/13 12:01 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 Organochlorine Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
gamma-BHC (Lindane)	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 19:46	58-89-9	
Endrin aldehyde	ND	ug/L	0.10	0.050	1	08/09/13 13:50	08/12/13 19:46	7421-93-4	
Heptachlor	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 19:46	76-44-8	
Surrogates									
Tetrachloro-m-xylene (S)	66	%	20-130		1	08/09/13 13:50	08/12/13 19:46	877-09-8	
Decachlorobiphenyl (S)	106	%	20-130		1	08/09/13 13:50	08/12/13 19:46	2051-24-3	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	ND	ug/L	2.1	0.23	1	08/12/13 12:20	08/13/13 02:48	94-75-7	
Surrogates									
2,4-DCAA (S)	9	%	42-142		1	08/12/13 12:20	08/13/13 02:48	19719-28-9	S5
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	08/09/13 13:00	08/10/13 17:44	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:44	7440-38-2	
Barium	**95.6J**	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:44	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:44	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:44	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:44	7440-47-3	
Cobalt	**50.9**	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:44	7440-48-4	
Copper	**10.2**	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:44	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:44	7439-92-1	
Nickel	**8.4J**	ug/L	50.0	5.0	1	08/09/13 13:00	08/10/13 17:44	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:44	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:44	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	08/09/13 13:00	08/10/13 17:44	7440-28-0	
Tin	ND	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:44	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	08/09/13 13:00	08/10/13 17:44	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:44	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	10.0	1		08/13/13 07:34	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/13/13 07:34	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/13/13 07:34	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/13/13 07:34	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/13/13 07:34	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/13/13 07:34	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/13/13 07:34	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/13/13 07:34	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/13/13 07:34	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/13/13 07:34	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/13/13 07:34	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/13/13 07:34	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/13/13 07:34	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/13/13 07:34	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/13/13 07:34	96-12-8	

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

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

ANALYTICAL RESULTS

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-MW5 **Lab ID: 92168177005** Collected: 08/05/13 12:01 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/13/13 07:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/13/13 07:34	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/13/13 07:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/13/13 07:34	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/13/13 07:34	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/13/13 07:34	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/13/13 07:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/13/13 07:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/13/13 07:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/13/13 07:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/13/13 07:34	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/13/13 07:34	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/13/13 07:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/13/13 07:34	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/13/13 07:34	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/13/13 07:34	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/13/13 07:34	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/13/13 07:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/13/13 07:34	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/13/13 07:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/13/13 07:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/13/13 07:34	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/13/13 07:34	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/13/13 07:34	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/13/13 07:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/13/13 07:34	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/13/13 07:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/13/13 07:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/13/13 07:34	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/13/13 07:34	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/13/13 07:34	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/13/13 07:34	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/13/13 07:34	460-00-4	
Dibromofluoromethane (S)	91	%	70-130		1		08/13/13 07:34	1868-53-7	
1,2-Dichloroethane-d4 (S)	90	%	70-130		1		08/13/13 07:34	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		08/13/13 07:34	2037-26-5	

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

Pace Analytical Services, Inc.
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: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-MW6 **Lab ID: 92168177006** Collected: 08/05/13 11:43 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 Organochlorine Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
gamma-BHC (Lindane)	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 20:03	58-89-9	
Endrin aldehyde	ND	ug/L	0.10	0.050	1	08/09/13 13:50	08/12/13 20:03	7421-93-4	
Heptachlor	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 20:03	76-44-8	
Surrogates									
Tetrachloro-m-xylene (S)	68	%	20-130		1	08/09/13 13:50	08/12/13 20:03	877-09-8	
Decachlorobiphenyl (S)	107	%	20-130		1	08/09/13 13:50	08/12/13 20:03	2051-24-3	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	ND	ug/L	2.0	0.23	1	08/12/13 12:20	08/13/13 03:49	94-75-7	
Surrogates									
2,4-DCAA (S)	84	%	42-142		1	08/12/13 12:20	08/13/13 03:49	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	08/09/13 13:00	08/10/13 17:48	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:48	7440-38-2	
Barium	ND	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:48	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:48	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:48	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:48	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:48	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:48	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:48	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	08/09/13 13:00	08/10/13 17:48	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:48	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:48	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	08/09/13 13:00	08/10/13 17:48	7440-28-0	
Tin	ND	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:48	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	08/09/13 13:00	08/10/13 17:48	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:48	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	10.0	1		08/13/13 07:49	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/13/13 07:49	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/13/13 07:49	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/13/13 07:49	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/13/13 07:49	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/13/13 07:49	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/13/13 07:49	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/13/13 07:49	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/13/13 07:49	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/13/13 07:49	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/13/13 07:49	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/13/13 07:49	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/13/13 07:49	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/13/13 07:49	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/13/13 07:49	96-12-8	

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

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

ANALYTICAL RESULTS

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-MW6 **Lab ID: 92168177006** Collected: 08/05/13 11:43 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/13/13 07:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/13/13 07:49	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/13/13 07:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/13/13 07:49	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/13/13 07:49	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/13/13 07:49	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/13/13 07:49	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/13/13 07:49	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/13/13 07:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/13/13 07:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/13/13 07:49	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/13/13 07:49	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/13/13 07:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/13/13 07:49	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/13/13 07:49	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/13/13 07:49	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/13/13 07:49	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/13/13 07:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/13/13 07:49	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/13/13 07:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/13/13 07:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/13/13 07:49	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/13/13 07:49	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/13/13 07:49	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/13/13 07:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/13/13 07:49	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/13/13 07:49	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/13/13 07:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/13/13 07:49	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/13/13 07:49	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/13/13 07:49	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/13/13 07:49	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		08/13/13 07:49	460-00-4	
Dibromofluoromethane (S)	90	%	70-130		1		08/13/13 07:49	1868-53-7	
1,2-Dichloroethane-d4 (S)	89	%	70-130		1		08/13/13 07:49	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		08/13/13 07:49	2037-26-5	

