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):

Golder Associates NC, Inc. on behalf of the City of Durham

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

Name: David Y. Reedy II Phone: 336-852-4903

E-mail: dreedy@golder.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Closed City of Durham Landfill	2115 East Club Boulevard Durham NC 27704	32-01	.1600	May 22-23, 2012

Environmental Status: (Check all that apply)

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

Type of data submitted: (Check all that apply)

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

David Y. Reedy II, P.G. | Senior Project Hydrogeologist | 336-852-4903

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

Signature | 7-12-12 Date

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 1963 GEOLOGIST DAVID YATES REEDY, II 7-12-12

Golder Associates NC, Inc., 5B Oak Branch Drive, Greensboro, NC 27407

Facility Representative Address

C-2862

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

Revised 6/2009

July 12, 2012 0739-604212.100

Mr. Ervin Lane, Hydrogeologist
NC DENR Division of Waste Management
Solid Waste Section
217 West Jones Street
Raleigh, North Carolina 27603

RE: WATER QUALITY MONITORING REPORT, FIRST SEMI-ANNUAL 2012 SAMPLING EVENT
CLOSED CITY OF DURHAM LANDFILL, PERMIT NO. 32-01
DURHAM COUNTY, NORTH CAROLINA

Dear Ervin:

Golder Associates NC, Inc. (Golder) is submitting the enclosed *Water Quality Monitoring Report,* which documents the results of the May 22-23, 2012, compliance monitoring event at the City of Durham's closed Municipal Solid Waste Landfill.

During the May 2012 event, one inorganic constituent (barium in the sample from MW-5) was detected at a concentration that exceeded its Solid Waste Section Reporting Limit (SWSL) and applicable groundwater standard. The barium concentration in the sample from MW-5 was statistically evaluated and not determined to be a statistically significant increase over background concentrations. Therefore, no additional action is required at this time.

Three inorganic constituents (antimony, cobalt, and vanadium) were detected at estimated concentrations below the SWSL, but exceeded their respective Solid Waste section Groundwater Protection Standards in samples from one or more downgradient wells. The concentrations of cobalt and vanadium are similar to historical results for these wells and concentrations detected historically in samples from the upgradient well. Antimony has been reported at similar concentrations in downgradient wells during previous events.

Five organic constituents (benzene; cis-1,2-dichloroethene; 1,2-dichloropropane; trichloroethene; and vinyl chloride) were detected in the sample from MW-10 at concentrations that exceeded their respective SWSLs and NC 2L Standards, as they have been during previous events. Bis(2-ethylhexyl) phthalate was reported in the sample from MW-5 at an estimated concentration below the SWSL, but greater than the NC 2L Standard during this sampling event. The detection of bis(2-ethylhexyl) phthalate in MW-5 was considered suspect based on historical data and on June 15, 2012, MW-5 was re-sampled and analyzed for the presence of bis(2-ethylhexyl) phthalate. The results of the verification event did not confirm the presence of bis(2-ethylhexyl) phthalate in MW-5. There were no other NC Appendix I organic constituents reported above the SWSL during the May 2012 sampling event.

Historically, well MW-10 is the only downgradient monitoring well in which organic constituents have been detected. A Nature and Extent Study is currently being prepared, which will address the organic constituents detected the samples from MW-10. Based on the results summarized herein, the City will continue monitoring this facility in accordance with the requirements of the Assessment Monitoring Program as outlined in Title 15A NCAC 13B.1634. The next groundwater monitoring event is tentatively scheduled for November 2012. If you have any questions, please contact the undersigned at 336-852-4903.

Golder Associates NC, Inc.
5B Oak Branch Drive
Greensboro, NC 27407 USA
Tel: (336) 852-4903 Fax: (336) 852-4904 www.golder.com

Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation

Sincerely,
GOLDER ASSOCIATES NC, INC.

David "Dusty" Y. Reedy II, P.G.
Senior Project Hydrogeologist

Rachel P. Kirkman, P.G.
Associate and Senior Geologist

C: Simon Lobdell, Civil Engineer III, City of Durham, 1600 Mist Lake Drive Durham, NC 27704. 919-560-4381. Simon.Lobdell@durhamnc.gov

Chris Marriott, Waste Disposal Manager, City of Durham, 1833 Camden Avenue, Durham, NC 32253. 919-560-4186. Chris.Marriott@durhamnc.gov

g:\projects\city of durham\gwmr\2012 may\final first semiannual 2012 gw monitoring report.docx

WATER QUALITY MONITORING REPORT

FIRST SEMI-ANNUAL 2012 SAMPLING EVENT

Closed City of Durham Landfill
Permit No. 32-01

Durham County, North Carolina

Submitted To:

City of Durham
Department of Water Management
1600 Mist Lake Drive
Durham, North Carolina 27704

Submitted By: Golder Associates NC, Inc.
5B Oak Branch Drive
Greensboro, NC 27407 USA

July 2012 **0739-604212.100**

A world of capabilities delivered locally

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation

Table of Contents

1.0 INTRODUCTION 1
1.1 Site Description and Background 1
1.2 Compliance Monitoring History 1
1.3 Hydrogeologic Setting 3
2.0 FIELD PROGRAM, MONITORING RESULTS, AND DISCUSSION 5
2.1 Visual Inspection Program 5
2.2 Well Network and Groundwater Elevation Measurements 5
2.3 May 2012 Groundwater Monitoring Event 5
2.4 Laboratory Analysis Program 6
2.5 May 2012 Sampling Results 6
3.0 LABORATORY AND FIELD QA/QC 8
4.0 DATA EVALUATION 9
4.1 North Carolina Groundwater and Surface Water Quality Standard Comparisons 9
4.2 Statistical Evaluations 9
5.0 CONCLUSIONS 10
6.0 REFERENCES 11

List of Tables

Table 1 Summary of Historical Groundwater Elevation Data in Monitoring Wells
Table 2 Summary of Estimated Horizontal Flow Velocities
Table 3 Summary of Well Construction Information
Table 4 Summary of Detected Constituents in Groundwater
Table 5 Summary of Surface Water Monitoring Results

List of Drawings

Drawing 1 Groundwater Contour Map, May 22, 2012

List of Appendices

Appendix A Groundwater and Surface Water Sampling Logs
Appendix B May 2012 Groundwater Certificate-of-Analysis, Chain of Custody Form(s), and Laboratory Data Review
Appendix C Statistical Evaluation Summary Table and Worksheets

1.0 INTRODUCTION

This report summarizes the monitoring results from the May 22 and 23, 2012, groundwater and surface water sampling and analysis event at the closed City of Durham Landfill in Durham County, North Carolina in accordance with Title 15A of the North Carolina Administrative Code (NCAC) Subchapter 13B.1632. The City of Durham Landfill is a closed Municipal Solid Waste Landfill (MSWL) and is maintained by the City under Permit No. 32-01 issued by the North Carolina Department of Environment and Natural Resources (DENR).

Groundwater beneath the landfill is currently monitored by six groundwater compliance wells and four surface water monitoring points. The City of Durham (the City) is currently evaluating the source of organic constituents in monitoring well MW-10.

1.1 Site Description and Background

The subject property is a closed, unlined municipal solid waste landfill that ceased waste acceptance in 1997. The location of the facility is shown on the inlay on Drawing 1. As presented, the closed City of Durham Landfill is located northeast of downtown Durham, off East Club Boulevard and southwest of Falls Lake.

Topographic elevations at the facility range from approximately 280 to 400 feet above mean sea level. In general, surface drainage from the facility and surrounding areas is routed by drainage channels and storm water control structures toward Ellerbee Creek to the west of the facility. Locally, surface water flows radially away from the closed and capped landfill toward unnamed streams to the northeast, south and west. These streams are tributaries of Ellerbe Creek, which flows into Falls Lake, located northeast of the landfill.

1.2 Compliance Monitoring History

Groundwater quality at the landfill has been monitored since 1989, beginning with annual monitoring, and is currently monitored semi-annually in accordance with the approved Water Quality Monitoring Plan (WQMP) prepared by Malcolm Pirnie, Inc. in April 1994.

Assessment Monitoring was conducted at the landfill from November 1996 through June 1999 due to the detection of benzene in monitoring well MW-3. Following the June 1999 monitoring event, DENR granted approval for the City to return to Detection Monitoring. Detection Monitoring was conducted at the site from October 1999 through December 2004. However, based on additional detections of volatile organic compounds (VOCs), the landfill returned to Assessment Monitoring during the June 2005 monitoring event (Weston Solutions, 2006).

In May 2008, monitoring well PZ-6 was replaced by monitoring well MW-9R as the up-gradient/background monitoring well due to the poor water quality and elevated metals concentrations detected in PZ-6. Also in May 2008, monitoring well MW-3 was replaced by MW-3R as a downgradient compliance monitoring well and MW-6R was replaced by MW-10 as a down-gradient monitoring well. Both MW-3 and MW-6R were determined to be located within or in close proximity to the landfill waste boundary.

As previously stated, the City is currently in the process of completing a Nature and Extent Study (NES) in response to the concentrations of detected NC Appendix I constituents above their respective groundwater protection standards in monitoring wells MW-5 and MW-10. As part of this assessment, seven temporary piezometers and three stream gauges were installed in the vicinity of MW-10. One of the piezometers installed as part of the NES (NES-3) was sampled during the November 2010 semi-annual sampling event to establish a water quality baseline for the possible replacement of compliance well MW-10.

On January 21, 2011, MW-11 was installed in the area beyond the waste boundary near MW-5. MW-11 was installed as a possible replacement for the downgradient compliance well MW-5, due to the historical detections of barium above the NC 2L Drinking Water Standard. A letter report documenting the installation of MW-11 was prepared by S&ME and was submitted as part of the May 2011 water quality report. At the time of the May 2012 sampling event, MW-11 had not been approved to replace MW-5 as a down-gradient compliance monitoring well and therefore no sample was collected.

On May 12, 2011, S&ME submitted a request to the NC DENR to reduce the number of upgradient monitoring wells from the semi-annual sampling schedule. On May 17, 2011, NC DENR granted approval to remove monitoring wells MW-7R and MW-8 from the compliance well sampling list. S&ME are currently preparing a Nature and Extent Study (NES) to address organic constituents detected in samples from well MW-10.

The current approved facility monitoring network consists of one upgradient/background monitoring well (MW-9R) and five downgradient compliance monitoring wells (MW-2, MW-3R, MW-4R, MW-5, and MW-10) which monitor the uppermost aquifer. Groundwater samples are typically analyzed for the NC Appendix II list during the spring events and for the NC Appendix I plus detected NC Appendix II constituents during the fall events. The facility's monitoring network also includes one upstream surface water monitoring point (S-4) and three downstream surface water monitoring points (S-1, S-2, and S-3), which are sampled in conjunction with the groundwater monitoring wells. Surface water samples are analyzed semi-annually for NC Appendix I constituents.

1.3 Hydrogeologic Setting

Geologically, the facility is located within the Piedmont Physiographic Province of North Carolina and within the Durham Basin (NCGS, 1985). The Durham Basin is comprised of Triassic sedimentary rocks including sandstones, mudstones, conglomerates and unconsolidated sediments occurring from the erosion of adjoining Paleozoic metamorphic rocks of the Raleigh Belt (Weston Solutions, 2006).

The uppermost aquifer beneath the facility is comprised of saprolite and weathered rock, which transitions into bedrock. Bedrock consists of arkosic sandstones, siltstones, and mudstones, which comprise the Pekin Formation. Site monitoring wells are screened in silty sands, silty to sandy clays, and sandstones of the Chatham Group of the Triassic Formations (Malcolm Pirnie, 1994 and 1996).

The depth to groundwater typically ranges from approximately 4 feet below grade along the western and southern perimeter of the facility to nearly 50 feet below grade in the central and eastern portion of the facility. Historical groundwater elevation data are presented on Table 1.

As presented on Table 1, the hydraulic head level in the uppermost aquifer beneath the facility is fairly consistent, with temporal variation from the long-term average limited to approximately 8 feet (plus or minus) in the up-gradient well, with generally lower variations in the down-gradient wells. As expected, the range in fluctuation appears to be greater in the area near the up-gradient wells, as these wells are more centrally located to the regional groundwater recharge area. The range in fluctuation in the down-gradient compliance wells, which are generally located nearer groundwater discharge areas, is less, likely due to the stabilizing effect of hydraulic discharge boundaries.

Static water level measurements obtained on May 22 and 23, 2012, were used to prepare the groundwater contours presented on Drawing 1. Groundwater flow across the majority of the site is to the northwest, west and southwest, which is consistent with previous groundwater contour flow interpretations.

Based on the May 22-23, 2012, groundwater contour map, the hydraulic gradient in the uppermost aquifer underlying the site was measured along the conceptual flow paths shown on Drawing 1. As shown on Table 2, the average hydraulic gradient for the groundwater flow was calculated to be approximately 0.0238 ft/ft. An estimated effective porosity of 0.2 was used for the uppermost aquifer (Heath, 2001).

Using the above values, the estimated rate of groundwater flow for the uppermost aquifer beneath the facility was calculated using the following modified Darcy equation:

$$V_{gw} = Ki/n_e$$

where V_{gw} = average linear velocity (feet/year), K = hydraulic conductivity (feet/year), i = horizontal hydraulic gradient, and n_e = effective porosity.

As shown on Table 2, the average estimated linear groundwater flow velocity under the waste management unit is approximately 109 feet/year to the northwest, west and southwest, which is generally consistent with previous estimates. The range of groundwater flow is expected to vary depending on the hydrogeologic unit in which it occurs. However, the linear velocity equation above makes the simplified assumptions of a homogeneous and isotropic aquifer. Therefore, this equation represents a likely average value for the uppermost aquifer and does not account for heterogeneous and/or anisotropic conditions that may be present in the uppermost aquifer at the facility.

2.0 FIELD PROGRAM, MONITORING RESULTS, AND DISCUSSION

Field activities conducted as part of the May 22-23, 2012, sampling event are discussed in the following sections.

2.1 Visual Inspection Program

In order to ensure that a potential release is detected at the earliest possible time, a visual inspection program is used at the closed City of Durham Landfill. This program includes physical indicators such as potential water table mounding beneath the waste management unit, physical examination of any stresses in biological communities, visible signs of leachate migration (i.e., leachate seeps), unexplained changes in soil characteristics, and any other change to the environment due to the waste management unit. During the May 2012 compliance monitoring event, no physical indicators were observed in the vicinity of the waste management areas.

2.2 Well Network and Groundwater Elevation Measurements

The network of groundwater monitoring wells at the closed City of Durham Landfill consists of upgradient monitoring well MW-9R and five downgradient monitoring wells MW-2, MW-3R, MW-4R, MW-5, and MW-10. Monitoring well construction information is summarized in Table 3 and the well locations are shown on Drawing 1. The network of monitoring wells was constructed to target the preferential flow path for groundwater underlying waste disposal areas.

Depth-to-water measurements were recorded to the nearest 0.01 foot prior to initiating groundwater purging and sampling activities. Additional depth-to-water measurements were collected from MW-6R, MW-7R, MW-8, NES-3, PZ-2R, PZ-3, PZ-4R, and PZ-6 to assist in constructing the groundwater contour map for the facility. A summary of measured groundwater elevations for this event are presented in Table 1.

2.3 May 2012 Groundwater Monitoring Event

Personnel from Golder visited the facility on May 22-23, 2012, to purge and sample monitoring wells MW-2, MW-3R, MW-4R, MW-5, MW-9R, and MW-10. In addition to the groundwater samples, surface water samples were collected from upstream monitoring point S-4 and downstream monitoring locations S-1, S-2, and S-3.

Monitoring wells MW-2, MW-3R, MW-4R, MW-5, MW-9R, and MW-10 were purged and sampled using dedicated bladder pumps and low-flow micropurge techniques. The surface water samples were collected directly from the stream flow, by lowering the sample containers into the stream flow with the opening facing into the current flow, taking care to prevent the over flow of the sample containers and to minimize sample-induced turbidity. Measurements of temperature, pH, specific conductivity, dissolved

oxygen, oxidation-reduction potential, and turbidity were recorded during the purge and at the time of sampling.

Prior to sampling, the laboratory-supplied sample containers were prepared. Each sample container was labeled with the sample identification number, sampling personnel, date and time of sample collection, project name and number, and requested chemical analyses.

The required groundwater samples were collected directly from the pump tubing in the labeled, laboratory-supplied, pre-preserved sample containers after purging. After collection, the samples were placed in a cooler on ice, under chain-of-custody control. Copies of the sampling logs are presented in Appendix A. Included in each log is a description of the sampling equipment, sampling method, field observations, and water quality measurements.

2.4 Laboratory Analysis Program

The May 2012 groundwater and surface water samples were received by Environmental Conservation Laboratories, Inc. (ENCO) of Cary, North Carolina on May 24, 2012, under chain-of-custody control for analysis of NC Appendix II constituents for groundwater samples and NC Appendix I constituents for surface water.

2.5 May 2012 Sampling Results

Analytical results for the May 2012 groundwater and surface water samples are summarized in Tables 4 and 5 with available historical data. The laboratory certificates-of-analysis, chain-of-custody forms and laboratory data reviews for the sampling event are included in Appendix B.

As presented in Table 4 and the laboratory certificates-of-analysis, two inorganic constituents were detected in samples from one or more downgradient monitoring wells at concentrations above their respective Solid Waste Section Reporting Limits (SWSLs) during the May 2012 sampling event. Barium was detected in the samples from MW-3R, MW-4R, MW-5, and MW-10 at concentrations greater than the SWSL during the event. Barium has consistently been detected in samples from upgradient monitoring wells and each downgradient well and appears to indicate that barium is naturally occurring. Zinc was detected in the sample from downgradient well MW-10 at a concentration greater than its SWSL during the May 2012 event. Zinc was also detected at an estimated concentration in the sample from background well MW-9R, as it has been during previous events, and appears to indicate that the zinc detections are naturally occurring.

As presented in Table 4, five organic constituents (benzene; cis-1,2-dichloroethene; 1,2-dichloropropane; trichloroethene; and vinyl chloride) were detected at concentrations above their respective SWSLs in the sample from MW-10 during the May 2012 sampling event. The detected constituents and concentrations

reported for MW-10 during this sampling event are consistent with historical data for this facility. Trans-1,2-dichloroethene was detected at an estimated concentration below the SWSL in the sample from MW-10 during the event. Bis(2-ethylhexyl)phthalate was detected at an estimated concentration below the SWSL in the sample from MW-5. The detection of bis(2-ethylhexyl) phthalate was considered suspect based on historical data and the monitoring well was resampled to verify the presence of bis(2-ethylhexyl) phthalate on June 16, 2012. The analysis of the verification sample did not confirm the detection.

As presented in Table 5, zinc was detected in the samples from upstream surface water monitoring point SW-4 and downstream surface water monitoring points SW-1, SW-2, and SW-3 at concentrations greater than the SWSL. Zinc has been historically detected in both upstream and downstream surface water monitoring points and the concentrations are consistent with historical detections. No other NC Appendix I constituents were reported to be present at concentrations that exceeded respective SWSLs from the surface water monitoring points during the May 2012 sampling event.

3.0 LABORATORY AND FIELD QA/QC

A field blank was collected by Golder personnel as part of the May 2012 groundwater sampling event. In addition to the field blank, a laboratory-prepared trip blank accompanied the volatile sample containers to and from the laboratory. ENCO analyzed the field blank for the same constituents as the groundwater samples, and the trip blank for NC Appendix II volatile organic compounds. A review of the laboratory data was performed by Golder personnel.

Acetone and 2-butanone were detected in the field blank at an estimated concentrations. 2-Butanone not was reported to be present in samples from groundwater monitoring wells or surface water monitoring points during the sampling event. Detections of acetone in surface water samples from SW-1, SW-2, SW-3, and SW-4 were blank-qualified and are considered suspect. Diethyl phthalate was reported to be present in the laboratory method blank. The detections of diethyl phthalate in MW-3R and MW-4R were subsequently blank-qualified and are considered suspect. No other NC Appendix I constituents were detected in the field, trip, or method blanks.

4.0 DATA EVALUATION

The results of the data evaluations are presented in the following sections.

4.1 North Carolina Groundwater and Surface Water Quality Standard Comparisons

As presented on Table 4, barium was detected in the sample from MW-5 at a concentration that exceeded the SWSL and NC 2L Standard. No other inorganic constituents were detected at concentrations that exceeded their SWSLs and applicable groundwater protection standard during the May 2012 event. Cobalt was detected in samples from upgradient well MW-9R and downgradient wells MW-2, MW-3R, MW-4R, and MW-10 at estimated concentrations below the SWSL, but above the Solid Waste Section Groundwater Protection Standard (GPS). Vanadium was detected in samples from upgradient well MW-9R and downgradient wells MW-2 and MW-3R at estimated concentrations below the SWSL, but above the GPS. These constituents have historically been detected at comparable concentrations in upgradient and downgradient monitoring wells at the site and are considered naturally occurring. No other NC Appendix I inorganic constituents were detected above applicable groundwater standards during the May 2012 event.

As presented on Table 4, five organic constituents (benzene; cis-1,2-dichloroethene; 1,2-dichloropropane; trichloroethene; and vinyl chloride) were detected in the sample from MW-10 at concentrations above their respective SWSLs and NC 2L Standards, as they have been during previous events. Bis(2-ethylhexyl)phthalate was detected in the sample from MW-5 at an estimated concentration below the SWSL, but above the NC 2L Standard during the event. A verification sample was collected from MW-5 on June 16, 2012, and analyzed for bis(2-ethylhexyl)phthalate, which did not confirm the detection.

As presented on Table 5, no NC Appendix I constituents were detected in surface water samples at concentrations that exceeded the SWSLs and applicable surface water standards during the May 2012 event. Copper was reported at an estimated concentration below the SWSL, but above the applicable surface water standard, in samples from downstream surface water monitoring points SW-1 and SW-2.

4.2 Statistical Evaluations

Barium was detected in the sample from MW-5 at a concentration that exceeded the SWSL and NC 2L Standard and was, therefore, statistically evaluated to determine if the reported concentration exceeded the facility background concentration. The statistical worksheets for barium are presented in Appendix C. As presented, the reported concentration of barium in the sample from MW-5 is below its background concentration and no further action is recommended.

5.0 CONCLUSIONS

During the May 2012 event, one NC Appendix I inorganic constituent (barium in the sample from MW-5) was detected at a concentration that exceeded its SWSL and applicable groundwater standard. The barium detection in the sample from MW-5 was statistically evaluated and determined to not be a statistically significant increase over background concentrations. Five organic constituents (benzene; cis-1,2-dichloroethene; 1,2-dichloropropane; trichloroethene; and vinyl chloride) were detected in the sample from MW-10 at concentrations that exceeded their respective SWSLs and NC 2L Standards, as they have been during previous events. Bis(2-ethylhexyl) phthalate was detected in the sample from MW-5 at an estimated concentration below the SWSL, but that was greater than the established NC 2L. The detection of bis(2-ethylhexyl) phthalate was considered suspect based on historical data and the monitoring well was resampled to verify the presence of bis(2-ethylhexyl) phthalate on June 16, 2012. The results of the June 2012 verification event did not confirm the presence of this constituent in MW-5.

Historically, well MW-10 is the only downgradient monitoring well in which organic constituents have been detected. A Nature and Extent Study is currently being prepared, which will address the organic constituents detected the samples from MW-10. Based on the results summarized herein, the City will continue monitoring this facility in accordance with the requirements of the Assessment Monitoring Program as outlined in Title 15A NCAC 13B.1634. The next compliance monitoring event for this facility is tentatively scheduled for November 2012.

6.0 REFERENCES

Golder Associates NC, Inc., September 2007. Groundwater Monitoring Report, First Semiannual 2007 Sampling Event, City of Durham Closed Municipal Solid Waste Landfill, Permit No. 32-01, Durham County, North Carolina.

Heath, Ralph C., 1993, *Basic Ground-Water Hydrology*, USGS Water Supply Paper 2220.

Malcolm Pirnie, Inc., April 1994. City of Durham Sanitary Landfill Water Quality Monitoring Plan.

Malcolm Pirnie, Inc., December 1996. City of Durham Municipal Solid Waste Landfill November 1996 Assessment Monitoring.

NCGS (North Carolina Geologic Survey), 1985. Geologic Map of North Carolina. Scale 1:500,000.

S&ME, October 2011. May 2011 Semi-Annual Groundwater and Surface Water Monitoring Report, City of Durham, Closed Municipal Solid Waste Landfill (DWM Permit No. 32-01).

Weston Solutions, Inc., February 2006. December 2005 Semiannual Event - Closed Durham City Landfill.

g:\projects\city of durham\gwmr\2012 may\draft\draft first semiannual 2012 gw monitoring report.docx

TABLES

TABLE 1

Summary of Historical Groundwater Elevation Data in Monitoring Wells
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Well ID	MW-2	MW-3R	MW-4R	MW-5	MW-6R	MW-7R	MW-8	MW-9R	MW-10	NES-3	PZ-2R	PZ-3	PZ-4R	PZ-6
TOC Elevation (ft AMSL)	285.65	285.19	294.48	298.56	290.51	317.12	311.96	360.58	282.81	283.56	346.90	349.33	338.82	349.21
Date	**Static Water Elevation (ft AMSL)**													
05/26/98	280.20	NI	NI	290.20	NI	NI	304.40	NI	NI	NI	NI	318.80	NI	308.10
12/01/98	280.06	NI	NI	298.43	NI	NI	304.40	NI	NI	NI	NI	321.29	NI	304.79
06/07/99	275.71	NI	NI	285.79	NI	NI	300.87	NI	NI	NI	NI	319.05	NI	303.68
07/08/99	NM	NI	289.09	NM	NI	NI	NM	NI	NI	NI	NI	NM	NI	NM
12/13/99	279.09	NI	289.49	288.28	NI	NI	302.19	NI	NI	NI	NI	319.83	NI	303.64
06/06/00	277.15	NI	289.37	287.10	NI	NI	301.98	NI	NI	NI	NI	319.45	NI	305.02
12/11/00	277.10	NI	289.15	288.05	NI	NI	302.01	NI	NI	NI	NI	320.27	NI	303.71
06/04/01	278.37	NI	289.67	286.67	NI	NI	301.42	NI	NI	NI	NI	318.52	NI	304.90
12/04/01	275.19	NI	289.15	288.25	NI	NI	299.32	NI	NI	NI	NI	319.11	NI	304.71
06/10/02	275.59	NI	288.52	288.38	NI	NI	302.55	NI	NI	NI	NI	317.57	NI	304.11
12/16/02	280.13	NI	290.51	292.22	NI	NI	305.28	NI	NI	NI	NI	318.72	NI	305.12
06/09/03	278.90	NI	290.04	288.21	NI	NI	301.45	NI	NI	NI	NI	317.81	NI	305.75
12/08/03	278.49	NI	289.82	288.06	NI	NI	310.00	NI	NI	NI	NI	319.84	NI	305.53
06/28/04	276.34	NM	290.00	287.15	275.79	297.73	300.87	349.02	NI	NI	318.70	319.37	313.74	308.83
12/20/04	275.48	NM	289.78	288.18	276.89	299.55	301.72	334.52	NI	NI	318.98	321.02	319.78	307.16
06/06/05	280.35	NM	289.87	287.31	275.79	297.82	300.74	349.62	NI	NI	320.93	321.07	320.42	306.90
12/05/05	274.26	NM	289.94	287.72	275.59	299.17	300.09	346.25	NI	NI	319.65	320.75	317.42	302.60
06/05/06	277.45	NM	291.10	287.45	275.81	298.91	300.51	347.47	NI	NI	319.74	318.85	317.89	304.85
12/04/06	279.40	NM	290.02	288.80	277.18	300.86	301.80	349.22	NI	NI	319.56	319.30	317.42	304.10
05/30/07	279.38	NM	291.00	289.89	278.59	300.48	303.60	348.47	NI	NI	320.18	318.56	319.08	300.51
11/19/07	273.92	NM	292.72	287.60	276.62	298.07	302.37	343.35	NI	NI	319.20	318.91	316.28	304.41
05/19/08	282.10	281.76	293.41	291.72	280.04	302.98	304.87	349.36	NI	NI	319.85	317.82	317.18	308.27
11/19/08	280.36	281.55	293.30	291.25	279.42	302.46	304.58	346.98	277.32	NI	319.64	318.31	317.07	306.72
06/30/09	279.07	280.11	292.11	290.00	278.45	300.40	303.39	347.71	276.86	NI	321.11	317.77	318.08	308.08
11/30/09	279.48	281.70	292.34	290.15	278.89	301.66	303.85	346.84	276.07	NI	319.33	317.49	315.67	305.04
05/20/10	281.47	281.76	292.51	290.12	279.20	301.44	304.11	351.95	276.16	NI	321.12	317.76	317.98	306.88
11/19/10	276.43	281.08	292.00	289.31	277.35	300.31	305.37	344.38	275.74	274.74	320.28	317.80	316.40	304.18
05/19/11	281.17	281.92	292.18	290.16	278.81	301.45	303.26	347.10	276.00	276.56	320.70	316.38	316.07	NM
11/28/11	276.20	281.31	292.00	289.35	277.62	300.52	302.05	342.60	275.57	275.82	320.87	317.36	315.10	303.62
05/22/12	279.43	280.67	291.77	289.61	278.00	299.94	302.02	344.45	275.95	275.59	320.92	316.14	315.09	306.54
MEAN	*278.22*	*281.32*	*290.77*	*289.15*	*277.65*	*300.22*	*302.80*	*346.43*	*276.21*	*275.68*	*320.04*	*318.79*	*317.10*	*305.28*
MAXIMUM	*282.10*	*281.92*	*293.41*	*298.43*	*280.04*	*302.98*	*310.00*	*351.95*	*277.32*	*276.56*	*321.12*	*321.29*	*320.42*	*308.83*
MINIMUM	*273.92*	*280.11*	*288.52*	*285.79*	*275.59*	*297.73*	*299.32*	*334.52*	*275.57*	*274.74*	*318.70*	*316.14*	*313.74*	*300.51*

Notes:
ft AMSL = feet above mean sea level
NA = not applicable
NM = not measured
TOC = top of well casing
NI = not installed
TOC elevations were surveyed by SEPI Engineering in September 2009.

TABLE 2

Summary of Estimated Horizontal Flow Velocities
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

May 2012							
Gradient Calculation Segment	**Flow Direction**	**Gradient Segment Length (feet)**	**Gradient Segment Elevations (feet)**	**Horizontal Gradient (i, feet)**	**Effective Porosity (n_e)**	**Hydraulic Conductivity (K, cm/sec)**	**Velocity (V_{gw}, feet/year)**
i_1	NW	1297	320 / 280	0.0308	0.2	8.87E-04	141.51
i_2	W	1777	320 / 280	0.0225	0.2	8.87E-04	103.31
i_3	SW	1650	320 / 290	0.0182	0.2	8.87E-04	83.41

Notes:

Horizontal velocities based on the modified Darcy equation $V_{gw} = Ki/n_e$.

Values for K and n_e based on estimates from Malcolm Pirnie, Inc.'s *City of Durham Municipal Solid Waste Landfill December 1998 Groundwater Monitoring Letter Report dated January 29, 1999 and Weston Solutions, Inc.'s December 2005 Semiannual Event--Closed Durham City Landfill*

TABLE 3

Summary of Well Construction Information
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Well Identification	Well Type	Ground Surface Elevation (ft AMSL)	TOC Elevation (ft AMSL)	Well Depth (feet)	Well Diameter (inches)	Screened Interval (ft AMSL)
MW-2	Compliance Well	283.69	285.65	19.62	2	264.07 - 274.07
MW-3R	Compliance Well	282.18	285.19	17.65	2	264.53 - 274.53
MW-4R	Compliance Well	291.91	294.48	17.39	2	274.52 - 284.52
MW-5	Compliance Well	297.16	298.56	21.77	2	275.39 - 285.39
MW-6R	Water Level Only	287.62	290.51	26.72	2	260.90 - 270.90
MW-7R	Water Level Only	314.60	317.12	44.01	2	270.59 - 295.59
MW-8	Water Level Only	308.24	311.96	16.52	2	291.72 - 299.22
MW-9R	Compliance Well	358.03	360.58	22.55	2	335.48 - 345.48
MW-10	Compliance Well	280.75	282.81	16.61	2	264.14 - 274.14
NES-3	Water Level Only	280.69	283.56	12.35	2	268.34 - 273.34
P-2R	Water Level Only	343.12	345.90	34.59	2	308.53 - 318.53
PZ-3	Water Level Only	345.71	349.33	42.40	2	303.31 - 318.31
PZ-4R	Water Level Only	335.85	338.82	38.38	2	297.47 - 312.47
PZ-6	Water Level Only	346.79	349.21	61.50	2	285.29 - 305.29

Notes:
ft AMSL = feet above mean sea level
TOC = Top of Well Casing Elevation
TOC and Ground Surface Elevation surveyed for all wells by SEPI Engineering in September 2009.
Screened Interval is approximate, based on field measurements by S&ME in May 2008.

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Antimony	ug/L	9/19/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
GPS = 1 ug/L	ug/L	12/2/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	6/10/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	5	ND	--	6	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	5	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	5	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	--
	ug/L	7/8/99	5	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	--
	ug/L	12/27/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	--
	ug/L	6/4/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/3/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/16/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/29/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/20/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/05	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	6	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	6	ND	--	ND	ND	--	--	ND	ND	--	0.36	--	ND	ND	--	ND
	ug/L	5/19/08	6	--	ND	ND	--	0.26	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	6	--	0.51 B	0.59 B	--	0.68 B	--	0.65 B	0.53 B	--	--	--	0.53 B	0.54 B	0.59 B	0.53 J
	ug/L	6/30/09	6	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/30/09	6	--	ND	ND	--	0.196 J	--	ND	ND	--	--	--	ND	0.365 J	ND	ND
	ug/L	5/20/10	6	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	1.42 J	ND	ND
	ug/L	11/19/10	6	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	6	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	6	--	ND	0.269 J	--	0.277 J	--	0.635 J	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	6	--	ND	0.542 J	--	1.37 J	--	0.224 J	ND	--	--	--	--	--	ND	ND
Arsenic	ug/L	9/19/94	5	11	--	ND	ND	--	ND	--	ND	6.8	--	ND	--	ND	--	
NC 2L = 10 ug/L	ug/L	12/2/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	5	9.1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	5	ND	--	ND	ND	--	ND	--	8.2	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	5	5	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	5	ND	--	ND	ND	--	ND	--	ND	7	--	ND	--	ND	--	--
	ug/L	12/1/98	5	5	--	ND	6	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	5	6	--	ND	6	--	--	--	ND	--	--	ND	--	--	--	--
	ug/L	7/8/99	5	--	--	--	--	--	--	5	--	7	--	--	--	ND	--	--
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	5	6	--	ND	6	--	--	ND	7	--	--	ND	--	ND	--	--
	ug/L	12/27/00	5	ND	--	ND	18	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/4/01	5	ND	--	ND	6	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/3/01	5	ND	--	ND	ND	--	--	ND	6	ND	--	ND	--	ND	--	--
	ug/L	6/10/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/16/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	5	ND	--	ND	6	--	--	ND	6	ND	--	ND	--	ND	--	--
	ug/L	6/29/04	5	ND	--	ND	5	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/20/04	5	ND	--	ND	5	--	--	ND	7	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	5	ND	--	ND	ND	--	--	ND	6	--	ND	--	6	ND	--	--
	ug/L	12/5/05	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	5	ND	--	ND	5	--	--	ND	7	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	5	ND	--	ND	5	--	--	ND	6	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	10	ND	--	ND	ND	--	--	ND	3.4 B	--	ND	--	2.0 B	3.1 B	--	3.8 J
	ug/L	11/19/07	10	2.3	--	0.46	6.3	--	--	0.69	4.4	--	8.4	--	4.8	1.2	--	0.89
	ug/L	5/19/08	10	--	ND	ND	--	2.7	--	ND	1.9	--	0.36	--	0.72	ND	--	ND
	ug/L	11/19/08	10	--	0.26 J	0.59 J	--	5.9 J	--	1.2 J	4.4 J	--	--	--	1.7 J	1.3 J	3.7 J	ND
	ug/L	6/30/09	10	--	ND	ND	--	6.2 B	--	8.2 B	4.9 B	--	--	--	4.4 B	ND	ND	4.3 J
	ug/L	11/30/09	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	10	--	ND	ND	--	ND	--	ND	5.98 B	--	--	--	ND	ND	ND	3.22 J
	ug/L	11/19/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	5.23 J	ND
	ug/L	11/28/11	10	--	4.99 B	ND	--	2.99 B	--	ND	3.24 B	--	--	--	--	--	ND	4.35 J
	ug/L	5/23/12	10	--	ND	ND	--	ND	--	ND	7.51 J	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Barium	ug/L	9/19/94	--	1834	--	199	810	--	590	--	9400	531	--	113	--	2115	--	--
NC 2L= 700 ug/L	ug/L	12/2/94	--	760	--	32	492	--	580	--	2300	84	--	1775	--	119	--	--
	ug/L	2/7/95	--	2648	--	48	1047	--	737	--	2436	118	--	1484	--	111	--	--
	ug/L	3/13/95	--	524	--	37	706	--	534	--	1630	144	--	716	--	118	--	--
	ug/L	11/1/95	--	970	--	25	1500	--	1030	--	3360	90	--	770	--	120	--	--
	ug/L	6/10/96	--	891	--	50	1246	--	683	--	992	140	--	459	--	123	--	--
	ug/L	11/12/96	--	1555	--	47	879	--	547	--	976	104	--	512	--	84	--	--
	ug/L	3/18/97	--	850	--	70	1287	--	774	--	1154	87	--	509	--	138	--	--
	ug/L	10/2/97	--	840	--	48	3390	--	623	--	1250	111	--	558	--	312	--	--
	ug/L	5/26/98	--	779	--	48	1177	--	600	--	1637	249	--	482	--	103	--	--
	ug/L	12/1/98	--	2390	--	45	1024	--	--	--	867	126	--	655	--	118	--	--
	ug/L	6/7/99	--	1850	--	106	1498	--	--	--	996	--	--	2780	--	373	--	--
	ug/L	7/8/99	--	--	--	--	--	--	--	1217	--	507	--	--	--	--	--	--
	ug/L	12/15/99	--	944	--	84	1510	--	--	315	942	122	--	366	--	116	--	--
	ug/L	6/6/00	--	2488	--	46	1281	--	--	377	3979	--	--	1018	--	114	--	--
	ug/L	12/27/00	--	1826	--	144	1504	--	--	1120	5757	768	--	518	--	104	--	--
	ug/L	6/4/01	--	2804	--	128	1433	--	--	964	3649	284	--	862	--	475	--	--
	ug/L	12/3/01	--	965	--	153	1219	--	--	1053	1441	723	--	750	--	778	--	--
	ug/L	6/10/02	--	849	--	53	1117	--	--	943	1167	295	--	554	--	843	--	--
	ug/L	12/16/02	--	620	--	59	1121	--	--	544	909	128	--	429	--	209	--	--
	ug/L	6/9/03	--	432	--	67	1175	--	--	437	941	103	--	450	--	120	--	--
	ug/L	12/8/03	--	2881	--	85	1115	--	--	544	3692	221	--	648	--	141	--	--
	ug/L	6/29/04	--	5664	--	97	1024	--	--	551	1899	--	3039	--	763	139	--	--
	ug/L	12/20/04	--	578	--	90	1236	--	--	543	4192	--	1444	--	639	111	--	--
	ug/L	6/5/05	--	952	--	64	1065	--	--	607	1845	--	589	--	817	93	--	--
	ug/L	12/5/05	--	435	--	126	1331	--	--	585	1758	--	512	--	703	92	--	--
	ug/L	6/5/06	--	575	--	97	1339	--	--	796	3778	--	939	--	880	90	--	--
	ug/L	12/5/06	--	635	--	63	2018	--	--	890	3134	--	819	--	924	71	--	--
	ug/L	5/30/07	100	619	--	67.2 J	1490	--	--	472	1240	--	400	--	622	69.0 J	--	ND
	ug/L	11/19/07	100	1300	--	120	1400	--	--	510	1400	--	970	--	820	300	--	ND
	ug/L	5/19/08	100	--	55 J	66	--	530	--	580	1300	--	430	--	600	33	--	ND
	ug/L	11/19/08	100	--	38 J	82 J	--	380	--	510	1400	--	--	--	580	64 J	250	ND
	ug/L	6/30/09	100	--	51.2 J	80.8 J	--	440	--	552	1590	--	--	--	618	106	341	ND
	ug/L	11/30/09	100	--	45.8 J	58 J	--	80.8 J	--	513	1450	--	--	--	580	39.4 J	168	ND
	ug/L	5/20/10	100	--	45.1 J	64.7 J	--	166	--	564	1460	--	--	--	578	41.5 J	122	ND
	ug/L	11/19/10	100	--	53.3 J	114	--	102	--	485	1500	--	--	--	572	56.1 J	238	ND
	ug/L	5/19/11	100	--	53.1 J	83 J	--	116	--	562	1860	--	--	--	--	--	248	1.14 J
	ug/L	11/28/11	100	--	80.4 J	195	--	130	--	540	1870	--	--	--	--	--	268	ND
	ug/L	5/23/12	100	--	50.6 J	82.2 J	--	212	--	577	1920	--	--	--	--	--	664	ND
Beryllium	ug/L	9/19/94	1	8.1	--	1.5	ND	--	ND	--	9.8	6.9	--	ND	--	7.3	--	--
SWS GPS = 4 ug/L	ug/L	12/2/94	1	3.1	--	ND	ND	--	ND	--	5	ND	--	3.9	--	ND	--	--
	ug/L	2/7/95	1	8.6	--	ND	ND	--	ND	--	4.7	ND	--	1.9	--	ND	--	--
	ug/L	3/13/95	1	1.5	--	ND	ND	--	ND	--	5.2	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	1	18	--	ND	ND	--	ND	--	8	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	1	3	--	1.5	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	1	5	--	ND	3	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	1	1.5	--	ND	1.3	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	1	1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	1	2	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	1	5	--	ND	3	--	--	--	ND	--	--	4	--	ND	--	--
	ug/L	7/8/99	1	--	--	--	--	--	--	2	--	2	--	--	--	--	--	--
	ug/L	12/15/99	1	2	--	ND	2	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	1	7	--	ND	ND	--	--	ND	5	2	--	2	--	ND	--	--
	ug/L	12/27/00	1	2	--	ND	ND	--	--	ND	8	1	--	ND	--	ND	--	--
	ug/L	6/4/01	1	4	--	ND	ND	--	--	ND	2	3	--	ND	--	ND	--	--
	ug/L	12/3/01	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/16/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	1	2	--	ND	ND	--	--	ND	2	--	--	ND	--	ND	--	--
	ug/L	6/29/04	1	2	--	ND	ND	--	--	ND	ND	--	2	--	ND	ND	--	--
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	2	--	1	--	ND	ND	--	--
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	2	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	1	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	1	3.1	--	ND	ND	--	--	ND	ND	--	1.4	--	0.79	0.93	--	ND
	ug/L	5/19/08	1	--	0.38 J	ND	--	0.25	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	0.73 J	0.73 J	--	ND	--	ND	0.34 J	--	--	--	0.3 J	0.37 J	ND	ND
	ug/L	6/30/09	1	--	0.47 J	0.11 J	--	ND	--	0.13 J	ND	--	--	--	ND	ND	0.46 J	ND
	ug/L	11/30/09	1	--	0.534 B	0.182 B	--	ND	--	ND	ND	--	--	--	ND	ND	0.131 B	0.121 J
	ug/L	5/20/10	1	--	0.521 J	0.21 J	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	1	--	0.608 J	0.191 J	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	1	--	0.549 J	0.242 J	--	ND	--	ND	ND	--	--	--	--	--	0.14 J	ND
	ug/L	11/28/11	1	--	0.770 J	0.204 J	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	0.456 J	0.214 J	--	ND	--	ND	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Cadmium	ug/L	9/19/94	1	ND	--	ND	ND	--	ND	--	1.6	4	--	ND	--	ND	--	--
NC 2L =2 ug/L	ug/L	12/2/94	1	ND	--	1	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	1	2.2	--	ND	ND	--	ND	--	1.6	ND	--	32	--	ND	--	--
	ug/L	3/13/95	1	ND	--	ND	ND	--	ND	--	ND	1.2	--	ND	--	ND	--	--
	ug/L	11/1/95	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	1	ND	--	1.8	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	1	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	1	ND	--	ND	ND	--	--	--	3	--	--	ND	--	ND	--	--
	ug/L	7/8/99	1	--	--	--	--	--	--	ND	--	1	--	--	--	--	--	--
	ug/L	12/15/99	1	ND	--	ND	ND	--	--	ND	ND	1	--	ND	--	ND	--	--
	ug/L	6/6/00	1	ND	--	ND	ND	--	--	ND	1	--	--	ND	--	ND	--	--
	ug/L	12/27/00	1	ND	--	ND	ND	--	--	ND	1	2	--	ND	--	ND	--	--
	ug/L	6/4/01	1	ND	--	ND	ND	--	--	ND	ND	1	--	ND	--	ND	--	--
	ug/L	12/3/01	1	ND	--	ND	ND	--	--	ND	ND	2	--	ND	--	ND	--	--
	ug/L	6/10/02	1	ND	--	7	ND	--	--	ND	2	3	--	ND	--	ND	--	--
	ug/L	12/16/02	1	ND	--	1	ND	--	--	ND	ND	2	--	ND	--	ND	--	--
	ug/L	6/9/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	1	ND	--	ND	ND	--	--	ND	ND	7	--	ND	--	ND	--	--
	ug/L	6/29/04	1	1	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/20/04	1	1	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	1.1	--	ND	ND	--	ND
	ug/L	11/19/07	1	0.93	--	ND	ND	--	--	ND	ND	--	2.1	--	0.34	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	0.29 B	0.49 B	--	0.34 B	--	0.4 B	0.28 B	--	--	--	0.29 B	0.31 B	0.32 B	0.28 J
	ug/L	6/30/09	1	--	ND	ND	--	0.12 B	--	ND	0.13 B	--	--	--	ND	ND	0.26 B	0.22 J
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
Chromium	ug/L	9/19/94	5	207	--	25	5.4	--	ND	--	699	148	--	12	--	139	--	--
NC 2L = 10 ug/L	ug/L	12/2/94	5	71	--	ND	ND	--	ND	--	142	13	--	95	--	9.7	--	--
	ug/L	2/7/95	5	271	--	ND	ND	--	ND	--	128	9.6	--	45	--	8.3	--	--
	ug/L	3/13/95	5	5.8	--	ND	ND	--	ND	--	36	5.7	--	14	--	13	--	--
	ug/L	11/1/95	5	40	--	ND	21	--	8	--	129	5	--	7	--	6	--	--
	ug/L	6/10/96	5	65	--	ND	49	--	ND	--	12	122	--	ND	--	ND	--	--
	ug/L	11/12/96	5	133	--	ND	96	--	7	--	19	5	--	10	--	9	--	--
	ug/L	3/18/97	5	ND	--	ND	22	--	ND	--	ND	165	--	ND	--	ND	--	--
	ug/L	10/2/97	5	65	--	ND	15	--	ND	--	ND	ND	--	7	--	ND	--	--
	ug/L	5/26/98	5	37	--	ND	6	--	ND	--	6	8	--	5	--	ND	--	--
	ug/L	12/1/98	5	176	--	ND	47	--	--	--	ND	5	--	9	--	11	--	--
	ug/L	6/7/99	5	46	--	ND	69	--	--	--	7	--	--	35	--	ND	--	--
	ug/L	7/8/99	5	--	--	--	--	--	--	108	--	89	--	--	--	--	--	--
	ug/L	12/15/99	5	121	--	5	68	--	--	5	5	5	--	5	--	5	--	--
	ug/L	6/6/00	5	297	--	5	40	--	--	5	7	--	--	33	--	5	--	--
	ug/L	12/27/00	5	102	--	7	6	--	--	ND	150	40	--	ND	--	ND	--	--
	ug/L	6/4/01	5	41	--	ND	ND	--	--	ND	ND	ND	--	25	--	13	--	--
	ug/L	12/3/01	5	54	--	ND	23	--	--	ND	24	12	--	16	--	ND	--	--
	ug/L	6/10/02	5	21	--	ND	16	--	--	ND	7	26	--	ND	--	6	--	--
	ug/L	12/16/02	5	32	--	ND	19	--	--	30	ND	ND	--	5	--	17	--	--
	ug/L	6/9/03	5	88	--	5	28	--	--	9	ND	9	--	7	--	10	--	--
	ug/L	12/8/03	5	89	--	ND	62	--	--	17	40	11	--	19	--	10	--	--
	ug/L	6/29/04	5	104	--	13	71	--	--	ND	16	--	65	--	13	12	--	--
	ug/L	12/20/04	5	11	--	6	9	--	--	ND	67	--	41	--	7	ND	--	--
	ug/L	6/5/05	5	32	--	ND	32	--	--	ND	14	--	5	--	18	ND	--	--
	ug/L	12/5/05	5	ND	--	5	53	--	--	5	22	--	ND	--	7	ND	--	--
	ug/L	6/5/06	5	69	--	6	39	--	--	ND	41	--	8	--	9	ND	--	--
	ug/L	12/5/06	5	9	--	ND	ND	--	--	ND	5	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	10	7.0 J	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	10	90	--	4.7	7.1	--	--	2.3	8.8	--	24	--	18	20	--	ND
	ug/L	5/19/08	10	--	ND	ND	--	2.4 J	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	10	--	ND	ND	--	3.0 J	--	2.5 J	ND	--	--	--	ND	2.3 J	6.3 J	ND
	ug/L	6/30/09	10	--	0.7 J	1.4 J	--	1.2 J	--	0.7 J	1.3 J	--	--	--	1.2 J	0.7 J	6.1 J	ND
	ug/L	11/30/09	10	--	1.21 J	ND	--	1.45 J	--	ND	ND	--	--	--	2.12 J	ND	1.02 J	ND
	ug/L	5/20/10	10	--	ND	ND	--	1.64 J	--	ND	ND	--	--	--	ND	1.72 J	2.07 J	ND
	ug/L	11/19/10	10	--	5.65 J	2.27 J	--	1.47 J	--	ND	ND	--	--	--	3.28 J	ND	2.62 J	ND
	ug/L	5/19/11	10	--	1.3 J	8.21 J	--	4.85 J	--	1.37 J	1.29 J	--	--	--	--	--	4.17 J	ND
	ug/L	11/28/11	10	--	7.67 J	4.88 J	--	3.02 J	--	ND	1.27 J	--	--	--	--	--	ND	ND
	ug/L	5/23/12	10	--	2.09 J	5.55 J	--	4.28 J	--	1.51 J	1.86 J	--	--	--	--	--	2.76 J	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient											Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Cobalt	ug/L	9/19/94	--	--	--	ND	ND	--	ND	--	89	26	--	ND	--	32	--	--
SWS GPS = 1 ug/L	ug/L	12/2/94	--	ND	--	ND	ND	--	ND	--	39	26	--	11	--	ND	--	--
	ug/L	2/7/95	--	30	--	ND	ND	--	ND	--	23	18	--	14	--	ND	--	--
	ug/L	3/13/95	--	--	--	ND	ND	--	ND	--	18	24	--	12	--	ND	--	--
	ug/L	11/1/95	10	12	--	ND	11	--	ND	--	47	13	--	ND	--	ND	--	--
	ug/L	6/10/96	10	ND	--	ND	15	--	ND	--	ND	ND	--	ND	--	12	--	--
	ug/L	11/12/96	10	34	--	ND	25	--	ND	--	ND	ND	--	ND	--	13	--	--
	ug/L	3/18/97	10	16	--	ND	15	--	ND	--	ND	12	--	ND	--	16	--	--
	ug/L	10/2/97	10	20.6	--	ND	40	--	ND	--	ND	ND	--	ND	--	21.5	--	--
	ug/L	5/26/98	10	45	--	ND	ND	--	ND	--	ND	ND	--	ND	--	15	--	--
	ug/L	12/1/98	25	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	10	34	--	ND	25	--	--	--	ND	--	--	55	--	14	--	--
	ug/L	7/8/99	10	--	--	--	--	--	--	29	--	14	--	--	--	--	--	--
	ug/L	12/15/99	10	16	--	ND	24	--	--	ND	ND	ND	--	ND	--	14	--	--
	ug/L	6/6/00	10	32	--	ND	19	--	--	ND	76	--	--	ND	--	14	--	--
	ug/L	12/27/00	10	ND	--	ND	19	--	--	ND	150	210	--	ND	--	19	--	--
	ug/L	6/4/01	10	50	--	ND	30	--	--	ND	60	85	--	ND	--	13	--	--
	ug/L	12/3/01	10	33	--	ND	31	--	--	ND	11	200	--	26	--	17	--	--
	ug/L	6/10/02	10	16	--	ND	24	--	--	ND	14	--	--	12	--	20	--	--
	ug/L	12/16/02	10	14	--	ND	21	--	--	11	ND	27	--	ND	--	25	--	--
	ug/L	6/9/03	10	ND	--	ND	24	--	--	ND	ND	12	--	ND	--	16	--	--
	ug/L	12/8/03	10	87	--	ND	21	--	--	ND	65	13	--	ND	--	16	--	--
	ug/L	6/29/04	10	91	--	ND	24	--	--	ND	ND	--	48	--	ND	26	--	--
	ug/L	12/20/04	5	7.4	--	ND	19	--	--	ND	47	--	25	--	ND	20	--	--
	ug/L	6/5/05	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	12/5/05	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	6/5/06	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	12/5/06	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/30/07	10	3.2 J	--	ND	4.3 J	--	--	ND	ND	--	10.2	--	ND	11.2	--	ND
	ug/L	11/19/07	10	16	--	2.3 J	10	--	--	2 J	2.5 J	--	21	--	7 J	21	--	ND
	ug/L	5/19/08	10	--	5.1 J	ND	--	7.3	--	ND	ND	--	17	--	ND	2.6 J	--	ND
	ug/L	11/19/08	10	--	5.0 J	ND	--	4.7 J	--	ND	ND	--	--	--	ND	7.8 J	16	ND
	ug/L	6/30/09	10	--	5.9 J	0.7 J	--	6.7 J	--	0.8 J	ND	--	--	--	ND	5.7 J	21.7	ND
	ug/L	11/30/09	10	--	5.43 J	ND	--	1.95 J	--	ND	ND	--	--	--	ND	4.28 J	8.89 J	ND
	ug/L	5/20/10	10	--	5.75 J	ND	--	4.42 J	--	ND	ND	--	--	--	ND	6.01 J	3.89 J	ND
	ug/L	11/19/10	10	--	6.12 J	ND	--	2.5 J	--	ND	ND	--	--	--	ND	4.41 J	8.05 J	ND
	ug/L	5/19/11	10	--	6.93 J	ND	--	1.7 J	--	ND	ND	--	--	--	--	--	5.31 J	ND
	ug/L	11/28/11	10	--	7.63 J	ND	--	2.74 J	--	ND	ND	--	--	--	--	--	5.64 J	ND
	ug/L	5/23/12	10	--	5.64 J	1.18 J	--	4.70 J	--	1.24 J	ND	--	--	--	--	--	4.63 J	ND
Copper	ug/L	9/19/94	5	109	--	7	ND	--	ND	--	598	119	--	ND	--	73	--	--
NC 2L = 1000 ug/L	ug/L	12/2/94	5	44	--	ND	ND	--	ND	--	113	14	--	43	--	7.3	--	--
	ug/L	2/7/95	5	150	--	ND	ND	--	ND	--	75	9.9	--	50	--	5.2	--	--
	ug/L	3/13/95	5	17	--	ND	ND	--	ND	--	58	13	--	11	--	6.8	--	--
	ug/L	11/1/95	5	20	--	ND	7	--	11	--	145	ND	--	7	--	ND	--	--
	ug/L	6/10/96	5	62	--	ND	50	--	6	--	8.7	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	5	73	--	ND	50	--	ND	--	10	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	5	ND	--	ND	50	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	5	27	--	ND	16	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	5	30	--	ND	6	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	5	60	--	ND	8	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	5	69	--	ND	23	--	--	--	10	--	--	43	--	ND	--	--
	ug/L	7/8/99	5	--	--	--	--	--	--	89	--	30	--	--	--	--	--	--
	ug/L	12/15/99	5	30	--	5	30	--	--	5	6	5	--	5	--	5	--	--
	ug/L	6/6/00	5	101	--	5	12	--	--	5	--	--	--	17	--	5	--	--
	ug/L	12/27/00	5	48	--	5	ND	--	--	5	34	34	--	ND	--	ND	--	--
	ug/L	6/4/01	5	95	--	ND	20	--	--	ND	28	28	--	ND	--	ND	--	--
	ug/L	12/3/01	5	28	--	ND	13	--	--	ND	15	15	--	14	--	ND	--	--
	ug/L	6/10/02	5	30	--	ND	10	--	--	ND	20	20	--	5	--	7	--	--
	ug/L	12/16/02	5	16	--	ND	15	--	--	20	16	16	--	10	--	23	--	--
	ug/L	6/9/03	5	52	--	ND	16	--	--	ND	14	14	--	5	--	8	--	--
	ug/L	12/8/03	5	92	--	ND	7	--	--	6	26	26	--	6	--	7	--	--
	ug/L	6/29/04	5	211	--	5	6	--	--	ND	--	--	75	--	12	5	--	--
	ug/L	12/20/04	5	7	--	ND	ND	--	--	ND	--	--	39	--	ND	6	--	--
	ug/L	6/5/05	2	28	--	ND	ND	--	--	ND	--	--	8	--	11	ND	--	--
	ug/L	12/5/05	2	ND	--	4	10	--	--	4	--	--	3	--	ND	ND	--	--
	ug/L	6/5/06	2	6	--	3	4	--	--	3	--	--	14	--	7	4	--	--
	ug/L	12/5/06	2	4	--	ND	2	--	--	ND	--	--	3	--	ND	ND	--	--
	ug/L	5/30/07	10	7.2 J	--	1.1 B	ND	--	--	1.7 B	ND	--	1.8 B	--	0.6 B	ND	--	0.7 J
	ug/L	11/19/07	10	50	--	2.1 B	1.7 B	--	--	1.1 B	4 B	--	60	--	7.2	17	--	1.1
	ug/L	5/19/08	10	--	2.4 B	1.8 B	--	7.3 B	--	4.6 B	1.7 B	--	2 B	--	1.3 B	1.8 B	--	5.7
	ug/L	11/19/08	10	--	1.2 B	1.4 B	--	3.4 B	--	1.5 B	1.3 B	--	--	--	1.2 B	2.6 B	3.7 B	1.1 J
	ug/L	6/30/09	10	--	1.14 B	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.33 B	2.36 J
	ug/L	11/30/09	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	11.5	ND
	ug/L	11/19/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	10	--	1.99 J	2.62 J	--	2.50 J	--	ND	ND	--	--	--	--	--	6.08 J	ND
	ug/L	11/28/11	10	--	5.69 J	2.95 J	--	ND	--	ND	ND	--	--	--	--	--	1.79 J	ND
	ug/L	5/23/12	10	--	1.76 J	2.12 J	--	ND	--	3.91 J	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks	
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10		
Lead	ug/L	9/19/94	5	40	--	ND	ND	--	ND	--	199	46	--	8.8	--	47	--	--	
NC 2L = 15 ug/L	ug/L	12/2/94	5	30	--	14	6.6	--	ND	--	77	19	--	53	--	10	--	--	
	ug/L	2/7/95	5	76	--	7.8	6.3	--	7	--	63	7.1	--	34	--	12	--	--	
	ug/L	3/13/95	5	11	--	ND	ND	--	ND	--	35	12	--	14	--	63	--	--	
	ug/L	11/1/95	5	14	--	ND	12	--	5	--	60	ND	--	9	--	ND	--	--	
	ug/L	6/10/96	5	25	--	ND	42	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	11/12/96	5	30	--	ND	29	--	ND	--	8	ND	--	10	--	ND	--	--	
	ug/L	3/18/97	5	ND	--	ND	8	--	ND	--	ND	ND	--	10	--	ND	--	--	
	ug/L	10/2/97	5	16	--	ND	55	--	ND	--	14	ND	--	22	--	7	--	--	
	ug/L	5/26/98	5	11	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	12/1/98	5	36	--	ND	8	--	--	--	ND	ND	--	8	--	ND	--	--	
	ug/L	6/7/99	5	19	--	ND	29	--	--	--	8	--	--	54	--	ND	--	--	
	ug/L	7/8/99	5	--	--	--	--	--	--	29	--	30	--	--	--	--	--	--	
	ug/L	12/15/99	5	14	--	ND	33	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/6/00	5	37	--	ND	12	--	--	ND	16	--	--	28	--	ND	--	--	
	ug/L	12/27/00	5	20	--	10	ND	--	--	ND	82	52	--	ND	--	ND	--	--	
	ug/L	6/4/01	5	35	--	8	20	--	--	ND	68	21	--	ND	--	ND	--	--	
	ug/L	12/3/01	5	23	--	ND	13	--	--	ND	23	36	--	30	--	ND	--	--	
	ug/L	6/10/02	5	6	--	ND	10	--	--	ND	7	13	--	ND	--	ND	--	--	
	ug/L	12/16/02	5	ND	--	5	11	--	--	8	ND	8	--	5	--	12	--	--	
	ug/L	6/9/03	5	ND	--	ND	24	--	--	ND	ND	ND	--	8	--	ND	--	--	
	ug/L	12/8/03	5	35	--	ND	ND	--	--	ND	47	14	--	8	--	ND	--	--	
	ug/L	6/29/04	5	83	--	ND	ND	--	--	28	11	--	51	--	6	ND	--	--	
	ug/L	12/20/04	5	ND	--	ND	5	--	--	ND	75	--	19	--	ND	ND	--	--	
	ug/L	6/5/05	5	13	--	ND	ND	--	--	ND	39	--	ND	--	7	ND	--	--	
	ug/L	12/5/05	5	ND	--	ND	9	--	--	ND	13	--	ND	--	ND	ND	--	--	
	ug/L	6/5/06	5	ND	--	ND	ND	--	--	ND	38	--	6	--	ND	ND	--	--	
	ug/L	12/5/06	5	ND	--	ND	ND	--	--	ND	12	--	ND	--	ND	ND	--	--	
	ug/L	5/30/07	10	3.5 B	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	3.1 J	
	ug/L	11/19/07	10	25	--	11 B	ND	--	--	3.8 B	5.1 B	--	12 B	--	13 B	17 B	--	3.5	
	ug/L	5/19/08	5	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	
	ug/L	11/19/08	10	--	3.2 B	0.5 B	--	1.3 B	--	0.19 B	0.29 B	--	--	--	4.7 B	1.2 B	3.8 B	3.1 J	
	ug/L	6/30/09	10	--	ND	ND	--	ND	--	3.6 B	2.1 B	--	--	--	ND	2.3 B	8.8 B	ND	
	ug/L	11/30/09	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	2.22 B	3.09 J	
	ug/L	5/20/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	2.51 J	2.04 J	ND	
	ug/L	11/19/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	2.62 J	ND	ND	ND	
	ug/L	5/19/11	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND	
	ug/L	11/28/11	10	--	2.81 J	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND	
	ug/L	5/23/12	10	--	2.21 J	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND	
Mercury	ug/L	12/1/98	0.2	0.2	--	ND	0.2	--	--	--	ND	ND	--	ND	--	ND	--	--	
NC 2L= 1 ug/L	ug/L	6/7/99	0.2	0.2	--	ND	0.2	--	--	--	ND	--	--	ND	--	ND	--	--	
	ug/L	7/8/99	0.2	--	--	--	--	--	--	ND	--	ND	--	--	--	---	--	--	
	ug/L	12/15/99	5	14	--	ND	33	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/6/00	5	37	--	ND	12	--	--	ND	16	---	--	28	--	ND	--	--	
	ug/L	12/22/00	5	20	--	10	<5	--	--	ND	82	52	--	ND	--	ND	--	--	
	ug/L	6/4/01	5	35	--	8	20	--	--	ND	68	21	--	ND	--	ND	--	--	
	ug/L	12/3/01	5	23	--	ND	13	--	--	ND	23	36	--	30	--	ND	--	--	
	ug/L	6/10/02	5	6	--	ND	10	--	--	ND	7	13	--	ND	--	ND	--	--	
	ug/L	12/16/02	5	ND	--	5	11	--	--	8	ND	8	--	5	--	12	--	--	
	ug/L	6/9/03	5	ND	--	ND	24	--	--	ND	ND	ND	--	8	--	ND	--	--	
	ug/L	12/8/03	5	35	--	ND	ND	--	--	ND	47.0	14.0	--	8.0	--	ND	--	--	
	ug/L	6/28/04	5	83	--	ND	ND	--	--	28	11	--	51	--	6	ND	--	--	
	ug/L	12/20/04	5	ND	--	ND	5	--	--	ND	75	--	19	--	ND	ND	--	--	
	ug/L	6/5/05	5	13	--	ND	ND	--	--	ND	39	--	ND	--	7	ND	--	--	
	ug/L	12/7/05	5	ND	--	ND	9.0	--	--	ND	13	--	ND	--	ND	ND	--	--	
	ug/L	6/5/06	5	ND	--	ND	ND	--	--	ND	38	--	6	--	ND	ND	--	--	
	ug/L	12/5/06	5	ND	--	ND	ND	--	--	ND	12	--	ND	--	ND	ND	--	--	
	ug/L	5/30/07	0.2	ND	--	ND	ND	--	--	ND	ND	--	0.2	--	ND	ND	--	ND	
	ug/L	11/19/07	0.2	ND	--	ND	ND	--	--	ND	ND	--	2.1	--	ND	ND	--	ND	
	ug/L	5/19/08	0.2	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	
	ug/L	11/19/08	0.2	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	6/30/09	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	11/30/09	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	5/20/10	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	11/19/10	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	5/19/11	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	11/28/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	5/23/12	0.2	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND	

