PREPARED FOR:

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

JEI PROJECT NO. 660.1001.11, TASK NO. 06

SECOND SEMIANNUAL GROUNDWATER MONITORING REPORT OF 2010

BUTNER LANDFILL
GRANVILLE COUNTY, NORTH CAROLINA
PERMIT NUMBER 39-02

May 2011

PREPARED BY:

JOYCE ENGINEERING, INC.

2211 WEST MEADOWVIEW ROAD, SUITE 101
GREENSBORO, NORTH CAROLINA 27407
PHONE: (336) 323-0092
FAX: (336) 323-0093
WWW.JOYCEENGINEERING.COM

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	.0500	December 13, 2010 (Resampling event: Feb. 8, 2011)

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: 5/23/11

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)

Revised 6/2009

Second Semiannual Groundwater Monitoring Report of 2010
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 2
3.0 FIRST SEMIANNUAL SAMPLING EVENT OF 2010 3
3.1 Field Work 3
3.2 Laboratory Analysis and JEI 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 4
4.2 Statistical Analyses 5
4.2.1 Statistical Methods 5
4.2.2 Results of Statistical Analyses 6
4.3 Analytical Results for Surface Water and Comparisons to Standards 6
5.0 HYDROGEOLOGICAL CONDITIONS 7
6.0 CONCLUSION 8
7.0 REFERENCES 8
8.0 ACRONYMS 9

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

Figure
Figure 1 Site Location Map

Drawing
Drawing 1 Groundwater Surface Map

Appendices (on CD)
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.

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. 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 JEI 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.

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 (Assessment Monitoring Program) and the Transition Plan for this facility. The site is currently in the 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 FIRST SEMIANNUAL SAMPLING EVENT OF 2010

3.1 Field Work

On December 13, 2010, Joyce Engineering, Inc. (JEI) personnel visited Butner Landfill to purge and sample monitoring wells MW-1R, MW-2R, MW-3R, MW-4, MW-5, and MW-6. 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. JEI 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 JEI Quality Control

Pace Analytical Services Inc. of Huntersville, North Carolina analyzed the December 2010 groundwater and surface water samples under chain-of-custody control. The groundwater samples were analyzed for NC Appendix II constituents. The surface water samples were analyzed for NC Appendix I constituents. The samples were received by the laboratory on December 16, 2010, 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, JEI personnel collected a Field Blank as part of the December 2010 sampling event. The Field Blank was analyzed for the 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 list of volatile organic compounds.

Upon receipt of the laboratory data package, JEI 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.

After receipt of the December 2010 data packages, the results indicated a NC-2L exceedance for benzene in MW-2R; therefore MW-2R was resampled on February 8, 2011. The complete laboratory analytical report is included in Appendix A.

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 in one or more down-gradient monitoring well samples for the December 2010 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 the Appendix A. Cobalt in MW-2R and MW-5 and thallium in MW-3R was detected above the NC-2L Standard.

Constituent	NC-2L /GWPS	Background	Downgradient						Blanks
		MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Antimony	1*	ND	ND	3.0 J	ND	2.8 J	ND	NS	ND
Arsenic	10	ND	4.9 J	2.7 J	5.4 J	ND	ND	NS	ND
Barium	700	4.3 B	122	67.9 J	1.3 B	90.6 J	1.5 B	NS	12.1 J
Chromium	10	2.5 J	1.3 J	1.8 J	0.69 J	0.57 J	1.2 J	NS	ND
Cobalt	1*	2.5 B	15.5	ND	ND	{129}	{ND}	NS	1.6 J {1.0 J}
Copper	1,000	1.1 B	ND	13.6	5.8 J	5.6 J	0.59 B	NS	0.49 J
Nickel	100	ND	83.0	23.5 J	6.8 B	20.7 J	ND	NS	2.7 J
Silver	20	0.15 B	1.3 J	0.99 J	0.45 B	{ND}	{ND}	NS	0.21 J {0.19 J}
Thallium	0.28	ND	ND	7.7	ND	ND	ND	NS	ND
Tin	2,100	ND	3.3 J	12.1 J	5.8 J	ND	ND	NS	ND
Vanadium	0.3*	3.2 J	3.6 J	0.35 B	16.6 J	1.8 B	1.0 B	NS	0.36 J
Zinc	1,000	4.5 B	ND	ND	ND	ND	ND	NS	6.7 J

All concentrations are reported in micrograms per liter (µg/L).
GWPS = Groundwater Protection Standard – for constituents with no NC-2L Standard (indicted by *).
J = Estimated concentration below the SWSL. B = Blank-qualified data.
ND = Not detected above laboratory detection limits. NS = Not Sampled.
Values in parenthesis ( ) are from resampling events conducted in August 2010.

4.1.2 Organic Analyses

The following table summarizes the organic constituents that were detected in one or more down-gradient monitoring well samples for the December 2010 sampling event and the February 2011 resampling event.

Constituent	NC-2L /GWPS	Background	Downgradient						Blanks
		MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	
Benzene	1	ND	1.8 (1.4)	0.59 J	0.37 J	ND	ND	NS	ND
Chlorobenzene	50	ND	17.7	18.2	6.4	ND	ND	NS	0.28 J
Chloroethane	3,000	ND	1.8 J	2.0 J	1.7 J	ND	ND	NS	ND
1,2-Dichlorobenzene	20	ND	1.9 J	1.9 J	0.43 J	ND	ND	NS	ND
1,4-Dichlorobenzene	6	ND	3.1	1.9	ND	ND	ND	NS	ND
1,1-Dichloroethane	7	ND	ND	ND	0.60 J	ND	ND	NS	ND
Toluene	600	ND	0.54 J	ND	ND	ND	ND	NS	ND
Xylenes (Total)	500	ND	2.0	ND	ND	ND	ND	NS	ND
Gamma-BHC	0.03	ND	ND	0.013 J	ND	ND	ND	NS	ND

All concentrations are reported in micrograms per liter (µg/L).
GWPS = Groundwater Protection Standard – for constituents with no NC-2L Standard (indicted by *).
J = Estimated concentration below the SWSL. B = Blank-qualified data.
ND = Not detected above laboratory detection limits. NE = No NC-2L or GWPS established.
NS = Not Sampled. Highlighted data are above the NC-2L Standard.
Results in parentheses ( ) are from the February 8, 2011 resampling event.

Benzene in MW-2R wase the only organic constituents detected above the NC-2L Standard. The benzene detection above the NC-2L was confirmed during the February 2011 resampling event. Historical analytical results for organic constituents are presented in Table 2. The laboratory analytical reports, the laboratory quality assurance/quality control information, and the chain of custody, are included in the Appendix A.

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 December 2010 have been used to determine statistical background concentrations for inorganic and organic 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 December 2010 statistical background calculations are provided in the table below and in Table 3. Details of the statistical analyses can be found in Appendix B.

Constituent	Data Distribution	Statistical Method used to Establish Background	Background Concentration	Noted SSI's
Barium	63% Truncated	Nonparametric Prediction Limit	200	None
Cobalt	71% Truncated	Nonparametric Prediction Limit	130	None
Copper	81% Truncated	Nonparametric Prediction Limit	34	None
Nickel	94% Truncated	Upper Poisson Prediction Limit	138	None
Thallium	100% Truncated	Upper Poisson Prediction Limit	26.45	None
Benzene	100% Truncated	Upper Poisson Prediction Limit	14.2	None
Chlorobenzene	100% Truncated	Upper Poisson Prediction Limit	12.83	MW-2R, -3R
1,4-Dichlorobenzene	100% Truncated	Upper Poisson Prediction Limit	13.8	None
Xylenes, Total	94% Truncated	Upper Poisson Prediction Limit	13.2	None

*All concentrations are in µg/L (micrograms per liter).
SSI = Statistically significant increase above background.

Based on these statistical analyses, chlorobenzene in MW-2R and MW-3R is considered statistically an SSI compared to the background; however, the detection is below the NC-2L standards for chlorobenzene. No other inorganic or organic detections were considered to be SSIs compared to background values.

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.

Constituent	NC2B	SW-1	SW-2	Blanks
Arsenic	10	ND	ND	ND
Barium	1,000	36.1 B	91.0 J	12.1 J
Chromium	50	1.4 J	1.5 J	ND
Cobalt	NE	4.4 B	ND	1.0 J
Copper	7	0.31 B	ND	0.49 J
Nickel	25	ND	14.2 J	2.7 J
Silver	0.06	ND	0.28 B	0.19 J
Thallium	NE	3.8 J	ND	ND
Vanadium	NE	1.6 B	0.67 B	0.36 J
Zinc	50	ND	9.8 B	6.7 J

All concentrations are reported in micrograms per liter (µg/L).
J = Estimated concentration below the SWSL. B = Blank-qualified data.
ND = Not detected above laboratory detection limits. NE = No standard established.

The inorganic and organic constituents listed above were detected in surface water during the December 2010 sampling event. The historical analytical results for surface water are included in Tables 1 and 2. The laboratory analytical reports, the laboratory quality assurance/quality control information, and the chain of custody, are included in the Appendix A. There were no detections above the NC2B Standards for the December 2010 sampling event.

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 in December 2010, 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 4. The groundwater elevation contours shown on Drawing 1 are based on data from the June 2010 sampling event. Horizontal groundwater gradients along representative flow paths were estimated from the December 2010 groundwater contours shown on Drawing 1 and are summarized in Table 5. Horizontal gradients across the site ranged from 0.0438 to 0.0569 ft/ft, with an average of approximately 0.0521 ft/ft. This is consistent with previous estimates.

Linear groundwater flow velocities for wells screened in saprolite were computed using the modified Darcy equation: $\boldsymbol{V = Ki/n}$, where **V** = average linear velocity (feet/year), $\boldsymbol{K}$ = hydraulic conductivity (feet/day), $\boldsymbol{i}$ = horizontal hydraulic gradient, and $\boldsymbol{n}$ = effective porosity. The geometric mean of hydraulic conductivities ($\boldsymbol{K}$ = 3.42×10^{-02} feet/day) from slug-tests conducted in 1994 (GAI, 1994) was used in these calculations. The average effective porosity ($\boldsymbol{n}$ = 31%) from test results (GAI, 1994) 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 ranged from approximately 1.76 to 2.29 feet/year. The average estimated linear groundwater flow velocity under the facility was calculated at approximately 2.10 feet/year (Table 5). Groundwater flow direction ranges from south-southeast to east-southeast.

6.0 CONCLUSION

The only quantified inorganic detections above the NC-2L or GWPS detected at the Butner Landfill during the December 2010 sampling event were cobalt and thallium; however, they were not SSIs above background. The only quantified organic detections above the NC-2L was benzene in MW-2R; which was confirmed by a resampling event. Benzene in MW-2R was not as SSI above background.

There were no quantified detections of inorganic or organic constituents in down-gradient monitoring wells that represented both NC-2L exceedances and SSIs above background. There were no quantified exceedances of surface water standards. Based on analytical results from the December 2010 sampling event, Butner Landfill will remain in Assessment Monitoring.

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 the June 2011.

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

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

JEI. 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
GWPS	Groundwater Protection Standards (established by DENR-SWS)
JEI	Joyce Engineering, Inc.
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	Historically Detected Inorganic Constituents
Table 2	Historically Detected Organic Constituents
Table 3	Summary of Statistical Analyses
Table 4	Historical Groundwater Elevation Data
Table 5	Estimated Hydraulic Gradients and Groundwater Flow Velocities

TABLE 1
HISTORICALLY DETECTED INORGANIC CONSTITUENTS

Constituent	Date	Concentration (µg/L)																												
		DL	RL	Background			Downgradient															Surface Water						Blanks
				MW-1R			MW-2R			MW-3R			MW-4			MW-5			MW-6			NES-1	SW-1		SW-2			
Antimony	Sep-94	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Dec-94	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Feb-95	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Mar-95	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Nov-95	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	May-96	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Nov-96	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Jun-97	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Dec-97	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	May-98	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Nov-98	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Jul-99	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Nov-99	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	May-00	NR	30	ND			80.0			38.0			32.0			33.0			31.0			NI	ND		ND			NS
	Oct-00	NR	30	30.0			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Apr-01	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Oct-01	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Jun-02	NR	30	ND			ND			ND			ND			ND			ND			NI	NS		NS			NS
	Nov-02	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Jun-03	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Dec-03	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			ND
	Jun-04	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			ND
	Dec-04	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			ND
	Jun-05	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			ND
	Dec-05	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			ND
	28-Jun-06	NR	30	ND			ND			ND			ND			ND			ND			NI	ND		ND			ND
	29-Dec-06	NR	6	ND			ND			ND			ND			ND			ND			NI	ND		ND			ND
	12-Jul-07	NR	6	ND			ND			ND			ND			ND			ND			NI	ND		DRY			ND
GWPS = 1.4 ug/L (10/23/07)	19-Dec-07	NR	6	ND			ND			ND			ND			ND			ND			ND	ND		ND			ND
NC 2B = 5.6 ug/L (03/28/08)	08-Jul-08	NR	6	ND			ND			ND			ND			ND			ND			NS	ND		ND			ND
	17-Dec-08	2.6	6.0	ND			ND			ND			ND			ND			ND			NS	ND		ND			ND
	09-Jul-09	2.6	6.0	ND			ND			ND			ND			ND			ND			ND	ND		ND			ND
	16-Dec-09	2.6	6.0	ND			ND			ND			ND			ND			ND			NS	ND		ND			ND
NC 2B = NE (03/24/10)	24-Jun-10	2.6	6.0	ND			ND			ND			2.9		J	ND			ND			NS	ND		ND			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		ND			ND
Arsenic	Sep-94	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Dec-94	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Feb-95	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Mar-95	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Nov-95	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	May-96	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Nov-96	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Jun-97	NR	10	6.0		J	15.0			ND			ND			ND			ND			NI	ND		ND			NS
	Dec-97	NR	10	ND			5.0		J	ND			ND			ND			ND			NI	ND		ND			NS
	May-98	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Nov-98	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Jul-99	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Nov-99	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	May-00	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Oct-00	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Apr-01	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Oct-01	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Jun-02	NR	10	ND			ND			ND			ND			ND			ND			NI	NS		NS			NS
	Nov-02	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Jun-03	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			NS
	Dec-03	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			ND
	Jun-04	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			ND
	Dec-04	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			ND
	Jun-05	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			ND
	Dec-05	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			ND
	28-Jun-06	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		ND			ND
	29-Dec-06	NR	10	2.0		J	ND			ND			ND			ND			ND			NI	ND		ND			ND
	12-Jul-07	NR	10	ND			ND			ND			ND			ND			ND			NI	ND		DRY			ND
NC 2L = 50 ug/L (10/23/07)	19-Dec-07	NR	10	ND			4.1		J	ND			ND			ND			ND			ND	ND		ND			ND
NC 2B = 10 ug/L (03/28/08)	08-Jul-08	NR	10	ND			4.9		J	ND			ND			ND			ND			NS	ND		ND			ND
	17-Dec-08	2.7	10.0	ND			ND			ND			ND			ND			ND			NS	ND		ND			ND
	09-Jul-09	2.7	10.0	ND			13.5			10.9			5.6		J	ND			4.0		J	ND	ND		ND			ND
	16-Dec-09	2.7	10.0	ND			10.6			6.4		J	5.0		J	ND			3.6		J	NS	ND		ND			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	4.3		J	2.9		J	ND
Resample >	12-Aug-10	2.7	10.0	NS			NS			7.2		J	NS			NS			NS			NS	NS			NS			ND
Resample >	31-Aug-10	2.7	10.0	NS			15.4			NS			NS			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			ND			ND

TABLE 1
HISTORICALLY DETECTED INORGANIC CONSTITUENTS

Constituent	Date	Concentration (µg/L)																											
		DL	RL	Background		Downgradient																Surface Water				Blanks	
				MW-1R		MW-2R		MW-3R		MW-4		MW-5		MW-6		NES-1						SW-1		SW-2			
Barium	Sep-94	NR	500	ND		270		ND		ND		830		860		NI						ND		ND		NS	
	Dec-94	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Feb-95	NR	500	ND		ND		ND		ND		510		ND		NI						ND		ND		NS	
	Mar-95	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Nov-95	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	May-96	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Nov-96	NR	500	ND		82.0		30.0		ND		15.0		ND		NI						37.0		37.0		NS	
	Jun-97	NR	500	200		320		37.0		17.0		210		31.0		NI						37.0		62.0		NS	
	Dec-97	NR	500	61.0		180		43.0		46.0		220		33.0		NI						53.0		45.0		NS	
	May-98	NR	500	30.0		150		45.0		13.0		180		22.0		NI						24.0		69.0		NS	
	Nov-98	NR	500	48.0		120		42.0		ND		380		12.0		NI						ND		100		NS	
	Jul-99	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Nov-99	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	May-00	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Oct-00	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Apr-01	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Oct-01	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Jun-02	NR	500	ND		ND		ND		ND		ND		ND		NI						NS		NS		NS	
	Nov-02	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Jun-03	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Dec-03	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	Jun-04	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	Dec-04	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	Dec-04	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	Jun-05	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	Dec-05	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	28-Jun-06	NR	500	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	29-Dec-06	NR	100	5.2	J	120		64.9		1.5	J	64.1		1.8	J	NI						37.5		40.6		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						33.3	J	DRY		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						52.6	B	149		11.7	
NC 2B = 1,000 ug/L (03/28/08)	08-Jul-08	NR	100	5.8	J	102		58.4	J	1.1	B	57.9	J	1.2	B	NS						33.8	J	161		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						30.2	B	33.5	B	10.7	J
	09-Jul-09	0.20	100	4.6	B	121		63.4	B	0.37	B	81.4	B	0.94	B	72.4	B					36.8	B	78.4	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						31.2	B	36.2	B	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						34.5	B	71.3	B	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						36.1	B	91.0	J	12.1	J
Beryllium	Sep-94	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Dec-94	NR	2	ND		ND		ND		ND		4.0		ND		NI						ND		ND		NS	
	Feb-95	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Mar-95	NR	2	ND		ND		ND		ND		2.0		ND		NI						ND		ND		NS	
	Nov-95	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	May-96	NR	2	ND		ND		ND		ND		6.0		ND		NI						ND		ND		NS	
	Nov-96	NR	2	ND		ND		ND		ND		3.0		ND		NI						ND		ND		NS	
	Jun-97	NR	2	2.0		3.0		ND		ND		1.0		ND		NI						ND		ND		NS	
	Dec-97	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	May-98	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Nov-98	NR	2	ND		ND		ND		ND		2.0		ND		NI						ND		ND		NS	
	Jul-99	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Nov-99	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	May-00	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Oct-00	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Apr-01	NR	2	ND		12.0		ND		ND		ND		ND		NI						ND		ND		NS	
	Oct-01	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Jun-02	NR	2	ND		ND		ND		ND		ND		ND		NI						NS		NS		NS	
	Nov-02	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Jun-03	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		NS	
	Dec-03	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	Jun-04	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	Dec-04	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	Dec-04	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	Jun-05	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	Dec-05	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	28-Jun-06	NR	2	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	29-Dec-06	NR	1	ND		ND		ND		ND		ND		ND		NI						ND		ND		ND	
	12-Jul-07	NR	1	ND		ND		ND		ND		ND		ND		NI						ND		DRY		ND	
GWPS = 4 ug/L (10/23/07)	19-Dec-07	NR	1	ND		ND		ND		ND		ND		ND		ND						ND		ND		ND	
NC 2B = 6.5 ug/L (03/28/08)	08-Jul-08	NR	1	ND		ND		ND		ND		ND		ND		NS						0.32	J	ND		ND	
	17-Dec-08	0.10	1.0	ND		ND		ND		ND		0.14	J	ND		NS						ND		ND		ND	
	09-Jul-09	0.10	1.0	ND		0.18	J	0.22	J	0.17	J	ND		ND		0.23	J					ND		ND		ND	
	16-Dec-09	0.10	1.0	ND		0.15	J	0.17	J	0.15	J	0.25	J	ND		NS						0.12	J	ND		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		ND		ND	
	13-Dec-10	0.10	1.0	ND		ND		ND		ND		ND		ND		NS						ND		ND		ND	

TABLE 1
HISTORICALLY DETECTED INORGANIC CONSTITUENTS

Constituent	Date	Concentration (µg/L)																		
		DL	RL	Background		Downgradient										Surface Water				Blanks
				MW-1R		MW-2R		MW-3R		MW-4		MW-5		MW-6		NES-1		SW-1		SW-2		
Cadmium	Sep-94	NR	1	ND		ND		ND		ND		ND		4.0		NI		ND		ND		NS
	Dec-94	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Feb-95	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Mar-95	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Nov-95	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	May-96	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Nov-96	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Jun-97	NR	1	ND		3.0		1.0		ND		ND		ND		NI		ND		ND		NS
	Dec-97	NR	1	ND		2.0		ND		ND		ND		ND		NI		ND		ND		NS
	May-98	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Nov-98	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Jul-99	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Nov-99	NR	1	ND		3.0		3.0		ND		2.0		ND		NI		ND		ND		NS
	May-00	NR	1	5.0		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Oct-00	NR	1	ND		2.0		ND		ND		ND		ND		NI		ND		ND		NS
	Apr-01	NR	1	ND		11.0		ND		ND		ND		ND		NI		ND		ND		NS
	Oct-01	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Jun-02	NR	1	ND		2.0		ND		ND		ND		ND		NI		NS		NS		NS
	Nov-02	NR	1	2.0		2.0		ND		ND		2.0		ND		NI		ND		ND		NS
	Jun-03	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Dec-03	NR	1	ND		1.0		ND		ND		ND		ND		NI		ND		ND		ND
	Jun-04	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND
	Dec-04	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND
	Jun-05	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND
	Dec-05	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND
	28-Jun-06	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND
	29-Dec-06	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND
	12-Jul-07	NR	1	ND		ND		ND		ND		ND		ND		NI		ND		DRY		ND
NC 2L = 1.75 ug/L (10/23/07)	19-Dec-07	NR	1	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND
NC 2B = 2 ug/L (03/28/08)	08-Jul-08	NR	1	ND		ND		ND		ND		ND		ND		NS		ND		ND		ND
	17-Dec-08	0.50	1.0	ND		ND		ND		ND		ND		ND		NS		ND		ND		ND
	09-Jul-09	0.50	1.0	ND		1.4		ND		ND		ND		ND		ND		ND		ND		ND
	16-Dec-09	0.50	1.0	ND		ND		ND		ND		ND		ND		NS		ND		ND		ND
NC 2L = 2 ug/L (02/05/10)	24-Jun-10	0.50	1.0	ND		ND		ND		ND		ND		ND		NS		ND		ND		ND
	13-Dec-10	0.50	1.0	ND		ND		ND		ND		ND		ND		NS		ND		ND		ND
Chromium	Sep-94	NR	10	8.0		44.0		ND		6.0		48.0		80.0		NI		ND		ND		NS
	Dec-94	NR	10	14.0		ND		ND		ND		18.0		ND		NI		ND		ND		NS
	Feb-95	NR	10	14.0		ND		ND		10.0		ND		ND		NI		ND		ND		NS
	Mar-95	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Nov-95	NR	10	13.0		13.0		ND		ND		ND		ND		NI		ND		ND		NS
	May-96	NR	10	33.0		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Nov-96	NR	10	3.0		ND		ND		ND		ND		3.0		NI		ND		ND		NS
	Jun-97	NR	10	57.0		43.0		ND		3.0		2.0		6.0		NI		ND		3.0		NS
	Dec-97	NR	10	29.0		ND		ND		ND		ND		ND		NI		ND		ND		NS
	May-98	NR	10	10.0		3.0		ND		ND		12.0		ND		NI		ND		ND		NS
	Nov-98	NR	10	17.0		3.0		ND		ND		5.0		ND		NI		ND		ND		NS
	Jul-99	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Nov-99	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	May-00	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Oct-00	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Apr-01	NR	10	ND		12.0		ND		ND		ND		ND		NI		ND		ND		NS
	Oct-01	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Jun-02	NR	10	ND		ND		ND		ND		ND		ND		NI		NS		NS		NS
	Nov-02	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Jun-03	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS
	Dec-03	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND
	Jun-04	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND
	Dec-04	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND
	Jun-05	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND
	Dec-05	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND
	28-Jun-06	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND
	29-Dec-06	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND
	12-Jul-07	NR	10	ND		ND		ND		ND		ND		ND		NI		ND		DRY		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	2.2	B	2.6	B	1.4	J
NC 2B = 50 ug/L (03/28/08)	08-Jul-08	NR	10	ND		0.54	J	0.58	J	ND		ND		ND		NS		2.5	J	2.2	J	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		1.4	J	2.6	J	ND	
	09-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	2.6	J	1.2	J	ND	
	16-Dec-09	0.40	10.0	1.3	J	ND		ND		ND		0.95	J	ND		NS		4.1	J	3.4	J	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		3.3	B	7.3	J	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		1.4	J	1.5	J	ND	