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

Pace Analytical Services, Inc.
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: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-FIELD BLANK **Lab ID: 92168177007** Collected: 08/05/13 13:40 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 Organochlorine Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
gamma-BHC (Lindane)	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 20:21	58-89-9	
Endrin aldehyde	ND	ug/L	0.10	0.050	1	08/09/13 13:50	08/12/13 20:21	7421-93-4	
Heptachlor	ND	ug/L	0.050	0.050	1	08/09/13 13:50	08/12/13 20:21	76-44-8	
Surrogates									
Tetrachloro-m-xylene (S)	53	%	20-130		1	08/09/13 13:50	08/12/13 20:21	877-09-8	
Decachlorobiphenyl (S)	80	%	20-130		1	08/09/13 13:50	08/12/13 20:21	2051-24-3	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151 Preparation Method: EPA 8151								
2,4-D	ND	ug/L	2.1	0.24	1	08/12/13 12:20	08/13/13 04:19	94-75-7	
Surrogates									
2,4-DCAA (S)	80	%	42-142		1	08/12/13 12:20	08/13/13 04:19	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	08/09/13 13:00	08/10/13 17:51	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:51	7440-38-2	
Barium	ND	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:51	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:51	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:51	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:51	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:51	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:51	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:51	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	08/09/13 13:00	08/10/13 17:51	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:51	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:51	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	08/09/13 13:00	08/10/13 17:51	7440-28-0	
Tin	ND	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:51	7440-31-5	
Vanadium	ND	ug/L	25.0	5.0	1	08/09/13 13:00	08/10/13 17:51	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:51	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	10.0	1		08/13/13 08:05	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/13/13 08:05	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/13/13 08:05	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/13/13 08:05	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/13/13 08:05	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/13/13 08:05	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/13/13 08:05	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/13/13 08:05	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/13/13 08:05	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/13/13 08:05	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/13/13 08:05	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/13/13 08:05	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/13/13 08:05	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/13/13 08:05	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/13/13 08:05	96-12-8	

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

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

ANALYTICAL RESULTS

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-FIELD BLANK **Lab ID: 92168177007** Collected: 08/05/13 13:40 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/13/13 08:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/13/13 08:05	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/13/13 08:05	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/13/13 08:05	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/13/13 08:05	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/13/13 08:05	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/13/13 08:05	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/13/13 08:05	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/13/13 08:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/13/13 08:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/13/13 08:05	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/13/13 08:05	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/13/13 08:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/13/13 08:05	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/13/13 08:05	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/13/13 08:05	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/13/13 08:05	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/13/13 08:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/13/13 08:05	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/13/13 08:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/13/13 08:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/13/13 08:05	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/13/13 08:05	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/13/13 08:05	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/13/13 08:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/13/13 08:05	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/13/13 08:05	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/13/13 08:05	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/13/13 08:05	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/13/13 08:05	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/13/13 08:05	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/13/13 08:05	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		08/13/13 08:05	460-00-4	
Dibromofluoromethane (S)	90	%	70-130		1		08/13/13 08:05	1868-53-7	
1,2-Dichloroethane-d4 (S)	90	%	70-130		1		08/13/13 08:05	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		08/13/13 08:05	2037-26-5	

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

Pace Analytical Services, Inc.
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: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-SW1 **Lab ID: 92168177008** Collected: 08/05/13 12:15 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	08/09/13 13:00	08/10/13 17:54	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:54	7440-38-2	
Barium	**49.9J**	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 17:54	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:54	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 17:54	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:54	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:54	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:54	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:54	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	08/09/13 13:00	08/10/13 17:54	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:54	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 17:54	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	08/09/13 13:00	08/10/13 17:54	7440-28-0	
Vanadium	ND	ug/L	25.0	5.0	1	08/09/13 13:00	08/10/13 17:54	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 17:54	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	10.0	1		08/13/13 08:21	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/13/13 08:21	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/13/13 08:21	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/13/13 08:21	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/13/13 08:21	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/13/13 08:21	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/13/13 08:21	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/13/13 08:21	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/13/13 08:21	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/13/13 08:21	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/13/13 08:21	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/13/13 08:21	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/13/13 08:21	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/13/13 08:21	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/13/13 08:21	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/13/13 08:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/13/13 08:21	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/13/13 08:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/13/13 08:21	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/13/13 08:21	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/13/13 08:21	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/13/13 08:21	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/13/13 08:21	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/13/13 08:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/13/13 08:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/13/13 08:21	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/13/13 08:21	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/13/13 08:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/13/13 08:21	10061-02-6	

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

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

ANALYTICAL RESULTS

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-SW1 **Lab ID: 92168177008** Collected: 08/05/13 12:15 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/13/13 08:21	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/13/13 08:21	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/13/13 08:21	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/13/13 08:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/13/13 08:21	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/13/13 08:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/13/13 08:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/13/13 08:21	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/13/13 08:21	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/13/13 08:21	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/13/13 08:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/13/13 08:21	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/13/13 08:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/13/13 08:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/13/13 08:21	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/13/13 08:21	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/13/13 08:21	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/13/13 08:21	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/13/13 08:21	460-00-4	
Dibromofluoromethane (S)	90	%	70-130		1		08/13/13 08:21	1868-53-7	
1,2-Dichloroethane-d4 (S)	90	%	70-130		1		08/13/13 08:21	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		08/13/13 08:21	2037-26-5	

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

Pace Analytical Services, Inc.
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: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-SW2 **Lab ID: 92168177009** Collected: 08/05/13 13:15 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	5.0	1	08/09/13 13:00	08/10/13 18:08	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 18:08	7440-38-2	
Barium	**79.8J**	ug/L	100	5.0	1	08/09/13 13:00	08/10/13 18:08	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 18:08	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	08/09/13 13:00	08/10/13 18:08	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 18:08	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 18:08	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 18:08	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 18:08	7439-92-1	
Nickel	**5.6J**	ug/L	50.0	5.0	1	08/09/13 13:00	08/10/13 18:08	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/12/13 12:48	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	08/09/13 13:00	08/10/13 18:08	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	08/09/13 13:00	08/10/13 18:08	7440-28-0	
Vanadium	ND	ug/L	25.0	5.0	1	08/09/13 13:00	08/10/13 18:08	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	08/09/13 13:00	08/10/13 18:08	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	10.0	1		08/13/13 08:36	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/13/13 08:36	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/13/13 08:36	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/13/13 08:36	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/13/13 08:36	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/13/13 08:36	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/13/13 08:36	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/13/13 08:36	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/13/13 08:36	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/13/13 08:36	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/13/13 08:36	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/13/13 08:36	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/13/13 08:36	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/13/13 08:36	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/13/13 08:36	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/13/13 08:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/13/13 08:36	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/13/13 08:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/13/13 08:36	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/13/13 08:36	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/13/13 08:36	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/13/13 08:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/13/13 08:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/13/13 08:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/13/13 08:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/13/13 08:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/13/13 08:36	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/13/13 08:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/13/13 08:36	10061-02-6	

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

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

ANALYTICAL RESULTS

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-SW2 **Lab ID: 92168177009** Collected: 08/05/13 13:15 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/13/13 08:36	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/13/13 08:36	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/13/13 08:36	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/13/13 08:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/13/13 08:36	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/13/13 08:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/13/13 08:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/13/13 08:36	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/13/13 08:36	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/13/13 08:36	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/13/13 08:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/13/13 08:36	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/13/13 08:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/13/13 08:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/13/13 08:36	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/13/13 08:36	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/13/13 08:36	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/13/13 08:36	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		08/13/13 08:36	460-00-4	
Dibromofluoromethane (S)	91	%	70-130		1		08/13/13 08:36	1868-53-7	
1,2-Dichloroethane-d4 (S)	89	%	70-130		1		08/13/13 08:36	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		08/13/13 08:36	2037-26-5	