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks	
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10		
Nickel	ug/L	9/19/94	10	17	--	15	ND	--	ND	--	468	13	--	13	--	77	--	--	
NC 2L = 100 ug/L	ug/L	12/2/94	10	56	--	ND	10	--	ND	--	96	35	--	55	--	14	--	--	
	ug/L	2/7/95	10	211	--	ND	ND	--	ND	--	64	26	--	31	--	ND	--	--	
	ug/L	3/13/95	10	30	--	ND	9.1	--	ND	--	61	40	--	25	--	11	--	--	
	ug/L	11/1/95	10	32	--	ND	15	--	ND	--	68	28	--	16	--	ND	--	--	
	ug/L	6/10/96	10	49	--	ND	22	--	ND	--	ND	100	--	ND	--	ND	--	--	
	ug/L	11/12/96	10	103	--	ND	24	--	49	--	12	10	--	ND	--	ND	--	--	
	ug/L	3/18/97	10	50	--	ND	16	--	ND	--	ND	29	--	ND	--	ND	--	--	
	ug/L	10/2/97	10	52	--	ND	18	--	ND	--	ND	11	--	ND	--	ND	--	--	
	ug/L	5/26/98	10	43	--	ND	19	--	11	--	ND	23	--	ND	--	ND	--	--	
	ug/L	12/1/98	10	124	--	ND	12	--	--	--	ND	10	--	ND	--	ND	--	--	
	ug/L	6/7/99	10	126	--	ND	35	--	--	--	16	--	--	34	--	ND	--	--	
	ug/L	7/8/99	10	--	--	--	--	--	--	37	--	57	--	--	--	--	--	--	
	ug/L	12/15/99	10	227	--	10	64	--	--	ND	ND	44	--	ND	--	ND	--	--	
	ug/L	6/6/00	10	343	--	ND	37	--	--	ND	13	--	--	25	--	ND	--	--	
	ug/L	12/27/00	10	144	--	ND	14	--	--	ND	132	34	--	ND	--	ND	--	--	
	ug/L	6/4/01	10	88	--	ND	13	--	--	11	20	13	--	ND	--	ND	--	--	
	ug/L	12/3/01	10	54	--	ND	21	--	--	ND	19	34	--	16	--	ND	--	--	
	ug/L	6/10/02	10	21	--	ND	16	--	--	ND	ND	27	--	ND	--	ND	--	--	
	ug/L	12/16/02	10	33	--	ND	19	--	--	ND	ND	25	--	ND	--	14	--	--	
	ug/L	6/9/03	10	26	--	ND	23	--	--	ND	ND	19	--	ND	--	11	--	--	
	ug/L	12/8/03	10	99	--	ND	13	--	--	ND	29	36	--	ND	--	ND	--	--	
	ug/L	6/29/04	10	130	--	12	15	--	--	ND	14	--	10	--	10	ND	--	--	
	ug/L	12/20/04	10	10	--	ND	ND	--	--	ND	46	--	37	--	10	ND	--	--	
	ug/L	6/5/05	10	35	--	ND	ND	--	--	ND	13	--	18	--	11	ND	--	--	
	ug/L	12/5/05	10	ND	--	10	19	--	--	ND	15	--	18	--	ND	ND	--	--	
	ug/L	6/5/06	10	61	--	ND	21	--	--	ND	33	--	19	--	ND	ND	--	--	
	ug/L	12/5/06	10	32	--	ND	10	--	--	ND	ND	--	18	--	ND	ND	--	--	
	ug/L	5/30/07	50	27.4 J	--	ND	2.5 J	--	--	2.9 J	4.0 J	--	23.1 J	--	ND	2.9 J	--	ND	
	ug/L	11/19/07	50	140	--	9.9	16	--	--	ND	11	--	45	--	19	37	--	ND	
	ug/L	5/19/08	50	--	ND	ND	--	ND	--	ND	ND	--	17	--	ND	ND	--	ND	
	ug/L	11/19/08	50	--	ND	ND	--	11.0	--	ND	ND	--	--	--	ND	ND	10.0 J	ND	
	ug/L	6/30/09	50	--	3.6 B	3.4 B	--	8.7 B	--	5.0 B	5.7 B	--	--	--	2.1 B	7.6 B	13.1 B	0.6	J
	ug/L	11/30/09	50	--	2.17 B	ND	--	5.81 B	--	2.29 B	2.81 B	--	--	--	ND	ND	4.28 B	4.59	J
	ug/L	5/20/10	50	--	2.61 J	ND	--	6.78 J	--	2.56 J	3.20 J	--	--	--	ND	ND	1.98 J	ND	
	ug/L	11/19/10	50	--	4.33 J	3.13 J	--	5.34 J	--	2.37 J	1.89 J	--	--	--	ND	ND	6.23 J	ND	
	ug/L	5/19/11	50	--	3.03 J	2.99 J	--	6.92 J	--	3.94 J	3.31 J	--	--	--	--	--	6.16 J	ND	
	ug/L	11/28/11	50	--	5.78 J	8.84 J	--	7.08 J	--	2.95 J	2.84 J	--	--	--	--	--	5.47 J	ND	
	ug/L	5/23/12	50	--	2.77 J	3.36 J	--	5.84 J	--	4.50 J	2.13 J	--	--	--	--	--	5.26 J	ND	
Selenium	ug/L	9/19/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
NC 2L = 20 ug/L	ug/L	12/2/94	5	ND	--	7.6	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	2/7/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	3/13/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	11/1/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/10/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	11/12/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	3/18/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	10/2/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	5/26/98	5	ND	--	ND	9	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	12/1/98	5	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/7/99	5	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	--	
	ug/L	7/8/99	5	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--	
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/6/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	--	
	ug/L	12/27/00	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/4/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	12/3/01	5	ND	--	ND	9	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/10/02	5	ND	--	ND	9	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	12/16/02	5	ND	--	ND	6	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/29/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--	
	ug/L	12/20/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--	
	ug/L	6/5/05	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--	
	ug/L	12/5/05	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--	
	ug/L	6/5/06	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--	
	ug/L	12/5/06	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--	
	ug/L	5/30/07	10	ND	--	ND	ND	--	--	ND	ND	--	2.8 B	--	ND	3.2 B	--	5.7	J
	ug/L	11/19/07	10	1.4 B	--	0.51 B	5.3	--	--	1.5 B	1.5 B	--	4.2	--	1 B	2.5 B	--	0.52	
	ug/L	5/19/08	10	--	ND	ND	--	0.85	--	0.47	ND	--	0.96	--	ND	ND	--	ND	
	ug/L	11/19/08	10	--	0.55 B	ND	--	1.5 B	--	0.42 B	0.64 B	--	--	--	ND	0.67 B	1.5 B	0.36	J
	ug/L	6/30/09	10	--	3.6 B	3.4 B	--	8.7 B	--	5.0 B	5.7 B	--	--	--	2.1 B	7.6 B	13.1 B	0.6	J
	ug/L	11/30/09	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND	
	ug/L	5/20/10	10	--	ND	ND	--	2.79 J	--	1.22 J	1.42 J	--	--	--	ND	ND	ND	ND	
	ug/L	11/19/10	10	--	ND	ND	--	2.41 J	--	0.928 J	1.12 J	--	--	--	ND	0.863 J	2.11 J	ND	
	ug/L	5/19/11	10	--	ND	ND	--	2.87 J	--	1.76 J	2.14 J	--	--	--	--	--	3.01 J	ND	
	ug/L	11/28/11	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND	
	ug/L	5/23/12	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND	

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Silver	ug/L	9/19/94	1	ND	--	ND	ND	--	ND	--	ND	2.2	--	ND	--	ND	--	--
NC 2L = 20 ug/L	ug/L	12/2/94	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	1	5	--	2	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	1	ND	--	ND	ND	--	ND	--	ND	7	--	ND	--	ND	--	--
	ug/L	10/2/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	1	--	--
	ug/L	12/1/98	1	1	--	ND	ND	--	--	--	ND	ND	--	2	--	ND	--	--
	ug/L	6/7/99	1	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	--
	ug/L	7/8/99	1	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--
	ug/L	12/15/99	1	ND	--	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	1	ND	--	ND	1	--	--	ND	ND	--	--	ND	--	ND	--	--
	ug/L	12/27/00	1	ND	--	ND	ND	--	--	ND	2	2	--	ND	--	ND	--	--
	ug/L	6/4/01	1	ND	--	3	1	--	--	ND	2	1	--	ND	--	ND	--	--
	ug/L	12/3/01	1	ND	--	ND	1	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/02	1	ND	--	ND	1	--	--	1	ND	ND	--	ND	--	ND	--	--
	ug/L	12/16/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	1	ND	--	ND	ND	--	--	ND	3	ND	--	ND	--	ND	--	--
	ug/L	6/29/04	1	8	--	1	ND	--	--	ND	ND	ND	--	ND	ND	ND	--	--
	ug/L	12/20/04	1	ND	--	1	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	2	ND	--	--
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	1	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	1	ND	--	ND	1	--	--	ND	2	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	10	ND	--	ND	ND	--	--	2.0 J	ND	--	2.8 J	--	ND	ND	--	ND
	ug/L	11/19/07	10	--	--	ND	--	--	--	ND	ND	--	--	--	ND	ND	--	ND
	ug/L	5/19/08	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND
	ug/L	11/19/08	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	6/30/09	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/30/09	10	--	ND	ND	--	ND	--	ND	2.57 J	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	10	--	ND	ND	--	2.11 J	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	10	--	ND	2.01 J	--	ND	--	ND	ND	--	--	--	--	--	7.19 J	ND
	ug/L	5/23/12	10	--	7.43 J	5.61 J	--	2.88 J	--	2.73 J	ND	--	--	--	--	--	5.95 J	ND
Thallium	ug/L	9/19/94	5	ND	--	ND	ND	--	ND	--	6.1	ND	--	ND	--	ND	--	--
SWS GPS = 0.28 ug/L	ug/L	12/2/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	5	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	1	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	--
	ug/L	7/8/99	1	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--
	ug/L	12/15/99	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	--	--	--
	ug/L	6/6/00	1	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	--	--	--
	ug/L	12/27/00	1	ND	--	ND	ND	--	--	ND	1	ND	--	ND	--	--	--	--
	ug/L	6/4/01	1	ND	--	ND	ND	--	--	ND	1	ND	--	ND	--	--	--	--
	ug/L	12/3/01	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	--	--	--
	ug/L	6/10/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	--	--	--
	ug/L	12/16/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	--	--	--
	ug/L	6/9/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	--	--	--
	ug/L	12/8/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	--	--	--
	ug/L	6/29/04	1	2	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	5.5	0.108 J	--	ND	0.086 J	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	5.5	--	--	ND	--	--	--	ND	ND	--	--	--	ND	ND	--	ND
	ug/L	5/19/08	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND
	ug/L	11/19/08	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	6/30/09	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/30/09	5.5	--	ND	ND	--	ND	--	3.14 J	ND	--	--	--	ND	0.75 J	ND	ND
	ug/L	5/20/10	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	5.5	--	ND	0.142 J	--	ND	--	0.281 J	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Tin	ug/L	12/1/98	50	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
GPS = 2000 ug/L	ug/L	6/7/99	50	ND	--	ND	ND	--	--	--	ND	---	--	ND	--	ND	--	--
	ug/L	7/8/99	50	--	--	--	--	--	--	ND	--	ND	--	---	--	---	--	--
	ug/L	12/15/99	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	1	ND	--	ND	ND	--	--	ND	ND	---	--	ND	--	ND	--	--
	ug/L	12/22/00	1	ND	--	ND	ND	--	--	ND	1	ND	--	ND	--	ND	--	--
	ug/L	6/4/01	1	ND	--	ND	ND	--	--	ND	1	ND	--	ND	--	ND	--	--
	ug/L	12/3/01	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/16/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/29/04	1	2	--	ND	ND	--	--	ND	ND	--	ND	---	ND	ND	--	--
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	ND	---	ND	ND	--	--
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	---	ND	ND	--	--
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	---	ND	ND	--	--
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	---	ND	ND	--	--
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	---	ND	ND	--	--
	ug/L	5/30/07	100	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	3.6 J
	ug/L	11/19/07	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/08	100	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	6/30/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/30/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/20/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/19/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/28/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/23/12	100	--	ND	ND	--	33.8 J	--	3.67 J	5.63 J	--	--	--	--	--	ND	ND
Vanadium	ug/L	9/19/94	5	203	--	23	ND	--	ND	--	411	167	--	16	--	122	--	--
SWS GPS = 0.3 ug/L	ug/L	12/2/94	5	51	--	ND	ND	--	ND	--	124	6.7	--	68	--	7.9	--	--
	ug/L	2/7/95	5	206	--	ND	ND	--	ND	--	99	6.9	--	37	--	6	--	--
	ug/L	3/13/95	5	16	--	ND	ND	--	ND	--	85	6.7	--	9.7	--	9.4	--	--
	ug/L	11/1/95	5	37	--	ND	17	--	8	--	16	ND	--	5	--	7	--	--
	ug/L	6/10/96	5	50	--	ND	34	--	67	--	14	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	5	141	--	ND	52	--	9	--	25	ND	--	11	--	12	--	--
	ug/L	3/18/97	5	141	--	ND	16	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	5	65	--	ND	17	--	ND	--	ND	ND	--	8.5	--	5.8	--	--
	ug/L	5/26/98	5	20	--	ND	5	--	ND	--	ND	ND	--	5	--	5	--	--
	ug/L	12/1/98	5	110	--	ND	10	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	5	45	--	ND	59	--	--	--	11	--	--	45	--	ND	--	--
	ug/L	7/8/99	5	--	--	--	--	--	--	16	--	48	--	--	--	--	--	--
	ug/L	12/15/99	5	38	--	ND	14	--	--	ND	6	ND	--	ND	--	6	--	--
	ug/L	6/6/00	5	109	--	ND	34	--	--	ND	23	--	--	36	--	6	--	--
	ug/L	12/27/00	5	26	--	ND	11	--	--	ND	44	38	--	ND	--	ND	--	--
	ug/L	6/4/01	5	22	--	ND	ND	--	--	ND	ND	6	--	ND	--	ND	--	--
	ug/L	12/3/01	5	25	--	ND	19	--	--	ND	26	38	--	16	--	ND	--	--
	ug/L	6/10/02	5	12	--	ND	13	--	--	ND	8	27	--	ND	--	9	--	--
	ug/L	12/16/02	5	7	--	ND	ND	--	--	ND	ND	ND	--	ND	--	17	--	--
	ug/L	6/9/03	5	5	--	ND	ND	--	--	ND	ND	8	--	6	--	9	--	--
	ug/L	12/8/03	5	46	--	ND	8	--	--	ND	43	13	--	ND	--	5	--	--
	ug/L	6/29/04	5	59	--	ND	6	--	--	ND	17	--	49	--	12	ND	--	--
	ug/L	12/20/04	5	8	--	ND	7	--	--	ND	69	--	34	--	5	5	--	--
	ug/L	6/5/05	5	27	--	ND	ND	--	--	ND	17	--	ND	--	17	ND	--	--
	ug/L	12/5/05	5	ND	--	ND	14	--	--	ND	16	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	5	ND	--	ND	ND	--	--	ND	42	--	9	--	7	ND	--	--
	ug/L	12/5/06	5	ND	--	ND	ND	--	--	ND	7	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	25	5.4 J	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	25	20	--	3.1 J	ND	--	--	ND	3.8	--	13	--	13	17	--	ND
	ug/L	5/19/08	25	--	4.0	ND	--	9.0	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	25	--	ND	ND	--	2.3 J	--	ND	ND	--	--	--	ND	ND	3.6 J	ND
	ug/L	6/30/09	25	--	ND	ND	--	1.1 J	--	ND	ND	--	--	--	ND	ND	6.9 J	ND
	ug/L	11/30/09	25	--	1.58 J	ND	--	2.48 J	--	ND	ND	--	--	--	ND	ND	2.29 J	ND
	ug/L	5/20/10	25	--	ND	ND	--	3.25 J	--	ND	ND	--	--	--	ND	2.60 J	4.70 J	ND
	ug/L	11/19/10	25	--	3.74 J	ND	--	1.47 J	--	ND	ND	--	--	--	2.03 J	ND	ND	ND
	ug/L	5/19/11	25	--	ND	3.86 J	--	1.47 J	--	ND	ND	--	--	--	--	--	3.89 J	ND
	ug/L	11/28/11	25	--	9.59 J	ND	--	1.77 J	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	25	--	1.74 J	2.24 J	--	2.60 J	--	ND	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Zinc	ug/L	9/19/94	10	303	--	34	ND	--	ND	--	1030	445	--	ND	--	207	--	--
NC 2L = 1000 ug/L	ug/L	12/2/94	10	106	--	ND	17	--	ND	--	202	169	--	140	--	ND	--	--
	ug/L	2/7/95	10	477	--	ND	ND	--	ND	--	183	76	--	74	--	70	--	--
	ug/L	3/13/95	10	291	--	ND	17	--	17	--	185	150	--	114	--	59	--	--
	ug/L	11/1/95	10	65	--	ND	12	--	13	--	225	ND	--	15	--	ND	--	--
	ug/L	6/10/96	10	125	--	ND	69	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	10	134	--	ND	132	--	12	--	26	22	--	16	--	11	--	--
	ug/L	3/18/97	10	ND	--	ND	30	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	10	96	--	23	52	--	ND	--	ND	ND	--	19	--	ND	--	--
	ug/L	5/26/98	10	20	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	10	121	--	11	16	--	--	--	ND	12	--	ND	--	ND	--	--
	ug/L	6/7/99	10	77	--	31	87	--	--	--	31	--	--	156	--	92	--	--
	ug/L	7/8/99	10	--	--	--	--	--	--	64	--	198	--	--	--	--	--	--
	ug/L	12/15/99	10	100	--	38	56	--	--	56	50	22	--	26	--	33	--	--
	ug/L	6/6/00	10	267	--	17	20	--	--	ND	28	--	--	67	--	ND	--	--
	ug/L	12/27/00	10	100	--	28	22	--	--	257	414	200	--	46	--	ND	--	--
	ug/L	6/4/01	10	80	--	24	60	--	--	162	269	96	--	191	--	121	--	--
	ug/L	12/3/01	10	73	--	59	39	--	--	214	55	87	--	37	--	249	--	--
	ug/L	6/10/02	10	41	--	52	27	--	--	141	20	93	--	68	--	168	--	--
	ug/L	12/16/02	10	27	--	12	34	--	--	26	14	150	--	28	--	37	--	--
	ug/L	6/9/03	10	12	--	19	49	--	--	10	ND	72	--	19	--	27	--	--
	ug/L	12/8/03	10	261	--	18	16	--	--	13	216	212	--	11	--	11	--	--
	ug/L	6/29/04	10	369	--	18	15	--	--	ND	35	--	226	--	59	ND	--	--
	ug/L	12/20/04	10	17	--	52	35	--	--	ND	134	--	77	--	15	13	--	--
	ug/L	6/5/05	10	56	--	44	ND	--	--	ND	103	--	16	--	55	20	--	--
	ug/L	12/5/05	10	ND	--	74	28	--	--	ND	35	--	10	--	ND	ND	--	--
	ug/L	6/5/06	10	14	--	31	11	--	--	ND	98	--	24	--	18	ND	--	--
	ug/L	12/5/06	10	ND	--	14	16	--	--	ND	26	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	10	18.4	--	10.4 B	ND	--	--	1.1 B	3.3 B	--	6.8 B	--	12.3	4.4 B	--	2.4 J
	ug/L	11/19/07	10	160	--	21	55	--	--	20	58	--	100	--	66	52	--	90
	ug/L	5/19/08	10	--	12	8.7	--	45	--	30	54	--	23	--	34	4.6	--	ND
	ug/L	11/19/08	10	--	7.7 J	14	--	23	--	22	58	--	--	--	26	9.8 J	26	ND
	ug/L	6/30/09	10	--	5.8 B	7.9 B	--	3.5 B	--	ND	ND	--	--	--	4.7 B	ND	22.4 B	15.2
	ug/L	11/30/09	10	--	5.99 J	6.40 J	--	3.93 J	--	ND	ND	--	--	--	ND	11.7	19.9	ND
	ug/L	5/20/10	10	--	5.76 J	4.95 J	--	ND	--	ND	ND	--	--	--	ND	4.15 J	90.3	ND
	ug/L	11/19/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	11.5	ND
	ug/L	5/19/11	10	--	6.26 B	7.80 B	--	ND	--	ND	ND	--	--	--	--	--	9.03 B	4.26 J
	ug/L	11/28/11	10	--	21.7	18.6	--	ND	--	ND	ND	--	--	--	--	--	26.6	ND
	ug/L	5/23/12	10	--	6.59 J	8.53 J	--	ND	--	5.43 J	ND	--	--	--	--	--	39.0	ND
Benzene	ug/L	9/19/94	--	--	--	--	--	--	--	--	--	--	--	ND	--	ND	--	--
NC 2L= 1 ug/L	ug/L	12/2/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	1	ND	--	ND	2	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	9/3/96	--	--	--	--	1.8	--	--	--	--	--	--	--	--	--	--	--
	ug/L	10/2/96	--	--	--	--	1.2	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/12/96	1	ND	--	ND	1.7	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	1	ND	--	ND	1.6	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	1	ND	--	ND	2.1	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/1/98	1	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/7/99	5	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	--
	ug/L	7/8/99	5	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	ND
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/6/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	ND
	ug/L	12/27/00	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/4/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/3/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/10/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/16/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/8/03	3	ND	--	ND	0.83 J	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/29/04	3	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/20/04	0.5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/05	0.5	ND	--	ND	1.1	--	--	ND	ND	--	2.7	--	ND	ND	--	ND
	ug/L	12/5/05	0.5	ND	--	ND	0.9	--	--	ND	ND	--	2.8	--	ND	ND	--	ND
	ug/L	6/5/06	0.5	ND	--	ND	0.87	--	--	ND	ND	--	3.8	--	ND	ND	--	ND
	ug/L	12/5/06	0.5	ND	--	ND	ND	--	--	ND	ND	--	3.4	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	0.47 J	--	--	ND	ND	--	2.6	--	ND	ND	--	ND
	ug/L	11/19/07	1	ND	--	ND	0.52	--	--	ND	ND	--	3.1	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	4.3	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	4.0	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	4.6	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.8	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	0.89 J	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	2.3	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	1.7	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	1.6	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	1.7 J	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Chlorobenzene	ug/L	9/19/94	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
NC 2L= 50 ug/L	ug/L	12/2/94	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	9/3/96	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/96	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	7/8/99	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/15/99	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/27/00	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/4/01	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/3/01	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/02	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/16/02	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	1	ND	--	ND	1 J	--	--	ND	ND	ND	ND	ND	--	ND	--	ND
	ug/L	6/29/04	1	ND	--	ND	ND	--	--	ND	ND	ND	ND	ND	--	ND	--	ND
	ug/L	12/20/04	1	ND	--	ND	1.2	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/05	1	ND	--	ND	1.4	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	1.6	--	--	ND	ND	--	0.73 J	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	--	--	ND	ND	--	ND
	ug/L	5/30/07	3	ND	--	ND	ND	--	--	ND	ND	--	1.6 J	--	ND	ND	--	ND
	ug/L	11/19/07	3	ND	--	ND	0.71	--	--	ND	ND	--	0.66	--	ND	ND	--	ND
	ug/L	5/19/08	3	--	ND	ND	--	ND	--	ND	ND	--	0.73	--	ND	ND	--	ND
	ug/L	11/19/08	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND
	ug/L	6/30/09	3	--	ND	ND	--	0.41 J	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/30/09	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
1,4-Dichlorobenzene	ug/L	12/8/03	1	ND	--	ND	0.87 J	--	--	ND	ND	ND	--	ND	--	ND	--	ND
NC 2L=6 ug/L	ug/L	6/28/04	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	2.5	--	ND	ND	--	ND
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	2.5	--	ND	ND	--	ND
	ug/L	12/5/05	1	ND	--	ND	1.0	--	--	ND	ND	--	3.5	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	1.2	--	--	ND	ND	--	3.6	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	4.4	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	3.4	--	ND	ND	--	ND
	ug/L	11/19/07	1	ND	--	ND	ND	--	--	ND	ND	--	3.7	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	4.6	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.3 J	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	2.2 J	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	0.77 J	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	0.65 J	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	0.92 J	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
1,1-Dichloroethane	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
NC 2L= 6 ug/L	ug/L	6/28/04	5	ND	--	ND	ND	--	--	ND	ND	--	3.7 J	--	ND	ND	--	ND
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	4.4	--	ND	ND	--	ND
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	5.3	--	ND	ND	--	ND
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	4.3	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	4.5	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	4.2	--	ND	ND	--	ND
	ug/L	5/30/07	5	ND	--	ND	ND	--	--	ND	ND	--	3.6 J	--	ND	ND	--	ND
	ug/L	11/19/07	5	ND	--	ND	ND	--	--	ND	ND	--	5.6	--	ND	ND	--	ND
	ug/L	5/19/08	5	--	ND	ND	--	ND	--	ND	ND	--	4.2	--	ND	ND	--	ND
	ug/L	11/19/08	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	9.8	ND
	ug/L	6/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	7.8	ND
	ug/L	11/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	4.2 J	ND
	ug/L	5/20/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.6 J	ND
	ug/L	11/19/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	5.3	ND
	ug/L	5/19/11	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	3.2 J	ND
	ug/L	11/28/11	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	3.1 J	ND
	ug/L	5/23/12	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
cis-1,2-dichloroethene	ug/L	9/22/94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NC 2L= 70 ug/L	ug/L	12/2/94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	2/7/95	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/96	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	9/3/96	--	--	--	--	1.0	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/13/96	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	2	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/7/99	5	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	ND
	ug/L	7/8/99	5	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/6/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	ND
	ug/L	12/13/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	ND
	ug/L	6/4/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/3/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/10/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/16/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/28/04	5	ND	--	ND	ND	--	--	ND	ND	--	46	--	ND	ND	--	ND
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	45	--	ND	ND	--	ND
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	90	--	ND	ND	--	ND
	ug/L	12/5/05	1	ND	--	1.1	ND	--	--	ND	ND	--	68	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	97	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	78	--	ND	ND	--	ND
	ug/L	5/30/07	5	ND	--	ND	ND	--	--	ND	ND	--	89	--	ND	ND	--	ND
	ug/L	11/19/07	5	ND	--	0.62	ND	--	--	ND	ND	--	98	--	ND	ND	--	ND
	ug/L	5/19/08	5	--	ND	ND	--	ND	--	ND	ND	--	140	--	ND	ND	--	ND
	ug/L	11/19/08	5	--	ND	0.84 J	--	ND	--	ND	ND	--	--	--	ND	ND	370	ND
	ug/L	6/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	370	ND
	ug/L	11/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	190	ND
	ug/L	5/20/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	86	ND
	ug/L	11/19/10	5	--	ND	1.4 J	--	ND	--	ND	ND	--	--	--	ND	ND	210	ND
	ug/L	5/19/11	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	110	ND
	ug/L	11/28/11	5	--	ND	3.7 J	--	ND	--	ND	ND	--	--	--	--	--	140	ND
	ug/L	5/23/12	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	200	ND
trans-1,2-Dichloroethene	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
NC 2L= 100 ug/L	ug/L	6/28/04	5	ND	--	ND	ND	--	--	ND	ND	--	2.6 J	--	ND	ND	--	ND
	ug/L	12/20/04	2	ND	--	ND	ND	--	--	ND	ND	--	3.5	--	ND	ND	--	ND
	ug/L	6/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	4.4	--	ND	ND	--	ND
	ug/L	12/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	3.8	--	ND	ND	--	ND
	ug/L	6/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	5.1	--	ND	ND	--	ND
	ug/L	12/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	4.5	--	ND	ND	--	ND
	ug/L	5/30/07	5	ND	--	ND	ND	--	--	ND	ND	--	3.7 J	--	ND	ND	--	ND
	ug/L	11/19/07	5	ND	--	ND	ND	--	--	ND	ND	--	5.9	--	ND	ND	--	ND
	ug/L	5/19/08	5	--	ND	ND	--	ND	--	ND	ND	--	5.7	--	ND	ND	--	ND
	ug/L	11/19/08	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	12.0	ND
	ug/L	6/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	9.7	ND
	ug/L	11/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	4.7 J	ND
	ug/L	5/20/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.8 J	ND
	ug/L	11/19/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	4.9 J	ND
	ug/L	5/19/11	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	4.2 J	ND
	ug/L	11/28/11	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	3.4 J	ND
	ug/L	5/23/12	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	4.4 J	ND
1,2-Dichloropropane	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
NC 2L= 0.6 ug/L	ug/L	6/28/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	1.8	--	ND	ND	--	ND
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	2.4	--	ND	ND	--	ND
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	2.4	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	3.5	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	2.3	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	2.0	--	ND	ND	--	ND
	ug/L	11/19/07	1	ND	--	ND	ND	--	--	ND	ND	--	2.8	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	3.3	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	11.0	ND
	ug/L	6/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	9.4	ND
	ug/L	11/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	4.7	ND
	ug/L	5/20/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.9	ND
	ug/L	11/19/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	5.6	ND
	ug/L	5/19/11	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	2.2	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	4.0	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	4.5	ND
Ethylbenzene	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	ND	--	--	ND	ND	--	ND
NC 2L = 600 ug/L	ug/L	11/19/07	1	0.38	--	0.6	0.48	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Methylene Chloride	ug/L	9/22/94	--	--	--	--	--	--	--	--	--	--	--	14.6	--	ND	--	--
NC 2L= 5 ug/L	ug/L	12/2/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/13/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	5	ND	--	ND	ND	--	ND	--	22	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	5	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/7/99	5	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	ND
	ug/L	7/8/99	5	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/6/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	ND
	ug/L	12/22/00	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/4/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/3/01	5	77	--	92	66	--	--	ND	68	91	--	68	--	66	--	ND
	ug/L	6/10/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/16/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/28/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/20/04	2	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	1	0.42	--	0.47	0.046	--	--	ND	ND	--	ND	--	ND	ND	--	0.49
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
Tetrachloroethene	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	1.9	--	ND	ND	--	ND
NC 2L= 0.7 ug/L	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	1.9	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	0.55 J	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	0.64 J	--	ND	ND	--	ND
	ug/L	11/19/07	1	ND	--	ND	ND	--	--	ND	ND	--	0.46	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.8	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	2.6 J	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	0.60 J	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	0.42 J	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Toluene	ug/L	9/19/94	--	--	--	--	--	--	--	--	--	--	--	ND	--	ND	--	--
NC 2L= 600 ug/L	ug/L	12/2/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	1	ND	--	ND	ND	--	1.9 B	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	1	ND	--	ND	1.7	--	1.2	--	ND	ND	--	1.2	--	ND	--	--
	ug/L	3/18/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	1	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/7/99	5	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	ND
	ug/L	7/8/99	5	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/6/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	ND
	ug/L	12/22/00	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/4/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/3/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/10/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/16/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/29/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	1.2	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	0.33 J
	ug/L	11/19/07	1	ND	--	0.37	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	0.45	ND	--	0.66
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
Trichloroethene	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
NC 2L= 3 ug/L	ug/L	6/28/04	5	ND	--	ND	ND	--	--	ND	ND	--	3.4 J	--	ND	ND	--	ND
	ug/L	12/20/04	2	ND	--	ND	ND	--	--	ND	ND	--	3.5	--	ND	ND	--	ND
	ug/L	6/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	4.7	--	ND	ND	--	ND
	ug/L	12/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	3.9	--	ND	ND	--	ND
	ug/L	6/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	2.9	--	ND	ND	--	ND
	ug/L	12/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	2.2	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	2.6	--	ND	ND	--	ND
	ug/L	11/19/07	1	ND	--	ND	ND	--	--	ND	ND	--	3.1	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	1.6	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	30.0	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	38	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	14	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	6.9	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	9.5	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	12.0	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	5.9	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	9.8	ND
Vinyl Chloride	ug/L	12/8/03	10	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
NC 2L= 0.03 ug/L	ug/L	6/28/04	10	ND	--	ND	ND	--	--	ND	ND	--	9.9 J	--	ND	ND	--	ND
	ug/L	12/20/04	2	ND	--	ND	ND	--	--	ND	ND	--	12	--	ND	ND	--	ND
	ug/L	6/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	16	--	ND	ND	--	ND
	ug/L	12/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	13	--	ND	ND	--	ND
	ug/L	6/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	16	--	ND	ND	--	ND
	ug/L	12/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	15	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	14	--	ND	ND	--	ND
	ug/L	11/19/07	1	ND	--	ND	ND	--	--	ND	ND	--	23	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	21	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	25	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	23	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	17	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	6.8	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	17	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	12	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	9.9	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	15	ND
Diethylphthalate	ug/L	5/30/07	10	ND	--	ND	ND	--	--	ND	ND	ND	--	--	ND	ND	--	ND
NC2L = 6000 ug/L	ug/L	11/19/07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/19/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	6/30/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/30/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/20/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/19/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/23/12	6000	--	ND	ND	--	6.6 B	--	12 B	ND	--	--	--	--	--	ND	8.8 J

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient													Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Bis(2-ethylhexyl)phthalate	ug/L	5/30/07	15	3.0 J	--	1.2 J	1.1 J	--	--	1.2 J	ND	--	ND	--	ND	ND	--	ND
NC 2L= 3 ug/L	ug/L	11/19/07	15	ND	--	--	ND	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/08	10	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	10	--	ND	--	--	--	--	--	--	--	--	--	ND	--	--	--
	ug/L	6/30/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/30/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/20/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/19/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/28/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/23/12	15	--	ND	ND	--	ND	--	ND	7.7 J	--	--	--	--	--	ND	ND
Verification Event	ug/L	6/15/12	15	--	--	--	--	--	--	--	ND	--	--	--	--	--	--	ND
Cyanide	ug/L	6/7/99	2	ND	--	2	ND	--	--	--	ND	--	--	ND	--	ND	--	--
NC 2L = 70 ug/L	ug/L	7/8/99	2	--	--	--	--	--	--	ND	--	3	--	--	--	--	--	--
	ug/L	12/15/99	2	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	2	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	--
	ug/L	12/27/00	2	ND	--	ND	ND	--	--	ND	ND	5	--	ND	--	ND	--	--
	ug/L	6/4/01	2	ND	--	ND	ND	--	--	ND	ND	3	--	ND	--	ND	--	--
	ug/L	12/3/01	2	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	--
	ug/L	6/10/02	2	ND	--	ND	ND	--	--	ND	ND	--	--	3	--	ND	--	--
	ug/L	12/16/02	2	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	2	ND	--	ND	5	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	2	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/29/04	2	ND	--	ND	ND	--	--	ND	ND	--	ND	--	2	ND	--	--
	ug/L	9/19/04	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	12/20/04	2	ND	--	ND	17	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	2	2.3	--	ND	ND	--	--	ND	ND	--	ND	--	ND	2.6	--	--
	ug/L	12/5/05	2	5	--	4.3	3.1	--	--	5	5.4	--	2.8	--	5.8	3.7	--	--
	ug/L	6/5/06	2	3.6	--	1.9 J	1.9 J	--	--	1.8 J	2.5	--	1.6 J	--	ND	2.2	--	--
	ug/L	12/5/06	2	1.9 J	--	4.6	2.5	--	--	5.1	4.9	--	ND	--	2.1	5.6	--	--
	ug/L	5/30/07	10	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/08	10	--	ND	ND	--	2.5	--	ND	1.3	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	10	--	ND	--	--	--	--	--	--	--	--	--	ND	--	--	--
	ug/L	6/30/09	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/30/09	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/20/10	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/19/10	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/11	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/28/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/23/12	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
Sulfide	ug/L	6/7/99	200	1300	--	ND	200	--	--	--	300	--	--	200	--	200	--	--
(No NC 2L)	ug/L	7/8/99	--	--	--	--	--	--	--	300	--	500	--	--	--	--	--	--
	ug/L	12/15/99	--	1400	--	600	1800	--	--	900	400	600	--	200	--	200	--	--
	ug/L	6/6/00	100	400	--	100	300	--	--	600	500	--	--	ND	--	100	--	--
	ug/L	12/27/00	--	400	--	300	720	--	--	290	520	880	--	350	--	260	--	--
	ug/L	6/4/01	--	600	--	400	200	--	--	400	200	600	--	300	--	300	--	--
	ug/L	12/3/01	400	ND	--	ND	ND	--	--	ND	ND	--	--	500	--	ND	--	--
	ug/L	6/10/02	200	ND	--	ND	1000	--	--	ND	ND	--	--	ND	--	ND	--	--
	ug/L	12/16/02	200	ND	--	300	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	200	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	1600	--	--
	ug/L	12/8/03	2000	2000	--	ND	16000	--	--	12000	ND	3800	--	ND	--	ND	--	--
	ug/L	6/29/04	2000	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	9/19/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	12/20/04	2000	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	2000	13000	--	ND	ND	--	--	12000	ND	--	12000	--	14000	15000	--	--
	ug/L	12/5/05	2000	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	2000	ND	--	ND	ND	--	--	ND	11000	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	--	16000	--	16000	1800 J	--	--	17000	14000	--	5200	--	15000	12000	--	--
	ug/L	5/30/07	1000	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/08	1000	--	27	ND	--	36	--	ND	21	--	18	--	22	ND	--	ND
	ug/L	11/19/08	1000	--	5.4	--	--	--	--	--	--	--	--	--	ND	--	--	ND
	ug/L	6/30/09	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/30/09	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/20/10	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/19/10	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/11	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/28/11	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/23/12	1000	--	ND	ND	--	120 J	--	ND	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
pH (field)	S.U.	5/26/98	--	7.30	--	6.00	6.20	--	7.4	--	7.20	6.50	--	7.00	--	7.30	--	--
	S.U.	12/1/98	--	7.10	--	5.00	6.00	--	--	--	6.70	6.60	--	5.90	--	6.50	--	--
	S.U.	6/7/99	--	6.98	--	6.19	5.99	--	--	--	6.70	--	--	6.45	--	5.98	--	--
	S.U.	7/8/99	--	--	--	--	--	--	--	7.29	--	6.36	--	--	--	--	--	--
	S.U.	12/13/99	--	7.21	--	5.37	5.72	--	--	6.96	6.88	--	--	6.68	--	5.96	--	--
	S.U.	6/6/00	--	7.75	--	5.80	6.14	--	--	7.31	7.15	dry	--	7.04	--	6.38	--	--
	S.U.	12/11/00	--	7.92	--	5.82	6.11	--	--	7.14	7.36	6.47	--	6.94	--	6.36	--	--
	S.U.	6/4/01	--	7.75	--	5.65	6.21	--	--	7.02	7.27	6.43	--	6.39	--	6.60	--	--
	S.U.	12/3/01	--	7.64	--	5.45	5.92	--	--	7.04	7.18	6.40	--	6.27	--	6.40	--	--
	S.U.	6/10/02	--	7.71	--	5.81	5.95	--	--	6.74	6.07	6.50	--	7.3	--	6.51	--	--
	S.U.	12/16/02	--	7.84	--	5.67	6.20	--	--	7.27	7.60	5.83	--	7.21	--	6.24	--	--
	S.U.	6/9/03	--	7.91	--	5.44	6.08	--	--	7.08	7.23	5.78	--	7.18	--	6.46	--	--
	S.U.	12/9/03	--	8.71	--	5.9	6.87	--	--	7.67	--	6.76	--	8.01	--	7.07	--	--
	S.U.	6/24/04	--	7.76	--	5.78	6.12	--	--	6.96	7.30	--	5.84	--	7.51	6.37	--	--
	S.U.	12/20/04	--	7.78	--	7.39	7.70	--	--	7.52	7.68	--	7.71	--	7.85	7.58	--	--
	S.U.	6/8/05	--	7.76	--	5.68	6.20	--	--	6.94	7.23	--	5.71	--	7.79	6.52	--	--
	S.U.	12/7/05	--	7.73	--	5.76	6.08	--	--	7.13	7.16	--	5.63	--	7.74	6.09	--	--
	S.U.	6/5/06	--	7.63	--	5.93	6.13	--	--	7.01	7.19	--	5.81	--	7.78	6.76	--	--
	S.U.	12/5/06	--	7.62	--	5.85	6.23	--	--	7.06	6.95	--	5.65	--	7.73	6.53	--	--
	S.U.	5/30/07	--	7.07	--	6.12	7.17	--	--	6.67	8.57	--	6.52	--	7.23	5.55	--	--
	S.U.	11/19/07	--	6.21	--	5.27	6.19	--	--	7.51	6.99	--	5.79	--	7.3	6.92	--	--
	S.U.	5/19/08	--	--	6.40	5.21	--	6.27	--	6.85	7.11	--	5.62	--	7.78	6.14	--	--
	S.U.	11/19/08	--	--	4.82	5.74	--	6.4	--	7.05	7.18	--	--	--	7.87	6.19	5.87	--
	S.U.	6/30/09	--	--	4.63	5.76	--	6.13	--	6.82	6.94	--	--	--	7.52	6.06	5.54	--
	S.U.	11/30/09	--	--	4.77	5.38	--	7.06	--	7.01	7.10	--	--	--	7.72	6.04	5.69	--
	S.U.	5/20/10	--	--	4.75	5.29	--	6.63	--	6.69	7.00	--	--	--	7.62	5.92	5.57	--
	S.U.	11/19/10	--	--	4.53	5.64	--	6.73	--	6.59	6.83	--	--	--	7.42	6.01	5.45	--
	S.U.	5/19/11	--	--	4.72	5.35	--	6.6	--	6.75	6.83	--	--	--	--	--	5.53	--
	S.U.	11/28/11	--	--	4.81	5.35	--	6.66	--	6.73	6.77	--	--	--	--	--	5.54	--
	S.U.	5/23/12	--	--	5.16	5.44	--	8.01	--	8.00	7.43	--	--	--	--	--	6.20	--
Verification Event	S.U.	6/15/12	--	--	--	--	--	--	--	--	6.80	--	--	--	--	--	--	--
Conductivity (field)	µS/cm	5/26/98	--	454	--	80	1200	--	460	--	383	518	--	338	--	348	--	--
	µS/cm	12/1/98	--	394	--	59	1660	--	--	--	388	456	--	305	--	406	--	--
	µS/cm	6/7/99	--	447	--	95.1	1511	--	--	--	467	--	--	359	--	490	--	--
	µS/cm	7/8/99	--	--	--	--	--	--	--	608	--	439	--	--	--	--	--	--
	µS/cm	12/13/99	--	246	--	81.4	1564	--	--	692	487	--	--	341	--	426	--	--
	µS/cm	6/6/00	--	461	--	85.8	1626	--	--	726	474	dry	--	385	--	479	--	--
	µS/cm	12/11/00	--	449	--	103	1239	--	--	463	445	559	--	367	--	460	--	--
	µS/cm	6/4/01	--	432	--	66.5	1240	--	--	539	366	365	--	305	--	334	--	--
	µS/cm	12/3/01	--	432	--	107	1389	--	--	534	437.1	561	--	309	--	422	--	--
	µS/cm	6/10/02	--	425	--	78.0	1545	--	--	625	444	450	--	308	--	430	--	--
	µS/cm	12/16/02	--	460	--	84.0	1601	--	--	668	529	344	--	343	--	242	--	--
	µS/cm	6/9/03	--	286	--	78.0	1713	--	--	652	543	267	--	322	--	386	--	--
	µS/cm	12/8/03	--	390	--	103	1442	--	--	645	--	220	--	325	--	401	--	--
	µS/cm	6/28/04	--	449	--	92.0	1642	--	--	630	471	--	467	--	340	379	--	--
	µS/cm	12/20/04	--	489	--	87.0	1660	--	--	689	583	--	553	--	431	440	--	--
	µS/cm	6/8/05	--	429	--	768	1343	--	--	575	467	--	443	--	349	386	--	--
	µS/cm	12/8/05	--	408	--	171	1712	--	--	708	623	--	590	--	450	388	--	--
	µS/cm	6/5/06	--	469	--	66	1397	--	--	604	535	--	488	--	348	237	--	--
	µS/cm	12/5/06	--	545	--	76	1998	--	--	731	724	--	665	--	437	269	--	--
	µS/cm	5/30/07	--	503	--	67	192	--	--	720	748	--	621	--	427	302	--	--
	µS/cm	11/19/07	--	240	--	163	1800	--	--	587	639	--	518	--	431	402	--	--
	µS/cm	5/19/08	--	--	50	70	--	1650	--	770	770	--	700	--	445	146	--	--
	µS/cm	11/19/08	--	--	53	104	--	1584	--	711	846	--	--	--	423	231	654	--
	µS/cm	6/30/09	--	--	47	86	--	1577	--	652	774	--	--	--	381	250	525	--
	µS/cm	11/30/09	--	--	45	50	--	895	--	555	715	--	--	--	328	138	244	--
	µS/cm	5/20/10	--	--	51	61	--	1269	--	704	832	--	--	--	401	142	173	--
	µS/cm	11/19/10	--	--	49	167	--	1055	--	671	809	--	--	--	334	293	373	--
	µS/cm	5/19/11	--	--	49	54	--	920	--	501	637	--	--	--	--	--	223	--
	µS/cm	11/28/11	--	--	65	329	--	1383	--	710	1013	--	--	--	--	--	389	--
	µS/cm	5/23/12	--	--	53	82	--	1413	--	640	918	--	--	--	--	--	614	--
Verification Event	µS/cm	6/15/12	--	--	--	--	--	--	--	--	956	--	--	--	--	--	--	--

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Temperature (field)	°C	5/26/98	--	15.9	--	14.6	14.4	--	14.3	--	15.3	16	--	14.8	--	15.2	--	--
	°C	12/1/98	--	17.3	--	16	15	--	--	--	16.5	15.7	--	12	--	16.8	--	--
	°C	6/7/99	--	18.0	--	15.1	15.8	--	--	--	15.3	--	--	16.8	--	16.2	--	--
	°C	7/8/99	--	--	--	--	--	--	--	17.3	--	16.2	--	--	--	--	--	--
	°C	12/13/99	--	15.1	--	13.7	17.9	--	--	16.1	17.5	--	--	11.5	--	16.3	--	--
	°C	6/6/00	--	15.4	--	17.4	14.8	--	--	16.2	15.4	dry	--	15.0	--	16.5	--	--
	°C	12/11/00	--	13.8	--	14.2	15.3	--	--	12..6	16.0	14.4	--	14.8	--	14.2	--	--
	°C	6/4/01	--	16.8	--	15.1	14.3	--	--	13.6	14.7	14.7	--	14.7	--	15.7	--	--
	°C	12/3/01	--	15.1	--	14.4	15.7	--	--	15.8	19.4	15.3	--	15.1	--	15.7	--	--
	°C	6/10/02	--	18.2	--	19.0	14.8	--	--	15.8	15.2	17.0	--	16.4	--	16.3	--	--
	°C	12/16/02	--	14.6	--	12.6	14.9	--	--	14.1	15.9	14.0	--	11.3	--	14.1	--	--
	°C	6/9/03	--	21.9	--	15.6	15.1	--	--	16.4	14.8	16.3	--	14.4	--	16.6	--	--
	°C	12/9/03	--	15.0	--	14.8	15.9	--	--	14.0	--	15.4	--	16.1	--	14.6	--	--
	°C	6/24/04	--	17.5	--	17.0	14.8	--	--	16.3	15.3	--	14.65	--	14.4	16.8	--	--
	°C	12/20/04	--	13.08	--	12.57	15.30	--	--	13.48	14.59	--	15.72	--	14.62	13.92	--	--
	°C	6/8/05	--	17.14	--	16.62	14.95	--	--	18.58	15.60	--	14.5	--	15.08	15.69	--	--
	°C	12/7/05	--	14.07	--	14.40	15.10	--	--	13.36	15.05	--	15.86	--	14.51	14.53	--	--
	°C	6/5/06	--	16.24	--	15.44	14.91	--	--	15.18	17.50	--	14.43	--	14.58	15.63	--	--
	°C	12/5/06	--	14.01	--	14.12	15.46	--	--	14.91	16.21	--	16.1	--	14.04	14.15	--	--
	°C	5/30/07	--	17.81	--	16.10	15.41	--	--	20.39	20.52	--	16.53	--	17.11	19.31	--	--
	°C	11/19/07	--	14.54	--	16.44	16.29	--	--	16.48	18.07	--	16.6	--	15.13	17.12	--	--
	°C	5/19/08	--	--	16.20	14.41	--	14.2	--	14.7	14.46	--	14.41	--	14.9	14.7	--	--
	°C	11/19/08	--	--	16.60	14.86	--	15.84	--	15.45	17.22	--	--	--	14.84	16.01	15.99	--
	°C	6/30/09	--	--	16.62	17.52	--	15.43	--	17.74	15.96	--	--	--	15.44	16.38	16.57	--
	°C	11/30/09	--	--	18.16	15.37	--	15.28	--	15.67	17.00	--	--	--	15.10	15.47	15.65	--
	°C	5/20/10	--	--	15.15	14.24	--	14.28	--	14.51	15.46	--	--	--	14.46	14.27	14.45	--
	°C	11/19/10	--	--	18.45	16.18	--	16.29	--	16.51	17.69	--	--	--	14.91	16.09	16.89	--
	°C	5/19/11	--	--	16.3	14.39	--	13.87	--	14.45	14.17	--	--	--	--	--	14.42	--
	°C	11/28/11	--	--	17.67	16.91	--	16.69	--	17.17	17.38	--	--	--	--	--	16.60	--
	°C	5/23/12	--	--	17.79	15.28	--	16.07	--	16.43	16.39	--	--	--	--	--	15.64	--
Verification Event	°C	6/15/12	--	--	--	--	--	--	--	--	16.07	--	--	--	--	--	--	--
Turbidity (field)	NTU	5/26/98	--	>1000	--	66.2	479	--	46.1	--	118	29.2	--	143	--	73.9	--	--
	NTU	12/1/98	--	585	--	34	>1000	--	--	--	201	12.1	--	105	--	14.7	--	--
	NTU	6/7/99	--	very turbid	--	--	very turbid	--	--	--	125	--	--	70.8	--	172	--	--
	NTU	7/8/99	--	--	--	--	--	--	--	turbid	--	--	--	--	--	--	--	--
	NTU	12/13/99	--	--	--	52.6	1278	--	--	265	107	--	--	122.4	--	127.1	--	--
	NTU	6/6/00	--	105	--	5.74	365	--	--	48.2	686	dry	--	230	--	75	--	--
	NTU	12/11/00	--	>200	--	>200	>200	--	--	51.3	>200	>200	--	--	--	161	--	--
	NTU	6/4/01	--	>1000	--	23.6	>1000	--	--	35	>1000	130	--	36.7	--	130	--	--
	NTU	12/3/01	--	>999	--	14	>999	--	--	11	>999	>999	--	130	--	65	--	--
	NTU	6/10/02	--	600	--	6.61	500	--	--	20	--	--	--	--	--	190	--	--
	NTU	12/16/02	--	>1100	--	12.0	406	--	--	245	130	200	--	130	--	1000	--	--
	NTU	6/9/03	--	106	--	128	510	--	--	45.0	75.0	69.5	--	230	--	275	--	--
	NTU	12/9/03	--	>990	--	110	400	--	--	15.0	--	990	--	>990	--	280	--	--
	NTU	6/4/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	NTU	12/20/04	--	79.8	--	48	68.4	--	--	3.5	372	--	472	--	--	32.9	--	--
	NTU	6/8/05	--	887	--	5.0	67.0	--	--	8.9	611	--	140	--	275	9.1	--	--
	NTU	12/7/05	--	20	--	63.0	983.0	--	--	1.0	>1000	--	40	--	11	15.0	--	--
	NTU	6/5/06	--	254	--	70.4	102.0	--	--	5.3	>1000	--	383	--	133	100.0	--	--
	NTU	12/5/06	--	280	--	15.8	58.0	--	--	2.8	597	--	64.54	--	45	25.0	--	--
	NTU	5/30/07	--	436	--	0.0	1.8	--	--	0.0	0	--	0	--	>1000	61.8	--	--
	NTU	11/19/07	--	--	--	52	76	--	--	9.3	259	--	85.4	--	233	121.4	--	--
	NTU	5/19/08	--	--	21.5	5.6	--	60.4	--	3.1	6.9	--	15.9	--	3	8.4	--	--
	NTU	11/19/08	--	--	11.3	11.4	--	56.3	--	3.9	7.4	--	--	--	10.9	14.7	124.2	--
	NTU	6/30/09	--	--	7.5	9.2	--	9.9	--	0	3	--	--	--	22	9	98	--
	NTU	11/30/09	--	--	9	22.4	--	13	--	12	10	--	--	--	22.5	10	41.5	--
	NTU	5/20/10	--	--	9.8	9.6	--	8.8	--	0.4	9.6	--	--	--	5.5	14	19.9	--
	NTU	11/19/10	--	--	21	16	--	10.9	--	1.2	3.3	--	--	--	16.7	12.2	9.5	--
	NTU	5/19/11	--	--	18.5	36	--	8.4	--	1.4	11.7	--	--	--	--	--	12	--
	NTU	11/28/11	--	--	86.9	15.1	--	10.9	--	2.89	5.51	--	--	--	--	--	9.47	--
	NTU	5/23/12	--	--	40.0	29.5	--	4.10	--	2.10	63.5	--	--	--	--	--	22.8	--
Verification Event	NTU	6/15/12	--	--	--	--	--	--	--	--	5.84	--	--	--	--	--	--	--
Oxidation Reduction Potential	mV	5/30/07	--	178	--	228	-43.0	--	--	95	--	--	82	--	193	156	--	--
(field)	mV	11/19/07	--	--	--	218	7	--	--	--	-82	--	--	--	-103	--	--	--
	mV	5/19/08	--	--	291	225.1	--	40	--	151	-75.2	--	170.1	--	-45	49	--	--
	mV	11/19/08	--	--	199.3	103.7	--	-92.4	--	40.9	-103.7	--	--	--	-69.5	-33.8	-8.8	--
	mV	6/30/09	--	--	246	154	--	-47.7	--	30.4	-43	--	--	--	55	137	20.8	--
	mV	11/30/09	--	--	238	241	--	-51.8	--	-5.4	-107.9	--	--	--	-109	65.3	8.8	--
	mV	5/20/10	--	--	286.6	262.5	--	-23	--	25.8	-48.7	--	--	--	-23.4	85.7	89.9	--
	mV	11/19/10	--	--	310.2	176	--	-37.3	--	12.7	-76.6	--	--	--	-118.4	16.8	49.7	--
	mV	5/19/11	--	--	194	91	--	-151	--	-9.4	-29.9	--	--	--	--	--	-23	--
	mV	11/28/11	--	--	207.7	138.8	--	4.0	--	79.0	-26.6	--	--	--	--	--	56.1	--
	mV	5/23/12	--	--	243.7	144.5	--	-93.4	--	-35.7	-81.6	--	--	--	--	--	3.6	--
Verification Event	mV	6/15/12	--	--	--	--	--	--	--	--	-337.5	--	--	--	--	--	--	--