TABLE 1
HISTORICALLY DETECTED INORGANIC CONSTITUENTS

Constituent	Date	DL	RL	Concentration (µg/L) Background MW-1R	Downgradient MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Surface Water SW-1	SW-2	Blanks
Cobalt	Sep-94	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	10	11.0	ND	13.0	16.0	22.0	ND	NI	ND	ND	NS
	Feb-95	NR	10	20.0	14.0	ND	48.0	39.0	ND	NI	ND	ND	NS
	Mar-95	NR	10	16.0	21.0	ND	29.0	121.0	ND	NI	ND	ND	NS
	Nov-95	NR	10	20.0	21.0	ND	ND	27.0	ND	NI	ND	ND	NS
	May-96	NR	10	30.0	16.0	ND	ND	122	ND	NI	ND	ND	NS
	Nov-96	NR	10	6.0	13.0	ND	4.7	93.0	ND	NI	ND	ND	NS
	Jun-97	NR	10	130	38.0	ND	6.0	45.0	3.0	NI	ND	ND	NS
	Dec-97	NR	10	32.0	21.0	ND	12.0	36.0	4.0	NI	ND	ND	NS
	May-98	NR	10	15.0	16.0	2.0	9.0	100	3.0	NI	2.0	2.0	NS
	Nov-98	NR	10	21.0	16.0	2.0	7.0	180	3.0	NI	ND	3.0	NS
	Jul-99	NR	10	ND	16.0	ND	ND	100	ND	NI	ND	ND	NS
	Nov-99	NR	10	ND	15.0	ND	ND	38.0	ND	NI	ND	ND	NS
	May-00	NR	10	ND	17.0	ND	ND	61.0	ND	NI	ND	ND	NS
	Oct-00	NR	10	ND	15.0	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	10	ND	27.0	ND	ND	74.0	ND	NI	ND	ND	NS
	Oct-01	NR	10	ND	12.0	ND	ND	47.0	ND	NI	ND	22.0	NS
	Jun-02	NR	10	ND	14.0	ND	ND	251	ND	NI	NS	NS	NS
	Nov-02	NR	10	ND	10.0	ND	ND	57.0	ND	NI	ND	ND	NS
	Jun-03	NR	10	ND	15.0	ND	ND	75.0	ND	NI	ND	10.0	NS
	Dec-03	NR	10	ND	17.0	ND	ND	52.0	ND	NI	ND	ND	ND
	Jun-04	NR	10	ND	16.0	ND	ND	31.0	ND	NI	ND	ND	ND
	Dec-04	NR	10	ND	11.0	ND	ND	46.0	ND	NI	ND	ND	ND
	Jun-05	NR	10	ND	11.0	ND	ND	43.0	ND	NI	ND	ND	ND
	Dec-05	NR	10	ND	12.0	ND	ND	30.0	ND	NI	ND	ND	ND
	28-Jun-06	NR	10	ND	ND	ND	ND	72.5	ND	NI	ND	ND	ND
	29-Dec-06	NR	10	ND	11.4	ND	ND	37.5	ND	NI	ND	ND	ND
	12-Jul-07	NR	10	ND	11.8	ND	2.7	58.4	ND	NI	ND	DRY	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	4.2 B	1.2 B	1.8 J
	08-Jul-08	NR	10	10.3 B	12.1 B	2.0 B	9.0 B	130	4.8 B	NS	4.8 B	10.5 B	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	1.7 B	1.1 B	2.5 J
	09-Jul-09	0.60	10.0	ND	6.2 J	ND	ND	100	ND	2.2 J	ND	ND	ND
	16-Dec-09	0.60	10.0	ND	4.7 J	ND	ND	6.6 J	ND	NS	ND	1.0 J	ND
NC 2B = NE ug/L (03/24/10)	24-Jun-10	0.60	10.0	ND	16.3	ND	ND	25.0	ND	NS	ND	ND	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	{4.4} B	{ND}	1.6 {1.0 J} J
Copper	Sep-94	NR	200	ND	ND	ND	ND	ND	660	NI	ND	ND	NS
	Dec-94	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	200	ND	ND	32.0	13.0	100	ND	NI	ND	ND	NS
	Jun-97	NR	200	34.0	350	13.0	37.0	28.0	77.0	NI	ND	ND	NS
	Dec-97	NR	200	19.0	72.0	14.0	88.0	15.0	34.0	NI	ND	ND	NS
	May-98	NR	200	12.0	48.0	380	41.0	53.0	28.0	NI	ND	ND	NS
	Nov-98	NR	200	10.0	ND	410	28.0	53.0	14.0	NI	ND	ND	NS
	Jul-99	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	200	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-05	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	200	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	10	ND	ND	11.3	5.50 J	10.4	1.90 B	NI	1.30 B	1.10 B	0.60 J
	12-Jul-07	NR	10	ND	ND	13.4	7.90	2.6 J	ND	NI	ND	DRY	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	5.3 B	ND	9.8
NC 2B = 7 ug/L (03/28/08)	08-Jul-08	NR	10	0.64 J	ND	12.1	3.7 J	8.5 J	ND	NS	1.7 J	4.2 J	ND
	17-Dec-08	0.30	10.0	0.80 J	13.6	10.2	3.9 J	11.9	0.37 J	NS	1.4 J	1.5 J	ND
	09-Jul-09	0.30	10.0	ND	ND	6.3 J	ND	5.7 J	ND	8.8 J	ND	ND	ND
	16-Dec-09	0.30	10.0	ND	ND	9.2 J	1.6 J	5.7 J	ND	NS	1.9 J	2.0 J	ND
	24-Jun-10	0.30	10.0	ND	ND	10	1.2 J	5.1 J	ND	NS	ND	3.1 J	ND
	13-Dec-10	0.30	10.0	1.1 B	ND	13.6	5.8 J	5.6 J	0.59 B	NS	0.31 B	ND	0.49 J

TABLE 1
HISTORICALLY DETECTED INORGANIC CONSTITUENTS

Constituent	Date	Concentration (µg/L)											
		DL	RL	Background	Downgradient						Surface Water		Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	SW-1	SW-2	
Lead	Sep-94	NR	10	ND	13.0	ND	ND	30.0	36.0	NI	ND	ND	NS
	Dec-94	NR	10	11.0	ND	ND	ND	36.0	ND	NI	ND	ND	NS
	Feb-95	NR	10	ND	ND	ND	10.0	37.0	ND	NI	ND	ND	NS
	Mar-95	NR	10	ND	ND	ND	ND	44.0	ND	NI	ND	ND	NS
	Nov-95	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	10	ND	ND	ND	ND	42.0	ND	NI	ND	ND	NS
	Nov-96	NR	10	ND	ND	ND	ND	13.0	ND	NI	ND	ND	NS
	Jun-97	NR	10	20.0	29.0	ND	ND	13.0	ND	NI	ND	ND	NS
	Dec-97	NR	10	8.0	14.0	ND	5.0	14.0	ND	NI	ND	ND	NS
	May-98	NR	10	ND	6.0	ND	6.0	21.0	ND	NI	ND	8	NS
	Nov-98	NR	10	5.0	ND	ND	ND	58.0	ND	NI	ND	ND	NS
	Jul-99	NR	10	ND	12.0	14.0	ND	ND	ND	NI	ND	10	NS
	Nov-99	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	10	11.0	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	10	ND	ND	ND	ND	12.0	ND	NI	ND	ND	NS
	Jun-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	10	ND	ND	ND	ND	ND	2.1 J	NI	ND	ND	ND
	12-Jul-07	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	DRY	ND
NC 2L = 15 ug/L (10/23/07)	19-Dec-07	NR	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NC 2B = 25 ug/L (03/28/08)	08-Jul-08	NR	10	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	17-Dec-08	4.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	09-Jul-09	4.0	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	4.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	24-Jun-10	4.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	13-Dec-10	4.0	10.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
Mercury	Dec-97	NR	0.5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	0.5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	0.5	ND	0.59	0.65	0.65	0.76	ND	NI	NS	NS	NS
	May-00	NR	0.5	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Oct-00	NR	0.5	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Apr-01	NR	0.5	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Jun-02	NR	0.5	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Jun-03	NR	0.5	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Dec-03	NR	0.5	NS	NS	NS	NS	NS	NS	NI	NS	NS	NS
	Jun-04	NR	0.5	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Dec-04	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS	NS	NS
	Jun-05	NR	0.5	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Dec-05	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS	NS	NS
	28-Jun-06	NR	2	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	29-Dec-06	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS	NS	NS
	12-Jul-07	NR	0.2	ND	ND	ND	ND	ND	ND	NI	ND	DRY	ND
NC 2L = 1.05 ug/L (10/23/07)	19-Dec-07	NR	NR	NS	NS	NS	NS	NS	NS	ND	NS	NS	NS
NC 2B = 0.012 ug/L (03/28/08)	08-Jul-08	NR	0.2	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
	17-Dec-08	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09-Jul-09	0.070	0.2	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
	16-Dec-09	NR	NR	NS	NS	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	NS	NS	ND
	13-Dec-10	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

TABLE 1
HISTORICALLY DETECTED INORGANIC CONSTITUENTS

Constituent	Date	DL	RL	Concentration (µg/L) Background	Downgradient						Surface Water		Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	SW-1	SW-2	
Nickel	Sep-94	NR	50	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	50	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	50	ND	72	ND	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	50	ND	100	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	50	ND	61.0	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	50	ND	85.0	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	50	ND	72.0	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-97	NR	50	75	98.0	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-97	NR	50	ND	89.0	ND	ND	ND	ND	NI	ND	ND	NS
	May-98	NR	50	ND	91.0	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	50	ND	83.0	ND	ND	ND	ND	NI	ND	ND	NS
	Jul-99	NR	50	ND	109	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	50	ND	122	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	50	ND	104	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	50	ND	93.0	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	50	ND	107	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	50	ND	92.0	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	50	ND	98.0	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	50	ND	74.0	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	50	ND	85.0	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	50	ND	100	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	50	ND	120 (81.0)	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	50	ND	100	ND	ND	ND	ND	NI	ND	50.0 (ND)	ND
	Jun-05	NR	50	ND	150 (92.0)	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	50	ND	96.0	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	50	ND	88.7	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	50	ND	94.7	30.1	14.2	8.9 J	ND	NI	ND	2.9 J	ND
	12-Jul-07	NR	50	ND	99.0	30.6 J	13.9 J	13.7 J	ND	NI	3.8 J	DRY	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	6.0	31.5	ND
NC 2B = 25 ug/L (03/28/08)	08-Jul-08	NR	50	ND	76.0	28.1 J	11.5 J	27.0 J	ND	NS	3.2 J	29.8 J	ND
	17-Dec-08	1.7	50.0	ND	75.5	27.8 J	12.2 J	11.0 B	ND	NS	2.4 B	4.0 B	2.4 J
	09-Jul-09	1.7	50.0	2.2 J	93.5	29.4 J	11.7 J	23.2 J	ND	13.1 J	4.1 J	12.3 J	ND
	16-Dec-09	1.7	50.0	ND	81.2	28.2 J	11.8 B	2.6 B	ND	NS	3.8 B	4.4 B	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	2.0 J	ND
	13-Dec-10	1.7	50.0	ND	83.0	23.5 J	6.8 B	20.7 J	ND	NS	ND	14.2 J	2.7 J
Selenium	Sep-94	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-97	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-97	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-98	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jul-99	NR	20	ND	ND	ND	ND	36.0	ND	NI	ND	ND	NS
	Nov-99	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	20	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-05	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	20	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	DRY	ND
NC 2L = 50 ug/L (10/23/07)	19-Dec-07	NR	10	ND	11.5	ND	ND	ND	ND	ND	ND	ND	ND
NC 2B = 5 ug/L (03/28/08)	08-Jul-08	NR	10	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	17-Dec-08	3.8	10.0	4.8 B	5.1 B	4.8 B	ND	ND	ND	NS	ND	ND	4.9 J
	09-Jul-09	3.8	10.0	ND	ND	4.2 J	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	3.8	10.0	ND	ND	ND	5.1 J	ND	ND	NS	ND	ND	ND
NC 2L = 20 ug/L (02/05/10)	24-Jun-10	3.8	10.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	13-Dec-10	3.8	10.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND

TABLE 1
HISTORICALLY DETECTED INORGANIC CONSTITUENTS

Constituent	Date	DL	RL	Concentration (µg/L) Background MW-1R	Downgradient MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Surface Water SW-1	SW-2	Blanks
Silver	Sep-94	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-97	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-97	NR	10	ND	8.0	ND	ND	ND	3	NI	ND	ND	NS
	May-98	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jul-99	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	10	ND	15.0	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	10	ND	ND	ND	ND	ND	ND	NI	2.2 J	DRY	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	0.34 J	ND
NC 2B = 0.06 ug/L (03/28/08)	08-Jul-08	NR	10	ND	2.7 J	2.3 J	1.1 J	0.22 J	0.69 J	NS	0.35 B	1.0 J	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	ND	ND
	09-Jul-09	0.10	10.0	ND	0.84 J	0.63 J	0.45 J	ND	0.11 J	ND	ND	0.10 J	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	0.16 J	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	0.26 J	ND
	13-Dec-10	0.10	10.0	0.15 B	1.3 J	0.99 J	0.45 B	{ND}	{ND}	NS	{ND}	{0.28} B	0.21 {0.19 J J
Thallium	Sep-94	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-97	NR	10	ND	3.0	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-97	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-98	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jul-99	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	10	ND	10 J (ND)	ND	ND	ND	ND	NI	ND	10.0 (ND)	ND
	Jun-05	NR	10	ND	22.0 (30.0)	13.0 (24.0)	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	10	ND	23.0	20.0	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	10	ND	25.7	12.6	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	6	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	5.5	ND	ND	ND	ND	ND	ND	NI	ND	DRY	ND
GWPS = 0.28 ug/L (10/23/07)	19-Dec-07	NR	5.5	ND	4.0 J	ND	ND	ND	ND	ND	3.6 J	ND	ND
	08-Jul-08	NR	5.5	ND	ND	ND	ND	ND	ND	NS	3.4 J	ND	ND
	17-Dec-08	3.0	5.5	ND	3.2 J	3.2 J	ND	ND	ND	NS	ND	ND	ND
	09-Jul-09	3.0	5.5	ND	ND	ND	4.1 J	ND	ND	ND	ND	ND	ND
	16-Dec-09	3.0	5.5	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
NC 2B = NE (03/24/10)	24-Jun-10	3.0	5.5	ND	ND	5.2 J	3.1 J	ND	ND	NS	ND	ND	ND
GWPS = 0.2 ug/L (10/1/10)	13-Dec-10	3.0	5.5	ND	ND	7.7	ND	ND	ND	NS	3.8 J	ND	ND

TABLE 1
HISTORICALLY DETECTED INORGANIC CONSTITUENTS

Constituent	Date	DL	RL	Concentration (ug/L) Background MW-1R	Downgradient MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	Surface Water SW-1	SW-2	Blanks
Tin	Dec-97	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	100	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Oct-00	NR	100	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Apr-01	NR	100	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Oct-01	NR	100	NS	NS	NS	NS	NS	NS	NI	NS	NS	NS
	Jun-02	NR	100	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	100	NS	NS	NS	NS	NS	NS	NI	NS	NS	NS
	Jun-03	NR	100	ND	149	127	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	100	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Dec-04	NR	100	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Jun-05	NR	100	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Dec-05	NR	100	ND	ND	ND	ND	ND	ND	NI	NR	NR	ND
	28-Jun-06	NR	100	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	29-Dec-06	NR	100	ND	41.1	14.4	3.2 J	ND	ND	NI	NS	NS	ND
	12-Jul-07	NR	100	ND	35.2 J	13.9 J	5.2 J	ND	ND	NI	ND	DRY	ND
NC 2L = NE ug/L (10/23/07)	19-Dec-07	NR	100	ND	33.6	7.4	ND	ND	ND	ND	NS	NS	ND
NC 2B = 770 ug/L (03/28/08)	08-Jul-08	NR	100	4.4 J	28.6 J	15.1 J	5.4 J	3.0 J	3.6 J	NS	NS	NS	ND
	17-Dec-08	1.8	100	ND	22.5 J	9.2 J	ND	ND	ND	NS	NS	NS	ND
	09-Jul-09	1.8	100	ND	21.4 J	8.6 J	ND	ND	ND	NS	NS	NS	ND
	16-Dec-09	1.8	100	ND	26.3 J	10.7 J	ND	ND	ND	NS	ND	ND	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	NS	NS	ND
	13-Dec-10	1.8	100	ND	30.3 J	12.1 J	5.8 J	ND	ND	NS	NS	NS	ND
Vanadium	Sep-94	NR	40	ND	ND	ND	ND	ND	130	NI	ND	ND	NS
	Dec-94	NR	40	63.0	ND	ND	45.0	ND	ND	NI	ND	ND	NS
	Feb-95	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	40	41.0	ND	ND	45.0	ND	ND	NI	ND	ND	NS
	Nov-95	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	40	83.0	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	40	7.0	17	ND	21.0	ND	ND	NI	ND	ND	NS
	Jun-97	NR	40	450	560	ND	19.0	ND	ND	NI	ND	ND	NS
	Dec-97	NR	40	62.0	88.0	ND	41.0	ND	10.0	NI	ND	ND	NS
	May-98	NR	40	25.0	15.0	ND	10.0	5.0	ND	NI	ND	ND	NS
	Nov-98	NR	40	33.0	29.0	5.0	16.0	9.0	5.0	NI	ND	ND	NS
	Jul-99	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	40	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-05	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	40	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	25	2.7 J	ND	ND	14.5	ND	1.0 J	NI	1.6 J	2.0 J	ND
	12-Jul-07	NR	25	ND	ND	ND	19.4 J	ND	ND	NI	4.6 J	DRY	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	3.3 J	1.4 B	0.62 J
NC 2B = NE ug/L (03/28/08)	08-Jul-08	NR	25	2.6 J	2.4 J	ND	14.6 J	1.4 J	1.2 J	NS	5.2 J	2.3 J	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	1.8 B	2.7 B	0.76 J
	09-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	5.0 B	3.4 B	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	3.6 J	3.5 J	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	5.8 J	2.6 J	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	1.6 B	0.67 B	0.36 J

TABLE 1
HISTORICALLY DETECTED INORGANIC CONSTITUENTS

Constituent	Date	Concentration (µg/L)																		
		DL	RL	Background		Downgradient										Surface Water				Blanks	
				MW-1R		MW-2R		MW-3R		MW-4		MW-5		MW-6		NES-1		SW-1		SW-2		
Zinc	Sep-94	NR	50	110		160		ND		ND		320		430		NI		ND		ND		NS	
	Dec-94	NR	50	132		ND		ND		70		164		ND		NI		ND		ND		NS	
	Feb-95	NR	50	144		89		ND		91		79		74		NI		ND		ND		NS	
	Mar-95	NR	50	67		ND		ND		ND		111		ND		NI		ND		ND		NS	
	Nov-95	NR	50	ND		50		ND		ND		ND		ND		NI		ND		ND		NS	
	May-96	NR	50	136		ND		ND		ND		122		ND		NI		ND		ND		NS	
	Nov-96	NR	50	79.0		48.0		28.0		ND		38.0		ND		NI		11.0		ND		NS	
	Jun-97	NR	50	370		410		33.0		39.0		36.0		69.0		NI		ND		ND		NS	
	Dec-97	NR	50	140		110		11.0		45.0		34.0		30.0		NI		20.0		ND		NS	
	May-98	NR	50	70.0		63.0		23.0		31.0		47.0		34.0		NI		20.0		28.0		NS	
	Nov-98	NR	50	61.0		33.0		21.0		17.0		53.0		10.0		NI		ND		ND		NS	
	Jul-99	NR	50	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS	
	Nov-99	NR	50	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS	
	May-00	NR	50	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS	
	Oct-00	NR	50	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS	
	Apr-01	NR	50	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS	
	Oct-01	NR	50	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS	
	Jun-02	NR	50	ND		ND		ND		ND		382		ND		NI		NS		NS		NS	
	Nov-02	NR	50	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS	
	Jun-03	NR	50	ND		ND		ND		ND		ND		ND		NI		ND		ND		NS	
	Dec-03	NR	50	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND	
	Jun-04	NR	50	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND	
	Dec-04	NR	50	ND		ND		ND		66.0		ND		ND		NI		ND		ND		ND	
	Jun-05	NR	50	ND		54.0		56.0		ND		ND		ND		NI		ND		ND		ND	
	Dec-05	NR	50	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND	
	28-Jun-06	NR	50	ND		ND		ND		ND		ND		ND		NI		ND		ND		ND	
	29-Dec-06	NR	50	8.0	J	ND		ND		4.1	J	4.3	J	4.1	J	NI		ND		ND		ND	
	12-Jul-07	NR	10	9.6	J	ND		ND		ND		ND		ND		NI		ND		DRY		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	24.6	B	ND		102	
NC 2B = 50 ug/L (03/28/08)	08-Jul-08	NR	10	5.9	B	ND		ND		ND		4.1	B	ND		NS		ND		ND		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		ND		0.89	B	0.49	J
	09-Jul-09	0.40	10.0	3.4	B	ND		ND		ND		ND		ND		6.1	B	ND		4.9	B	1.6	J
	16-Dec-09	0.40	10.0	4.6	B	ND		ND		ND		7.4	B	ND		NS		2.6	B	2.6	B	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		14.9		ND	
	13-Dec-10	0.40	10.0	4.5	B	ND		ND		ND		ND		ND		NS		ND		9.8	B	6.7	J
Cyanide	09-Jul-09	5.0	10	ND		ND		ND		ND		46.9		ND		ND		NS		NS		ND	
Resample >	28-Sep-09	5.0	10	NS		NS		NS		NS		ND		NS		NS		NS		NS		ND	
NC 2L = 70 ug/L (10/23/07)	16-Dec-09	NR	NR	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS	
NC 2B = 5 ug/L (03/28/08)	24-Jun-10	5.0	10.0	ND		ND		ND		ND		ND		ND		NS		NS		NS		ND	
	13-Dec-10	NR	NR	NS		NS		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
HISTORICALLY DETECTED ORGANIC CONSTITUENTS

Constituent	Date	Concentration (µg/L)																											
		DL	RL	Background				Downgradient														Surface Water						Blanks	
				MW-1R		MW-2R		MW-3R		MW-4		MW-5		MW-6		NES-1		SW-1		SW-2									
Acetone	Sep-94	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Dec-94	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Feb-95	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Mar-95	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Nov-95	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	May-96	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Nov-96	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Jun-97	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Dec-97	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	May-98	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Nov-98	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Jul-99	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Nov-99	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	May-00	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Oct-00	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Apr-01	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Oct-01	NR	100	244	B	109	B	ND		130	B	128	B	476	B	NI		168	B	337	B							479	
	Jun-02	NR	100	ND		ND		ND		ND		ND		ND		NI		NS		NS								NS	
	Jun-02	NR	100	ND		ND		ND		ND		ND		ND		NI		NS		NS								NS	
	Nov-02	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Jun-03	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Dec-03	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								ND	
	Jun-04	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								ND	
	Dec-04	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								ND	
	Jun-05	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								ND	
	Dec-05	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								ND	
	28-Jun-06	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								ND	
	29-Dec-06	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		ND								ND	
	12-Jul-07	NR	100	ND		ND		ND		ND		ND		ND		NI		ND		DRY								ND	
NC 2L = 700 ug/L (10/23/07)	19-Dec-07	NR	100	ND		ND		ND		ND		ND		ND		ND		12.7	B	ND								4.5	J
NC 2B = 2,000 ug/L (03/28/08)	08-Jul-08	NR	100	ND		ND		ND		ND		ND		ND		NS		ND		ND								ND	
	17-Dec-08	20.0	100	ND		ND		ND		ND		ND		ND		NS		ND		ND								ND	
	09-Jul-09	20.0	100	ND		ND		ND		ND		ND		ND		ND		ND		ND								ND	
NC 2B = NE (03/24/10)	16-Dec-09	2.2	100	ND		ND		ND		ND		ND		ND		NS		ND		ND								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		2.8	B	ND								7.7	J
	13-Dec-10	2.2	100	ND		ND		ND		ND		ND		ND		NS		ND		3.0	J							ND	
Benzene	Sep-94	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Dec-94	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Feb-95	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Mar-95	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Nov-95	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	May-96	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Nov-96	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Jun-97	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Dec-97	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	May-98	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Nov-98	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Jul-99	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Nov-99	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	May-00	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Oct-00	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Apr-01	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Oct-01	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Jun-02	NR	5	ND		ND		ND		ND		ND		ND		NI		NS		NS								NS	
	Nov-02	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Jun-03	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								NS	
	Dec-03	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								ND	
	Jun-04	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								ND	
	Dec-04	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								ND	
	Jun-05	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								ND	
	Dec-05	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								ND	
	28-Jun-06	NR	5	ND		ND		ND		ND		ND		ND		NI		ND		ND								ND	
	29-Dec-06	NR	3	ND		1.5		ND		ND		ND		ND		NI		ND		ND								ND	
Resample >	23-Feb-07	NR	3	NS		1.2		NS		NS		NS		NS		NI		NS		NS								ND	
	12-Jul-07	NR	1	ND		1.9		ND		ND		ND		ND		NI		ND		DRY								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		ND								ND	
NC 2B = 1.9 ug/L (03/28/08)	08-Jul-08	NR	1	ND		1.4		0.51	J	0.32	J	ND		ND		NS		ND		ND								ND	
	17-Dec-08	0.25	1.0	ND		1.7		0.54	J	ND		ND		ND		NS		ND		ND								ND	
	09-Jul-09	0.25	1.0	ND		1.7		0.34	J	ND		ND		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		ND								ND	
NC 2B = 1.19 (03/24/10)	24-Jun-10	0.25	1.0	ND		0.77	J	0.49	J	0.33	J	ND		ND		NS		ND		ND								ND	
	13-Dec-10	0.25	1.0	ND		1.8		0.59	J	0.37	J	ND		ND		NS		ND		ND								ND	
Resample >	08-Feb-11	0.25	1.0	NS		1.4		NS		NS		NS		NS		NS		NS		NS								ND	
Bromomethane	17-Dec-08	0.29	10.0	ND		ND		0.58	J	ND		ND		ND		NS		ND		ND								ND	
NC 2L = NE ug/L (10/23/07)	09-Jul-09	0.29	10.0	ND		ND		ND		ND		ND		ND		ND		ND		ND								ND	
NC 2B = 47 ug/L (03/28/08)	16-Dec-09	0.29	10.0	ND		ND		ND		ND		ND		ND		NS		ND		ND								ND	
NC 2B = NE (03/24/10)	24-Jun-10	0.29	10.0	ND		ND		ND		ND		ND		ND		NS		ND		ND								ND	
GWPS = 10 ug/L (8/1/10)	13-Dec-10	0.29	10.0	ND		ND		ND		ND		ND		ND		NS		ND		ND								ND	