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

Pace Analytical Services, Inc.
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: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-TRIP BLANK **Lab ID: 92168177010** Collected: 08/05/13 06:00 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	10.0	1		08/13/13 08:52	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/13/13 08:52	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/13/13 08:52	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/13/13 08:52	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/13/13 08:52	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/13/13 08:52	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/13/13 08:52	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/13/13 08:52	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/13/13 08:52	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/13/13 08:52	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/13/13 08:52	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/13/13 08:52	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/13/13 08:52	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/13/13 08:52	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/13/13 08:52	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/13/13 08:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/13/13 08:52	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/13/13 08:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/13/13 08:52	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/13/13 08:52	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/13/13 08:52	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/13/13 08:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/13/13 08:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/13/13 08:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/13/13 08:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/13/13 08:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/13/13 08:52	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/13/13 08:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/13/13 08:52	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/13/13 08:52	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/13/13 08:52	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/13/13 08:52	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		08/13/13 08:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/13/13 08:52	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/13/13 08:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/13/13 08:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/13/13 08:52	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/13/13 08:52	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/13/13 08:52	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/13/13 08:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/13/13 08:52	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/13/13 08:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/13/13 08:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/13/13 08:52	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/13/13 08:52	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/13/13 08:52	75-01-4	

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

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

ANALYTICAL RESULTS

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Sample: 3902-TRIP BLANK **Lab ID: 92168177010** Collected: 08/05/13 06:00 Received: 08/08/13 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/13/13 08:52	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		08/13/13 08:52	460-00-4	
Dibromofluoromethane (S)	90	%	70-130		1		08/13/13 08:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	89	%	70-130		1		08/13/13 08:52	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		08/13/13 08:52	2037-26-5	

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

Pace Analytical Services, Inc.
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

QUALITY CONTROL DATA

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

QC Batch: MPRP/13948 — Analysis Method: EPA 6010
QC Batch Method: EPA 3010 — Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92168177001, 92168177002, 92168177003, 92168177004, 92168177005, 92168177006, 92168177007, 92168177008, 92168177009

METHOD BLANK: 1026102 — Matrix: Water
Associated Lab Samples: 92168177001, 92168177002, 92168177003, 92168177004, 92168177005, 92168177006, 92168177007, 92168177008, 92168177009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	08/10/13 16:51	
Arsenic	ug/L	ND	10.0	08/10/13 16:51	
Barium	ug/L	ND	100	08/10/13 16:51	
Beryllium	ug/L	ND	1.0	08/10/13 16:51	
Cadmium	ug/L	ND	1.0	08/10/13 16:51	
Chromium	ug/L	ND	10.0	08/10/13 16:51	
Cobalt	ug/L	ND	10.0	08/10/13 16:51	
Copper	ug/L	ND	10.0	08/10/13 16:51	
Lead	ug/L	ND	10.0	08/10/13 16:51	
Nickel	ug/L	ND	50.0	08/10/13 16:51	
Selenium	ug/L	ND	10.0	08/10/13 16:51	
Silver	ug/L	ND	10.0	08/10/13 16:51	
Thallium	ug/L	ND	5.5	08/12/13 12:45	
Tin	ug/L	ND	100	08/10/13 16:51	
Vanadium	ug/L	ND	25.0	08/10/13 16:51	
Zinc	ug/L	ND	10.0	08/10/13 16:51	

LABORATORY CONTROL SAMPLE: 1026103

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	476	95	80-120	
Arsenic	ug/L	500	460	92	80-120	
Barium	ug/L	500	471	94	80-120	
Beryllium	ug/L	500	474	95	80-120	
Cadmium	ug/L	500	472	94	80-120	
Chromium	ug/L	500	472	94	80-120	
Cobalt	ug/L	500	466	93	80-120	
Copper	ug/L	500	461	92	80-120	
Lead	ug/L	500	468	94	80-120	
Nickel	ug/L	500	479	96	80-120	
Selenium	ug/L	500	470	94	80-120	
Silver	ug/L	250	239	96	80-120	
Thallium	ug/L	500	446	89	80-120	
Tin	ug/L	500	483	97	80-120	
Vanadium	ug/L	500	476	95	80-120	
Zinc	ug/L	500	476	95	80-120	

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

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

QUALITY CONTROL DATA

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1026104 1026105

Parameter	Units	92166980003 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	476	487	95	97	75-125	2	25	
Arsenic	ug/L	ND	500	500	473	479	95	96	75-125	1	25	
Barium	ug/L	20.9	500	500	474	487	91	93	75-125	3	25	
Beryllium	ug/L	ND	500	500	455	467	91	93	75-125	3	25	
Cadmium	ug/L	ND	500	500	452	462	90	92	75-125	2	25	
Chromium	ug/L	ND	500	500	455	466	91	93	75-125	2	25	
Cobalt	ug/L	ND	500	500	448	459	89	92	75-125	2	25	
Copper	ug/L	ND	500	500	464	478	93	95	75-125	3	25	
Lead	ug/L	ND	500	500	451	459	90	92	75-125	2	25	
Nickel	ug/L	ND	500	500	457	469	91	94	75-125	3	25	
Selenium	ug/L	ND	500	500	466	482	93	96	75-125	3	25	
Silver	ug/L	ND	250	250	237	243	95	97	75-125	2	25	
Thallium	ug/L	8.1	500	500	425	443	83	87	75-125	4	25	
Tin	ug/L	ND	500	500	476	496	95	99	75-125	4	25	
Vanadium	ug/L	ND	500	500	465	477	93	95	75-125	3	25	
Zinc	ug/L	ND	500	500	467	478	93	95	75-125	2	25	

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

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

QUALITY CONTROL DATA

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

QC Batch: MSV/23907 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92168177001, 92168177002, 92168177003, 92168177004, 92168177005, 92168177006, 92168177007, 92168177008, 92168177009, 92168177010