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Dissolved Oxygen (field)	mg/L	12/1/01	--	4.70	--	4.00	2.05	--	--	3.90	3.50	2.80	--	5.30	--	2.25	--	--
	mg/L	6/10/02	--	5.28	--	9.08	18.58	--	--	7.00	16.85	4.03	--	4.86	--	5.69	--	--
	mg/L	12/16/02	--	5.50	--	7.92	12.38	--	--	5.99	10.2	8.67	--	6.72	--	3.30	--	--
	mg/L	6/9/03	--	7.65	--	9.58	3.02	--	--	4.63	2.65	9.92	--	5.25	--	3.69	--	--
	mg/L	12/8/03	--	5.90	--	5.00	3.60	--	--	7.90	--	3.60	--	2.10	--	4.30	--	--
	mg/L	6/24/04	--	6.50	--	8.44	2.84	--	--	5.37	2.96	--	5.69	--	5.23	6.20	--	--
	mg/L	12/20/04	--	6.21	--	7.52	3.29	--	--	3.65	3.61	--	4.69	--	4.60	4.63	--	--
	mg/L	6/8/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	mg/L	6/5/06	--	4.00	--	4.48	4.19	--	--	4.31	3.48	--	2.77	--	2.19	2.69	--	--
	mg/L	12/5/06	--	3.81	--	7.19	3.32	--	--	2.83	-20.00	--	4.06	--	2.40	3.91	--	--
	mg/L	5/30/07	--	2.1	--	2.6	5.7	--	--	4.6	--	--	7.4	--	5.6	2.8	--	--
	mg/L	11/19/07	--	--	--	2.72	0.15	--	--	1.57	0.24	--	0.19	--	0.12	1.18	--	--
	mg/L	5/19/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	mg/L	11/19/08	--	--	4.89	9.21	--	3.84	--	7.62	0.89	--	--	--	3.48	0.82	3.36	--
	mg/L	6/30/09	--	--	8.5	67.5	--	2.9	--	33.6	6.1	--	--	--	24.6	30	3.3	--
	mg/L	11/30/09	--	--	4.77	8.32	--	2.84	--	0.95	0.23	--	--	--	3.41	0.31	0.34	--
	mg/L	5/20/10	--	--	0.54	8.8	--	0.12	--	0.37	0.19	--	--	--	1.68	0.26	0.49	--
	mg/L	11/19/10	--	--	0.84	3.4	--	2.67	--	2.09	1.82	--	--	--	0.48	0.91	1.91	--
	mg/L	5/19/11	--	--	1.83	6.48	--	0.2	--	0.77	0.09	--	--	--	--	--	0.13	--
	mg/L	11/28/11	--	--	1.93	1.74	--	0.93	--	1.71	0.47	--	--	--	--	--	0.56	--
	mg/L	5/23/12	--	--	1.31	1.67	--	0.61	--	0.49	0.37	--	--	--	--	--	1.29	--
Verification Event	mg/L	6/15/12	--	--	--	--	--	--	--	--	0.67	--	--	--	--	--	--	--

Notes:
mV= millivolts
ND = Not detected above laboratory detection limit
oC = degrees Celsius
J = estimated concentration
B = blank-qualified result
µS/cm= microsiemens per centimeter
-- = no data available
Blanks = field, trip, and method blanks
Shaded = Concentrations above the NC 2L or Solid Waste Section Groundwater Protection Standards have been shaded
Sample data from September 1994 through December 1998 compiled and reported by Malcolm Pirnie, Inc.
Sample data from June 1999 through December 2006 collected, compiled and reported by Weston Solutions, Inc.
Sample data from May 2007, November 2011 through current collected, compiled, and reported by Golder Associates NC, Inc.
Sample data collected from November 2007 to May 2011 collected, complied, and reported by S&ME.
Laboratory data prior to November 2011 was not validated by Golder Associates.
SWS Reporting Limit = NCPQL from 09/14/94 through 12/05/06 and NCSWSL for 05/30/07 and later
* = EPA Maximum Contaminant Level Secondary Standard

TABLE 5

Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream		Downstream						Blanks	
				S-4		S-1		S-2		S-3			
Antimony	ug/L	12/20/04	5	ND		ND		ND		ND		--	
(No Standard)	ug/L	06/05/05	5	ND		ND		5		ND		--	
	ug/L	12/07/05	5	ND		ND		ND		ND		--	
	ug/L	06/05/06	5	ND		ND		dry		ND		--	
	ug/L	12/05/06	5	ND		ND		ND		ND		--	
	ug/L	05/30/07	6	ND		dry		dry		ND		ND	
	ug/L	11/30/07	6	0.94	J	dry		dry		0.97	J	ND	
	ug/L	05/19/08	6	0.40	J	ND		0.24	J	0.36	J	ND	
	ug/L	11/19/08	6	0.76	B	0.59	B	0.7	B	0.76	B	0.53	J
	ug/L	06/30/09	6	ND		dry		dry		ND		ND	
	ug/L	11/30/09	6	0.212	J	ND		ND		ND		ND	
	ug/L	05/20/10	6	0.881	J	ND		ND		ND		ND	
	ug/L	11/19/10	6	ND		ND		ND		ND		ND	
	ug/L	05/19/11	6	0.271	J	ND		ND		ND		ND	
	ug/L	11/28/11	6	ND		dry		ND		ND		ND	
	ug/L	5/23/12	6	0.398	J	ND		0.269	J	0.378	J	ND	
Arsenic	ug/L	05/30/07	10	ND		dry		dry		ND		3.8	J
SW Standard = 10 ug/L	ug/L	11/30/07	10	1.5	B	dry		dry		1.7	B	0.89	J
	ug/L	05/19/08	10	ND		ND		1.2	J	ND		ND	
	ug/L	11/19/08	10	1.2	J	1.4	J	1.2	J	1	J	ND	
	ug/L	06/30/09	10	ND		dry		dry		ND		4.3	J
	ug/L	11/30/09	10	ND		ND		ND		ND		ND	
	ug/L	05/20/10	10	ND		ND		ND		ND		3.22	J
	ug/L	11/19/10	10	2.94	J	3.35	J	ND		ND		ND	
	ug/L	05/19/11	10	ND		5.0	J	ND		ND		ND	
	ug/L	11/28/11	10	ND		dry		4.77	B	ND		4.35	J
	ug/L	5/23/12	10	ND		ND		ND		ND		ND	
Barium	ug/L	02/07/95	--	27		69		82		39		--	
SW Standard = 1000 ug/L	ug/L	03/13/95	25	51		61		59		ND		--	
	ug/L	06/10/96	25	42		86		75		ND		--	
	ug/L	11/12/96	25	32		37		59		ND		--	
	ug/L	03/18/97	--	44		126		41		27		--	
	ug/L	10/02/97	25	92		162		62		ND		--	
	ug/L	05/26/98	--	35		94		72		106		--	
	ug/L	12/01/98	--	47		dry		dry		25		--	
	ug/L	06/07/99	25	ND		dry		dry		ND		--	
	ug/L	12/01/99	--	54		174		85		96		--	
	ug/L	06/06/00	--	73		dry		dry		dry		--	
	ug/L	12/22/00	--	66		dry		dry		dry		--	
	ug/L	06/04/01	25	ND		97		80		ND		--	
	ug/L	12/03/01	25	ND		dry		dry		ND		--	
	ug/L	06/10/02	25	ND		dry		dry		ND		--	
	ug/L	12/16/02	--	76		58		64		29		--	
	ug/L	06/10/03	25	ND		111		93		28		--	
	ug/L	12/08/03	25	14		59		62		ND		--	
	ug/L	06/29/04	25	ND		83		49		ND		--	
	ug/L	12/20/04	25	ND		42		71		ND		--	
	ug/L	06/05/05	25	ND		73		6		28		--	
	ug/L	12/07/05	--	39		59		52		46		--	
	ug/L	06/05/06	25	ND		126		dry		ND		--	
	ug/L	12/05/06	--	28		106		79		25		--	
	ug/L	05/30/07	100	8.1	J	dry		dry		7.6	J	ND	
	ug/L	11/30/07	100	3.2	J	dry		dry		9.1	J	ND	
	ug/L	05/19/08	100	17	J	64	J	66	J	18	J	ND	
	ug/L	11/19/08	100	13	J	96	J	64	J	11	J	ND	
	ug/L	06/30/09	100	9.78	J	dry		dry		8.29	J	ND	
	ug/L	11/30/09	100	10.5	J	70.1	J	61.4	J	14.1	J	ND	
	ug/L	05/20/10	100	19.6	J	64.1	J	76	J	19.7	J	ND	
	ug/L	11/19/10	100	6.12	J	94.8	J	43.9	J	4.59	J	ND	
	ug/L	05/19/11	100	14.3	J	108		65.2	J	15.5	J	1.14	J
	ug/L	11/28/11	100	63.3	J	dry		72.7	J	8.82	J	ND	
	ug/L	5/23/12	100	34.4	J	96.5	J	70.7	J	38.6	J	ND	
Beryllium	ug/L	05/30/07	1	ND		dry		dry		ND		ND	
SW Standard = 6.5 ug/L #	ug/L	11/30/07	1	0.4	J	dry		dry		0.43	J	ND	
	ug/L	05/19/08	1	ND		ND		0.34	J	ND		ND	
	ug/L	11/19/08	1	ND		0.35	J	ND		ND		ND	
	ug/L	06/30/09	1	ND		dry		dry		ND		ND	
	ug/L	11/30/09	1	ND		ND		ND		ND		0.121	J
	ug/L	05/20/10	1	ND		ND		ND		ND		ND	
	ug/L	11/19/10	1	ND		ND		ND		ND		ND	
	ug/L	05/19/11	1	ND		ND		1.35	J	ND		ND	
	ug/L	11/28/11	1	ND		dry		ND		ND		ND	
	ug/L	5/23/12	1	ND		0.190	J	0.217	J	ND		ND	

TABLE 5

Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream		Downstream						Blanks	
				S-4		S-1		S-2		S-3			
Chromium	ug/L	02/07/95	5	ND		ND		ND		ND		--	
SW Standard = 50 ug/L #	ug/L	03/13/95	5	ND		ND		ND		ND		--	
	ug/L	06/10/96	5	ND		ND		ND		ND		--	
	ug/L	11/12/96	5	ND		ND		ND		ND		--	
	ug/L	03/18/97	5	ND		ND		ND		ND		--	
	ug/L	10/02/97	5	ND		5.9		ND		ND		--	
	ug/L	05/26/98	5	ND		5		ND		ND		--	
	ug/L	12/01/98	5	ND		dry		dry		ND		--	
	ug/L	06/07/99	5	ND		dry		dry		ND		--	
	ug/L	12/01/99	--	7		16		8		8		--	
	ug/L	06/06/00	5	ND		dry		dry		dry		--	
	ug/L	12/22/00	5	ND		dry		dry		dry		--	
	ug/L	06/04/01	5	ND		ND		ND		ND		--	
	ug/L	12/03/01	5	ND		dry		dry		ND		--	
	ug/L	06/10/02	5	ND		dry		dry		ND		--	
	ug/L	12/16/02	5	ND		ND		ND		ND		--	
	ug/L	06/10/03	5	ND		5		ND		ND		--	
	ug/L	12/08/03	5	ND		5		ND		ND		--	
	ug/L	06/29/04	5	ND		ND		ND		ND		--	
	ug/L	12/20/04	5	5		ND		ND		ND		--	
	ug/L	06/05/05	5	ND		ND		ND		5		--	
	ug/L	12/07/05	5	5		ND		ND		9		--	
	ug/L	06/05/06	5	ND		ND		dry		ND		--	
	ug/L	12/05/06	5	ND		ND		ND		ND		--	
	ug/L	05/30/07	10	ND		dry		dry		ND		ND	
	ug/L	11/30/07	10	ND		dry		dry		ND		ND	
	ug/L	05/19/08	10	ND		ND		ND		ND		ND	
	ug/L	11/19/08	10	ND		ND		3.0	J	ND		ND	
	ug/L	06/30/09	10	ND		dry		dry		1.1	J	ND	
	ug/L	11/30/09	10	ND		2.64	J	ND		ND		ND	
	ug/L	05/20/10	10	1.18	J	3.03	J	4.65	J	ND		ND	
	ug/L	11/19/10	10	ND		ND		ND		ND		ND	
	ug/L	05/19/11	10	ND		1.44	J	2.95	J	ND		ND	
	ug/L	11/28/11	10	ND		dry		ND		ND		ND	
	ug/L	5/23/12	10	3.73	J	5.48	J	6.08	J	3.57	J	ND	
Cobalt	ug/L	05/30/07	10	ND		dry		dry		ND		ND	
(No Standard)	ug/L	11/30/07	10	ND		dry		dry		ND		ND	
	ug/L	05/19/08	10	ND		ND		ND		ND		ND	
	ug/L	11/19/08	10	ND		1.5	J	1.4	J	ND		ND	
	ug/L	06/30/09	10	0.9	J	dry		dry		0.7	J	ND	
	ug/L	11/30/09	10	ND		ND		1.54	J	ND		ND	
	ug/L	05/20/10	10	ND		1.19	J	2.16	J	ND		ND	
	ug/L	11/19/10	10	ND		5.47	J	ND		ND		ND	
	ug/L	05/19/11	10	ND		4.66	J	1.75	J	1.22	J	ND	
	ug/L	11/28/11	10	ND		dry		ND		ND		ND	
	ug/L	5/23/12	10	2.13	J	3.16	J	2.53	J	1.80	J	ND	
Copper	ug/L	02/07/95	5	ND		ND		ND		ND		--	
SW Standard = 7 ug/L #**	ug/L	03/13/95	5	5.5		6.8		8.6		ND		--	
	ug/L	06/10/96	5	6.3		5.9		5.7		ND		--	
	ug/L	11/12/96	5	ND		ND		ND		ND		--	
	ug/L	03/18/97	5	6		ND		ND		6		--	
	ug/L	10/02/97	5	ND		ND		ND		ND		--	
	ug/L	05/26/98	--	6		8		6		9		--	
	ug/L	12/01/98	5	ND		dry		dry		ND		--	
	ug/L	06/07/99	5	ND		dry		dry		ND		--	
	ug/L	12/01/99	--	10		14		10		11		--	
	ug/L	06/06/00	5	ND		dry		dry		dry		--	
	ug/L	12/22/00	5	ND		dry		dry		dry		--	
	ug/L	06/04/01	5	13		ND		8		ND		--	
	ug/L	12/03/01	5	ND		dry		dry		ND		--	
	ug/L	06/10/02	5	ND		dry		dry		ND		0.7	J
	ug/L	12/16/02	5	21		8		10		8		--	
	ug/L	06/10/03	5	ND		8		6		ND		--	
	ug/L	12/08/03	5	ND		5		6		5		--	
	ug/L	06/29/04	5	ND		8		ND		ND		--	
	ug/L	12/20/04	5	ND		ND		ND		ND		--	
	ug/L	06/05/05	--	3		5		5		2		--	
	ug/L	12/07/05	--	9		7		10		11		--	
	ug/L	06/05/06	--	3		9		dry		3		--	
	ug/L	12/05/06	--	2		3		6		3		--	
	ug/L	05/30/07	10	1.3	B	dry		dry		0.8	B	0.7	J
	ug/L	11/30/07	10	1.3	B	dry		dry		2.1	B	1.1	J
	ug/L	05/19/08	10	4	B	6	B	10	B	3.8	B	5.7	J
	ug/L	11/19/08	10	2.7	B	4.3	B	4.7	B	3.3	B	1.1	J
	ug/L	06/30/09	10	ND		dry		dry		ND		2.36	J
	ug/L	11/30/09	10	ND		2.83	J	2.34	J	ND		ND	
	ug/L	05/20/10	10	2.73	J	4.41	J	9.21	J	ND		ND	
	ug/L	11/19/10	10	ND		ND		ND		ND		ND	
	ug/L	05/19/11	10	1.6	J	2.11	J	3.75	J	1.93	J	ND	
	ug/L	11/28/11	10	3.71	J	dry		2.89	J	2.19	J	ND	
	ug/L	5/23/12	10	6.32	J	7.36	J	7.57	J	6.19	J	ND	

TABLE 5

Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream		Downstream						Blanks	
				S-4		S-1		S-2		S-3			
Lead	ug/L	02/07/95	5	11		ND		6.2		ND		--	
SW Standard = 25 ug/L #*	ug/L	03/13/95	5	ND		ND		7.5		ND		--	
	ug/L	06/10/96	5	ND		ND		ND		ND		--	
	ug/L	11/12/96	5	ND		ND		ND		ND		--	
	ug/L	03/18/97	5	5		ND		ND		5		--	
	ug/L	10/02/97	5	ND		ND		ND		ND		--	
	ug/L	05/26/98	5	ND		ND		ND		ND		--	
	ug/L	12/01/98	5	5		dry		dry		5		--	
	ug/L	06/07/99	5	ND		dry		dry		ND		--	
	ug/L	12/01/99	--	17		5		5		7		--	
	ug/L	06/06/00	5	ND		dry		dry		dry		--	
	ug/L	12/27/00	5	ND		dry		dry		dry		--	
	ug/L	06/04/01	5	ND		9		ND		ND		--	
	ug/L	12/03/01	5	ND		dry		dry		ND		--	
	ug/L	06/10/02	5	ND		dry		dry		ND		--	
	ug/L	12/16/02	5	ND		ND		ND		ND		--	
	ug/L	06/10/03	5	9		ND		6		ND		--	
	ug/L	12/08/03	5	ND		ND		ND		ND		--	
	ug/L	06/29/04	5	ND		ND		ND		ND		--	
	ug/L	12/20/04	5	ND		ND		ND		ND		--	
	ug/L	06/05/05	5	9		ND		6		ND		--	
	ug/L	12/07/05	5	10		ND		ND		10		--	
	ug/L	06/05/06	5	ND		ND		dry		ND		--	
	ug/L	12/05/06	5	ND		ND		ND		ND		--	
	ug/L	05/30/07	10	ND		dry		dry		ND		3.1	J
	ug/L	11/30/07	5	ND		dry		dry		ND		3.5	J
	ug/L	05/19/08	5	ND		ND		4.1	J	ND		ND	J
	ug/L	11/19/08	5	0.5	B	0.79	B	1.7	B	0.45	B	3.1	J
	ug/L	06/30/09	5	2.4	B	dry		dry		ND		ND	
	ug/L	11/30/09	10	ND		ND		ND		ND		3.09	J
	ug/L	05/20/10	10	ND		3.15	J	3.61	J	ND		ND	
	ug/L	11/19/10	10	ND		ND		ND		ND		ND	
	ug/L	05/19/11	10	2.31	J	ND		2.90	J	ND		ND	
	ug/L	11/28/11	10	ND		dry		ND		ND		ND	
	ug/L	5/23/12	10	7.33	J	7.51	J	6.25	J	9.08	J	ND	
Nickel	ug/L	02/07/95	10	ND		ND		ND		ND		--	
SW Standard = 25 ug/L	ug/L	03/13/95	10	ND		13		16		ND		--	
	ug/L	06/10/96	10	ND		ND		ND		ND		--	
	ug/L	11/12/96	10	ND		ND		ND		ND		--	
	ug/L	03/18/97	10	ND		ND		ND		ND		--	
	ug/L	10/02/97	10	ND		ND		ND		ND		--	
	ug/L	05/26/98	10	ND		ND		ND		ND		--	
	ug/L	12/01/98	10	ND		dry		dry		ND		--	
	ug/L	06/07/99	10	ND		dry		dry		ND		--	
	ug/L	12/01/99	--	10		12		10		10		--	
	ug/L	06/06/00	10	ND		dry		dry		dry		--	
	ug/L	12/22/00	10	ND		dry		dry		dry		--	
	ug/L	06/04/01	10	ND		ND		ND		ND		--	
	ug/L	12/03/01	10	ND		dry		dry		ND		--	
	ug/L	06/10/02	10	ND		dry		dry		ND		--	
	ug/L	12/16/02	10	ND		ND		ND		ND		--	
	ug/L	06/10/03	10	ND		ND		ND		ND		--	
	ug/L	12/08/03	10	ND		ND		ND		ND		--	
	ug/L	06/29/04	10	ND		ND		ND		ND		--	
	ug/L	12/20/04	10	ND		ND		ND		ND		--	
	ug/L	06/05/05	10	ND		ND		ND		ND		--	
	ug/L	12/07/05	10	ND		ND		ND		ND		--	
	ug/L	06/05/06	10	ND		ND		dry		ND		--	
	ug/L	12/05/06	10	ND		ND		ND		ND		--	
	ug/L	05/30/07	50	2.7	J	dry		dry		2.7	J	ND	
	ug/L	11/30/07	50	ND		dry		dry		ND		ND	
	ug/L	05/19/08	50	ND		ND		ND		ND		ND	
	ug/L	11/19/08	50	ND		ND		ND		ND		ND	
	ug/L	06/30/09	50	3.1	B	dry		dry		3.8	B	0.6	J
	ug/L	11/30/09	50	ND		2.60	B	3.25	B	ND		4.59	J
	ug/L	05/20/10	50	2.23	J	2.36	J	3.83	J	1.97	J	ND	
	ug/L	11/19/10	50	ND		4.72	J	ND		ND		ND	
	ug/L	05/19/11	50	2.11	J	4.4	J	3.14	J	2.05	J	ND	
	ug/L	11/28/11	50	3.30	J	dry		3.11	J	1.90	J	ND	
	ug/L	5/23/12	50	2.85	J	4.77	J	4.35	J	3.48	J	ND	
Selenium	ug/L	05/30/07	10	2.9	B	dry		dry		2.3	B	5.7	J
SW Standard = 5 ug/L #	ug/L	11/30/07	10	2.6	B	dry		dry		ND		0.52	J
	ug/L	05/19/08	10	ND		ND		ND		ND		ND	
	ug/L	11/19/08	10	1.2	B	ND		0.54	B	0.39	B	0.36	J
	ug/L	06/30/09	10	ND		dry		dry		ND		0.6	J
	ug/L	11/30/09	10	ND		ND		ND		ND		ND	
	ug/L	05/20/10	10	ND		ND		ND		ND		ND	
	ug/L	11/19/10	10	ND		ND		ND		ND		ND	
	ug/L	05/19/11	10	1.88	J	1.7	J	1.32	J	1.81	J	ND	
	ug/L	11/28/11	10	ND		dry		ND		ND		ND	
	ug/L	5/23/12	10	ND		ND		ND		ND		ND	

TABLE 5

Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream		Downstream						Blanks
				S-4		S-1		S-2		S-3		
Silver	ug/L	02/07/95	1	ND		ND		ND		ND		--
SW Standard = 0.06 ug/L #**	ug/L	03/13/95	1	ND		ND		ND		ND		--
	ug/L	06/10/96	1	ND		1.8		3.3		ND		--
	ug/L	11/12/96	1	ND		ND		ND		ND		--
	ug/L	03/18/97	1	ND		ND		ND		ND		--
	ug/L	10/02/97	1	ND		ND		ND		ND		--
	ug/L	05/26/98	1	ND		ND		ND		ND		--
	ug/L	12/01/98	1	ND		dry		dry		ND		--
	ug/L	06/07/99	1	ND		dry		dry		ND		--
	ug/L	12/01/99	--	1		1		1		1		--
	ug/L	06/06/00	1	ND		dry		dry		dry		--
	ug/L	12/22/00	1	ND		dry		dry		dry		--
	ug/L	06/04/01	1	ND		ND		ND		ND		--
	ug/L	12/03/01	1	ND		dry		dry		ND		--
	ug/L	06/10/02	1	ND		dry		dry		ND		--
	ug/L	12/16/02	1	ND		ND		ND		ND		--
	ug/L	06/10/03	1	ND		ND		ND		ND		--
	ug/L	12/08/03	1	ND		ND		ND		ND		--
	ug/L	06/29/04	1	ND		ND		ND		ND		--
	ug/L	12/20/04	1	ND		ND		ND		ND		--
	ug/L	06/05/05	1	ND		ND		ND		ND		--
	ug/L	12/07/05	1	ND		ND		ND		ND		--
	ug/L	06/05/06	1	ND		ND		dry		ND		--
	ug/L	12/05/06	1	ND		ND		ND		ND		--
	ug/L	05/30/07	10	ND		dry		dry		ND		ND
	ug/L	11/30/07	10	2.7	J	dry		dry		2.7	J	ND
	ug/L	05/19/08	10	ND		ND		ND		ND		ND
	ug/L	11/19/08	10	ND		ND		ND		ND		ND
	ug/L	06/30/09	10	ND		dry		dry		ND		--
	ug/L	11/30/09	10	ND		ND		ND		ND		ND
	ug/L	05/20/10	10	ND		ND		ND		ND		ND
	ug/L	11/19/10	10	ND		ND		ND		ND		ND
	ug/L	05/19/11	10	ND		ND		ND		ND		ND
	ug/L	11/28/11	10	ND		dry		ND		ND		ND
	ug/L	5/23/12	10	ND		ND		ND		ND		ND
Thallium	ug/L	05/30/07	5.5	ND		dry		dry		ND		ND
(No Standard)	ug/L	11/30/07	5.5	0.61	J	dry		dry		0.62	J	ND
	ug/L	05/19/08	5.5	ND		ND		ND		ND		ND
	ug/L	11/19/08	5.5	ND		ND		ND		ND		ND
	ug/L	06/30/09	5.5	ND		dry		dry		ND		ND
	ug/L	11/30/09	5.5	ND		ND		ND		0.685	J	ND
	ug/L	05/20/10	5.5	ND		ND		ND		ND		ND
	ug/L	11/19/10	5.5	ND		ND		ND		ND		ND
	ug/L	05/19/11	5.5	ND		ND		ND		ND		ND
	ug/L	11/28/11	5.5	ND		dry		ND		ND		ND
	ug/L	5/23/12	5.5	ND		ND		ND		ND		ND
Vanadium	ug/L	02/07/95	5	ND		ND		ND		ND		--
(No Standard)	ug/L	03/13/95	5	ND		ND		ND		ND		--
	ug/L	06/10/96	5	ND		ND		7.7		ND		--
	ug/L	11/12/96	5	ND		8		ND		ND		--
	ug/L	03/18/97	5	ND		ND		ND		ND		--
	ug/L	10/02/97	5	ND		8.5		ND		5.7		--
	ug/L	05/26/98	5	ND		5		5		5		--
	ug/L	12/01/98	5	ND		dry		dry		5		--
	ug/L	06/07/99	5	ND		dry		dry		ND		--
	ug/L	12/01/99	--	11		22		10		11		--
	ug/L	06/06/00	--	5		dry		dry		dry		--
	ug/L	12/22/00	--	5		dry		dry		dry		--
	ug/L	06/04/01	5	ND		ND		5		ND		--
	ug/L	12/03/01	--	6		dry		dry		6		--
	ug/L	06/10/02	--	6		dry		dry		6		--
	ug/L	12/16/02	5	7		ND		ND		ND		--
	ug/L	06/10/03	5	ND		7		5		ND		--
	ug/L	12/08/03	5	ND		ND		ND		ND		--
	ug/L	06/29/04	5	ND		ND		ND		ND		--
	ug/L	12/20/04	5	ND		ND		ND		ND		--
	ug/L	06/05/05	5	5		ND		ND		ND		--
	ug/L	12/07/05	5	7		ND		ND		6		--
	ug/L	06/05/06	5	ND		ND		dry		ND		--
	ug/L	12/05/06	5	ND		ND		ND		ND		--
	ug/L	05/30/07	25	ND		dry		dry		1.2	J	ND
	ug/L	11/30/07	25	ND		dry		dry		ND		ND
	ug/L	05/19/08	25	ND		ND		3.1	J	ND		ND
	ug/L	11/19/08	25	ND		ND		2.6	J	ND		ND
	ug/L	06/30/09	25	2.4	J	dry		dry		2.4	J	ND
	ug/L	11/30/09	25	1.96	J	1.52	J	1.96	J	2.03	J	ND
	ug/L	05/20/10	25	4.02	J	5.14	J	7.89	J	5.27	J	ND
	ug/L	11/19/10	25	1.78	J	ND		ND		1.64	J	ND
	ug/L	05/19/11	25	2.97	J	ND		5.0	J	2.84	J	ND
	ug/L	11/28/11	25	ND		dry		ND		ND		ND
	ug/L	5/23/12	25	6.43	J	8.23	J	9.68	J	5.98	J	ND

TABLE 5

Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream		Downstream						Blanks	
				S-4		S-1		S-2		S-3			
Zinc	ug/L	02/07/95	10	33		ND		ND		21		--	
SW Standard = 50 ug/L #**	ug/L	03/13/95	--	34		63		87		67		--	
	ug/L	06/10/96	10	ND		ND		ND		13		--	
	ug/L	11/12/96	10	20		ND		16		22		--	
	ug/L	03/18/97	10	32		ND		ND		32		--	
	ug/L	10/02/97	10	10		14		21		146		--	
	ug/L	05/26/98	--	25		26		19		48		--	
	ug/L	12/01/98	10	ND		dry		dry		56		--	
	ug/L	06/07/99	--	76		dry		dry		42		--	
	ug/L	12/01/99	--	89		58		45		66		--	
	ug/L	06/06/00	--	10		dry		dry		dry		--	
	ug/L	12/22/00	10	ND		dry		dry		dry		--	
	ug/L	06/04/01	--	39		14		16		28		--	
	ug/L	12/03/01	--	42		dry		dry		80		--	
	ug/L	06/10/02	--	25		dry		dry		36		--	
	ug/L	12/16/02	--	106		18		16		39		--	
	ug/L	06/10/03	--	18		22		15		19		--	
	ug/L	12/08/03	10	106		11		ND		42		--	
	ug/L	06/29/04	10	21		ND		ND		19		--	
	ug/L	12/20/04	10	31		ND		ND		30		--	
	ug/L	06/05/05	10	33		ND		ND		30		--	
	ug/L	12/07/05	--	38		10		16		33		--	
	ug/L	06/05/06	--	21		17		dry		17		--	
	ug/L	12/05/06	10	38		ND		11		41		--	
	ug/L	05/30/07	10	51.9		dry		dry		52.5		2.4	J
	ug/L	11/30/07	10	73	B	dry		dry		62	B	90.0	
	ug/L	05/19/08	10	48		10		38		47		ND	
	ug/L	11/19/08	10	29		12		12		26		ND	
	ug/L	06/30/09	10	24.7	B	dry		dry		28.3	B	15.2	
	ug/L	11/30/09	10	44.6		8.39	J	8.54	J	39.2		ND	
	ug/L	05/20/10	10	26.6		9.7	J	18.5		29.7		ND	
	ug/L	11/19/10	10	39.5		9.74	J	4.01	J	40.3		ND	
	ug/L	05/19/11	10	37.1		4.56	B	10.1	B	36.8		4.26	J
	ug/L	11/28/11	10	7.24	J	dry		5.77	J	36.6		ND	
	ug/L	5/23/12	10	38.8		17.1		22.1		34.0		ND	
Acetone	ug/L	05/30/07	100	ND		dry		dry		5.4	B	3.8	J
(No Standard)	ug/L	11/30/07	100	ND		dry		dry		ND		ND	
	ug/L	05/19/08	100	ND		ND		ND		ND		13.0	J
	ug/L	11/19/08	100	ND		ND		ND		ND		ND	
	ug/L	06/30/09	100	ND		dry		dry		ND		ND	
	ug/L	11/30/09	100	ND		ND		ND		ND		ND	
	ug/L	05/20/10	100	ND		ND		ND		ND		ND	
	ug/L	11/19/10	100	ND		2.0	J	2.5	J	ND		ND	
	ug/L	05/19/11	100	ND		ND		ND		ND		ND	
	ug/L	11/28/11	100	ND		dry		ND		ND		ND	
	ug/L	5/23/12	100	11	B	5.4	B	9.2	B	10	B	16	J
Chloroform	ug/L	09/19/94	--	ND		dry		dry		ND		--	
(No Standard)	ug/L	02/07/95	5	ND		ND		ND		ND		--	
	ug/L	03/13/95	5	ND		ND		ND		ND		--	
	ug/L	06/10/96	1	ND		ND		ND		ND		--	
	ug/L	11/12/96	1	ND		ND		ND		ND		--	
	ug/L	03/18/97	1	ND		ND		ND		ND		--	
	ug/L	10/02/97	1	ND		ND		ND		ND		--	
	ug/L	05/26/98	5	ND		ND		ND		ND		--	
	ug/L	12/01/98	2	ND		ND		ND		ND		--	
	ug/L	06/07/99	5	ND		dry		dry		ND		ND	
	ug/L	12/15/99	5	ND		ND		ND		ND		ND	
	ug/L	06/06/00	5	ND		dry		dry		dry		ND	
	ug/L	12/22/00	5	ND		dry		dry		dry		ND	
	ug/L	06/04/01	5	ND		ND		ND		ND		ND	
	ug/L	12/13/01	5	ND		dry		dry		ND		ND	
	ug/L	06/10/02	5	ND		dry		dry		ND		ND	
	ug/L	12/16/02	5	ND		ND		ND		ND		ND	
	ug/L	06/09/03	5	ND		ND		ND		ND		ND	
	ug/L	12/08/03	5	ND		ND		ND		ND		ND	
	ug/L	06/28/04	5	ND		ND		ND		ND		ND	
	ug/L	12/20/04	1	ND		ND		ND		ND		ND	
	ug/L	06/05/05	1	ND		ND		ND		ND		ND	
	ug/L	12/07/05	1	ND		ND		ND		ND		ND	
	ug/L	06/05/06	1	0.65	J	ND		ND		0.59	J	ND	
	ug/L	12/05/06	1	ND		ND		ND		ND		ND	
	ug/L	05/30/07	5	0.60	J	dry		dry		0.55	J	ND	
	ug/L	11/30/07	5	0.6	J	dry		dry		0.42		--	
	ug/L	05/19/08	5	0.66	J	ND		ND		0.58		--	
	ug/L	11/19/08	5	0.39	J	ND		ND		0.42		--	
	ug/L	06/30/09	5	ND		dry		dry		ND		--	
	ug/L	11/30/09	5	0.52	J	ND		ND		ND		--	
	ug/L	05/20/10	5	ND		ND		ND		ND		--	
	ug/L	11/19/10	5	ND		ND		ND		ND		--	
	ug/L	05/19/11	5	ND		ND		ND		ND		--	
	ug/L	11/28/11	5	ND		dry		ND		ND		ND	
	ug/L	5/23/12	5	ND		ND		ND		ND		ND	

TABLE 5

Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream	Downstream			Blanks
				S-4	S-1	S-2	S-3	
pH (field)	S.U.	05/26/98	--	--	--	--	--	--
	S.U.	12/01/98	--	--	--	--	--	--
	S.U.	06/07/99	--	6	dry	dry	5.76	--
	S.U.	07/08/99	--	--	dry	dry	--	--
	S.U.	12/13/99	--	6.47	6.3	6.44	6.58	--
	S.U.	06/06/00	--	6.54	dry	dry	dry	--
	S.U.	12/11/00	--	7.48	dry	dry	dry	--
	S.U.	06/04/01	--	7.08	6.92	6.94	7.11	--
	S.U.	12/03/01	--	6.59	dry	dry	5.99	--
	S.U.	06/10/02	--	7.81	dry	dry	8.13	--
	S.U.	12/16/02	--	7.28	7.66	6.81	7.2	--
	S.U.	06/09/03	--	7.14	7.58	--	7.49	--
	S.U.	12/09/03	--	8.46	7.82	8.58	8.46	--
	S.U.	06/24/04	--	7.53	6.91	7.4	7.57	--
	S.U.	12/20/04	--	7.64	8	--	7.66	--
	S.U.	06/08/05	--	7.5	7.69	7.31	7.59	--
	S.U.	12/07/05	--	7.2	7.3	7.14	7.47	--
	S.U.	06/05/06	--	7.58	7.24	dry	7.49	--
	S.U.	12/05/06	--	7.39	7.63	8.54	15.2	--
	S.U.	05/31/07	--	8.55	dry	dry	8.64	--
	S.U.	11/30/07	--	--	dry	dry	--	--
	S.U.	05/19/08	--	8.26	8.25	8.35	8.3	--
	S.U.	11/19/08	--	7.51	7.36	7.53	7.18	--
	S.U.	06/30/09	--	7.21	dry	dry	7.36	--
	S.U.	11/30/09	--	8.21	7.80	7.75	8.30	--
	S.U.	05/20/10	--	7.61	7.83	6.67	7.73	--
	S.U.	11/19/10	--	--	7.44	7.71	7.75	--
	S.U.	05/19/11	--	7.67	7.50	6.27	7.86	--
	S.U.	11/28/11	--	7.41	dry	6.57	6.73	--
	S.U.	05/23/12	--	6.68	7.31	6.25	6.21	--
Conductivity (field)	µS/cm	05/26/98	--	--	--	--	--	--
	µS/cm	12/01/98	--	--	--	--	--	--
	µS/cm	06/07/99	--	198	dry	dry	167	--
	µS/cm	07/08/99	--	--	dry	dry	--	--
	µS/cm	12/13/99	--	257.4	272.8	137.8	134.5	--
	µS/cm	06/06/00	--	202.3	dry	dry	dry	--
	µS/cm	12/11/00	--	277.5	dry	dry	dry	--
	µS/cm	06/04/01	--	372.6	184.8	166.9	393.4	--
	µS/cm	12/03/01	--	445	dry	dry	433.5	--
	µS/cm	06/10/02	--	451	dry	dry	250	--
	µS/cm	12/16/02	--	123	60	110	341	--
	µS/cm	06/09/03	--	186	177	--	316	--
	µS/cm	12/08/03	--	411.1	29.9	24.3	410	--
	µS/cm	06/28/04	--	451	284	277	431	--
	µS/cm	12/20/04	--	434	249	--	424	--
	µS/cm	06/08/05	--	336	197.1	190.5	345.8	--
	µS/cm	12/08/05	--	250	129	140	176	--
	µS/cm	06/05/06	--	391	161	dry	412	--
	µS/cm	12/05/06	--	392	194	232	391	--
	µS/cm	05/31/07	--	477	dry	dry	485	--
	µS/cm	11/30/07	--	--	dry	dry	--	--
	µS/cm	05/19/08	--	120	120	300	320	--
	µS/cm	11/19/08	--	370	160	160	380	--
	µS/cm	06/30/09	--	330	dry	dry	310	--
	µS/cm	11/30/09	--	400	190	200	400	--
	µS/cm	05/20/10	--	287	99	159	267	--
	µS/cm	11/19/10	--	--	226	473	469	--
	µS/cm	05/19/11	--	313	163	137	311	--
	µS/cm	11/28/11	--	207	dry	251	465	--
	µS/cm	05/23/12	--	263	116	78	240	--
Temperature (field)	°C	05/26/98	--	--	--	--	--	--
	°C	12/01/98	--	--	--	--	--	--
	°C	06/07/99	--	17.2	dry	dry	18	--
	°C	07/08/99	--	--	dry	dry	--	--
	°C	12/13/99	--	18.1	20.1	17.8	19.2	--
	°C	06/06/00	--	17.7	dry	dry	dry	--
	°C	12/11/00	--	8.9	dry	dry	dry	--
	°C	06/04/01	--	22.3	18.7	20.2	22.5	--
	°C	12/03/01	--	19.5	dry	dry	16.2	--
	°C	06/10/02	--	23.49	dry	dry	23.43	--
	°C	12/16/02	--	11.19	3.52	4.3	10.53	--
	°C	06/09/03	--	23.36	23.23	--	23.08	--
	°C	12/09/03	--	13.3	6.6	7.8	13.2	--
	°C	06/24/04	--	22.92	21.22	23.4	22.84	--
	°C	12/20/04	--	12.07	1.95	--	9.37	--
	°C	06/08/05	--	23.06	20.83	21.45	22.9	--
	°C	12/07/05	--	12.26	9.29	8.98	10.33	--
	°C	06/05/06	--	21.8	20.12	dry	21.75	--
	°C	12/05/06	--	15.02	8.32	8	15.2	--
	°C	05/31/07	--	24.28	dry	dry	23.8	--
	°C	11/30/07	--	--	dry	dry	--	--
	°C	05/19/08	--	19.0	19.0	22.6	21.7	--
	°C	11/19/08	--	14.7	7.5	6	14.6	--
	°C	06/30/09	--	20.4	dry	dry	20.3	--
	°C	11/30/09	--	18.4	17.3	17.6	18.6	--
	°C	05/20/10	--	23.04	18.36	20.8	22.38	--
	°C	11/19/10	--	--	7.69	19.34	19.43	--
	°C	05/19/11	--	21.01	15.61	18.00	21.49	--
	°C	11/28/11	--	13.91	dry	15.05	19.17	--
	°C	05/23/12	--	21.68	19.79	19.69	21.28	--

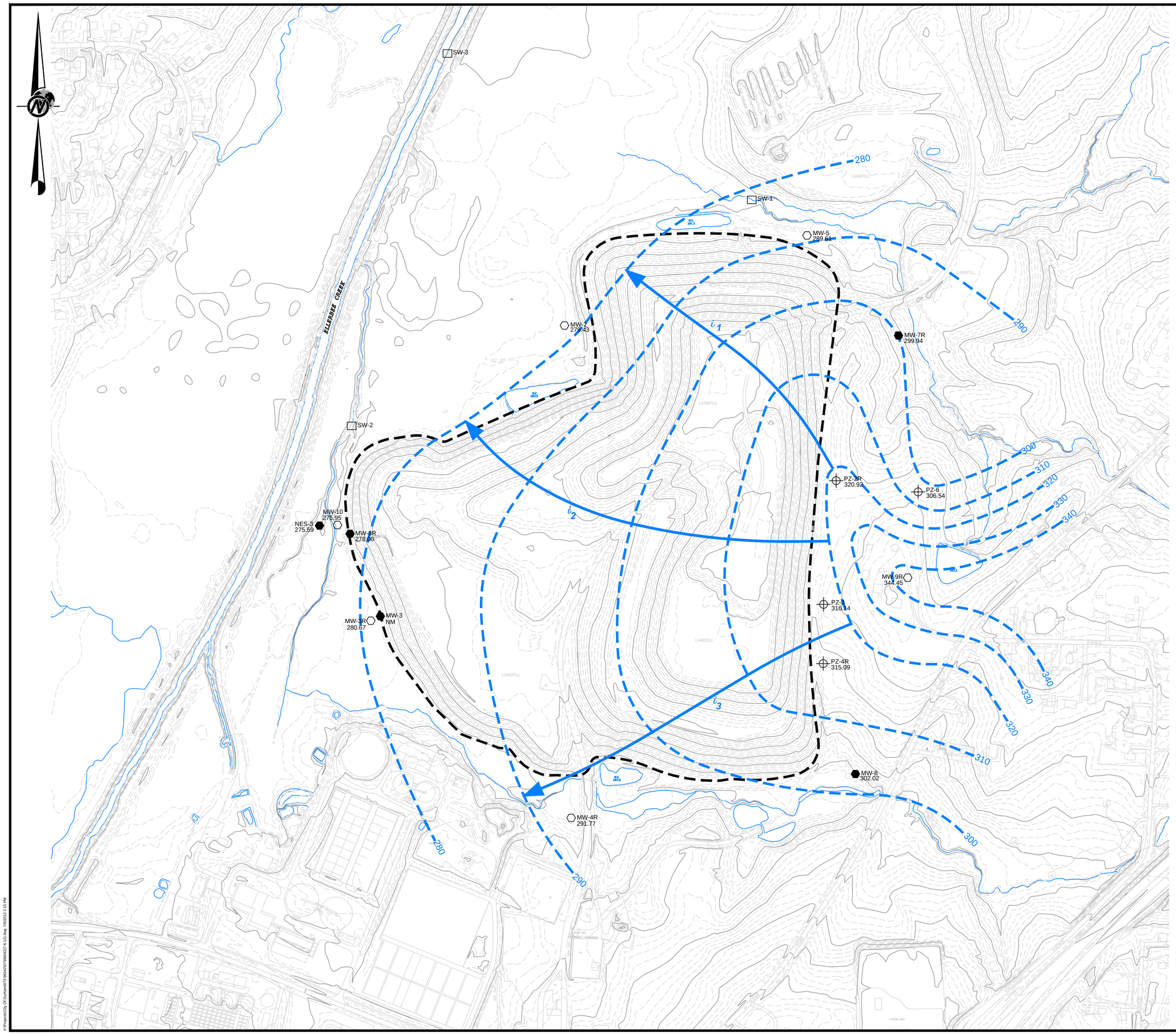
TABLE 5

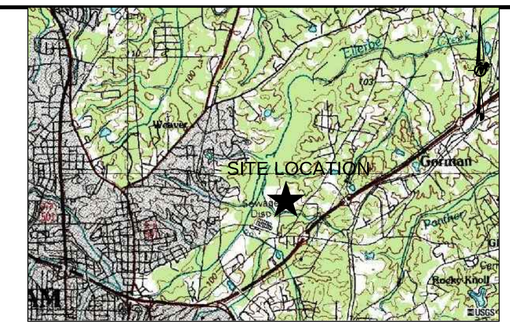
Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream	Downstream			Blanks
				S-4	S-1	S-2	S-3	
Turbidity (field)	NTU	05/26/98	--	--	--	--	--	--
	NTU	12/01/98	--	--	--	--	--	--
	NTU	06/07/99	--	12	dry	dry	--	--
	NTU	07/08/99	--	--	dry	dry	--	--
	NTU	12/13/99	--	139.2	229	139.8	146.7	--
	NTU	06/06/00	--	42.8	dry	dry	dry	--
	NTU	12/11/00	--	27.3	dry	dry	dry	--
	NTU	06/04/01	--	17.2	18.2	90	7.6	--
	NTU	12/03/01	--	--	dry	dry	2.2	--
	NTU	06/10/02	--	3.2	dry	dry	2.6	--
	NTU	12/16/02	--	6.4	9	10	5.8	--
	NTU	06/09/03	--	34	65.2	--	18	--
	NTU	12/09/03	--	12	25	23	13	--
	NTU	06/04/04	--	--	--	--	--	--
	NTU	12/20/04	--	--	--	--	--	--
	NTU	06/08/05	--	7.55	22.1	53	8.99	--
	NTU	12/07/05	--	88	31	66	120	--
	NTU	06/05/06	--	15.6	26.4	dry	17.9	--
	NTU	12/05/06	--	4.44	20.6	27.5	8.31	--
	NTU	05/31/07	--	0	dry	dry	56.9	--
	NTU	11/30/07	--	--	dry	dry	--	--
	NTU	05/19/08	--	--	--	--	--	--
	NTU	11/19/08	--	--	--	--	--	--
	NTU	06/30/09	--	--	dry	dry	--	--
	NTU	11/30/09	--	--	--	--	--	--
	NTU	05/20/10	--	11.2	38.6	64.6	26	--
	NTU	11/19/10	--	--	10.5	0.3	0	--
	NTU	05/19/11	--	0.7	13.5	80.2	0.1	--
	NTU	11/28/11	--	26.0	dry	30.9	3.37	--
	NTU	05/23/12	--	93.2	97.1	179	91.4	--
Oxidation Reduction Potential (field)	mV	05/31/07	--	70	dry	dry	45	--
	mV	11/30/07	--	--	dry	dry	--	--
	mV	05/19/08	--	--	--	--	--	--
	mV	11/19/08	--	--	--	--	--	--
	mV	06/30/09	--	--	dry	dry	--	--
	mV	11/30/09	--	--	--	--	--	--
	mV	05/20/10	--	91.6	52.4	53.4	7.65	--
	mV	11/19/10	--	--	-72	2.6	71.5	--
	mV	05/19/11	--	31	-122	5.1	42	--
	mV	11/28/11	--	7.2	dry	52.8	106.3	--
	mV	05/23/12	--	38.7	21.1	12.8	105.3	--
Dissolved Oxygen (field)	mg/L	12/01/01	--	5.9	dry	dry	4.7	--
	mg/L	06/10/02	--	9.1	dry	dry	13.3	--
	mg/L	12/16/02	--	11.64	10.81	10.51	11.57	--
	mg/L	06/09/03	--	10.16	7.8	--	10.04	--
	mg/L	12/08/03	--	10.5	12.6	12.5	10.5	--
	mg/L	06/24/04	--	8.01	4.53	7.4	7.83	--
	mg/L	12/20/04	--	9.93	12.2	--	10.01	--
	mg/L	06/08/05	--	--	--	--	--	--
	mg/L	06/05/06	--	6.59	5.45	dry	6.74	--
	mg/L	12/05/06	--	8.25	4.46	9.89	7.24	--
	mg/L	05/31/07	--	8.1	dry	dry	7.7	--
	mg/L	11/30/07	--	--	dry	dry	--	--
	mg/L	05/19/08	--	--	--	--	--	--
	mg/L	11/19/08	--	--	--	--	--	--
	mg/L	06/30/09	--	--	dry	dry	--	--
	mg/L	11/30/09	--	--	--	--	--	--
	mg/L	05/20/10	--	8.08	8.53	7.84	7.85	--
	mg/L	11/19/10	--	--	7.57	8.62	10.04	--
	mg/L	05/19/11	--	0.56	4.73	0.1	8.8	--
	mg/L	11/28/11	--	7.34	dry	8.10	8.87	--
	mg/L	05/23/12	--	7.09	7.57	8.68	6.72	--

Notes:
mg/L = milligrams per liter
ug/L = micrograms per liter
S.U. = Standard Units
NTU = Nephelometric Turbidity Units
ND = Not detected at the stated reporting limit
J = estimated concentration
B = blank-qualified result
dry = no flowing water at time of sampling
µS/cm= microsiemens per centimeter
mV = Millivolts
-- = no data
Blanks = field, trip and method blanks
Surface Water Standards SW Standards are WS Standards (Ellerbee Creek is a WS-IV Classification) or Freshwater Aquatic Life Standards if no WS Standard exists.
Shaded = Concentrations above the applicable Surface Water Standards have been shaded.
# Freshwater Aquatic Life Standards
* Standard is a Narrative Standard
** Standard is an Action Limit
Sample data from September 1994 through December 1998 compiled and reported by Malcolm Pirnie, Inc.
Sample data from June 1999 through December 2006 collected, compiled and reported by Weston Solutions, Inc.
Sample data from May 2007, November 2011 through current collected, compiled, and reported by Golder Associates NC, Inc.
Sample data collected from November 2007 to May 2011 collected, complied, and reported by S&ME.
Laboratory data prior to November 2011 was not validated by Golder Associates.
SWS Reporting Limit = NCPQL from 09/14/94 through 12/05/06 and NCSWSL for 05/30/07 and later

DRAWING





LEGEND

	EXISTING 10' GROUND SURFACE CONTOUR
	EXISTING 2' GROUND SURFACE CONTOUR
	APPROXIMATE LIMITS OF WASTE
	EXISTING ROAD
300	GROUNDWATER ELEVATION 10' CONTOURS
i_1	GROUNDWATER FLOW ARROW
PZ-2R 320.92	PIEZOMETER LOCATION AND GROUNDWATER ELEVATION
SW-1	SURFACE WATER MONITORING POINT
MW-2 279.43	COMPLIANCE MONITORING WELL AND WATER LEVEL ELEVATION
NM	NOT MEASURED
MW-2	NON-COMPLAINACE MONITORING WELL AND WATER LEVEL ELEVATION

NOTES

1) TOPOGRAPHIC CONTOUR INTERVAL = 2 FEET

2) GROUNDWATER SURFACE CONTOUR INTERVAL = 10 FEET

3) GROUNDWATER CONTOURS BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATA, TOPOGRAPHIC CONTOURS, AND KNOWN FIELD CONDITIONS. THEREFORE, GROUNDWATER CONTOURS MAY NOT REFLECT ACTUAL CONDITIONS.

4) GROUNDWATER ELEVATIONS MEASURED ON MAY 22, 2012.

5) TOC ELEVATIONS WERE SURVEYED BY MULKEY ENGINEERING IN JANUARY 2001. TOC ELEVATIONS WERE SURVEYED FOR WELLS PZ-2R, PZ-4R, MW-6R, MW-7R AND MW-9R IN 2005 BY MULKEY ENGINEERING.

6) MW-10 SURVEYED BY BATEMAN CIVIL SURVEY.

7) MW-3R HAS NOT BEEN SURVEYED AND WAS NOT USED IN THE INTERPRETATION OF CONTOUR LINES.

8) WELLS MW-1, MW-4, MW-6, MW-7, MW-9, PZ-1, PZ-2 AND PZ-4 HAVE BEEN ABANDONED, DAMAGED OR DESTROYED AND ARE NOT SHOWN ON THIS MAP.

9) MW-3 WAS NOT GAUGED DURING THE SAMPLING EVENT.

10) BASE MAP TOPOGRAPHIC MAP PROVIDED BY WESTON SOLUTIONS, INC. (FROM THEIR GROUNDWATER REPORT FOR THE DECEMBER 2006 SAMPLING EVENT).