TABLE 2
HISTORICALLY DETECTED ORGANIC CONSTITUENTS

Constituent	Date	Concentration (µg/L)											
		DL	RL	Background	Downgradient						Surface Water		Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	SW-1	SW-2	
2-Butanone	17-Dec-08	0.96	100	ND	ND	ND	ND	1.2 J	ND	NS	ND	ND	ND
NC 2L = 4,200 ug/L (10/23/07)	09-Jul-09	0.96	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NC 2B = NE (03/24/10)	16-Dec-09	0.96	100	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
NC 2L = 4,000 ug/L (02/05/10)	24-Jun-10	0.96	100	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	13-Dec-10	0.96	100	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
Carbon Disulfide	Sep-94	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-97	NR	100	ND	64.0	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-97	NR	100	ND	5.0	8.0	ND	ND	ND	NI	ND	ND	NS
	May-98	NR	100	ND	7.5	6.2	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jul-99	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-05	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	DRY	ND
NC 2L = 700 ug/L (10/23/07)	19-Dec-07	NR	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NC 2B = NE ug/L (03/28/08)	08-Jul-08	NR	100	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	17-Dec-08	1.2	100	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	09-Jul-09	1.2	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	1.2	100	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	24-Jun-10	1.2	100	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	13-Dec-10	1.2	100	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
Chlorobenzene	Sep-94	NR	5	ND	10.0	7.0	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	5	ND	ND	7.0	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	5	ND	13.0	8.0	6.0	ND	ND	NI	ND	ND	NS
	Mar-95	NR	5	ND	12.0	9.0	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	5	ND	14.0	8.0	9.0	ND	ND	NI	ND	ND	NS
	May-96	NR	5	ND	15.0	9.0	10.0	ND	ND	NI	ND	ND	NS
	Nov-96	NR	5	ND	15.0	ND	11.0	ND	ND	NI	ND	ND	NS
	Jun-97	NR	5	ND	19.0	11.0	14.0	ND	ND	NI	ND	ND	NS
	Dec-97	NR	5	ND	17.0	9.0	14.0	ND	ND	NI	ND	ND	NS
	May-98	NR	5	ND	20.0	8.6	12.0	ND	ND	NI	ND	ND	NS
	Nov-98	NR	5	ND	17.2	9.2	10.0	ND	ND	NI	ND	ND	NS
	Jul-99	NR	5	ND	14.0	10.0	11.0	ND	ND	NI	ND	ND	NS
	Nov-99	NR	5	ND	16.0	10.0	8.0	ND	ND	NI	ND	ND	NS
	May-00	NR	5	ND	17.0	11.0	10.0	ND	ND	NI	ND	ND	NS
	Oct-00	NR	5	ND	16.0	12.0	9.0	ND	ND	NI	ND	ND	NS
	Apr-01	NR	5	ND	16.0	13.0	6.0	ND	ND	NI	ND	ND	NS
	Oct-01	NR	0.5	ND	17.0	12.0	9.0	ND	ND	NI	ND	ND	NS
	Jun-02	NR	0.5	ND	16.0	11.0	8.0	ND	ND	NI	NS	NS	NS
	Nov-02	NR	0.5	ND	18.0	15.0	9.0	ND	ND	NI	ND	ND	NS
	Jun-03	NR	0.5	ND	17.7	13.3	7.4	ND	ND	NI	ND	7.2	ND
	Dec-03	NR	5	ND	20.0	15.0	6.1	ND	ND	NI	ND	ND	ND
	Jun-04	NR	5	ND	18.0	15.0	9.9	ND	ND	NI	ND	ND	ND
	Dec-04	NR	5	ND	19.0	16.0	9.4	ND	ND	NI	ND	ND	ND
	Jun-05	NR	5	ND	15.0	13.0	8.0	ND	ND	NI	ND	ND	ND
	Dec-05	NR	5	ND	18.0	16.0	5.0	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	5	ND	16.5	10.8	7.8	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	3	ND	17.0	17.0	4.2	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	3	ND	17.0	16.0	ND	ND	ND	NI	ND	DRY	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	ND	ND
NC 2B = 130 ug/L (03/28/08)	08-Jul-08	NR	3	ND	17.2	17.4	6.5	ND	ND	NS	ND	ND	ND
	17-Dec-08	0.23	3.0	ND	15.9	15.6	2.6 J	ND	ND	NS	ND	ND	ND
	09-Jul-09	0.23	3.0	ND	16.1	17.2	6.1	ND	ND	ND	ND	ND	ND
	16-Dec-09	0.23	3.0	ND	15.5	17.7	4.8	ND	ND	NS	ND	ND	ND
	24-Jun-10	0.23	3.0	ND	8.3	15.7	6.3	ND	ND	NS	ND	ND	ND
	13-Dec-10	0.23	3.0	ND	17.7	18.2	6.4	ND	ND	NS	ND	ND	0.28 J

TABLE 2
HISTORICALLY DETECTED ORGANIC CONSTITUENTS

Constituent	Date	Concentration (µg/L)											
		DL	RL	Background	Downgradient						Surface Water		Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	SW-1	SW-2	
Chloroethane	Sep-94	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-97	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-97	NR	10	ND	5.0	2.0	2.0	ND	ND	NI	ND	ND	NS
	May-98	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jul-99	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	10	ND	2.2	1.9	ND	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	DRY	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	ND	ND
NC 2B = 12 ug/L (03/28/08)	08-Jul-08	NR	10	ND	2.2 J	2.5 J	1.8 J	ND	ND	NS	ND	ND	ND
	17-Dec-08	0.54	10.0	ND	1.6 J	ND	ND	ND	ND	NS	ND	ND	ND
	09-Jul-09	0.54	10.0	ND	ND	ND	3.8 J	ND	ND	ND	ND	ND	ND
NC 2B = NE (03/24/10)	16-Dec-09	0.54	10.0	ND	ND	2.2 J	2.0 J	ND	ND	NS	ND	ND	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	ND	ND
	13-Dec-10	0.54	10.0	ND	1.8 J	2.0 J	1.7 J	ND	ND	NS	ND	ND	ND
Chloromethane	09-Jul-09	0.11	1.0	ND	ND	ND	ND	ND	ND	ND	ND	0.19 J	ND
NC 2L = 2.6 ug/L (10/23/07)	12/16/2009	0.11	1.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
NC 2B = NE (03/24/10)	6/24/2010	0.11	1.0	ND	ND	ND	ND	ND	0.11 J	NS	ND	ND	ND
NC 2L = 3 ug/L (02/05/10)	12/13/2010	0.11	1.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
1,2-Dichlorobenzene	Sep-94	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-97	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-97	NR	5	ND	3.0	2.0	1.0	ND	ND	NI	ND	ND	NS
	May-98	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	5	ND	2.4	2.3	ND	ND	ND	NI	ND	ND	NS
	Jul-99	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	5	ND	1.5	2.3	ND	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	5	ND	1.4 J	1.7 J	0.31 J	ND	ND	NI	ND	DRY	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	ND	ND
NC 2B = 420 ug/L (03/28/08)	08-Jul-08	NR	5	ND	1.6 J	2.0 J	0.39 J	ND	ND	NS	ND	ND	ND
	17-Dec-08	0.30	5.0	ND	1.4 J	1.9 J	ND	ND	ND	NS	ND	ND	ND
	09-Jul-09	0.30	5.0	ND	1.6 J	2.0 J	0.36 J	ND	ND	ND	ND	ND	ND
NC 2B = 488 (03/24/10)	16-Dec-09	0.30	5.0	ND	1.6 J	2.0 J	0.33 J	ND	ND	NS	ND	ND	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	ND	ND
	13-Dec-10	0.30	5.0	ND	1.9 J	1.9 J	0.43 J	ND	ND	NS	ND	ND	ND

TABLE 2
HISTORICALLY DETECTED ORGANIC CONSTITUENTS

Constituent	Date	Concentration (µg/L)											
		DL	RL	Background	Downgradient						Surface Water		Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	SW-1	SW-2	
1,4-Dichlorobenzene	9/8/1994	NR	5	ND	ND	5.0	ND	ND	ND	NI	ND	ND	NS
	12/1/1994	NR	5	ND	ND	5.0	ND	ND	ND	NI	ND	ND	NS
	2/9/1995	NR	5	ND	8.0	6.0	ND	ND	ND	NI	ND	ND	NS
	3/2/1995	NR	5	ND	7.0	6.0	ND	ND	ND	NI	ND	ND	NS
	11/15/1995	NR	5	ND	7.0	6.0	ND	ND	ND	NI	ND	ND	NS
	5/28/1996	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	11/22/1996	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	6/17/1997	NR	5	ND	7.6	6.2	ND	ND	ND	NI	ND	ND	NS
	12/1/1997	NR	5	ND	6.0	5.0	4.0	ND	ND	NI	ND	ND	NS
	5/20/1998	NR	5	ND	7.6	ND	ND	ND	ND	NI	ND	ND	NS
	11/19/1998	NR	5	ND	3.7	2.8	ND	ND	ND	NI	ND	ND	NS
	7/21/1999	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	11/16/1999	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	5/10/2000	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	10/26/2000	NR	5	ND	5.0	6.0	ND	ND	ND	NI	ND	ND	NS
	4/18/2001	NR	5	ND	ND	5.0	6.0	ND	ND	NI	ND	ND	NS
	10/27/2001	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	6/13/2002	NR	5	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	11/19/2002	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	6/27/2003	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	12/30/2003	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	6/30/2004	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	12/29/2004	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	6/29/2005	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	12/29/2005	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	6/28/2006	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	12/29/2006	NR	3	ND	3.0	3.3	ND	ND	ND	NI	ND	ND	ND
Resample >	2/23/2007	NR	3	NS	3.2	3.3	NS	NS	NS	NI	NS	NS	ND
	7/12/2007	NR	1	ND	3.3	2.9	0.31 J	ND	ND	NI	ND	DRY	ND
NC 2L = 1.4 ug/L (10/23/07)	12/19/2007	NR	1	ND	3.0	2.7	ND	ND	ND	ND	ND	ND	ND
NC 2B = 63 ug/L (03/28/08)	7/8/2008	NR	1	ND	3.0	2.4	ND	ND	ND	NS	ND	ND	ND
	12/17/2008	0.33	1.0	ND	2.9	2.5	ND	ND	ND	NS	ND	ND	ND
	7/9/2009	0.33	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NC 2B = 488 (03/24/10)	12/16/2009	0.33	1.0	ND	2.8	2.2	ND	ND	ND	NS	ND	ND	ND
NC 2L = 6 ug/L (02/05/10)	6/24/2010	0.33	1.0	ND	1.6	ND	ND	ND	ND	NS	ND	ND	ND
	12/13/2010	0.33	1.0	ND	3.1	1.9	ND	ND	ND	NS	ND	ND	ND
Trans-1,4-Dichloro-2-Butene	Sep-94	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-97	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-97	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-98	NR	100	ND	ND	5.1	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jul-99	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-02	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-05	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	100	ND	ND	ND	ND	ND	ND	NI	ND	DRY	ND
NC 2L = NE ug/L (10/23/07)	19-Dec-07	NR	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NC 2B = NE ug/L (03/28/08)	08-Jul-08	NR	100	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	17-Dec-08	1.0	100	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	09-Jul-09	1.0	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	1.0	100	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	24-Jun-10	1.0	100	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	13-Dec-10	1.0	100	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND

TABLE 2
HISTORICALLY DETECTED ORGANIC CONSTITUENTS

Constituent	Date	Concentration (µg/L)											
		DL	RL	Background	Downgradient						Surface Water		Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	SW-1	SW-2	
1,1-Dichloroethane	Sep-94	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-97	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-97	NR	5	ND	ND	1.0	ND	ND	ND	NI	ND	ND	NS
	May-98	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jul-99	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	5	ND	ND	0.36 J	0.52 J	ND	ND	NI	ND	DRY	ND
NC 2L = 70 ug/L (10/23/07)	19-Dec-07	NR	5	ND	ND	ND	0.57 J	ND	ND	ND	ND	ND	ND
NC 2B = 6,700 ug/L (03/28/08)	08-Jul-08	NR	5	ND	ND	ND	0.60 J	ND	ND	NS	ND	ND	ND
	17-Dec-08	0.32	5.0	ND	ND	ND	0.51 J	ND	ND	NS	ND	ND	ND
	09-Jul-09	0.32	5.0	ND	ND	ND	0.84 J	ND	ND	ND	ND	ND	ND
NC 2B = NE (03/24/10)	16-Dec-09	0.32	5.0	ND	ND	ND	0.73 J	ND	ND	NS	ND	ND	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	ND	ND
	13-Dec-10	0.32	5.0	ND	ND	ND	0.60 J	ND	ND	NS	ND	ND	ND
1,2-Dichloroethane	17-Dec-08	0.12	1.0	ND	ND	0.15 J	ND	ND	ND	NS	ND	ND	ND
NC 2L = 0.38 ug/L (10/23/07)	09-Jul-09	0.12	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.19 J
NC 2B = NE (03/24/10)	16-Dec-09	0.12	1.0	ND	ND	0.14 J	ND	ND	ND	NS	ND	ND	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	ND	ND
	13-Dec-10	0.12	1.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
Ethylbenzene	17-Dec-08	0.30	1.0	ND	0.31 J	ND	ND	ND	ND	NS	ND	ND	ND
NC 2L = 550 ug/L (10/23/07)	09-Jul-09	0.30	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NC 2B = NE (03/24/10)	16-Dec-09	0.30	1.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
NC 2L = 600 ug/L (02/05/10)	24-Jun-10	0.30	1.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	13-Dec-10	0.30	1.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
Isobutanol	24-Jun-10	35.0	100	ND	59.0 J	ND	ND	ND	ND	NS	ND	ND	ND
NC 2L = NE ug/L (02/05/10)	13-Dec-10	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
NC 2B = NE (03/24/10)													
Methylene Chloride	09-Jul-09	0.97	2.0	ND	ND	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	ND	ND
NC 2B = NE (03/24/10)	24-Jun-10	0.97	1.0	ND	19.0	ND	ND	ND	ND	NS	ND	ND	ND
NC 2L = 5 ug/L (02/05/10) *Resample >*	12-Aug-10	0.97	1.0	NS	ND	NS	NS	NS	NS	NS	NS	NS	ND
	13-Dec-10	0.97	1.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
Naphthalene	08-Jul-08	NR	10	ND	3.8 J	ND	ND	ND	ND	NS	ND	ND	ND
NC 2L = 21 ug/L (10/23/07)	17-Dec-08	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09-Jul-09	0.24	10.0	ND	2.4 J	ND	ND	ND	ND	NS	NS	NS	ND
NC 2B = NE (03/24/10)	16-Dec-09	NR	NR	NS	NS	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	NS	NS	ND
NC 2B = NE ug/L (03/24/10)	13-Dec-10	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

TABLE 2
HISTORICALLY DETECTED ORGANIC CONSTITUENTS

Constituent	Date	Concentration (µg/L)											
		DL	RL	Background	Downgradient						Surface Water		Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	SW-1	SW-2	
Toluene	Sep-94	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-97	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-97	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-98	NR	5	ND	ND	8.1	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jul-99	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	-
	Dec-03	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	1	ND	0.49 B	ND	ND	ND	ND	NI	ND	DRY	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	ND	ND
NC 2B = 11 ug/L (03/28/08)	08-Jul-08	NR	1	ND	0.39 J	ND	ND	1.3	ND	NS	ND	ND	ND
	17-Dec-08	0.26	1.0	1.4	1.6	ND	ND	11.7	ND	NS	ND	ND	ND
	09-Jul-09	0.26	1.0	ND	0.46 J	ND	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	0.26	1.0	ND	0.42 J	ND	ND	ND	ND	NS	ND	ND	ND
NC 2L = 600 ug/L (02/05/10)	24-Jun-10	0.26	1.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	13-Dec-10	0.26	1.0	ND	0.54 J	ND	ND	ND	ND	NS	ND	ND	ND
Vinyl Chloride	Sep-94	NR	10	ND	ND	12.0	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	10	ND	ND	13.0	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	10	ND	ND	15.0	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	10	ND	ND	14.0	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	10	ND	ND	11.0	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-97	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-97	NR	10	ND	ND	7.0	4.0	ND	ND	NI	ND	ND	NS
	May-98	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jul-99	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	10	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	5.5	ND	ND	0.98 J	ND	ND	ND	NI	ND	ND	ND
Resample >	23-Feb-07	NR	5.5	NS	NS	1.0	NS	NS	NS	NI	NS	NS	ND
	12-Jul-07	NR	1	ND	ND	ND	ND	ND	ND	NS	ND	DRY	ND
NC 2L = 0.015 ug/L (10/23/07)	19-Dec-07	NR	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NC 2B = 0.025 ug/L (03/28/08)	08-Jul-08	NR	1	ND	ND	0.76 J	ND	ND	ND	NS	ND	ND	ND
	17-Dec-08	0.62	1.0	ND	ND	0.76 J	ND	ND	ND	NS	ND	ND	ND
	09-Jul-09	0.62	1.0	ND	ND	0.99 J	ND	ND	ND	ND	ND	ND	ND
	16-Dec-09	0.62	1.0	ND	ND	0.81 J	ND	ND	ND	NS	ND	ND	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	ND	ND
	13-Dec-10	0.62	1.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND

TABLE 2
HISTORICALLY DETECTED ORGANIC CONSTITUENTS

Constituent	Date	Concentration (µg/L)											
		DL	RL	Background	Downgradient						Surface Water		Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	SW-1	SW-2	
Total Xylenes	Sep-94	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-94	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Feb-95	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Mar-95	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-95	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-96	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-96	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-97	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-97	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-98	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jul-99	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	May-00	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-00	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Apr-01	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Jun-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Dec-03	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-04	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Dec-05	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	28-Jun-06	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	29-Dec-06	NR	5	ND	1.4	ND	ND	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	4	ND	1.2 J	ND	ND	ND	ND	NI	ND	DRY	ND
NC 2L = 530 ug/L (10/23/07)	19-Dec-07	NR	4	ND	2.0	ND	ND	ND	ND	ND	ND	ND	ND
	08-Jul-08	NR	4	ND	1.1 J	ND	ND	ND	ND	NS	ND	ND	ND
	17-Dec-08	0.66	2.0	1.4 J	2.7	ND	ND	ND	ND	NS	ND	ND	ND
	09-Jul-09	0.66	2.0	ND	1.5 J	ND	ND	ND	ND	ND	ND	ND	ND
NC 2B = NE (03/24/10)	16-Dec-09	0.66	2.0	ND	2.2	ND	ND	ND	ND	NS	ND	ND	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	ND	ND
	13-Dec-10	0.66	2.0	ND	2.0	ND	ND	ND	ND	NS	ND	ND	ND
Fluorene	6/24/2010	3.8	12.2	ND	4.3 J	ND	ND	ND	ND	NS	NS	NS	ND
NC 2L = 300 ug/L (2/5/10) *Resample >*	8/12/2010	3.1	10.0	NS	ND	NS	NS	NS	NS	NS	NS	NS	ND
NC 2B = NE (03/24/10)	12/13/2010	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Methylnaphthalene	6/24/2010	5.1	12.2	ND	38.9	ND	ND	ND	ND	NS	NS	NS	ND
NC 2L = 30 ug/L (02/05/10) *Resample >*	8/12/2010	4.2	10	NS	ND	NS	NS	NS	NS	NS	NS	NS	ND
NC 2B = NE (03/24/10)	12/13/2010	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Phorate	Dec-97	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	10	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Oct-00	NR	10	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Apr-01	NR	10	NS	3.2	ND	ND	ND	NS	NI	NS	NS	NS
	Oct-01	NR	5	ND	8.1	ND	ND	ND	ND	NI	ND	ND	NS
	Oct-01	NR	0.5	NS	8.1	1.3	ND	ND	NS	NI	NS	NS	NS
	Jun-02	NR	5	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Jun-02	NR	0.5	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Nov-02	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Jun-03	NR	5	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	Jun-04	NR	10	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Jun-05	NR	10	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Dec-05	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS	NS	NS
	28-Jun-06	NR	10	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	29-Dec-06	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS	NS	NS
	12-Jul-07	NR	10	ND	ND	ND	ND	ND	ND	NI	ND	DRY	ND
NC 2L = 1.4 ug/L (10/23/07)	19-Dec-07	NR	NR	NS	NS	NS	NS	NS	NS	ND	NS	NS	NS
NC 2B = NE ug/L (03/28/08)	08-Jul-08	NR	10	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
	17-Dec-08	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	09-Jul-09	6.6	22.2	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
	16-Dec-09	NR	NR	NS	NS	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	NS	NS	ND
	13-Dec-10	NR	NR	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

TABLE 2
HISTORICALLY DETECTED ORGANIC CONSTITUENTS

Constituent	Date	Concentration (ug/L)											
		DL	RL	Background	Downgradient						Surface Water		Blanks
				MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6	NES-1	SW-1	SW-2	
Gamma-BHC	Dec-97	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Oct-00	NR	0.05	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Apr-01	NR	0.05	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Oct-01	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS	NS	NS
	Jun-02	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Jun-02	NR	0.05	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Jun-02	NR	0.5	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Nov-02	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS	NS	NS
	Jun-03	NR	1.05	ND	0.085	ND	ND	ND	ND	NI	NS	NS	ND
	Dec-03	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Jun-04	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Dec-04	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NR	NR	ND
	Jun-05	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Dec-05	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NR	NR	ND
	28-Jun-06	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	29-Dec-06	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND	DRY	ND
NC 2L = 0.2 ug/L (10/23/07)	19-Dec-07	NR	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	08-Jul-08	NR	0.50	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	17-Dec-08	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
	09-Jul-09	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
NC 2B = NE (03/24/10)	16-Dec-09	0.01	0.1	ND	ND	ND	ND	ND	ND	NS	ND	ND	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	NS	NS	ND
Resample >	12-Aug-10	0.00020	0.010	NS	NS	ND	NS	NS	NS	NS	NS	NS	ND
	13-Dec-10	0.00020	0.050	ND	ND	0.013 J	ND	ND	ND	NS	NS	NS	ND
Heptachlor	Dec-97	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-98	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND	ND	NS
	Nov-99	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Oct-00	NR	0.05	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Apr-01	NR	0.05	NS	ND	ND	ND	ND	NS	NI	NS	NS	NS
	Oct-01	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS	NS	NS
	Jun-02	NR	1.05	ND	ND	ND	ND	ND	ND	NI	NS	NS	NS
	Nov-02	NR	NR	NS	NS	NS	NS	NS	NS	NI	NS	NS	NS
	Jun-03	NR	1.05	ND	0.03	0.17	ND	ND	ND	NI	NS	NS	ND
	Dec-03	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Jun-04	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Dec-04	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Jun-05	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Dec-05	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NR	NR	ND
	28-Jun-06	NR	0.05	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	29-Dec-06	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	0.05	ND	ND	ND	ND	ND	ND	NI	ND	DRY	ND
NC 2L = 0.0078 ug/L (10/23/07)	19-Dec-07	NR	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NC 2B = 0.00008 ug/L (03/28/08)	08-Jul-08	NR	0.05	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	17-Dec-08	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
	09-Jul-09	0.050	0.050	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
	16-Dec-09	0.02	0.1	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
NC 2L = 0.008 ug/L (02/05/10)	24-Jun-10	0.0015	0.010	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
	13-Dec-10	0.0500	0.0015	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
2,4-D	Jun-03	NR	3	NS	5.9	ND	ND	ND	NS	NI	NS	NS	NS
	Dec-03	NR	2	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Jun-04	NR	2	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Dec-04	NR	2	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Jun-05	NR	2	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	Dec-05	NR	2	ND	ND	ND	ND	ND	ND	NI	NR	NR	ND
	28-Jun-06	NR	2	ND	ND	ND	ND	ND	ND	NI	NS	NS	ND
	29-Dec-06	NR	2	ND	ND	ND	ND	ND	ND	NI	ND	ND	ND
	12-Jul-07	NR	2	ND	ND	ND	ND	ND	ND	NI	ND	DRY	ND
NC 2L = 70 ug/L (10/23/07)	19-Dec-07	NR	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NC 2B = 100 ug/L (03/28/08)	08-Apr-08	NR	2	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	17-Dec-08	NR	2.0	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
	09-Jul-09	NR	2.0	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
	16-Dec-09	0.11	5.0	ND	ND	ND	ND	ND	ND	NS	ND	ND	ND
	24-Jun-10	0.23	2.1	ND	ND	ND	ND	ND	ND	NS	NS	NS	ND
	10-Dec-10	0.22	2.0	ND	ND	ND	ND	ND	ND	NS	NS	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).