METHOD BLANK: 1027381 Matrix: Water
Associated Lab Samples: 92168177001, 92168177002, 92168177003, 92168177004, 92168177005, 92168177006, 92168177007, 92168177008, 92168177009, 92168177010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	08/13/13 05:44	
1,1,1-Trichloroethane	ug/L	ND	1.0	08/13/13 05:44	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	08/13/13 05:44	
1,1,2-Trichloroethane	ug/L	ND	1.0	08/13/13 05:44	
1,1-Dichloroethane	ug/L	ND	5.0	08/13/13 05:44	
1,1-Dichloroethene	ug/L	ND	5.0	08/13/13 05:44	
1,2,3-Trichloropropane	ug/L	ND	1.0	08/13/13 05:44	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	08/13/13 05:44	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/13/13 05:44	
1,2-Dichlorobenzene	ug/L	ND	5.0	08/13/13 05:44	
1,2-Dichloroethane	ug/L	ND	1.0	08/13/13 05:44	
1,2-Dichloropropane	ug/L	ND	1.0	08/13/13 05:44	
1,4-Dichlorobenzene	ug/L	ND	1.0	08/13/13 05:44	
2-Butanone (MEK)	ug/L	ND	100	08/13/13 05:44	
2-Hexanone	ug/L	ND	50.0	08/13/13 05:44	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	08/13/13 05:44	
Acetone	ug/L	ND	100	08/13/13 05:44	
Acrylonitrile	ug/L	ND	200	08/13/13 05:44	
Benzene	ug/L	ND	1.0	08/13/13 05:44	
Bromochloromethane	ug/L	ND	3.0	08/13/13 05:44	
Bromodichloromethane	ug/L	ND	1.0	08/13/13 05:44	
Bromoform	ug/L	ND	3.0	08/13/13 05:44	
Bromomethane	ug/L	ND	10.0	08/13/13 05:44	
Carbon disulfide	ug/L	ND	100	08/13/13 05:44	
Carbon tetrachloride	ug/L	ND	1.0	08/13/13 05:44	
Chlorobenzene	ug/L	ND	3.0	08/13/13 05:44	
Chloroethane	ug/L	ND	10.0	08/13/13 05:44	
Chloroform	ug/L	ND	5.0	08/13/13 05:44	
Chloromethane	ug/L	ND	1.0	08/13/13 05:44	
cis-1,2-Dichloroethene	ug/L	ND	5.0	08/13/13 05:44	
cis-1,3-Dichloropropene	ug/L	ND	1.0	08/13/13 05:44	
Dibromochloromethane	ug/L	ND	3.0	08/13/13 05:44	
Dibromomethane	ug/L	ND	10.0	08/13/13 05:44	
Ethylbenzene	ug/L	ND	1.0	08/13/13 05:44	
Iodomethane	ug/L	ND	10.0	08/13/13 05:44	
Methylene Chloride	ug/L	ND	1.0	08/13/13 05:44	
Styrene	ug/L	ND	1.0	08/13/13 05:44	
Tetrachloroethene	ug/L	ND	1.0	08/13/13 05:44	
Toluene	ug/L	ND	1.0	08/13/13 05:44	
trans-1,2-Dichloroethene	ug/L	ND	5.0	08/13/13 05:44	
trans-1,3-Dichloropropene	ug/L	ND	1.0	08/13/13 05:44	

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

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

QUALITY CONTROL DATA

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

METHOD BLANK: 1027381 Matrix: Water

Associated Lab Samples: 92168177001, 92168177002, 92168177003, 92168177004, 92168177005, 92168177006, 92168177007, 92168177008, 92168177009, 92168177010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,4-Dichloro-2-butene	ug/L	ND	100	08/13/13 05:44	
Trichloroethene	ug/L	ND	1.0	08/13/13 05:44	
Trichlorofluoromethane	ug/L	ND	1.0	08/13/13 05:44	
Vinyl acetate	ug/L	ND	50.0	08/13/13 05:44	
Vinyl chloride	ug/L	ND	1.0	08/13/13 05:44	
Xylene (Total)	ug/L	ND	5.0	08/13/13 05:44	
1,2-Dichloroethane-d4 (S)	%	91	70-130	08/13/13 05:44	
4-Bromofluorobenzene (S)	%	99	70-130	08/13/13 05:44	
Dibromofluoromethane (S)	%	92	70-130	08/13/13 05:44	
Toluene-d8 (S)	%	99	70-130	08/13/13 05:44	

LABORATORY CONTROL SAMPLE: 1027382

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.6	103	70-130	
1,1,1-Trichloroethane	ug/L	50	46.2	92	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	47.8	96	70-130	
1,1,2-Trichloroethane	ug/L	50	48.6	97	70-130	
1,1-Dichloroethane	ug/L	50	46.6	93	70-130	
1,1-Dichloroethene	ug/L	50	45.8	92	70-132	
1,2,3-Trichloropropane	ug/L	50	46.0	92	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	42.4	85	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	48.0	96	70-130	
1,2-Dichlorobenzene	ug/L	50	51.9	104	70-130	
1,2-Dichloroethane	ug/L	50	45.4	91	70-130	
1,2-Dichloropropane	ug/L	50	44.4	89	70-130	
1,4-Dichlorobenzene	ug/L	50	51.3	103	70-130	
2-Butanone (MEK)	ug/L	100	77.6J	78	70-145	
2-Hexanone	ug/L	100	88.6	89	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	88.4J	88	70-140	
Acetone	ug/L	100	72.8J	73	50-175	
Acrylonitrile	ug/L	250	213	85	70-143	
Benzene	ug/L	50	50.1	100	70-130	
Bromochloromethane	ug/L	50	44.9	90	70-130	
Bromodichloromethane	ug/L	50	48.5	97	70-130	
Bromoform	ug/L	50	46.9	94	70-130	
Bromomethane	ug/L	50	35.2	70	54-130	
Carbon disulfide	ug/L	50	45.8J	92	70-131	
Carbon tetrachloride	ug/L	50	47.8	96	70-132	
Chlorobenzene	ug/L	50	50.9	102	70-130	
Chloroethane	ug/L	50	52.8	106	64-134	
Chloroform	ug/L	50	47.8	96	70-130	
Chloromethane	ug/L	50	46.5	93	64-130	
cis-1,2-Dichloroethene	ug/L	50	46.0	92	70-131	

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

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

QUALITY CONTROL DATA

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

LABORATORY CONTROL SAMPLE: 1027382

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,3-Dichloropropene	ug/L	50	46.3	93	70-130	
Dibromochloromethane	ug/L	50	48.9	98	70-130	
Dibromomethane	ug/L	50	46.8	94	70-131	
Ethylbenzene	ug/L	50	51.3	103	70-130	
Iodomethane	ug/L	100	86.2	86	49-180	
Methylene Chloride	ug/L	50	45.1	90	63-130	
Styrene	ug/L	50	53.5	107	70-130	
Tetrachloroethene	ug/L	50	51.0	102	70-130	
Toluene	ug/L	50	49.0	98	70-130	
trans-1,2-Dichloroethene	ug/L	50	46.7	93	70-130	
trans-1,3-Dichloropropene	ug/L	50	45.4	91	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	49.3J	99	70-141	
Trichloroethene	ug/L	50	51.0	102	70-130	
Trichlorofluoromethane	ug/L	50	50.9	102	62-133	
Vinyl acetate	ug/L	100	89.1	89	66-157	
Vinyl chloride	ug/L	50	46.9	94	69-130	
Xylene (Total)	ug/L	150	159	106	70-130	
1,2-Dichloroethane-d4 (S)	%			92	70-130	
4-Bromofluorobenzene (S)	%			102	70-130	
Dibromofluoromethane (S)	%			91	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1027383 1027384