200 0 200 400
SCALE FEET

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
2	6/6/12	DYR	MAY 2012 GROUNDWATER CONTOUR	LKB		
1	12/14/11	NLR	NOVEMBER 2011 GROUNDWATER CONTOUR	LKB	DYR	RPK

PROJECT
CITY OF DURHAM
CLOSED LANDFILL PERMIT #32-01
DURHAM, NORTH CAROLINA

TITLE
GROUNDWATER CONTOUR MAP
MAY 22, 2012

Golder Associates
GREENSBORO, NC

PROJECT No.		073-96042	FILE No. 073-96042(7-6-12)	
DESIGN	JAD	07/03/07	SCALE AS SHOWN	REV. –
CADD	LKB	07/03/07		
CHECK	DYR	07/03/07	DWG 1	
REVIEW	RPK	07/03/07		

X:\Projects\City Of Durham\073-96042\0739604207-6-12.dwg 7/6/2012 2:15 PM

APPENDIX A

Groundwater and Surface Water Sampling Logs

DATE: 5/23/12

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham **Project No./Phase No.:** 0739604212.100
Well ID: MW-2 **Sampler(s):** K. Sizemore / J. DeVore
Well Diameter: 2 inches **Initial Depth to Water:** 6.22 feet
Depth to Bottom: 15.66 feet **Water Column Thickness:** _____ feet
Well Location: Located NW of Landfill in tree-line
Equipment: YSI 556, QED MP-15, Water Level Meter, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
10:54	5.01	0.188	29.6	7.74	15.42	94.3	7.22'
10:57	5.44	0.135	23.7	3.00	15.38	115.0	7.54'
11:00	5.47	0.101	16.5	1.82	15.30	125.7	7.98'
11:03	5.47	0.090	16.4	1.65	15.28	133.7	7.93'
11:06	5.44	0.082	29.5	1.67	15.28	144.5	8.25'
		Sampled @ 11:06 for MC App II					

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Purge rate @ 200 mL/min Weather: Mostly cloudy, 70's, humid

Signature: _____ **Date:** 5/23/12
QA/QC Sign Off: _____ **Date:** 6/26/12

DATE: 5/22/12

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham **Project No./Phase No.:** 0739604212.100
Well ID: MW-3R **Sampler(s):** K. Sizemore / J. DeVore
Well Diameter: 2 inches **Initial Depth to Water:** 4.52' feet
Depth to Bottom: 14.29' feet **Water Column Thickness:** _____ feet
Well Location: Located downhill of perimeter road, West of Landfill
Equipment: YSI 556, QED MP-15, Water Level Meter, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
11:53	7.54	1.378	9.98	3.44	17.00	-51.2	4.86'
11:57	7.67	1.414	6.62	1.96	16.74	-65.7	4.96
12:01	7.78	1.432	5.86	1.17	16.55	-74.7	4.99
12:05	7.87	1.432	4.16	0.91	16.41	-83.0	5.00
12:09	7.93	1.429	3.86	0.81	16.32	-88.6	5.00
12:13	7.98	1.421	4.81	0.69	16.20	-90.4	5.05
12:17	8.01	1.413	4.10	0.61	16.07	-93.4	5.05
		Sampled @ 12:17 for NC Map II					

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Weather: Partly cloudy, upper 70's Purge rate = 150 mL/min

Signature: _____ **Date:** 5/22/12
QA/QC Sign Off: _____ **Date:** 6-26-12

DATE: 5/22/12

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham **Project No./Phase No.:** 0739604 217 100
Well ID: MW-4R **Sampler(s):** K. Sizemore / J. DeVore
Well Diameter: 2 inches **Initial Depth to Water:** 2.71 feet
Depth to Bottom: 12.88 feet **Water Column Thickness:** _____ feet
Well Location: Located in wetlands to left of entrance road
Equipment: YSI 556, QED MP-15, Water Level Meter, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
10:43	7.42	0.674	9.36	4.79	17.38	13.4	3.93
10:47	7.52	0.667	4.39	2.68	17.04	-12.6	4.50
10:51	7.65	0.654	3.47	0.77	16.68	-29.9	5.61
10:55	7.83	0.648	2.70	0.59	16.57	-33.6	6.49
10:59	8.08	0.643	2.11	0.67	16.50	-34.8	7.25
11:03	8.00	0.640	2.10	0.49	16:43	-35.7	7.88
	Sampled @ 11:03 for NC App. II						

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Weather: Partly cloudy, mid 70's Purgerate: 150 mL/min

Signature: _____ **Date:** 5/22/12
QA/QC Sign Off: Patty Reedy **Date:** 6.26.12

DATE: 5/23/12

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham **Project No./Phase No.:** 0739604212/100
Well ID: MW-5 **Sampler(s):** K. Sizemore / J. DeVore
Well Diameter: 2 inches **Initial Depth to Water:** 8.95 feet
Depth to Bottom: 17.99 feet **Water Column Thickness:** _____ feet
Well Location: Located NE of landfill along perimeter road
Equipment: YSI 556, QED MP-15, Water Level Meter, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
12:24	6.89	0.898	21.9	6.90	17.26	30.9	9.45
12:27	6.97	0.914	71.1	6.80	17.05	-4.8	9.45
12:30	7.19	0.916	135.0	2.44	16.76	-56.7	9.45
12:33	7.28	0.923	192.0	0.73	16.70	-71.6	9.45
12:36	7.32	0.923	158.0	0.60	16.59	-74.8	9.45
12:39	7.34	0.922	130.0	0.55	16.58	-76.3	9.49
12:42	7.38	0.922	93.6	0.46	16.50	-79.4	9.51
12:45	7.40	0.919	72.3	0.49	16.40	-80.9	9.51
		Sampled @12:48					
12:48	7.43	0.918	63.5	0.37	16.39	-81.6	9.52

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Purge rate at 200 ml/min Weather: Cloudy, mid 70's, calm winds, humid

Signature: _____ **Date:** 5/23/12
QA/QC Sign Off: _____ **Date:** 6.26.12

DATE: 5/23/12

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham
Project No./Phase No.: 0739604212.100
Well ID: MW-9R
Sampler(s): K. Sizemore / J. DeVore
Well Diameter: 2 inches
Initial Depth to Water: 16.13' feet
Depth to Bottom: 23.38' feet
Water Column Thickness: _____ feet
Well Location: Located East of landfill along fence and perimeter road
Equipment: YSI 556, QED MP-15, Water Level Meter, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
13:27	5.52	0.069	83.9	6.37	18.43	138.9	15.65'
13:30	5.05	0.061	69.4	5.04	17.85	187.8	15.67'
13:33	4.97	0.055	46.8	1.70	17.75	215.2	15.75'
13:36	5.10	0.054	41.9	1.46	17.67	227.0	15.75'
13:39	5.14	0.053	40.9	1.38	17.60	239.5	15.75'
13:42	5.16	0.053	40.0	1.31	17.79	243.7	15.75
		Sampled @ 13:42 for NC TMP II					

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Weather: Mostly cloudy, upper 70's, humid
Purge rate = 200 ml/min

Signature: [signature] **Date:** 5/23/12
QA/QC Sign Off: [signature] **Date:** 6-20-12

DATE: 5/23/12

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham
Project No./Phase No.: 0739604212100
Well ID: MW-10
Sampler(s): K. Sizemore / J. DeVore
Well Diameter: 2 **inches**
Initial Depth to Water: 6.86' **feet**
Depth to Bottom: 12.89' **feet**
Water Column Thickness: _____ **feet**
Well Location: Located off perimeter road, downhill near stream
Equipment: YSI 556, QED MP-15, Water Level Meter, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
9:35	5.85	0.510	24.3	5.50	15.88	63.9	6.96'
9:38	5.89	0.669	18.1	2.44	15.64	27.6	7.00'
9:41	6.01	0.693	16.4	1.79	15.53	15.9	7.02'
9:44	6.10	0.695	22.1	1.49	15.55	7.8	7.08'
9:47	6.18	0.680	30.7	1.41	15.58	2.4	7.11'
9:50	6.20	0.614	22.8	1.29	15.64	3.6	7.14'
	Sampled @ 9:50 for NCAP II						

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Purge rate 200ml/min Weather: Mostly Cloudy, low 70's, humid

Signature: _____ **Date:** 5/23/12
QA/QC Sign Off: _____ **Date:** 6-26-12

DATE: 5/23/12

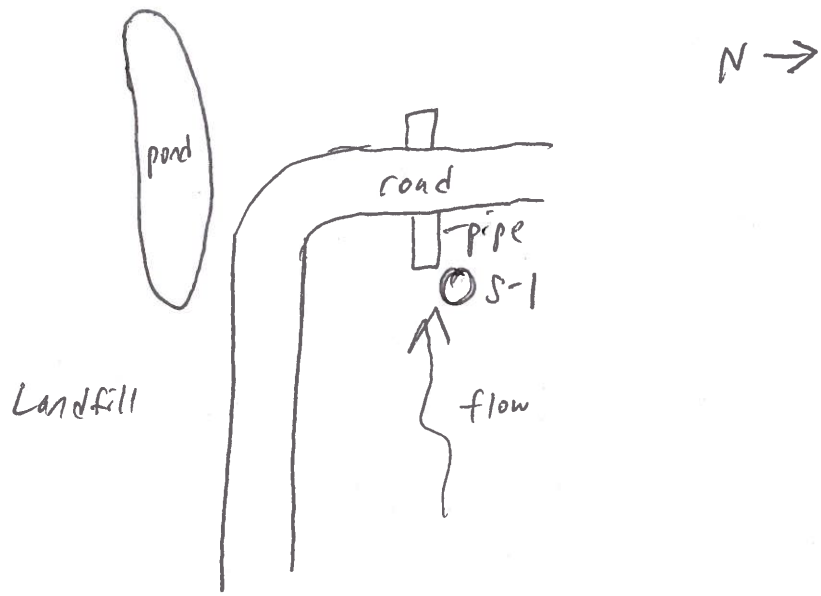
Golder Associates

SURFACE WATER SAMPLING LOG

Project Name: City of Durham
Project No./Phase No.: 739604212100
Sample ID: S-1
Sampler(s): K. Sizemore / J. DeVore
Sampling Location:
Equipment: YSI 556, Hach Turbidity Meter

Time	13:00
pH s.u.	7.31
Cond. mS/cm	0.116
Turb. ntu	~~21.1~~ 97.1
Dis. O2 mg/L	7.57
Temp. oC	19.79
TDS Sal	–
ORP mv	21.1

Surface Water Location Sketch



Comments (sample methodology, weather conditions, color, silt, etc.):
Weather: Cloudy, mid 70's, humid, flowing water observed, rain overnight

Signature: Date: 5/23/12
QA/QC Sign Off: Date: 6-26-12

DATE: 5/23/12

Golder Associates

SURFACE WATER SAMPLING LOG

Project Name: City of Durham **Project No./Phase No.:** 739604212.100

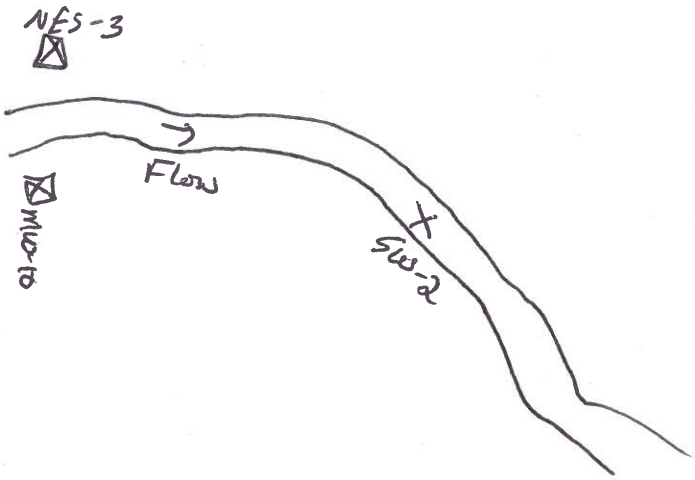
Sample ID: S-2 **Sampler(s):** K. Sizemore / J. DeVore

Sampling Location: Downstream of MW-18

Equipment: YSI 556, Hach Turbidity Meter

Time	10:15
pH s.u.	6.23
Cond. mS/cm	0.078
Turb. ntu	179
Dis. O2 mg/L	8.68
Temp. oC	19.69
TDS Sal	—
ORP mv	12.8

Surface Water Location Sketch



Comments (sample methodology, weather conditions, color, silt, etc.):

Weather: Partly cloudy, mid 70's, humid, rain overnight, flow observed

Signature: Date: 5/23/12

QA/QC Sign Off: Date: 6-26-12

DATE: 5/23/12

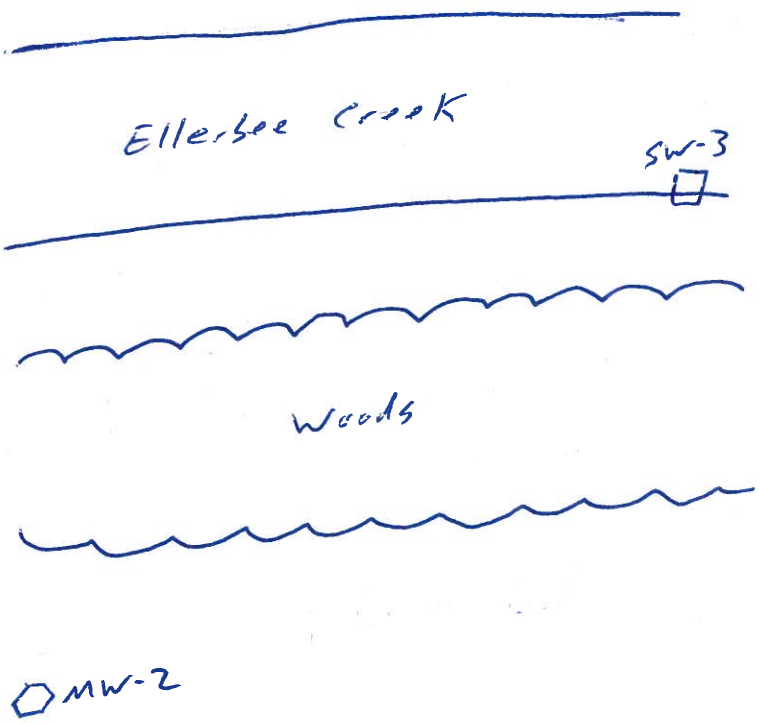
Golder Associates

SURFACE WATER SAMPLING LOG

Project Name: City of Durham
Project No./Phase No.: 739604212.100
Sample ID: S-3
Sampler(s): K. Sizemore / J. DeVore
Sampling Location:
Equipment: YSI 556, Hach Turbidity Meter

Time	11:55
pH s.u.	6.21
Cond. mS/cm	0.240
Turb. ntu	91.4
Dis. O2 mg/L	6.72
Temp. oC	21.28
TDS Sal	–
ORP mv	105.3

Surface Water Location Sketch



Comments (sample methodology, weather conditions, color, silt, etc.):
Weather: Cloudy, 70's, humid hi water, rain overnight

Signature: Date: 5/23/12
QA/QC Sign Off: Date: 6-26-12

DATE: 5/23/12

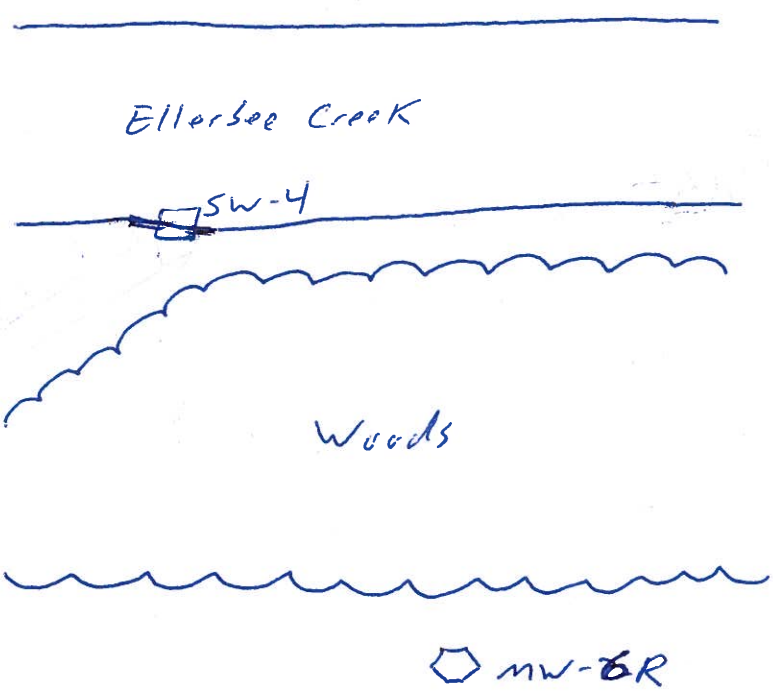
Golder Associates

SURFACE WATER SAMPLING LOG

Project Name: City of Durham
Project No./Phase No.: 739604211.100
Sample ID: S-4
Sampler(s): K. Sizemore / J. DeVore
Sampling Location:
Equipment: YSI 556, Hach Turbidity Meter

Time	10:27
pH s.u.	6.68
Cond. mS/cm	0.263
Turb. ntu	93.2
Dis. O2 mg/L	7.09
Temp. oC	21.68
TDS Sal	–
ORP mv	38.7

Surface Water Location Sketch



Comments (sample methodology, weather conditions, color, silt, etc.):
Weather: Mostly cloudy, 70's, heavy rain overnight, turbid

Signature: Date: 5/23/12
QA/QC Sign Off: Date: 6-26-12

DATE: 6-15-2012

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham **Project No./Phase No.:** 739604212.100
Well ID: MW-5 **Sampler(s):** B. Draper/K. Brewer
Well Diameter: 2 inches **Initial Depth to Water:** 9.22 feet
Depth to Bottom: 17.99 feet **Water Column Thickness:** 8.77 feet
Well Location: Located NE of landfill along perimeter road
Equipment: YSI 556, QED MP-10, Water Level Indicator, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
11:37	6.54	0.999	49.4	3.70	17.12	-322.1	9.95
11:40	6.70	0.958	19.5	1.41	16.41	-317.0	9.98
11:43	6.75	0.957	10.3	1.01	16.24	-329.7	10.11
11:46	6.77	0.956	8.72	0.85	16.11	-331.6	10.13
11:49	6.79	0.956	8.45	0.78	16.07	-331.6	10.15
11:52	6.80	0.956	5.54	0.67	16.07	-332.5	10.17
		Sampled @		11:52			

Comments (weather conditions, color, type of sample, purge-water management, etc.):

Signature: [signature] **Date:** 6-15-2012
QA/QC Sign Off: [signature] **Date:** 7-3-12

Golder Associates

WELL CONDITION SUMMARY

DATE: 5-22-12

Project Name: City of Durham LF

Project No./Task No. 0739604212.100

Personnel: K. Sizemore / J. DeVore

Page 1 of 1

Well ID	Protective Casing	Well Casing	Label	Lock	Pad Condition	Comments/ Observations*
MW-9R	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☐ OK ☑ Damaged	well pad cracked
MW-2	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	
MW-3R	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	
MW-4R	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	well pad covered
MW-5	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	well pad covered
MW-10	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged	

* Note ponding water, weep holes, condition of surrounding area, including any disturbance of the ground since last inspection, evidence of contamination.

Signature: Ken Sizemore Date: 5-22-12

QA / QC Signature: Patty Reedy Date: 7-6-12

APPENDIX B

May 2012 Groundwater Certificate-of-Analysis, Chain of Custody Form(s) and Laboratory Data Review

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515
www.encolabs.com

Tuesday, June 12, 2012

Golder Associates, Inc. (GO007)

Attn: Dusty Reedy

5B Oak Branch Drive

Greensboro, NC 27407

RE: Laboratory Results for
Project Number: 073-9604211.100, Project Name/Desc: City of Durham
ENCO Workorder(s): C205531

Dear Dusty Reedy,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, May 24, 2012.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith For Stephanie Franz

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 117.

PROJECT NARRATIVE

Date: 12 June 2012
Client: Golder Associates, Inc. (GO007)
Project: City of Durham
Lab ID: C205531

Overview

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

The spike recovery of Sulfide was outside of control limits for the MS and MSD samples. The QC batch was approved based on acceptable LCS recovery of this analyte.

The Method 8270 target analyte Diethylphthalate was detected in the Method Blank at a concentration above the MDL but below the MRL. Diethylphthalate was also detected in samples 3201-MW3R MS/MSD and 3201-MW4R. The samples detections have been "B" flagged and denoted as a common laboratory contaminant (O-01).

Quality Control Remarks

The surrogate spike recovery of 4-Bromofluorobenzene in samples MW-9R, S1, S2, S3, S4, and the Field Blank and Method Blank and Dibromofluoromethane in sample MW-5 exceeded control limits. The samples were approved based on acceptable recoveries of the other surrogate standards.

The Method 8270 analytes 2,4-Dinitrophenol, 2-Acetylaminofluorene, 7,12-Dimethylbenz(a)anthracene, Benzo(b)fluoranthene and Benzo(k)fluoranthene exhibited high bias in the associated continuing calibration verification. Since the sample results are non-detect, the impact on data quality is minimal. The sample results for these analytes have been flagged with a QV-01 qualifier.

The Method 8270 analytes 3,3'-Dimethylbenzidine and Methypyrilene exhibited low bias in the associated continuing calibration verification. The reported results should be considered a minimum estimate. The sample results for these analytes have been flagged with a QV-02 qualifier.

Other Comments

All samples received under this work order arrived in acceptable conditions. The samples were not checked for residual chlorine, as it is not required. One of two containers for the Trip Blank arrived broken; the other vial was cracked, and it broke during the analysis process. No results are available for the Trip Blank.

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:
Environmental Conservation Laboratories, Inc.

Chuck Smith
Project Manager

www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 3201-MW2 **Lab ID: C205531-01** **Sampled: 05/23/12 11:06** **Received: 05/24/12 11:35**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:18
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:07
EPA 7470A	06/20/12		05/25/12	08:59	5/25/2012 15:01
EPA 8081B	05/30/12	07/08/12	05/29/12	12:58	6/7/2012 16:32
EPA 8082A	05/23/13	05/23/13	05/29/12	13:02	6/7/2012 16:32
EPA 8151A	05/30/12	07/08/12	05/29/12	12:15	5/31/2012 23:18
EPA 8260B	06/06/12		05/25/12	10:15	5/25/2012 16:25
EPA 8270D	05/30/12	07/09/12	05/30/12	07:30	6/11/2012 22:37
EPA 9014	06/06/12		05/31/12	11:10	6/1/2012 14:29
SM18 4500-S D	05/30/12		05/29/12	12:08	5/29/2012 12:35

Client ID: 3201-MW3R MS/MSD **Lab ID: C205531-02** **Sampled: 05/22/12 12:17** **Received: 05/24/12 11:35**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/18/12		05/24/12	14:13	5/25/2012 13:02
EPA 6020A	11/18/12		05/24/12	14:23	5/29/2012 11:49
EPA 7470A	06/19/12		05/25/12	08:59	5/25/2012 14:50
EPA 8081B	05/29/12	07/08/12	05/29/12	12:58	6/7/2012 16:45
EPA 8082A	05/22/13	05/22/13	05/29/12	13:02	6/7/2012 16:45
EPA 8151A	05/29/12	07/08/12	05/29/12	12:15	5/31/2012 21:08
EPA 8260B	06/05/12		05/25/12	10:15	5/25/2012 15:56
EPA 8270D	05/29/12	07/08/12	05/29/12	18:53	6/11/2012 23:03
EPA 9014	06/05/12		05/31/12	11:10	6/1/2012 14:23
SM18 4500-S D	05/29/12		05/29/12	12:08	5/29/2012 12:35

Client ID: 3201-MW4R **Lab ID: C205531-03** **Sampled: 05/22/12 11:03** **Received: 05/24/12 11:35**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/18/12		05/24/12	14:13	5/25/2012 13:20
EPA 6020A	11/18/12		05/24/12	14:23	5/29/2012 12:11
EPA 7470A	06/19/12		05/25/12	08:59	5/25/2012 15:03
EPA 8081B	05/29/12	07/08/12	05/29/12	12:58	6/7/2012 16:58
EPA 8082A	05/22/13	05/22/13	05/29/12	13:02	6/7/2012 16:58
EPA 8151A	05/29/12	07/08/12	05/29/12	12:15	5/31/2012 23:44
EPA 8260B	06/05/12		05/25/12	10:15	5/25/2012 16:54
EPA 8270D	05/29/12	07/08/12	05/29/12	18:53	6/11/2012 23:30
EPA 9014	06/05/12		05/25/12	10:07	5/25/2012 17:45
SM18 4500-S D	05/29/12		05/29/12	12:08	5/29/2012 12:35

www.encolabs.com

Client ID: 3201-MW5	Lab ID: C205531-04	Sampled: 05/23/12 12:48	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:22
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:15
EPA 7470A	06/20/12		05/25/12	08:59	5/25/2012 15:05
EPA 8081B	05/30/12	07/08/12	05/29/12	12:58	6/7/2012 17:11
EPA 8082A	05/23/13	05/23/13	05/29/12	13:02	6/7/2012 17:11
EPA 8151A	05/30/12	07/08/12	05/29/12	12:15	6/1/2012 00:10
EPA 8260B	06/06/12		05/25/12	10:15	5/25/2012 17:23
EPA 8270D	05/30/12	07/09/12	05/30/12	07:30	6/11/2012 23:57
EPA 9014	06/06/12		05/31/12	11:10	6/1/2012 14:31
SM18 4500-S D	05/30/12		05/29/12	12:08	5/29/2012 12:35

Client ID: 3201-MW9R	Lab ID: C205531-05	Sampled: 05/23/12 13:42	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:24
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:32
EPA 7470A	06/20/12		05/25/12	08:59	5/25/2012 15:12
EPA 8081B	05/30/12	07/08/12	05/29/12	12:58	6/7/2012 17:24
EPA 8082A	05/23/13	05/23/13	05/29/12	13:02	6/7/2012 17:24
EPA 8151A	05/30/12	07/08/12	05/29/12	12:15	6/1/2012 00:35
EPA 8260B	06/06/12		05/25/12	16:41	5/29/2012 20:30
EPA 8270D	05/30/12	07/09/12	05/30/12	07:30	6/12/2012 00:23
EPA 9014	06/06/12		05/31/12	11:10	6/1/2012 14:33
SM18 4500-S D	05/30/12		05/29/12	12:08	5/29/2012 12:35

Client ID: 3201-MW10	Lab ID: C205531-06	Sampled: 05/23/12 09:50	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:26
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:36
EPA 7470A	06/20/12		05/25/12	08:59	5/25/2012 15:14
EPA 8081B	05/30/12	07/08/12	05/29/12	12:58	6/7/2012 17:38
EPA 8082A	05/23/13	05/23/13	05/29/12	13:02	6/7/2012 17:38
EPA 8151A	05/30/12	07/08/12	05/29/12	12:15	6/1/2012 01:01
EPA 8270D	05/30/12	07/09/12	05/30/12	07:30	6/12/2012 00:50
EPA 9014	06/06/12		05/31/12	11:10	6/1/2012 14:34
SM18 4500-S D	05/30/12		05/29/12	12:08	5/29/2012 12:35

Client ID: 3201-MW10	Lab ID: C205531-06RE1	Sampled: 05/23/12 09:50	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8260B	06/06/12		05/30/12	09:51	5/31/2012 05:26

Client ID: 3201-S1	Lab ID: C205531-07	Sampled: 05/23/12 13:00	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:28
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:39
EPA 8260B	06/06/12		05/25/12	16:41	5/29/2012 21:29

www.encolabs.com

Client ID: 3201-S2	Lab ID: C205531-08	Sampled: 05/23/12 10:15	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:30
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:43
EPA 8260B	06/06/12		05/25/12	16:41	5/29/2012 21:59

Client ID: 3201-S3	Lab ID: C205531-09	Sampled: 05/23/12 11:55	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:37
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:47
EPA 8260B	06/06/12		05/25/12	16:41	5/29/2012 22:28

Client ID: 3201-S4	Lab ID: C205531-10	Sampled: 05/23/12 10:27	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:39
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:51
EPA 8260B	06/06/12		05/25/12	16:41	5/29/2012 22:58

Client ID: 3201-Field Blank	Lab ID: C205531-11	Sampled: 05/23/12 14:00	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:41
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:54
EPA 7470A	06/20/12		05/25/12	08:59	5/25/2012 15:17
EPA 8081B	05/30/12	07/08/12	05/29/12	12:58	6/7/2012 18:04
EPA 8082A	05/23/13	05/23/13	05/29/12	13:02	6/7/2012 18:04
EPA 8151A	05/30/12	07/08/12	05/29/12	12:15	6/1/2012 01:27
EPA 8260B	06/06/12		05/25/12	16:41	5/29/2012 23:28
EPA 8270D	05/30/12	07/09/12	05/30/12	07:30	6/12/2012 01:16
EPA 9014	06/06/12		06/04/12	10:27	6/5/2012 13:38
SM18 4500-S D	05/30/12		05/29/12	12:08	5/29/2012 12:35

www.encolabs.com

NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 3201-MW2 **Lab ID: C205531-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.542	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	82.2	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.214	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	5.55	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.18	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	2.12	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	3.36	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Silver - Total	5.61	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	2.24	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	8.53	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-MW3R MS/MSD **Lab ID: C205531-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	1.37	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	212		1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	4.28	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	4.70	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Diethylphthalate	6.6	JB	1	2.1	10	6000	ug/L	EPA 8270D	B, O-01
Nickel - Total	5.84	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Silver - Total	2.88	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Sulfide	120	J	1	10	100	1000	ug/L	SM18 4500-S D	
Tin - Total	33.8	J	1	2.10	10.0	100	ug/L	EPA 6010C	
Vanadium - Total	2.60	J	1	1.40	10.0	25	ug/L	EPA 6010C	

Client ID: 3201-MW4R **Lab ID: C205531-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.224	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	577		1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	1.51	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.24	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	3.91	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Diethylphthalate	12	JB	1	2.1	10	6000	ug/L	EPA 8270D	B, O-01
Nickel - Total	4.50	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Phenol	1.5	J	1	1.4	10	10	ug/L	EPA 8270D	
Silver - Total	2.73	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Tin - Total	3.67	J	1	2.10	10.0	100	ug/L	EPA 6010C	
Zinc - Total	5.43	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-MW5 **Lab ID: C205531-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	7.51	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	1920		1	1.00	10.0	100	ug/L	EPA 6010C	
Bis(2-ethylhexyl)phthalate	7.7	J	1	1.7	5.0	15	ug/L	EPA 8270D	
Chromium - Total	1.86	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.13	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Tin - Total	5.63	J	1	2.10	10.0	100	ug/L	EPA 6010C	

Client ID: 3201-MW9R **Lab ID: C205531-05**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	50.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.456	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	2.09	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	5.64	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	1.76	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	2.21	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.77	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Silver - Total	7.43	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	1.74	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	6.59	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-MW10 **Lab ID: C205531-06**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	664		1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	2.76	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	4.63	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	5.26	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Silver - Total	5.95	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Zinc - Total	39.0		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-MW10 **Lab ID: C205531-06RE1**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,2-Dichloropropane	4.5	D	2	0.20	2.0	1	ug/L	EPA 8260B	
Benzene	1.7	JD	2	0.30	2.0	1	ug/L	EPA 8260B	
cis-1,2-Dichloroethene	200	D	2	0.30	2.0	5	ug/L	EPA 8260B	
trans-1,2-Dichloroethene	4.4	JD	2	0.42	2.0	5	ug/L	EPA 8260B	
Trichloroethene	9.8	D	2	0.30	2.0	1	ug/L	EPA 8260B	
Vinyl chloride	15	D	2	0.64	2.0	1	ug/L	EPA 8260B	

Client ID: 3201-S1 **Lab ID: C205531-07**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetone	5.4	J	1	1.2	5.0	100	ug/L	EPA 8260B	
Barium - Total	96.5	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.190	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	5.48	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	3.16	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	7.36	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	7.51	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	4.77	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	8.23	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	17.1		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-S2 **Lab ID: C205531-08**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetone	9.2	J	1	1.2	5.0	100	ug/L	EPA 8260B	
Antimony - Total	0.269	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	70.7	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.217	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	6.08	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	2.53	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	7.57	J	1	1.60	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-S2 **Lab ID: C205531-08**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Lead - Total	6.25	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	4.35	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	9.68	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	22.1		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-S3 **Lab ID: C205531-09**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetone	10	J	1	1.2	5.0	100	ug/L	EPA 8260B	
Antimony - Total	0.378	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	38.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	3.57	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.80	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	6.19	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	9.08	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	3.48	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	5.98	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	34.0		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-S4 **Lab ID: C205531-10**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetone	11	J	1	1.2	5.0	100	ug/L	EPA 8260B	
Antimony - Total	0.398	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	34.4	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	3.73	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	2.13	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	6.32	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	7.33	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.85	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	6.43	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	38.8		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-Field Blank **Lab ID: C205531-11**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
2-Butanone	5.4	J	1	1.3	5.0	100	ug/L	EPA 8260B	
Acetone	16	J	1	1.2	5.0	100	ug/L	EPA 8260B	

www.encolabs.com

ANALYTICAL RESULTS

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/25/12 16:25	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/25/12 16:25	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	15	EPA 8260B	05/25/12 16:25	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/25/12 16:25	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/25/12 16:25	JKG	
3-Chloropropene [107-05-1] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/25/12 16:25	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/25/12 16:25	JKG	
Acetonitrile [75-05-8] ^	5.0	U	ug/L	1	5.0	10	55	EPA 8260B	05/25/12 16:25	JKG	
Acrolein [107-02-8] ^	4.0	U	ug/L	1	4.0	10	53	EPA 8260B	05/25/12 16:25	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/25/12 16:25	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/25/12 16:25	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/25/12 16:25	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/25/12 16:25	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 16:25	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Chloroprene [126-99-8] ^	0.64	U	ug/L	1	0.64	1.0	20	EPA 8260B	05/25/12 16:25	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 16:25	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	05/25/12 16:25	JKG	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Ethyl Methacrylate [97-63-2] ^	0.38	U	ug/L	1	0.38	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/25/12 16:25	JKG	
Isobutyl alcohol [78-83-1] ^	11	U	ug/L	1	11	50	100	EPA 8260B	05/25/12 16:25	JKG	
Methacrylonitrile [126-98-7] ^	4.9	U	ug/L	1	4.9	10	100	EPA 8260B	05/25/12 16:25	JKG	
Methyl Methacrylate [80-62-6] ^	0.51	U	ug/L	1	0.51	1.0	30	EPA 8260B	05/25/12 16:25	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
Propionitrile [107-12-0] ^	5.0	U	ug/L	1	5.0	10	150	EPA 8260B	05/25/12 16:25	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/25/12 16:25	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/25/12 16:25	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/25/12 16:25	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*108 %*	*51-122*	*2E25012*	*EPA 8260B*	*05/25/12 16:25*	*JKG*	
Dibromofluoromethane	*56*	*1*	*50.0*	*113 %*	*68-117*	*2E25012*	*EPA 8260B*	*05/25/12 16:25*	*JKG*	
Toluene-d8	*51*	*1*	*50.0*	*101 %*	*67-127*	*2E25012*	*EPA 8260B*	*05/25/12 16:25*	*JKG*	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/11/12 22:37	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 22:37	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/11/12 22:37	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 22:37	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/11/12 22:37	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/11/12 22:37	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 22:37	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/11/12 22:37	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 22:37	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/11/12 22:37	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 22:37	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/11/12 22:37	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/11/12 22:37	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/11/12 22:37	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 22:37	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 22:37	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/11/12 22:37	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/11/12 22:37	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 22:37	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	QV-01

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/11/12 22:37	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/11/12 22:37	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Diethylphthalate [84-66-2] ^	2.1	U	ug/L	1	2.1	10	6000	EPA 8270D	06/11/12 22:37	DFM	
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 22:37	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 22:37	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 22:37	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 22:37	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 22:37	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 22:37	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 22:37	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/11/12 22:37	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/11/12 22:37	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 22:37	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/11/12 22:37	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 22:37	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 22:37	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/11/12 22:37	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 22:37	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 22:37	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 22:37	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Phenol [108-95-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 22:37	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*54*	*1*	*100*	*54 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/11/12 22:37*	*DFM*	
2-Fluorobiphenyl	*27*	*1*	*50.0*	*54 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 22:37*	*DFM*	
2-Fluorophenol	*36*	*1*	*100*	*36 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/11/12 22:37*	*DFM*	
Nitrobenzene-d5	*27*	*1*	*50.0*	*55 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 22:37*	*DFM*	
Phenol-d5	*33*	*1*	*100*	*33 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/11/12 22:37*	*DFM*	
Terphenyl-d14	*34*	*1*	*50.0*	*69 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/11/12 22:37*	*DFM*	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 16:32	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 16:32	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 16:32	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 16:32	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 16:32	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 16:32	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 16:32	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 16:32	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 16:32	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 16:32	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 16:32	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 16:32	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 16:32	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*1.0*	*1*	*1.00*	*101 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 16:32*	*MSZ*	
Decachlorobiphenyl	*1.3*	*1*	*1.00*	*128 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 16:32*	*MSZ*	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 16:32	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 16:32	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 16:32	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 16:32	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 16:32	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 16:32	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*1.0*	*1*	*1.00*	*101 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 16:32*	*MSZ*	
Decachlorobiphenyl	*1.3*	*1*	*1.00*	*128 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 16:32*	*MSZ*	

www.encolabs.com

Description:	3201-MW2	**Lab Sample ID:**	C205531-01	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/23/12 11:06	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 15:01	KER	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.542**	J	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:07	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:18	JDH	
Barium [7440-39-3] ^	**82.2**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:18	JDH	
Beryllium [7440-41-7] ^	**0.214**	J	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:18	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:18	JDH	
Chromium [7440-47-3] ^	**5.55**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:18	JDH	
Cobalt [7440-48-4] ^	**1.18**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:18	JDH	
Copper [7440-50-8] ^	**2.12**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:18	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:18	JDH	
Nickel [7440-02-0] ^	**3.36**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:18	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:07	VLO	
Silver [7440-22-4] ^	**5.61**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:18	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:07	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:18	JDH	
Vanadium [7440-62-2] ^	**2.24**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:18	JDH	
Zinc [7440-66-6] ^	**8.53**	J	ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:18	JDH	

www.encolabs.com

Description: 3201-MW2
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-01
Sampled: 05/23/12 11:06
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	06/01/12 14:29	AJB	
Sulfide [18496-25-8] ^	10	U	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	05/31/12 23:18	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	05/31/12 23:18	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	05/31/12 23:18	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	05/31/12 23:18	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	05/31/12 23:18	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.7*	*1*	*2.00*	*85 %*	*68-139*	*2E29003*	*EPA 8151A*	*05/31/12 23:18*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-MW3R MS/MSD | **Lab Sample ID:** C205531-02 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/22/12 12:17 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/25/12 15:56	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/25/12 15:56	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	15	EPA 8260B	05/25/12 15:56	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/25/12 15:56	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/25/12 15:56	JKG	
3-Chloropropene [107-05-1] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/25/12 15:56	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/25/12 15:56	JKG	
Acetonitrile [75-05-8] ^	5.0	U	ug/L	1	5.0	10	55	EPA 8260B	05/25/12 15:56	JKG	
Acrolein [107-02-8] ^	4.0	U	ug/L	1	4.0	10	53	EPA 8260B	05/25/12 15:56	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/25/12 15:56	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/25/12 15:56	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/25/12 15:56	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/25/12 15:56	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 15:56	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Chloroprene [126-99-8] ^	0.64	U	ug/L	1	0.64	1.0	20	EPA 8260B	05/25/12 15:56	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 15:56	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
Ethyl Methacrylate [97-63-2] ^	0.38	U	ug/L	1	0.38	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/25/12 15:56	JKG	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Isobutyl alcohol [78-83-1] ^	11	U	ug/L	1	11	50	100	EPA 8260B	05/25/12 15:56	JKG	
Methacrylonitrile [126-98-7] ^	4.9	U	ug/L	1	4.9	10	100	EPA 8260B	05/25/12 15:56	JKG	
Methyl Methacrylate [80-62-6] ^	0.51	U	ug/L	1	0.51	1.0	30	EPA 8260B	05/25/12 15:56	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
Propionitrile [107-12-0] ^	5.0	U	ug/L	1	5.0	10	150	EPA 8260B	05/25/12 15:56	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/25/12 15:56	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/25/12 15:56	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/25/12 15:56	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*53*	*1*	*50.0*	*105 %*	*51-122*	*2E25012*	*EPA 8260B*	*05/25/12 15:56*	*JKG*	
Dibromofluoromethane	*52*	*1*	*50.0*	*104 %*	*68-117*	*2E25012*	*EPA 8260B*	*05/25/12 15:56*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*100 %*	*67-127*	*2E25012*	*EPA 8260B*	*05/25/12 15:56*	*JKG*	

www.encolabs.com

Description: 3201-MW3R MS/MSD | **Lab Sample ID:** C205531-02 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/22/12 12:17 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/11/12 23:03	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 23:03	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/11/12 23:03	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:03	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/11/12 23:03	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/11/12 23:03	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:03	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/11/12 23:03	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:03	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/11/12 23:03	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 23:03	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/11/12 23:03	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/11/12 23:03	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/11/12 23:03	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 23:03	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:03	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/11/12 23:03	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/11/12 23:03	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:03	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	QV-01

www.encolabs.com

Description: 3201-MW3R MS/MSD | **Lab Sample ID:** C205531-02 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/22/12 12:17 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/11/12 23:03	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/11/12 23:03	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Diethylphthalate [84-66-2] ^	**6.6**	JB	ug/L	1	2.1	10	6000	EPA 8270D	06/11/12 23:03	DFM	B, O-01
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 23:03	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:03	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 23:03	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 23:03	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:03	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:03	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 23:03	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/11/12 23:03	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/11/12 23:03	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 23:03	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/11/12 23:03	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:03	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 23:03	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/11/12 23:03	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:03	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 23:03	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 23:03	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Phenol [108-95-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 23:03	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*64*	*1*	*100*	*64 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/11/12 23:03*	*DFM*	
2-Fluorobiphenyl	*31*	*1*	*50.0*	*61 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 23:03*	*DFM*	
2-Fluorophenol	*36*	*1*	*100*	*36 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/11/12 23:03*	*DFM*	
Nitrobenzene-d5	*29*	*1*	*50.0*	*57 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 23:03*	*DFM*	
Phenol-d5	*35*	*1*	*100*	*35 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/11/12 23:03*	*DFM*	
Terphenyl-d14	*37*	*1*	*50.0*	*74 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/11/12 23:03*	*DFM*	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 16:45	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 16:45	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 16:45	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 16:45	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 16:45	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 16:45	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 16:45	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 16:45	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 16:45	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 16:45	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 16:45	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 16:45	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 16:45	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.83*	*1*	*1.00*	*83 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 16:45*	*MSZ*	
Decachlorobiphenyl	*0.93*	*1*	*1.00*	*93 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 16:45*	*MSZ*	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 16:45	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 16:45	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 16:45	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 16:45	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 16:45	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 16:45	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.83*	*1*	*1.00*	*83 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 16:45*	*MSZ*	
Decachlorobiphenyl	*0.93*	*1*	*1.00*	*93 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 16:45*	*MSZ*	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 14:50	KER	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**1.37**	J	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 11:49	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:02	JDH	
Barium [7440-39-3] ^	**212**		ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:02	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:02	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:02	JDH	
Chromium [7440-47-3] ^	**4.28**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:02	JDH	
Cobalt [7440-48-4] ^	**4.70**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:02	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:02	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:02	JDH	
Nickel [7440-02-0] ^	**5.84**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:02	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 11:49	VLO	
Silver [7440-22-4] ^	**2.88**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:02	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 11:49	VLO	
Tin [7440-31-5] ^	**33.8**	J	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:02	JDH	
Vanadium [7440-62-2] ^	**2.60**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:02	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:02	JDH	

www.encolabs.com

Description:	3201-MW3R MS/MSD	**Lab Sample ID:**	C205531-02	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/22/12 12:17	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	06/01/12 14:23	AJB	
Sulfide [18496-25-8] ^	**120**	J	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	05/31/12 21:08	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	05/31/12 21:08	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	05/31/12 21:08	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	05/31/12 21:08	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	05/31/12 21:08	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.9*	*1*	*2.00*	*93 %*	*68-139*	*2E29003*	*EPA 8151A*	*05/31/12 21:08*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/25/12 16:54	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/25/12 16:54	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	15	EPA 8260B	05/25/12 16:54	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/25/12 16:54	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/25/12 16:54	JKG	
3-Chloropropene [107-05-1] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/25/12 16:54	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/25/12 16:54	JKG	
Acetonitrile [75-05-8] ^	5.0	U	ug/L	1	5.0	10	55	EPA 8260B	05/25/12 16:54	JKG	
Acrolein [107-02-8] ^	4.0	U	ug/L	1	4.0	10	53	EPA 8260B	05/25/12 16:54	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/25/12 16:54	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/25/12 16:54	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/25/12 16:54	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/25/12 16:54	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 16:54	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Chloroprene [126-99-8] ^	0.64	U	ug/L	1	0.64	1.0	20	EPA 8260B	05/25/12 16:54	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 16:54	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
Ethyl Methacrylate [97-63-2] ^	0.38	U	ug/L	1	0.38	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/25/12 16:54	JKG	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Isobutyl alcohol [78-83-1] ^	11	U	ug/L	1	11	50	100	EPA 8260B	05/25/12 16:54	JKG	
Methacrylonitrile [126-98-7] ^	4.9	U	ug/L	1	4.9	10	100	EPA 8260B	05/25/12 16:54	JKG	
Methyl Methacrylate [80-62-6] ^	0.51	U	ug/L	1	0.51	1.0	30	EPA 8260B	05/25/12 16:54	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
Propionitrile [107-12-0] ^	5.0	U	ug/L	1	5.0	10	150	EPA 8260B	05/25/12 16:54	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/25/12 16:54	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/25/12 16:54	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/25/12 16:54	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*108 %*	*51-122*	*2E25012*	*EPA 8260B*	*05/25/12 16:54*	*JKG*	
Dibromofluoromethane	*55*	*1*	*50.0*	*111 %*	*68-117*	*2E25012*	*EPA 8260B*	*05/25/12 16:54*	*JKG*	
Toluene-d8	*48*	*1*	*50.0*	*96 %*	*67-127*	*2E25012*	*EPA 8260B*	*05/25/12 16:54*	*JKG*	

www.encolabs.com

Description: 3201-MW4R | **Lab Sample ID:** C205531-03 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/22/12 11:03 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/11/12 23:30	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 23:30	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/11/12 23:30	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:30	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/11/12 23:30	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/11/12 23:30	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:30	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/11/12 23:30	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:30	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/11/12 23:30	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 23:30	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/11/12 23:30	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/11/12 23:30	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/11/12 23:30	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 23:30	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:30	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/11/12 23:30	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/11/12 23:30	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:30	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	QV-01

www.encolabs.com

Description: 3201-MW4R | **Lab Sample ID:** C205531-03 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/22/12 11:03 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/11/12 23:30	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/11/12 23:30	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Diethylphthalate [84-66-2] ^	**12**	JB	ug/L	1	2.1	10	6000	EPA 8270D	06/11/12 23:30	DFM	B, O-01
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 23:30	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:30	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 23:30	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 23:30	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:30	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:30	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 23:30	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/11/12 23:30	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/11/12 23:30	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 23:30	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/11/12 23:30	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:30	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 23:30	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/11/12 23:30	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:30	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 23:30	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 23:30	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Phenol [108-95-2] ^	**1.5**	J	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 23:30	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*66*	*1*	*100*	*66 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/11/12 23:30*	*DFM*	
2-Fluorobiphenyl	*33*	*1*	*50.0*	*66 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 23:30*	*DFM*	
2-Fluorophenol	*42*	*1*	*100*	*42 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/11/12 23:30*	*DFM*	
Nitrobenzene-d5	*33*	*1*	*50.0*	*65 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 23:30*	*DFM*	
Phenol-d5	*37*	*1*	*100*	*37 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/11/12 23:30*	*DFM*	
Terphenyl-d14	*41*	*1*	*50.0*	*82 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/11/12 23:30*	*DFM*	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 16:58	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 16:58	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 16:58	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 16:58	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 16:58	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 16:58	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 16:58	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 16:58	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 16:58	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 16:58	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 16:58	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 16:58	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 16:58	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.85*	*1*	*1.00*	*85 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 16:58*	*MSZ*	
Decachlorobiphenyl	*1.1*	*1*	*1.00*	*110 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 16:58*	*MSZ*	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 16:58	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 16:58	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 16:58	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 16:58	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 16:58	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 16:58	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.85*	*1*	*1.00*	*85 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 16:58*	*MSZ*	
Decachlorobiphenyl	*1.1*	*1*	*1.00*	*110 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 16:58*	*MSZ*	

www.encolabs.com

Description:	3201-MW4R	**Lab Sample ID:**	C205531-03	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/22/12 11:03	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 15:03	KER	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.224**	J	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:11	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:20	JDH	
Barium [7440-39-3] ^	**577**		ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:20	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:20	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:20	JDH	
Chromium [7440-47-3] ^	**1.51**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:20	JDH	
Cobalt [7440-48-4] ^	**1.24**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:20	JDH	
Copper [7440-50-8] ^	**3.91**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:20	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:20	JDH	
Nickel [7440-02-0] ^	**4.50**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:20	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:11	VLO	
Silver [7440-22-4] ^	**2.73**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:20	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:11	VLO	
Tin [7440-31-5] ^	**3.67**	J	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:20	JDH	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:20	JDH	
Zinc [7440-66-6] ^	**5.43**	J	ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:20	JDH	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	05/25/12 17:45	AJB	
Sulfide [18496-25-8] ^	10	U	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	05/31/12 23:44	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	05/31/12 23:44	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	05/31/12 23:44	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	05/31/12 23:44	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	05/31/12 23:44	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.5*	*1*	*2.00*	*77 %*	*68-139*	*2E29003*	*EPA 8151A*	*05/31/12 23:44*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/25/12 17:23	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/25/12 17:23	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	15	EPA 8260B	05/25/12 17:23	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/25/12 17:23	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/25/12 17:23	JKG	
3-Chloropropene [107-05-1] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/25/12 17:23	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/25/12 17:23	JKG	
Acetonitrile [75-05-8] ^	5.0	U	ug/L	1	5.0	10	55	EPA 8260B	05/25/12 17:23	JKG	
Acrolein [107-02-8] ^	4.0	U	ug/L	1	4.0	10	53	EPA 8260B	05/25/12 17:23	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/25/12 17:23	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/25/12 17:23	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/25/12 17:23	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/25/12 17:23	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 17:23	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Chloroprene [126-99-8] ^	0.64	U	ug/L	1	0.64	1.0	20	EPA 8260B	05/25/12 17:23	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 17:23	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
Ethyl Methacrylate [97-63-2] ^	0.38	U	ug/L	1	0.38	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/25/12 17:23	JKG	

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Isobutyl alcohol [78-83-1] ^	11	U	ug/L	1	11	50	100	EPA 8260B	05/25/12 17:23	JKG	
Methacrylonitrile [126-98-7] ^	4.9	U	ug/L	1	4.9	10	100	EPA 8260B	05/25/12 17:23	JKG	
Methyl Methacrylate [80-62-6] ^	0.51	U	ug/L	1	0.51	1.0	30	EPA 8260B	05/25/12 17:23	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
Propionitrile [107-12-0] ^	5.0	U	ug/L	1	5.0	10	150	EPA 8260B	05/25/12 17:23	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/25/12 17:23	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/25/12 17:23	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/25/12 17:23	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*109 %*	*51-122*	*2E25012*	*EPA 8260B*	*05/25/12 17:23*	*JKG*	
Dibromofluoromethane	*59*	*1*	*50.0*	*119 %*	*68-117*	*2E25012*	*EPA 8260B*	*05/25/12 17:23*	*JKG*	*QS-03*
Toluene-d8	*47*	*1*	*50.0*	*94 %*	*67-127*	*2E25012*	*EPA 8260B*	*05/25/12 17:23*	*JKG*	

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/11/12 23:57	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 23:57	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/11/12 23:57	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:57	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/11/12 23:57	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/11/12 23:57	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:57	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/11/12 23:57	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:57	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/11/12 23:57	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 23:57	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/11/12 23:57	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/11/12 23:57	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/11/12 23:57	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 23:57	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:57	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/11/12 23:57	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/11/12 23:57	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:57	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	QV-01

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/11/12 23:57	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	**7.7**	J	ug/L	1	1.7	5.0	15	EPA 8270D	06/11/12 23:57	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Diethylphthalate [84-66-2] ^	2.1	U	ug/L	1	2.1	10	6000	EPA 8270D	06/11/12 23:57	DFM	
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 23:57	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:57	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 23:57	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 23:57	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:57	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:57	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 23:57	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/11/12 23:57	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/11/12 23:57	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 23:57	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/11/12 23:57	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:57	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 23:57	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/11/12 23:57	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:57	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 23:57	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 23:57	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Phenol [108-95-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 23:57	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*72*	*1*	*100*	*72 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/11/12 23:57*	*DFM*	
2-Fluorobiphenyl	*34*	*1*	*50.0*	*67 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 23:57*	*DFM*	
2-Fluorophenol	*40*	*1*	*100*	*40 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/11/12 23:57*	*DFM*	
Nitrobenzene-d5	*34*	*1*	*50.0*	*68 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 23:57*	*DFM*	
Phenol-d5	*34*	*1*	*100*	*34 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/11/12 23:57*	*DFM*	
Terphenyl-d14	*43*	*1*	*50.0*	*86 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/11/12 23:57*	*DFM*	

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 17:11	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 17:11	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 17:11	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 17:11	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 17:11	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 17:11	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 17:11	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 17:11	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 17:11	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 17:11	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 17:11	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 17:11	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 17:11	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.97*	*1*	*1.00*	*97 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 17:11*	*MSZ*	
Decachlorobiphenyl	*1.3*	*1*	*1.00*	*129 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 17:11*	*MSZ*	

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 17:11	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 17:11	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 17:11	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 17:11	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 17:11	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 17:11	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.97*	*1*	*1.00*	*97 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 17:11*	*MSZ*	
Decachlorobiphenyl	*1.3*	*1*	*1.00*	*129 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 17:11*	*MSZ*	

www.encolabs.com

Description:	3201-MW5	**Lab Sample ID:**	C205531-04	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/23/12 12:48	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 15:05	KER	

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:15	VLO	
Arsenic [7440-38-2] ^	**7.51**	J	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:22	JDH	
Barium [7440-39-3] ^	**1920**		ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:22	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:22	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:22	JDH	
Chromium [7440-47-3] ^	**1.86**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:22	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:22	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:22	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:22	JDH	
Nickel [7440-02-0] ^	**2.13**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:22	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:15	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:22	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:15	VLO	
Tin [7440-31-5] ^	**5.63**	J	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:22	JDH	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:22	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:22	JDH	

www.encolabs.com

Description: 3201-MW5
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-04
Sampled: 05/23/12 12:48
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	06/01/12 14:31	AJB	
Sulfide [18496-25-8] ^	10	U	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description:	3201-MW5	**Lab Sample ID:**	C205531-04	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/23/12 12:48	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	06/01/12 00:10	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	06/01/12 00:10	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	06/01/12 00:10	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	06/01/12 00:10	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	06/01/12 00:10	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.8*	*1*	*2.00*	*91 %*	*68-139*	*2E29003*	*EPA 8151A*	*06/01/12 00:10*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/29/12 20:30	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/29/12 20:30	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	15	EPA 8260B	05/29/12 20:30	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/29/12 20:30	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/29/12 20:30	JKG	
3-Chloropropene [107-05-1] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/29/12 20:30	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/29/12 20:30	JKG	
Acetonitrile [75-05-8] ^	5.0	U	ug/L	1	5.0	10	55	EPA 8260B	05/29/12 20:30	JKG	
Acrolein [107-02-8] ^	4.0	U	ug/L	1	4.0	10	53	EPA 8260B	05/29/12 20:30	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/29/12 20:30	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/29/12 20:30	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/29/12 20:30	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/29/12 20:30	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 20:30	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Chloroprene [126-99-8] ^	0.64	U	ug/L	1	0.64	1.0	20	EPA 8260B	05/29/12 20:30	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 20:30	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
Ethyl Methacrylate [97-63-2] ^	0.38	U	ug/L	1	0.38	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/29/12 20:30	JKG	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Isobutyl alcohol [78-83-1] ^	11	U	ug/L	1	11	50	100	EPA 8260B	05/29/12 20:30	JKG	
Methacrylonitrile [126-98-7] ^	4.9	U	ug/L	1	4.9	10	100	EPA 8260B	05/29/12 20:30	JKG	
Methyl Methacrylate [80-62-6] ^	0.51	U	ug/L	1	0.51	1.0	30	EPA 8260B	05/29/12 20:30	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
Propionitrile [107-12-0] ^	5.0	U	ug/L	1	5.0	10	150	EPA 8260B	05/29/12 20:30	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/29/12 20:30	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/29/12 20:30	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/29/12 20:30	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*67*	*1*	*50.0*	*134 %*	*51-122*	*2E25030*	*EPA 8260B*	*05/29/12 20:30*	*JKG*	*QS-03*
Dibromofluoromethane	*47*	*1*	*50.0*	*94 %*	*68-117*	*2E25030*	*EPA 8260B*	*05/29/12 20:30*	*JKG*	
Toluene-d8	*49*	*1*	*50.0*	*97 %*	*67-127*	*2E25030*	*EPA 8260B*	*05/29/12 20:30*	*JKG*	

www.encolabs.com

Description: 3201-MW9R | **Lab Sample ID:** C205531-05 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 13:42 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/12/12 00:23	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/12/12 00:23	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/12/12 00:23	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:23	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/12/12 00:23	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/12/12 00:23	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:23	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/12/12 00:23	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 00:23	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/12/12 00:23	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/12/12 00:23	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/12/12 00:23	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/12/12 00:23	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/12/12 00:23	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/12/12 00:23	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 00:23	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/12/12 00:23	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/12/12 00:23	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 00:23	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	QV-01

www.encolabs.com

Description: 3201-MW9R | **Lab Sample ID:** C205531-05 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 13:42 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/12/12 00:23	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/12/12 00:23	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Diethylphthalate [84-66-2] ^	2.1	U	ug/L	1	2.1	10	6000	EPA 8270D	06/12/12 00:23	DFM	
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/12/12 00:23	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:23	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/12/12 00:23	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/12/12 00:23	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 00:23	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 00:23	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/12/12 00:23	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/12/12 00:23	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/12/12 00:23	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/12/12 00:23	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/12/12 00:23	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:23	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/12/12 00:23	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/12/12 00:23	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 00:23	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/12/12 00:23	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/12/12 00:23	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Phenol [108-95-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/12/12 00:23	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*65*	*1*	*100*	*65 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/12/12 00:23*	*DFM*	
2-Fluorobiphenyl	*34*	*1*	*50.0*	*68 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/12/12 00:23*	*DFM*	
2-Fluorophenol	*40*	*1*	*100*	*40 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/12/12 00:23*	*DFM*	
Nitrobenzene-d5	*34*	*1*	*50.0*	*68 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/12/12 00:23*	*DFM*	
Phenol-d5	*34*	*1*	*100*	*34 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/12/12 00:23*	*DFM*	
Terphenyl-d14	*40*	*1*	*50.0*	*80 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/12/12 00:23*	*DFM*	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 17:24	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 17:24	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 17:24	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 17:24	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 17:24	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 17:24	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 17:24	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 17:24	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 17:24	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 17:24	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 17:24	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 17:24	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 17:24	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.78*	*1*	*1.00*	*78 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 17:24*	*MSZ*	
Decachlorobiphenyl	*1.2*	*1*	*1.00*	*117 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 17:24*	*MSZ*	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 17:24	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 17:24	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 17:24	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 17:24	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 17:24	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 17:24	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.78*	*1*	*1.00*	*78 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 17:24*	*MSZ*	
Decachlorobiphenyl	*1.2*	*1*	*1.00*	*117 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 17:24*	*MSZ*	

www.encolabs.com

Description:	3201-MW9R	**Lab Sample ID:**	C205531-05	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/23/12 13:42	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 15:12	KER	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:32	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:24	JDH	
Barium [7440-39-3] ^	**50.6**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:24	JDH	
Beryllium [7440-41-7] ^	**0.456**	J	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:24	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:24	JDH	
Chromium [7440-47-3] ^	**2.09**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:24	JDH	
Cobalt [7440-48-4] ^	**5.64**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:24	JDH	
Copper [7440-50-8] ^	**1.76**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:24	JDH	
Lead [7439-92-1] ^	**2.21**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:24	JDH	
Nickel [7440-02-0] ^	**2.77**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:24	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:32	VLO	
Silver [7440-22-4] ^	**7.43**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:24	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:32	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:24	JDH	
Vanadium [7440-62-2] ^	**1.74**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:24	JDH	
Zinc [7440-66-6] ^	**6.59**	J	ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:24	JDH	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	06/01/12 14:33	AJB	
Sulfide [18496-25-8] ^	10	U	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	06/01/12 00:35	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	06/01/12 00:35	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	06/01/12 00:35	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	06/01/12 00:35	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	06/01/12 00:35	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.6*	*1*	*2.00*	*80 %*	*68-139*	*2E29003*	*EPA 8151A*	*06/01/12 00:35*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.34	UD	ug/L	2	0.34	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.24	UD	ug/L	2	0.24	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.56	UD	ug/L	2	0.56	2.0	3	EPA 8260B	05/31/12 05:26	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.28	UD	ug/L	2	0.28	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,1-Dichloroethane [75-34-3] ^	0.26	UD	ug/L	2	0.26	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
1,1-Dichloroethene [75-35-4] ^	0.42	UD	ug/L	2	0.42	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
1,1-Dichloropropene [563-58-6] ^	0.30	UD	ug/L	2	0.30	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.46	UD	ug/L	2	0.46	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.28	UD	ug/L	2	0.28	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.96	UD	ug/L	2	0.96	2.0	13	EPA 8260B	05/31/12 05:26	JKG	
1,2-Dibromoethane [106-93-4] ^	1.3	UD	ug/L	2	1.3	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.38	UD	ug/L	2	0.38	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
1,2-Dichloroethane [107-06-2] ^	0.42	UD	ug/L	2	0.42	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,2-Dichloropropane [78-87-5] ^	**4.5**	D	ug/L	2	0.20	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.30	UD	ug/L	2	0.30	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
1,3-Dichloropropane [142-28-9] ^	0.32	UD	ug/L	2	0.32	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	UD	ug/L	2	0.38	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
2,2-Dichloropropane [594-20-7] ^	0.56	UD	ug/L	2	0.56	2.0	15	EPA 8260B	05/31/12 05:26	JKG	
2-Butanone [78-93-3] ^	2.6	UD	ug/L	2	2.6	10	100	EPA 8260B	05/31/12 05:26	JKG	
2-Hexanone [591-78-6] ^	1.8	UD	ug/L	2	1.8	10	50	EPA 8260B	05/31/12 05:26	JKG	
3-Chloropropene [107-05-1] ^	0.22	UD	ug/L	2	0.22	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
4-Methyl-2-pentanone [108-10-1] ^	2.2	UD	ug/L	2	2.2	10	100	EPA 8260B	05/31/12 05:26	JKG	
Acetone [67-64-1] ^	2.4	UD	ug/L	2	2.4	10	100	EPA 8260B	05/31/12 05:26	JKG	
Acetonitrile [75-05-8] ^	10	UD	ug/L	2	10	20	55	EPA 8260B	05/31/12 05:26	JKG	
Acrolein [107-02-8] ^	8.0	UD	ug/L	2	8.0	20	53	EPA 8260B	05/31/12 05:26	JKG	
Acrylonitrile [107-13-1] ^	7.0	UD	ug/L	2	7.0	20	200	EPA 8260B	05/31/12 05:26	JKG	
Benzene [71-43-2] ^	**1.7**	JD	ug/L	2	0.30	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Bromochloromethane [74-97-5] ^	0.96	UD	ug/L	2	0.96	2.0	3	EPA 8260B	05/31/12 05:26	JKG	
Bromodichloromethane [75-27-4] ^	0.34	UD	ug/L	2	0.34	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Bromoform [75-25-2] ^	0.44	UD	ug/L	2	0.44	2.0	3	EPA 8260B	05/31/12 05:26	JKG	
Bromomethane [74-83-9] ^	0.28	UD	ug/L	2	0.28	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
Carbon disulfide [75-15-0] ^	3.0	UD	ug/L	2	3.0	10	100	EPA 8260B	05/31/12 05:26	JKG	
Carbon tetrachloride [56-23-5] ^	0.34	UD	ug/L	2	0.34	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Chlorobenzene [108-90-7] ^	0.34	UD	ug/L	2	0.34	2.0	3	EPA 8260B	05/31/12 05:26	JKG	
Chloroethane [75-00-3] ^	0.46	UD	ug/L	2	0.46	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
Chloroform [67-66-3] ^	0.36	UD	ug/L	2	0.36	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
Chloromethane [74-87-3] ^	0.26	UD	ug/L	2	0.26	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Chloroprene [126-99-8] ^	1.3	UD	ug/L	2	1.3	2.0	20	EPA 8260B	05/31/12 05:26	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	**200**	D	ug/L	2	0.30	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.40	UD	ug/L	2	0.40	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Dibromochloromethane [124-48-1] ^	0.34	UD	ug/L	2	0.34	2.0	3	EPA 8260B	05/31/12 05:26	JKG	
Dibromomethane [74-95-3] ^	0.54	UD	ug/L	2	0.54	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.40	UD	ug/L	2	0.40	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
Ethyl Methacrylate [97-63-2] ^	0.76	UD	ug/L	2	0.76	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
Ethylbenzene [100-41-4] ^	0.26	UD	ug/L	2	0.26	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Iodomethane [74-88-4] ^	3.4	UD	ug/L	2	3.4	10	10	EPA 8260B	05/31/12 05:26	JKG	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Isobutyl alcohol [78-83-1] ^	22	UD	ug/L	2	22	100	100	EPA 8260B	05/31/12 05:26	JKG	
Methacrylonitrile [126-98-7] ^	9.8	UD	ug/L	2	9.8	20	100	EPA 8260B	05/31/12 05:26	JKG	
Methyl Methacrylate [80-62-6] ^	1.0	UD	ug/L	2	1.0	2.0	30	EPA 8260B	05/31/12 05:26	JKG	
Methylene chloride [75-09-2] ^	0.46	UD	ug/L	2	0.46	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Naphthalene [91-20-3] ^	0.22	UD	ug/L	2	0.22	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
Propionitrile [107-12-0] ^	10	UD	ug/L	2	10	20	150	EPA 8260B	05/31/12 05:26	JKG	
Styrene [100-42-5] ^	0.22	UD	ug/L	2	0.22	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Tetrachloroethene [127-18-4] ^	0.34	UD	ug/L	2	0.34	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Toluene [108-88-3] ^	0.28	UD	ug/L	2	0.28	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	**4.4**	JD	ug/L	2	0.42	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.30	UD	ug/L	2	0.30	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	1.4	UD	ug/L	2	1.4	2.0	100	EPA 8260B	05/31/12 05:26	JKG	
Trichloroethene [79-01-6] ^	**9.8**	D	ug/L	2	0.30	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Trichlorofluoromethane [75-69-4] ^	0.48	UD	ug/L	2	0.48	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Vinyl acetate [108-05-4] ^	1.9	UD	ug/L	2	1.9	10	50	EPA 8260B	05/31/12 05:26	JKG	
Vinyl chloride [75-01-4] ^	**15**	D	ug/L	2	0.64	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Xylenes (Total) [1330-20-7] ^	0.90	UD	ug/L	2	0.90	6.0	5	EPA 8260B	05/31/12 05:26	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*43*	*1*	*50.0*	*85 %*	*51-122*	*2E29023*	*EPA 8260B*	*05/31/12 05:26*	*JKG*	
Dibromofluoromethane	*40*	*1*	*50.0*	*81 %*	*68-117*	*2E29023*	*EPA 8260B*	*05/31/12 05:26*	*JKG*	
Toluene-d8	*39*	*1*	*50.0*	*79 %*	*67-127*	*2E29023*	*EPA 8260B*	*05/31/12 05:26*	*JKG*	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/12/12 00:50	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/12/12 00:50	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/12/12 00:50	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:50	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/12/12 00:50	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/12/12 00:50	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:50	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/12/12 00:50	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 00:50	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/12/12 00:50	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/12/12 00:50	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/12/12 00:50	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/12/12 00:50	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/12/12 00:50	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/12/12 00:50	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 00:50	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/12/12 00:50	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/12/12 00:50	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 00:50	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	QV-01