TABLE 3
Summary of Statistical Analyses
Butner Landfill - December 2010 Sampling Event

Analyte	Data Distribution	Statistical Method used to Establish Background	Background (µg/L)	NC 2L (*GWPS) (µg/L)	SSI above Background	Above NC 2L or GWPS
Barium	63% Truncated	Nonparametric Prediction Limit	200	700	None	None
Cobalt	71% Truncated	Nonparametric Prediction Limit	130	1 *	None	MW-2R, MW-5
Copper	81% Truncated	Nonparametric Prediction Limit	34	1000	None	None
Nickel	94% Truncated	Upper Poisson Prediction Limit	138	100	None	None
Thallium	100% Truncated	Upper Poisson Prediction Limit	26.45	0.2 *	None	None
1,4-dichlorobenzene	100% Truncated	Upper Poisson Prediction Limit	13.8	6	None	None
Benzene	100% Truncated	Upper Poisson Prediction Limit	14.2	1	None	MW-2R
Chlorobenzene	100% Truncated	Upper Poisson Prediction Limit	12.83	50	MW-2R, MW-3R	None
Xylenes, Total	94% Truncated	Upper Poisson Prediction Limit	13.2	500	None	None

Notes:
SSI = Statistically Significant Increase above background
NC2L = 15A NCAC 2L Groundwater Standard
GWPS = Groundwater Protection Standard (indicated by * for constituents with no NC 2L)
µg/L = micrograms per liter = parts per billion
Only constituents with quantified detections above the SWSL in one or more down-gradient moniotoring wells are included.
Constituents with only blank-qualified and/or estimated concentrations are not included.

TABLE 4
HISTORICAL GROUNDWATER ELEVATION DATA

Well No.	Background	Downgradient				
	MW-1R	MW-2R	MW-3R	MW-4	MW-5	MW-6
Well TOC Elev.	482.33	350.87	350.76	360.69	363.53	381.75
Well Depth	56.00	18.85	35.83	31.43	23.52	32.63
Aug-99	440.50	348.40	347.86	350.39	350.48	371.32
Nov-99	441.57	344.65	344.31	351.42	353.98	372.19
May-00	446.35	348.87	348.63	354.04	354.14	374.94
Oct-00	441.03	348.53	347.95	351.22	350.59	372.00
Apr-01	440.58	348.69	348.43	353.46	354.01	373.44
Oct-01	434.35	348.31	347.74	350.46	349.88	370.14
Jun-02	435.52	347.65	347.21	350.10	349.94	370.26
Nov-02	435.22	348.52	348.15	351.46	356.82	370.16
Jun-03	445.43	348.84	348.73	354.13	353.64	374.43
Dec-03	442.05	348.97	348.91	354.38	354.43	374.14
Jun-04	440.63	348.65	348.28	352.15	351.04	372.32
Dec-04	439.84	348.77	348.71	353.34	353.79	374.36
Jun-05	440.63	348.37	349.06	351.51	350.55	371.98
Dec-05	435.20	348.56	348.51	352.67	353.92	370.74
27-Jun-06	436.57	348.44	348.20	352.07	353.21	372.65
28-Dec-06	437.36	348.67	348.66	353.46	354.89	373.24
12-Jul-07	438.64	347.96	347.77	351.20	350.17	371.52
18-Dec-07	434.41	348.21	347.88	350.21	347.57	367.12
08-Jul-08	436.34	348.47	345.80	351.35	350.50	370.25
17-Dec-08	434.61	348.66	348.64	353.04	354.68	370.04
09-Jul-09	438.98	348.44	349.28	352.19	351.01	371.39
16-Dec-09	439.93	348.82	348.89	354.46	356.59	372.09
24-Jun-10	444.24	348.68	348.57	353.54	352.80	372.84
13-Dec-10	437.78	348.76	348.65	352.70	349.99	369.30

Notes:
1. TOC = top of casing
2. - = data not available
3. Water levels are measured from TOC.

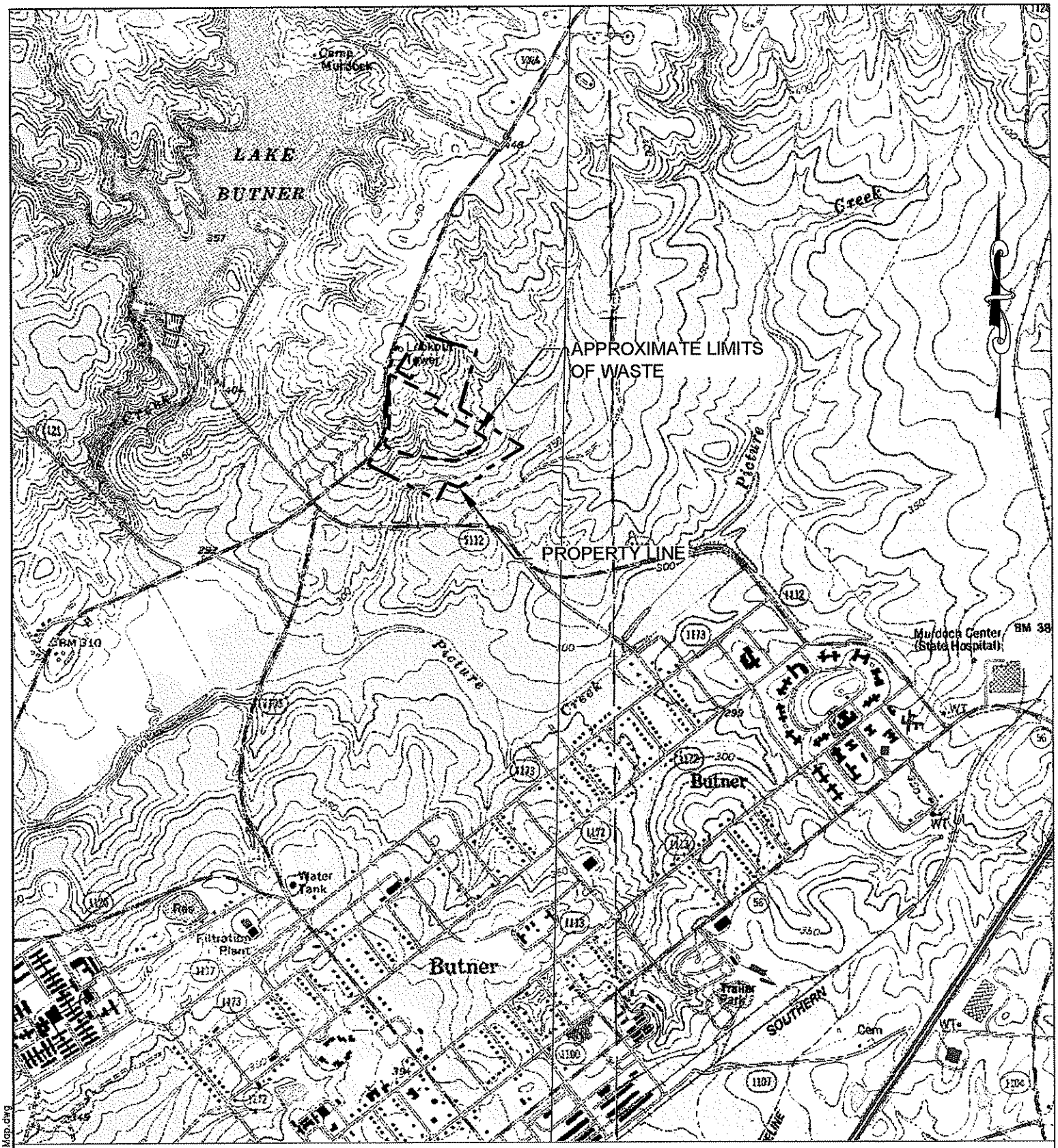
TABLE 5
ESTIMATED HYDRAULIC GRADIENTS AND GROUNDWATER FLOW VELOCITIES

			December 2010				
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 **n**	LINEAR VELOCITY, **V** (ft/year)
i_1	1407	SE	440 360	0.0569	3.42E-02	0.31	2.29
i_2	1827	SE	430 350	0.0438	3.42E-02	0.31	1.76
i_3	1617	SSE	440 350	0.0557	3.42E-02	0.31	2.24
			Average	0.0521		Average	2.10

Notes:
1. Hydraulic conductivity (K) value is representative of a geometric mean of results from slug-tests conducted in 1994 (GAI, 1994).
2. Average effective porosity (n) of 0.31 taken from GAI, 1994.
3. Linear flow velocity = Ki/n (modified Darcy equation).
4. Refer to Drawling 1 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.

GRAPHIC SCALE

0 1000 2000 4000

(FEET)

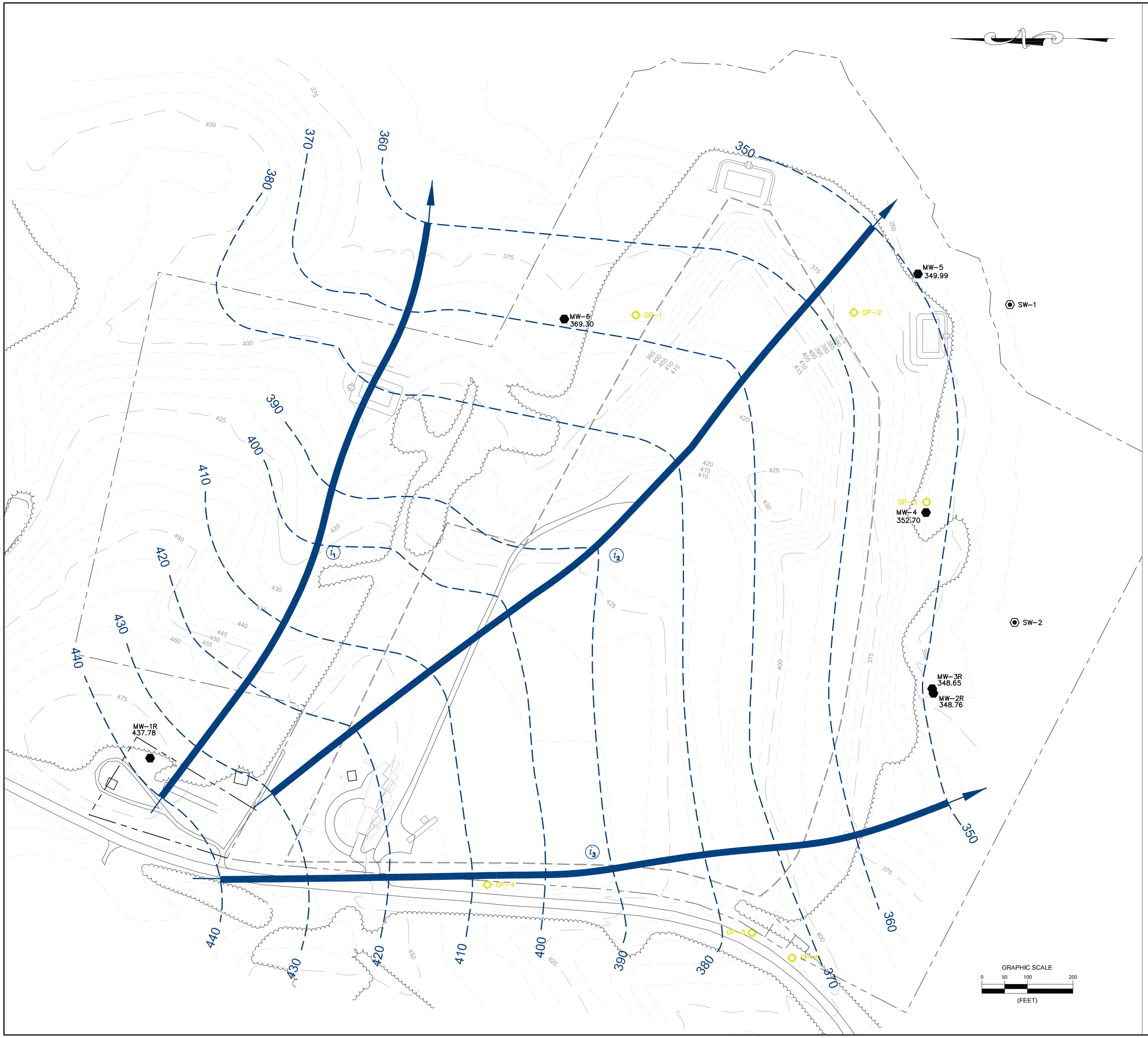
FIGURE NO. 1	JOYCE ENGINEERING, INC. 2211 WEST MEADOWVIEW ROAD GREENSBORO, N.C. 27407 PHONE: (336) 323-0092	SCALE 1"=2000'	PROJECT NO. 660.06.24	SITE LOCATION MAP BUTNER LANDFILL GRANVILLE COUNTY, NORTH CAROLINA

© 2009 Joyce Engineering, Inc. All rights reserved.

L:\Granville\dwg\Butner\Site Location Map.dwg

DRAWING

Drawing 1 Groundwater 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 437.78	GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION
i_1	SEGMENT USED FOR GRADIENT CALCULATIONS
GP-1	GAS PROBE LOCATION AND IDENTIFICATION
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 12/13/10.
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 EARLIER SURVEY DATA AND DIFFER FROM THE APRIL 2008 DATA BY SEVERAL FEET IN SOME LOCATIONS.

DATE	REVISIONS AND RECORD OF ISSUE	NO	BY	CK	APP

DESIGNED	ACE
DRAWN	RWH
CHECKED	ACE
APPROVED	GVB
DATE	04/15/11

© 2011 Joyce Engineering, Inc. All rights reserved.

JOYCE ENGINEERING, INC.
2211 W. MEADOWVIEW ROAD
GREENSBORO, NC 27407
PHONE: (336) 323-0092

BUTNER LANDFILL
GRANVILLE COUNTY, NORTH CAROLINA

GROUNDWATER SURFACE MAP
DECEMBER 13, 2010

PROJECT NO.
660.1001.11

SCALE
AS NOTED

DRAWING NO.
1

L:\Granville\dwg\Butner\GW Event Maps\GW Event 12-10.dwg Layout=Layout1

APPENDICES

(on enclosed CD)

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

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

January 04, 2011

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

RE: Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Dear Mr. Burbach:
Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated 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..

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

CERTIFICATIONS

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

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
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: LA090012
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL1264
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
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 #: 68-547
Puerto Rico Certification #: FL01264
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
Virginia Certification #: 00432
Wyoming Certification: FL NELAC Reciprocity

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/LELAP Certification #: 04034
New Jersey Certification #: NC012
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
Pennsylvania Certification #: 68-00784
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Virginia Certification #: 00213
Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DHH Drinking Water # LA 100031
West Virginia Certification #: 357

Asheville Certification IDs

2225 Riverside Dr., Asheville, NC 28804
Connecticut Certification #: PH-0106
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
New Jersey Certification #: NC011
North Carolina Bioassay Certification #: 9
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
Pennsylvania Certification #: 68-03578
South Carolina Bioassay Certification #: 99030002
South Carolina Certification #: 99030001
Virginia Certification #: 00072
West Virginia Certification #: 356

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

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

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

SAMPLE SUMMARY

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9284264001	**3902-MW-1R**	Water	12/13/10 13:15	12/16/10 14:55
9284264002	**3902-MW-2R MS/MSD**	Water	12/13/10 15:15	12/16/10 14:55
9284264003	**3902-MW-3R**	Water	12/13/10 14:55	12/16/10 14:55
9284264004	**3902-MW-4**	Water	12/13/10 14:40	12/16/10 14:55
9284264005	**3902-MW-5**	Water	12/13/10 14:10	12/16/10 14:55
9284264006	**3902-MW-6**	Water	12/13/10 13:55	12/16/10 14:55
9284264007	**3902-SW-1**	Water	12/13/10 14:25	12/16/10 14:55
9284264008	**3902-SW-2**	Water	12/13/10 15:45	12/16/10 14:55

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

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

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

SAMPLE ANALYTE COUNT

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
9284264001	**3902-MW-1R**	EPA 8081	AE1	4	PASI-O
		EPA 8151	LJM	2	PASI-O
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
9284264002	**3902-MW-2R MS/MSD**	EPA 8081	AE1	4	PASI-O
		EPA 8151	LJM	2	PASI-O
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
9284264003	**3902-MW-3R**	EPA 8081	AE1	4	PASI-O
		EPA 8151	LJM	2	PASI-O
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
9284264004	**3902-MW-4**	EPA 8081	AE1	4	PASI-O
		EPA 8151	LJM	2	PASI-O
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
9284264005	**3902-MW-5**	EPA 8081	AE1	4	PASI-O
		EPA 8151	LJM	2	PASI-O
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
9284264006	**3902-MW-6**	EPA 8081	AE1	4	PASI-O
		EPA 8151	LJM	2	PASI-O
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
9284264007	**3902-SW-1**	EPA 6010	SHB	15	PASI-A
		EPA 8260	MCK	54	PASI-C
9284264008	**3902-SW-2**	EPA 6010	SHB	15	PASI-A
		EPA 8260	MCK	54	PASI-C

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

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

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

ANALYTICAL RESULTS

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-MW-1R **Lab ID: 9284264001** Collected: 12/13/10 13:15 Received: 12/16/10 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081								
gamma-BHC (Lindane)	ND	ug/L	0.050	0.00020	1	12/19/10 15:51	12/23/10 08:32	58-89-9	
Heptachlor	ND	ug/L	0.050	0.0015	1	12/19/10 15:51	12/23/10 08:32	76-44-8	
Tetrachloro-m-xylene (S)	103	%	66.5-120.3		1	12/19/10 15:51	12/23/10 08:32	877-09-8	
Decachlorobiphenyl (S)	64	%	41.7-109.1		1	12/19/10 15:51	12/23/10 08:32	2051-24-3	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	ND	ug/L	2.0	0.22	1	12/20/10 16:45	12/23/10 05:31	94-75-7	
2,4-DCPA (S)	88	%	65.5-125.7		1	12/20/10 16:45	12/23/10 05:31	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	12/22/10 11:30	12/28/10 23:56	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	12/22/10 11:30	12/28/10 23:56	7440-38-2	
Barium	**4.3J**	ug/L	100	0.20	1	12/22/10 11:30	12/28/10 23:56	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	12/22/10 11:30	12/28/10 23:56	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/22/10 11:30	12/28/10 23:56	7440-43-9	
Chromium	**2.5J**	ug/L	10.0	0.40	1	12/22/10 11:30	12/28/10 23:56	7440-47-3	
Cobalt	**2.5J**	ug/L	10.0	0.60	1	12/22/10 11:30	12/28/10 23:56	7440-48-4	
Copper	**1.1J**	ug/L	10.0	0.30	1	12/22/10 11:30	12/28/10 23:56	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	12/22/10 11:30	12/28/10 23:56	7439-92-1	
Nickel	ND	ug/L	50.0	1.7	1	12/22/10 11:30	12/28/10 23:56	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	12/22/10 11:30	12/28/10 23:56	7782-49-2	
Silver	**0.15J**	ug/L	10.0	0.10	1	12/22/10 11:30	12/28/10 23:56	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	12/22/10 11:30	12/28/10 23:56	7440-28-0	
Tin	ND	ug/L	100	1.8	1	12/22/10 11:30	12/28/10 23:56	7440-31-5	
Vanadium	**3.2J**	ug/L	25.0	0.20	1	12/22/10 11:30	12/28/10 23:56	7440-62-2	
Zinc	**4.5J**	ug/L	10.0	0.40	1	12/22/10 11:30	12/28/10 23:56	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		12/19/10 13:37	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		12/19/10 13:37	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/19/10 13:37	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		12/19/10 13:37	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/19/10 13:37	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		12/19/10 13:37	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		12/19/10 13:37	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		12/19/10 13:37	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		12/19/10 13:37	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/19/10 13:37	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		12/19/10 13:37	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		12/19/10 13:37	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		12/19/10 13:37	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/19/10 13:37	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		12/19/10 13:37	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.
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: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-MW-1R **Lab ID: 9284264001** Collected: 12/13/10 13:15 Received: 12/16/10 14:55 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		12/19/10 13:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/19/10 13:37	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		12/19/10 13:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		12/19/10 13:37	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/19/10 13:37	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		12/19/10 13:37	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		12/19/10 13:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		12/19/10 13:37	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	0.49	1		12/19/10 13:37	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		12/19/10 13:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		12/19/10 13:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		12/19/10 13:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/19/10 13:37	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/19/10 13:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/19/10 13:37	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/19/10 13:37	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		12/19/10 13:37	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		12/19/10 13:37	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/19/10 13:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		12/19/10 13:37	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/19/10 13:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		12/19/10 13:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		12/19/10 13:37	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/19/10 13:37	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/19/10 13:37	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/19/10 13:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/19/10 13:37	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/19/10 13:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/19/10 13:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/19/10 13:37	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		12/19/10 13:37	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/19/10 13:37	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/19/10 13:37	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/19/10 13:37	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/19/10 13:37	95-47-6	
4-Bromofluorobenzene (S)	96	%	70-130		1		12/19/10 13:37	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		12/19/10 13:37	1868-53-7	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		12/19/10 13:37	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		12/19/10 13:37	2037-26-5	

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

Pace Analytical®
www.pacelabs.com

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: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-MW-2R MS/MSD **Lab ID: 9284264002** Collected: 12/13/10 15:15 Received: 12/16/10 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081								
gamma-BHC (Lindane)	ND	ug/L	0.050	0.00020	1	12/19/10 15:51	12/23/10 07:07	58-89-9	
Heptachlor	ND	ug/L	0.050	0.0015	1	12/19/10 15:51	12/23/10 07:07	76-44-8	M1
Tetrachloro-m-xylene (S)	89	%	66.5-120.3		1	12/19/10 15:51	12/23/10 07:07	877-09-8	
Decachlorobiphenyl (S)	51	%	41.7-109.1		1	12/19/10 15:51	12/23/10 07:07	2051-24-3	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	ND	ug/L	2.0	0.22	1	12/20/10 16:45	12/23/10 05:57	94-75-7	
2,4-DCPA (S)	69	%	65.5-125.7		1	12/20/10 16:45	12/23/10 05:57	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	12/22/10 11:30	12/28/10 23:59	7440-36-0	
Arsenic	**4.9J**	ug/L	10.0	2.7	1	12/22/10 11:30	12/28/10 23:59	7440-38-2	
Barium	**122**	ug/L	100	0.20	1	12/22/10 11:30	12/28/10 23:59	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	12/22/10 11:30	12/28/10 23:59	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/22/10 11:30	12/28/10 23:59	7440-43-9	
Chromium	**1.3J**	ug/L	10.0	0.40	1	12/22/10 11:30	12/28/10 23:59	7440-47-3	
Cobalt	**15.5**	ug/L	10.0	0.60	1	12/22/10 11:30	12/28/10 23:59	7440-48-4	
Copper	ND	ug/L	10.0	0.30	1	12/22/10 11:30	12/28/10 23:59	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	12/22/10 11:30	12/28/10 23:59	7439-92-1	
Nickel	**83.0**	ug/L	50.0	1.7	1	12/22/10 11:30	12/28/10 23:59	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	12/22/10 11:30	12/28/10 23:59	7782-49-2	
Silver	**1.3J**	ug/L	10.0	0.10	1	12/22/10 11:30	12/28/10 23:59	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	12/22/10 11:30	12/28/10 23:59	7440-28-0	
Tin	**30.3J**	ug/L	100	1.8	1	12/22/10 11:30	12/28/10 23:59	7440-31-5	
Vanadium	**3.6J**	ug/L	25.0	0.20	1	12/22/10 11:30	12/28/10 23:59	7440-62-2	
Zinc	ND	ug/L	10.0	0.40	1	12/22/10 11:30	12/28/10 23:59	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		12/19/10 14:02	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		12/19/10 14:02	107-13-1	
Benzene	**1.8**	ug/L	1.0	0.25	1		12/19/10 14:02	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		12/19/10 14:02	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/19/10 14:02	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		12/19/10 14:02	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		12/19/10 14:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		12/19/10 14:02	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		12/19/10 14:02	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/19/10 14:02	56-23-5	
Chlorobenzene	**17.7**	ug/L	3.0	0.23	1		12/19/10 14:02	108-90-7	
Chloroethane	**1.8J**	ug/L	10.0	0.54	1		12/19/10 14:02	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		12/19/10 14:02	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/19/10 14:02	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		12/19/10 14:02	96-12-8	