Parameter	Units	92168180008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	44.0	46.6	88	93	70-166	6	30	
Benzene	ug/L	ND	50	50	51.1	52.7	102	105	70-148	3	30	
Chlorobenzene	ug/L	ND	50	50	53.8	53.8	108	108	70-146	0	30	
Toluene	ug/L	ND	50	50	50.4	51.4	101	103	70-155	2	30	
Trichloroethene	ug/L	ND	50	50	54.8	56.1	110	112	69-151	2	30	
1,2-Dichloroethane-d4 (S)	%						90	91	70-130			
4-Bromofluorobenzene (S)	%						102	98	70-130			
Dibromofluoromethane (S)	%						91	92	70-130			
Toluene-d8 (S)	%						98	97	70-130			

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

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

QUALITY CONTROL DATA

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

QC Batch: OEXT/23377 — Analysis Method: EPA 8081
QC Batch Method: EPA 3510 — Analysis Description: 8081A GCS Pesticides
Associated Lab Samples: 92168177001, 92168177002, 92168177003, 92168177004, 92168177005, 92168177006, 92168177007

METHOD BLANK: 1026248 — Matrix: Water
Associated Lab Samples: 92168177001, 92168177002, 92168177003, 92168177004, 92168177005, 92168177006, 92168177007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Endrin aldehyde	ug/L	ND	0.10	08/12/13 16:50	
gamma-BHC (Lindane)	ug/L	ND	0.050	08/12/13 16:50	
Heptachlor	ug/L	ND	0.050	08/12/13 16:50	
Decachlorobiphenyl (S)	%	93	20-130	08/12/13 16:50	
Tetrachloro-m-xylene (S)	%	68	20-130	08/12/13 16:50	

LABORATORY CONTROL SAMPLE: 1026249

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Endrin aldehyde	ug/L	.25	0.22	88	20-150	
gamma-BHC (Lindane)	ug/L	.25	0.18	75	20-150	
Heptachlor	ug/L	.25	0.15	59	20-150	
Decachlorobiphenyl (S)	%			98	20-130	
Tetrachloro-m-xylene (S)	%			58	20-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1026250 — 1026251

Parameter	Units	92168177001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Endrin aldehyde	ug/L	ND	.5	.5	0.43	0.46	86	92	20-150	7	30	
gamma-BHC (Lindane)	ug/L	ND	.5	.5	0.36	0.43	73	87	20-150	18	30	
Heptachlor	ug/L	ND	.5	.5	0.25	0.39	51	78	20-150	42	30	R1
Decachlorobiphenyl (S)	%						95	97	20-130			
Tetrachloro-m-xylene (S)	%						62	79	20-130			

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

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

QUALITY CONTROL DATA

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

QC Batch: OEXT/13820 — Analysis Method: EPA 8151
QC Batch Method: EPA 8151 — Analysis Description: 8151A GCS Herbicides
Associated Lab Samples: 92168177001, 92168177002, 92168177003, 92168177004, 92168177005, 92168177006, 92168177007

METHOD BLANK: 693519 — Matrix: Water
Associated Lab Samples: 92168177001, 92168177002, 92168177003, 92168177004, 92168177005, 92168177006, 92168177007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4-D	ug/L	ND	2.0	08/12/13 22:46	
2,4-DCAA (S)	%	83	42-142	08/12/13 22:46	

LABORATORY CONTROL SAMPLE: 693520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-D	ug/L	6	3.7	61	23-163	
2,4-DCAA (S)	%			93	42-142	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 693521 693522

Parameter	Units	92168177001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4-D	ug/L	ND	12	12	6.8	6.7	57	55	17-167	3	40	
2,4-DCAA (S)	%						91	86	42-142			

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

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

QUALIFIERS

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte
PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

R1	RPD value was outside control limits.
S5	Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

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

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Butner Landfill 660.1302.12T04
Pace Project No.: 92168177

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92168177001	**3902-MW1R**	EPA 3510	OEXT/23377	EPA 8081	GCSV/15292
92168177002	**3902-MW2R**	EPA 3510	OEXT/23377	EPA 8081	GCSV/15292
92168177003	**3902-MW3R**	EPA 3510	OEXT/23377	EPA 8081	GCSV/15292
92168177004	**3902-MW4**	EPA 3510	OEXT/23377	EPA 8081	GCSV/15292
92168177005	**3902-MW5**	EPA 3510	OEXT/23377	EPA 8081	GCSV/15292
92168177006	**3902-MW6**	EPA 3510	OEXT/23377	EPA 8081	GCSV/15292
92168177007	**3902-FIELD BLANK**	EPA 3510	OEXT/23377	EPA 8081	GCSV/15292
92168177001	**3902-MW1R**	EPA 8151	OEXT/13820	EPA 8151	GCSV/9223
92168177002	**3902-MW2R**	EPA 8151	OEXT/13820	EPA 8151	GCSV/9223
92168177003	**3902-MW3R**	EPA 8151	OEXT/13820	EPA 8151	GCSV/9223
92168177004	**3902-MW4**	EPA 8151	OEXT/13820	EPA 8151	GCSV/9223
92168177005	**3902-MW5**	EPA 8151	OEXT/13820	EPA 8151	GCSV/9223
92168177006	**3902-MW6**	EPA 8151	OEXT/13820	EPA 8151	GCSV/9223
92168177007	**3902-FIELD BLANK**	EPA 8151	OEXT/13820	EPA 8151	GCSV/9223
92168177001	**3902-MW1R**	EPA 3010	MPRP/13948	EPA 6010	ICP/12697
92168177002	**3902-MW2R**	EPA 3010	MPRP/13948	EPA 6010	ICP/12697
92168177003	**3902-MW3R**	EPA 3010	MPRP/13948	EPA 6010	ICP/12697
92168177004	**3902-MW4**	EPA 3010	MPRP/13948	EPA 6010	ICP/12697
92168177005	**3902-MW5**	EPA 3010	MPRP/13948	EPA 6010	ICP/12697
92168177006	**3902-MW6**	EPA 3010	MPRP/13948	EPA 6010	ICP/12697
92168177007	**3902-FIELD BLANK**	EPA 3010	MPRP/13948	EPA 6010	ICP/12697
92168177008	**3902-SW1**	EPA 3010	MPRP/13948	EPA 6010	ICP/12697
92168177009	**3902-SW2**	EPA 3010	MPRP/13948	EPA 6010	ICP/12697
92168177001	**3902-MW1R**	EPA 8260	MSV/23907		
92168177002	**3902-MW2R**	EPA 8260	MSV/23907		
92168177003	**3902-MW3R**	EPA 8260	MSV/23907		
92168177004	**3902-MW4**	EPA 8260	MSV/23907		
92168177005	**3902-MW5**	EPA 8260	MSV/23907		
92168177006	**3902-MW6**	EPA 8260	MSV/23907		
92168177007	**3902-FIELD BLANK**	EPA 8260	MSV/23907		
92168177008	**3902-SW1**	EPA 8260	MSV/23907		
92168177009	**3902-SW2**	EPA 8260	MSV/23907		
92168177010	**3902-TRIP BLANK**	EPA 8260	MSV/23907		