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/12/12 00:50	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/12/12 00:50	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Diethylphthalate [84-66-2] ^	2.1	U	ug/L	1	2.1	10	6000	EPA 8270D	06/12/12 00:50	DFM	
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/12/12 00:50	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:50	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/12/12 00:50	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/12/12 00:50	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 00:50	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 00:50	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/12/12 00:50	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/12/12 00:50	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/12/12 00:50	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/12/12 00:50	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/12/12 00:50	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:50	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/12/12 00:50	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/12/12 00:50	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 00:50	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/12/12 00:50	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/12/12 00:50	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Phenol [108-95-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/12/12 00:50	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*70*	*1*	*100*	*70 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/12/12 00:50*	*DFM*	
2-Fluorobiphenyl	*32*	*1*	*50.0*	*65 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/12/12 00:50*	*DFM*	
2-Fluorophenol	*40*	*1*	*100*	*40 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/12/12 00:50*	*DFM*	
Nitrobenzene-d5	*33*	*1*	*50.0*	*66 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/12/12 00:50*	*DFM*	
Phenol-d5	*36*	*1*	*100*	*36 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/12/12 00:50*	*DFM*	
Terphenyl-d14	*41*	*1*	*50.0*	*82 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/12/12 00:50*	*DFM*	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 17:38	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 17:38	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 17:38	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 17:38	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 17:38	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 17:38	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 17:38	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 17:38	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 17:38	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 17:38	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 17:38	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 17:38	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 17:38	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.83*	*1*	*1.00*	*83 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 17:38*	*MSZ*	
Decachlorobiphenyl	*0.83*	*1*	*1.00*	*83 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 17:38*	*MSZ*	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 17:38	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 17:38	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 17:38	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 17:38	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 17:38	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 17:38	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.83*	*1*	*1.00*	*83 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 17:38*	*MSZ*	
Decachlorobiphenyl	*0.83*	*1*	*1.00*	*83 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 17:38*	*MSZ*	

www.encolabs.com

Description:	3201-MW10	**Lab Sample ID:**	C205531-06	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/23/12 09:50	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 15:14	KER	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:36	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:26	JDH	
Barium [7440-39-3] ^	**664**		ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:26	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:26	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:26	JDH	
Chromium [7440-47-3] ^	**2.76**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:26	JDH	
Cobalt [7440-48-4] ^	**4.63**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:26	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:26	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:26	JDH	
Nickel [7440-02-0] ^	**5.26**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:26	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:36	VLO	
Silver [7440-22-4] ^	**5.95**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:26	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:36	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:26	JDH	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:26	JDH	
Zinc [7440-66-6] ^	**39.0**		ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:26	JDH	

www.encolabs.com

Description: 3201-MW10
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-06
Sampled: 05/23/12 09:50
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	06/01/12 14:34	AJB	
Sulfide [18496-25-8] ^	10	U	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	06/01/12 01:01	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	06/01/12 01:01	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	06/01/12 01:01	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	06/01/12 01:01	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	06/01/12 01:01	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.6*	*1*	*2.00*	*80 %*	*68-139*	*2E29003*	*EPA 8151A*	*06/01/12 01:01*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-S1 | **Lab Sample ID:** C205531-07 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 13:00 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/29/12 21:29	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/29/12 21:29	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/29/12 21:29	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/29/12 21:29	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/29/12 21:29	JKG	
Acetone [67-64-1] ^	**5.4**	J	ug/L	1	1.2	5.0	100	EPA 8260B	05/29/12 21:29	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/29/12 21:29	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/29/12 21:29	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/29/12 21:29	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 21:29	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/29/12 21:29	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 21:29	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/29/12 21:29	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 21:29	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/29/12 21:29	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/29/12 21:29	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/29/12 21:29	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/29/12 21:29	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/29/12 21:29	JKG	

www.encolabs.com

Description: 3201-S1 | **Lab Sample ID:** C205531-07 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 13:00 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/29/12 21:29	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*68*	*1*	*50.0*	*136 %*	*51-122*	*2E25030*	*EPA 8260B*	*05/29/12 21:29*	*JKG*	*QS-03*
Dibromofluoromethane	*47*	*1*	*50.0*	*95 %*	*68-117*	*2E25030*	*EPA 8260B*	*05/29/12 21:29*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*101 %*	*67-127*	*2E25030*	*EPA 8260B*	*05/29/12 21:29*	*JKG*	

www.encolabs.com

Description: 3201-S1 | **Lab Sample ID:** C205531-07 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 13:00 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:39	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:28	JDH	
Barium [7440-39-3] ^	**96.5**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:28	JDH	
Beryllium [7440-41-7] ^	**0.190**	J	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:28	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:28	JDH	
Chromium [7440-47-3] ^	**5.48**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:28	JDH	
Cobalt [7440-48-4] ^	**3.16**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:28	JDH	
Copper [7440-50-8] ^	**7.36**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:28	JDH	
Lead [7439-92-1] ^	**7.51**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:28	JDH	
Nickel [7440-02-0] ^	**4.77**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:28	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:39	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:28	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:39	VLO	
Vanadium [7440-62-2] ^	**8.23**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:28	JDH	
Zinc [7440-66-6] ^	**17.1**		ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:28	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-S2 | **Lab Sample ID:** C205531-08 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 10:15 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/29/12 21:59	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/29/12 21:59	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/29/12 21:59	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/29/12 21:59	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/29/12 21:59	JKG	
Acetone [67-64-1] ^	**9.2**	J	ug/L	1	1.2	5.0	100	EPA 8260B	05/29/12 21:59	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/29/12 21:59	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/29/12 21:59	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/29/12 21:59	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 21:59	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/29/12 21:59	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 21:59	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/29/12 21:59	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 21:59	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/29/12 21:59	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/29/12 21:59	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/29/12 21:59	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/29/12 21:59	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/29/12 21:59	JKG	

www.encolabs.com

Description: 3201-S2
Matrix: Surface Water
Project: City of Durham

Lab Sample ID: C205531-08
Sampled: 05/23/12 10:15
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/29/12 21:59	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*67*	*1*	*50.0*	*134 %*	*51-122*	*2E25030*	*EPA 8260B*	*05/29/12 21:59*	*JKG*	*QS-03*
Dibromofluoromethane	*46*	*1*	*50.0*	*92 %*	*68-117*	*2E25030*	*EPA 8260B*	*05/29/12 21:59*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*101 %*	*67-127*	*2E25030*	*EPA 8260B*	*05/29/12 21:59*	*JKG*	

www.encolabs.com

Description: 3201-S2 | **Lab Sample ID:** C205531-08 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 10:15 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.269**	J	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:43	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:30	JDH	
Barium [7440-39-3] ^	**70.7**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:30	JDH	
Beryllium [7440-41-7] ^	**0.217**	J	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:30	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:30	JDH	
Chromium [7440-47-3] ^	**6.08**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:30	JDH	
Cobalt [7440-48-4] ^	**2.53**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:30	JDH	
Copper [7440-50-8] ^	**7.57**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:30	JDH	
Lead [7439-92-1] ^	**6.25**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:30	JDH	
Nickel [7440-02-0] ^	**4.35**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:30	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:43	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:30	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:43	VLO	
Vanadium [7440-62-2] ^	**9.68**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:30	JDH	
Zinc [7440-66-6] ^	**22.1**		ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:30	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-S3 | **Lab Sample ID:** C205531-09 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 11:55 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/29/12 22:28	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/29/12 22:28	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/29/12 22:28	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/29/12 22:28	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/29/12 22:28	JKG	
Acetone [67-64-1] ^	**10**	J	ug/L	1	1.2	5.0	100	EPA 8260B	05/29/12 22:28	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/29/12 22:28	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/29/12 22:28	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/29/12 22:28	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 22:28	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/29/12 22:28	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 22:28	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/29/12 22:28	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 22:28	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/29/12 22:28	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/29/12 22:28	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/29/12 22:28	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/29/12 22:28	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/29/12 22:28	JKG	

www.encolabs.com

Description: 3201-S3
Matrix: Surface Water
Project: City of Durham

Lab Sample ID: C205531-09
Sampled: 05/23/12 11:55
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/29/12 22:28	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*67*	*1*	*50.0*	*133 %*	*51-122*	*2E25030*	*EPA 8260B*	*05/29/12 22:28*	*JKG*	*QS-03*
Dibromofluoromethane	*46*	*1*	*50.0*	*93 %*	*68-117*	*2E25030*	*EPA 8260B*	*05/29/12 22:28*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*100 %*	*67-127*	*2E25030*	*EPA 8260B*	*05/29/12 22:28*	*JKG*	

www.encolabs.com

Description: 3201-S3 | **Lab Sample ID:** C205531-09 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 11:55 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.378**	J	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:47	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:37	JDH	
Barium [7440-39-3] ^	**38.6**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:37	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:37	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:37	JDH	
Chromium [7440-47-3] ^	**3.57**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:37	JDH	
Cobalt [7440-48-4] ^	**1.80**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:37	JDH	
Copper [7440-50-8] ^	**6.19**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:37	JDH	
Lead [7439-92-1] ^	**9.08**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:37	JDH	
Nickel [7440-02-0] ^	**3.48**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:37	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:47	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:37	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:47	VLO	
Vanadium [7440-62-2] ^	**5.98**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:37	JDH	
Zinc [7440-66-6] ^	**34.0**		ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:37	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-S4 | **Lab Sample ID:** C205531-10 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 10:27 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/29/12 22:58	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/29/12 22:58	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/29/12 22:58	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/29/12 22:58	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/29/12 22:58	JKG	
Acetone [67-64-1] ^	**11**	J	ug/L	1	1.2	5.0	100	EPA 8260B	05/29/12 22:58	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/29/12 22:58	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/29/12 22:58	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/29/12 22:58	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 22:58	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/29/12 22:58	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 22:58	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/29/12 22:58	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 22:58	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/29/12 22:58	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/29/12 22:58	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/29/12 22:58	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/29/12 22:58	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/29/12 22:58	JKG	

www.encolabs.com

Description: 3201-S4
Matrix: Surface Water
Project: City of Durham

Lab Sample ID: C205531-10
Sampled: 05/23/12 10:27
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/29/12 22:58	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*73*	*1*	*50.0*	*146 %*	*51-122*	*2E25030*	*EPA 8260B*	*05/29/12 22:58*	*JKG*	*QS-03*
Dibromofluoromethane	*50*	*1*	*50.0*	*99 %*	*68-117*	*2E25030*	*EPA 8260B*	*05/29/12 22:58*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*101 %*	*67-127*	*2E25030*	*EPA 8260B*	*05/29/12 22:58*	*JKG*	

www.encolabs.com

Description: 3201-S4 | **Lab Sample ID:** C205531-10 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 10:27 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.398**	J	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:51	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:39	JDH	
Barium [7440-39-3] ^	**34.4**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:39	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:39	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:39	JDH	
Chromium [7440-47-3] ^	**3.73**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:39	JDH	
Cobalt [7440-48-4] ^	**2.13**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:39	JDH	
Copper [7440-50-8] ^	**6.32**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:39	JDH	
Lead [7439-92-1] ^	**7.33**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:39	JDH	
Nickel [7440-02-0] ^	**2.85**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:39	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:51	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:39	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:51	VLO	
Vanadium [7440-62-2] ^	**6.43**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:39	JDH	
Zinc [7440-66-6] ^	**38.8**		ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:39	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-Field Blank | **Lab Sample ID:** C205531-11 | **Received:** 05/24/12 11:35

Matrix: Water | **Sampled:** 05/23/12 14:00 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/29/12 23:28	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/29/12 23:28	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	15	EPA 8260B	05/29/12 23:28	JKG	
2-Butanone [78-93-3] ^	**5.4**	J	ug/L	1	1.3	5.0	100	EPA 8260B	05/29/12 23:28	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/29/12 23:28	JKG	
3-Chloropropene [107-05-1] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/29/12 23:28	JKG	
Acetone [67-64-1] ^	**16**	J	ug/L	1	1.2	5.0	100	EPA 8260B	05/29/12 23:28	JKG	
Acetonitrile [75-05-8] ^	5.0	U	ug/L	1	5.0	10	55	EPA 8260B	05/29/12 23:28	JKG	
Acrolein [107-02-8] ^	4.0	U	ug/L	1	4.0	10	53	EPA 8260B	05/29/12 23:28	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/29/12 23:28	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/29/12 23:28	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/29/12 23:28	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/29/12 23:28	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 23:28	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Chloroprene [126-99-8] ^	0.64	U	ug/L	1	0.64	1.0	20	EPA 8260B	05/29/12 23:28	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 23:28	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
Ethyl Methacrylate [97-63-2] ^	0.38	U	ug/L	1	0.38	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/29/12 23:28	JKG	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Isobutyl alcohol [78-83-1] ^	11	U	ug/L	1	11	50	100	EPA 8260B	05/29/12 23:28	JKG	
Methacrylonitrile [126-98-7] ^	4.9	U	ug/L	1	4.9	10	100	EPA 8260B	05/29/12 23:28	JKG	
Methyl Methacrylate [80-62-6] ^	0.51	U	ug/L	1	0.51	1.0	30	EPA 8260B	05/29/12 23:28	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
Propionitrile [107-12-0] ^	5.0	U	ug/L	1	5.0	10	150	EPA 8260B	05/29/12 23:28	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/29/12 23:28	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/29/12 23:28	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/29/12 23:28	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*68*	*1*	*50.0*	*137 %*	*51-122*	*2E25030*	*EPA 8260B*	*05/29/12 23:28*	*JKG*	*QS-03*
Dibromofluoromethane	*46*	*1*	*50.0*	*92 %*	*68-117*	*2E25030*	*EPA 8260B*	*05/29/12 23:28*	*JKG*	
Toluene-d8	*51*	*1*	*50.0*	*101 %*	*67-127*	*2E25030*	*EPA 8260B*	*05/29/12 23:28*	*JKG*	

www.encolabs.com

Description: 3201-Field Blank | **Lab Sample ID:** C205531-11 | **Received:** 05/24/12 11:35

Matrix: Water | **Sampled:** 05/23/12 14:00 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/12/12 01:16	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/12/12 01:16	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/12/12 01:16	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 01:16	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/12/12 01:16	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/12/12 01:16	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 01:16	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/12/12 01:16	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 01:16	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/12/12 01:16	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/12/12 01:16	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/12/12 01:16	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/12/12 01:16	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/12/12 01:16	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/12/12 01:16	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 01:16	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/12/12 01:16	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/12/12 01:16	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 01:16	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	QV-01

www.encolabs.com

Description: 3201-Field Blank | **Lab Sample ID:** C205531-11 | **Received:** 05/24/12 11:35

Matrix: Water | **Sampled:** 05/23/12 14:00 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/12/12 01:16	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/12/12 01:16	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Diethylphthalate [84-66-2] ^	2.1	U	ug/L	1	2.1	10	6000	EPA 8270D	06/12/12 01:16	DFM	
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/12/12 01:16	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 01:16	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/12/12 01:16	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/12/12 01:16	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 01:16	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 01:16	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/12/12 01:16	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/12/12 01:16	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/12/12 01:16	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/12/12 01:16	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/12/12 01:16	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 01:16	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/12/12 01:16	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/12/12 01:16	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 01:16	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/12/12 01:16	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/12/12 01:16	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Phenol [108-95-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/12/12 01:16	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*65*	*1*	*100*	*65 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/12/12 01:16*	*DFM*	
2-Fluorobiphenyl	*35*	*1*	*50.0*	*71 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/12/12 01:16*	*DFM*	
2-Fluorophenol	*45*	*1*	*100*	*45 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/12/12 01:16*	*DFM*	
Nitrobenzene-d5	*36*	*1*	*50.0*	*72 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/12/12 01:16*	*DFM*	
Phenol-d5	*40*	*1*	*100*	*40 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/12/12 01:16*	*DFM*	
Terphenyl-d14	*43*	*1*	*50.0*	*86 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/12/12 01:16*	*DFM*	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 18:04	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 18:04	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 18:04	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 18:04	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 18:04	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 18:04	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 18:04	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 18:04	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 18:04	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 18:04	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 18:04	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 18:04	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 18:04	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.87*	*1*	*1.00*	*87 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 18:04*	*MSZ*	
Decachlorobiphenyl	*1.0*	*1*	*1.00*	*101 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 18:04*	*MSZ*	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 18:04	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 18:04	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 18:04	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 18:04	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 18:04	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 18:04	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.87*	*1*	*1.00*	*87 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 18:04*	*MSZ*	
Decachlorobiphenyl	*1.0*	*1*	*1.00*	*101 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 18:04*	*MSZ*	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 15:17	KER	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:54	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:41	JDH	
Barium [7440-39-3] ^	1.00	U	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:41	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:41	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:41	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:41	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:41	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:41	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:41	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:41	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:54	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:41	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:54	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:41	JDH	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:41	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:41	JDH	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	06/05/12 13:38	CCB	
Sulfide [18496-25-8] ^	10	U	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	06/01/12 01:27	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	06/01/12 01:27	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	06/01/12 01:27	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	06/01/12 01:27	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	06/01/12 01:27	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.7*	*1*	*2.00*	*84 %*	*68-139*	*2E29003*	*EPA 8151A*	*06/01/12 01:27*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E25012 - EPA 5030B_MS

Blank (2E25012-BLK1) Prepared: 05/25/2012 10:15 Analyzed: 05/25/2012 13:00

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L							
1,1,1-Trichloroethane	0.12	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L							
1,1,2-Trichloroethane	0.14	U	1.0	ug/L							
1,1-Dichloroethane	0.13	U	1.0	ug/L							
1,1-Dichloroethene	0.21	U	1.0	ug/L							
1,1-Dichloropropene	0.15	U	1.0	ug/L							
1,2,3-Trichloropropane	0.23	U	1.0	ug/L							
1,2,4-Trichlorobenzene	0.14	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.19	U	1.0	ug/L							
1,2-Dichloroethane	0.21	U	1.0	ug/L							
1,2-Dichloropropane	0.10	U	1.0	ug/L							
1,3-Dichlorobenzene	0.15	U	1.0	ug/L							
1,3-Dichloropropane	0.16	U	1.0	ug/L							
1,4-Dichlorobenzene	0.19	U	1.0	ug/L							
2,2-Dichloropropane	0.28	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
3-Chloropropene	0.11	U	1.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acetonitrile	5.0	U	10	ug/L							
Acrolein	4.0	U	10	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.15	U	1.0	ug/L							
Bromochloromethane	0.48	U	1.0	ug/L							
Bromodichloromethane	0.17	U	1.0	ug/L							
Bromoform	0.22	U	1.0	ug/L							
Bromomethane	0.14	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.17	U	1.0	ug/L							
Chlorobenzene	0.17	U	1.0	ug/L							
Chloroethane	0.23	U	1.0	ug/L							
Chloroform	0.18	U	1.0	ug/L							
Chloromethane	0.13	U	1.0	ug/L							
Chloroprene	0.64	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L							
Dibromochloromethane	0.17	U	1.0	ug/L							
Dibromomethane	0.27	U	1.0	ug/L							
Dichlorodifluoromethane	0.20	U	1.0	ug/L							
Ethyl Methacrylate	0.38	U	1.0	ug/L							
Ethylbenzene	0.13	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Isobutyl alcohol	11	U	50	ug/L							
Methacrylonitrile	4.9	U	10	ug/L							
Methyl Methacrylate	0.51	U	1.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E25012 - EPA 5030B_MS

Blank (2E25012-BLK1) Continued Prepared: 05/25/2012 10:15 Analyzed: 05/25/2012 13:00

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Methylene chloride	0.23	U	1.0	ug/L							
Naphthalene	0.11	U	1.0	ug/L							
Propionitrile	5.0	U	10	ug/L							
Styrene	0.11	U	1.0	ug/L							
Tetrachloroethene	0.17	U	1.0	ug/L							
Toluene	0.14	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.15	U	1.0	ug/L							
Trichlorofluoromethane	0.24	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.32	U	1.0	ug/L							
Xylenes (Total)	0.45	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*55*			*ug/L*	*50.0*		*110*	*51-122*			
Surrogate: Dibromofluoromethane	*50*			*ug/L*	*50.0*		*100*	*68-117*			
Surrogate: Toluene-d8	*55*			*ug/L*	*50.0*		*110*	*67-127*			

LCS (2E25012-BS1) Prepared: 05/25/2012 10:15 Analyzed: 05/25/2012 13:30

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	21		1.0	ug/L	20.0		106	75-133			
Benzene	18		1.0	ug/L	20.0		92	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		100	83-117			
Toluene	19		1.0	ug/L	20.0		93	71-118			
Trichloroethene	19		1.0	ug/L	20.0		97	82-118			

Matrix Spike (2E25012-MS1) Prepared: 05/25/2012 10:15 Analyzed: 05/25/2012 13:59

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	25		1.0	ug/L	20.0	0.21 U	123	75-133			
Benzene	19		1.0	ug/L	20.0	0.15 U	97	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.17 U	101	83-117			
Toluene	19		1.0	ug/L	20.0	0.14 U	93	71-118			
Trichloroethene	20		1.0	ug/L	20.0	0.15 U	100	82-118			

Matrix Spike Dup (2E25012-MSD1) Prepared: 05/25/2012 10:15 Analyzed: 05/25/2012 14:28

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	26		1.0	ug/L	20.0	0.21 U	131	75-133	6	20	
Benzene	20		1.0	ug/L	20.0	0.15 U	99	81-134	2	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.17 U	102	83-117	2	16	
Toluene	20		1.0	ug/L	20.0	0.14 U	99	71-118	5	17	
Trichloroethene	21		1.0	ug/L	20.0	0.15 U	107	82-118	6	15	

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E25030 - EPA 5030B_MS

Blank (2E25030-BLK1) Prepared: 05/25/2012 16:41 Analyzed: 05/29/2012 16:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L							
1,1,1-Trichloroethane	0.12	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L							
1,1,2-Trichloroethane	0.14	U	1.0	ug/L							
1,1-Dichloroethane	0.13	U	1.0	ug/L							
1,1-Dichloroethene	0.21	U	1.0	ug/L							
1,1-Dichloropropene	0.15	U	1.0	ug/L							
1,2,3-Trichloropropane	0.23	U	1.0	ug/L							
1,2,4-Trichlorobenzene	0.14	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.19	U	1.0	ug/L							
1,2-Dichloroethane	0.21	U	1.0	ug/L							
1,2-Dichloropropane	0.10	U	1.0	ug/L							
1,3-Dichlorobenzene	0.15	U	1.0	ug/L							
1,3-Dichloropropane	0.16	U	1.0	ug/L							
1,4-Dichlorobenzene	0.19	U	1.0	ug/L							
2,2-Dichloropropane	0.28	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
3-Chloropropene	0.11	U	1.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acetonitrile	5.0	U	10	ug/L							
Acrolein	4.0	U	10	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.15	U	1.0	ug/L							
Bromochloromethane	0.48	U	1.0	ug/L							
Bromodichloromethane	0.17	U	1.0	ug/L							
Bromoform	0.22	U	1.0	ug/L							
Bromomethane	0.14	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.17	U	1.0	ug/L							
Chlorobenzene	0.17	U	1.0	ug/L							
Chloroethane	0.23	U	1.0	ug/L							
Chloroform	0.18	U	1.0	ug/L							
Chloromethane	0.13	U	1.0	ug/L							
Chloroprene	0.64	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L							
Dibromochloromethane	0.17	U	1.0	ug/L							
Dibromomethane	0.27	U	1.0	ug/L							
Dichlorodifluoromethane	0.20	U	1.0	ug/L							
Ethyl Methacrylate	0.38	U	1.0	ug/L							
Ethylbenzene	0.13	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Isobutyl alcohol	11	U	50	ug/L							
Methacrylonitrile	4.9	U	10	ug/L							
Methyl Methacrylate	0.51	U	1.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E25030 - EPA 5030B_MS

Blank (2E25030-BLK1) Continued Prepared: 05/25/2012 16:41 Analyzed: 05/29/2012 16:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Methylene chloride	0.23	U	1.0	ug/L							
Naphthalene	0.11	U	1.0	ug/L							
Propionitrile	5.0	U	10	ug/L							
Styrene	0.11	U	1.0	ug/L							
Tetrachloroethene	0.17	U	1.0	ug/L							
Toluene	0.14	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.15	U	1.0	ug/L							
Trichlorofluoromethane	0.24	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.32	U	1.0	ug/L							
Xylenes (Total)	0.45	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*67*			*ug/L*	*50.0*		*134*	*51-122*			*QS-03*
Surrogate: Dibromofluoromethane	*47*			*ug/L*	*50.0*		*94*	*68-117*			
Surrogate: Toluene-d8	*50*			*ug/L*	*50.0*		*100*	*67-127*			

LCS (2E25030-BS1) Prepared: 05/25/2012 16:41 Analyzed: 05/29/2012 17:04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	21		1.0	ug/L	20.0		105	75-133			
Benzene	19		1.0	ug/L	20.0		97	81-134			
Chlorobenzene	19		1.0	ug/L	20.0		95	83-117			
Toluene	18		1.0	ug/L	20.0		92	71-118			
Trichloroethene	20		1.0	ug/L	20.0		102	82-118			

Matrix Spike (2E25030-MS1) Prepared: 05/25/2012 16:41 Analyzed: 05/29/2012 17:33

Source: C205788-13

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	20		1.0	ug/L	20.0	0.21 U	102	75-133			
Benzene	19		1.0	ug/L	20.0	0.15 U	96	81-134			
Chlorobenzene	18		1.0	ug/L	20.0	0.17 U	92	83-117			
Toluene	18		1.0	ug/L	20.0	0.14 U	90	71-118			
Trichloroethene	19		1.0	ug/L	20.0	0.15 U	96	82-118			

Matrix Spike Dup (2E25030-MSD1) Prepared: 05/25/2012 16:41 Analyzed: 05/29/2012 18:03

Source: C205788-13

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	18		1.0	ug/L	20.0	0.21 U	91	75-133	11	20	
Benzene	18		1.0	ug/L	20.0	0.15 U	90	81-134	6	17	
Chlorobenzene	18		1.0	ug/L	20.0	0.17 U	89	83-117	3	16	
Toluene	18		1.0	ug/L	20.0	0.14 U	88	71-118	2	17	
Trichloroethene	18		1.0	ug/L	20.0	0.15 U	91	82-118	6	15	

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E29023 - EPA 5030B_MS

Blank (2E29023-BLK1) Prepared: 05/29/2012 17:39 Analyzed: 05/30/2012 22:05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L							
1,1,1-Trichloroethane	0.12	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L							
1,1,2-Trichloroethane	0.14	U	1.0	ug/L							
1,1-Dichloroethane	0.13	U	1.0	ug/L							
1,1-Dichloroethene	0.21	U	1.0	ug/L							
1,1-Dichloropropene	0.15	U	1.0	ug/L							
1,2,3-Trichloropropane	0.23	U	1.0	ug/L							
1,2,4-Trichlorobenzene	0.14	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.19	U	1.0	ug/L							
1,2-Dichloroethane	0.21	U	1.0	ug/L							
1,2-Dichloropropane	0.10	U	1.0	ug/L							
1,3-Dichlorobenzene	0.15	U	1.0	ug/L							
1,3-Dichloropropane	0.16	U	1.0	ug/L							
1,4-Dichlorobenzene	0.19	U	1.0	ug/L							
2,2-Dichloropropane	0.28	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
3-Chloropropene	0.11	U	1.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acetonitrile	5.0	U	10	ug/L							
Acrolein	4.0	U	10	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.15	U	1.0	ug/L							
Bromochloromethane	0.48	U	1.0	ug/L							
Bromodichloromethane	0.17	U	1.0	ug/L							
Bromoform	0.22	U	1.0	ug/L							
Bromomethane	0.14	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.17	U	1.0	ug/L							
Chlorobenzene	0.17	U	1.0	ug/L							
Chloroethane	0.23	U	1.0	ug/L							
Chloroform	0.18	U	1.0	ug/L							
Chloromethane	0.13	U	1.0	ug/L							
Chloroprene	0.64	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L							
Dibromochloromethane	0.17	U	1.0	ug/L							
Dibromomethane	0.27	U	1.0	ug/L							
Dichlorodifluoromethane	0.20	U	1.0	ug/L							
Ethyl Methacrylate	0.38	U	1.0	ug/L							
Ethylbenzene	0.13	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Isobutyl alcohol	11	U	50	ug/L							
Methacrylonitrile	4.9	U	10	ug/L							
Methyl Methacrylate	0.51	U	1.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E29023 - EPA 5030B_MS

Blank (2E29023-BLK1) Continued Prepared: 05/29/2012 17:39 Analyzed: 05/30/2012 22:05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Methylene chloride	0.23	U	1.0	ug/L							
Naphthalene	0.11	U	1.0	ug/L							
Propionitrile	5.0	U	10	ug/L							
Styrene	0.11	U	1.0	ug/L							
Tetrachloroethene	0.17	U	1.0	ug/L							
Toluene	0.14	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.15	U	1.0	ug/L							
Trichlorofluoromethane	0.24	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.32	U	1.0	ug/L							
Xylenes (Total)	0.45	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*42*			*ug/L*	*50.0*		*84*	*51-122*			
Surrogate: Dibromofluoromethane	*41*			*ug/L*	*50.0*		*82*	*68-117*			
Surrogate: Toluene-d8	*40*			*ug/L*	*50.0*		*80*	*67-127*			

LCS (2E29023-BS1) Prepared: 05/29/2012 17:39 Analyzed: 05/30/2012 22:34

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	17		1.0	ug/L	20.0		87	75-133			
Benzene	18		1.0	ug/L	20.0		90	81-134			
Chlorobenzene	18		1.0	ug/L	20.0		91	83-117			
Toluene	18		1.0	ug/L	20.0		92	71-118			
Trichloroethene	18		1.0	ug/L	20.0		88	82-118			

Matrix Spike (2E29023-MS1) Prepared: 05/29/2012 17:39 Analyzed: 05/30/2012 23:03

Source: C205906-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	18		1.0	ug/L	20.0	0.21 U	89	75-133			
Benzene	18		1.0	ug/L	20.0	0.15 U	92	81-134			
Chlorobenzene	19		1.0	ug/L	20.0	0.17 U	93	83-117			
Toluene	19		1.0	ug/L	20.0	0.14 U	95	71-118			
Trichloroethene	18		1.0	ug/L	20.0	0.15 U	88	82-118			

Matrix Spike Dup (2E29023-MSD1) Prepared: 05/29/2012 17:39 Analyzed: 05/30/2012 23:33

Source: C205906-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	17		1.0	ug/L	20.0	0.21 U	87	75-133	3	20	
Benzene	18		1.0	ug/L	20.0	0.15 U	89	81-134	3	17	
Chlorobenzene	18		1.0	ug/L	20.0	0.17 U	92	83-117	1	16	
Toluene	18		1.0	ug/L	20.0	0.14 U	92	71-118	3	17	
Trichloroethene	17		1.0	ug/L	20.0	0.15 U	86	82-118	3	15	

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 2E29024 - EPA 3510C_MS

Blank (2E29024-BLK1) Prepared: 05/29/2012 18:53 Analyzed: 06/11/2012 20:51

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4,5-Tetrachlorobenzene	2.0	U	10	ug/L							
1,3,5-Trinitrobenzene	3.0	U	10	ug/L							
1,3-Dinitrobenzene	1.9	U	10	ug/L							
1,4-Naphthoquinone	2.5	U	10	ug/L							
1,4-Phenylenediamine	4.0	U	10	ug/L							
1-Naphthylamine	1.9	U	10	ug/L							
2,3,4,6-Tetrachlorophenol	2.0	U	10	ug/L							
2,4,5-Trichlorophenol	1.0	U	10	ug/L							
2,4,6-Trichlorophenol	1.1	U	10	ug/L							
2,4-Dichlorophenol	1.4	U	10	ug/L							
2,4-Dimethylphenol	1.3	U	10	ug/L							
2,4-Dinitrophenol	2.6	U	10	ug/L							QV-01
2,4-Dinitrotoluene	2.4	U	10	ug/L							
2,6-Dichlorophenol	1.1	U	10	ug/L							
2,6-Dinitrotoluene	1.5	U	10	ug/L							
2-Acetylaminofluorene	2.5	U	10	ug/L							QV-01
2-Chloronaphthalene	1.0	U	10	ug/L							
2-Chlorophenol	1.2	U	10	ug/L							
2-Methyl-4,6-dinitrophenol	2.9	U	10	ug/L							
2-Methylnaphthalene	1.5	U	10	ug/L							
2-Methylphenol	1.4	U	10	ug/L							
2-Naphthylamine	3.0	U	10	ug/L							
2-Nitroaniline	1.5	U	10	ug/L							
2-Nitrophenol	1.1	U	10	ug/L							
3 & 4-Methylphenol	1.6	U	10	ug/L							
3,3'-Dichlorobenzidine	3.3	U	10	ug/L							
3,3'-Dimethylbenzidine	2.2	U	10	ug/L							QV-02
3-Methylcholanthrene	1.3	U	10	ug/L							
3-Nitroaniline	2.1	U	10	ug/L							
4-Aminobiphenyl	2.1	U	10	ug/L							
4-Bromophenyl-phenylether	1.0	U	10	ug/L							
4-Chloro-3-methylphenol	1.5	U	10	ug/L							
4-Chloroaniline	1.2	U	10	ug/L							
4-Chlorophenyl-phenylether	1.6	U	10	ug/L							
4-Nitroaniline	3.2	U	10	ug/L							
4-Nitrophenol	2.0	U	10	ug/L							
5-Nitro-o-toluidine	3.2	U	10	ug/L							
7,12-Dimethylbenz(a)anthracene	1.1	U	10	ug/L							QV-01
Acenaphthene	1.4	U	10	ug/L							
Acenaphthylene	1.2	U	10	ug/L							
Acetophenone	1.3	U	10	ug/L							
Anthracene	1.6	U	10	ug/L							
Benzo(a)anthracene	1.3	U	10	ug/L							
Benzo(a)pyrene	1.3	U	10	ug/L							
Benzo(b)fluoranthene	1.0	U	10	ug/L							QV-01
Benzo(g,h,i)perylene	2.4	U	10	ug/L							
Benzo(k)fluoranthene	1.3	U	10	ug/L							QV-01
Benzyl alcohol	1.4	U	10	ug/L							
Bis(2-chloroethoxy)methane	1.4	U	10	ug/L							

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 2E29024 - EPA 3510C_MS

Blank (2E29024-BLK1) Continued Prepared: 05/29/2012 18:53 Analyzed: 06/11/2012 20:51

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bis(2-chloroethyl)ether	1.2	U	10	ug/L							
Bis(2-chloroisopropyl)ether	1.3	U	10	ug/L							
Bis(2-ethylhexyl)phthalate	1.7	U	5.0	ug/L							
Butylbenzylphthalate	2.0	U	10	ug/L							
Chlorobenzilate	1.0	U	10	ug/L							
Chrysene	2.0	U	10	ug/L							
Diallate	1.0	U	10	ug/L							
Dibenzo(a,h)anthracene	2.3	U	10	ug/L							
Dibenzofuran	1.4	U	10	ug/L							
Diethylphthalate	**8.8**	**J**	10	ug/L							O-01
Dimethoate	2.3	U	10	ug/L							
Dimethylphthalate	1.4	U	10	ug/L							
Di-n-butylphthalate	1.5	U	10	ug/L							
Di-n-octylphthalate	3.1	U	10	ug/L							
Disulfoton	1.1	U	10	ug/L							
Ethyl methanesulfonate	1.2	U	10	ug/L							
Famphur	2.7	U	10	ug/L							
Fluoranthene	2.1	U	10	ug/L							
Fluorene	1.7	U	10	ug/L							
Hexachlorobenzene	1.0	U	10	ug/L							
Hexachlorobutadiene	1.2	U	10	ug/L							
Hexachlorocyclopentadiene	1.3	U	10	ug/L							
Hexachloroethane	1.1	U	10	ug/L							
Hexachloropropene	1.7	U	10	ug/L							
Indeno(1,2,3-cd)pyrene	2.2	U	10	ug/L							
Isodrin	1.0	U	10	ug/L							
Isophorone	1.3	U	10	ug/L							
Isosafrole	1.3	U	10	ug/L							
Kepone	7.2	U	20	ug/L							
Methapyrilene	3.5	U	10	ug/L							QV-02
Methyl Methanesulfonate	1.0	U	10	ug/L							
Methyl parathion	2.5	U	10	ug/L							
Nitrobenzene	1.2	U	10	ug/L							
N-Nitrosodiethylamine	1.3	U	10	ug/L							
N-Nitrosodimethylamine	1.3	U	10	ug/L							
N-Nitrosodi-n-butylamine	1.2	U	10	ug/L							
N-Nitroso-di-n-propylamine	1.5	U	10	ug/L							
N-nitrosodiphenylamine/Diphenylamine	2.1	U	10	ug/L							
N-Nitrosomethylethylamine	1.9	U	10	ug/L							
N-Nitrosopiperidine	1.1	U	10	ug/L							
N-Nitrosopyrrolidine	1.3	U	10	ug/L							
O,O,O-Triethyl phosphorothioate	1.3	U	10	ug/L							
o-Toluidine	1.1	U	10	ug/L							
Parathion	1.7	U	10	ug/L							
p-Dimethylaminoazobenzene	1.4	U	10	ug/L							
Pentachlorobenzene	1.3	U	10	ug/L							
Pentachloronitrobenzene	1.0	U	10	ug/L							
Phenacetin	2.7	U	10	ug/L							
Phenanthrene	1.4	U	10	ug/L							

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 2E29024 - EPA 3510C_MS

Blank (2E29024-BLK1) Continued Prepared: 05/29/2012 18:53 Analyzed: 06/11/2012 20:51

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phenol	1.4	U	10	ug/L							
Phorate	1.0	U	10	ug/L							
Pronamide	1.4	U	10	ug/L							
Pyrene	2.1	U	10	ug/L							
Safrole	1.2	U	10	ug/L							
Thionazin	2.3	U	10	ug/L							
Surrogate: 2,4,6-Tribromophenol	*39*			*ug/L*	*100*		*39*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*23*			*ug/L*	*50.0*		*46*	*10-149*			
Surrogate: 2-Fluorophenol	*34*			*ug/L*	*100*		*34*	*10-110*			
Surrogate: Nitrobenzene-d5	*22*			*ug/L*	*50.0*		*43*	*10-149*			
Surrogate: Phenol-d5	*30*			*ug/L*	*100*		*30*	*10-88*			
Surrogate: Terphenyl-d14	*33*			*ug/L*	*50.0*		*65*	*10-188*			

LCS (2E29024-BS1) Prepared: 05/29/2012 18:53 Analyzed: 06/11/2012 21:18

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	38		10	ug/L	50.0		76	40-109			
4-Chloro-3-methylphenol	45		10	ug/L	50.0		90	58-121			
4-Nitrophenol	27		10	ug/L	50.0		54	33-105			
Acenaphthene	43		10	ug/L	50.0		86	39-125			
N-Nitroso-di-n-propylamine	41		10	ug/L	50.0		82	48-126			
Phenol	26		10	ug/L	50.0		51	19-78			
Pyrene	43		10	ug/L	50.0		87	44-137			
Surrogate: 2,4,6-Tribromophenol	*74*			*ug/L*	*100*		*74*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*36*			*ug/L*	*50.0*		*71*	*10-149*			
Surrogate: 2-Fluorophenol	*45*			*ug/L*	*100*		*45*	*10-110*			
Surrogate: Nitrobenzene-d5	*36*			*ug/L*	*50.0*		*71*	*10-149*			
Surrogate: Phenol-d5	*40*			*ug/L*	*100*		*40*	*10-88*			
Surrogate: Terphenyl-d14	*43*			*ug/L*	*50.0*		*86*	*10-188*			

Matrix Spike (2E29024-MS1) Prepared: 05/29/2012 18:53 Analyzed: 06/11/2012 21:44

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	34		10	ug/L	50.0	1.2 U	67	40-109			
4-Chloro-3-methylphenol	43		10	ug/L	50.0	1.5 U	86	58-121			
4-Nitrophenol	29		10	ug/L	50.0	2.0 U	59	33-105			
Acenaphthene	39		10	ug/L	50.0	1.4 U	77	39-125			
N-Nitroso-di-n-propylamine	35		10	ug/L	50.0	1.5 U	70	48-126			
Phenol	28		10	ug/L	50.0	1.4 U	55	19-78			
Pyrene	38		10	ug/L	50.0	2.1 U	76	44-137			
Surrogate: 2,4,6-Tribromophenol	*67*			*ug/L*	*100*		*67*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*30*			*ug/L*	*50.0*		*60*	*10-149*			
Surrogate: 2-Fluorophenol	*41*			*ug/L*	*100*		*41*	*10-110*			
Surrogate: Nitrobenzene-d5	*30*			*ug/L*	*50.0*		*59*	*10-149*			
Surrogate: Phenol-d5	*39*			*ug/L*	*100*		*39*	*10-88*			
Surrogate: Terphenyl-d14	*39*			*ug/L*	*50.0*		*78*	*10-188*			

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 2E29024 - EPA 3510C_MS

Matrix Spike Dup (2E29024-MSD1) Prepared: 05/29/2012 18:53 Analyzed: 06/11/2012 22:11

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	29		10	ug/L	50.0	1.2 U	58	40-109	14	22	
4-Chloro-3-methylphenol	42		10	ug/L	50.0	1.5 U	84	58-121	2	22	
4-Nitrophenol	27		10	ug/L	50.0	2.0 U	54	33-105	8	27	
Acenaphthene	39		10	ug/L	50.0	1.4 U	79	39-125	2	25	
N-Nitroso-di-n-propylamine	33		10	ug/L	50.0	1.5 U	66	48-126	6	23	
Phenol	24		10	ug/L	50.0	1.4 U	48	19-78	13	18	
Pyrene	38		10	ug/L	50.0	2.1 U	77	44-137	1	24	
Surrogate: 2,4,6-Tribromophenol	*68*			*ug/L*	*100*		*68*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*30*			*ug/L*	*50.0*		*61*	*10-149*			
Surrogate: 2-Fluorophenol	*33*			*ug/L*	*100*		*33*	*10-110*			
Surrogate: Nitrobenzene-d5	*27*			*ug/L*	*50.0*		*54*	*10-149*			
Surrogate: Phenol-d5	*34*			*ug/L*	*100*		*34*	*10-88*			
Surrogate: Terphenyl-d14	*38*			*ug/L*	*50.0*		*76*	*10-188*			

Organochlorine Pesticides by GC - Quality Control

Batch 2E29017 - EPA 3510C

Blank (2E29017-BLK1) Prepared: 05/29/2012 12:58 Analyzed: 06/07/2012 14:59

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDD	0.044	U	0.050	ug/L							
4,4'-DDE	0.048	U	0.050	ug/L							
4,4'-DDT	0.049	U	0.050	ug/L							
Aldrin	0.041	U	0.050	ug/L							
alpha-BHC	0.036	U	0.050	ug/L							
beta-BHC	0.036	U	0.050	ug/L							
Chlordane (tech)	0.20	U	0.50	ug/L							
Chlordane-alpha	0.048	U	0.050	ug/L							
Chlordane-gamma	0.042	U	0.050	ug/L							
delta-BHC	0.048	U	0.050	ug/L							
Dieldrin	0.045	U	0.050	ug/L							
Endosulfan I	0.045	U	0.050	ug/L							
Endosulfan II	0.036	U	0.050	ug/L							
Endosulfan sulfate	0.032	U	0.050	ug/L							
Endrin	0.041	U	0.050	ug/L							
Endrin aldehyde	0.042	U	0.050	ug/L							
gamma-BHC	0.034	U	0.050	ug/L							
Heptachlor	0.030	U	0.050	ug/L							
Heptachlor epoxide	0.037	U	0.050	ug/L							
Methoxychlor	0.025	U	0.050	ug/L							
Toxaphene	0.22	U	0.50	ug/L							
Surrogate: 2,4,5,6-TCMX	*0.73*			*ug/L*	*1.00*		*73*	*44-134*			
Surrogate: Decachlorobiphenyl	*1.0*			*ug/L*	*1.00*		*104*	*37-149*			

LCS (2E29017-BS1) Prepared: 05/29/2012 12:58 Analyzed: 06/07/2012 15:12

QUALITY CONTROL

Organochlorine Pesticides by GC - Quality Control

Batch 2E29017 - EPA 3510C

LCS (2E29017-BS1) Continued Prepared: 05/29/2012 12:58 Analyzed: 06/07/2012 15:12

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.84		0.050	ug/L	1.00		84	37-139			
Dieldrin	0.94		0.050	ug/L	1.00		94	46-132			
Endrin	0.88		0.050	ug/L	1.00		88	43-133			
Surrogate: 2,4,5,6-TCMX	*0.86*			*ug/L*	*1.00*		*86*	*44-134*			
Surrogate: Decachlorobiphenyl	*1.1*			*ug/L*	*1.00*		*109*	*37-149*			

Matrix Spike (2E29017-MS1) Prepared: 05/29/2012 12:58 Analyzed: 06/07/2012 15:25

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	1.0		0.050	ug/L	1.00	0.049 U	102	37-139			
Dieldrin	1.1		0.050	ug/L	1.00	0.045 U	114	46-132			
Endrin	1.1		0.050	ug/L	1.00	0.041 U	108	43-133			
Surrogate: 2,4,5,6-TCMX	*1.1*			*ug/L*	*1.00*		*108*	*44-134*			
Surrogate: Decachlorobiphenyl	*1.2*			*ug/L*	*1.00*		*120*	*37-149*			

Matrix Spike Dup (2E29017-MSD1) Prepared: 05/29/2012 12:58 Analyzed: 06/07/2012 15:38

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	1.2		0.050	ug/L	1.00	0.049 U	125	37-139	20	26	
Dieldrin	1.1		0.050	ug/L	1.00	0.045 U	108	46-132	5	27	
Endrin	1.1		0.050	ug/L	1.00	0.041 U	109	43-133	0.6	26	
Surrogate: 2,4,5,6-TCMX	*1.0*			*ug/L*	*1.00*		*103*	*44-134*			
Surrogate: Decachlorobiphenyl	*1.1*			*ug/L*	*1.00*		*111*	*37-149*			

Polychlorinated Biphenyls by GC - Quality Control

Batch 2E29018 - EPA 3510C

Blank (2E29018-BLK1) Prepared: 05/29/2012 13:02 Analyzed: 06/07/2012 14:59

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	0.19	U	0.50	ug/L							
PCB-1221	0.046	U	0.50	ug/L							
PCB-1232	0.028	U	0.50	ug/L							
PCB-1248	0.014	U	0.50	ug/L							
PCB-1254	0.015	U	0.50	ug/L							
PCB-1260	0.13	U	0.50	ug/L							
Surrogate: 2,4,5,6-TCMX	*0.73*			*ug/L*	*1.00*		*73*	*45-151*			
Surrogate: Decachlorobiphenyl	*1.0*			*ug/L*	*1.00*		*104*	*42-159*			

LCS (2E29018-BS1) Prepared: 05/29/2012 13:02 Analyzed: 06/07/2012 15:52

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	8.1		0.50	ug/L	10.0		81	66-149			
PCB-1260	8.2		0.50	ug/L	10.0		82	64-150			

QUALITY CONTROL

Polychlorinated Biphenyls by GC - Quality Control

Batch 2E29018 - EPA 3510C

LCS (2E29018-BS1) Continued Prepared: 05/29/2012 13:02 Analyzed: 06/07/2012 15:52

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: 2,4,5,6-TCMX	*0.73*			*ug/L*	*1.00*		*73*	*45-151*			
Surrogate: Decachlorobiphenyl	*0.96*			*ug/L*	*1.00*		*96*	*42-159*			

Matrix Spike (2E29018-MS1) Prepared: 05/29/2012 13:02 Analyzed: 06/07/2012 16:05

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	9.6		0.50	ug/L	10.0	0.19 U	96	66-149			
PCB-1260	8.8		0.50	ug/L	10.0	0.13 U	88	64-150			
Surrogate: 2,4,5,6-TCMX	*0.92*			*ug/L*	*1.00*		*92*	*45-151*			
Surrogate: Decachlorobiphenyl	*1.0*			*ug/L*	*1.00*		*104*	*42-159*			

Matrix Spike Dup (2E29018-MSD1) Prepared: 05/29/2012 13:02 Analyzed: 06/07/2012 16:18

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	9.3		0.50	ug/L	10.0	0.19 U	93	66-149	4	21	
PCB-1260	9.8		0.50	ug/L	10.0	0.13 U	98	64-150	10	18	
Surrogate: 2,4,5,6-TCMX	*0.89*			*ug/L*	*1.00*		*89*	*45-151*			
Surrogate: Decachlorobiphenyl	*1.0*			*ug/L*	*1.00*		*104*	*42-159*			

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 2E25009 - EPA 245.1

Blank (2E25009-BLK1) Prepared: 05/25/2012 08:59 Analyzed: 05/25/2012 14:46

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.170	U	0.200	ug/L							

LCS (2E25009-BS1) Prepared: 05/25/2012 08:59 Analyzed: 05/25/2012 14:48

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.37		0.200	ug/L	5.00		87	80-120			

Matrix Spike (2E25009-MS1) Prepared: 05/25/2012 08:59 Analyzed: 05/25/2012 14:52

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.11		0.200	ug/L	5.00	0.170 U	82	75-125			

Matrix Spike Dup (2E25009-MSD1) Prepared: 05/25/2012 08:59 Analyzed: 05/25/2012 14:54

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.10		0.200	ug/L	5.00	0.170 U	82	75-125	0.2	25	

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 2E25009 - EPA 245.1

Post Spike (2E25009-PS1) Prepared: 05/25/2012 08:59 Analyzed: 05/25/2012 14:56

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	3.65		0.200	ug/L	5.00	-0.0770	75	75-125			

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 2E24032 - EPA 200.7

Blank (2E24032-BLK1) Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 12:56

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	2.80	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Beryllium	0.100	U	1.00	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.00	U	10.0	ug/L							
Cobalt	1.10	U	10.0	ug/L							
Copper	1.60	U	10.0	ug/L							
Lead	1.90	U	10.0	ug/L							
Nickel	1.80	U	10.0	ug/L							
Selenium	4.50	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Tin	2.10	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (2E24032-BS1) Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 12:59

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	209		10.0	ug/L	200		104	80-120			
Barium	208		10.0	ug/L	200		104	80-120			
Beryllium	20.6		1.00	ug/L	20.0		103	80-120			
Cadmium	21.4		1.00	ug/L	20.0		107	80-120			
Chromium	206		10.0	ug/L	200		103	80-120			
Cobalt	209		10.0	ug/L	200		105	80-120			
Copper	202		10.0	ug/L	200		101	80-120			
Lead	208		10.0	ug/L	200		104	80-120			
Nickel	208		10.0	ug/L	200		104	80-120			
Selenium	213		10.0	ug/L	200		107	80-120			
Silver	210		10.0	ug/L	200		105	80-120			
Tin	206		10.0	ug/L	200		103	80-120			
Vanadium	208		10.0	ug/L	200		104	80-120			
Zinc	212		10.0	ug/L	200		106	80-120			

Matrix Spike (2E24032-MS1) Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 13:04

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	207		10.0	ug/L	200	2.80 U	104	75-125			

QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 2E24032 - EPA 200.7

Matrix Spike (2E24032-MS1) Continued Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 13:04

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Barium	412		10.0	ug/L	200	212	100	75-125			
Beryllium	20.7		1.00	ug/L	20.0	0.100 U	103	75-125			
Cadmium	21.4		1.00	ug/L	20.0	0.360 U	107	75-125			
Chromium	209		10.0	ug/L	200	4.28	102	75-125			
Cobalt	210		10.0	ug/L	200	4.70	103	75-125			
Copper	208		10.0	ug/L	200	1.60 U	104	75-125			
Lead	207		10.0	ug/L	200	1.90 U	104	75-125			
Nickel	215		10.0	ug/L	200	5.84	105	75-125			
Selenium	207		10.0	ug/L	200	4.50 U	104	75-125			
Silver	214		10.0	ug/L	200	2.88	105	75-125			
Tin	214		10.0	ug/L	200	33.8	90	75-125			
Vanadium	215		10.0	ug/L	200	2.60	106	75-125			
Zinc	211		10.0	ug/L	200	3.80 U	105	75-125			

Matrix Spike Dup (2E24032-MSD1) Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 13:12

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	209		10.0	ug/L	200	2.80 U	104	75-125	0.7	20	
Barium	409		10.0	ug/L	200	212	99	75-125	0.7	20	
Beryllium	20.6		1.00	ug/L	20.0	0.100 U	103	75-125	0.3	20	
Cadmium	21.4		1.00	ug/L	20.0	0.360 U	107	75-125	0.03	20	
Chromium	209		10.0	ug/L	200	4.28	102	75-125	0.1	20	
Cobalt	211		10.0	ug/L	200	4.70	103	75-125	0.3	20	
Copper	209		10.0	ug/L	200	1.60 U	104	75-125	0.1	20	
Lead	208		10.0	ug/L	200	1.90 U	104	75-125	0.6	20	
Nickel	215		10.0	ug/L	200	5.84	104	75-125	0.2	20	
Selenium	207		10.0	ug/L	200	4.50 U	103	75-125	0.2	20	
Silver	214		10.0	ug/L	200	2.88	106	75-125	0.2	20	
Tin	215		10.0	ug/L	200	33.8	91	75-125	0.3	20	
Vanadium	215		10.0	ug/L	200	2.60	106	75-125	0.06	20	
Zinc	211		10.0	ug/L	200	3.80 U	105	75-125	0.07	20	

Post Spike (2E24032-PS1) Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 13:14

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.203		0.0100	mg/L	0.200	-0.00284	103	80-120			
Barium	0.402		0.0100	mg/L	0.200	0.212	95	80-120			
Beryllium	0.0201		0.00100	mg/L	0.0200	-2.86E-5	101	80-120			
Cadmium	0.0212		0.00100	mg/L	0.0200	-8.63E-5	107	80-120			
Chromium	0.203		0.0100	mg/L	0.200	0.00428	100	80-120			
Cobalt	0.208		0.0100	mg/L	0.200	0.00470	102	80-120			
Copper	0.203		0.0100	mg/L	0.200	-0.00312	103	80-120			
Lead	0.205		0.0100	mg/L	0.200	-0.00136	103	80-120			
Nickel	0.213		0.0100	mg/L	0.200	0.00584	103	80-120			
Selenium	0.216		0.0100	mg/L	0.200	-0.0144	115	80-120			

QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 2E24032 - EPA 200.7

Post Spike (2E24032-PS1) Continued Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 13:14

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Silver	0.224		0.0100	mg/L	0.200	0.00288	111	80-120			
Tin	0.242		0.0100	mg/L	0.200	0.0338	104	80-120			
Vanadium	0.209		0.0100	mg/L	0.200	0.00260	103	80-120			
Zinc	0.209		0.0100	mg/L	0.200	0.00170	104	80-120			

Batch 2E24033 - EPA 200.8

Blank (2E24033-BLK1) Prepared: 05/24/2012 14:23 Analyzed: 05/29/2012 11:41

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.220	U	2.00	ug/L							
Selenium	0.830	U	1.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (2E24033-BS1) Prepared: 05/24/2012 14:23 Analyzed: 05/29/2012 11:45

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	207		2.00	ug/L	200		104	80-120			
Selenium	221		1.00	ug/L	200		110	80-120			
Thallium	207		1.00	ug/L	200		104	80-120			

Matrix Spike (2E24033-MS1) Prepared: 05/24/2012 14:23 Analyzed: 05/29/2012 11:52

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	214		2.00	ug/L	200	1.37	106	75-125			
Selenium	217		1.00	ug/L	200	0.830 U	109	75-125			
Thallium	180		1.00	ug/L	200	0.110 U	90	75-125			

Matrix Spike Dup (2E24033-MSD1) Prepared: 05/24/2012 14:23 Analyzed: 05/29/2012 11:56

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	213		2.00	ug/L	200	1.37	106	75-125	0.4	20	
Selenium	220		1.00	ug/L	200	0.830 U	110	75-125	1	20	
Thallium	177		1.00	ug/L	200	0.110 U	89	75-125	2	20	

Post Spike (2E24033-PS1) Prepared: 05/24/2012 14:23 Analyzed: 05/29/2012 12:00

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	211		2.00	ug/L	200	1.37	105	80-120			
Selenium	227		1.00	ug/L	200	0.744	113	80-120			
Thallium	179		1.00	ug/L	200	0.0484	89	80-120			

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 2E25003 - Same

Blank (2E25003-BLK1) Prepared: 05/25/2012 10:07 Analyzed: 05/25/2012 17:40

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	4.9	U	10	ug/L							

LCS (2E25003-BS1) Prepared: 05/25/2012 10:07 Analyzed: 05/25/2012 17:42

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150		115	85-115			

Matrix Spike (2E25003-MS1) Prepared: 05/25/2012 10:07 Analyzed: 05/25/2012 17:47

Source: C205531-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150	0.0009	112	85-115			

Matrix Spike Dup (2E25003-MSD1) Prepared: 05/25/2012 10:07 Analyzed: 05/25/2012 17:49

Source: C205531-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150	0.0009	114	85-115		20	

Batch 2E29014 - NO PREP

Blank (2E29014-BLK1) Prepared: 05/29/2012 12:08 Analyzed: 05/29/2012 12:35

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfide	10	U	100	ug/L							

LCS (2E29014-BS1) Prepared: 05/29/2012 12:08 Analyzed: 05/29/2012 12:35

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfide	0.4		0.1	mg/L	0.401		90	80-120			

Matrix Spike (2E29014-MS1) Prepared: 05/29/2012 12:08 Analyzed: 05/29/2012 12:35

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfide	0.3		0.1	mg/L	0.401	0.1	43	80-120			QM-05

Matrix Spike Dup (2E29014-MSD1) Prepared: 05/29/2012 12:08 Analyzed: 05/29/2012 12:35

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfide	0.3		0.1	mg/L	0.401	0.1	47	80-120		25	QM-05

Batch 2E31008 - Same

Blank (2E31008-BLK1) Prepared: 05/31/2012 11:10 Analyzed: 06/01/2012 13:54

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 2E31008 - Same

Blank (2E31008-BLK1) Continued Prepared: 05/31/2012 11:10 Analyzed: 06/01/2012 13:54

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	4.9	U	10	ug/L							

LCS (2E31008-BS1) Prepared: 05/31/2012 11:10 Analyzed: 06/01/2012 13:56

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.1		0.01	mg/L	0.150		96	85-115			

Matrix Spike (2E31008-MS1) Prepared: 05/31/2012 11:10 Analyzed: 06/01/2012 14:25

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150	0.003	97	85-115			

Matrix Spike Dup (2E31008-MSD1) Prepared: 05/31/2012 11:10 Analyzed: 06/01/2012 14:27

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150	0.003	99	85-115		20	

Batch 2F04004 - Same

Blank (2F04004-BLK1) Prepared: 06/04/2012 10:27 Analyzed: 06/05/2012 13:27

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	4.9	U	10	ug/L							

LCS (2F04004-BS1) Prepared: 06/04/2012 10:27 Analyzed: 06/05/2012 13:29

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150		100	85-115			

Matrix Spike (2F04004-MS1) Prepared: 06/04/2012 10:27 Analyzed: 06/05/2012 13:31

Source: C205894-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150	0.0007	98	85-115			

Matrix Spike Dup (2F04004-MSD1) Prepared: 06/04/2012 10:27 Analyzed: 06/05/2012 13:33

Source: C205894-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150	0.0007	104	85-115		20	

QUALITY CONTROL

Chlorinated Herbicides by GC - Quality Control

QUALITY CONTROL

Chlorinated Herbicides by GC - Quality Control

Batch 2E29003 - EPA 3510C

Blank (2E29003-BLK1) Prepared: 05/29/2012 12:15 Analyzed: 05/31/2012 18:58

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-T	0.23	U	0.50	ug/L							
2,4,5-TP (Silvex)	0.20	U	0.50	ug/L							
2,4-D	0.16	U	0.50	ug/L							
Dinoseb	0.32	U	0.50	ug/L							
Pentachlorophenol	0.19	U	0.50	ug/L							
Surrogate: 2,4-DCAA	*1.6*			*ug/L*	*2.00*		*82*	*68-139*			

LCS (2E29003-BS1) Prepared: 05/29/2012 12:15 Analyzed: 05/31/2012 19:50

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.6		0.50	ug/L	2.00		78	70-114			
2,4-D	1.7		0.50	ug/L	2.00		83	37-129			
Surrogate: 2,4-DCAA	*1.7*			*ug/L*	*2.00*		*83*	*68-139*			

Matrix Spike (2E29003-MS1) Prepared: 05/29/2012 12:15 Analyzed: 05/31/2012 20:16

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.6		0.50	ug/L	2.00	0.20 U	82	70-114			
2,4-D	1.8		0.50	ug/L	2.00	0.16 U	88	37-129			
Surrogate: 2,4-DCAA	*1.8*			*ug/L*	*2.00*		*92*	*68-139*			

Matrix Spike Dup (2E29003-MSD1) Prepared: 05/29/2012 12:15 Analyzed: 05/31/2012 20:42

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.5		0.50	ug/L	2.00	0.20 U	74	70-114	10	15	
2,4-D	1.6		0.50	ug/L	2.00	0.16 U	78	37-129	12	33	
Surrogate: 2,4-DCAA	*1.7*			*ug/L*	*2.00*		*84*	*68-139*			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
O-01	This compound is a common laboratory contaminant.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QS-03	Surrogate recovery outside acceptance limits
QV-01	The associated continuing calibration verification standard exhibited high bias; since the result is ND, the impact on data quality is minimal.
QV-02	The associated continuing calibration verification standard exhibited low bias; the reported result should be considered to be a minimum estimate.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

www.encolabs.com

10775 Central Port Dr.
Orlando, FL 32824
(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 111
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

Page 1 of 1

Client Name: Golder Associates, Inc. (GO007)	Project Number: 073-9604211.100
Address: 5B Oak Branch Drive	Project Name/Desc: City of Durham
City/ST/Zip: Greensboro, NC 27407	PO # / Billing Info:
Tel: (336) 852-4903 / Fax: (336) 852-4904	Reporting Contact: Dusty Reedy
Sampler(s) Name, Affiliation (Print): ENCO	Billing Contact: Accounts Payable
Sampler(s) Signature: Ken Dymon / Jeremy DeLore	Site Location / Time Zone: NC / E.S.T.