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

nelac

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: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-MW-2R MS/MSD **Lab ID: 9284264002** Collected: 12/13/10 15:15 Received: 12/16/10 14:55 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		12/19/10 14:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/19/10 14:02	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		12/19/10 14:02	74-95-3	
1,2-Dichlorobenzene	**1.9J**	ug/L	5.0	0.30	1		12/19/10 14:02	95-50-1	
1,4-Dichlorobenzene	**3.1**	ug/L	1.0	0.33	1		12/19/10 14:02	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		12/19/10 14:02	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		12/19/10 14:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		12/19/10 14:02	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	0.49	1		12/19/10 14:02	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		12/19/10 14:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		12/19/10 14:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		12/19/10 14:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/19/10 14:02	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/19/10 14:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/19/10 14:02	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/19/10 14:02	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		12/19/10 14:02	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		12/19/10 14:02	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/19/10 14:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		12/19/10 14:02	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/19/10 14:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		12/19/10 14:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		12/19/10 14:02	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/19/10 14:02	127-18-4	
Toluene	**0.54J**	ug/L	1.0	0.26	1		12/19/10 14:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/19/10 14:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/19/10 14:02	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/19/10 14:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/19/10 14:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/19/10 14:02	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		12/19/10 14:02	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/19/10 14:02	75-01-4	
Xylene (Total)	**2.0**	ug/L	2.0	0.66	1		12/19/10 14:02	1330-20-7	
m&p-Xylene	**1.4J**	ug/L	2.0	0.66	1		12/19/10 14:02	179601-23-1	
o-Xylene	**0.61J**	ug/L	1.0	0.23	1		12/19/10 14:02	95-47-6	
4-Bromofluorobenzene (S)	100	%	70-130		1		12/19/10 14:02	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		12/19/10 14:02	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		12/19/10 14:02	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		12/19/10 14:02	2037-26-5	

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

Pace Analytical®
www.pacelabs.com

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: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-MW-3R **Lab ID: 9284264003** Collected: 12/13/10 14:55 Received: 12/16/10 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081								
gamma-BHC (Lindane)	**0.013J**	ug/L	0.050	0.00020	1	12/19/10 15:51	12/23/10 08:49	58-89-9	
Heptachlor	ND	ug/L	0.050	0.0015	1	12/19/10 15:51	12/23/10 08:49	76-44-8	
Tetrachloro-m-xylene (S)	100	%	66.5-120.3		1	12/19/10 15:51	12/23/10 08:49	877-09-8	
Decachlorobiphenyl (S)	105	%	41.7-109.1		1	12/19/10 15:51	12/23/10 08:49	2051-24-3	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	ND	ug/L	2.0	0.22	1	12/20/10 16:45	12/23/10 07:17	94-75-7	
2,4-DCPA (S)	71	%	65.5-125.7		1	12/20/10 16:45	12/23/10 07:17	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	**3.0J**	ug/L	6.0	2.6	1	12/22/10 11:30	12/29/10 00:22	7440-36-0	
Arsenic	**2.7J**	ug/L	10.0	2.7	1	12/22/10 11:30	12/29/10 00:22	7440-38-2	
Barium	**67.9J**	ug/L	100	0.20	1	12/22/10 11:30	12/29/10 00:22	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	12/22/10 11:30	12/29/10 00:22	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/22/10 11:30	12/29/10 00:22	7440-43-9	
Chromium	**1.8J**	ug/L	10.0	0.40	1	12/22/10 11:30	12/29/10 00:22	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	12/22/10 11:30	12/29/10 00:22	7440-48-4	
Copper	**13.6**	ug/L	10.0	0.30	1	12/22/10 11:30	12/29/10 00:22	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	12/22/10 11:30	12/29/10 00:22	7439-92-1	
Nickel	**23.5J**	ug/L	50.0	1.7	1	12/22/10 11:30	12/29/10 00:22	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	12/22/10 11:30	12/29/10 00:22	7782-49-2	
Silver	**0.99J**	ug/L	10.0	0.10	1	12/22/10 11:30	12/29/10 00:22	7440-22-4	
Thallium	**7.7**	ug/L	5.5	3.0	1	12/22/10 11:30	12/29/10 00:22	7440-28-0	
Tin	**12.1J**	ug/L	100	1.8	1	12/22/10 11:30	12/29/10 00:22	7440-31-5	
Vanadium	**0.35J**	ug/L	25.0	0.20	1	12/22/10 11:30	12/29/10 00:22	7440-62-2	
Zinc	ND	ug/L	10.0	0.40	1	12/22/10 11:30	12/29/10 00:22	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		12/19/10 14:28	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		12/19/10 14:28	107-13-1	
Benzene	**0.59J**	ug/L	1.0	0.25	1		12/19/10 14:28	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		12/19/10 14:28	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/19/10 14:28	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		12/19/10 14:28	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		12/19/10 14:28	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		12/19/10 14:28	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		12/19/10 14:28	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/19/10 14:28	56-23-5	
Chlorobenzene	**18.2**	ug/L	3.0	0.23	1		12/19/10 14:28	108-90-7	
Chloroethane	**2.0J**	ug/L	10.0	0.54	1		12/19/10 14:28	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		12/19/10 14:28	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/19/10 14:28	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		12/19/10 14:28	96-12-8	

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

ACCREDITED IN ACCORDANCE WITH nelac

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: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-MW-3R **Lab ID: 9284264003** Collected: 12/13/10 14:55 Received: 12/16/10 14:55 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		12/19/10 14:28	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/19/10 14:28	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		12/19/10 14:28	74-95-3	
1,2-Dichlorobenzene	**1.9J**	ug/L	5.0	0.30	1		12/19/10 14:28	95-50-1	
1,4-Dichlorobenzene	**1.9**	ug/L	1.0	0.33	1		12/19/10 14:28	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		12/19/10 14:28	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		12/19/10 14:28	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		12/19/10 14:28	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	0.49	1		12/19/10 14:28	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		12/19/10 14:28	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		12/19/10 14:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		12/19/10 14:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/19/10 14:28	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/19/10 14:28	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/19/10 14:28	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/19/10 14:28	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		12/19/10 14:28	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		12/19/10 14:28	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/19/10 14:28	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		12/19/10 14:28	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/19/10 14:28	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		12/19/10 14:28	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		12/19/10 14:28	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/19/10 14:28	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/19/10 14:28	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/19/10 14:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/19/10 14:28	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/19/10 14:28	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/19/10 14:28	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/19/10 14:28	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		12/19/10 14:28	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/19/10 14:28	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/19/10 14:28	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/19/10 14:28	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/19/10 14:28	95-47-6	
4-Bromofluorobenzene (S)	100	%	70-130		1		12/19/10 14:28	460-00-4	
Dibromofluoromethane (S)	110	%	70-130		1		12/19/10 14:28	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	70-130		1		12/19/10 14:28	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		12/19/10 14:28	2037-26-5	

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

Pace Analytical®
www.pacelabs.com

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: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-MW-4 **Lab ID: 9284264004** Collected: 12/13/10 14:40 Received: 12/16/10 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081								
gamma-BHC (Lindane)	ND	ug/L	0.050	0.00020	1	12/19/10 15:51	12/23/10 09:06	58-89-9	
Heptachlor	ND	ug/L	0.050	0.0015	1	12/19/10 15:51	12/23/10 09:06	76-44-8	
Tetrachloro-m-xylene (S)	89	%	66.5-120.3		1	12/19/10 15:51	12/23/10 09:06	877-09-8	
Decachlorobiphenyl (S)	66	%	41.7-109.1		1	12/19/10 15:51	12/23/10 09:06	2051-24-3	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	ND	ug/L	2.0	0.22	1	12/20/10 16:45	12/23/10 07:43	94-75-7	
2,4-DCPA (S)	83	%	65.5-125.7		1	12/20/10 16:45	12/23/10 07:43	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	12/22/10 11:30	12/29/10 00:26	7440-36-0	
Arsenic	**5.4J**	ug/L	10.0	2.7	1	12/22/10 11:30	12/29/10 00:26	7440-38-2	
Barium	**1.3J**	ug/L	100	0.20	1	12/22/10 11:30	12/29/10 00:26	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	12/22/10 11:30	12/29/10 00:26	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/22/10 11:30	12/29/10 00:26	7440-43-9	
Chromium	**0.69J**	ug/L	10.0	0.40	1	12/22/10 11:30	12/29/10 00:26	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	12/22/10 11:30	12/29/10 00:26	7440-48-4	
Copper	**5.8J**	ug/L	10.0	0.30	1	12/22/10 11:30	12/29/10 00:26	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	12/22/10 11:30	12/29/10 00:26	7439-92-1	
Nickel	**6.8J**	ug/L	50.0	1.7	1	12/22/10 11:30	12/29/10 00:26	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	12/22/10 11:30	12/29/10 00:26	7782-49-2	
Silver	**0.45J**	ug/L	10.0	0.10	1	12/22/10 11:30	12/29/10 00:26	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	12/22/10 11:30	12/29/10 00:26	7440-28-0	
Tin	**5.8J**	ug/L	100	1.8	1	12/22/10 11:30	12/29/10 00:26	7440-31-5	
Vanadium	**16.6J**	ug/L	25.0	0.20	1	12/22/10 11:30	12/29/10 00:26	7440-62-2	
Zinc	ND	ug/L	10.0	0.40	1	12/22/10 11:30	12/29/10 00:26	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		12/19/10 14:53	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		12/19/10 14:53	107-13-1	
Benzene	**0.37J**	ug/L	1.0	0.25	1		12/19/10 14:53	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		12/19/10 14:53	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/19/10 14:53	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		12/19/10 14:53	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		12/19/10 14:53	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		12/19/10 14:53	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		12/19/10 14:53	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/19/10 14:53	56-23-5	
Chlorobenzene	**6.4**	ug/L	3.0	0.23	1		12/19/10 14:53	108-90-7	
Chloroethane	**1.7J**	ug/L	10.0	0.54	1		12/19/10 14:53	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		12/19/10 14:53	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/19/10 14:53	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		12/19/10 14:53	96-12-8	

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

nelac

Pace Analytical
www.pacelabs.com

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: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-MW-4 **Lab ID: 9284264004** Collected: 12/13/10 14:40 Received: 12/16/10 14:55 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		12/19/10 14:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/19/10 14:53	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		12/19/10 14:53	74-95-3	
1,2-Dichlorobenzene	**0.43J**	ug/L	5.0	0.30	1		12/19/10 14:53	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/19/10 14:53	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		12/19/10 14:53	110-57-6	
1,1-Dichloroethane	**0.60J**	ug/L	5.0	0.32	1		12/19/10 14:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		12/19/10 14:53	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	0.49	1		12/19/10 14:53	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		12/19/10 14:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		12/19/10 14:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		12/19/10 14:53	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/19/10 14:53	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/19/10 14:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/19/10 14:53	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/19/10 14:53	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		12/19/10 14:53	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		12/19/10 14:53	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/19/10 14:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		12/19/10 14:53	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/19/10 14:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		12/19/10 14:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		12/19/10 14:53	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/19/10 14:53	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/19/10 14:53	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/19/10 14:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/19/10 14:53	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/19/10 14:53	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/19/10 14:53	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/19/10 14:53	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		12/19/10 14:53	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/19/10 14:53	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/19/10 14:53	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/19/10 14:53	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/19/10 14:53	95-47-6	
4-Bromofluorobenzene (S)	99	%	70-130		1		12/19/10 14:53	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		12/19/10 14:53	1868-53-7	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		12/19/10 14:53	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		12/19/10 14:53	2037-26-5	

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

ACCREDITED IN ACCORDANCE WITH nelac

Pace Analytical®
www.pacelabs.com

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: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-MW-5 **Lab ID: 9284264005** Collected: 12/13/10 14:10 Received: 12/16/10 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081								
gamma-BHC (Lindane)	ND	ug/L	0.050	0.00020	1	12/19/10 15:51	12/23/10 09:23	58-89-9	
Heptachlor	ND	ug/L	0.050	0.0015	1	12/19/10 15:51	12/23/10 09:23	76-44-8	
Tetrachloro-m-xylene (S)	102	%	66.5-120.3		1	12/19/10 15:51	12/23/10 09:23	877-09-8	
Decachlorobiphenyl (S)	100	%	41.7-109.1		1	12/19/10 15:51	12/23/10 09:23	2051-24-3	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	ND	ug/L	2.0	0.22	1	12/20/10 16:45	12/23/10 08:10	94-75-7	
2,4-DCPA (S)	93	%	65.5-125.7		1	12/20/10 16:45	12/23/10 08:10	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	**2.8J**	ug/L	6.0	2.6	1	12/30/10 11:50	01/03/11 12:41	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	12/30/10 11:50	01/03/11 12:41	7440-38-2	
Barium	**90.6J**	ug/L	100	0.20	1	12/30/10 11:50	01/03/11 12:41	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	12/30/10 11:50	01/03/11 12:41	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/30/10 11:50	01/03/11 12:41	7440-43-9	
Chromium	**0.57J**	ug/L	10.0	0.40	1	12/30/10 11:50	01/03/11 12:41	7440-47-3	
Cobalt	**129**	ug/L	10.0	0.60	1	12/30/10 11:50	01/03/11 12:41	7440-48-4	
Copper	**5.6J**	ug/L	10.0	0.30	1	12/30/10 11:50	01/03/11 12:41	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	12/30/10 11:50	01/03/11 12:41	7439-92-1	
Nickel	**20.7J**	ug/L	50.0	1.7	1	12/30/10 11:50	01/03/11 12:41	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	12/30/10 11:50	01/03/11 12:41	7782-49-2	
Silver	ND	ug/L	10.0	0.10	1	12/30/10 11:50	01/03/11 12:41	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	12/30/10 11:50	01/03/11 12:41	7440-28-0	
Tin	ND	ug/L	100	1.8	1	12/30/10 11:50	01/03/11 12:41	7440-31-5	
Vanadium	**1.8J**	ug/L	25.0	0.20	1	12/30/10 11:50	01/03/11 12:41	7440-62-2	
Zinc	ND	ug/L	10.0	0.40	1	12/30/10 11:50	01/03/11 12:41	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		12/19/10 15:18	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		12/19/10 15:18	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/19/10 15:18	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		12/19/10 15:18	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/19/10 15:18	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		12/19/10 15:18	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		12/19/10 15:18	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		12/19/10 15:18	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		12/19/10 15:18	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/19/10 15:18	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		12/19/10 15:18	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		12/19/10 15:18	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		12/19/10 15:18	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/19/10 15:18	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		12/19/10 15:18	96-12-8	

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

ACCREDITED IN ACCORDANCE WITH nelac

Pace Analytical
www.pacelabs.com

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: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-MW-5 **Lab ID: 9284264005** Collected: 12/13/10 14:10 Received: 12/16/10 14:55 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		12/19/10 15:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/19/10 15:18	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		12/19/10 15:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		12/19/10 15:18	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/19/10 15:18	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		12/19/10 15:18	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		12/19/10 15:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		12/19/10 15:18	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	0.49	1		12/19/10 15:18	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		12/19/10 15:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		12/19/10 15:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		12/19/10 15:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/19/10 15:18	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/19/10 15:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/19/10 15:18	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/19/10 15:18	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		12/19/10 15:18	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		12/19/10 15:18	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/19/10 15:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		12/19/10 15:18	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/19/10 15:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		12/19/10 15:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		12/19/10 15:18	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/19/10 15:18	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/19/10 15:18	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/19/10 15:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/19/10 15:18	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/19/10 15:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/19/10 15:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/19/10 15:18	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		12/19/10 15:18	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/19/10 15:18	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/19/10 15:18	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/19/10 15:18	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/19/10 15:18	95-47-6	
4-Bromofluorobenzene (S)	96	%	70-130		1		12/19/10 15:18	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		12/19/10 15:18	1868-53-7	
1,2-Dichloroethane-d4 (S)	110	%	70-130		1		12/19/10 15:18	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		12/19/10 15:18	2037-26-5	

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

nelac

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: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-MW-6 **Lab ID: 9284264006** Collected: 12/13/10 13:55 Received: 12/16/10 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081								
gamma-BHC (Lindane)	ND	ug/L	0.050	0.00020	1	12/19/10 15:51	12/23/10 09:40	58-89-9	
Heptachlor	ND	ug/L	0.050	0.0015	1	12/19/10 15:51	12/23/10 09:40	76-44-8	
Tetrachloro-m-xylene (S)	104	%	66.5-120.3		1	12/19/10 15:51	12/23/10 09:40	877-09-8	
Decachlorobiphenyl (S)	85	%	41.7-109.1		1	12/19/10 15:51	12/23/10 09:40	2051-24-3	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	ND	ug/L	2.0	0.22	1	12/20/10 16:45	12/23/10 08:36	94-75-7	
2,4-DCPA (S)	86	%	65.5-125.7		1	12/20/10 16:45	12/23/10 08:36	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	12/30/10 11:50	01/03/11 12:44	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	12/30/10 11:50	01/03/11 12:44	7440-38-2	
Barium	**1.5J**	ug/L	100	0.20	1	12/30/10 11:50	01/03/11 12:44	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	12/30/10 11:50	01/03/11 12:44	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/30/10 11:50	01/03/11 12:44	7440-43-9	
Chromium	**1.2J**	ug/L	10.0	0.40	1	12/30/10 11:50	01/03/11 12:44	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	12/30/10 11:50	01/03/11 12:44	7440-48-4	
Copper	**0.59J**	ug/L	10.0	0.30	1	12/30/10 11:50	01/03/11 12:44	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	12/30/10 11:50	01/03/11 12:44	7439-92-1	
Nickel	ND	ug/L	50.0	1.7	1	12/30/10 11:50	01/03/11 12:44	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	12/30/10 11:50	01/03/11 12:44	7782-49-2	
Silver	ND	ug/L	10.0	0.10	1	12/30/10 11:50	01/03/11 12:44	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	12/30/10 11:50	01/03/11 12:44	7440-28-0	
Tin	ND	ug/L	100	1.8	1	12/30/10 11:50	01/03/11 12:44	7440-31-5	
Vanadium	**1.0J**	ug/L	25.0	0.20	1	12/30/10 11:50	01/03/11 12:44	7440-62-2	
Zinc	ND	ug/L	10.0	0.40	1	12/30/10 11:50	01/03/11 12:44	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		12/19/10 15:44	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		12/19/10 15:44	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/19/10 15:44	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		12/19/10 15:44	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/19/10 15:44	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		12/19/10 15:44	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		12/19/10 15:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		12/19/10 15:44	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		12/19/10 15:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/19/10 15:44	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		12/19/10 15:44	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		12/19/10 15:44	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		12/19/10 15:44	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/19/10 15:44	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		12/19/10 15:44	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.
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: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-MW-6 **Lab ID: 9284264006** Collected: 12/13/10 13:55 Received: 12/16/10 14:55 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		12/19/10 15:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/19/10 15:44	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		12/19/10 15:44	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		12/19/10 15:44	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/19/10 15:44	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		12/19/10 15:44	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		12/19/10 15:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		12/19/10 15:44	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	0.49	1		12/19/10 15:44	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		12/19/10 15:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		12/19/10 15:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		12/19/10 15:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/19/10 15:44	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/19/10 15:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/19/10 15:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/19/10 15:44	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		12/19/10 15:44	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		12/19/10 15:44	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/19/10 15:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		12/19/10 15:44	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/19/10 15:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		12/19/10 15:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		12/19/10 15:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/19/10 15:44	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/19/10 15:44	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/19/10 15:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/19/10 15:44	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/19/10 15:44	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/19/10 15:44	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/19/10 15:44	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		12/19/10 15:44	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/19/10 15:44	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/19/10 15:44	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/19/10 15:44	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/19/10 15:44	95-47-6	
4-Bromofluorobenzene (S)	98	%	70-130		1		12/19/10 15:44	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		12/19/10 15:44	1868-53-7	
1,2-Dichloroethane-d4 (S)	111	%	70-130		1		12/19/10 15:44	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		12/19/10 15:44	2037-26-5	

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

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

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

ANALYTICAL RESULTS

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-SW-1 **Lab ID: 9284264007** Collected: 12/13/10 14:25 Received: 12/16/10 14:55 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	2.6	1	12/30/10 11:50	01/03/11 13:20	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	12/30/10 11:50	01/03/11 13:20	7440-38-2	
Barium	**36.1J**	ug/L	100	0.20	1	12/30/10 11:50	01/03/11 13:20	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	12/30/10 11:50	01/03/11 13:20	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/30/10 11:50	01/03/11 13:20	7440-43-9	
Chromium	**1.4J**	ug/L	10.0	0.40	1	12/30/10 11:50	01/03/11 13:20	7440-47-3	
Cobalt	**4.4J**	ug/L	10.0	0.60	1	12/30/10 11:50	01/03/11 13:20	7440-48-4	
Copper	**0.31J**	ug/L	10.0	0.30	1	12/30/10 11:50	01/03/11 13:20	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	12/30/10 11:50	01/03/11 13:20	7439-92-1	
Nickel	ND	ug/L	50.0	1.7	1	12/30/10 11:50	01/03/11 13:20	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	12/30/10 11:50	01/03/11 13:20	7782-49-2	
Silver	ND	ug/L	10.0	0.10	1	12/30/10 11:50	01/03/11 13:20	7440-22-4	
Thallium	**3.8J**	ug/L	5.5	3.0	1	12/30/10 11:50	01/03/11 13:20	7440-28-0	
Vanadium	**1.6J**	ug/L	25.0	0.20	1	12/30/10 11:50	01/03/11 13:20	7440-62-2	
Zinc	ND	ug/L	10.0	0.40	1	12/30/10 11:50	01/03/11 13:20	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		12/19/10 16:09	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		12/19/10 16:09	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/19/10 16:09	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		12/19/10 16:09	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/19/10 16:09	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		12/19/10 16:09	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		12/19/10 16:09	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		12/19/10 16:09	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		12/19/10 16:09	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/19/10 16:09	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		12/19/10 16:09	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		12/19/10 16:09	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		12/19/10 16:09	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/19/10 16:09	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		12/19/10 16:09	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		12/19/10 16:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/19/10 16:09	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		12/19/10 16:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		12/19/10 16:09	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/19/10 16:09	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		12/19/10 16:09	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		12/19/10 16:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		12/19/10 16:09	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	0.49	1		12/19/10 16:09	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		12/19/10 16:09	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		12/19/10 16:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		12/19/10 16:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/19/10 16:09	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/19/10 16:09	10061-01-5	

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

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

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

ANALYTICAL RESULTS

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-SW-1 **Lab ID: 9284264007** Collected: 12/13/10 14:25 Received: 12/16/10 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/19/10 16:09	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/19/10 16:09	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		12/19/10 16:09	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		12/19/10 16:09	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/19/10 16:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		12/19/10 16:09	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/19/10 16:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		12/19/10 16:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		12/19/10 16:09	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/19/10 16:09	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/19/10 16:09	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/19/10 16:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/19/10 16:09	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/19/10 16:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/19/10 16:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/19/10 16:09	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		12/19/10 16:09	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/19/10 16:09	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/19/10 16:09	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/19/10 16:09	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/19/10 16:09	95-47-6	
4-Bromofluorobenzene (S)	97	%	70-130		1		12/19/10 16:09	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		12/19/10 16:09	1868-53-7	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		12/19/10 16:09	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1		12/19/10 16:09	2037-26-5	