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

Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: June 12, 2013 Page 1 of 2
	Document Number: **F-CHR-CS-03-rev.11**	Issuing Authority: Pace Huntersville Quality Office

Client Name: Joyce Engineering

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden ☐ Raleigh

Courier: ☐ 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_____

Thermometer Used: IR Gun T1102 T1301 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor **T1102**: No Correction **T1301**: No Correction

Corrected Cooler Temp.: 1.8 **C** **Biological Tissue is Frozen:** Yes No N/A **Date and Initials of person examining contents:** CO 8/8/13

Temp should be above freezing to 6°C

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: JG **Date:** 8/8/13

SRF Review: JG **Date:** 8/9/13

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

WO#: 92168177

92168177

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A — Required Client Information:

Company:	Joyce Engineering
Address:	2211 West Meadowview Rd
	Greensboro, NC 27407
Email To:	aeverhart@joyceengineering.com
Phone:	(336) 323-0092 Fax
Requested Due Date/TAT:	10 Day (Default)

Section B — Required Project Information:

Report To:	Alex Everhart
Copy To:	Van Burbach
Purchase Order No.	
Client Project ID:	Butner Landfill 660.1302.12 T04
Container Order Number:	

Section C — Invoice Information:

Attention:	Jason Falls
Company Name:	Granville County, Solid Waste
Address:	P.O. Box 906, Oxford NC 27565

Regulatory Agency:

State / Location: North Carolina

Requested Analysis Filtered (Y/N)

ITEM#	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test (Y/N)	Metals	NC App 1 VOC's	Herbicides 8151*	Pesticides 8081*	Residual Chlorine (Y/N)	92168177
1	3902-MW1R	WT	G			8/5/13	1124		8			X	X						X	X	X	X		NC App I + App II Detects 001
2	3902-MW2R	WT	G				1300					X	X						X	X	X	X		NC App I + App II Detects 002
3	3902-MW3R	WT	G				1235					X	X						X	X	X	X		NC App I + App II Detects 003
4	3902-MW4	WT	G				1225					X	X						X	X	X	X		NC App I + App II Detects 004
5	3902-MW5	WT	G				1201					X	X						X	X	X	X		NC App I + App II Detects 005
6	3902-MW6	WT	G				1143					X	X						X	X	X	X		NC App I+ App II Detects 006
7	3902-SW1	WT	G				1215		4			X	X						X	X				NC App I 008
8	3902-SW2	WT	G				1315		4			X	X						X	X				NC App I 009
9	3902-Field Blank	WT	G				1340		8			X	X						X	X	X	X		NC App I + App II Detects 007
10	3902-Trip Blank	WT	G				0600		2			X	X							X				NC App I 010
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*Detects: Tin, Gamma-BHC, Heptachlor, 2,4-D,	[illegible]	8/8/13	1345	[illegible] Pace	8/8/13	1345				
Endrin Aldehyde	[illegible] Pace	8/8/13	1630	[illegible] Pace	8/8/13	16:30	1.8	Y	N	Y

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: ADAM COX, AMANDA FREEMAN					
SIGNATURE of SAMPLER: Adam Cox, Amanda Freeman	DATE Signed: 8/8/13				

DATE: 8/5/2013

JOYCE ENGINEERING

GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. **Project No./Task No.:** 00660.1302.12.04

Well ID: 3902-MW-1R **Sampler(s):** A. Cox / A. Freeman

Well Location: North of the entrance at the tree line under the tower

Well Diameter: 2 inches

Initial Depth to Water (DTW): 42.54 feet

Depth to Bottom (DTB): 56.00 feet

Water Column Thickness (WCT): 13.46 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 2.2 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 6.6 gallons

Actual Amount Purged/Bailed: 5.0 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling: - feet

Gallons	Time	Temp. °C	pH	Coud. m.s.	Dis. O_2 mg/l	Turb. ntu	ORP mv	Initials
0	0736	17.0	6.35	103.5	-	4.63	-	AF
2.2	0740	16.1	5.44	94.9	-	31.4	-	AF
4.4	0744	16.0	5.45	91.7	-	51.7	-	AF
Dry @ 5.0								
Before Sampling	1124	17.6	6.91	139.6	-	4.63	-	AF

Comments (weather conditions, odor, color, silt, etc.): The weather was overcast with temperatures in the 60's on 8/5/13.

Signature: [signature] **Date:** 8/5/13

QA/QC Sign Off: [signature] **Date:** 8/9/13

DATE: 8/5/2013

JOYCE ENGINEERING

GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. **Project No./Task No.:** 00660.1302.12.04

Well ID: 3902-MW-6 **Sampler(s):** A. Cox / A. Freeman

Well Location: other side of large mulch pile

Well Diameter: 2 inches

Initial Depth to Water (DTW): 9.52 feet

Depth to Bottom (DTB): 32.63 feet

Water Column Thickness (WCT): 23.11 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 3.8 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 11.4 gallons

Actual Amount Purged/Bailed: 8.0 gallons

Purged with: Disposable Bailer

Sampled with: Disposable Bailer

Depth to Water before Sampling: 9.56 feet

Gallons	Time	Temp. °C	pH	Cond. m.s.	Turb. ntu	Initials
0	0800	17.9	6.30	599	10.25	AF
3.8	0803	16.7	6.54	588	14.6	AF
7.6	0806	15.5	6.55	573	18.9	AF
Dry @ 8.0						
Before Sampling	1143	17.3	6.88	583	4.69	AF

Comments (weather conditions, odor, color, silt, etc.): The weather was partly cloudy with temperatures in the 60's on 8/5/13.

Signature: [signature] **Date:** 8/5/13

QA/QC Sign Off: [signature] **Date:** 8/9/13

DATE: 8/5/2013

JOYCE ENGINEERING

GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. **Project No./Task No.:** 00660.1302.12.04

Well ID: 3902-MW-3R **Sampler(s):** A. Cox / A. Freeman

Well Location: Next to MW-2R, inside tree line

Well Diameter: 2 inches

Initial Depth to Water (DTW): 2.55 feet

Depth to Bottom (DTB): 35.83 feet

Water Column Thickness (WCT): 33.28 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 5.4 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 16.2 gallons

Actual Amount Purged/Bailed: 7.4 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling: - feet

Gallons	Time	Temp. °C	pH	Cond. m.s.	Dis. O_2 mg/l	Turb. ntu	ORP mv	Initials
0	0900	20.9	7.30	1210	-	2.86	-	AF
5.4	0906	16.7	7.17	1308	-	2.93	-	AF
Dry @ 7.4 gals								
Before Sampling	1245	20.7	6.94	1617	-	3.74	-	AF

Comments (weather conditions, odor, color, silt, etc.): The weather was partly cloudy with temperatures in the 70's on 8/5/13.