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C205531

Requested Analyses

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8011 - KS	8081B Appendix 2, 8082A Appendix 2, 8151A Appendix 2, 8270D Appendix 2	8260B Appendix 1	8260B Appendix 2	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Sn,Ti,V,Zn	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Ti,V,Zn	Cyanide Total 9014	Hg	Sulfide SM4500-S D		Sample Comments
	3201-MW2	5-23-12	11:06	G	GW	10		X		X	X		X	X	X		
	3201-MW3R MS/MSD	5-22-12	12:17	G	GW	20		X		X	X		X	X	X		
	3201-MW4R	5-22-12	11:03	G	GW	10		X		X	X		X	X	X		
	3201-MW5	5-23-12	12:48	G	GW	10	X	X		X	X		X	X	X		
	3201-MW9R	5-23-12	13:42	G	GW	10	KS X	X		X	X		X	X	X		
	3201-MW10	5-23-12	09:30	G	GW	10	X	X		X	X		X	X	X		
	3201-S1	5-23-12	13:00	G	SW	4			X			X					
	3201-S2	5-23-12	10:13	G	SW	4			X			X					
	3201-S3	5-23-12	11:33	G	SW	4			X			X					
	3201-S4	5-23-12	10:27	G	SW	4			X			X					
	3201-Field Blank	5-23-12	14:00	G	WA	10		X		X	X		X	X	X		
	3201-Trip Blank	5-23-12	—	—	WA	2				X							

<-- Total # of Containers

Sample Kit Prepared By: LB	Date/Time: 5/17	Relinquished By: Ken Dymon	Date/Time: 5-24-12/10:00	Received By: Briana Gregory	Date/Time: 5/24/12 11:35
Comments/Special Reporting Requirements: 1. Please Provide A Level 2 Data Report 2. Unit Rates per Basic Ordering Agreement for Laboratory Services dated April 9, 2004 + the 2011 Unit Price Sheet. 3. Estimated Fee: $4920		Relinquished By:	Date/Time:	Received By:	Date/Time:
		Relinquished By:	Date/Time:	Received By:	Date/Time:
		Cooler #'s & Temps on Receipt: C-835 2.8°C, C-382 2.9°C, C-211 1.7°C, C-807 2.1°C, C-5 1.9°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments) Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

4.) Chain Covers 4 coolers.

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

www.encolabs.com

WORK ORDER

Printed: 6/14/2012 9:57:17AM

C205531

ENCO Cary

Sample Receipt Conditions

Client:	**Golder Associates, Inc. (GO007)**	**Lab Project Mgr:**	**Stephanie Franz**
Project:	**City of Durham**	**Project Number:**	**073-9604211.100**
PO #:			

Report To:
Golder Associates, Inc. (GO007)
Dusty Reedy
5B Oak Branch Drive
Greensboro, NC 27407
Phone: (336) 852-4903
Fax: (336) 852-4904

Invoice To:
Golder Associates, Inc. (GO007)
Accounts Payable
5B Oak Branch Drive
Greensboro, NC 27407
Phone :(804) 358-7900
Fax: 804-358-2900

Received By:	Briana J Gregory	Date Received:	24-May-12 11:35
Logged In By:	Briana J Gregory	Date Logged In:	24-May-12 13:15

Work Order Comments:

C-211 received at 1.7°C

Containers Intact	Y	Containers Properly Preserved	Y	Proper Containers Received	Y	All Samples in PreLog Received	Y	COC/Labels Agree	Y
Custody Seals Intact	Y	Volatile Containers Preserved	Y	Volatile Containers Headspace Free	Y	Aqueous Samples Checked for Residual Cl	N	Received On Ice	Y

C-382 received at 2.9°C

Containers Intact	Y	Containers Properly Preserved	Y	Proper Containers Received	Y	All Samples in PreLog Received	Y	COC/Labels Agree	Y
Custody Seals Intact	Y	Volatile Containers Preserved	Y	Volatile Containers Headspace Free	Y	Aqueous Samples Checked for Residual Cl	N	Received On Ice	Y

C-5 received at 1.9°C

Containers Intact	Y	Containers Properly Preserved	Y	Proper Containers Received	Y	All Samples in PreLog Received	Y	COC/Labels Agree	Y
Custody Seals Intact	Y	Volatile Containers Preserved	Y	Volatile Containers Headspace Free	Y	Aqueous Samples Checked for Residual Cl	N	Received On Ice	Y

C-807 received at 2.1°C

Containers Intact	Y	Containers Properly Preserved	Y	Proper Containers Received	Y	All Samples in PreLog Received	Y	COC/Labels Agree	Y
Custody Seals Intact	Y	Volatile Containers Preserved	Y	Volatile Containers Headspace Free	Y	Aqueous Samples Checked for Residual Cl	N	Received On Ice	Y

C-835 received at 2.8°C

Containers Intact	Y	Containers Properly Preserved	Y	Proper Containers Received	Y	All Samples in PreLog Received	Y	COC/Labels Agree	Y
Custody Seals Intact	Y	Volatile Containers Preserved	Y	Volatile Containers Headspace Free	Y	Aqueous Samples Checked for Residual Cl	N	Received On Ice	Y

GOLDER ASSOCIATES INC.
QUALITY ASSURANCE & QUALITY CONTROL
LABORATORY DATA REVIEW

Project Name: City of Durham Closed MSW Landfill

Project Reference Number: 0739-604212.100

Sampling Event Date: May 22 and 23, 2012

Review Date: June 13, 2012 *Initials:* JD

Report #: C205531

Person(s) performing the review are to initial each item on this form as acknowledgement of data acceptance, or as acknowledgement of a review issue. In the case of the latter, a brief explanation should follow the applicable item.

Golder Associates Inc. has reviewed the laboratory certificates of analysis, chain-of-custody form, and laboratory provided sample group quality assurance and quality control data for the above referenced sample group to identify potential bias or inaccuracy, in general accordance with the following United States Environmental Protection Agency documents:

- Region III Modifications to Functional Guidelines for Organic Data Review Multi-Media, Multi-Concentration, September 1994;
- Region III Modifications to the Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses, April 1993; and
- Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses, July 1998.

COMPLIANCE ANALYTE LIST(S) (check all that apply)

___ NC Closed Facility List (.500 Rules)

___ NC C & D List (New Rules)

X NC Appendix I

___ NC Appendix I + Detects

X NC Appendix II

___ NC Subtitle D Leachate List

Other: cyanide, mercury, sulfide, PCBs, pesticides

1.0 CHAIN OF CUSTODY (COC) REVIEW

JD COC was properly signed by all parties.

JD Correct project name and number are on the form.

JD Sample receipt condition at laboratory was acceptable.

- ***Per the laboratory narrative, one of the two trip blank containers arrived at the lab broken; the other vial was cracked, and it broke during the analysis process. No results are available for the trip blank.***

JD Each sample and blank submitted for analysis appears in the report.

- ***See above***

2.0 SAMPLE HOLDING TIMES

JD Holding times for extraction and/or analysis were met for each analytical Method (see below for reference).

Notes: _____

Review Criteria		
Method	**Analytes**	**Holding Time**
SW-846 Method 8260 and 8011	VOCs	14 days
SW-846 Methods 8270, 8080, 8081, 8082, and 8151	SVOCs, PCBs, pesticides and herbicides	7 days for extraction, 40 days from extraction for analysis
SW-846 Methods 6000 and 7000 Series	Metals except mercury	6 months (no temperature requirements)
SW-846 Method 7470	Mercury	28 days
SW-846 Method 376.1	Sulfide	7 days
SW-846 Method 9010	Cyanide	14 days
EPA Method 300	Nitrate/Sulfate	48 hours/28 days
EPA Method 405.1	BOD	48 hours
EPA Method 410.4	COD	28 days
EPA Method 365.4	Phosphorous	28 days

3.0 LABORATORY QUALITY CONTROL REVIEW

JD Laboratory analyzed at least one internal blank for each method, where applicable.

JD Laboratory blank is interference-free.

- ***Diethylphthalate was detected in the method blank at a concentration of 8.8 ug/L (J).***

JD Surrogate recoveries are provided for each analytical method, where applicable.

JD Surrogate recoveries for each method are within the acceptable limits (i.e., at least 50% of the surrogates were within range).

- ***The surrogate spike recovery of 4-bromofluorobenzene in samples MW-9R, S1, S2, S3, S4, field blank, and method blank and dichloroflurometh**ane in sample MW-5 exceeded control limits. The samples were approved based on acceptable recoveries of the other surrogate standards.***

JD MS/MSD/LCS data results are provided for each analytical method.

JD MS/MSD/LCS recoveries for each method are within the acceptable limits (i.e., at least 1 of the 3 were within range).

- ***The spike recovery of sulfide was outside of control limits for the MS and MSD***

samples. The QC batch was approved based on acceptable LCS recovery of this analyte.

- ***The following Method 8270D analytes exhibited high bias in the associated continuing calibration verification: 2,4-dinitrobiphenyl, 2-acetylaminofluorene, 7,12-dimethylbenz(a)anthracene, benzo(b)fluoranthene, and benzo(k)fluoranthene. Sample results were non-detect.***

- ***The following Method 8270D analytes exhibited low bias in the associated continuing calibration verification: 3,3'-dimethylbenzidine and methylpryilene. Sample results were non-detect.***

4.0 ANALYTE LISTS/METHODS

JD The proper number of constituents are present for each analyte list as identified above (including detects where applicable).

JD Proper EPA SW-846 analytical methods were used for analysis.

5.0 DATA REPORTING

JD All analytical reporting associated with the event was performed by the contracted lab.

JD Trip, field and/or equipment, and laboratory blank results have all been reported. All detects for blanks are listed below by constituent. All laboratory method blanks, if any, have been 'flagged' with a 'B' where detected in other samples as appropriate and a laboratory narrative was provided. If the sample was flagged by the laboratory and is not within 5X of the concentration in the blank (or 10X for commonly detected laboratory contaminants-acetone, methylene chloride and phthalates), list below with explanation if flags should be removed. If flags need to be added for samples, also list below.

Method Blank:

- ***Diethylphthalate @ 8.8 ug/L (J)*** ****B-flags for MW-3R and MW-4R (within 10x)***

Field Blank:

- ***2-butanone @ 5.4 ug/L (J)***
- ***Acetone @ 16 ug/L (J)*** ****B-flags for S1, S2, S3, and S4 (within 10x)***

JD It is clear from the laboratory report that samples have or have not been diluted during analysis, and if the samples have been diluted, the result is reported as a multiple of the dilution (e.g., a sample diluted 10x resulting in an analytical detection of 1.0 should be reported as 10). Those that have been diluted are listed below with the dilution factor.

- ***MW-10: 8260B VOCs diluted by 2x***

JD The report provides the reporting limit for each constituent.

JD The results were reported at or below their proper reporting limits (i.e., MDLs with SWSLs reported). Those that are not reported correctly are listed below (by constituent) with the proper reporting limit listed beside them. State if the reporting limit error is due to dilutions.

- ***Reporting limits for MW-10 elevated due to dilution factor of 2x.***
- ***NC SWSL reported as 6000 ug/L for diethylphthalate for all 8270D analyses. Correct SWSL is 10 ug/L.***

JD No organic constituents were reported above their respective SWSLs, and no inorganic or organic constituents were reported above their respective NC 2L Drinking Water Standards/GWPS in wells, or field/equipment/trip blanks, or above applicable surface water standards in surface water points.

Organic Constituents Above SWSLs and/or NC 2L:

MW-5:

- ***Bis(2-ethylhexyl) phthalate @ 7.7 ug/L (J) (NC2L = 3 ug/L)***

MW-10:

- ***1,2-dichloropropane @ 4.5 ug/L (SWSL = 1 ug/L) (NC2L = 0.6 ug/L)***
- ***Benzene @ 1.7 ug/L (SWSL and NC2L = 1 ug/L)***
- ***Cis-1,2-dichloroethene @ 200 ug/L (SWSL = 5 ug/L) (NC2L = 70 ug/L)***
- ***Trichloroethene @ 9.8 ug/L (SWSL = 1 ug/L) (NC2L = 3 ug/L)***
- ***Vinyl chloride @ 15 ug/L (SWSL = 15 ug/L) (NC2L = 0.03 ug/L)***

Inorganic constituents above NC 2L and/or GWPS, or Surface Water Standards:

MW-2:

- ***Cobalt @ 1.18 ug/L (J) (GWPS = 1 ug/L)***
- ***Vanadium @ 2.24 ug/L (J) (GWPS = 0.3 ug/L)***

MW-3R:

- ***Cobalt @ 4.70 ug/L (J) (GWPS = 1 ug/L)***
- ***Vanadium @ 2.60 ug/L (J) (GWPS = 1 ug/L)***

MW-4R:

- ***Cobalt @ 1.24 ug/L (J) (GWPS = 1 ug/L)***

MW-5:

- ***Barium @ 1920 ug/L (NC2L = 700 ug/L)***

MW-9:

- ***Cobalt @ 5.64 ug/L (J)*** ***(GWPS = 1 ug/L)***
- ***Vanadium @ 1.74 ug/L (J)*** ***(GWPS = 0.3 ug/L)***

MW-10:

- ***Cobalt @ 4.63 ug/L (J)*** ***(GWPS = 1 ug/L)***

S-1:

- ***Copper @ 7.63 ug/L (J)*** ***(SWS = 7 ug/L)***

S-2:

- ***Copper @ 7.57 ug/L (J)*** ***(SWS = 7 ug/L)***

JD No inorganic or organic constituents were detected in a well or surface water point at quantified concentrations outside of their historical range (more than 5X previous concentrations or first-time detections).

S-4:

- ***Zinc @ 38.8 ug/L*** ***(>5x previous concentration)***

JD Other report issues/Communications with laboratory/etc.:

Notes: _____

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515
www.encolabs.com

Monday, June 18, 2012

Golder Associates, Inc. (GO007)

Attn: Dusty Reedy

5B Oak Branch Drive

Greensboro, NC 27407

RE: Laboratory Results for
Project Number: 073-9604211.100, Project Name/Desc: City of Durham-Resample
ENCO Workorder(s): C207090

Dear Dusty Reedy,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, June 15, 2012.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Stephanie Franz

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 9.

www.encolabs.com

PROJECT NARRATIVE

Date: 18 June 2012
Client: Golder Associates, Inc. (GO007)
Project: City of Durham-Resample
Lab ID: C207090

Overview

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

No Comments

Quality Control Remarks

No Comments

Other Comments

All samples received under this work order arrived in acceptable conditions. The samples were not checked for residual chlorine, as it is not required. No aqueous volatile samples were received, negating the need to check for preservation or headspace.

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:
Environmental Conservation Laboratories, Inc.

Stephanie Franz
Project Manager

www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 3201-MW5	Lab ID: C207090-01	Sampled: 06/15/12 11:52	Received: 06/15/12 13:15

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8270D	06/22/12	07/25/12	06/15/12	17:00	6/15/2012 21:01

SAMPLE DETECTION SUMMARY

No positive results detected.

www.encolabs.com

ANALYTICAL RESULTS

Description: 3201-MW5
Matrix: Ground Water
Project: City of Durham-Resample

Lab Sample ID: C207090-01
Sampled: 06/15/12 11:52
Sampled By: B. Draper/K.Brewer

Received: 06/15/12 13:15
Work Order: C207090

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/15/12 21:01	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*75*	*1*	*100*	*75 %*	*10-179*	*2F15009*	*EPA 8270D*	*06/15/12 21:01*	*DFM*	
2-Fluorobiphenyl	*35*	*1*	*50.0*	*71 %*	*10-149*	*2F15009*	*EPA 8270D*	*06/15/12 21:01*	*DFM*	
2-Fluorophenol	*47*	*1*	*100*	*47 %*	*10-110*	*2F15009*	*EPA 8270D*	*06/15/12 21:01*	*DFM*	
Nitrobenzene-d5	*35*	*1*	*50.0*	*71 %*	*10-149*	*2F15009*	*EPA 8270D*	*06/15/12 21:01*	*DFM*	
Phenol-d5	*41*	*1*	*100*	*41 %*	*10-88*	*2F15009*	*EPA 8270D*	*06/15/12 21:01*	*DFM*	
Terphenyl-d14	*39*	*1*	*50.0*	*77 %*	*10-188*	*2F15009*	*EPA 8270D*	*06/15/12 21:01*	*DFM*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 2F15009 - EPA 3510C_MS

Blank (2F15009-BLK1) Prepared: 06/15/2012 10:34 Analyzed: 06/15/2012 18:51

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bis(2-ethylhexyl)phthalate	1.7	U	5.0	ug/L							
Surrogate: 2,4,6-Tribromophenol	*80*			*ug/L*	*100*		*80*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*36*			*ug/L*	*50.0*		*73*	*10-149*			
Surrogate: 2-Fluorophenol	*53*			*ug/L*	*100*		*53*	*10-110*			
Surrogate: Nitrobenzene-d5	*38*			*ug/L*	*50.0*		*76*	*10-149*			
Surrogate: Phenol-d5	*44*			*ug/L*	*100*		*44*	*10-88*			
Surrogate: Terphenyl-d14	*39*			*ug/L*	*50.0*		*78*	*10-188*			

LCS (2F15009-BS1) Prepared: 06/15/2012 10:34 Analyzed: 06/15/2012 19:17

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	38		10	ug/L	50.0		75	40-109			
4-Chloro-3-methylphenol	38		10	ug/L	50.0		75	58-121			
4-Nitrophenol	29		10	ug/L	50.0		58	33-105			
Acenaphthene	39		10	ug/L	50.0		78	39-125			
N-Nitroso-di-n-propylamine	36		10	ug/L	50.0		72	48-126			
Phenol	24		10	ug/L	50.0		48	19-78			
Pyrene	40		10	ug/L	50.0		81	44-137			
Surrogate: 2,4,6-Tribromophenol	*79*			*ug/L*	*100*		*79*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*39*			*ug/L*	*50.0*		*77*	*10-149*			
Surrogate: 2-Fluorophenol	*55*			*ug/L*	*100*		*55*	*10-110*			
Surrogate: Nitrobenzene-d5	*39*			*ug/L*	*50.0*		*78*	*10-149*			
Surrogate: Phenol-d5	*43*			*ug/L*	*100*		*43*	*10-88*			
Surrogate: Terphenyl-d14	*43*			*ug/L*	*50.0*		*85*	*10-188*			

Matrix Spike (2F15009-MS1) Prepared: 06/15/2012 10:34 Analyzed: 06/15/2012 19:43

Source: C207201-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	38		10	ug/L	50.0	1.2 U	77	40-109			
4-Chloro-3-methylphenol	40		10	ug/L	50.0	1.5 U	81	58-121			
4-Nitrophenol	29		10	ug/L	50.0	2.0 U	58	33-105			
Acenaphthene	41		10	ug/L	50.0	1.4 U	82	39-125			
N-Nitroso-di-n-propylamine	38		10	ug/L	50.0	1.5 U	75	48-126			
Phenol	24		10	ug/L	50.0	1.4 U	48	19-78			
Pyrene	43		10	ug/L	50.0	2.1 U	85	44-137			
Surrogate: 2,4,6-Tribromophenol	*78*			*ug/L*	*100*		*78*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*39*			*ug/L*	*50.0*		*79*	*10-149*			
Surrogate: 2-Fluorophenol	*54*			*ug/L*	*100*		*54*	*10-110*			
Surrogate: Nitrobenzene-d5	*39*			*ug/L*	*50.0*		*79*	*10-149*			
Surrogate: Phenol-d5	*42*			*ug/L*	*100*		*42*	*10-88*			
Surrogate: Terphenyl-d14	*44*			*ug/L*	*50.0*		*88*	*10-188*			

Matrix Spike Dup (2F15009-MSD1) Prepared: 06/15/2012 10:34 Analyzed: 06/15/2012 20:09

Source: C207201-03

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 2F15009 - EPA 3510C_MS

Matrix Spike Dup (2F15009-MSD1) Continued Prepared: 06/15/2012 10:34 Analyzed: 06/15/2012 20:09

Source: C207201-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	36		10	ug/L	50.0	1.2 U	73	40-109	5	22	
4-Chloro-3-methylphenol	42		10	ug/L	50.0	1.5 U	83	58-121	3	22	
4-Nitrophenol	31		10	ug/L	50.0	2.0 U	61	33-105	6	27	
Acenaphthene	40		10	ug/L	50.0	1.4 U	81	39-125	2	25	
N-Nitroso-di-n-propylamine	37		10	ug/L	50.0	1.5 U	73	48-126	3	23	
Phenol	25		10	ug/L	50.0	1.4 U	49	19-78	3	18	
Pyrene	43		10	ug/L	50.0	2.1 U	86	44-137	0.8	24	
Surrogate: 2,4,6-Tribromophenol	*80*			*ug/L*	*100*		*80*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*38*			*ug/L*	*50.0*		*75*	*10-149*			
Surrogate: 2-Fluorophenol	*52*			*ug/L*	*100*		*52*	*10-110*			
Surrogate: Nitrobenzene-d5	*37*			*ug/L*	*50.0*		*75*	*10-149*			
Surrogate: Phenol-d5	*44*			*ug/L*	*100*		*44*	*10-88*			
Surrogate: Terphenyl-d14	*44*			*ug/L*	*50.0*		*89*	*10-188*			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

10775 Central Port Dr.
Orlando, FL 32824
(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 111
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

www.encolabs.com

Page 1 of 1

Client Name	Golder Associates, Inc. (GO007)
Address	5B Oak Branch Drive
City/ST/Zip	Greensboro, NC 27407
Tel	(336) 852-4903
Fax	(336) 852-4904
Sampler(s) Name, Affiliation (Print)	B. Dragone / K. Brewer Golder
Sampler(s) Signature	
Project Number	073-9604211.100
Project Name/Desc	City of Durham-Resample
PO # / Billing Info	
Reporting Contact	Dusty Reedy
Billing Contact	Accounts Payable
Site Location / Time Zone	Durham, NC / EST

Requested Analyses: 8270D Appendix 2

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C207090

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8270D Appendix 2	Sample Comments
	3201-MW5	11:52	6-15-2012	G	GW	3	X	Bis-2-ethylhexylpthalate

Preservation (See Codes) (Combine as necessary)

<-- Total # of Containers

Sample Kit Prepared By: RY	Date/Time: 6/14		
Relinquished By:	Date/Time: 6-15-2012 12:00	Received By: ME Stamper	Date/Time: 6/15/12 1315
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Comments/Special Reporting Requirements: 1. Please provide "level 2" data report

Cooler #'s & Temps on Receipt: 2.1°C

Condition Upon Receipt: X Acceptable ___ Unacceptable

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments)

Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

WORK ORDER

Printed: 6/18/2012 2:43:54PM

C207090

ENCO Cary

Sample Receipt Conditions

Client:	**Golder Associates, Inc. (GO007)**	**Lab Project Mgr:**	**Stephanie Franz**
Project:	**City of Durham-Resample**	**Project Number:**	**073-9604211.100**
PO #:			

Report To:

Golder Associates, Inc. (GO007)
Dusty Reedy
5B Oak Branch Drive
Greensboro, NC 27407
Phone: (336) 852-4903
Fax: (336) 852-4904

Invoice To:

Golder Associates, Inc. (GO007)
Accounts Payable
5B Oak Branch Drive
Greensboro, NC 27407
Phone :(804) 358-7900
Fax: 804-358-2900

Received By:	Miranda E Stamper	Date Received:	15-Jun-12 13:15
Logged In By:	Miranda E Stamper	Date Logged In:	15-Jun-12 14:34

Work Order Comments:

C-170 received at 2.1°C

Containers Intact	**Y**	Containers Properly Preserved	**Y**	Proper Containers Received	**Y**	All Samples in PreLog Received	**Y**	COC/Labels Agree	**Y**
Custody Seals Intact	**Y**	Volatile Containers Preserved	**N**	Volatile Containers Headspace Free	**N**	Aqueous Samples Checked for Residual Cl	**N**	Received On Ice	**Y**

Reviewed By

Date

APPENDIX C

Statistical Evaluation Summary Table and Worksheets

Summary of Statistical Analysis

City of Durham Closed Landfill, Permit No. 32-01

Durham County, North Carolina

May 2012									
Detected Monitoring Constituent/ Analytes	Reporting Units	SWS Reporting Limit	Groundwater Standard		Downgradient Monitoring Well	Constituent/ Analyte Concentration	Statistical Analysis		Statistical Determination
			NC 2L	GWPS			Interwell	Intrawell	
Barium	ug/L	100	700	--	MW-5	1920	5564	NA	Not SSI

Notes:

1. Statistical worksheets are provided as Appendix C.
2. ug/L = micrograms per liter
3. NC 2L = North Carolina 2L Groundwater Standard
4. GWPS = North Carolina Solid Waste Section Groundwater Protection Standard
5. NA = not applicable
6. SSI = statistically significant increase
7. SWS = Solid Waste Section
8. North Carolina Appendix I Inorganic constituents detected above their respective Solid Waste Section Reporting Limit and Groundwater Standard in samples from downgradient monitoring wells were statistically evaluated.

Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 06/14/12

Analyte: Barium

Sample No.	Sample Date	Location	Concentration (ug/L)		Quantitation Limit (ug/L)
1	09/19/94	PZ-6	1834		--
2	12/02/94	PZ-6	760		--
3	02/07/95	PZ-6	2648		--
4	03/13/95	PZ-6	524		--
5	11/01/95	PZ-6	970		--
6	06/10/96	PZ-6	891		--
7	11/12/96	PZ-6	1555		--
8	03/18/97	PZ-6	850		--
9	10/02/97	PZ-6	840		--
10	05/26/98	PZ-6	779		--
11	12/01/98	PZ-6	2390		--
12	06/07/99	PZ-6	1850		--
13	12/15/99	PZ-6	944		--
14	06/06/00	PZ-6	2488		--
15	12/27/00	PZ-6	1826		--
16	06/04/01	PZ-6	2804		--
17	12/03/01	PZ-6	965		--
18	06/10/02	PZ-6	849		--
19	12/16/02	PZ-6	620		--
20	06/09/03	PZ-6	432		--
21	12/08/03	PZ-6	2881		--
22	06/29/04	PZ-6	5664		--
23	12/20/04	PZ-6	578		--
24	06/05/05	PZ-6	952		--
25	12/05/05	PZ-6	435		--
26	06/05/06	PZ-6	575		--
27	12/05/06	PZ-6	635		--
28	05/30/07	PZ-6	619		100
29	11/19/07	PZ-6	1300		100
30	05/19/08	MW-9R	55	J	100
31	11/19/08	MW-9R	38	J	100
32	06/30/09	MW-9R	51.2	J	100
33	11/30/09	MW-9R	45.8	J	100
34	05/20/10	MW-9R	45.1	J	100
35	11/19/10	MW-9R	53.3	J	100
36	05/19/11	MW-9R	53.1	J	100
37	11/28/11	MW-9R	80.4	J	100
38	05/23/12	MW-9R	50.6	J	100

Number of Data	38
Number of Truncated Data	0
Percentage of Truncated Data	0%

Nonparametric Prediction Interval: **5664** ug/L

Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 6/14/12

Probability Plots to determine the distribution of Barium

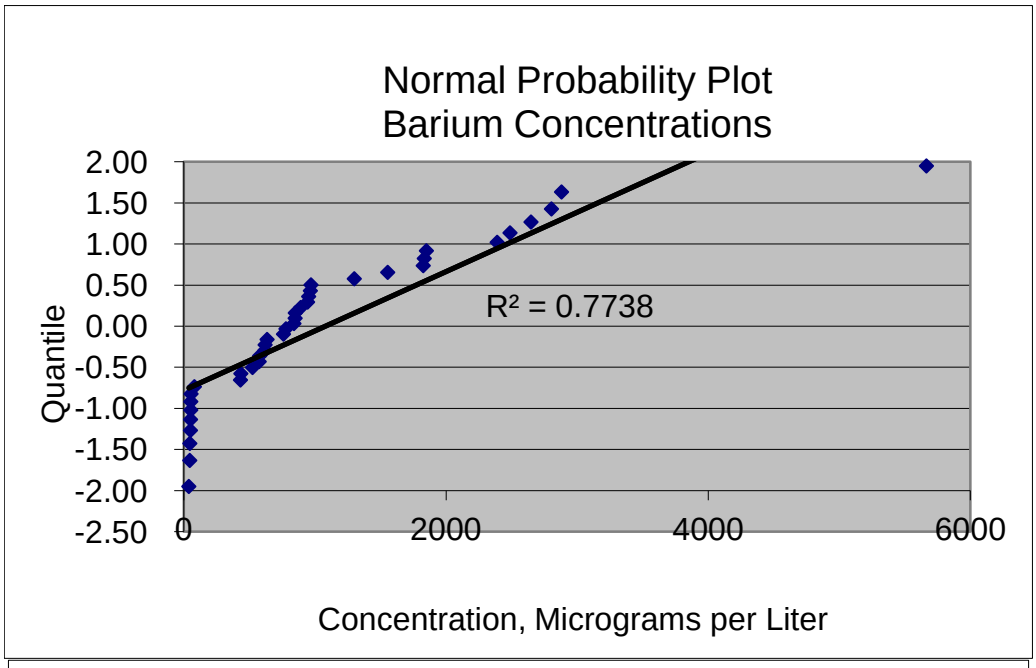
Complete the following table where:

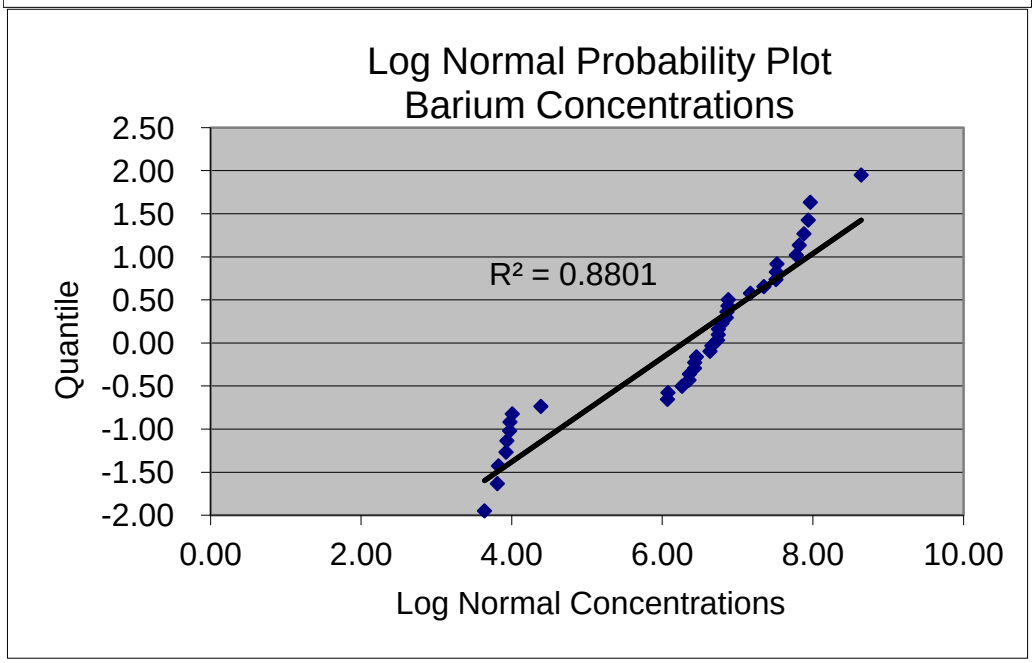
i = ordered value of sample, arranged from smallest to largest
X(i) = sample values arranged from smallest to largest
LN[X(i)] = Natural Log Value of sample concentrations arranged from smallest to largest
[i/(n+1)] = Cumulative probability
n = number of samples = 38

X(i)	LN[X(i)]	i	Rank	[Rank/(n+1)]	Quantiles
38	3.64	1	1	0.026	-1.95
45.1	3.81	2	2	0.051	-1.63
45.8	3.82	3	3	0.077	-1.43
50.6	3.92	4	4	0.103	-1.27
51.2	3.94	5	5	0.128	-1.13
53.1	3.97	6	6	0.154	-1.02
53.3	3.98	7	7	0.179	-0.92
55	4.01	8	8	0.205	-0.82
80.4	4.39	9	9	0.231	-0.74
432	6.07	10	10	0.256	-0.65
435	6.08	11	11	0.282	-0.58
524	6.26	12	12	0.308	-0.50
575	6.35	13	13	0.333	-0.43
578	6.36	14	14	0.359	-0.36
619	6.43	15	15	0.385	-0.29
620	6.43	16	16	0.410	-0.23
635	6.45	17	17	0.436	-0.16
760	6.63	18	18	0.462	-0.10
779	6.66	19	19	0.487	-0.03
840	6.73	20	20	0.513	0.03
849	6.74	21	21	0.538	0.10
850	6.75	22	22	0.564	0.16
891	6.79	23	23	0.590	0.23
944	6.85	24	24	0.615	0.29
952	6.86	25	25	0.641	0.36
965	6.87	26	26	0.667	0.43
970	6.88	27	27	0.692	0.50
1300	7.17	28	28	0.718	0.58
1555	7.35	29	29	0.744	0.65
1826	7.51	30	30	0.769	0.74
1834	7.51	31	31	0.795	0.82
1850	7.52	32	32	0.821	0.92
2390	7.78	33	33	0.846	1.02
2488	7.82	34	34	0.872	1.13
2648	7.88	35	35	0.897	1.27
2804	7.94	36	36	0.923	1.43
2881	7.97	37	37	0.949	1.63
5664	8.64	38	38	0.974	1.95

Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 06/14/12

Probability Plots to determine the distribution of Barium





Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 06/14/12

Determination of reported background value as an outlier

Analyte: Barium

Background Data

Sample No.	Sample Date	Location	Concentration (ug/l)	Quantitation Limit (ug/l)
1	09/19/94	PZ-6	1834	--
2	12/02/94	PZ-6	760	--
3	02/07/95	PZ-6	2648	--
4	03/13/95	PZ-6	524	--
5	11/01/95	PZ-6	970	--
6	06/10/96	PZ-6	891	--
7	11/12/96	PZ-6	1555	--
8	03/18/97	PZ-6	850	--
9	10/02/97	PZ-6	840	--
10	05/26/98	PZ-6	779	--
11	12/01/98	PZ-6	2390	--
12	06/07/99	PZ-6	1850	--
13	12/15/99	PZ-6	944	--
14	06/06/00	PZ-6	2488	--
15	12/27/00	PZ-6	1826	--
16	06/04/01	PZ-6	2804	--
17	12/03/01	PZ-6	965	--
18	06/10/02	PZ-6	849	--
19	12/16/02	PZ-6	620	--
20	06/09/03	PZ-6	432	--
21	12/08/03	PZ-6	2881	--
22	06/29/04	PZ-6	5664	--
23	12/20/04	PZ-6	578	--
24	06/05/05	PZ-6	952	--
25	12/05/05	PZ-6	435	--
26	06/05/06	PZ-6	575	--
27	12/05/06	PZ-6	635	--
28	05/30/07	PZ-6	619	--
29	11/19/07	PZ-6	1300	100
30	05/19/08	MW-9R	55	100
31	11/19/08	MW-9R	38	100
32	06/30/09	MW-9R	51.2	100
33	11/30/09	MW-9R	45.8	100
34	05/20/10	MW-9R	45.1	100
35	11/19/10	MW-9R	53.3	100
36	05/19/11	MW-9R	53.1	100
37	11/28/11	MW-9R	80.4	100
38	05/23/12	MW-9R	50.6	100

mean = 1077.118
STD = 1134.324

Note: All concentrations are micrograms per liter

Using the data listed above, form the statistic Tn:

Tn = (Xn - mean) / STD

where:

Xn =	largest observed sample value
mean =	mean of the background values
STD =	standard deviation of the background values

For	Xn =	5664.000
	mean =	1077.118
	STD =	1134.324
	Tn =	**4.044**

From Table 8 included in the Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities - Interim Final Guidance, the critical value for the given sample group is

Number of samples =	38
Tc =	**2.846**

Since Tc<Tn, the sample result is considered to be an outlier

Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 6/14/12

Determination of reported background value as an outlier

Analyte: Barium

Background Data

Sample No.	Sample Date	Location	ln(Concentration) (ug/l)	Quantitation Limit (ug/l)
1	9/19/94	PZ-6	7.514254653	--
2	12/2/94	PZ-6	6.633318433	--
3	2/7/95	PZ-6	7.881559917	--
4	3/13/95	PZ-6	6.261491684	--
5	11/1/95	PZ-6	6.877296071	--
6	6/10/96	PZ-6	6.792344427	--
7	11/12/96	PZ-6	7.349230825	--
8	3/18/97	PZ-6	6.745236349	--
9	10/2/97	PZ-6	6.733401892	--
10	5/26/98	PZ-6	6.658011046	--
11	12/1/98	PZ-6	7.779048645	--
12	6/7/99	PZ-6	7.522940918	--
13	12/15/99	PZ-6	6.850126166	--
14	6/6/00	PZ-6	7.819234454	--
15	12/27/00	PZ-6	7.509883061	--
16	6/4/01	PZ-6	7.938802248	--
17	12/3/01	PZ-6	6.872128101	--
18	6/10/02	PZ-6	6.744059186	--
19	12/16/02	PZ-6	6.429719478	--
20	6/9/03	PZ-6	6.068425588	--
21	12/8/03	PZ-6	7.965892735	--
22	6/29/04	PZ-6	8.641885635	--
23	12/20/04	PZ-6	6.359573869	--
24	6/5/05	PZ-6	6.858565035	--
25	12/5/05	PZ-6	6.075346031	--
26	6/5/06	PZ-6	6.354370041	--
27	12/5/06	PZ-6	6.453624999	--
28	5/30/07	PZ-6	6.428105273	--
29	11/19/07	PZ-6	7.170119543	100
30	5/19/08	MW-9R	4.007333185	100
31	11/19/08	MW-9R	3.63758616	100
32	6/30/09	MW-9R	3.935739532	100
33	11/30/09	MW-9R	3.824284091	100
34	5/20/10	MW-9R	3.808882247	100
35	11/19/10	MW-9R	3.975936331	100
36	5/19/11	MW-9R	3.972176928	100
37	11/28/11	MW-9R	4.387014176	100
38	5/23/12	MW-9R	3.923951576	100

mean = 6.283
STD = 1.444

Note: All concentrations are micrograms per liter

Using the data listed above, form the statistic Tn:

Tn = (Xn - mean) / STD

where:	Xn =	largest observed sample value
	mean =	mean of the background values
	STD =	standard deviation of the background values

For	Xn =	8.642
	mean =	6.283
	STD =	1.444
	Tn =	**1.634**

From Table 8 included in the Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities - Interim Final Guidance, the critical value for the given sample group is

Number of samples =	38
Tc =	**2.846**

Since Tc>Tn, the sample result is not considered to be an outlier

Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 6/14/12

Shapiro Wilk Test Statistic (W) for normality of total Barium

Complete the following table where

i = ordered value of sample, arranged from smallest to largest
X(i) = sample values arranged from smallest to largest
X(n-i+1) = sample values arranged from largest to smallest
A(n-i+1) = coefficient from table A-1, Statistical Analysis of Ground-Water Data at RCRA Facilities
B(i) = summation of (X(n-i+1)-X(i))A(n-i+1)

i	X(i)	X(n-i+1)	X(n-i+1) - X(i)	A(n-i+1)	B(i)
1	38.00	5664.00	5626.00	0.4015	2258.84
2	45.10	2881.00	2835.9	0.2774	786.68
3	45.80	2804.00	2758.2	0.2391	659.49
4	50.60	2648.00	2597.4	0.211	548.05
5	51.20	2488.00	2436.8	0.1881	458.36
6	53.10	2390.00	2336.9	0.1686	394.00
7	53.30	1850.00	1796.7	0.1513	271.84
8	55.00	1834.00	1779	0.1356	241.23
9	80.40	1826.00	1745.6	0.1211	211.39
10	432.00	1555.00	1123	0.1075	120.72
11	435.00	1300.00	865	0.0947	81.92
12	524.00	970.00	446	0.0824	36.75
13	575.00	965.00	390	0.0706	27.53
14	578.00	952.00	374	0.0592	22.14
15	619.00	944.00	325	0.0481	15.63
16	620.00	891.00	271	0.0372	10.08
17	635.00	850.00	215	0.0264	5.68
18	760.00	849.00	89	0.0158	1.41
19	779.00	840.00	61	0.0053	0.32
20	840.00	779.00			
21	849.00	760.00			
22	850.00	635.00			
23	891.00	620.00			
24	944.00	619.00			
25	952.00	578.00			
26	965.00	575.00			
27	970.00	524.00			
28	1300.00	435.00			
29	1555.00	432.00			
30	1826.00	80.40			
31	1834.00	55.00			
32	1850.00	53.30			
33	2390.00	53.10			
34	2488.00	51.20			
35	2648.00	50.60			
36	2804.00	45.80			
37	2881.00	45.10			
38	5664.00	38.00			

The test statistic W can be found using:

W = SQR[B/(SD x SQRT(n-1))]

where:	B =	summation of (X(n-i+1)-X(i))A(n-i+1)	=	6152.07
	SD =	standard deviation of the data group	=	1134.32
	n =	number of samples	=	38

W = 0.795

Compare this value to the critical value in Table A-2 of Statistical Analysisof Ground-Water Monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance (Draft) July, 1992, to determine if the data is normally distributed.

From Table A-2 with (n) samples and a 95% confidence level, the critical value is

W(crit) = 0.938
and the calculated W = 0.795

Therefore the data is Non Normal

Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 6/14/12

Shapiro Wilk Test Statistic (W) for log normality of Barium

Complete the following table where

i = ordered value of sample, arranged from smallest to largest
X(i) = sample values arranged from smallest to largest
X(n-i+1) = sample values arranged from largest to smallest
A(n-i+1) = coefficient from table A-1, Statistical Analysis of Ground-Water Data at RCRA Facilities
B(i) = summation of (X(n-i+1)-X(i))A(n-i+1)

i	X(i)	X(n-i+1)	X(n-i+1) - X(i)	A(n-i+1)	B(i)
1	3.64	8.64	5.0043	0.4015	2.0092
2	3.81	7.97	4.1570	0.2774	1.1532
3	3.82	7.94	4.1145	0.2391	0.9838
4	3.92	7.88	3.9576	0.2110	0.8351
5	3.94	7.82	3.8835	0.1881	0.7305
6	3.97	7.78	3.8069	0.1686	0.6418
7	3.98	7.52	3.5470	0.1513	0.5367
8	4.01	7.51	3.5069	0.1356	0.4755
9	4.39	7.51	3.1229	0.1211	0.3782
10	6.07	7.35	1.2808	0.1075	0.1377
11	6.08	7.17	1.0948	0.0947	0.1037
12	6.26	6.88	0.6158	0.0824	0.0507
13	6.35	6.87	0.5178	0.0706	0.0366
14	6.36	6.86	0.4990	0.0592	0.0295
15	6.43	6.85	0.4220	0.0481	0.0203
16	6.43	6.79	0.3626	0.0372	0.0135
17	6.45	6.75	0.2916	0.0264	0.0077
18	6.63	6.74	0.1107	0.0158	0.0017
19	6.66	6.73	0.0754	0.0053	0.0004
20	6.73	6.66			
21	6.74	6.63			
22	6.75	6.45			
23	6.79	6.43			
24	6.85	6.43			
25	6.86	6.36			
26	6.87	6.35			
27	6.88	6.26			
28	7.17	6.08			
29	7.35	6.07			
30	7.51	4.39			
31	7.51	4.01			
32	7.52	3.98			
33	7.78	3.97			
34	7.82	3.94			
35	7.88	3.92			
36	7.94	3.82			
37	7.97	3.81			
38	8.64	3.64			

The test statistic W can be found using:

W = SQR((B/SD x SQRT(n-1))

where:	B =	summation of (X(n-i+1)-X(i))A(n-i+1)	=	8.1458
	SD =	standard deviation of the data group	=	1.4438
	n =	number of samples	=	38
			W =	0.8603

Compare this value to the critical value in Table A-2 of Statistical Analysisof Ground-Water Monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance (Draft) July, 1992, to determine if the data is normally distributed.

From Table A-2 with (n) samples and a 95% confidence level, the critical value is

W(crit) = 0.938
and the calculated W = 0.860

Therefore the data is Non Normal

At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

Africa	+ 27 11 254 4800
Asia	+ 852 2562 3658
Australasia	+ 61 3 8862 3500
Europe	+ 356 21 42 30 20
North America	+ 1 800 275 3281
South America	+ 55 21 3095 9500

solutions@golder.com
www.golder.com

Golder Associates NC, Inc.
5B Oak Branch Drive
Greensboro, NC 27407 USA
Tel: (336) 852-4903
Fax: (336) 852-4904

Golder Associates

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation

TABLES

TABLE 1

Summary of Historical Groundwater Elevation Data in Monitoring Wells
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Well ID	MW-2	MW-3R	MW-4R	MW-5	MW-6R	MW-7R	MW-8	MW-9R	MW-10	NES-3	PZ-2R	PZ-3	PZ-4R	PZ-6
TOC Elevation (ft AMSL)	285.65	285.19	294.48	298.56	290.51	317.12	311.96	360.58	282.81	283.56	346.90	349.33	338.82	349.21
Date	**Static Water Elevation (ft AMSL)**													
05/26/98	280.20	NI	NI	290.20	NI	NI	304.40	NI	NI	NI	NI	318.80	NI	308.10
12/01/98	280.06	NI	NI	298.43	NI	NI	304.40	NI	NI	NI	NI	321.29	NI	304.79
06/07/99	275.71	NI	NI	285.79	NI	NI	300.87	NI	NI	NI	NI	319.05	NI	303.68
07/08/99	NM	NI	289.09	NM	NI	NI	NM	NI	NI	NI	NI	NM	NI	NM
12/13/99	279.09	NI	289.49	288.28	NI	NI	302.19	NI	NI	NI	NI	319.83	NI	303.64
06/06/00	277.15	NI	289.37	287.10	NI	NI	301.98	NI	NI	NI	NI	319.45	NI	305.02
12/11/00	277.10	NI	289.15	288.05	NI	NI	302.01	NI	NI	NI	NI	320.27	NI	303.71
06/04/01	278.37	NI	289.67	286.67	NI	NI	301.42	NI	NI	NI	NI	318.52	NI	304.90
12/04/01	275.19	NI	289.15	288.25	NI	NI	299.32	NI	NI	NI	NI	319.11	NI	304.71
06/10/02	275.59	NI	288.52	288.38	NI	NI	302.55	NI	NI	NI	NI	317.57	NI	304.11
12/16/02	280.13	NI	290.51	292.22	NI	NI	305.28	NI	NI	NI	NI	318.72	NI	305.12
06/09/03	278.90	NI	290.04	288.21	NI	NI	301.45	NI	NI	NI	NI	317.81	NI	305.75
12/08/03	278.49	NI	289.82	288.06	NI	NI	310.00	NI	NI	NI	NI	319.84	NI	305.53
06/28/04	276.34	NM	290.00	287.15	275.79	297.73	300.87	349.02	NI	NI	318.70	319.37	313.74	308.83
12/20/04	275.48	NM	289.78	288.18	276.89	299.55	301.72	334.52	NI	NI	318.98	321.02	319.78	307.16
06/06/05	280.35	NM	289.87	287.31	275.79	297.82	300.74	349.62	NI	NI	320.93	321.07	320.42	306.90
12/05/05	274.26	NM	289.94	287.72	275.59	299.17	300.09	346.25	NI	NI	319.65	320.75	317.42	302.60
06/05/06	277.45	NM	291.10	287.45	275.81	298.91	300.51	347.47	NI	NI	319.74	318.85	317.89	304.85
12/04/06	279.40	NM	290.02	288.80	277.18	300.86	301.80	349.22	NI	NI	319.56	319.30	317.42	304.10
05/30/07	279.38	NM	291.00	289.89	278.59	300.48	303.60	348.47	NI	NI	320.18	318.56	319.08	300.51
11/19/07	273.92	NM	292.72	287.60	276.62	298.07	302.37	343.35	NI	NI	319.20	318.91	316.28	304.41
05/19/08	282.10	281.76	293.41	291.72	280.04	302.98	304.87	349.36	NI	NI	319.85	317.82	317.18	308.27
11/19/08	280.36	281.55	293.30	291.25	279.42	302.46	304.58	346.98	277.32	NI	319.64	318.31	317.07	306.72
06/30/09	279.07	280.11	292.11	290.00	278.45	300.40	303.39	347.71	276.86	NI	321.11	317.77	318.08	308.08
11/30/09	279.48	281.70	292.34	290.15	278.89	301.66	303.85	346.84	276.07	NI	319.33	317.49	315.67	305.04
05/20/10	281.47	281.76	292.51	290.12	279.20	301.44	304.11	351.95	276.16	NI	321.12	317.76	317.98	306.88
11/19/10	276.43	281.08	292.00	289.31	277.35	300.31	305.37	344.38	275.74	274.74	320.28	317.80	316.40	304.18
05/19/11	281.17	281.92	292.18	290.16	278.81	301.45	303.26	347.10	276.00	276.56	320.70	316.38	316.07	NM
11/28/11	276.20	281.31	292.00	289.35	277.62	300.52	302.05	342.60	275.57	275.82	320.87	317.36	315.10	303.62
05/22/12	279.43	280.67	291.77	289.61	278.00	299.94	302.02	344.45	275.95	275.59	320.92	316.14	315.09	306.54
MEAN	*278.22*	*281.32*	*290.77*	*289.15*	*277.65*	*300.22*	*302.80*	*346.43*	*276.21*	*275.68*	*320.04*	*318.79*	*317.10*	*305.28*
MAXIMUM	*282.10*	*281.92*	*293.41*	*298.43*	*280.04*	*302.98*	*310.00*	*351.95*	*277.32*	*276.56*	*321.12*	*321.29*	*320.42*	*308.83*
MINIMUM	*273.92*	*280.11*	*288.52*	*285.79*	*275.59*	*297.73*	*299.32*	*334.52*	*275.57*	*274.74*	*318.70*	*316.14*	*313.74*	*300.51*

Notes:
ft AMSL = feet above mean sea level
NA = not applicable
NM = not measured
TOC = top of well casing
NI = not installed
TOC elevations were surveyed by SEPI Engineering in September 2009.

TABLE 2

Summary of Estimated Horizontal Flow Velocities
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

May 2012							
Gradient Calculation Segment	**Flow Direction**	**Gradient Segment Length (feet)**	**Gradient Segment Elevations (feet)**	**Horizontal Gradient (i, feet)**	**Effective Porosity (n_e)**	**Hydraulic Conductivity (K, cm/sec)**	**Velocity (V_{gw}, feet/year)**
i_1	NW	1297	320 / 280	0.0308	0.2	8.87E-04	141.51
i_2	W	1777	320 / 280	0.0225	0.2	8.87E-04	103.31
i_3	SW	1650	320 / 290	0.0182	0.2	8.87E-04	83.41

Notes:

Horizontal velocities based on the modified Darcy equation $V_{gw} = Ki/n_e$.

Values for K and n_e based on estimates from Malcolm Pirnie, Inc.'s *City of Durham Municipal Solid Waste Landfill December 1998 Groundwater Monitoring Letter Report dated January 29, 1999 and Weston Solutions, Inc.'s December 2005 Semiannual Event--Closed Durham City Landfill*

TABLE 3

Summary of Well Construction Information
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Well Identification	Well Type	Ground Surface Elevation (ft AMSL)	TOC Elevation (ft AMSL)	Well Depth (feet)	Well Diameter (inches)	Screened Interval (ft AMSL)
MW-2	Compliance Well	283.69	285.65	19.62	2	264.07 - 274.07
MW-3R	Compliance Well	282.18	285.19	17.65	2	264.53 - 274.53
MW-4R	Compliance Well	291.91	294.48	17.39	2	274.52 - 284.52
MW-5	Compliance Well	297.16	298.56	21.77	2	275.39 - 285.39
MW-6R	Water Level Only	287.62	290.51	26.72	2	260.90 - 270.90
MW-7R	Water Level Only	314.60	317.12	44.01	2	270.59 - 295.59
MW-8	Water Level Only	308.24	311.96	16.52	2	291.72 - 299.22
MW-9R	Compliance Well	358.03	360.58	22.55	2	335.48 - 345.48
MW-10	Compliance Well	280.75	282.81	16.61	2	264.14 - 274.14
NES-3	Water Level Only	280.69	283.56	12.35	2	268.34 - 273.34
P-2R	Water Level Only	343.12	345.90	34.59	2	308.53 - 318.53
PZ-3	Water Level Only	345.71	349.33	42.40	2	303.31 - 318.31
PZ-4R	Water Level Only	335.85	338.82	38.38	2	297.47 - 312.47
PZ-6	Water Level Only	346.79	349.21	61.50	2	285.29 - 305.29

Notes:
ft AMSL = feet above mean sea level
TOC = Top of Well Casing Elevation
TOC and Ground Surface Elevation surveyed for all wells by SEPI Engineering in September 2009.
Screened Interval is approximate, based on field measurements by S&ME in May 2008.