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

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

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

ANALYTICAL RESULTS

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-SW-2 **Lab ID: 9284264008** Collected: 12/13/10 15:45 Received: 12/16/10 14:55 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	2.6	1	12/30/10 11:50	01/03/11 13:23	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	12/30/10 11:50	01/03/11 13:23	7440-38-2	
Barium	**91.0J**	ug/L	100	0.20	1	12/30/10 11:50	01/03/11 13:23	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	12/30/10 11:50	01/03/11 13:23	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/30/10 11:50	01/03/11 13:23	7440-43-9	
Chromium	**1.5J**	ug/L	10.0	0.40	1	12/30/10 11:50	01/03/11 13:23	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	12/30/10 11:50	01/03/11 13:23	7440-48-4	
Copper	ND	ug/L	10.0	0.30	1	12/30/10 11:50	01/03/11 13:23	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	12/30/10 11:50	01/03/11 13:23	7439-92-1	
Nickel	**14.2J**	ug/L	50.0	1.7	1	12/30/10 11:50	01/03/11 13:23	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	12/30/10 11:50	01/03/11 13:23	7782-49-2	
Silver	**0.28J**	ug/L	10.0	0.10	1	12/30/10 11:50	01/03/11 13:23	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	12/30/10 11:50	01/03/11 13:23	7440-28-0	
Vanadium	**0.67J**	ug/L	25.0	0.20	1	12/30/10 11:50	01/03/11 13:23	7440-62-2	
Zinc	**9.8J**	ug/L	10.0	0.40	1	12/30/10 11:50	01/03/11 13:23	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**3.0J**	ug/L	100	2.2	1		12/19/10 16:35	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		12/19/10 16:35	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/19/10 16:35	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		12/19/10 16:35	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/19/10 16:35	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		12/19/10 16:35	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		12/19/10 16:35	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		12/19/10 16:35	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		12/19/10 16:35	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/19/10 16:35	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		12/19/10 16:35	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		12/19/10 16:35	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		12/19/10 16:35	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/19/10 16:35	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		12/19/10 16:35	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		12/19/10 16:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/19/10 16:35	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		12/19/10 16:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		12/19/10 16:35	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/19/10 16:35	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		12/19/10 16:35	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		12/19/10 16:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		12/19/10 16:35	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	0.49	1		12/19/10 16:35	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		12/19/10 16:35	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		12/19/10 16:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		12/19/10 16:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/19/10 16:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/19/10 16:35	10061-01-5	

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

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

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

ANALYTICAL RESULTS

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Sample: 3902-SW-2 **Lab ID: 9284264008** Collected: 12/13/10 15:45 Received: 12/16/10 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/19/10 16:35	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/19/10 16:35	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		12/19/10 16:35	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		12/19/10 16:35	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/19/10 16:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		12/19/10 16:35	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/19/10 16:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		12/19/10 16:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		12/19/10 16:35	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/19/10 16:35	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		12/19/10 16:35	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/19/10 16:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/19/10 16:35	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/19/10 16:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/19/10 16:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/19/10 16:35	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		12/19/10 16:35	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/19/10 16:35	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/19/10 16:35	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/19/10 16:35	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/19/10 16:35	95-47-6	
4-Bromofluorobenzene (S)	100	%	70-130		1		12/19/10 16:35	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		12/19/10 16:35	1868-53-7	
1,2-Dichloroethane-d4 (S)	114	%	70-130		1		12/19/10 16:35	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/19/10 16:35	2037-26-5	

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

QC Batch: GCSV/3741 Analysis Method: EPA 8081
QC Batch Method: EPA 8081 Analysis Description: 8081 GCS Pesticides
Associated Lab Samples: 9284264001, 9284264002, 9284264003, 9284264004, 9284264005, 9284264006

METHOD BLANK: 152877 Matrix: Water
Associated Lab Samples: 9284264001, 9284264002, 9284264003, 9284264004, 9284264005, 9284264006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
gamma-BHC (Lindane)	ug/L	ND	0.050	12/23/10 06:33	
Heptachlor	ug/L	ND	0.050	12/23/10 06:33	
Decachlorobiphenyl (S)	%	62	41.7-109.1	12/23/10 06:33	
Tetrachloro-m-xylene (S)	%	102	66.5-120.3	12/23/10 06:33	

LABORATORY CONTROL SAMPLE: 152878

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
gamma-BHC (Lindane)	ug/L	.5	0.56	112	64-119	
Heptachlor	ug/L	.5	0.48	96	64-116	
Decachlorobiphenyl (S)	%			39	41.7-109.1	S0
Tetrachloro-m-xylene (S)	%			81	66.5-120.3	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 152879 152880

Parameter	Units	9284264002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
gamma-BHC (Lindane)	ug/L				0.67	0.63				7	40	
Heptachlor	ug/L	ND	.5	.5	0.67	0.58	133	115	64-116	15	40	M1
Decachlorobiphenyl (S)	%						99	53	41.7-109			
Tetrachloro-m-xylene (S)	%						96	92	66.5-120			

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

QC Batch: GCSV/3740 Analysis Method: EPA 8151
QC Batch Method: EPA 8151 Analysis Description: 8151A GCS Herbicides
Associated Lab Samples: 9284264001, 9284264002, 9284264003, 9284264004, 9284264005, 9284264006

METHOD BLANK: 152794 Matrix: Water
Associated Lab Samples: 9284264001, 9284264002, 9284264003, 9284264004, 9284264005, 9284264006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4-D	ug/L	ND	2.0	12/22/10 21:09	
2,4-DCPA (S)	%	81	65.5-125.7	12/22/10 21:09	

LABORATORY CONTROL SAMPLE: 152795

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-D	ug/L	6	5.3	89	62-135.6	
2,4-DCPA (S)	%			83	65.5-125.7	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 152798 152799

Parameter	Units	9284264002 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	6	6	4.8	4.6	79	77	62-135.6	2	40	
2,4-DCPA (S)	%						79	80	65.5-125			

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

QC Batch: MPRP/7622 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 9284264001, 9284264002, 9284264003, 9284264004

METHOD BLANK: 543808 Matrix: Water
Associated Lab Samples: 9284264001, 9284264002, 9284264003, 9284264004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	12/28/10 22:41	
Arsenic	ug/L	ND	10.0	12/28/10 22:41	
Barium	ug/L	ND	100	12/28/10 22:41	
Beryllium	ug/L	ND	1.0	12/28/10 22:41	
Cadmium	ug/L	ND	1.0	12/28/10 22:41	
Chromium	ug/L	ND	10.0	12/28/10 22:41	
Cobalt	ug/L	1.6J	10.0	12/28/10 22:41	
Copper	ug/L	0.46J	10.0	12/28/10 22:41	
Lead	ug/L	ND	10.0	12/28/10 22:41	
Nickel	ug/L	ND	50.0	12/28/10 22:41	
Selenium	ug/L	ND	10.0	12/28/10 22:41	
Silver	ug/L	0.21J	10.0	12/28/10 22:41	
Thallium	ug/L	ND	5.5	12/28/10 22:41	
Tin	ug/L	ND	100	12/28/10 22:41	
Vanadium	ug/L	0.32J	25.0	12/28/10 22:41	
Zinc	ug/L	ND	10.0	12/28/10 22:41	

LABORATORY CONTROL SAMPLE: 543809

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	467	93	80-120	
Arsenic	ug/L	500	494	99	80-120	
Barium	ug/L	500	500	100	80-120	
Beryllium	ug/L	500	507	101	80-120	
Cadmium	ug/L	500	492	98	80-120	
Chromium	ug/L	500	489	98	80-120	
Cobalt	ug/L	500	494	99	80-120	
Copper	ug/L	500	503	101	80-120	
Lead	ug/L	500	496	99	80-120	
Nickel	ug/L	500	495	99	80-120	
Selenium	ug/L	500	485	97	80-120	
Silver	ug/L	250	233	93	80-120	
Thallium	ug/L	500	492	98	80-120	
Tin	ug/L	500	463	93	80-120	
Vanadium	ug/L	500	503	101	80-120	
Zinc	ug/L	500	479	96	80-120	

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 543812 543813

Parameter	Units	9284264002 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	516	487	103	97	75-125	6	25	
Arsenic	ug/L	4.9J	500	500	564	536	112	106	75-125	5	25	
Barium	ug/L	122	500	500	626	593	101	94	75-125	5	25	
Beryllium	ug/L	ND	500	500	520	490	104	98	75-125	6	25	
Cadmium	ug/L	ND	500	500	493	466	99	93	75-125	6	25	
Chromium	ug/L	1.3J	500	500	495	463	99	92	75-125	7	25	
Cobalt	ug/L	15.5	500	500	509	478	99	92	75-125	6	25	
Copper	ug/L	ND	500	500	562	530	112	106	75-125	6	25	
Lead	ug/L	ND	500	500	487	459	97	92	75-125	6	25	
Nickel	ug/L	83.0	500	500	577	548	99	93	75-125	5	25	
Selenium	ug/L	ND	500	500	550	523	110	105	75-125	5	25	
Silver	ug/L	1.3J	250	250	263	249	105	99	75-125	5	25	
Thallium	ug/L	ND	500	500	464	439	93	88	75-125	6	25	
Tin	ug/L	30.3J	500	500	527	494	99	93	75-125	6	25	
Vanadium	ug/L	3.6J	500	500	517	485	103	96	75-125	6	25	
Zinc	ug/L	ND	500	500	526	493	105	99	75-125	6	25	

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

QC Batch: MPRP/7661 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 9284264005, 9284264006, 9284264007, 9284264008

METHOD BLANK: 547046 Matrix: Water
Associated Lab Samples: 9284264005, 9284264006, 9284264007, 9284264008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	01/03/11 12:24	
Arsenic	ug/L	ND	10.0	01/03/11 12:24	
Barium	ug/L	ND	100	01/03/11 12:24	
Beryllium	ug/L	ND	1.0	01/03/11 12:24	
Cadmium	ug/L	ND	1.0	01/03/11 12:24	
Chromium	ug/L	ND	10.0	01/03/11 12:24	
Cobalt	ug/L	1.0J	10.0	01/03/11 12:24	
Copper	ug/L	ND	10.0	01/03/11 12:24	
Lead	ug/L	ND	10.0	01/03/11 12:24	
Nickel	ug/L	ND	50.0	01/03/11 12:24	
Selenium	ug/L	ND	10.0	01/03/11 12:24	
Silver	ug/L	ND	10.0	01/03/11 12:24	
Thallium	ug/L	ND	5.5	01/03/11 12:24	
Tin	ug/L	ND	100	01/03/11 12:24	
Vanadium	ug/L	ND	25.0	01/03/11 12:24	
Zinc	ug/L	ND	10.0	01/03/11 12:24	

LABORATORY CONTROL SAMPLE: 547047

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	514	103	80-120	
Arsenic	ug/L	500	521	104	80-120	
Barium	ug/L	500	501	100	80-120	
Beryllium	ug/L	500	529	106	80-120	
Cadmium	ug/L	500	519	104	80-120	
Chromium	ug/L	500	525	105	80-120	
Cobalt	ug/L	500	525	105	80-120	
Copper	ug/L	500	510	102	80-120	
Lead	ug/L	500	512	102	80-120	
Nickel	ug/L	500	517	103	80-120	
Selenium	ug/L	500	491	98	80-120	
Silver	ug/L	250	248	99	80-120	
Thallium	ug/L	500	549	110	80-120	
Tin	ug/L	500	524	105	80-120	
Vanadium	ug/L	500	522	104	80-120	
Zinc	ug/L	500	522	104	80-120	

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 547048 547049

Parameter	Units	9284089012 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	536	504	107	101	75-125	6	25	
Arsenic	ug/L	ND	500	500	547	516	109	103	75-125	6	25	
Barium	ug/L	79.0J	500	500	585	552	101	95	75-125	6	25	
Beryllium	ug/L	ND	500	500	535	501	107	100	75-125	7	25	
Cadmium	ug/L	ND	500	500	512	483	102	97	75-125	6	25	
Chromium	ug/L	0.43J	500	500	517	486	103	97	75-125	6	25	
Cobalt	ug/L	0.71J	500	500	516	488	103	97	75-125	6	25	
Copper	ug/L	ND	500	500	536	502	107	100	75-125	7	25	
Lead	ug/L	ND	500	500	497	471	99	94	75-125	5	25	
Nickel	ug/L	ND	500	500	505	476	101	95	75-125	6	25	
Selenium	ug/L	ND	500	500	512	489	102	98	75-125	5	25	
Silver	ug/L	0.17J	250	250	254	240	102	96	75-125	6	25	
Thallium	ug/L	ND	500	500	544	513	109	103	75-125	6	25	
Tin	ug/L	ND	500	500	524	498	105	99	75-125	5	25	
Vanadium	ug/L	ND	500	500	526	493	105	99	75-125	6	25	
Zinc	ug/L	2.6J	500	500	522	496	104	99	75-125	5	25	

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

QC Batch: MSV/13498 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 9284264001, 9284264002, 9284264003, 9284264004, 9284264005, 9284264006, 9284264007, 9284264008

METHOD BLANK: 543195 Matrix: Water
Associated Lab Samples: 9284264001, 9284264002, 9284264003, 9284264004, 9284264005, 9284264006, 9284264007, 9284264008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	12/19/10 13:12	
1,1,1-Trichloroethane	ug/L	ND	1.0	12/19/10 13:12	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	12/19/10 13:12	
1,1,2-Trichloroethane	ug/L	ND	1.0	12/19/10 13:12	
1,1-Dichloroethane	ug/L	ND	5.0	12/19/10 13:12	
1,1-Dichloroethene	ug/L	ND	5.0	12/19/10 13:12	
1,2,3-Trichloropropane	ug/L	ND	1.0	12/19/10 13:12	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	12/19/10 13:12	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	12/19/10 13:12	
1,2-Dichlorobenzene	ug/L	ND	5.0	12/19/10 13:12	
1,2-Dichloroethane	ug/L	ND	1.0	12/19/10 13:12	
1,2-Dichloroethene (Total)	ug/L	ND	5.0	12/19/10 13:12	
1,2-Dichloropropane	ug/L	ND	1.0	12/19/10 13:12	
1,4-Dichlorobenzene	ug/L	ND	1.0	12/19/10 13:12	
2-Butanone (MEK)	ug/L	ND	100	12/19/10 13:12	
2-Hexanone	ug/L	ND	50.0	12/19/10 13:12	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	12/19/10 13:12	
Acetone	ug/L	ND	100	12/19/10 13:12	
Acrylonitrile	ug/L	ND	200	12/19/10 13:12	
Benzene	ug/L	ND	1.0	12/19/10 13:12	
Bromochloromethane	ug/L	ND	3.0	12/19/10 13:12	
Bromodichloromethane	ug/L	ND	1.0	12/19/10 13:12	
Bromoform	ug/L	ND	3.0	12/19/10 13:12	
Bromomethane	ug/L	ND	10.0	12/19/10 13:12	
Carbon disulfide	ug/L	ND	100	12/19/10 13:12	
Carbon tetrachloride	ug/L	ND	1.0	12/19/10 13:12	
Chlorobenzene	ug/L	0.28J	3.0	12/19/10 13:12	
Chloroethane	ug/L	ND	10.0	12/19/10 13:12	
Chloroform	ug/L	ND	5.0	12/19/10 13:12	
Chloromethane	ug/L	ND	1.0	12/19/10 13:12	
cis-1,2-Dichloroethene	ug/L	ND	5.0	12/19/10 13:12	
cis-1,3-Dichloropropene	ug/L	ND	1.0	12/19/10 13:12	
Dibromochloromethane	ug/L	ND	3.0	12/19/10 13:12	
Dibromomethane	ug/L	ND	10.0	12/19/10 13:12	
Ethylbenzene	ug/L	ND	1.0	12/19/10 13:12	
Iodomethane	ug/L	ND	10.0	12/19/10 13:12	
m&p-Xylene	ug/L	ND	2.0	12/19/10 13:12	
Methylene Chloride	ug/L	ND	1.0	12/19/10 13:12	
o-Xylene	ug/L	ND	1.0	12/19/10 13:12	
Styrene	ug/L	ND	1.0	12/19/10 13:12	
Tetrachloroethene	ug/L	ND	1.0	12/19/10 13:12	
Toluene	ug/L	ND	1.0	12/19/10 13:12	
trans-1,2-Dichloroethene	ug/L	ND	5.0	12/19/10 13:12	

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

METHOD BLANK: 543195 Matrix: Water

Associated Lab Samples: 9284264001, 9284264002, 9284264003, 9284264004, 9284264005, 9284264006, 9284264007, 9284264008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,3-Dichloropropene	ug/L	ND	1.0	12/19/10 13:12	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	12/19/10 13:12	
Trichloroethene	ug/L	ND	1.0	12/19/10 13:12	
Trichlorofluoromethane	ug/L	ND	1.0	12/19/10 13:12	
Vinyl acetate	ug/L	ND	50.0	12/19/10 13:12	
Vinyl chloride	ug/L	ND	1.0	12/19/10 13:12	
Xylene (Total)	ug/L	ND	2.0	12/19/10 13:12	
1,2-Dichloroethane-d4 (S)	%	101	70-130	12/19/10 13:12	
4-Bromofluorobenzene (S)	%	97	70-130	12/19/10 13:12	
Dibromofluoromethane (S)	%	105	70-130	12/19/10 13:12	
Toluene-d8 (S)	%	96	70-130	12/19/10 13:12	

LABORATORY CONTROL SAMPLE: 543196

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	55.5	111	70-130	
1,1,1-Trichloroethane	ug/L	50	52.1	104	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	56.1	112	70-130	
1,1,2-Trichloroethane	ug/L	50	56.4	113	70-130	
1,1-Dichloroethane	ug/L	50	52.1	104	70-130	
1,1-Dichloroethene	ug/L	50	50.7	101	70-132	
1,2,3-Trichloropropane	ug/L	50	52.0	104	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	51.0	102	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	57.0	114	70-130	
1,2-Dichlorobenzene	ug/L	50	56.6	113	70-130	
1,2-Dichloroethane	ug/L	50	52.4	105	70-130	
1,2-Dichloroethene (Total)	ug/L	100	102	102	70-130	
1,2-Dichloropropane	ug/L	50	54.9	110	70-130	
1,4-Dichlorobenzene	ug/L	50	53.1	106	70-130	
2-Butanone (MEK)	ug/L	100	104	104	70-145	
2-Hexanone	ug/L	100	101	101	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	97.2J	97	70-140	
Acetone	ug/L	100	108	108	50-175	
Acrylonitrile	ug/L	250	263	105	70-143	
Benzene	ug/L	50	55.8	112	70-130	
Bromochloromethane	ug/L	50	53.4	107	70-130	
Bromodichloromethane	ug/L	50	51.4	103	70-130	
Bromoform	ug/L	50	50.5	101	70-130	
Bromomethane	ug/L	50	50.4	101	54-130	
Carbon disulfide	ug/L	50	55.6J	111	70-131	
Carbon tetrachloride	ug/L	50	51.7	103	70-132	
Chlorobenzene	ug/L	50	55.5	111	70-130	
Chloroethane	ug/L	50	53.9	108	64-134	
Chloroform	ug/L	50	52.3	105	70-130	
Chloromethane	ug/L	50	46.1	92	64-130	

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

LABORATORY CONTROL SAMPLE: 543196

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	51.7	103	70-131	
cis-1,3-Dichloropropene	ug/L	50	51.7	103	70-130	
Dibromochloromethane	ug/L	50	52.8	106	70-130	
Dibromomethane	ug/L	50	53.1	106	70-131	
Ethylbenzene	ug/L	50	57.0	114	70-130	
Iodomethane	ug/L	100	105	105	49-180	
m&p-Xylene	ug/L	100	116	116	70-130	
Methylene Chloride	ug/L	50	43.4	87	63-130	
o-Xylene	ug/L	50	53.5	107	70-130	
Styrene	ug/L	50	54.9	110	70-130	
Tetrachloroethene	ug/L	50	56.2	112	70-130	
Toluene	ug/L	50	55.2	110	70-130	
trans-1,2-Dichloroethene	ug/L	50	50.3	101	70-130	
trans-1,3-Dichloropropene	ug/L	50	49.1	98	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	54.3J	109	70-141	
Trichloroethene	ug/L	50	55.5	111	70-130	
Trichlorofluoromethane	ug/L	50	47.0	94	62-133	
Vinyl acetate	ug/L	100	112	112	66-157	
Vinyl chloride	ug/L	50	58.3	117	69-130	
Xylene (Total)	ug/L	150	170	113	70-130	
1,2-Dichloroethane-d4 (S)	%			94	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Dibromofluoromethane (S)	%			99	70-130	
Toluene-d8 (S)	%			102	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 543197 543198

Parameter	Units	9284264002 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	53.1	53.4	106	107	70-166	1	30	
Benzene	ug/L	1.8	50	50	60.0	60.5	116	117	70-148	1	30	
Chlorobenzene	ug/L	17.7	50	50	74.8	75.7	114	116	70-146	1	30	
Toluene	ug/L	0.54J	50	50	57.3	56.5	113	112	70-155	1	30	
Trichloroethene	ug/L	ND	50	50	57.4	59.4	115	119	69-151	3	30	
1,2-Dichloroethane-d4 (S)	%						97	98	70-130			
4-Bromofluorobenzene (S)	%						97	97	70-130			
Dibromofluoromethane (S)	%						100	102	70-130			
Toluene-d8 (S)	%						96	96	70-130			

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

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

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

QUALIFIERS

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

LABORATORIES

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

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S0	Surrogate recovery outside laboratory control limits.

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

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

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GRANVILLE CO-BUTNER
Pace Project No.: 9284264

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
9284264001	**3902-MW-1R**	EPA 8081	GCSV/3741	EPA 8081	GCSV/2860
9284264002	**3902-MW-2R MS/MSD**	EPA 8081	GCSV/3741	EPA 8081	GCSV/2860
9284264003	**3902-MW-3R**	EPA 8081	GCSV/3741	EPA 8081	GCSV/2860
9284264004	**3902-MW-4**	EPA 8081	GCSV/3741	EPA 8081	GCSV/2860
9284264005	**3902-MW-5**	EPA 8081	GCSV/3741	EPA 8081	GCSV/2860
9284264006	**3902-MW-6**	EPA 8081	GCSV/3741	EPA 8081	GCSV/2860
9284264001	**3902-MW-1R**	EPA 8151	GCSV/3740	EPA 8151	GCSV/2873
9284264002	**3902-MW-2R MS/MSD**	EPA 8151	GCSV/3740	EPA 8151	GCSV/2873
9284264003	**3902-MW-3R**	EPA 8151	GCSV/3740	EPA 8151	GCSV/2873
9284264004	**3902-MW-4**	EPA 8151	GCSV/3740	EPA 8151	GCSV/2873
9284264005	**3902-MW-5**	EPA 8151	GCSV/3740	EPA 8151	GCSV/2873
9284264006	**3902-MW-6**	EPA 8151	GCSV/3740	EPA 8151	GCSV/2873
9284264001	**3902-MW-1R**	EPA 3010	MPRP/7622	EPA 6010	ICP/7046
9284264002	**3902-MW-2R MS/MSD**	EPA 3010	MPRP/7622	EPA 6010	ICP/7046
9284264003	**3902-MW-3R**	EPA 3010	MPRP/7622	EPA 6010	ICP/7046
9284264004	**3902-MW-4**	EPA 3010	MPRP/7622	EPA 6010	ICP/7046
9284264005	**3902-MW-5**	EPA 3010	MPRP/7661	EPA 6010	ICP/7072
9284264006	**3902-MW-6**	EPA 3010	MPRP/7661	EPA 6010	ICP/7072
9284264007	**3902-SW-1**	EPA 3010	MPRP/7661	EPA 6010	ICP/7072
9284264008	**3902-SW-2**	EPA 3010	MPRP/7661	EPA 6010	ICP/7072
9284264001	**3902-MW-1R**	EPA 8260	MSV/13498		
9284264002	**3902-MW-2R MS/MSD**	EPA 8260	MSV/13498		
9284264003	**3902-MW-3R**	EPA 8260	MSV/13498		
9284264004	**3902-MW-4**	EPA 8260	MSV/13498		
9284264005	**3902-MW-5**	EPA 8260	MSV/13498		
9284264006	**3902-MW-6**	EPA 8260	MSV/13498		
9284264007	**3902-SW-1**	EPA 8260	MSV/13498		
9284264008	**3902-SW-2**	EPA 8260	MSV/13498		

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

Pace Analytical

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-NC
Address:	2211 West Meadowview Rd. Greensboro, NC 27407
Email To:	cmitchell@joyceengineering.com
Phone:	(336) 323-0092 Fax (336) 323-0093
Requested Due Date/TAT:	10 Day (Default)

Section B — Required Project Information:

Report To:	Van Burbach
Copy To:	
Purchase Order No.	660.1001.11.04
Client Project ID:	GRANVILLE CO - BUTNER
Container Order Number:	

Section C — Invoice Information:

Attention:	~~Lucia Jones~~ Jason Falls
Company Name:	~~Joyce Engineering~~ Granville Co
Address:	~~1604 Ownby Lane, Richmond, VA 23220~~
~~Pace Quote Reference:~~	PO Box 906 OXFORD NC
Pace Project Manager:	Godwin, Kevin
Pace Profile #:	3566-1

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	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test (Y/N): Metals	Past. 8081	Herb. 8151	VOCs 8260	Residual Chlorine (Y/N)	9284264
1	3902-MW-1R	WT	G			12/13/10	13:15		8									X	X	X	X		NC App I+Detects 001
2	3902-MW-2R	WT	G			12/13/10	15:15		8									X	X	X	X		NC App I+Detects 002
3	3902-MW-2R MS	WT	G			"	"		8									X	X	X	X		NC App I+Detects ↓
4	3902-MW-2R MSD	WT	G				↓		8									X	X	X	X		NC App I+Detects ↓
5	3902-MW-3R	WT	G				1455		8									X	X	X	X		NC App I+Detects 003
6	3902-MW-4	WT	G				1440		8									X	X	X	X		NC App I+Detects 004
7	3902-MW-5	WT	G				1410		8									X	X	X	X		NC App I+Detects 005
8	3902-MW-6	WT	G				1355		8									X	X	X	X		NC App I+Detects 006
~~9~~	~~3902-NES-1~~	~~WT~~																~~X~~	~~X~~	~~X~~	~~X~~		~~NC App I+Detects~~
10	3902-SW-1	WT	G				1425		4									X			X		NC App I 007
11	3902-SW-2	WT	G			12/13/10	1545		4									X			X		NC App I 008
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Daniel D. Gardner	12/16/10	11:10	[illegible]	12/16/10	11:10				
Pesticide Detects = Gamma-BHC, Heptachlor	[illegible]	12/16/10	1455	[illegible]	12/16/10	14:17	5.5	yes	no	no
Herbicide Detects = 2,4-D										
App. II Metals Detects = Tin										

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	Daniel Gardner, Alex Everhart
SIGNATURE of SAMPLER:	[illegible] DATE Signed: 12/15/10

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

Sample Condition Upon Receipt

Pace Analytical

Client Name: Joyce Project # 9284264

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other_____

Optional
Proj. Due Date:
Proj. Name:

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

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

Thermometer Used: IR Gun : T809 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor: Add / Subtract _____0_____C

Corrected Cooler Temp.: 5.5 C **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: MMM 12/16/10

Comments:

				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. Rush 1 vial broken for MW4
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11. MW6
Sample Labels match COC:	☑Yes	☐No	☐N/A	12. SW1
-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		Initial when completed
Samples checked for dechlorination:	☑Yes	☐No	☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):_____				

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: Vials broken at point of sample receipt. Looks as though sample froze and broke containers. Bottom of vial broken off.