Signature: [signature] **Date:** 8/5/13

QA/QC Sign Off: [signature] **Date:** 8/9/13

DATE: 8/5/2013

JOYCE ENGINEERING

GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. **Project No./Task No.:** 00660.1302.12.04

Well ID: 3902-MW-4 **Sampler(s):** A. Cox / A. Freeman

Well Location: south of fill, just inside tree line

Well Diameter: 2 inches

Initial Depth to Water (DTW): 7.48 feet

Depth to Bottom (DTB): 31.43 feet

Water Column Thickness (WCT): 23.86 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 3.8 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 11.4 gallons

Actual Amount Purged/Bailed: 4.5 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling: 11.10 feet

Gallons	Time	Temp. °C	pH	Cond. m.s.	Dis. O_2 mg/l	Turb. ntu	ORP mv	Initials
0	0843	20.0	6.31	1278	-	11.4	-	AF
3.8	0848	16.4	6.93	1326	-	22.5	-	AF
Dry @ 4.5								
Before Sampling	1225	18.1	6.77	1374	-	12.75	-	AF

Comments (weather conditions, odor, color, silt, etc.): The weather was partly cloudy with temperatures in the 70s on 8/5/13.

Signature: [signature] **Date:** 8/5/13

QA/QC Sign Off: [signature] **Date:** 8/9/13

DATE: 8/5/2013

JOYCE ENGINEERING

GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. **Project No./Task No.:** 00660.1302.12.04

Well ID: 3902-MW-5 **Sampler(s):** A. Cox / A. Freeman

Well Location: South side of old SED. pond, Basin in the woods

Well Diameter: 2 inches

Initial Depth to Water (DTW): 11.05 feet

Depth to Bottom (DTB): 23.52 feet

Water Column Thickness (WCT): 12.47 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 2.0 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 6.0 gallons

Actual Amount Purged/Bailed: 3.5 gallons

Purged with: Disposable Bailer

Sampled with: Disposable Bailer

Depth to Water before Sampling: 15.00 feet

Gallons	Time	Temp. °C	pH	Cond. m.s.	Turb. ntu	Initials
0	0830	17.7	5.88	233.6	10.84	AF
2.0	0833	16.2	6.06	429.1	>1000	AF
Dry @ 3.5						AF
Before Sampling	1201	16.6	7.48	337.5	4.23	AF

Comments (weather conditions, odor, color, silt, etc.): The weather was partly cloudy with temperatures in the 70's on 8/5/13.

Signature: [signature] **Date:** 8/5/13

QA/QC Sign Off: [signature] **Date:** 8/9/13

DATE: 8/5/2013

JOYCE ENGINEERING

GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. **Project No./Task No.:** 00660.1302.12.04

Well ID: 3902-MW-2R **Sampler(s):** A. Freeman / A. Cox

Well Location: South side of fill, inside tree line and next to MW-3R

Well Diameter: 2 inches

Initial Depth to Water (DTW): 2.58 feet

Depth to Bottom (DTB): 18.85 feet

Water Column Thickness (WCT): 16.27 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 2.7 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 8.1 gallons

Actual Amount Purged/Bailed: 5.0 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling: - feet

Gallons	Time	Temp. °C	pH	Cond. m.s.	Dis. O_2 mg/l	Turb. ntu	ORP mv	Initials
0	0913	21.1	6.77	1815	-	7.13	-	AF
2.7	0916	17.4	6.70	1866	-	10.5	-	AF
Dry @ 5.0								
Before Sampling	1300	22.0	6.60	2010	-	8.17	-	AF

Comments (weather conditions, odor, color, silt, etc.): The weather was partly cloudy with temperatures in the 70's on 8/5/13.

Signature: _____ **Date:** 8/5/13

QA/QC Sign Off: _____ **Date:** 8/9/13

DATE: 8/5/2013

JOYCE ENGINEERING

SURFACE WATER MONITORING LOG

Project Name: BUTNER, Granville Co. **Project/Task No.:** 00660.1302.12.04

Surface Point ID: 3902-SW-1 **Sampler(s):** A. Cox / A. Freeman

Location: Near Sed. pond, Basin

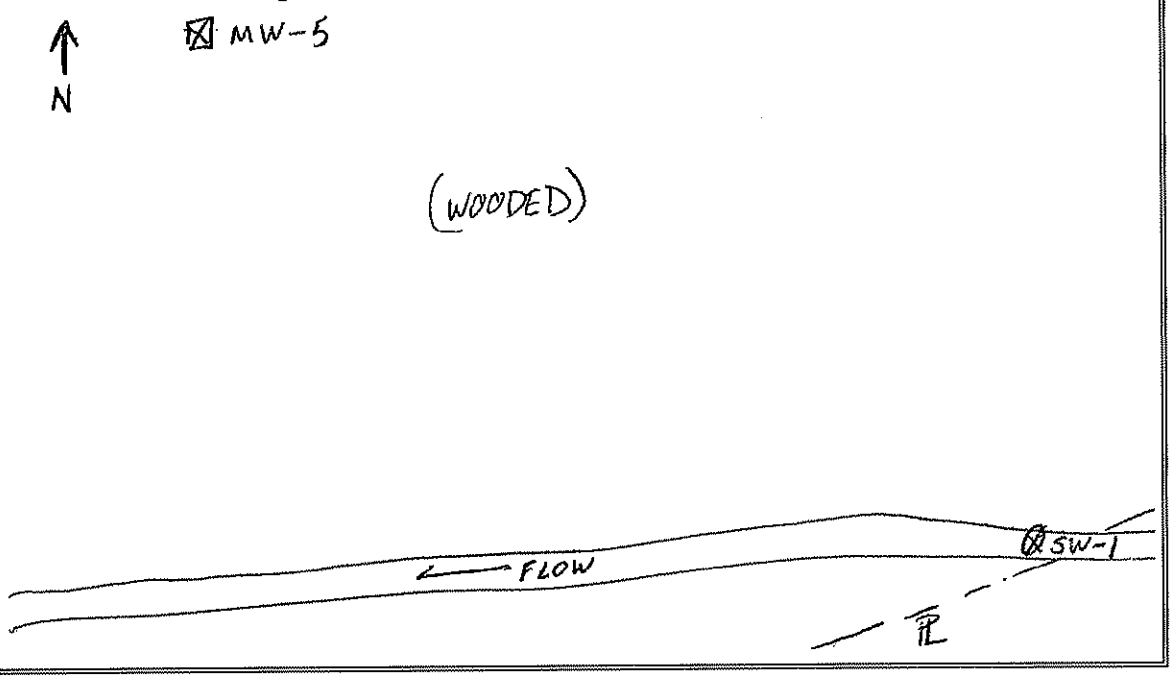
Field Parameters:

Time of Sampling:	1215	
pH:	7.25	
Temperature:	22.1	(°C)
Conductivity:	341.8	(µS)
Turbidity:	36.1	(ntu)

Comments/Sample Description (weather conditions, odor, color, silt, etc.):

The weather was partly cloudy with temperatures in the 70's on 8/5/13.