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Antimony	ug/L	9/19/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
GPS = 1 ug/L	ug/L	12/2/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	6/10/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	5	ND	--	6	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	5	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	5	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	--
	ug/L	7/8/99	5	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	--
	ug/L	12/27/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	--
	ug/L	6/4/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/3/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/16/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/29/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/20/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/05	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	6	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	6	ND	--	ND	ND	--	--	ND	ND	--	0.36	--	ND	ND	--	ND
	ug/L	5/19/08	6	--	ND	ND	--	0.26	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	6	--	0.51 B	0.59 B	--	0.68 B	--	0.65 B	0.53 B	--	--	--	0.53 B	0.54 B	0.59 B	0.53 J
	ug/L	6/30/09	6	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/30/09	6	--	ND	ND	--	0.196 J	--	ND	ND	--	--	--	ND	0.365 J	ND	ND
	ug/L	5/20/10	6	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	1.42 J	ND	ND
	ug/L	11/19/10	6	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	6	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	6	--	ND	0.269 J	--	0.277 J	--	0.635 J	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	6	--	ND	0.542 J	--	1.37 J	--	0.224 J	ND	--	--	--	--	--	ND	ND
Arsenic	ug/L	9/19/94	5	11	--	ND	ND	--	ND	--	ND	6.8	--	ND	--	ND	--	
NC 2L = 10 ug/L	ug/L	12/2/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	5	9.1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	5	ND	--	ND	ND	--	ND	--	8.2	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	5	5	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	5	ND	--	ND	ND	--	ND	--	ND	7	--	ND	--	ND	--	--
	ug/L	12/1/98	5	5	--	ND	6	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	5	6	--	ND	6	--	--	--	ND	--	--	ND	--	--	--	--
	ug/L	7/8/99	5	--	--	--	--	--	--	5	--	7	--	--	--	ND	--	--
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	5	6	--	ND	6	--	--	ND	7	--	--	ND	--	ND	--	--
	ug/L	12/27/00	5	ND	--	ND	18	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/4/01	5	ND	--	ND	6	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/3/01	5	ND	--	ND	ND	--	--	ND	6	ND	--	ND	--	ND	--	--
	ug/L	6/10/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/16/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	5	ND	--	ND	6	--	--	ND	6	ND	--	ND	--	ND	--	--
	ug/L	6/29/04	5	ND	--	ND	5	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/20/04	5	ND	--	ND	5	--	--	ND	7	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	5	ND	--	ND	ND	--	--	ND	6	--	ND	--	6	ND	--	--
	ug/L	12/5/05	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	5	ND	--	ND	5	--	--	ND	7	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	5	ND	--	ND	5	--	--	ND	6	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	10	ND	--	ND	ND	--	--	ND	3.4 B	--	ND	--	2.0 B	3.1 B	--	3.8 J
	ug/L	11/19/07	10	2.3	--	0.46	6.3	--	--	0.69	4.4	--	8.4	--	4.8	1.2	--	0.89
	ug/L	5/19/08	10	--	ND	ND	--	2.7	--	ND	1.9	--	0.36	--	0.72	ND	--	ND
	ug/L	11/19/08	10	--	0.26 J	0.59 J	--	5.9 J	--	1.2 J	4.4 J	--	--	--	1.7 J	1.3 J	3.7 J	ND
	ug/L	6/30/09	10	--	ND	ND	--	6.2 B	--	8.2 B	4.9 B	--	--	--	4.4 B	ND	ND	4.3 J
	ug/L	11/30/09	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	10	--	ND	ND	--	ND	--	ND	5.98 B	--	--	--	ND	ND	ND	3.22 J
	ug/L	11/19/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	5.23 J	ND
	ug/L	11/28/11	10	--	4.99 B	ND	--	2.99 B	--	ND	3.24 B	--	--	--	--	--	ND	4.35 J
	ug/L	5/23/12	10	--	ND	ND	--	ND	--	ND	7.51 J	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Barium	ug/L	9/19/94	--	1834	--	199	810	--	590	--	9400	531	--	113	--	2115	--	--
NC 2L= 700 ug/L	ug/L	12/2/94	--	760	--	32	492	--	580	--	2300	84	--	1775	--	119	--	--
	ug/L	2/7/95	--	2648	--	48	1047	--	737	--	2436	118	--	1484	--	111	--	--
	ug/L	3/13/95	--	524	--	37	706	--	534	--	1630	144	--	716	--	118	--	--
	ug/L	11/1/95	--	970	--	25	1500	--	1030	--	3360	90	--	770	--	120	--	--
	ug/L	6/10/96	--	891	--	50	1246	--	683	--	992	140	--	459	--	123	--	--
	ug/L	11/12/96	--	1555	--	47	879	--	547	--	976	104	--	512	--	84	--	--
	ug/L	3/18/97	--	850	--	70	1287	--	774	--	1154	87	--	509	--	138	--	--
	ug/L	10/2/97	--	840	--	48	3390	--	623	--	1250	111	--	558	--	312	--	--
	ug/L	5/26/98	--	779	--	48	1177	--	600	--	1637	249	--	482	--	103	--	--
	ug/L	12/1/98	--	2390	--	45	1024	--	--	--	867	126	--	655	--	118	--	--
	ug/L	6/7/99	--	1850	--	106	1498	--	--	--	996	--	--	2780	--	373	--	--
	ug/L	7/8/99	--	--	--	--	--	--	--	1217	--	507	--	--	--	--	--	--
	ug/L	12/15/99	--	944	--	84	1510	--	--	315	942	122	--	366	--	116	--	--
	ug/L	6/6/00	--	2488	--	46	1281	--	--	377	3979	--	--	1018	--	114	--	--
	ug/L	12/27/00	--	1826	--	144	1504	--	--	1120	5757	768	--	518	--	104	--	--
	ug/L	6/4/01	--	2804	--	128	1433	--	--	964	3649	284	--	862	--	475	--	--
	ug/L	12/3/01	--	965	--	153	1219	--	--	1053	1441	723	--	750	--	778	--	--
	ug/L	6/10/02	--	849	--	53	1117	--	--	943	1167	295	--	554	--	843	--	--
	ug/L	12/16/02	--	620	--	59	1121	--	--	544	909	128	--	429	--	209	--	--
	ug/L	6/9/03	--	432	--	67	1175	--	--	437	941	103	--	450	--	120	--	--
	ug/L	12/8/03	--	2881	--	85	1115	--	--	544	3692	221	--	648	--	141	--	--
	ug/L	6/29/04	--	5664	--	97	1024	--	--	551	1899	--	3039	--	763	139	--	--
	ug/L	12/20/04	--	578	--	90	1236	--	--	543	4192	--	1444	--	639	111	--	--
	ug/L	6/5/05	--	952	--	64	1065	--	--	607	1845	--	589	--	817	93	--	--
	ug/L	12/5/05	--	435	--	126	1331	--	--	585	1758	--	512	--	703	92	--	--
	ug/L	6/5/06	--	575	--	97	1339	--	--	796	3778	--	939	--	880	90	--	--
	ug/L	12/5/06	--	635	--	63	2018	--	--	890	3134	--	819	--	924	71	--	--
	ug/L	5/30/07	100	619	--	67.2 J	1490	--	--	472	1240	--	400	--	622	69.0 J	--	ND
	ug/L	11/19/07	100	1300	--	120	1400	--	--	510	1400	--	970	--	820	300	--	ND
	ug/L	5/19/08	100	--	55 J	66	--	530	--	580	1300	--	430	--	600	33	--	ND
	ug/L	11/19/08	100	--	38 J	82 J	--	380	--	510	1400	--	--	--	580	64 J	250	ND
	ug/L	6/30/09	100	--	51.2 J	80.8 J	--	440	--	552	1590	--	--	--	618	106	341	ND
	ug/L	11/30/09	100	--	45.8 J	58 J	--	80.8 J	--	513	1450	--	--	--	580	39.4 J	168	ND
	ug/L	5/20/10	100	--	45.1 J	64.7 J	--	166	--	564	1460	--	--	--	578	41.5 J	122	ND
	ug/L	11/19/10	100	--	53.3 J	114	--	102	--	485	1500	--	--	--	572	56.1 J	238	ND
	ug/L	5/19/11	100	--	53.1 J	83 J	--	116	--	562	1860	--	--	--	--	--	248	1.14 J
	ug/L	11/28/11	100	--	80.4 J	195	--	130	--	540	1870	--	--	--	--	--	268	ND
	ug/L	5/23/12	100	--	50.6 J	82.2 J	--	212	--	577	1920	--	--	--	--	--	664	ND
Beryllium	ug/L	9/19/94	1	8.1	--	1.5	ND	--	ND	--	9.8	6.9	--	ND	--	7.3	--	--
SWS GPS = 4 ug/L	ug/L	12/2/94	1	3.1	--	ND	ND	--	ND	--	5	ND	--	3.9	--	ND	--	--
	ug/L	2/7/95	1	8.6	--	ND	ND	--	ND	--	4.7	ND	--	1.9	--	ND	--	--
	ug/L	3/13/95	1	1.5	--	ND	ND	--	ND	--	5.2	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	1	18	--	ND	ND	--	ND	--	8	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	1	3	--	1.5	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	1	5	--	ND	3	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	1	1.5	--	ND	1.3	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	1	1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	1	2	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	1	5	--	ND	3	--	--	--	ND	--	--	4	--	ND	--	--
	ug/L	7/8/99	1	--	--	--	--	--	--	2	--	2	--	--	--	--	--	--
	ug/L	12/15/99	1	2	--	ND	2	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	1	7	--	ND	ND	--	--	ND	5	2	--	2	--	ND	--	--
	ug/L	12/27/00	1	2	--	ND	ND	--	--	ND	8	1	--	ND	--	ND	--	--
	ug/L	6/4/01	1	4	--	ND	ND	--	--	ND	2	3	--	ND	--	ND	--	--
	ug/L	12/3/01	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/16/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	1	2	--	ND	ND	--	--	ND	2	--	--	ND	--	ND	--	--
	ug/L	6/29/04	1	2	--	ND	ND	--	--	ND	ND	--	2	--	ND	ND	--	--
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	2	--	1	--	ND	ND	--	--
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	2	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	1	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	1	3.1	--	ND	ND	--	--	ND	ND	--	1.4	--	0.79	0.93	--	ND
	ug/L	5/19/08	1	--	0.38 J	ND	--	0.25	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	0.73 J	0.73 J	--	ND	--	ND	0.34 J	--	--	--	0.3 J	0.37 J	ND	ND
	ug/L	6/30/09	1	--	0.47 J	0.11 J	--	ND	--	0.13 J	ND	--	--	--	ND	ND	0.46 J	ND
	ug/L	11/30/09	1	--	0.534 B	0.182 B	--	ND	--	ND	ND	--	--	--	ND	ND	0.131 B	0.121 J
	ug/L	5/20/10	1	--	0.521 J	0.21 J	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	1	--	0.608 J	0.191 J	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	1	--	0.549 J	0.242 J	--	ND	--	ND	ND	--	--	--	--	--	0.14 J	ND
	ug/L	11/28/11	1	--	0.770 J	0.204 J	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	0.456 J	0.214 J	--	ND	--	ND	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Cadmium	ug/L	9/19/94	1	ND	--	ND	ND	--	ND	--	1.6	4	--	ND	--	ND	--	--
NC 2L =2 ug/L	ug/L	12/2/94	1	ND	--	1	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	1	2.2	--	ND	ND	--	ND	--	1.6	ND	--	32	--	ND	--	--
	ug/L	3/13/95	1	ND	--	ND	ND	--	ND	--	ND	1.2	--	ND	--	ND	--	--
	ug/L	11/1/95	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	1	ND	--	1.8	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	1	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	1	ND	--	ND	ND	--	--	--	3	--	--	ND	--	ND	--	--
	ug/L	7/8/99	1	--	--	--	--	--	--	ND	--	1	--	--	--	--	--	--
	ug/L	12/15/99	1	ND	--	ND	ND	--	--	ND	ND	1	--	ND	--	ND	--	--
	ug/L	6/6/00	1	ND	--	ND	ND	--	--	ND	1	--	--	ND	--	ND	--	--
	ug/L	12/27/00	1	ND	--	ND	ND	--	--	ND	1	2	--	ND	--	ND	--	--
	ug/L	6/4/01	1	ND	--	ND	ND	--	--	ND	ND	1	--	ND	--	ND	--	--
	ug/L	12/3/01	1	ND	--	ND	ND	--	--	ND	ND	2	--	ND	--	ND	--	--
	ug/L	6/10/02	1	ND	--	7	ND	--	--	ND	2	3	--	ND	--	ND	--	--
	ug/L	12/16/02	1	ND	--	1	ND	--	--	ND	ND	2	--	ND	--	ND	--	--
	ug/L	6/9/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	1	ND	--	ND	ND	--	--	ND	ND	7	--	ND	--	ND	--	--
	ug/L	6/29/04	1	1	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/20/04	1	1	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	1.1	--	ND	ND	--	ND
	ug/L	11/19/07	1	0.93	--	ND	ND	--	--	ND	ND	--	2.1	--	0.34	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	0.29 B	0.49 B	--	0.34 B	--	0.4 B	0.28 B	--	--	--	0.29 B	0.31 B	0.32 B	0.28 J
	ug/L	6/30/09	1	--	ND	ND	--	0.12 B	--	ND	0.13 B	--	--	--	ND	ND	0.26 B	0.22 J
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
Chromium	ug/L	9/19/94	5	207	--	25	5.4	--	ND	--	699	148	--	12	--	139	--	--
NC 2L = 10 ug/L	ug/L	12/2/94	5	71	--	ND	ND	--	ND	--	142	13	--	95	--	9.7	--	--
	ug/L	2/7/95	5	271	--	ND	ND	--	ND	--	128	9.6	--	45	--	8.3	--	--
	ug/L	3/13/95	5	5.8	--	ND	ND	--	ND	--	36	5.7	--	14	--	13	--	--
	ug/L	11/1/95	5	40	--	ND	21	--	8	--	129	5	--	7	--	6	--	--
	ug/L	6/10/96	5	65	--	ND	49	--	ND	--	12	122	--	ND	--	ND	--	--
	ug/L	11/12/96	5	133	--	ND	96	--	7	--	19	5	--	10	--	9	--	--
	ug/L	3/18/97	5	ND	--	ND	22	--	ND	--	ND	165	--	ND	--	ND	--	--
	ug/L	10/2/97	5	65	--	ND	15	--	ND	--	ND	ND	--	7	--	ND	--	--
	ug/L	5/26/98	5	37	--	ND	6	--	ND	--	6	8	--	5	--	ND	--	--
	ug/L	12/1/98	5	176	--	ND	47	--	--	--	ND	5	--	9	--	11	--	--
	ug/L	6/7/99	5	46	--	ND	69	--	--	--	7	--	--	35	--	ND	--	--
	ug/L	7/8/99	5	--	--	--	--	--	--	108	--	89	--	--	--	--	--	--
	ug/L	12/15/99	5	121	--	5	68	--	--	5	5	5	--	5	--	5	--	--
	ug/L	6/6/00	5	297	--	5	40	--	--	5	7	--	--	33	--	5	--	--
	ug/L	12/27/00	5	102	--	7	6	--	--	ND	150	40	--	ND	--	ND	--	--
	ug/L	6/4/01	5	41	--	ND	ND	--	--	ND	ND	ND	--	25	--	13	--	--
	ug/L	12/3/01	5	54	--	ND	23	--	--	ND	24	12	--	16	--	ND	--	--
	ug/L	6/10/02	5	21	--	ND	16	--	--	ND	7	26	--	ND	--	6	--	--
	ug/L	12/16/02	5	32	--	ND	19	--	--	30	ND	ND	--	5	--	17	--	--
	ug/L	6/9/03	5	88	--	5	28	--	--	9	ND	9	--	7	--	10	--	--
	ug/L	12/8/03	5	89	--	ND	62	--	--	17	40	11	--	19	--	10	--	--
	ug/L	6/29/04	5	104	--	13	71	--	--	ND	16	--	65	--	13	12	--	--
	ug/L	12/20/04	5	11	--	6	9	--	--	ND	67	--	41	--	7	ND	--	--
	ug/L	6/5/05	5	32	--	ND	32	--	--	ND	14	--	5	--	18	ND	--	--
	ug/L	12/5/05	5	ND	--	5	53	--	--	5	22	--	ND	--	7	ND	--	--
	ug/L	6/5/06	5	69	--	6	39	--	--	ND	41	--	8	--	9	ND	--	--
	ug/L	12/5/06	5	9	--	ND	ND	--	--	ND	5	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	10	7.0 J	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	10	90	--	4.7	7.1	--	--	2.3	8.8	--	24	--	18	20	--	ND
	ug/L	5/19/08	10	--	ND	ND	--	2.4 J	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	10	--	ND	ND	--	3.0 J	--	2.5 J	ND	--	--	--	ND	2.3 J	6.3 J	ND
	ug/L	6/30/09	10	--	0.7 J	1.4 J	--	1.2 J	--	0.7 J	1.3 J	--	--	--	1.2 J	0.7 J	6.1 J	ND
	ug/L	11/30/09	10	--	1.21 J	ND	--	1.45 J	--	ND	ND	--	--	--	2.12 J	ND	1.02 J	ND
	ug/L	5/20/10	10	--	ND	ND	--	1.64 J	--	ND	ND	--	--	--	ND	1.72 J	2.07 J	ND
	ug/L	11/19/10	10	--	5.65 J	2.27 J	--	1.47 J	--	ND	ND	--	--	--	3.28 J	ND	2.62 J	ND
	ug/L	5/19/11	10	--	1.3 J	8.21 J	--	4.85 J	--	1.37 J	1.29 J	--	--	--	--	--	4.17 J	ND
	ug/L	11/28/11	10	--	7.67 J	4.88 J	--	3.02 J	--	ND	1.27 J	--	--	--	--	--	ND	ND
	ug/L	5/23/12	10	--	2.09 J	5.55 J	--	4.28 J	--	1.51 J	1.86 J	--	--	--	--	--	2.76 J	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient											Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Cobalt	ug/L	9/19/94	--	--	--	ND	ND	--	ND	--	89	26	--	ND	--	32	--	--
SWS GPS = 1 ug/L	ug/L	12/2/94	--	ND	--	ND	ND	--	ND	--	39	26	--	11	--	ND	--	--
	ug/L	2/7/95	--	30	--	ND	ND	--	ND	--	23	18	--	14	--	ND	--	--
	ug/L	3/13/95	--	--	--	ND	ND	--	ND	--	18	24	--	12	--	ND	--	--
	ug/L	11/1/95	10	12	--	ND	11	--	ND	--	47	13	--	ND	--	ND	--	--
	ug/L	6/10/96	10	ND	--	ND	15	--	ND	--	ND	ND	--	ND	--	12	--	--
	ug/L	11/12/96	10	34	--	ND	25	--	ND	--	ND	ND	--	ND	--	13	--	--
	ug/L	3/18/97	10	16	--	ND	15	--	ND	--	ND	12	--	ND	--	16	--	--
	ug/L	10/2/97	10	20.6	--	ND	40	--	ND	--	ND	ND	--	ND	--	21.5	--	--
	ug/L	5/26/98	10	45	--	ND	ND	--	ND	--	ND	ND	--	ND	--	15	--	--
	ug/L	12/1/98	25	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	10	34	--	ND	25	--	--	--	ND	--	--	55	--	14	--	--
	ug/L	7/8/99	10	--	--	--	--	--	--	29	--	14	--	--	--	--	--	--
	ug/L	12/15/99	10	16	--	ND	24	--	--	ND	ND	ND	--	ND	--	14	--	--
	ug/L	6/6/00	10	32	--	ND	19	--	--	ND	76	--	--	ND	--	14	--	--
	ug/L	12/27/00	10	ND	--	ND	19	--	--	ND	150	210	--	ND	--	19	--	--
	ug/L	6/4/01	10	50	--	ND	30	--	--	ND	60	85	--	ND	--	13	--	--
	ug/L	12/3/01	10	33	--	ND	31	--	--	ND	11	200	--	26	--	17	--	--
	ug/L	6/10/02	10	16	--	ND	24	--	--	ND	14	--	--	12	--	20	--	--
	ug/L	12/16/02	10	14	--	ND	21	--	--	11	ND	27	--	ND	--	25	--	--
	ug/L	6/9/03	10	ND	--	ND	24	--	--	ND	ND	12	--	ND	--	16	--	--
	ug/L	12/8/03	10	87	--	ND	21	--	--	ND	65	13	--	ND	--	16	--	--
	ug/L	6/29/04	10	91	--	ND	24	--	--	ND	ND	--	48	--	ND	26	--	--
	ug/L	12/20/04	5	7.4	--	ND	19	--	--	ND	47	--	25	--	ND	20	--	--
	ug/L	6/5/05	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	12/5/05	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	6/5/06	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	12/5/06	--	--	--	ND	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/30/07	10	3.2 J	--	ND	4.3 J	--	--	ND	ND	--	10.2	--	ND	11.2	--	ND
	ug/L	11/19/07	10	16	--	2.3 J	10	--	--	2 J	2.5 J	--	21	--	7 J	21	--	ND
	ug/L	5/19/08	10	--	5.1 J	ND	--	7.3	--	ND	ND	--	17	--	ND	2.6 J	--	ND
	ug/L	11/19/08	10	--	5.0 J	ND	--	4.7 J	--	ND	ND	--	--	--	ND	7.8 J	16	ND
	ug/L	6/30/09	10	--	5.9 J	0.7 J	--	6.7 J	--	0.8 J	ND	--	--	--	ND	5.7 J	21.7	ND
	ug/L	11/30/09	10	--	5.43 J	ND	--	1.95 J	--	ND	ND	--	--	--	ND	4.28 J	8.89 J	ND
	ug/L	5/20/10	10	--	5.75 J	ND	--	4.42 J	--	ND	ND	--	--	--	ND	6.01 J	3.89 J	ND
	ug/L	11/19/10	10	--	6.12 J	ND	--	2.5 J	--	ND	ND	--	--	--	ND	4.41 J	8.05 J	ND
	ug/L	5/19/11	10	--	6.93 J	ND	--	1.7 J	--	ND	ND	--	--	--	--	--	5.31 J	ND
	ug/L	11/28/11	10	--	7.63 J	ND	--	2.74 J	--	ND	ND	--	--	--	--	--	5.64 J	ND
	ug/L	5/23/12	10	--	5.64 J	1.18 J	--	4.70 J	--	1.24 J	ND	--	--	--	--	--	4.63 J	ND
Copper	ug/L	9/19/94	5	109	--	7	ND	--	ND	--	598	119	--	ND	--	73	--	--
NC 2L = 1000 ug/L	ug/L	12/2/94	5	44	--	ND	ND	--	ND	--	113	14	--	43	--	7.3	--	--
	ug/L	2/7/95	5	150	--	ND	ND	--	ND	--	75	9.9	--	50	--	5.2	--	--
	ug/L	3/13/95	5	17	--	ND	ND	--	ND	--	58	13	--	11	--	6.8	--	--
	ug/L	11/1/95	5	20	--	ND	7	--	11	--	145	ND	--	7	--	ND	--	--
	ug/L	6/10/96	5	62	--	ND	50	--	6	--	8.7	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	5	73	--	ND	50	--	ND	--	10	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	5	ND	--	ND	50	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	5	27	--	ND	16	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	5	30	--	ND	6	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	5	60	--	ND	8	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	5	69	--	ND	23	--	--	--	10	--	--	43	--	ND	--	--
	ug/L	7/8/99	5	--	--	--	--	--	--	89	--	30	--	--	--	--	--	--
	ug/L	12/15/99	5	30	--	5	30	--	--	5	6	5	--	5	--	5	--	--
	ug/L	6/6/00	5	101	--	5	12	--	--	5	--	--	--	17	--	5	--	--
	ug/L	12/27/00	5	48	--	5	ND	--	--	5	34	34	--	ND	--	ND	--	--
	ug/L	6/4/01	5	95	--	ND	20	--	--	ND	28	28	--	ND	--	ND	--	--
	ug/L	12/3/01	5	28	--	ND	13	--	--	ND	15	15	--	14	--	ND	--	--
	ug/L	6/10/02	5	30	--	ND	10	--	--	ND	20	20	--	5	--	7	--	--
	ug/L	12/16/02	5	16	--	ND	15	--	--	20	16	16	--	10	--	23	--	--
	ug/L	6/9/03	5	52	--	ND	16	--	--	ND	14	14	--	5	--	8	--	--
	ug/L	12/8/03	5	92	--	ND	7	--	--	6	26	26	--	6	--	7	--	--
	ug/L	6/29/04	5	211	--	5	6	--	--	ND	--	--	75	--	12	5	--	--
	ug/L	12/20/04	5	7	--	ND	ND	--	--	ND	--	--	39	--	ND	6	--	--
	ug/L	6/5/05	2	28	--	ND	ND	--	--	ND	--	--	8	--	11	ND	--	--
	ug/L	12/5/05	2	ND	--	4	10	--	--	4	--	--	3	--	ND	ND	--	--
	ug/L	6/5/06	2	6	--	3	4	--	--	3	--	--	14	--	7	4	--	--
	ug/L	12/5/06	2	4	--	ND	2	--	--	ND	--	--	3	--	ND	ND	--	--
	ug/L	5/30/07	10	7.2 J	--	1.1 B	ND	--	--	1.7 B	ND	--	1.8 B	--	0.6 B	ND	--	0.7 J
	ug/L	11/19/07	10	50	--	2.1 B	1.7 B	--	--	1.1 B	4 B	--	60	--	7.2	17	--	1.1
	ug/L	5/19/08	10	--	2.4 B	1.8 B	--	7.3 B	--	4.6 B	1.7 B	--	2 B	--	1.3 B	1.8 B	--	5.7
	ug/L	11/19/08	10	--	1.2 B	1.4 B	--	3.4 B	--	1.5 B	1.3 B	--	--	--	1.2 B	2.6 B	3.7 B	1.1 J
	ug/L	6/30/09	10	--	1.14 B	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.33 B	2.36 J
	ug/L	11/30/09	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	11.5	ND
	ug/L	11/19/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	10	--	1.99 J	2.62 J	--	2.50 J	--	ND	ND	--	--	--	--	--	6.08 J	ND
	ug/L	11/28/11	10	--	5.69 J	2.95 J	--	ND	--	ND	ND	--	--	--	--	--	1.79 J	ND
	ug/L	5/23/12	10	--	1.76 J	2.12 J	--	ND	--	3.91 J	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks	
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10		
Lead	ug/L	9/19/94	5	40	--	ND	ND	--	ND	--	199	46	--	8.8	--	47	--	--	
NC 2L = 15 ug/L	ug/L	12/2/94	5	30	--	14	6.6	--	ND	--	77	19	--	53	--	10	--	--	
	ug/L	2/7/95	5	76	--	7.8	6.3	--	7	--	63	7.1	--	34	--	12	--	--	
	ug/L	3/13/95	5	11	--	ND	ND	--	ND	--	35	12	--	14	--	63	--	--	
	ug/L	11/1/95	5	14	--	ND	12	--	5	--	60	ND	--	9	--	ND	--	--	
	ug/L	6/10/96	5	25	--	ND	42	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	11/12/96	5	30	--	ND	29	--	ND	--	8	ND	--	10	--	ND	--	--	
	ug/L	3/18/97	5	ND	--	ND	8	--	ND	--	ND	ND	--	10	--	ND	--	--	
	ug/L	10/2/97	5	16	--	ND	55	--	ND	--	14	ND	--	22	--	7	--	--	
	ug/L	5/26/98	5	11	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	12/1/98	5	36	--	ND	8	--	--	--	ND	ND	--	8	--	ND	--	--	
	ug/L	6/7/99	5	19	--	ND	29	--	--	--	8	--	--	54	--	ND	--	--	
	ug/L	7/8/99	5	--	--	--	--	--	--	29	--	30	--	--	--	--	--	--	
	ug/L	12/15/99	5	14	--	ND	33	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/6/00	5	37	--	ND	12	--	--	ND	16	--	--	28	--	ND	--	--	
	ug/L	12/27/00	5	20	--	10	ND	--	--	ND	82	52	--	ND	--	ND	--	--	
	ug/L	6/4/01	5	35	--	8	20	--	--	ND	68	21	--	ND	--	ND	--	--	
	ug/L	12/3/01	5	23	--	ND	13	--	--	ND	23	36	--	30	--	ND	--	--	
	ug/L	6/10/02	5	6	--	ND	10	--	--	ND	7	13	--	ND	--	ND	--	--	
	ug/L	12/16/02	5	ND	--	5	11	--	--	8	ND	8	--	5	--	12	--	--	
	ug/L	6/9/03	5	ND	--	ND	24	--	--	ND	ND	ND	--	8	--	ND	--	--	
	ug/L	12/8/03	5	35	--	ND	ND	--	--	ND	47	14	--	8	--	ND	--	--	
	ug/L	6/29/04	5	83	--	ND	ND	--	--	28	11	--	51	--	6	ND	--	--	
	ug/L	12/20/04	5	ND	--	ND	5	--	--	ND	75	--	19	--	ND	ND	--	--	
	ug/L	6/5/05	5	13	--	ND	ND	--	--	ND	39	--	ND	--	7	ND	--	--	
	ug/L	12/5/05	5	ND	--	ND	9	--	--	ND	13	--	ND	--	ND	ND	--	--	
	ug/L	6/5/06	5	ND	--	ND	ND	--	--	ND	38	--	6	--	ND	ND	--	--	
	ug/L	12/5/06	5	ND	--	ND	ND	--	--	ND	12	--	ND	--	ND	ND	--	--	
	ug/L	5/30/07	10	3.5 B	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	3.1 J	
	ug/L	11/19/07	10	25	--	11 B	ND	--	--	3.8 B	5.1 B	--	12 B	--	13 B	17 B	--	3.5	
	ug/L	5/19/08	5	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	
	ug/L	11/19/08	10	--	3.2 B	0.5 B	--	1.3 B	--	0.19 B	0.29 B	--	--	--	4.7 B	1.2 B	3.8 B	3.1 J	
	ug/L	6/30/09	10	--	ND	ND	--	ND	--	3.6 B	2.1 B	--	--	--	ND	2.3 B	8.8 B	ND	
	ug/L	11/30/09	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	2.22 B	3.09 J	
	ug/L	5/20/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	2.51 J	2.04 J	ND	
	ug/L	11/19/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	2.62 J	ND	ND	ND	
	ug/L	5/19/11	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND	
	ug/L	11/28/11	10	--	2.81 J	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND	
	ug/L	5/23/12	10	--	2.21 J	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND	
Mercury	ug/L	12/1/98	0.2	0.2	--	ND	0.2	--	--	--	ND	ND	--	ND	--	ND	--	--	
NC 2L= 1 ug/L	ug/L	6/7/99	0.2	0.2	--	ND	0.2	--	--	--	ND	--	--	ND	--	ND	--	--	
	ug/L	7/8/99	0.2	--	--	--	--	--	--	ND	--	ND	--	--	--	---	--	--	
	ug/L	12/15/99	5	14	--	ND	33	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/6/00	5	37	--	ND	12	--	--	ND	16	---	--	28	--	ND	--	--	
	ug/L	12/22/00	5	20	--	10	<5	--	--	ND	82	52	--	ND	--	ND	--	--	
	ug/L	6/4/01	5	35	--	8	20	--	--	ND	68	21	--	ND	--	ND	--	--	
	ug/L	12/3/01	5	23	--	ND	13	--	--	ND	23	36	--	30	--	ND	--	--	
	ug/L	6/10/02	5	6	--	ND	10	--	--	ND	7	13	--	ND	--	ND	--	--	
	ug/L	12/16/02	5	ND	--	5	11	--	--	8	ND	8	--	5	--	12	--	--	
	ug/L	6/9/03	5	ND	--	ND	24	--	--	ND	ND	ND	--	8	--	ND	--	--	
	ug/L	12/8/03	5	35	--	ND	ND	--	--	ND	47.0	14.0	--	8.0	--	ND	--	--	
	ug/L	6/28/04	5	83	--	ND	ND	--	--	28	11	--	51	--	6	ND	--	--	
	ug/L	12/20/04	5	ND	--	ND	5	--	--	ND	75	--	19	--	ND	ND	--	--	
	ug/L	6/5/05	5	13	--	ND	ND	--	--	ND	39	--	ND	--	7	ND	--	--	
	ug/L	12/7/05	5	ND	--	ND	9.0	--	--	ND	13	--	ND	--	ND	ND	--	--	
	ug/L	6/5/06	5	ND	--	ND	ND	--	--	ND	38	--	6	--	ND	ND	--	--	
	ug/L	12/5/06	5	ND	--	ND	ND	--	--	ND	12	--	ND	--	ND	ND	--	--	
	ug/L	5/30/07	0.2	ND	--	ND	ND	--	--	ND	ND	--	0.2	--	ND	ND	--	ND	
	ug/L	11/19/07	0.2	ND	--	ND	ND	--	--	ND	ND	--	2.1	--	ND	ND	--	ND	
	ug/L	5/19/08	0.2	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	
	ug/L	11/19/08	0.2	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	6/30/09	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	11/30/09	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	5/20/10	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	11/19/10	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	5/19/11	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	11/28/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	ug/L	5/23/12	0.2	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND	

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks	
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10		
Nickel	ug/L	9/19/94	10	17	--	15	ND	--	ND	--	468	13	--	13	--	77	--	--	
NC 2L = 100 ug/L	ug/L	12/2/94	10	56	--	ND	10	--	ND	--	96	35	--	55	--	14	--	--	
	ug/L	2/7/95	10	211	--	ND	ND	--	ND	--	64	26	--	31	--	ND	--	--	
	ug/L	3/13/95	10	30	--	ND	9.1	--	ND	--	61	40	--	25	--	11	--	--	
	ug/L	11/1/95	10	32	--	ND	15	--	ND	--	68	28	--	16	--	ND	--	--	
	ug/L	6/10/96	10	49	--	ND	22	--	ND	--	ND	100	--	ND	--	ND	--	--	
	ug/L	11/12/96	10	103	--	ND	24	--	49	--	12	10	--	ND	--	ND	--	--	
	ug/L	3/18/97	10	50	--	ND	16	--	ND	--	ND	29	--	ND	--	ND	--	--	
	ug/L	10/2/97	10	52	--	ND	18	--	ND	--	ND	11	--	ND	--	ND	--	--	
	ug/L	5/26/98	10	43	--	ND	19	--	11	--	ND	23	--	ND	--	ND	--	--	
	ug/L	12/1/98	10	124	--	ND	12	--	--	--	ND	10	--	ND	--	ND	--	--	
	ug/L	6/7/99	10	126	--	ND	35	--	--	--	16	--	--	34	--	ND	--	--	
	ug/L	7/8/99	10	--	--	--	--	--	--	37	--	57	--	--	--	--	--	--	
	ug/L	12/15/99	10	227	--	10	64	--	--	ND	ND	44	--	ND	--	ND	--	--	
	ug/L	6/6/00	10	343	--	ND	37	--	--	ND	13	--	--	25	--	ND	--	--	
	ug/L	12/27/00	10	144	--	ND	14	--	--	ND	132	34	--	ND	--	ND	--	--	
	ug/L	6/4/01	10	88	--	ND	13	--	--	11	20	13	--	ND	--	ND	--	--	
	ug/L	12/3/01	10	54	--	ND	21	--	--	ND	19	34	--	16	--	ND	--	--	
	ug/L	6/10/02	10	21	--	ND	16	--	--	ND	ND	27	--	ND	--	ND	--	--	
	ug/L	12/16/02	10	33	--	ND	19	--	--	ND	ND	25	--	ND	--	14	--	--	
	ug/L	6/9/03	10	26	--	ND	23	--	--	ND	ND	19	--	ND	--	11	--	--	
	ug/L	12/8/03	10	99	--	ND	13	--	--	ND	29	36	--	ND	--	ND	--	--	
	ug/L	6/29/04	10	130	--	12	15	--	--	ND	14	--	10	--	10	ND	--	--	
	ug/L	12/20/04	10	10	--	ND	ND	--	--	ND	46	--	37	--	10	ND	--	--	
	ug/L	6/5/05	10	35	--	ND	ND	--	--	ND	13	--	18	--	11	ND	--	--	
	ug/L	12/5/05	10	ND	--	10	19	--	--	ND	15	--	18	--	ND	ND	--	--	
	ug/L	6/5/06	10	61	--	ND	21	--	--	ND	33	--	19	--	ND	ND	--	--	
	ug/L	12/5/06	10	32	--	ND	10	--	--	ND	ND	--	18	--	ND	ND	--	--	
	ug/L	5/30/07	50	27.4 J	--	ND	2.5 J	--	--	2.9 J	4.0 J	--	23.1 J	--	ND	2.9 J	--	ND	
	ug/L	11/19/07	50	140	--	9.9	16	--	--	ND	11	--	45	--	19	37	--	ND	
	ug/L	5/19/08	50	--	ND	ND	--	ND	--	ND	ND	--	17	--	ND	ND	--	ND	
	ug/L	11/19/08	50	--	ND	ND	--	11.0	--	ND	ND	--	--	--	ND	ND	10.0 J	ND	
	ug/L	6/30/09	50	--	3.6 B	3.4 B	--	8.7 B	--	5.0 B	5.7 B	--	--	--	2.1 B	7.6 B	13.1 B	0.6	J
	ug/L	11/30/09	50	--	2.17 B	ND	--	5.81 B	--	2.29 B	2.81 B	--	--	--	ND	ND	4.28 B	4.59	J
	ug/L	5/20/10	50	--	2.61 J	ND	--	6.78 J	--	2.56 J	3.20 J	--	--	--	ND	ND	1.98 J	ND	
	ug/L	11/19/10	50	--	4.33 J	3.13 J	--	5.34 J	--	2.37 J	1.89 J	--	--	--	ND	ND	6.23 J	ND	
	ug/L	5/19/11	50	--	3.03 J	2.99 J	--	6.92 J	--	3.94 J	3.31 J	--	--	--	--	--	6.16 J	ND	
	ug/L	11/28/11	50	--	5.78 J	8.84 J	--	7.08 J	--	2.95 J	2.84 J	--	--	--	--	--	5.47 J	ND	
	ug/L	5/23/12	50	--	2.77 J	3.36 J	--	5.84 J	--	4.50 J	2.13 J	--	--	--	--	--	5.26 J	ND	
Selenium	ug/L	9/19/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
NC 2L = 20 ug/L	ug/L	12/2/94	5	ND	--	7.6	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	2/7/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	3/13/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	11/1/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/10/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	11/12/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	3/18/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	10/2/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	5/26/98	5	ND	--	ND	9	--	ND	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	12/1/98	5	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/7/99	5	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	--	
	ug/L	7/8/99	5	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--	
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/6/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	--	
	ug/L	12/27/00	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/4/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	12/3/01	5	ND	--	ND	9	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/10/02	5	ND	--	ND	9	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	12/16/02	5	ND	--	ND	6	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--	
	ug/L	6/29/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--	
	ug/L	12/20/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--	
	ug/L	6/5/05	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--	
	ug/L	12/5/05	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--	
	ug/L	6/5/06	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--	
	ug/L	12/5/06	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--	
	ug/L	5/30/07	10	ND	--	ND	ND	--	--	ND	ND	--	2.8 B	--	ND	3.2 B	--	5.7	J
	ug/L	11/19/07	10	1.4 B	--	0.51 B	5.3	--	--	1.5 B	1.5 B	--	4.2	--	1 B	2.5 B	--	0.52	
	ug/L	5/19/08	10	--	ND	ND	--	0.85	--	0.47	ND	--	0.96	--	ND	ND	--	ND	
	ug/L	11/19/08	10	--	0.55 B	ND	--	1.5 B	--	0.42 B	0.64 B	--	--	--	ND	0.67 B	1.5 B	0.36	J
	ug/L	6/30/09	10	--	3.6 B	3.4 B	--	8.7 B	--	5.0 B	5.7 B	--	--	--	2.1 B	7.6 B	13.1 B	0.6	J
	ug/L	11/30/09	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND	
	ug/L	5/20/10	10	--	ND	ND	--	2.79 J	--	1.22 J	1.42 J	--	--	--	ND	ND	ND	ND	
	ug/L	11/19/10	10	--	ND	ND	--	2.41 J	--	0.928 J	1.12 J	--	--	--	ND	0.863 J	2.11 J	ND	
	ug/L	5/19/11	10	--	ND	ND	--	2.87 J	--	1.76 J	2.14 J	--	--	--	--	--	3.01 J	ND	
	ug/L	11/28/11	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND	
	ug/L	5/23/12	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND	

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Silver	ug/L	9/19/94	1	ND	--	ND	ND	--	ND	--	ND	2.2	--	ND	--	ND	--	--
NC 2L = 20 ug/L	ug/L	12/2/94	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	1	5	--	2	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	1	ND	--	ND	ND	--	ND	--	ND	7	--	ND	--	ND	--	--
	ug/L	10/2/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	1	--	--
	ug/L	12/1/98	1	1	--	ND	ND	--	--	--	ND	ND	--	2	--	ND	--	--
	ug/L	6/7/99	1	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	--
	ug/L	7/8/99	1	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--
	ug/L	12/15/99	1	ND	--	10	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	1	ND	--	ND	1	--	--	ND	ND	--	--	ND	--	ND	--	--
	ug/L	12/27/00	1	ND	--	ND	ND	--	--	ND	2	2	--	ND	--	ND	--	--
	ug/L	6/4/01	1	ND	--	3	1	--	--	ND	2	1	--	ND	--	ND	--	--
	ug/L	12/3/01	1	ND	--	ND	1	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/02	1	ND	--	ND	1	--	--	1	ND	ND	--	ND	--	ND	--	--
	ug/L	12/16/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	1	ND	--	ND	ND	--	--	ND	3	ND	--	ND	--	ND	--	--
	ug/L	6/29/04	1	8	--	1	ND	--	--	ND	ND	ND	--	ND	ND	ND	--	--
	ug/L	12/20/04	1	ND	--	1	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	2	ND	--	--
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	1	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	1	ND	--	ND	1	--	--	ND	2	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	10	ND	--	ND	ND	--	--	2.0 J	ND	--	2.8 J	--	ND	ND	--	ND
	ug/L	11/19/07	10	--	--	ND	--	--	--	ND	ND	--	--	--	ND	ND	--	ND
	ug/L	5/19/08	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND
	ug/L	11/19/08	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	6/30/09	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/30/09	10	--	ND	ND	--	ND	--	ND	2.57 J	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	10	--	ND	ND	--	2.11 J	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	10	--	ND	2.01 J	--	ND	--	ND	ND	--	--	--	--	--	7.19 J	ND
	ug/L	5/23/12	10	--	7.43 J	5.61 J	--	2.88 J	--	2.73 J	ND	--	--	--	--	--	5.95 J	ND
Thallium	ug/L	9/19/94	5	ND	--	ND	ND	--	ND	--	6.1	ND	--	ND	--	ND	--	--
SWS GPS = 0.28 ug/L	ug/L	12/2/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	5	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	1	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	--
	ug/L	7/8/99	1	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--
	ug/L	12/15/99	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	--	--	--
	ug/L	6/6/00	1	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	--	--	--
	ug/L	12/27/00	1	ND	--	ND	ND	--	--	ND	1	ND	--	ND	--	--	--	--
	ug/L	6/4/01	1	ND	--	ND	ND	--	--	ND	1	ND	--	ND	--	--	--	--
	ug/L	12/3/01	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	--	--	--
	ug/L	6/10/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	--	--	--
	ug/L	12/16/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	--	--	--
	ug/L	6/9/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	--	--	--
	ug/L	12/8/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	--	--	--
	ug/L	6/29/04	1	2	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	5.5	0.108 J	--	ND	0.086 J	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	5.5	--	--	ND	--	--	--	ND	ND	--	--	--	ND	ND	--	ND
	ug/L	5/19/08	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND
	ug/L	11/19/08	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	6/30/09	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/30/09	5.5	--	ND	ND	--	ND	--	3.14 J	ND	--	--	--	ND	0.75 J	ND	ND
	ug/L	5/20/10	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	5.5	--	ND	0.142 J	--	ND	--	0.281 J	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	5.5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Tin	ug/L	12/1/98	50	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
GPS = 2000 ug/L	ug/L	6/7/99	50	ND	--	ND	ND	--	--	--	ND	---	--	ND	--	ND	--	--
	ug/L	7/8/99	50	--	--	--	--	--	--	ND	--	ND	--	---	--	---	--	--
	ug/L	12/15/99	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	1	ND	--	ND	ND	--	--	ND	ND	---	--	ND	--	ND	--	--
	ug/L	12/22/00	1	ND	--	ND	ND	--	--	ND	1	ND	--	ND	--	ND	--	--
	ug/L	6/4/01	1	ND	--	ND	ND	--	--	ND	1	ND	--	ND	--	ND	--	--
	ug/L	12/3/01	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/16/02	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	1	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/29/04	1	2	--	ND	ND	--	--	ND	ND	--	ND	---	ND	ND	--	--
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	ND	---	ND	ND	--	--
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	---	ND	ND	--	--
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	---	ND	ND	--	--
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	---	ND	ND	--	--
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	---	ND	ND	--	--
	ug/L	5/30/07	100	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	3.6 J
	ug/L	11/19/07	100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/08	100	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	6/30/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/30/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/20/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/19/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/28/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/23/12	100	--	ND	ND	--	33.8 J	--	3.67 J	5.63 J	--	--	--	--	--	ND	ND
Vanadium	ug/L	9/19/94	5	203	--	23	ND	--	ND	--	411	167	--	16	--	122	--	--
SWS GPS = 0.3 ug/L	ug/L	12/2/94	5	51	--	ND	ND	--	ND	--	124	6.7	--	68	--	7.9	--	--
	ug/L	2/7/95	5	206	--	ND	ND	--	ND	--	99	6.9	--	37	--	6	--	--
	ug/L	3/13/95	5	16	--	ND	ND	--	ND	--	85	6.7	--	9.7	--	9.4	--	--
	ug/L	11/1/95	5	37	--	ND	17	--	8	--	16	ND	--	5	--	7	--	--
	ug/L	6/10/96	5	50	--	ND	34	--	67	--	14	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	5	141	--	ND	52	--	9	--	25	ND	--	11	--	12	--	--
	ug/L	3/18/97	5	141	--	ND	16	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	5	65	--	ND	17	--	ND	--	ND	ND	--	8.5	--	5.8	--	--
	ug/L	5/26/98	5	20	--	ND	5	--	ND	--	ND	ND	--	5	--	5	--	--
	ug/L	12/1/98	5	110	--	ND	10	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	5	45	--	ND	59	--	--	--	11	--	--	45	--	ND	--	--
	ug/L	7/8/99	5	--	--	--	--	--	--	16	--	48	--	--	--	--	--	--
	ug/L	12/15/99	5	38	--	ND	14	--	--	ND	6	ND	--	ND	--	6	--	--
	ug/L	6/6/00	5	109	--	ND	34	--	--	ND	23	--	--	36	--	6	--	--
	ug/L	12/27/00	5	26	--	ND	11	--	--	ND	44	38	--	ND	--	ND	--	--
	ug/L	6/4/01	5	22	--	ND	ND	--	--	ND	ND	6	--	ND	--	ND	--	--
	ug/L	12/3/01	5	25	--	ND	19	--	--	ND	26	38	--	16	--	ND	--	--
	ug/L	6/10/02	5	12	--	ND	13	--	--	ND	8	27	--	ND	--	9	--	--
	ug/L	12/16/02	5	7	--	ND	ND	--	--	ND	ND	ND	--	ND	--	17	--	--
	ug/L	6/9/03	5	5	--	ND	ND	--	--	ND	ND	8	--	6	--	9	--	--
	ug/L	12/8/03	5	46	--	ND	8	--	--	ND	43	13	--	ND	--	5	--	--
	ug/L	6/29/04	5	59	--	ND	6	--	--	ND	17	--	49	--	12	ND	--	--
	ug/L	12/20/04	5	8	--	ND	7	--	--	ND	69	--	34	--	5	5	--	--
	ug/L	6/5/05	5	27	--	ND	ND	--	--	ND	17	--	ND	--	17	ND	--	--
	ug/L	12/5/05	5	ND	--	ND	14	--	--	ND	16	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	5	ND	--	ND	ND	--	--	ND	42	--	9	--	7	ND	--	--
	ug/L	12/5/06	5	ND	--	ND	ND	--	--	ND	7	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	25	5.4 J	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	25	20	--	3.1 J	ND	--	--	ND	3.8	--	13	--	13	17	--	ND
	ug/L	5/19/08	25	--	4.0	ND	--	9.0	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	25	--	ND	ND	--	2.3 J	--	ND	ND	--	--	--	ND	ND	3.6 J	ND
	ug/L	6/30/09	25	--	ND	ND	--	1.1 J	--	ND	ND	--	--	--	ND	ND	6.9 J	ND
	ug/L	11/30/09	25	--	1.58 J	ND	--	2.48 J	--	ND	ND	--	--	--	ND	ND	2.29 J	ND
	ug/L	5/20/10	25	--	ND	ND	--	3.25 J	--	ND	ND	--	--	--	ND	2.60 J	4.70 J	ND
	ug/L	11/19/10	25	--	3.74 J	ND	--	1.47 J	--	ND	ND	--	--	--	2.03 J	ND	ND	ND
	ug/L	5/19/11	25	--	ND	3.86 J	--	1.47 J	--	ND	ND	--	--	--	--	--	3.89 J	ND
	ug/L	11/28/11	25	--	9.59 J	ND	--	1.77 J	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	25	--	1.74 J	2.24 J	--	2.60 J	--	ND	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Zinc	ug/L	9/19/94	10	303	--	34	ND	--	ND	--	1030	445	--	ND	--	207	--	--
NC 2L = 1000 ug/L	ug/L	12/2/94	10	106	--	ND	17	--	ND	--	202	169	--	140	--	ND	--	--
	ug/L	2/7/95	10	477	--	ND	ND	--	ND	--	183	76	--	74	--	70	--	--
	ug/L	3/13/95	10	291	--	ND	17	--	17	--	185	150	--	114	--	59	--	--
	ug/L	11/1/95	10	65	--	ND	12	--	13	--	225	ND	--	15	--	ND	--	--
	ug/L	6/10/96	10	125	--	ND	69	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	10	134	--	ND	132	--	12	--	26	22	--	16	--	11	--	--
	ug/L	3/18/97	10	ND	--	ND	30	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	10	96	--	23	52	--	ND	--	ND	ND	--	19	--	ND	--	--
	ug/L	5/26/98	10	20	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	10	121	--	11	16	--	--	--	ND	12	--	ND	--	ND	--	--
	ug/L	6/7/99	10	77	--	31	87	--	--	--	31	--	--	156	--	92	--	--
	ug/L	7/8/99	10	--	--	--	--	--	--	64	--	198	--	--	--	--	--	--
	ug/L	12/15/99	10	100	--	38	56	--	--	56	50	22	--	26	--	33	--	--
	ug/L	6/6/00	10	267	--	17	20	--	--	ND	28	--	--	67	--	ND	--	--
	ug/L	12/27/00	10	100	--	28	22	--	--	257	414	200	--	46	--	ND	--	--
	ug/L	6/4/01	10	80	--	24	60	--	--	162	269	96	--	191	--	121	--	--
	ug/L	12/3/01	10	73	--	59	39	--	--	214	55	87	--	37	--	249	--	--
	ug/L	6/10/02	10	41	--	52	27	--	--	141	20	93	--	68	--	168	--	--
	ug/L	12/16/02	10	27	--	12	34	--	--	26	14	150	--	28	--	37	--	--
	ug/L	6/9/03	10	12	--	19	49	--	--	10	ND	72	--	19	--	27	--	--
	ug/L	12/8/03	10	261	--	18	16	--	--	13	216	212	--	11	--	11	--	--
	ug/L	6/29/04	10	369	--	18	15	--	--	ND	35	--	226	--	59	ND	--	--
	ug/L	12/20/04	10	17	--	52	35	--	--	ND	134	--	77	--	15	13	--	--
	ug/L	6/5/05	10	56	--	44	ND	--	--	ND	103	--	16	--	55	20	--	--
	ug/L	12/5/05	10	ND	--	74	28	--	--	ND	35	--	10	--	ND	ND	--	--
	ug/L	6/5/06	10	14	--	31	11	--	--	ND	98	--	24	--	18	ND	--	--
	ug/L	12/5/06	10	ND	--	14	16	--	--	ND	26	--	ND	--	ND	ND	--	--
	ug/L	5/30/07	10	18.4	--	10.4 B	ND	--	--	1.1 B	3.3 B	--	6.8 B	--	12.3	4.4 B	--	2.4 J
	ug/L	11/19/07	10	160	--	21	55	--	--	20	58	--	100	--	66	52	--	90
	ug/L	5/19/08	10	--	12	8.7	--	45	--	30	54	--	23	--	34	4.6	--	ND
	ug/L	11/19/08	10	--	7.7 J	14	--	23	--	22	58	--	--	--	26	9.8 J	26	ND
	ug/L	6/30/09	10	--	5.8 B	7.9 B	--	3.5 B	--	ND	ND	--	--	--	4.7 B	ND	22.4 B	15.2
	ug/L	11/30/09	10	--	5.99 J	6.40 J	--	3.93 J	--	ND	ND	--	--	--	ND	11.7	19.9	ND
	ug/L	5/20/10	10	--	5.76 J	4.95 J	--	ND	--	ND	ND	--	--	--	ND	4.15 J	90.3	ND
	ug/L	11/19/10	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	11.5	ND
	ug/L	5/19/11	10	--	6.26 B	7.80 B	--	ND	--	ND	ND	--	--	--	--	--	9.03 B	4.26 J
	ug/L	11/28/11	10	--	21.7	18.6	--	ND	--	ND	ND	--	--	--	--	--	26.6	ND
	ug/L	5/23/12	10	--	6.59 J	8.53 J	--	ND	--	5.43 J	ND	--	--	--	--	--	39.0	ND
Benzene	ug/L	9/19/94	--	--	--	--	--	--	--	--	--	--	--	ND	--	ND	--	--
NC 2L= 1 ug/L	ug/L	12/2/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	1	ND	--	ND	2	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	9/3/96	--	--	--	--	1.8	--	--	--	--	--	--	--	--	--	--	--
	ug/L	10/2/96	--	--	--	--	1.2	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/12/96	1	ND	--	ND	1.7	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	1	ND	--	ND	1.6	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	1	ND	--	ND	2.1	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/1/98	1	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/7/99	5	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	--
	ug/L	7/8/99	5	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	ND
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/6/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	ND
	ug/L	12/27/00	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/4/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/3/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/10/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/16/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/8/03	3	ND	--	ND	0.83 J	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/29/04	3	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/20/04	0.5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/05	0.5	ND	--	ND	1.1	--	--	ND	ND	--	2.7	--	ND	ND	--	ND
	ug/L	12/5/05	0.5	ND	--	ND	0.9	--	--	ND	ND	--	2.8	--	ND	ND	--	ND
	ug/L	6/5/06	0.5	ND	--	ND	0.87	--	--	ND	ND	--	3.8	--	ND	ND	--	ND
	ug/L	12/5/06	0.5	ND	--	ND	ND	--	--	ND	ND	--	3.4	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	0.47 J	--	--	ND	ND	--	2.6	--	ND	ND	--	ND
	ug/L	11/19/07	1	ND	--	ND	0.52	--	--	ND	ND	--	3.1	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	4.3	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	4.0	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	4.6	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.8	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	0.89 J	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	2.3	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	1.7	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	1.6	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	1.7 J	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Chlorobenzene	ug/L	9/19/94	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
NC 2L= 50 ug/L	ug/L	12/2/94	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	9/3/96	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/96	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/99	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	--
	ug/L	7/8/99	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/15/99	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/27/00	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/4/01	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/3/01	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/02	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/16/02	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	--	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	1	ND	--	ND	1 J	--	--	ND	ND	ND	ND	ND	--	ND	--	ND
	ug/L	6/29/04	1	ND	--	ND	ND	--	--	ND	ND	ND	ND	ND	--	ND	--	ND
	ug/L	12/20/04	1	ND	--	ND	1.2	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/05	1	ND	--	ND	1.4	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	1.6	--	--	ND	ND	--	0.73 J	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	--	--	ND	ND	--	ND
	ug/L	5/30/07	3	ND	--	ND	ND	--	--	ND	ND	--	1.6 J	--	ND	ND	--	ND
	ug/L	11/19/07	3	ND	--	ND	0.71	--	--	ND	ND	--	0.66	--	ND	ND	--	ND
	ug/L	5/19/08	3	--	ND	ND	--	ND	--	ND	ND	--	0.73	--	ND	ND	--	ND
	ug/L	11/19/08	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	--	ND
	ug/L	6/30/09	3	--	ND	ND	--	0.41 J	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/30/09	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	3	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
1,4-Dichlorobenzene	ug/L	12/8/03	1	ND	--	ND	0.87 J	--	--	ND	ND	ND	--	ND	--	ND	--	ND
NC 2L=6 ug/L	ug/L	6/28/04	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	2.5	--	ND	ND	--	ND
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	2.5	--	ND	ND	--	ND
	ug/L	12/5/05	1	ND	--	ND	1.0	--	--	ND	ND	--	3.5	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	1.2	--	--	ND	ND	--	3.6	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	4.4	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	3.4	--	ND	ND	--	ND
	ug/L	11/19/07	1	ND	--	ND	ND	--	--	ND	ND	--	3.7	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	4.6	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.3 J	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	2.2 J	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	0.77 J	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	0.65 J	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	0.92 J	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
1,1-Dichloroethane	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
NC 2L= 6 ug/L	ug/L	6/28/04	5	ND	--	ND	ND	--	--	ND	ND	--	3.7 J	--	ND	ND	--	ND
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	4.4	--	ND	ND	--	ND
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	5.3	--	ND	ND	--	ND
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	4.3	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	4.5	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	4.2	--	ND	ND	--	ND
	ug/L	5/30/07	5	ND	--	ND	ND	--	--	ND	ND	--	3.6 J	--	ND	ND	--	ND
	ug/L	11/19/07	5	ND	--	ND	ND	--	--	ND	ND	--	5.6	--	ND	ND	--	ND
	ug/L	5/19/08	5	--	ND	ND	--	ND	--	ND	ND	--	4.2	--	ND	ND	--	ND
	ug/L	11/19/08	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	9.8	ND
	ug/L	6/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	7.8	ND
	ug/L	11/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	4.2 J	ND
	ug/L	5/20/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.6 J	ND
	ug/L	11/19/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	5.3	ND
	ug/L	5/19/11	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	3.2 J	ND
	ug/L	11/28/11	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	3.1 J	ND
	ug/L	5/23/12	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
cis-1,2-dichloroethene	ug/L	9/22/94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NC 2L= 70 ug/L	ug/L	12/2/94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	2/7/95	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/96	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	9/3/96	--	--	--	--	1.0	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/13/96	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	2	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/7/99	5	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	ND
	ug/L	7/8/99	5	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/6/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	ND
	ug/L	12/13/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	ND
	ug/L	6/4/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/3/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/10/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/16/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/28/04	5	ND	--	ND	ND	--	--	ND	ND	--	46	--	ND	ND	--	ND
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	45	--	ND	ND	--	ND
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	90	--	ND	ND	--	ND
	ug/L	12/5/05	1	ND	--	1.1	ND	--	--	ND	ND	--	68	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	97	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	78	--	ND	ND	--	ND
	ug/L	5/30/07	5	ND	--	ND	ND	--	--	ND	ND	--	89	--	ND	ND	--	ND
	ug/L	11/19/07	5	ND	--	0.62	ND	--	--	ND	ND	--	98	--	ND	ND	--	ND
	ug/L	5/19/08	5	--	ND	ND	--	ND	--	ND	ND	--	140	--	ND	ND	--	ND
	ug/L	11/19/08	5	--	ND	0.84 J	--	ND	--	ND	ND	--	--	--	ND	ND	370	ND
	ug/L	6/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	370	ND
	ug/L	11/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	190	ND
	ug/L	5/20/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	86	ND
	ug/L	11/19/10	5	--	ND	1.4 J	--	ND	--	ND	ND	--	--	--	ND	ND	210	ND
	ug/L	5/19/11	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	110	ND
	ug/L	11/28/11	5	--	ND	3.7 J	--	ND	--	ND	ND	--	--	--	--	--	140	ND
	ug/L	5/23/12	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	200	ND
trans-1,2-Dichloroethene	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
NC 2L= 100 ug/L	ug/L	6/28/04	5	ND	--	ND	ND	--	--	ND	ND	--	2.6 J	--	ND	ND	--	ND
	ug/L	12/20/04	2	ND	--	ND	ND	--	--	ND	ND	--	3.5	--	ND	ND	--	ND
	ug/L	6/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	4.4	--	ND	ND	--	ND
	ug/L	12/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	3.8	--	ND	ND	--	ND
	ug/L	6/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	5.1	--	ND	ND	--	ND
	ug/L	12/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	4.5	--	ND	ND	--	ND
	ug/L	5/30/07	5	ND	--	ND	ND	--	--	ND	ND	--	3.7 J	--	ND	ND	--	ND
	ug/L	11/19/07	5	ND	--	ND	ND	--	--	ND	ND	--	5.9	--	ND	ND	--	ND
	ug/L	5/19/08	5	--	ND	ND	--	ND	--	ND	ND	--	5.7	--	ND	ND	--	ND
	ug/L	11/19/08	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	12.0	ND
	ug/L	6/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	9.7	ND
	ug/L	11/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	4.7 J	ND
	ug/L	5/20/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.8 J	ND
	ug/L	11/19/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	4.9 J	ND
	ug/L	5/19/11	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	4.2 J	ND
	ug/L	11/28/11	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	3.4 J	ND
	ug/L	5/23/12	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	4.4 J	ND
1,2-Dichloropropane	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
NC 2L= 0.6 ug/L	ug/L	6/28/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	1.8	--	ND	ND	--	ND
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	2.4	--	ND	ND	--	ND
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	2.4	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	3.5	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	2.3	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	2.0	--	ND	ND	--	ND
	ug/L	11/19/07	1	ND	--	ND	ND	--	--	ND	ND	--	2.8	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	3.3	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	11.0	ND
	ug/L	6/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	9.4	ND
	ug/L	11/30/09	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	4.7	ND
	ug/L	5/20/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.9	ND
	ug/L	11/19/10	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	5.6	ND
	ug/L	5/19/11	5	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	2.2	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	4.0	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	4.5	ND
Ethylbenzene	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	ND	--	--	ND	ND	--	ND
NC 2L = 600 ug/L	ug/L	11/19/07	1	0.38	--	0.6	0.48	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Methylene Chloride	ug/L	9/22/94	--	--	--	--	--	--	--	--	--	--	--	14.6	--	ND	--	--
NC 2L= 5 ug/L	ug/L	12/2/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/7/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/13/96	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/18/97	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	5	ND	--	ND	ND	--	ND	--	22	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	5	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/7/99	5	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	ND
	ug/L	7/8/99	5	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/6/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	ND
	ug/L	12/22/00	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/4/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/3/01	5	77	--	92	66	--	--	ND	68	91	--	68	--	66	--	ND
	ug/L	6/10/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/16/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/28/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/20/04	2	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	1	0.42	--	0.47	0.046	--	--	ND	ND	--	ND	--	ND	ND	--	0.49
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
Tetrachloroethene	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	1.9	--	ND	ND	--	ND
NC 2L= 0.7 ug/L	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	1.9	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	0.55 J	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	0.64 J	--	ND	ND	--	ND
	ug/L	11/19/07	1	ND	--	ND	ND	--	--	ND	ND	--	0.46	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	1.8	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	2.6 J	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	0.60 J	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	0.42 J	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Toluene	ug/L	9/19/94	--	--	--	--	--	--	--	--	--	--	--	ND	--	ND	--	--
NC 2L= 600 ug/L	ug/L	12/2/94	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	2/7/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	3/13/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/1/95	5	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	6/10/96	1	ND	--	ND	ND	--	1.9 B	--	ND	ND	--	ND	--	ND	--	--
	ug/L	11/12/96	1	ND	--	ND	1.7	--	1.2	--	ND	ND	--	1.2	--	ND	--	--
	ug/L	3/18/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	10/2/97	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	5/26/98	1	ND	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	--	--
	ug/L	12/1/98	1	ND	--	ND	ND	--	--	--	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/7/99	5	ND	--	ND	ND	--	--	--	ND	--	--	ND	--	ND	--	ND
	ug/L	7/8/99	5	--	--	--	--	--	--	ND	--	ND	--	--	--	--	--	--
	ug/L	12/15/99	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/6/00	5	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	ND
	ug/L	12/22/00	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/4/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/3/01	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/10/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/16/02	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/9/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
	ug/L	6/29/04	5	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/20/04	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/5/05	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	6/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	12/5/06	1	ND	--	ND	ND	--	--	ND	ND	--	1.2	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	0.33 J
	ug/L	11/19/07	1	ND	--	0.37	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	ND	--	0.45	ND	--	0.66
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	ND	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
Trichloroethene	ug/L	12/8/03	5	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
NC 2L= 3 ug/L	ug/L	6/28/04	5	ND	--	ND	ND	--	--	ND	ND	--	3.4 J	--	ND	ND	--	ND
	ug/L	12/20/04	2	ND	--	ND	ND	--	--	ND	ND	--	3.5	--	ND	ND	--	ND
	ug/L	6/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	4.7	--	ND	ND	--	ND
	ug/L	12/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	3.9	--	ND	ND	--	ND
	ug/L	6/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	2.9	--	ND	ND	--	ND
	ug/L	12/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	2.2	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	2.6	--	ND	ND	--	ND
	ug/L	11/19/07	1	ND	--	ND	ND	--	--	ND	ND	--	3.1	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	1.6	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	30.0	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	38	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	14	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	6.9	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	9.5	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	12.0	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	5.9	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	9.8	ND
Vinyl Chloride	ug/L	12/8/03	10	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	ND
NC 2L= 0.03 ug/L	ug/L	6/28/04	10	ND	--	ND	ND	--	--	ND	ND	--	9.9 J	--	ND	ND	--	ND
	ug/L	12/20/04	2	ND	--	ND	ND	--	--	ND	ND	--	12	--	ND	ND	--	ND
	ug/L	6/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	16	--	ND	ND	--	ND
	ug/L	12/5/05	2	ND	--	ND	ND	--	--	ND	ND	--	13	--	ND	ND	--	ND
	ug/L	6/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	16	--	ND	ND	--	ND
	ug/L	12/5/06	2	ND	--	ND	ND	--	--	ND	ND	--	15	--	ND	ND	--	ND
	ug/L	5/30/07	1	ND	--	ND	ND	--	--	ND	ND	--	14	--	ND	ND	--	ND
	ug/L	11/19/07	1	ND	--	ND	ND	--	--	ND	ND	--	23	--	ND	ND	--	ND
	ug/L	5/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	21	--	ND	ND	--	ND
	ug/L	11/19/08	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	25	ND
	ug/L	6/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	23	ND
	ug/L	11/30/09	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	17	ND
	ug/L	5/20/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	6.8	ND
	ug/L	11/19/10	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	ND	ND	17	ND
	ug/L	5/19/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	12	ND
	ug/L	11/28/11	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	9.9	ND
	ug/L	5/23/12	1	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	15	ND
Diethylphthalate	ug/L	5/30/07	10	ND	--	ND	ND	--	--	ND	ND	ND	--	--	ND	ND	--	ND
NC2L = 6000 ug/L	ug/L	11/19/07	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/19/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	6/30/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/30/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/20/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/19/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/23/12	6000	--	ND	ND	--	6.6 B	--	12 B	ND	--	--	--	--	--	ND	8.8 J