SCURF Review: J. Gadt **Date:** 12/16/10 **SRF Review:** J. Gadt **Date:** 12/16/10

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)

F-CHR-CS-003-rev.01

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

January 14, 2011

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

RE: Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

Dear Mr. Burbach:
Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated 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..

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

CERTIFICATIONS

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

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
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: LA090012
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL1264
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
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 #: 68-547
Puerto Rico Certification #: FL01264
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
Virginia Certification #: 00432
Wyoming Certification: FL NELAC Reciprocity

Charlotte Certification IDs
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/LELAP Certification #: 04034
New Jersey Certification #: NC012
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
Pennsylvania Certification #: 68-00784
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Virginia Certification #: 00213
Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DHH Drinking Water # LA 100031
West Virginia Certification #: 357

Asheville Certification IDs
2225 Riverside Dr., Asheville, NC 28804
Connecticut Certification #: PH-0106
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
New Jersey Certification #: NC011
North Carolina Bioassay Certification #: 9
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
Pennsylvania Certification #: 68-03578
South Carolina Bioassay Certification #: 99030002
South Carolina Certification #: 99030001
Virginia Certification #: 00072
West Virginia Certification #: 356

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

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

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

SAMPLE SUMMARY

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9284263001	**3901/3902-FIELD BLANK**	Water	12/15/10 13:45	12/16/10 14:55
9284263002	**3901/3902-TRIP BLANK**	Water	12/13/10 06:00	12/16/10 14:55

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

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

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

SAMPLE ANALYTE COUNT

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
9284263001	**3901/3902-FIELD BLANK**	EPA 8081	AE1	5	PASI-O
		EPA 8151	LJM	2	PASI-O
		EPA 6010	SHB	18	PASI-A
		EPA 7470	JMW	1	PASI-A
		EPA 8260	MCK	55	PASI-C
		SM 4500-S2D	SAJ	1	PASI-A
9284263002	**3901/3902-TRIP BLANK**	EPA 8260	MCK	55	PASI-C

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

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

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

ANALYTICAL RESULTS

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

Sample: 3901/3902-FIELD BLANK **Lab ID: 9284263001** Collected: 12/15/10 13:45 Received: 12/16/10 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081								
beta-BHC	ND	ug/L	0.050	0.00050	1	12/21/10 16:12	12/29/10 15:30	319-85-7	
gamma-BHC (Lindane)	ND	ug/L	0.050	0.00020	1	12/21/10 16:12	12/29/10 15:30	58-89-9	
Heptachlor	ND	ug/L	0.050	0.0015	1	12/21/10 16:12	12/29/10 15:30	76-44-8	
Tetrachloro-m-xylene (S)	82	%	66.5-120.3		1	12/21/10 16:12	12/29/10 15:30	877-09-8	
Decachlorobiphenyl (S)	94	%	41.7-109.1		1	12/21/10 16:12	12/29/10 15:30	2051-24-3	
8151 Chlorinated Herbicides	Analytical Method: EPA 8151								
2,4-D	ND	ug/L	2.0	0.22	1	12/22/10 09:30	12/28/10 20:14	94-75-7	
2,4-DCPA (S)	105	%	65.5-125.7		1	12/22/10 09:30	12/28/10 20:14	19719-28-9	
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	12/22/10 11:30	12/28/10 23:52	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	12/22/10 11:30	12/28/10 23:52	7440-38-2	
Barium	**12.1J**	ug/L	100	0.20	1	12/22/10 11:30	12/28/10 23:52	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	12/22/10 11:30	12/28/10 23:52	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	12/22/10 11:30	12/28/10 23:52	7440-43-9	
Chromium	ND	ug/L	10.0	0.40	1	12/22/10 11:30	12/28/10 23:52	7440-47-3	
Cobalt	**0.65J**	ug/L	10.0	0.60	1	12/22/10 11:30	12/28/10 23:52	7440-48-4	
Copper	**0.49J**	ug/L	10.0	0.30	1	12/22/10 11:30	12/28/10 23:52	7440-50-8	
Iron	ND	ug/L	300	14.0	1	12/22/10 11:30	12/28/10 23:52	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	12/22/10 11:30	12/28/10 23:52	7439-92-1	
Manganese	**1.1J**	ug/L	50.0	0.30	1	12/22/10 11:30	12/28/10 23:52	7439-96-5	
Nickel	**2.7J**	ug/L	50.0	1.7	1	12/22/10 11:30	12/28/10 23:52	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	12/22/10 11:30	12/28/10 23:52	7782-49-2	
Silver	**0.19J**	ug/L	10.0	0.10	1	12/22/10 11:30	12/28/10 23:52	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	12/22/10 11:30	12/28/10 23:52	7440-28-0	
Tin	ND	ug/L	100	1.8	1	12/22/10 11:30	12/28/10 23:52	7440-31-5	
Vanadium	**0.36J**	ug/L	25.0	0.20	1	12/22/10 11:30	12/28/10 23:52	7440-62-2	
Zinc	**6.7J**	ug/L	10.0	0.40	1	12/22/10 11:30	12/28/10 23:52	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.070	1	12/21/10 11:25	12/22/10 14:30	7439-97-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		12/18/10 23:12	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		12/18/10 23:12	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/18/10 23:12	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		12/18/10 23:12	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/18/10 23:12	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		12/18/10 23:12	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		12/18/10 23:12	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		12/18/10 23:12	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		12/18/10 23:12	75-15-0	

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

Pace Analytical®
www.pacelabs.com

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: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

Sample: 3901/3902-FIELD BLANK **Lab ID: 9284263001** Collected: 12/15/10 13:45 Received: 12/16/10 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/18/10 23:12	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		12/18/10 23:12	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		12/18/10 23:12	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		12/18/10 23:12	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/18/10 23:12	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		12/18/10 23:12	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		12/18/10 23:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/18/10 23:12	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		12/18/10 23:12	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		12/18/10 23:12	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/18/10 23:12	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		12/18/10 23:12	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		12/18/10 23:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		12/18/10 23:12	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	0.49	1		12/18/10 23:12	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		12/18/10 23:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		12/18/10 23:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		12/18/10 23:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/18/10 23:12	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/18/10 23:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/18/10 23:12	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/18/10 23:12	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		12/18/10 23:12	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		12/18/10 23:12	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/18/10 23:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		12/18/10 23:12	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/18/10 23:12	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		12/18/10 23:12	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		12/18/10 23:12	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/18/10 23:12	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		12/18/10 23:12	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		12/18/10 23:12	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/18/10 23:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/18/10 23:12	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/18/10 23:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/18/10 23:12	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/18/10 23:12	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		12/18/10 23:12	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/18/10 23:12	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/18/10 23:12	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/18/10 23:12	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/18/10 23:12	95-47-6	
4-Bromofluorobenzene (S)	98	%	70-130		1		12/18/10 23:12	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		12/18/10 23:12	1868-53-7	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		12/18/10 23:12	17060-07-0	
Toluene-d8 (S)	97	%	70-130		1		12/18/10 23:12	2037-26-5	

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

nelac

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: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

Sample: 3901/3902-FIELD BLANK **Lab ID: 9284263001** Collected: 12/15/10 13:45 Received: 12/16/10 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	ug/L	1000	100	1		12/21/10 15:18	18496-25-8	

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

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

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

ANALYTICAL RESULTS

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

Sample: 3901/3902-TRIP BLANK **Lab ID: 9284263002** Collected: 12/13/10 06:00 Received: 12/16/10 14:55 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	2.2	1		12/18/10 23:38	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		12/18/10 23:38	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		12/18/10 23:38	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		12/18/10 23:38	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		12/18/10 23:38	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		12/18/10 23:38	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		12/18/10 23:38	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		12/18/10 23:38	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		12/18/10 23:38	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		12/18/10 23:38	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		12/18/10 23:38	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		12/18/10 23:38	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		12/18/10 23:38	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		12/18/10 23:38	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		12/18/10 23:38	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		12/18/10 23:38	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		12/18/10 23:38	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		12/18/10 23:38	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		12/18/10 23:38	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		12/18/10 23:38	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		12/18/10 23:38	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		12/18/10 23:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		12/18/10 23:38	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	5.0	0.49	1		12/18/10 23:38	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		12/18/10 23:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		12/18/10 23:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		12/18/10 23:38	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		12/18/10 23:38	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		12/18/10 23:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		12/18/10 23:38	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		12/18/10 23:38	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		12/18/10 23:38	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		12/18/10 23:38	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		12/18/10 23:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		12/18/10 23:38	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		12/18/10 23:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		12/18/10 23:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		12/18/10 23:38	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		12/18/10 23:38	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	3.1	1		12/18/10 23:38	109-99-9	
Toluene	ND	ug/L	1.0	0.26	1		12/18/10 23:38	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		12/18/10 23:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		12/18/10 23:38	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		12/18/10 23:38	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		12/18/10 23:38	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		12/18/10 23:38	96-18-4	

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

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

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

ANALYTICAL RESULTS

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

Sample: 3901/3902-TRIP BLANK **Lab ID: 9284263002** Collected: 12/13/10 06:00 Received: 12/16/10 14:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Vinyl acetate	ND	ug/L	50.0	0.35	1		12/18/10 23:38	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		12/18/10 23:38	75-01-4	
Xylene (Total)	ND	ug/L	2.0	0.66	1		12/18/10 23:38	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		12/18/10 23:38	179601-23-1	
o-Xylene	ND	ug/L	1.0	0.23	1		12/18/10 23:38	95-47-6	
4-Bromofluorobenzene (S)	95	%	70-130		1		12/18/10 23:38	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		12/18/10 23:38	1868-53-7	
1,2-Dichloroethane-d4 (S)	108	%	70-130		1		12/18/10 23:38	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		12/18/10 23:38	2037-26-5	

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

QC Batch: GCSV/3749
QC Batch Method: EPA 8081
Analysis Method: EPA 8081
Analysis Description: 8081 GCS Pesticides
Associated Lab Samples: 9284263001

METHOD BLANK: 153182
Matrix: Water
Associated Lab Samples: 9284263001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
beta-BHC	ug/L	ND	0.050	12/29/10 07:35	
gamma-BHC (Lindane)	ug/L	ND	0.050	12/29/10 07:35	
Heptachlor	ug/L	ND	0.050	12/29/10 07:35	
Decachlorobiphenyl (S)	%	72	41.7-109.1	12/29/10 07:35	
Tetrachloro-m-xylene (S)	%	92	66.5-120.3	12/29/10 07:35	

LABORATORY CONTROL SAMPLE: 153183

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
beta-BHC	ug/L	.5	0.48	96	77-121	
gamma-BHC (Lindane)	ug/L	.5	0.45	90	64-119	
Heptachlor	ug/L	.5	0.45	90	64-116	
Decachlorobiphenyl (S)	%			60	41.7-109.1	
Tetrachloro-m-xylene (S)	%			87	66.5-120.3	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153184 153185

Parameter	Units	9284089012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
beta-BHC	ug/L	ND	.5	.5	0.48	0.48	96	97	77-121	1	40	
gamma-BHC (Lindane)	ug/L	ND	.5	.5	0.45	0.45	90	90	64-119	.8	40	
Heptachlor	ug/L	ND	.5	.5	0.47	0.46	94	93	64-116	.9	40	
Decachlorobiphenyl (S)	%						94	91	41.7-109			
Tetrachloro-m-xylene (S)	%						88	90	66.5-120			

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

QC Batch: GCSV/3761
QC Batch Method: EPA 8151
Analysis Method: EPA 8151
Analysis Description: 8151A GCS Herbicides
Associated Lab Samples: 9284263001

METHOD BLANK: 153645
Matrix: Water
Associated Lab Samples: 9284263001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4-D	ug/L	ND	2.0	12/28/10 13:38	
2,4-DCPA (S)	%	89	65.5-125.7	12/28/10 13:38	

LABORATORY CONTROL SAMPLE: 153646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-D	ug/L	6	4.6	77	62-135.6	
2,4-DCPA (S)	%			93	65.5-125.7	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153798 153799

Parameter	Units	9284366007 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	10.7	10.7	89	89	62-135.6	.1	40	
2,4-DCPA (S)	%						108	109	65.5-125			

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

QC Batch: MPRP/7622
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 9284263001

METHOD BLANK: 543808
Matrix: Water
Associated Lab Samples: 9284263001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	12/28/10 22:41	
Arsenic	ug/L	ND	10.0	12/28/10 22:41	
Barium	ug/L	ND	100	12/28/10 22:41	
Beryllium	ug/L	ND	1.0	12/28/10 22:41	
Cadmium	ug/L	ND	1.0	12/28/10 22:41	
Chromium	ug/L	ND	10.0	12/28/10 22:41	
Cobalt	ug/L	1.6J	10.0	12/28/10 22:41	
Copper	ug/L	0.46J	10.0	12/28/10 22:41	
Lead	ug/L	ND	10.0	12/28/10 22:41	
Nickel	ug/L	ND	50.0	12/28/10 22:41	
Selenium	ug/L	ND	10.0	12/28/10 22:41	
Silver	ug/L	0.21J	10.0	12/28/10 22:41	
Thallium	ug/L	ND	5.5	12/28/10 22:41	
Tin	ug/L	ND	100	12/28/10 22:41	
Vanadium	ug/L	0.32J	25.0	12/28/10 22:41	
Zinc	ug/L	ND	10.0	12/28/10 22:41	

LABORATORY CONTROL SAMPLE: 543809

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	467	93	80-120	
Arsenic	ug/L	500	494	99	80-120	
Barium	ug/L	500	500	100	80-120	
Beryllium	ug/L	500	507	101	80-120	
Cadmium	ug/L	500	492	98	80-120	
Chromium	ug/L	500	489	98	80-120	
Cobalt	ug/L	500	494	99	80-120	
Copper	ug/L	500	503	101	80-120	
Lead	ug/L	500	496	99	80-120	
Nickel	ug/L	500	495	99	80-120	
Selenium	ug/L	500	485	97	80-120	
Silver	ug/L	250	233	93	80-120	
Thallium	ug/L	500	492	98	80-120	
Tin	ug/L	500	463	93	80-120	
Vanadium	ug/L	500	503	101	80-120	
Zinc	ug/L	500	479	96	80-120	

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 543812 543813

Parameter	Units	9284264002 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	516	487	103	97	75-125	6	25	
Arsenic	ug/L	4.9J	500	500	564	536	112	106	75-125	5	25	
Barium	ug/L	122	500	500	626	593	101	94	75-125	5	25	
Beryllium	ug/L	ND	500	500	520	490	104	98	75-125	6	25	
Cadmium	ug/L	ND	500	500	493	466	99	93	75-125	6	25	
Chromium	ug/L	1.3J	500	500	495	463	99	92	75-125	7	25	
Cobalt	ug/L	15.5	500	500	509	478	99	92	75-125	6	25	
Copper	ug/L	ND	500	500	562	530	112	106	75-125	6	25	
Lead	ug/L	ND	500	500	487	459	97	92	75-125	6	25	
Nickel	ug/L	83.0	500	500	577	548	99	93	75-125	5	25	
Selenium	ug/L	ND	500	500	550	523	110	105	75-125	5	25	
Silver	ug/L	1.3J	250	250	263	249	105	99	75-125	5	25	
Thallium	ug/L	ND	500	500	464	439	93	88	75-125	6	25	
Tin	ug/L	30.3J	500	500	527	494	99	93	75-125	6	25	
Vanadium	ug/L	3.6J	500	500	517	485	103	96	75-125	6	25	
Zinc	ug/L	ND	500	500	526	493	105	99	75-125	6	25	

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

QC Batch: MERP/3212
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Associated Lab Samples: 9284263001

METHOD BLANK: 543684
Matrix: Water
Associated Lab Samples: 9284263001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	12/22/10 14:09	

LABORATORY CONTROL SAMPLE: 543685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.6	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 543688 543689

Parameter	Units	9284089012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.6	2.6	102	102	75-125	0	25	

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

QC Batch: MSV/13497
Analysis Method: EPA 8260
QC Batch Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 9284263001, 9284263002

METHOD BLANK: 543191
Matrix: Water
Associated Lab Samples: 9284263001, 9284263002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	12/18/10 17:14	
1,1,1-Trichloroethane	ug/L	ND	1.0	12/18/10 17:14	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	12/18/10 17:14	
1,1,2-Trichloroethane	ug/L	ND	1.0	12/18/10 17:14	
1,1-Dichloroethane	ug/L	ND	5.0	12/18/10 17:14	
1,1-Dichloroethene	ug/L	ND	5.0	12/18/10 17:14	
1,2,3-Trichloropropane	ug/L	ND	1.0	12/18/10 17:14	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	12/18/10 17:14	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	12/18/10 17:14	
1,2-Dichlorobenzene	ug/L	ND	5.0	12/18/10 17:14	
1,2-Dichloroethane	ug/L	ND	1.0	12/18/10 17:14	
1,2-Dichloroethene (Total)	ug/L	ND	5.0	12/18/10 17:14	
1,2-Dichloropropane	ug/L	ND	1.0	12/18/10 17:14	
1,4-Dichlorobenzene	ug/L	0.35J	1.0	12/18/10 17:14	
2-Butanone (MEK)	ug/L	ND	100	12/18/10 17:14	
2-Hexanone	ug/L	ND	50.0	12/18/10 17:14	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	12/18/10 17:14	
Acetone	ug/L	ND	100	12/18/10 17:14	
Acrylonitrile	ug/L	ND	200	12/18/10 17:14	
Benzene	ug/L	ND	1.0	12/18/10 17:14	
Bromochloromethane	ug/L	ND	3.0	12/18/10 17:14	
Bromodichloromethane	ug/L	ND	1.0	12/18/10 17:14	
Bromoform	ug/L	ND	3.0	12/18/10 17:14	
Bromomethane	ug/L	ND	10.0	12/18/10 17:14	
Carbon disulfide	ug/L	ND	100	12/18/10 17:14	
Carbon tetrachloride	ug/L	ND	1.0	12/18/10 17:14	
Chlorobenzene	ug/L	0.43J	3.0	12/18/10 17:14	
Chloroethane	ug/L	ND	10.0	12/18/10 17:14	
Chloroform	ug/L	ND	5.0	12/18/10 17:14	
Chloromethane	ug/L	ND	1.0	12/18/10 17:14	
cis-1,2-Dichloroethene	ug/L	ND	5.0	12/18/10 17:14	
cis-1,3-Dichloropropene	ug/L	ND	1.0	12/18/10 17:14	
Dibromochloromethane	ug/L	ND	3.0	12/18/10 17:14	
Dibromomethane	ug/L	ND	10.0	12/18/10 17:14	
Ethylbenzene	ug/L	ND	1.0	12/18/10 17:14	
Iodomethane	ug/L	ND	10.0	12/18/10 17:14	
m&p-Xylene	ug/L	ND	2.0	12/18/10 17:14	
Methylene Chloride	ug/L	ND	1.0	12/18/10 17:14	
o-Xylene	ug/L	ND	1.0	12/18/10 17:14	
Styrene	ug/L	ND	1.0	12/18/10 17:14	
Tetrachloroethene	ug/L	ND	1.0	12/18/10 17:14	
Tetrahydrofuran	ug/L	ND	10.0	12/18/10 17:14	
Toluene	ug/L	ND	1.0	12/18/10 17:14	

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

METHOD BLANK: 543191 Matrix: Water

Associated Lab Samples: 9284263001, 9284263002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	5.0	12/18/10 17:14	
trans-1,3-Dichloropropene	ug/L	ND	1.0	12/18/10 17:14	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	12/18/10 17:14	
Trichloroethene	ug/L	ND	1.0	12/18/10 17:14	
Trichlorofluoromethane	ug/L	ND	1.0	12/18/10 17:14	
Vinyl acetate	ug/L	ND	50.0	12/18/10 17:14	
Vinyl chloride	ug/L	ND	1.0	12/18/10 17:14	
Xylene (Total)	ug/L	ND	2.0	12/18/10 17:14	
1,2-Dichloroethane-d4 (S)	%	101	70-130	12/18/10 17:14	
4-Bromofluorobenzene (S)	%	95	70-130	12/18/10 17:14	
Dibromofluoromethane (S)	%	103	70-130	12/18/10 17:14	
Toluene-d8 (S)	%	102	70-130	12/18/10 17:14	

LABORATORY CONTROL SAMPLE: 543192

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	50.2	100	70-130	
1,1,1-Trichloroethane	ug/L	50	52.4	105	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	42.9	86	70-130	
1,1,2-Trichloroethane	ug/L	50	52.6	105	70-130	
1,1-Dichloroethane	ug/L	50	50.7	101	70-130	
1,1-Dichloroethene	ug/L	50	50.9	102	70-132	
1,2,3-Trichloropropane	ug/L	50	47.1	94	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.9	96	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	51.6	103	70-130	
1,2-Dichlorobenzene	ug/L	50	54.3	109	70-130	
1,2-Dichloroethane	ug/L	50	52.9	106	70-130	
1,2-Dichloroethene (Total)	ug/L	100	107	107	70-130	
1,2-Dichloropropane	ug/L	50	52.3	105	70-130	
1,4-Dichlorobenzene	ug/L	50	53.7	107	70-130	
2-Butanone (MEK)	ug/L	100	98.8J	99	70-145	
2-Hexanone	ug/L	100	93.4	93	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	95.4J	95	70-140	
Acetone	ug/L	100	89.7J	90	50-175	
Acrylonitrile	ug/L	250	238	95	70-143	
Benzene	ug/L	50	48.1	96	70-130	
Bromochloromethane	ug/L	50	54.5	109	70-130	
Bromodichloromethane	ug/L	50	56.2	112	70-130	
Bromoform	ug/L	50	44.9	90	70-130	
Bromomethane	ug/L	50	62.9	126	54-130	
Carbon disulfide	ug/L	50	56.2J	112	70-131	
Carbon tetrachloride	ug/L	50	51.3	103	70-132	
Chlorobenzene	ug/L	50	52.5	105	70-130	
Chloroethane	ug/L	50	50.3	101	64-134	
Chloroform	ug/L	50	51.7	103	70-130	