Sketch of Sample Location (include flow direction, drainage pathways, etc.):



Signature: [signature] **Date:** 8/5/13

QA/QC Sign Off: [signature] **Date:** 8/9/13

DATE: 8/5/2013

JOYCE ENGINEERING

SURFACE WATER MONITORING LOG

Project Name: BUTNER, Granville Co. **Project/Task No.:** 00660.1302.12.04

Surface Point ID: 3902-SW-2 **Sampler(s):** A. Cox / A. Freeman

Location: Down from MW-2R & MW-3R

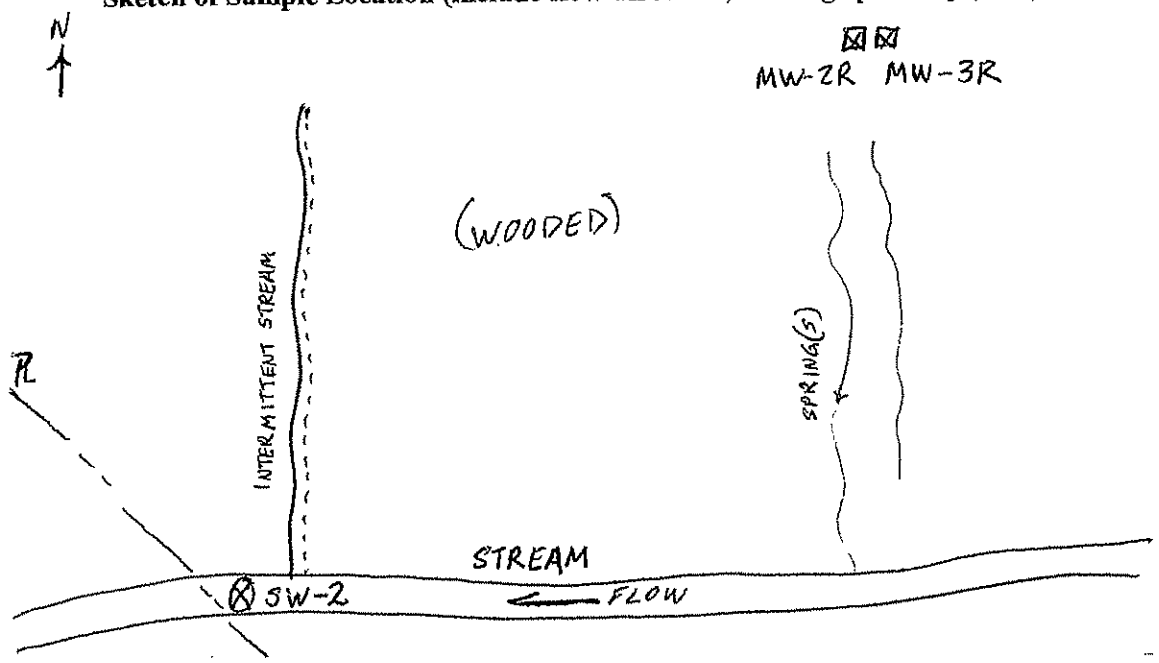
Field Parameters:

Time of Sampling:	1315	
pH:	7.51	
Temperature:	23.2	**(°C)**
Conductivity:	716	**(µS)**
Turbidity:	15.2	**(ntu)**

Comments/Sample Description (weather conditions, odor, color, silt, etc.):

The weather was partly cloudy with temperatures in the 70's on 8/5/13.

Sketch of Sample Location (include flow direction, drainage pathways, etc.):



Signature: [signature] **Date:** 8/5/13

QA/QC Sign Off: [signature] **Date:** 8/9/13

Appendix B

Statistical Analysis Worksheets

JOYCE Project **Granville County - Butner Landfill**
Project No: 660.1302.12
Date: 8-May-13

Analyte: **Cobalt**

Sample No.	Sample Date	Location	Concentration	Sorted
1	Sep-94	MW-1R	ND	6.0
2	Dec-94	MW-1R	11	11.0
3	Feb-95	MW-1R	20	15.0
4	Mar-95	MW-1R	16	16.0
5	Nov-95	MW-1R	20	20.0
6	May-96	MW-1R	30	20.0
7	Nov-96	MW-1R	6	21.0
8	Jun-97	MW-1R	130	30.0
9	Dec-97	MW-1R	32	32.0
10	May-98	MW-1R	15	130
11	Nov-98	MW-1R	21	
12	Jul-99	MW-1R	ND	
13	Nov-99	MW-1R	ND	
14	May-00	MW-1R	ND	
15	Oct-00	MW-1R	ND	
16	Apr-01	MW-1R	ND	
17	Oct-01	MW-1R	ND	
18	Jun-02	MW-1R	ND	
19	Nov-02	MW-1R	ND	
20	Jun-03	MW-1R	ND	
21	Dec-03	MW-1R	ND	
22	Jun-04	MW-1R	ND	
23	Dec-04	MW-1R	ND	
24	Jun-05	MW-1R	ND	
25	Dec-05	MW-1R	ND	
26	28-Jun-06	MW-1R	ND	
27	29-Dec-06	MW-1R	ND	
28	12-Jul-07	MW-1R	ND	
29	19-Dec-07	MW-1R	2.5	B
30	08-Jul-08	MW-1R	10.3	B
31	17-Dec-08	MW-1R	2.1	B
32	09-Jul-09	MW-1R	ND	
33	16-Dec-09	MW-1R	ND	
34	24-Jun-10	MW-1R	ND	
35	13-Dec-10	MW-1R	2.5	B
36	20-Jun-11	MW-1R	108	
37	05-Dec-11	MW-1R	ND	
38	11-Jun-12	MW-1R	ND	
39	12-Dec-12	MW-1R	ND	
40	01-May-13	MW-1R	ND	
41	08-May-13	MW-1R	ND	

Number of Samples:	37	
Number of truncated data (ND):	25	
Percent Truncated:	68%	
Non-parametric Prediction Limit:	**130**	**µg/L**

Notes:
All concentrations in micrograms per liter (µg/L).
J = Estimated value below RL (included in statistical calculations).
B = Blank-qualified data (excluded from statistical calculations).