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

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

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

QUALITY CONTROL DATA

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

LABORATORY CONTROL SAMPLE: 543192

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloromethane	ug/L	50	54.6	109	64-130	
cis-1,2-Dichloroethene	ug/L	50	54.3	109	70-131	
cis-1,3-Dichloropropene	ug/L	50	53.2	106	70-130	
Dibromochloromethane	ug/L	50	47.6	95	70-130	
Dibromomethane	ug/L	50	57.4	115	70-131	
Ethylbenzene	ug/L	50	50.5	101	70-130	
Iodomethane	ug/L	100	119	119	49-180	
m&p-Xylene	ug/L	100	93.3	93	70-130	
Methylene Chloride	ug/L	50	43.8	88	63-130	
o-Xylene	ug/L	50	46.3	93	70-130	
Styrene	ug/L	50	45.6	91	70-130	
Tetrachloroethene	ug/L	50	53.0	106	70-130	
Tetrahydrofuran	ug/L	500	455	91	70-130	
Toluene	ug/L	50	51.0	102	70-130	
trans-1,2-Dichloroethene	ug/L	50	52.5	105	70-130	
trans-1,3-Dichloropropene	ug/L	50	51.8	104	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	40.3J	81	70-141	
Trichloroethene	ug/L	50	55.7	111	70-130	
Trichlorofluoromethane	ug/L	50	50.0	100	62-133	
Vinyl acetate	ug/L	100	97.7	98	66-157	
Vinyl chloride	ug/L	50	64.2	128	69-130	
Xylene (Total)	ug/L	150	140	93	70-130	
1,2-Dichloroethane-d4 (S)	%			96	70-130	
4-Bromofluorobenzene (S)	%			107	70-130	
Dibromofluoromethane (S)	%			96	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 543193 543194

Parameter	Units	9284089012 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	55.0	56.1	110	112	70-166	2	30	
Benzene	ug/L	ND	50	50	48.9	50.0	98	100	70-148	2	30	
Chlorobenzene	ug/L	ND	50	50	51.9	57.8	104	116	70-146	11	30	
Toluene	ug/L	ND	50	50	48.6	56.1	97	112	70-155	14	30	
Trichloroethene	ug/L	ND	50	50	54.8	57.0	110	114	69-151	4	30	
1,2-Dichloroethane-d4 (S)	%						97	103	70-130			
4-Bromofluorobenzene (S)	%						90	96	70-130			
Dibromofluoromethane (S)	%						108	110	70-130			
Toluene-d8 (S)	%						91	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.
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: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

QC Batch: WET/14830
QC Batch Method: SM 4500-S2D
Analysis Method: SM 4500-S2D
Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 9284263001

METHOD BLANK: 543826
Matrix: Water
Associated Lab Samples: 9284263001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	ug/L	ND	1000	12/21/10 15:18	

LABORATORY CONTROL SAMPLE: 543827

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	ug/L	500	507J	101	90-110	

MATRIX SPIKE SAMPLE: 543828

Parameter	Units	9284089012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	ug/L	ND	500	516J	103	75-125	

SAMPLE DUPLICATE: 543829

Parameter	Units	9284089012 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide	ug/L	ND	ND		20	

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

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

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

QUALIFIERS

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

LABORATORIES

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

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

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

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: GRANVILLE CO-BLANKS
Pace Project No.: 9284263

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
9284263001	**3901/3902-FIELD BLANK**	EPA 8081	GCSV/3749	EPA 8081	GCSV/2894
9284263001	**3901/3902-FIELD BLANK**	EPA 8151	GCSV/3761	EPA 8151	GCSV/2883
9284263001	**3901/3902-FIELD BLANK**	EPA 3010	MPRP/7622	EPA 6010	ICP/7046
9284263001	**3901/3902-FIELD BLANK**	EPA 7470	MERP/3212	EPA 7470	MERC/3169
9284263001	**3901/3902-FIELD BLANK**	EPA 8260	MSV/13497		
9284263002	**3901/3902-TRIP BLANK**	EPA 8260	MSV/13497		
9284263001	**3901/3902-FIELD BLANK**	SM 4500-S2D	WET/14830		

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

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A
Required Client Information:

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

Section B
Required Project Information:

Report To:	Van Burbach
Copy To:	
Purchase Order No.	
Client Project ID:	GRANVILLE CO-Blanks
Container Order Number:	

Section C
Invoice Information:

Attention:	~~Lecia Jones~~ Jason Falls
Company Name:	~~Joyce Engineering~~ Granville Co
Address:	~~1604 Ownby Lane, Richmond, VA 23225~~
Pace Quote Reference:	
Pace Project Manager:	Godwin, Kevin
Pace Profile #:	35661

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)	Sulfide	Metals	Pest 8081	VOC 8260 WT	6151 Herb	Residual Chlorine (Y/N)	9284263
1	3901/3902-FIELD BLANK	WT				12/15/10	1345		9										X	X	X	X	X		NC App1 + Detects + C&D (Metal) 001
2	3901/3902-TRIP BLANK	WT				12/13/10	0600		2													X			VOC only 002
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

ADDITIONAL COMMENTS
App II Detects for Field Blank: Mercury, Tin, Sulfide, Beta-BHC
Heptachlor, 2,4-D

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Daniel Gardner / EI	12/16/10	11:10	Pace c/f	12/16/10	11:10
Pace c/f	12/16/10	14:55	Tim Yeate	12/16/10	14:55

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Gardner Alex Eschbach

SIGNATURE of SAMPLER: Daniel Gardner / Alex Eschbach DATE Signed: 12/15/10

Sample Condition Upon Receipt

Pace Analytical

Client Name: Joyce Project # 92842263

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden

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 : T809 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor: Add / Subtract _____0_____C

Corrected Cooler Temp.: 5.5 C **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: Ummi 12/14/10

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. 1 vial broken for tb
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	Initial when completed
Samples checked for dechlorination:	☑Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):_____		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: TB vial broken due to sample being frozen before receipt. Could be due to outside temperatures

CURF Review: V. Gadi **Date:** 12/16/10 **SRF Review:** RLS **Date:** 12/16/10

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)

F-CHR-CS-003-rev.01

DATE: 12/13/10

JOYCE ENGINEERING, INC.

GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. **Project No./Task No.:** 00660.1001.11.04

Well ID: MW-1R **Sampler(s):** A. Everhart / D. Girdner

Well Location: North of the entrance at the treeline under the tower

Well Diameter: 2 inches

Initial Depth to Water (DTW): 44.55 feet

Depth to Bottom (DTB): 56.00 feet

Water Column Thickness (WCT): 11.45 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 1.87 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 5.61 gallons

Actual Amount Purged/Bailed : 2.75 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling : 44.62 feet

Gallons	Time	Temp.°C	pH	Cond. µ.s.	Turb. ntu	Initials
0	839	13.0	7.01	117.8	19.25	AE
1.87	843	13.5	6.31	107.0	335	AE
Dry @ 2.75 Gal						
	12/13/10					
Before Sampling	1315	13.5	6.90	128.1	20.6	AE

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

Partly Cloudy, 20's

Signature: [signature] **Date:** 12/13/10

QA/QC Sign Off: [signature] **Date:** 4/12/11

DATE: 12/13/10

JOYCE ENGINEERING, INC.

GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. **Project No./Task No.:** 00660.1001.11.04

Well ID: MW-2R **Sampler(s):** A. Everhart / D. Girdner

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

Well Diameter: 2 inches

Initial Depth to Water (DTW): 2.11 feet

Depth to Bottom (DTB): 18.85 feet

Water Column Thickness (WCT): 16.74 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 2.73 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 8.19 gallons

Actual Amount Purged/Bailed : 7.0 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling : - feet

Gallons	Time	Temp. °C	pH	Cond. m.s.	Turb. ntu	Initials
0	1032	11.2	6.56	2.58	15.98	DG
2.73	1035	13.6	6.62	2.49	51.8	DG
5.46	1040	14.8	6.59	2.41	45.8	DG
Dry @ 7.0						
	12/13/10					
Before Sampling	1515	10.3	6.52	2.49	15.45	DG

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

Sunny, 30's

Signature: Daniel J Girdner **Date:** 12/13/10

QA/QC Sign Off: Carrie Nutt **Date:** 4/12/11

DATE: 12/13/10

JOYCE ENGINEERING, INC.

GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. **Project No./Task No.:** 00660.1001.11.04

Well ID: MW-3R **Sampler(s):** A. Everhart / D. Girdner

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

Well Diameter: 2 inches

Initial Depth to Water (DTW): 2.11 feet

Depth to Bottom (DTB): 35.83 feet

Water Column Thickness (WCT): 33.72 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 5.50 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 16.50 gallons

Actual Amount Purged/Bailed : 9.0 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling : 2.58 feet

Gallons	Time	Temp. °C	pH	Cond. µ.s.	Turb. ntu	Initials
0	1010	11.8	7.44	1265	10.18	AE
5.50	1014	14.3	6.91	1545	9.52	AE
Dry @ 9.0						
	12/13/10					
Before Sampling	1455	10.7	6.98	1620	6.41	AE

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

Sunny, 30's

Signature: [signature] **Date:** 12/13/10

QA/QC Sign Off: Carrie Roberts **Date:** 4/12/11

DATE: 12/13/10

JOYCE ENGINEERING, INC.

GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. **Project No./Task No.:** 00660.1001.11.04

Well ID: MW-4 **Sampler(s):** A. Everhart / D. Girdner

Well Location: south of fill, just inside tree line

Well Diameter: 2 inches

Initial Depth to Water (DTW): 7.99 feet

Depth to Bottom (DTB): 31.43 feet

Water Column Thickness (WCT): 23.44 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 3.82 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 11.46 gallons

Actual Amount Purged/Bailed : 4.6 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling : 10.85 feet

Gallons	Time	Temp. °C	pH	Cond. µ.s.	Turb. ntu	Initials
0	954	14.1	6.85	1331	12.55	DG
3.82	958	14.7	6.81	1418	41.8	DG
Dry @ 4.6 gal						
	12/13/10					
Before Sampling	1440	12.5	6.91	1370	10.51	DG

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

Sunny, 30's

Signature: Daniel A. Girdner **Date:** 12/13/10

QA/QC Sign Off: Carrie Mitchell **Date:** 4/12/11

DATE: 12/13/10

JOYCE ENGINEERING, INC.

GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. **Project No./Task No.:** 00660.1001.11.04

Well ID: MW-6 **Sampler(s):** A. Everhart / D. Girdner

Well Location: other side of large mulch pile

Well Diameter: 2 inches

Initial Depth to Water (DTW): 12.45 feet

Depth to Bottom (DTB): 32.63 feet

Water Column Thickness (WCT): 20.18 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 3.29 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 9.87 gallons

Actual Amount Purged/Bailed : 7.3 gallons

Purged with: Disposable Bailer

Sampled with: Disposable Bailer

Depth to Water before Sampling : - feet

Gallons	Time	Temp(°C)	pH	Cond. (µS)	Turb.(ntu)	Initials
0	906	14.4	6.85	657	44.3	DG
3.29	910	15.5	6.98	649	63.8	DG
6.58	915	15.2	7.15	639	72.5	DG
Dry @ 7.3 Gal						
	12/13/10					
Before Sampling	1355	13.8	7.22	616	8.22	DG

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

Sunny 30's

Sample: Windy, Partly Cloudy 35

Signature: Daniel A. Girdner **Date:** 12/13/10

QA/QC Sign Off: Carrie Nutt **Date:** 4/12/11

DATE: 12/13/10

JOYCE ENGINEERING, INC.

SURFACE WATER MONITORING LOG

Project Name: BUTNER, Granville Co. **Project/Task No.:** 00660.1001.11.04

Surface Point ID: SW-1 **Sampler(s):** A. Everhart/ D. Girdner

Location: Near Sed. pond, Basin

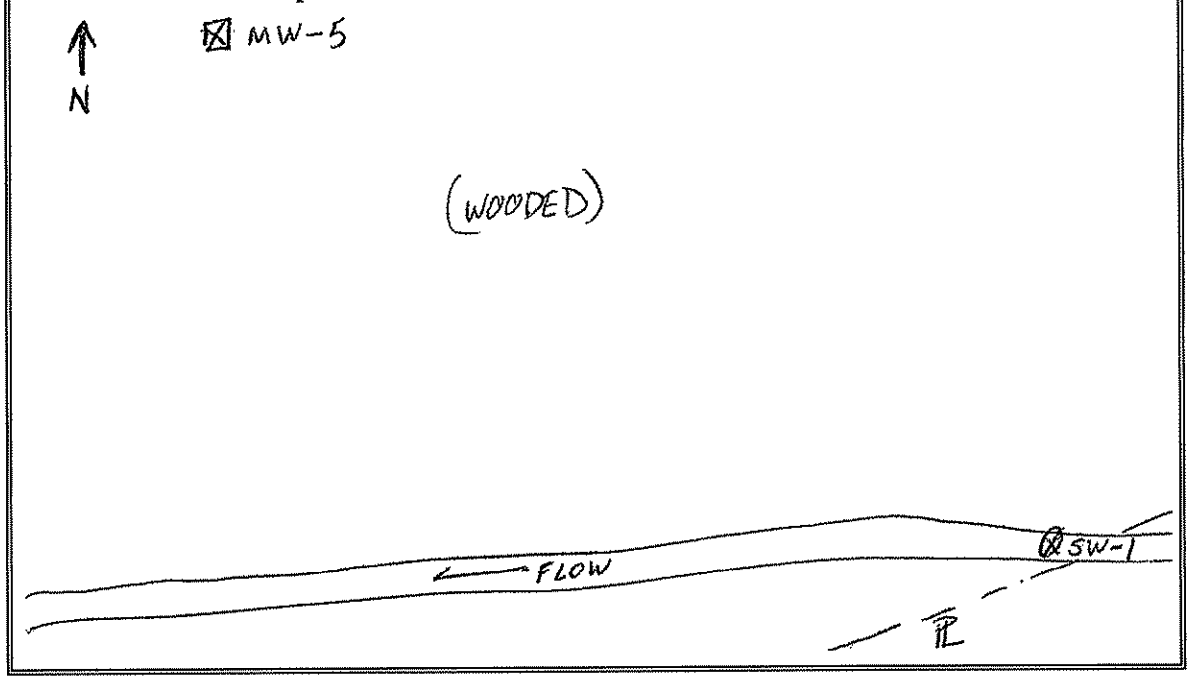
Field Parameters:

Time of Sampling:	1425	
pH:	8.00	
Temperature :	2.2	(°C)
Conductivity :	374	(µS)
Turbidity :	9.68	(ntu)

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

Cloudy 30's

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



Signature: [signature] **Date:** 12/13/10

QA/QC Sign Off: [signature] **Date:** 4/12/11

DATE: 12/13/10

JOYCE ENGINEERING, INC.

SURFACE WATER MONITORING LOG

Project Name: BUTNER, Granville Co. **Project/Task No.:** 00660.1001.11.04

Surface Point ID: SW-2 **Sampler(s):** A. Everhart/ D. Girdner

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

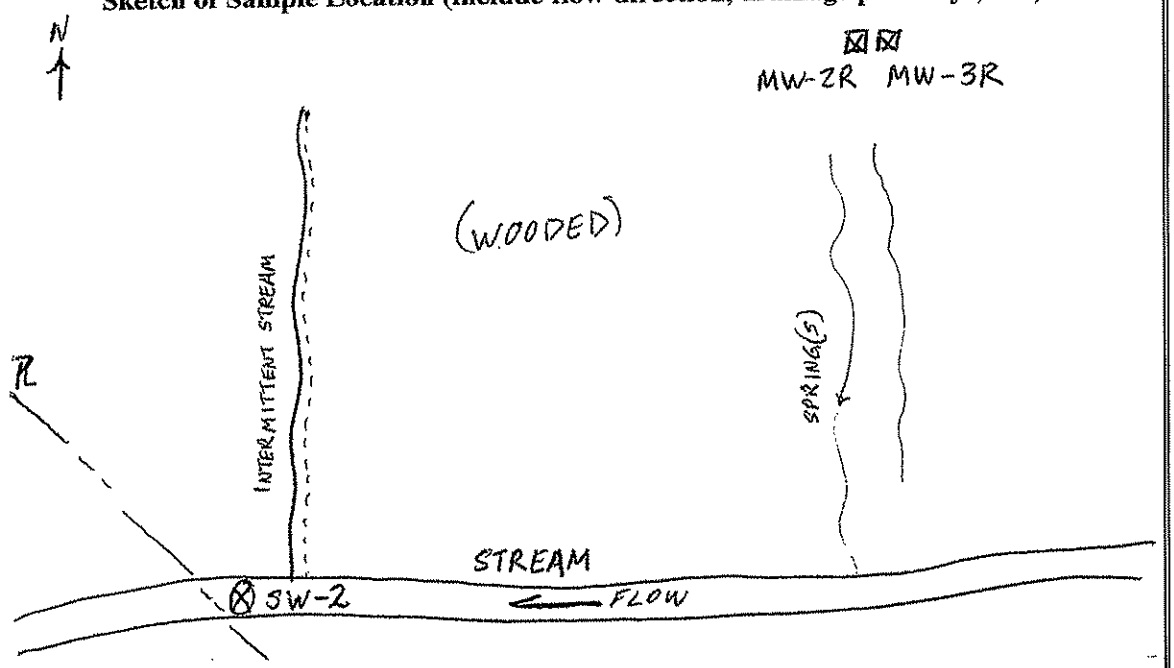
Field Parameters:

Time of Sampling:	1545	
pH:	7.75	
Temperature :	3.2	(°C)
Conductivity :	1138	(µS)
Turbidity :	6.04	(ntu)

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

Cloudy 30's

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



Signature: Daniel A. Girdner **Date:** 12/13/10

QA/QC Sign Off: Carrie [illegible] **Date:** 2/13/11

DATE: 2/8/11

JOYCE ENGINEERING, INC.

GROUND WATER SAMPLING LOG

Project Name: BUTNER, Granville Co. **Project No./Task No.:** 00660.1001.11.01

Well ID: MW-2R **Sampler(s):** A. Everhart

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

Well Diameter: 2 inches

Initial Depth to Water (DTW): 2.15 feet

Depth to Bottom (DTB): 18.85 feet

Water Column Thickness (WCT): 16.70 feet [DTB-DTW]

Calculation for One Well Volume (WV):

For 2" Well: WCT X 0.163 = 2.72 gallons

For 4" Well: WCT X 0.653 = _____ gallons

For THREE Well Volumes: WV X 3 = 8.19 gallons

Actual Amount Purged/Bailed : 8.19 gallons

Purged with: disposable bailer

Sampled with: disposable bailer

Depth to Water before Sampling : - feet

Gallons	Time	pH	Temp. °C	Cond. µ.s.	Turb. ntu	Initials
0	1155	6.39	11.3	1820	85.9	AE
2.73	1158	6.52	13.0	1760	70.7	AE
5.46	1203	6.59	14.0	1940	54.0	AE
8.19	1210	6.58	14.3	1930	61.3	AE
Before Sampling	1210	6.58	14.3	1930	61.3	AE

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

Sunny, 40's

Signature: [signature] **Date:** 2/8/11

QA/QC Sign Off: Carrie [signature] **Date:** 4/12/11

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

February 15, 2011

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

RE: Project: GRANVILLE CO BUTNER
Pace Project No.: 9287609

Dear Mr. Burbach:
Enclosed are the analytical results for sample(s) received by the laboratory on February 10, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated 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

REPORT OF LABORATORY ANALYSIS

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

Pace Analytical Services, Inc.
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

CERTIFICATIONS

Project: GRANVILLE CO BUTNER
Pace Project No.: 9287609

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/LELAP Certification #: 04034
New Jersey Certification #: NC012
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
Pennsylvania Certification #: 68-00784
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Virginia Certification #: 00213
Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DHH Drinking Water # LA 100031
West Virginia Certification #: 357

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: GRANVILLE CO BUTNER
Pace Project No.: 9287609

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9287609001	**3902-MW-2R**	Water	02/08/11 12:10	02/10/11 15:43
9287609002	**TRIP BLANK**	Water	02/08/11 10:00	02/10/11 15:43

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: GRANVILLE CO BUTNER
Pace Project No.: 9287609

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
9287609001	**3902-MW-2R**	EPA 8260	TLS	5	PASI-C
9287609002	**TRIP BLANK**	EPA 8260	TLS	5	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

ANALYTICAL RESULTS

Project: GRANVILLE CO BUTNER
Pace Project No.: 9287609

Sample: 3902-MW-2R **Lab ID: 9287609001** Collected: 02/08/11 12:10 Received: 02/10/11 15:43 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Benzene	**1.4**	ug/L	1.0	0.25	1		02/12/11 03:09	71-43-2	
4-Bromofluorobenzene (S)	104	%	70-130		1		02/12/11 03:09	460-00-4	
Dibromofluoromethane (S)	99	%	70-130		1		02/12/11 03:09	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		02/12/11 03:09	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		02/12/11 03:09	2037-26-5	

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

Pace Analytical Services, Inc.
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: GRANVILLE CO BUTNER
Pace Project No.: 9287609

Sample: TRIP BLANK **Lab ID: 9287609002** Collected: 02/08/11 10:00 Received: 02/10/11 15:43 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Benzene	ND	ug/L	1.0	0.25	1		02/12/11 03:32	71-43-2	
4-Bromofluorobenzene (S)	103	%	70-130		1		02/12/11 03:32	460-00-4	
Dibromofluoromethane (S)	95	%	70-130		1		02/12/11 03:32	1868-53-7	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1		02/12/11 03:32	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		02/12/11 03:32	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: GRANVILLE CO BUTNER
Pace Project No.: 9287609

QC Batch: MSV/14019
Analysis Method: EPA 8260
QC Batch Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 9287609001, 9287609002

METHOD BLANK: 563189
Matrix: Water
Associated Lab Samples: 9287609001, 9287609002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	02/11/11 21:26	
1,2-Dichloroethane-d4 (S)	%	95	70-130	02/11/11 21:26	
4-Bromofluorobenzene (S)	%	100	70-130	02/11/11 21:26	
Dibromofluoromethane (S)	%	95	70-130	02/11/11 21:26	
Toluene-d8 (S)	%	93	70-130	02/11/11 21:26	

LABORATORY CONTROL SAMPLE: 563190

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	48.1	96	70-130	
1,2-Dichloroethane-d4 (S)	%			89	70-130	
4-Bromofluorobenzene (S)	%			104	70-130	
Dibromofluoromethane (S)	%			94	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 563191 563192

Parameter	Units	9287514001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	ND	50	50	49.0	45.2	98	90	70-148	8	30	
1,2-Dichloroethane-d4 (S)	%						97	98	70-130			
4-Bromofluorobenzene (S)	%						100	98	70-130			
Dibromofluoromethane (S)	%						94	94	70-130			
Toluene-d8 (S)	%						89	90	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

QUALIFIERS

Project: GRANVILLE CO BUTNER
Pace Project No.: 9287609

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

LABORATORIES

PASI-C Pace Analytical Services - Charlotte

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: GRANVILLE CO BUTNER
Pace Project No.: 9287609

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
9287609001	**3902-MW-2R**	EPA 8260	MSV/14019		
9287609002	**TRIP BLANK**	EPA 8260	MSV/14019		

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

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

1432836

Section A Required Client Information:

Company: Joyce Engineering Inc
Address: 2211 W. Meadowview Rd Greensboro NC 27407
Email To:
Phone: Fax:
Requested Due Date/TAT: 10 Day

Section B Required Project Information:

Report To: Van Burbach
Copy To:
Purchase Order No.:
Project Name: Granville Co Butner
Project Number: 660.1001.11 Task 01

Section C Invoice Information:

Attention: Jason Falls
Company Name: Granville County
Address: PO Box 906 Oxford NC
Pace Quote Reference:
Pace Project Manager: Kevin Godwin
Pace Profile #: 3566-1

REGULATORY AGENCY

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

Site Location STATE: NC

Section D Required Client Information

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

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/GRAB DATE	COLLECTED Composite End/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): Benzene	Residual Chlorine (Y/N)	Pace Project No./Lab I.D.
1	3902-MW-2R	WT	G			2/8/11	1210		3				X					X		001
2	Trip Blank	WT				2/8/11	10:00		2				X					X		002
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

928609

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Alex Everhart / JEI	2/9/11	1230	Pace	2-10-11	12:16				
	Pace	2-10-11	15:43	Pace Chief	2/10/11	1543	4.3	Y	N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Alex Everhart

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 2/8/11

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

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

Sample Condition Upon Receipt

Pace Analytical

Client Name: Joyce Engineering INC Project # 9287609

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden

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 : T904 Type of Ice: (Wet) Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor: Add / Subtract _____0_____C

Corrected Cooler Temp.: 4.3 C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 2/10/11

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. #1 Sample ID Says MW-2R on Vials
-Includes date/time/ID/Analysis Matrix: WT		
Preservation 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	Initial when completed
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Trace Trip Blank Lot # (if purchased): _____		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review: [signature] Date: 2/10/11 **SRF Review:** [signature] Date: 2/11/11

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)