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient													Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Bis(2-ethylhexyl)phthalate	ug/L	5/30/07	15	3.0 J	--	1.2 J	1.1 J	--	--	1.2 J	ND	--	ND	--	ND	ND	--	ND
NC 2L= 3 ug/L	ug/L	11/19/07	15	ND	--	--	ND	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/08	10	--	ND	ND	--	ND	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	10	--	ND	--	--	--	--	--	--	--	--	--	ND	--	--	--
	ug/L	6/30/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/30/09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/20/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/19/10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/28/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/23/12	15	--	ND	ND	--	ND	--	ND	7.7 J	--	--	--	--	--	ND	ND
Verification Event	ug/L	6/15/12	15	--	--	--	--	--	--	--	ND	--	--	--	--	--	--	ND
Cyanide	ug/L	6/7/99	2	ND	--	2	ND	--	--	--	ND	--	--	ND	--	ND	--	--
NC 2L = 70 ug/L	ug/L	7/8/99	2	--	--	--	--	--	--	ND	--	3	--	--	--	--	--	--
	ug/L	12/15/99	2	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/6/00	2	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	--
	ug/L	12/27/00	2	ND	--	ND	ND	--	--	ND	ND	5	--	ND	--	ND	--	--
	ug/L	6/4/01	2	ND	--	ND	ND	--	--	ND	ND	3	--	ND	--	ND	--	--
	ug/L	12/3/01	2	ND	--	ND	ND	--	--	ND	ND	--	--	ND	--	ND	--	--
	ug/L	6/10/02	2	ND	--	ND	ND	--	--	ND	ND	--	--	3	--	ND	--	--
	ug/L	12/16/02	2	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	2	ND	--	ND	5	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	12/8/03	2	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/29/04	2	ND	--	ND	ND	--	--	ND	ND	--	ND	--	2	ND	--	--
	ug/L	9/19/04	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	12/20/04	2	ND	--	ND	17	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	2	2.3	--	ND	ND	--	--	ND	ND	--	ND	--	ND	2.6	--	--
	ug/L	12/5/05	2	5	--	4.3	3.1	--	--	5	5.4	--	2.8	--	5.8	3.7	--	--
	ug/L	6/5/06	2	3.6	--	1.9 J	1.9 J	--	--	1.8 J	2.5	--	1.6 J	--	ND	2.2	--	--
	ug/L	12/5/06	2	1.9 J	--	4.6	2.5	--	--	5.1	4.9	--	ND	--	2.1	5.6	--	--
	ug/L	5/30/07	10	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/08	10	--	ND	ND	--	2.5	--	ND	1.3	--	ND	--	ND	ND	--	ND
	ug/L	11/19/08	10	--	ND	--	--	--	--	--	--	--	--	--	ND	--	--	--
	ug/L	6/30/09	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/30/09	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/20/10	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/19/10	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/11	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/28/11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/23/12	10	--	ND	ND	--	ND	--	ND	ND	--	--	--	--	--	ND	ND
Sulfide	ug/L	6/7/99	200	1300	--	ND	200	--	--	--	300	--	--	200	--	200	--	--
(No NC 2L)	ug/L	7/8/99	--	--	--	--	--	--	--	300	--	500	--	--	--	--	--	--
	ug/L	12/15/99	--	1400	--	600	1800	--	--	900	400	600	--	200	--	200	--	--
	ug/L	6/6/00	100	400	--	100	300	--	--	600	500	--	--	ND	--	100	--	--
	ug/L	12/27/00	--	400	--	300	720	--	--	290	520	880	--	350	--	260	--	--
	ug/L	6/4/01	--	600	--	400	200	--	--	400	200	600	--	300	--	300	--	--
	ug/L	12/3/01	400	ND	--	ND	ND	--	--	ND	ND	--	--	500	--	ND	--	--
	ug/L	6/10/02	200	ND	--	ND	1000	--	--	ND	ND	--	--	ND	--	ND	--	--
	ug/L	12/16/02	200	ND	--	300	ND	--	--	ND	ND	ND	--	ND	--	ND	--	--
	ug/L	6/9/03	200	ND	--	ND	ND	--	--	ND	ND	ND	--	ND	--	1600	--	--
	ug/L	12/8/03	2000	2000	--	ND	16000	--	--	12000	ND	3800	--	ND	--	ND	--	--
	ug/L	6/29/04	2000	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	9/19/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	12/20/04	2000	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/05	2000	13000	--	ND	ND	--	--	12000	ND	--	12000	--	14000	15000	--	--
	ug/L	12/5/05	2000	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	--
	ug/L	6/5/06	2000	ND	--	ND	ND	--	--	ND	11000	--	ND	--	ND	ND	--	--
	ug/L	12/5/06	--	16000	--	16000	1800 J	--	--	17000	14000	--	5200	--	15000	12000	--	--
	ug/L	5/30/07	1000	ND	--	ND	ND	--	--	ND	ND	--	ND	--	ND	ND	--	ND
	ug/L	11/19/07	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/08	1000	--	27	ND	--	36	--	ND	21	--	18	--	22	ND	--	ND
	ug/L	11/19/08	1000	--	5.4	--	--	--	--	--	--	--	--	--	ND	--	--	ND
	ug/L	6/30/09	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/30/09	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/20/10	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/19/10	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/19/11	1000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	11/28/11	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ug/L	5/23/12	1000	--	ND	ND	--	120 J	--	ND	ND	--	--	--	--	--	ND	ND

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
pH (field)	S.U.	5/26/98	--	7.30	--	6.00	6.20	--	7.4	--	7.20	6.50	--	7.00	--	7.30	--	--
	S.U.	12/1/98	--	7.10	--	5.00	6.00	--	--	--	6.70	6.60	--	5.90	--	6.50	--	--
	S.U.	6/7/99	--	6.98	--	6.19	5.99	--	--	--	6.70	--	--	6.45	--	5.98	--	--
	S.U.	7/8/99	--	--	--	--	--	--	--	7.29	--	6.36	--	--	--	--	--	--
	S.U.	12/13/99	--	7.21	--	5.37	5.72	--	--	6.96	6.88	--	--	6.68	--	5.96	--	--
	S.U.	6/6/00	--	7.75	--	5.80	6.14	--	--	7.31	7.15	dry	--	7.04	--	6.38	--	--
	S.U.	12/11/00	--	7.92	--	5.82	6.11	--	--	7.14	7.36	6.47	--	6.94	--	6.36	--	--
	S.U.	6/4/01	--	7.75	--	5.65	6.21	--	--	7.02	7.27	6.43	--	6.39	--	6.60	--	--
	S.U.	12/3/01	--	7.64	--	5.45	5.92	--	--	7.04	7.18	6.40	--	6.27	--	6.40	--	--
	S.U.	6/10/02	--	7.71	--	5.81	5.95	--	--	6.74	6.07	6.50	--	7.3	--	6.51	--	--
	S.U.	12/16/02	--	7.84	--	5.67	6.20	--	--	7.27	7.60	5.83	--	7.21	--	6.24	--	--
	S.U.	6/9/03	--	7.91	--	5.44	6.08	--	--	7.08	7.23	5.78	--	7.18	--	6.46	--	--
	S.U.	12/9/03	--	8.71	--	5.9	6.87	--	--	7.67	--	6.76	--	8.01	--	7.07	--	--
	S.U.	6/24/04	--	7.76	--	5.78	6.12	--	--	6.96	7.30	--	5.84	--	7.51	6.37	--	--
	S.U.	12/20/04	--	7.78	--	7.39	7.70	--	--	7.52	7.68	--	7.71	--	7.85	7.58	--	--
	S.U.	6/8/05	--	7.76	--	5.68	6.20	--	--	6.94	7.23	--	5.71	--	7.79	6.52	--	--
	S.U.	12/7/05	--	7.73	--	5.76	6.08	--	--	7.13	7.16	--	5.63	--	7.74	6.09	--	--
	S.U.	6/5/06	--	7.63	--	5.93	6.13	--	--	7.01	7.19	--	5.81	--	7.78	6.76	--	--
	S.U.	12/5/06	--	7.62	--	5.85	6.23	--	--	7.06	6.95	--	5.65	--	7.73	6.53	--	--
	S.U.	5/30/07	--	7.07	--	6.12	7.17	--	--	6.67	8.57	--	6.52	--	7.23	5.55	--	--
	S.U.	11/19/07	--	6.21	--	5.27	6.19	--	--	7.51	6.99	--	5.79	--	7.3	6.92	--	--
	S.U.	5/19/08	--	--	6.40	5.21	--	6.27	--	6.85	7.11	--	5.62	--	7.78	6.14	--	--
	S.U.	11/19/08	--	--	4.82	5.74	--	6.4	--	7.05	7.18	--	--	--	7.87	6.19	5.87	--
	S.U.	6/30/09	--	--	4.63	5.76	--	6.13	--	6.82	6.94	--	--	--	7.52	6.06	5.54	--
	S.U.	11/30/09	--	--	4.77	5.38	--	7.06	--	7.01	7.10	--	--	--	7.72	6.04	5.69	--
	S.U.	5/20/10	--	--	4.75	5.29	--	6.63	--	6.69	7.00	--	--	--	7.62	5.92	5.57	--
	S.U.	11/19/10	--	--	4.53	5.64	--	6.73	--	6.59	6.83	--	--	--	7.42	6.01	5.45	--
	S.U.	5/19/11	--	--	4.72	5.35	--	6.6	--	6.75	6.83	--	--	--	--	--	5.53	--
	S.U.	11/28/11	--	--	4.81	5.35	--	6.66	--	6.73	6.77	--	--	--	--	--	5.54	--
	S.U.	5/23/12	--	--	5.16	5.44	--	8.01	--	8.00	7.43	--	--	--	--	--	6.20	--
Verification Event	S.U.	6/15/12	--	--	--	--	--	--	--	--	6.80	--	--	--	--	--	--	--
Conductivity (field)	µS/cm	5/26/98	--	454	--	80	1200	--	460	--	383	518	--	338	--	348	--	--
	µS/cm	12/1/98	--	394	--	59	1660	--	--	--	388	456	--	305	--	406	--	--
	µS/cm	6/7/99	--	447	--	95.1	1511	--	--	--	467	--	--	359	--	490	--	--
	µS/cm	7/8/99	--	--	--	--	--	--	--	608	--	439	--	--	--	--	--	--
	µS/cm	12/13/99	--	246	--	81.4	1564	--	--	692	487	--	--	341	--	426	--	--
	µS/cm	6/6/00	--	461	--	85.8	1626	--	--	726	474	dry	--	385	--	479	--	--
	µS/cm	12/11/00	--	449	--	103	1239	--	--	463	445	559	--	367	--	460	--	--
	µS/cm	6/4/01	--	432	--	66.5	1240	--	--	539	366	365	--	305	--	334	--	--
	µS/cm	12/3/01	--	432	--	107	1389	--	--	534	437.1	561	--	309	--	422	--	--
	µS/cm	6/10/02	--	425	--	78.0	1545	--	--	625	444	450	--	308	--	430	--	--
	µS/cm	12/16/02	--	460	--	84.0	1601	--	--	668	529	344	--	343	--	242	--	--
	µS/cm	6/9/03	--	286	--	78.0	1713	--	--	652	543	267	--	322	--	386	--	--
	µS/cm	12/8/03	--	390	--	103	1442	--	--	645	--	220	--	325	--	401	--	--
	µS/cm	6/28/04	--	449	--	92.0	1642	--	--	630	471	--	467	--	340	379	--	--
	µS/cm	12/20/04	--	489	--	87.0	1660	--	--	689	583	--	553	--	431	440	--	--
	µS/cm	6/8/05	--	429	--	768	1343	--	--	575	467	--	443	--	349	386	--	--
	µS/cm	12/8/05	--	408	--	171	1712	--	--	708	623	--	590	--	450	388	--	--
	µS/cm	6/5/06	--	469	--	66	1397	--	--	604	535	--	488	--	348	237	--	--
	µS/cm	12/5/06	--	545	--	76	1998	--	--	731	724	--	665	--	437	269	--	--
	µS/cm	5/30/07	--	503	--	67	192	--	--	720	748	--	621	--	427	302	--	--
	µS/cm	11/19/07	--	240	--	163	1800	--	--	587	639	--	518	--	431	402	--	--
	µS/cm	5/19/08	--	--	50	70	--	1650	--	770	770	--	700	--	445	146	--	--
	µS/cm	11/19/08	--	--	53	104	--	1584	--	711	846	--	--	--	423	231	654	--
	µS/cm	6/30/09	--	--	47	86	--	1577	--	652	774	--	--	--	381	250	525	--
	µS/cm	11/30/09	--	--	45	50	--	895	--	555	715	--	--	--	328	138	244	--
	µS/cm	5/20/10	--	--	51	61	--	1269	--	704	832	--	--	--	401	142	173	--
	µS/cm	11/19/10	--	--	49	167	--	1055	--	671	809	--	--	--	334	293	373	--
	µS/cm	5/19/11	--	--	49	54	--	920	--	501	637	--	--	--	--	--	223	--
	µS/cm	11/28/11	--	--	65	329	--	1383	--	710	1013	--	--	--	--	--	389	--
	µS/cm	5/23/12	--	--	53	82	--	1413	--	640	918	--	--	--	--	--	614	--
Verification Event	µS/cm	6/15/12	--	--	--	--	--	--	--	--	956	--	--	--	--	--	--	--

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Temperature (field)	°C	5/26/98	--	15.9	--	14.6	14.4	--	14.3	--	15.3	16	--	14.8	--	15.2	--	--
	°C	12/1/98	--	17.3	--	16	15	--	--	--	16.5	15.7	--	12	--	16.8	--	--
	°C	6/7/99	--	18.0	--	15.1	15.8	--	--	--	15.3	--	--	16.8	--	16.2	--	--
	°C	7/8/99	--	--	--	--	--	--	--	17.3	--	16.2	--	--	--	--	--	--
	°C	12/13/99	--	15.1	--	13.7	17.9	--	--	16.1	17.5	--	--	11.5	--	16.3	--	--
	°C	6/6/00	--	15.4	--	17.4	14.8	--	--	16.2	15.4	dry	--	15.0	--	16.5	--	--
	°C	12/11/00	--	13.8	--	14.2	15.3	--	--	12..6	16.0	14.4	--	14.8	--	14.2	--	--
	°C	6/4/01	--	16.8	--	15.1	14.3	--	--	13.6	14.7	14.7	--	14.7	--	15.7	--	--
	°C	12/3/01	--	15.1	--	14.4	15.7	--	--	15.8	19.4	15.3	--	15.1	--	15.7	--	--
	°C	6/10/02	--	18.2	--	19.0	14.8	--	--	15.8	15.2	17.0	--	16.4	--	16.3	--	--
	°C	12/16/02	--	14.6	--	12.6	14.9	--	--	14.1	15.9	14.0	--	11.3	--	14.1	--	--
	°C	6/9/03	--	21.9	--	15.6	15.1	--	--	16.4	14.8	16.3	--	14.4	--	16.6	--	--
	°C	12/9/03	--	15.0	--	14.8	15.9	--	--	14.0	--	15.4	--	16.1	--	14.6	--	--
	°C	6/24/04	--	17.5	--	17.0	14.8	--	--	16.3	15.3	--	14.65	--	14.4	16.8	--	--
	°C	12/20/04	--	13.08	--	12.57	15.30	--	--	13.48	14.59	--	15.72	--	14.62	13.92	--	--
	°C	6/8/05	--	17.14	--	16.62	14.95	--	--	18.58	15.60	--	14.5	--	15.08	15.69	--	--
	°C	12/7/05	--	14.07	--	14.40	15.10	--	--	13.36	15.05	--	15.86	--	14.51	14.53	--	--
	°C	6/5/06	--	16.24	--	15.44	14.91	--	--	15.18	17.50	--	14.43	--	14.58	15.63	--	--
	°C	12/5/06	--	14.01	--	14.12	15.46	--	--	14.91	16.21	--	16.1	--	14.04	14.15	--	--
	°C	5/30/07	--	17.81	--	16.10	15.41	--	--	20.39	20.52	--	16.53	--	17.11	19.31	--	--
	°C	11/19/07	--	14.54	--	16.44	16.29	--	--	16.48	18.07	--	16.6	--	15.13	17.12	--	--
	°C	5/19/08	--	--	16.20	14.41	--	14.2	--	14.7	14.46	--	14.41	--	14.9	14.7	--	--
	°C	11/19/08	--	--	16.60	14.86	--	15.84	--	15.45	17.22	--	--	--	14.84	16.01	15.99	--
	°C	6/30/09	--	--	16.62	17.52	--	15.43	--	17.74	15.96	--	--	--	15.44	16.38	16.57	--
	°C	11/30/09	--	--	18.16	15.37	--	15.28	--	15.67	17.00	--	--	--	15.10	15.47	15.65	--
	°C	5/20/10	--	--	15.15	14.24	--	14.28	--	14.51	15.46	--	--	--	14.46	14.27	14.45	--
	°C	11/19/10	--	--	18.45	16.18	--	16.29	--	16.51	17.69	--	--	--	14.91	16.09	16.89	--
	°C	5/19/11	--	--	16.3	14.39	--	13.87	--	14.45	14.17	--	--	--	--	--	14.42	--
	°C	11/28/11	--	--	17.67	16.91	--	16.69	--	17.17	17.38	--	--	--	--	--	16.60	--
	°C	5/23/12	--	--	17.79	15.28	--	16.07	--	16.43	16.39	--	--	--	--	--	15.64	--
Verification Event	°C	6/15/12	--	--	--	--	--	--	--	--	16.07	--	--	--	--	--	--	--
Turbidity (field)	NTU	5/26/98	--	>1000	--	66.2	479	--	46.1	--	118	29.2	--	143	--	73.9	--	--
	NTU	12/1/98	--	585	--	34	>1000	--	--	--	201	12.1	--	105	--	14.7	--	--
	NTU	6/7/99	--	very turbid	--	--	very turbid	--	--	--	125	--	--	70.8	--	172	--	--
	NTU	7/8/99	--	--	--	--	--	--	--	turbid	--	--	--	--	--	--	--	--
	NTU	12/13/99	--	--	--	52.6	1278	--	--	265	107	--	--	122.4	--	127.1	--	--
	NTU	6/6/00	--	105	--	5.74	365	--	--	48.2	686	dry	--	230	--	75	--	--
	NTU	12/11/00	--	>200	--	>200	>200	--	--	51.3	>200	>200	--	--	--	161	--	--
	NTU	6/4/01	--	>1000	--	23.6	>1000	--	--	35	>1000	130	--	36.7	--	130	--	--
	NTU	12/3/01	--	>999	--	14	>999	--	--	11	>999	>999	--	130	--	65	--	--
	NTU	6/10/02	--	600	--	6.61	500	--	--	20	--	--	--	--	--	190	--	--
	NTU	12/16/02	--	>1100	--	12.0	406	--	--	245	130	200	--	130	--	1000	--	--
	NTU	6/9/03	--	106	--	128	510	--	--	45.0	75.0	69.5	--	230	--	275	--	--
	NTU	12/9/03	--	>990	--	110	400	--	--	15.0	--	990	--	>990	--	280	--	--
	NTU	6/4/04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	NTU	12/20/04	--	79.8	--	48	68.4	--	--	3.5	372	--	472	--	--	32.9	--	--
	NTU	6/8/05	--	887	--	5.0	67.0	--	--	8.9	611	--	140	--	275	9.1	--	--
	NTU	12/7/05	--	20	--	63.0	983.0	--	--	1.0	>1000	--	40	--	11	15.0	--	--
	NTU	6/5/06	--	254	--	70.4	102.0	--	--	5.3	>1000	--	383	--	133	100.0	--	--
	NTU	12/5/06	--	280	--	15.8	58.0	--	--	2.8	597	--	64.54	--	45	25.0	--	--
	NTU	5/30/07	--	436	--	0.0	1.8	--	--	0.0	0	--	0	--	>1000	61.8	--	--
	NTU	11/19/07	--	--	--	52	76	--	--	9.3	259	--	85.4	--	233	121.4	--	--
	NTU	5/19/08	--	--	21.5	5.6	--	60.4	--	3.1	6.9	--	15.9	--	3	8.4	--	--
	NTU	11/19/08	--	--	11.3	11.4	--	56.3	--	3.9	7.4	--	--	--	10.9	14.7	124.2	--
	NTU	6/30/09	--	--	7.5	9.2	--	9.9	--	0	3	--	--	--	22	9	98	--
	NTU	11/30/09	--	--	9	22.4	--	13	--	12	10	--	--	--	22.5	10	41.5	--
	NTU	5/20/10	--	--	9.8	9.6	--	8.8	--	0.4	9.6	--	--	--	5.5	14	19.9	--
	NTU	11/19/10	--	--	21	16	--	10.9	--	1.2	3.3	--	--	--	16.7	12.2	9.5	--
	NTU	5/19/11	--	--	18.5	36	--	8.4	--	1.4	11.7	--	--	--	--	--	12	--
	NTU	11/28/11	--	--	86.9	15.1	--	10.9	--	2.89	5.51	--	--	--	--	--	9.47	--
	NTU	5/23/12	--	--	40.0	29.5	--	4.10	--	2.10	63.5	--	--	--	--	--	22.8	--
Verification Event	NTU	6/15/12	--	--	--	--	--	--	--	--	5.84	--	--	--	--	--	--	--
Oxidation Reduction Potential	mV	5/30/07	--	178	--	228	-43.0	--	--	95	--	--	82	--	193	156	--	--
(field)	mV	11/19/07	--	--	--	218	7	--	--	--	-82	--	--	--	-103	--	--	--
	mV	5/19/08	--	--	291	225.1	--	40	--	151	-75.2	--	170.1	--	-45	49	--	--
	mV	11/19/08	--	--	199.3	103.7	--	-92.4	--	40.9	-103.7	--	--	--	-69.5	-33.8	-8.8	--
	mV	6/30/09	--	--	246	154	--	-47.7	--	30.4	-43	--	--	--	55	137	20.8	--
	mV	11/30/09	--	--	238	241	--	-51.8	--	-5.4	-107.9	--	--	--	-109	65.3	8.8	--
	mV	5/20/10	--	--	286.6	262.5	--	-23	--	25.8	-48.7	--	--	--	-23.4	85.7	89.9	--
	mV	11/19/10	--	--	310.2	176	--	-37.3	--	12.7	-76.6	--	--	--	-118.4	16.8	49.7	--
	mV	5/19/11	--	--	194	91	--	-151	--	-9.4	-29.9	--	--	--	--	--	-23	--
	mV	11/28/11	--	--	207.7	138.8	--	4.0	--	79.0	-26.6	--	--	--	--	--	56.1	--
	mV	5/23/12	--	--	243.7	144.5	--	-93.4	--	-35.7	-81.6	--	--	--	--	--	3.6	--
Verification Event	mV	6/15/12	--	--	--	--	--	--	--	--	-337.5	--	--	--	--	--	--	--

Golder Associates

TABLE 4

Summary of Detected Constituents in Groundwater
City of Durham Closed Landfill, Permit #32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upgradient		Downgradient												Blanks
				PZ-6	MW-9R	MW-2	MW-3	MW-3R	MW-4	MW-4R	MW-5	MW-6	MW-6R	MW-7	MW-7R	MW-8	MW-10	
Dissolved Oxygen (field)	mg/L	12/1/01	--	4.70	--	4.00	2.05	--	--	3.90	3.50	2.80	--	5.30	--	2.25	--	--
	mg/L	6/10/02	--	5.28	--	9.08	18.58	--	--	7.00	16.85	4.03	--	4.86	--	5.69	--	--
	mg/L	12/16/02	--	5.50	--	7.92	12.38	--	--	5.99	10.2	8.67	--	6.72	--	3.30	--	--
	mg/L	6/9/03	--	7.65	--	9.58	3.02	--	--	4.63	2.65	9.92	--	5.25	--	3.69	--	--
	mg/L	12/8/03	--	5.90	--	5.00	3.60	--	--	7.90	--	3.60	--	2.10	--	4.30	--	--
	mg/L	6/24/04	--	6.50	--	8.44	2.84	--	--	5.37	2.96	--	5.69	--	5.23	6.20	--	--
	mg/L	12/20/04	--	6.21	--	7.52	3.29	--	--	3.65	3.61	--	4.69	--	4.60	4.63	--	--
	mg/L	6/8/05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	mg/L	6/5/06	--	4.00	--	4.48	4.19	--	--	4.31	3.48	--	2.77	--	2.19	2.69	--	--
	mg/L	12/5/06	--	3.81	--	7.19	3.32	--	--	2.83	-20.00	--	4.06	--	2.40	3.91	--	--
	mg/L	5/30/07	--	2.1	--	2.6	5.7	--	--	4.6	--	--	7.4	--	5.6	2.8	--	--
	mg/L	11/19/07	--	--	--	2.72	0.15	--	--	1.57	0.24	--	0.19	--	0.12	1.18	--	--
	mg/L	5/19/08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	mg/L	11/19/08	--	--	4.89	9.21	--	3.84	--	7.62	0.89	--	--	--	3.48	0.82	3.36	--
	mg/L	6/30/09	--	--	8.5	67.5	--	2.9	--	33.6	6.1	--	--	--	24.6	30	3.3	--
	mg/L	11/30/09	--	--	4.77	8.32	--	2.84	--	0.95	0.23	--	--	--	3.41	0.31	0.34	--
	mg/L	5/20/10	--	--	0.54	8.8	--	0.12	--	0.37	0.19	--	--	--	1.68	0.26	0.49	--
	mg/L	11/19/10	--	--	0.84	3.4	--	2.67	--	2.09	1.82	--	--	--	0.48	0.91	1.91	--
	mg/L	5/19/11	--	--	1.83	6.48	--	0.2	--	0.77	0.09	--	--	--	--	--	0.13	--
	mg/L	11/28/11	--	--	1.93	1.74	--	0.93	--	1.71	0.47	--	--	--	--	--	0.56	--
	mg/L	5/23/12	--	--	1.31	1.67	--	0.61	--	0.49	0.37	--	--	--	--	--	1.29	--
Verification Event	mg/L	6/15/12	--	--	--	--	--	--	--	--	0.67	--	--	--	--	--	--	--

Notes:
mV= millivolts
ND = Not detected above laboratory detection limit
oC = degrees Celsius
J = estimated concentration
B = blank-qualified result
µS/cm= microsiemens per centimeter
-- = no data available
Blanks = field, trip, and method blanks
Shaded = Concentrations above the NC 2L or Solid Waste Section Groundwater Protection Standards have been shaded
Sample data from September 1994 through December 1998 compiled and reported by Malcolm Pirnie, Inc.
Sample data from June 1999 through December 2006 collected, compiled and reported by Weston Solutions, Inc.
Sample data from May 2007, November 2011 through current collected, compiled, and reported by Golder Associates NC, Inc.
Sample data collected from November 2007 to May 2011 collected, complied, and reported by S&ME.
Laboratory data prior to November 2011 was not validated by Golder Associates.
SWS Reporting Limit = NCPQL from 09/14/94 through 12/05/06 and NCSWSL for 05/30/07 and later
* = EPA Maximum Contaminant Level Secondary Standard

TABLE 5

Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream		Downstream						Blanks	
				S-4		S-1		S-2		S-3			
Antimony	ug/L	12/20/04	5	ND		ND		ND		ND		--	
(No Standard)	ug/L	06/05/05	5	ND		ND		5		ND		--	
	ug/L	12/07/05	5	ND		ND		ND		ND		--	
	ug/L	06/05/06	5	ND		ND		dry		ND		--	
	ug/L	12/05/06	5	ND		ND		ND		ND		--	
	ug/L	05/30/07	6	ND		dry		dry		ND		ND	
	ug/L	11/30/07	6	0.94	J	dry		dry		0.97	J	ND	
	ug/L	05/19/08	6	0.40	J	ND		0.24	J	0.36	J	ND	
	ug/L	11/19/08	6	0.76	B	0.59	B	0.7	B	0.76	B	0.53	J
	ug/L	06/30/09	6	ND		dry		dry		ND		ND	
	ug/L	11/30/09	6	0.212	J	ND		ND		ND		ND	
	ug/L	05/20/10	6	0.881	J	ND		ND		ND		ND	
	ug/L	11/19/10	6	ND		ND		ND		ND		ND	
	ug/L	05/19/11	6	0.271	J	ND		ND		ND		ND	
	ug/L	11/28/11	6	ND		dry		ND		ND		ND	
	ug/L	5/23/12	6	0.398	J	ND		0.269	J	0.378	J	ND	
Arsenic	ug/L	05/30/07	10	ND		dry		dry		ND		3.8	J
SW Standard = 10 ug/L	ug/L	11/30/07	10	1.5	B	dry		dry		1.7	B	0.89	J
	ug/L	05/19/08	10	ND		ND		1.2	J	ND		ND	
	ug/L	11/19/08	10	1.2	J	1.4	J	1.2	J	1	J	ND	
	ug/L	06/30/09	10	ND		dry		dry		ND		4.3	J
	ug/L	11/30/09	10	ND		ND		ND		ND		ND	
	ug/L	05/20/10	10	ND		ND		ND		ND		3.22	J
	ug/L	11/19/10	10	2.94	J	3.35	J	ND		ND		ND	
	ug/L	05/19/11	10	ND		5.0	J	ND		ND		ND	
	ug/L	11/28/11	10	ND		dry		4.77	B	ND		4.35	J
	ug/L	5/23/12	10	ND		ND		ND		ND		ND	
Barium	ug/L	02/07/95	--	27		69		82		39		--	
SW Standard = 1000 ug/L	ug/L	03/13/95	25	51		61		59		ND		--	
	ug/L	06/10/96	25	42		86		75		ND		--	
	ug/L	11/12/96	25	32		37		59		ND		--	
	ug/L	03/18/97	--	44		126		41		27		--	
	ug/L	10/02/97	25	92		162		62		ND		--	
	ug/L	05/26/98	--	35		94		72		106		--	
	ug/L	12/01/98	--	47		dry		dry		25		--	
	ug/L	06/07/99	25	ND		dry		dry		ND		--	
	ug/L	12/01/99	--	54		174		85		96		--	
	ug/L	06/06/00	--	73		dry		dry		dry		--	
	ug/L	12/22/00	--	66		dry		dry		dry		--	
	ug/L	06/04/01	25	ND		97		80		ND		--	
	ug/L	12/03/01	25	ND		dry		dry		ND		--	
	ug/L	06/10/02	25	ND		dry		dry		ND		--	
	ug/L	12/16/02	--	76		58		64		29		--	
	ug/L	06/10/03	25	ND		111		93		28		--	
	ug/L	12/08/03	25	14		59		62		ND		--	
	ug/L	06/29/04	25	ND		83		49		ND		--	
	ug/L	12/20/04	25	ND		42		71		ND		--	
	ug/L	06/05/05	25	ND		73		6		28		--	
	ug/L	12/07/05	--	39		59		52		46		--	
	ug/L	06/05/06	25	ND		126		dry		ND		--	
	ug/L	12/05/06	--	28		106		79		25		--	
	ug/L	05/30/07	100	8.1	J	dry		dry		7.6	J	ND	
	ug/L	11/30/07	100	3.2	J	dry		dry		9.1	J	ND	
	ug/L	05/19/08	100	17	J	64	J	66	J	18	J	ND	
	ug/L	11/19/08	100	13	J	96	J	64	J	11	J	ND	
	ug/L	06/30/09	100	9.78	J	dry		dry		8.29	J	ND	
	ug/L	11/30/09	100	10.5	J	70.1	J	61.4	J	14.1	J	ND	
	ug/L	05/20/10	100	19.6	J	64.1	J	76	J	19.7	J	ND	
	ug/L	11/19/10	100	6.12	J	94.8	J	43.9	J	4.59	J	ND	
	ug/L	05/19/11	100	14.3	J	108		65.2	J	15.5	J	1.14	J
	ug/L	11/28/11	100	63.3	J	dry		72.7	J	8.82	J	ND	
	ug/L	5/23/12	100	34.4	J	96.5	J	70.7	J	38.6	J	ND	
Beryllium	ug/L	05/30/07	1	ND		dry		dry		ND		ND	
SW Standard = 6.5 ug/L #	ug/L	11/30/07	1	0.4	J	dry		dry		0.43	J	ND	
	ug/L	05/19/08	1	ND		ND		0.34	J	ND		ND	
	ug/L	11/19/08	1	ND		0.35	J	ND		ND		ND	
	ug/L	06/30/09	1	ND		dry		dry		ND		ND	
	ug/L	11/30/09	1	ND		ND		ND		ND		0.121	J
	ug/L	05/20/10	1	ND		ND		ND		ND		ND	
	ug/L	11/19/10	1	ND		ND		ND		ND		ND	
	ug/L	05/19/11	1	ND		ND		1.35	J	ND		ND	
	ug/L	11/28/11	1	ND		dry		ND		ND		ND	
	ug/L	5/23/12	1	ND		0.190	J	0.217	J	ND		ND	

TABLE 5

Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream		Downstream						Blanks	
				S-4		S-1		S-2		S-3			
Chromium	ug/L	02/07/95	5	ND		ND		ND		ND		--	
SW Standard = 50 ug/L #	ug/L	03/13/95	5	ND		ND		ND		ND		--	
	ug/L	06/10/96	5	ND		ND		ND		ND		--	
	ug/L	11/12/96	5	ND		ND		ND		ND		--	
	ug/L	03/18/97	5	ND		ND		ND		ND		--	
	ug/L	10/02/97	5	ND		5.9		ND		ND		--	
	ug/L	05/26/98	5	ND		5		ND		ND		--	
	ug/L	12/01/98	5	ND		dry		dry		ND		--	
	ug/L	06/07/99	5	ND		dry		dry		ND		--	
	ug/L	12/01/99	--	7		16		8		8		--	
	ug/L	06/06/00	5	ND		dry		dry		dry		--	
	ug/L	12/22/00	5	ND		dry		dry		dry		--	
	ug/L	06/04/01	5	ND		ND		ND		ND		--	
	ug/L	12/03/01	5	ND		dry		dry		ND		--	
	ug/L	06/10/02	5	ND		dry		dry		ND		--	
	ug/L	12/16/02	5	ND		ND		ND		ND		--	
	ug/L	06/10/03	5	ND		5		ND		ND		--	
	ug/L	12/08/03	5	ND		5		ND		ND		--	
	ug/L	06/29/04	5	ND		ND		ND		ND		--	
	ug/L	12/20/04	5	5		ND		ND		ND		--	
	ug/L	06/05/05	5	ND		ND		ND		5		--	
	ug/L	12/07/05	5	5		ND		ND		9		--	
	ug/L	06/05/06	5	ND		ND		dry		ND		--	
	ug/L	12/05/06	5	ND		ND		ND		ND		--	
	ug/L	05/30/07	10	ND		dry		dry		ND		ND	
	ug/L	11/30/07	10	ND		dry		dry		ND		ND	
	ug/L	05/19/08	10	ND		ND		ND		ND		ND	
	ug/L	11/19/08	10	ND		ND		3.0	J	ND		ND	
	ug/L	06/30/09	10	ND		dry		dry		1.1	J	ND	
	ug/L	11/30/09	10	ND		2.64	J	ND		ND		ND	
	ug/L	05/20/10	10	1.18	J	3.03	J	4.65	J	ND		ND	
	ug/L	11/19/10	10	ND		ND		ND		ND		ND	
	ug/L	05/19/11	10	ND		1.44	J	2.95	J	ND		ND	
	ug/L	11/28/11	10	ND		dry		ND		ND		ND	
	ug/L	5/23/12	10	3.73	J	5.48	J	6.08	J	3.57	J	ND	
Cobalt	ug/L	05/30/07	10	ND		dry		dry		ND		ND	
(No Standard)	ug/L	11/30/07	10	ND		dry		dry		ND		ND	
	ug/L	05/19/08	10	ND		ND		ND		ND		ND	
	ug/L	11/19/08	10	ND		1.5	J	1.4	J	ND		ND	
	ug/L	06/30/09	10	0.9	J	dry		dry		0.7	J	ND	
	ug/L	11/30/09	10	ND		ND		1.54	J	ND		ND	
	ug/L	05/20/10	10	ND		1.19	J	2.16	J	ND		ND	
	ug/L	11/19/10	10	ND		5.47	J	ND		ND		ND	
	ug/L	05/19/11	10	ND		4.66	J	1.75	J	1.22	J	ND	
	ug/L	11/28/11	10	ND		dry		ND		ND		ND	
	ug/L	5/23/12	10	2.13	J	3.16	J	2.53	J	1.80	J	ND	
Copper	ug/L	02/07/95	5	ND		ND		ND		ND		--	
SW Standard = 7 ug/L #**	ug/L	03/13/95	5	5.5		6.8		8.6		ND		--	
	ug/L	06/10/96	5	6.3		5.9		5.7		ND		--	
	ug/L	11/12/96	5	ND		ND		ND		ND		--	
	ug/L	03/18/97	5	6		ND		ND		6		--	
	ug/L	10/02/97	5	ND		ND		ND		ND		--	
	ug/L	05/26/98	--	6		8		6		9		--	
	ug/L	12/01/98	5	ND		dry		dry		ND		--	
	ug/L	06/07/99	5	ND		dry		dry		ND		--	
	ug/L	12/01/99	--	10		14		10		11		--	
	ug/L	06/06/00	5	ND		dry		dry		dry		--	
	ug/L	12/22/00	5	ND		dry		dry		dry		--	
	ug/L	06/04/01	5	13		ND		8		ND		--	
	ug/L	12/03/01	5	ND		dry		dry		ND		--	
	ug/L	06/10/02	5	ND		dry		dry		ND		0.7	J
	ug/L	12/16/02	5	21		8		10		8		--	
	ug/L	06/10/03	5	ND		8		6		ND		--	
	ug/L	12/08/03	5	ND		5		6		5		--	
	ug/L	06/29/04	5	ND		8		ND		ND		--	
	ug/L	12/20/04	5	ND		ND		ND		ND		--	
	ug/L	06/05/05	--	3		5		5		2		--	
	ug/L	12/07/05	--	9		7		10		11		--	
	ug/L	06/05/06	--	3		9		dry		3		--	
	ug/L	12/05/06	--	2		3		6		3		--	
	ug/L	05/30/07	10	1.3	B	dry		dry		0.8	B	0.7	J
	ug/L	11/30/07	10	1.3	B	dry		dry		2.1	B	1.1	J
	ug/L	05/19/08	10	4	B	6	B	10	B	3.8	B	5.7	J
	ug/L	11/19/08	10	2.7	B	4.3	B	4.7	B	3.3	B	1.1	J
	ug/L	06/30/09	10	ND		dry		dry		ND		2.36	J
	ug/L	11/30/09	10	ND		2.83	J	2.34	J	ND		ND	
	ug/L	05/20/10	10	2.73	J	4.41	J	9.21	J	ND		ND	
	ug/L	11/19/10	10	ND		ND		ND		ND		ND	
	ug/L	05/19/11	10	1.6	J	2.11	J	3.75	J	1.93	J	ND	
	ug/L	11/28/11	10	3.71	J	dry		2.89	J	2.19	J	ND	
	ug/L	5/23/12	10	6.32	J	7.36	J	7.57	J	6.19	J	ND	

TABLE 5

Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream		Downstream						Blanks	
				S-4		S-1		S-2		S-3			
Lead	ug/L	02/07/95	5	11		ND		6.2		ND		--	
SW Standard = 25 ug/L #*	ug/L	03/13/95	5	ND		ND		7.5		ND		--	
	ug/L	06/10/96	5	ND		ND		ND		ND		--	
	ug/L	11/12/96	5	ND		ND		ND		ND		--	
	ug/L	03/18/97	5	5		ND		ND		5		--	
	ug/L	10/02/97	5	ND		ND		ND		ND		--	
	ug/L	05/26/98	5	ND		ND		ND		ND		--	
	ug/L	12/01/98	5	5		dry		dry		5		--	
	ug/L	06/07/99	5	ND		dry		dry		ND		--	
	ug/L	12/01/99	--	17		5		5		7		--	
	ug/L	06/06/00	5	ND		dry		dry		dry		--	
	ug/L	12/27/00	5	ND		dry		dry		dry		--	
	ug/L	06/04/01	5	ND		9		ND		ND		--	
	ug/L	12/03/01	5	ND		dry		dry		ND		--	
	ug/L	06/10/02	5	ND		dry		dry		ND		--	
	ug/L	12/16/02	5	ND		ND		ND		ND		--	
	ug/L	06/10/03	5	9		ND		6		ND		--	
	ug/L	12/08/03	5	ND		ND		ND		ND		--	
	ug/L	06/29/04	5	ND		ND		ND		ND		--	
	ug/L	12/20/04	5	ND		ND		ND		ND		--	
	ug/L	06/05/05	5	9		ND		6		ND		--	
	ug/L	12/07/05	5	10		ND		ND		10		--	
	ug/L	06/05/06	5	ND		ND		dry		ND		--	
	ug/L	12/05/06	5	ND		ND		ND		ND		--	
	ug/L	05/30/07	10	ND		dry		dry		ND		3.1	J
	ug/L	11/30/07	5	ND		dry		dry		ND		3.5	J
	ug/L	05/19/08	5	ND		ND		4.1	J	ND		ND	J
	ug/L	11/19/08	5	0.5	B	0.79	B	1.7	B	0.45	B	3.1	J
	ug/L	06/30/09	5	2.4	B	dry		dry		ND		ND	
	ug/L	11/30/09	10	ND		ND		ND		ND		3.09	J
	ug/L	05/20/10	10	ND		3.15	J	3.61	J	ND		ND	
	ug/L	11/19/10	10	ND		ND		ND		ND		ND	
	ug/L	05/19/11	10	2.31	J	ND		2.90	J	ND		ND	
	ug/L	11/28/11	10	ND		dry		ND		ND		ND	
	ug/L	5/23/12	10	7.33	J	7.51	J	6.25	J	9.08	J	ND	
Nickel	ug/L	02/07/95	10	ND		ND		ND		ND		--	
SW Standard = 25 ug/L	ug/L	03/13/95	10	ND		13		16		ND		--	
	ug/L	06/10/96	10	ND		ND		ND		ND		--	
	ug/L	11/12/96	10	ND		ND		ND		ND		--	
	ug/L	03/18/97	10	ND		ND		ND		ND		--	
	ug/L	10/02/97	10	ND		ND		ND		ND		--	
	ug/L	05/26/98	10	ND		ND		ND		ND		--	
	ug/L	12/01/98	10	ND		dry		dry		ND		--	
	ug/L	06/07/99	10	ND		dry		dry		ND		--	
	ug/L	12/01/99	--	10		12		10		10		--	
	ug/L	06/06/00	10	ND		dry		dry		dry		--	
	ug/L	12/22/00	10	ND		dry		dry		dry		--	
	ug/L	06/04/01	10	ND		ND		ND		ND		--	
	ug/L	12/03/01	10	ND		dry		dry		ND		--	
	ug/L	06/10/02	10	ND		dry		dry		ND		--	
	ug/L	12/16/02	10	ND		ND		ND		ND		--	
	ug/L	06/10/03	10	ND		ND		ND		ND		--	
	ug/L	12/08/03	10	ND		ND		ND		ND		--	
	ug/L	06/29/04	10	ND		ND		ND		ND		--	
	ug/L	12/20/04	10	ND		ND		ND		ND		--	
	ug/L	06/05/05	10	ND		ND		ND		ND		--	
	ug/L	12/07/05	10	ND		ND		ND		ND		--	
	ug/L	06/05/06	10	ND		ND		dry		ND		--	
	ug/L	12/05/06	10	ND		ND		ND		ND		--	
	ug/L	05/30/07	50	2.7	J	dry		dry		2.7	J	ND	
	ug/L	11/30/07	50	ND		dry		dry		ND		ND	
	ug/L	05/19/08	50	ND		ND		ND		ND		ND	
	ug/L	11/19/08	50	ND		ND		ND		ND		ND	
	ug/L	06/30/09	50	3.1	B	dry		dry		3.8	B	0.6	J
	ug/L	11/30/09	50	ND		2.60	B	3.25	B	ND		4.59	J
	ug/L	05/20/10	50	2.23	J	2.36	J	3.83	J	1.97	J	ND	
	ug/L	11/19/10	50	ND		4.72	J	ND		ND		ND	
	ug/L	05/19/11	50	2.11	J	4.4	J	3.14	J	2.05	J	ND	
	ug/L	11/28/11	50	3.30	J	dry		3.11	J	1.90	J	ND	
	ug/L	5/23/12	50	2.85	J	4.77	J	4.35	J	3.48	J	ND	
Selenium	ug/L	05/30/07	10	2.9	B	dry		dry		2.3	B	5.7	J
SW Standard = 5 ug/L #	ug/L	11/30/07	10	2.6	B	dry		dry		ND		0.52	J
	ug/L	05/19/08	10	ND		ND		ND		ND		ND	
	ug/L	11/19/08	10	1.2	B	ND		0.54	B	0.39	B	0.36	J
	ug/L	06/30/09	10	ND		dry		dry		ND		0.6	J
	ug/L	11/30/09	10	ND		ND		ND		ND		ND	
	ug/L	05/20/10	10	ND		ND		ND		ND		ND	
	ug/L	11/19/10	10	ND		ND		ND		ND		ND	
	ug/L	05/19/11	10	1.88	J	1.7	J	1.32	J	1.81	J	ND	
	ug/L	11/28/11	10	ND		dry		ND		ND		ND	
	ug/L	5/23/12	10	ND		ND		ND		ND		ND	

TABLE 5

Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream		Downstream						Blanks
				S-4		S-1		S-2		S-3		
Silver	ug/L	02/07/95	1	ND		ND		ND		ND		--
SW Standard = 0.06 ug/L #**	ug/L	03/13/95	1	ND		ND		ND		ND		--
	ug/L	06/10/96	1	ND		1.8		3.3		ND		--
	ug/L	11/12/96	1	ND		ND		ND		ND		--
	ug/L	03/18/97	1	ND		ND		ND		ND		--
	ug/L	10/02/97	1	ND		ND		ND		ND		--
	ug/L	05/26/98	1	ND		ND		ND		ND		--
	ug/L	12/01/98	1	ND		dry		dry		ND		--
	ug/L	06/07/99	1	ND		dry		dry		ND		--
	ug/L	12/01/99	--	1		1		1		1		--
	ug/L	06/06/00	1	ND		dry		dry		dry		--
	ug/L	12/22/00	1	ND		dry		dry		dry		--
	ug/L	06/04/01	1	ND		ND		ND		ND		--
	ug/L	12/03/01	1	ND		dry		dry		ND		--
	ug/L	06/10/02	1	ND		dry		dry		ND		--
	ug/L	12/16/02	1	ND		ND		ND		ND		--
	ug/L	06/10/03	1	ND		ND		ND		ND		--
	ug/L	12/08/03	1	ND		ND		ND		ND		--
	ug/L	06/29/04	1	ND		ND		ND		ND		--
	ug/L	12/20/04	1	ND		ND		ND		ND		--
	ug/L	06/05/05	1	ND		ND		ND		ND		--
	ug/L	12/07/05	1	ND		ND		ND		ND		--
	ug/L	06/05/06	1	ND		ND		dry		ND		--
	ug/L	12/05/06	1	ND		ND		ND		ND		--
	ug/L	05/30/07	10	ND		dry		dry		ND		ND
	ug/L	11/30/07	10	2.7	J	dry		dry		2.7	J	ND
	ug/L	05/19/08	10	ND		ND		ND		ND		ND
	ug/L	11/19/08	10	ND		ND		ND		ND		ND
	ug/L	06/30/09	10	ND		dry		dry		ND		--
	ug/L	11/30/09	10	ND		ND		ND		ND		ND
	ug/L	05/20/10	10	ND		ND		ND		ND		ND
	ug/L	11/19/10	10	ND		ND		ND		ND		ND
	ug/L	05/19/11	10	ND		ND		ND		ND		ND
	ug/L	11/28/11	10	ND		dry		ND		ND		ND
	ug/L	5/23/12	10	ND		ND		ND		ND		ND
Thallium	ug/L	05/30/07	5.5	ND		dry		dry		ND		ND
(No Standard)	ug/L	11/30/07	5.5	0.61	J	dry		dry		0.62	J	ND
	ug/L	05/19/08	5.5	ND		ND		ND		ND		ND
	ug/L	11/19/08	5.5	ND		ND		ND		ND		ND
	ug/L	06/30/09	5.5	ND		dry		dry		ND		ND
	ug/L	11/30/09	5.5	ND		ND		ND		0.685	J	ND
	ug/L	05/20/10	5.5	ND		ND		ND		ND		ND
	ug/L	11/19/10	5.5	ND		ND		ND		ND		ND
	ug/L	05/19/11	5.5	ND		ND		ND		ND		ND
	ug/L	11/28/11	5.5	ND		dry		ND		ND		ND
	ug/L	5/23/12	5.5	ND		ND		ND		ND		ND
Vanadium	ug/L	02/07/95	5	ND		ND		ND		ND		--
(No Standard)	ug/L	03/13/95	5	ND		ND		ND		ND		--
	ug/L	06/10/96	5	ND		ND		7.7		ND		--
	ug/L	11/12/96	5	ND		8		ND		ND		--
	ug/L	03/18/97	5	ND		ND		ND		ND		--
	ug/L	10/02/97	5	ND		8.5		ND		5.7		--
	ug/L	05/26/98	5	ND		5		5		5		--
	ug/L	12/01/98	5	ND		dry		dry		5		--
	ug/L	06/07/99	5	ND		dry		dry		ND		--
	ug/L	12/01/99	--	11		22		10		11		--
	ug/L	06/06/00	--	5		dry		dry		dry		--
	ug/L	12/22/00	--	5		dry		dry		dry		--
	ug/L	06/04/01	5	ND		ND		5		ND		--
	ug/L	12/03/01	--	6		dry		dry		6		--
	ug/L	06/10/02	--	6		dry		dry		6		--
	ug/L	12/16/02	5	7		ND		ND		ND		--
	ug/L	06/10/03	5	ND		7		5		ND		--
	ug/L	12/08/03	5	ND		ND		ND		ND		--
	ug/L	06/29/04	5	ND		ND		ND		ND		--
	ug/L	12/20/04	5	ND		ND		ND		ND		--
	ug/L	06/05/05	5	5		ND		ND		ND		--
	ug/L	12/07/05	5	7		ND		ND		6		--
	ug/L	06/05/06	5	ND		ND		dry		ND		--
	ug/L	12/05/06	5	ND		ND		ND		ND		--
	ug/L	05/30/07	25	ND		dry		dry		1.2	J	ND
	ug/L	11/30/07	25	ND		dry		dry		ND		ND
	ug/L	05/19/08	25	ND		ND		3.1	J	ND		ND
	ug/L	11/19/08	25	ND		ND		2.6	J	ND		ND
	ug/L	06/30/09	25	2.4	J	dry		dry		2.4	J	ND
	ug/L	11/30/09	25	1.96	J	1.52	J	1.96	J	2.03	J	ND
	ug/L	05/20/10	25	4.02	J	5.14	J	7.89	J	5.27	J	ND
	ug/L	11/19/10	25	1.78	J	ND		ND		1.64	J	ND
	ug/L	05/19/11	25	2.97	J	ND		5.0	J	2.84	J	ND
	ug/L	11/28/11	25	ND		dry		ND		ND		ND
	ug/L	5/23/12	25	6.43	J	8.23	J	9.68	J	5.98	J	ND

TABLE 5

Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream		Downstream						Blanks	
				S-4		S-1		S-2		S-3			
Zinc	ug/L	02/07/95	10	33		ND		ND		21		--	
SW Standard = 50 ug/L #**	ug/L	03/13/95	--	34		63		87		67		--	
	ug/L	06/10/96	10	ND		ND		ND		13		--	
	ug/L	11/12/96	10	20		ND		16		22		--	
	ug/L	03/18/97	10	32		ND		ND		32		--	
	ug/L	10/02/97	10	10		14		21		146		--	
	ug/L	05/26/98	--	25		26		19		48		--	
	ug/L	12/01/98	10	ND		dry		dry		56		--	
	ug/L	06/07/99	--	76		dry		dry		42		--	
	ug/L	12/01/99	--	89		58		45		66		--	
	ug/L	06/06/00	--	10		dry		dry		dry		--	
	ug/L	12/22/00	10	ND		dry		dry		dry		--	
	ug/L	06/04/01	--	39		14		16		28		--	
	ug/L	12/03/01	--	42		dry		dry		80		--	
	ug/L	06/10/02	--	25		dry		dry		36		--	
	ug/L	12/16/02	--	106		18		16		39		--	
	ug/L	06/10/03	--	18		22		15		19		--	
	ug/L	12/08/03	10	106		11		ND		42		--	
	ug/L	06/29/04	10	21		ND		ND		19		--	
	ug/L	12/20/04	10	31		ND		ND		30		--	
	ug/L	06/05/05	10	33		ND		ND		30		--	
	ug/L	12/07/05	--	38		10		16		33		--	
	ug/L	06/05/06	--	21		17		dry		17		--	
	ug/L	12/05/06	10	38		ND		11		41		--	
	ug/L	05/30/07	10	51.9		dry		dry		52.5		2.4	J
	ug/L	11/30/07	10	73	B	dry		dry		62	B	90.0	
	ug/L	05/19/08	10	48		10		38		47		ND	
	ug/L	11/19/08	10	29		12		12		26		ND	
	ug/L	06/30/09	10	24.7	B	dry		dry		28.3	B	15.2	
	ug/L	11/30/09	10	44.6		8.39	J	8.54	J	39.2		ND	
	ug/L	05/20/10	10	26.6		9.7	J	18.5		29.7		ND	
	ug/L	11/19/10	10	39.5		9.74	J	4.01	J	40.3		ND	
	ug/L	05/19/11	10	37.1		4.56	B	10.1	B	36.8		4.26	J
	ug/L	11/28/11	10	7.24	J	dry		5.77	J	36.6		ND	
	ug/L	5/23/12	10	38.8		17.1		22.1		34.0		ND	
Acetone	ug/L	05/30/07	100	ND		dry		dry		5.4	B	3.8	J
(No Standard)	ug/L	11/30/07	100	ND		dry		dry		ND		ND	
	ug/L	05/19/08	100	ND		ND		ND		ND		13.0	J
	ug/L	11/19/08	100	ND		ND		ND		ND		ND	
	ug/L	06/30/09	100	ND		dry		dry		ND		ND	
	ug/L	11/30/09	100	ND		ND		ND		ND		ND	
	ug/L	05/20/10	100	ND		ND		ND		ND		ND	
	ug/L	11/19/10	100	ND		2.0	J	2.5	J	ND		ND	
	ug/L	05/19/11	100	ND		ND		ND		ND		ND	
	ug/L	11/28/11	100	ND		dry		ND		ND		ND	
	ug/L	5/23/12	100	11	B	5.4	B	9.2	B	10	B	16	J
Chloroform	ug/L	09/19/94	--	ND		dry		dry		ND		--	
(No Standard)	ug/L	02/07/95	5	ND		ND		ND		ND		--	
	ug/L	03/13/95	5	ND		ND		ND		ND		--	
	ug/L	06/10/96	1	ND		ND		ND		ND		--	
	ug/L	11/12/96	1	ND		ND		ND		ND		--	
	ug/L	03/18/97	1	ND		ND		ND		ND		--	
	ug/L	10/02/97	1	ND		ND		ND		ND		--	
	ug/L	05/26/98	5	ND		ND		ND		ND		--	
	ug/L	12/01/98	2	ND		ND		ND		ND		--	
	ug/L	06/07/99	5	ND		dry		dry		ND		ND	
	ug/L	12/15/99	5	ND		ND		ND		ND		ND	
	ug/L	06/06/00	5	ND		dry		dry		dry		ND	
	ug/L	12/22/00	5	ND		dry		dry		dry		ND	
	ug/L	06/04/01	5	ND		ND		ND		ND		ND	
	ug/L	12/13/01	5	ND		dry		dry		ND		ND	
	ug/L	06/10/02	5	ND		dry		dry		ND		ND	
	ug/L	12/16/02	5	ND		ND		ND		ND		ND	
	ug/L	06/09/03	5	ND		ND		ND		ND		ND	
	ug/L	12/08/03	5	ND		ND		ND		ND		ND	
	ug/L	06/28/04	5	ND		ND		ND		ND		ND	
	ug/L	12/20/04	1	ND		ND		ND		ND		ND	
	ug/L	06/05/05	1	ND		ND		ND		ND		ND	
	ug/L	12/07/05	1	ND		ND		ND		ND		ND	
	ug/L	06/05/06	1	0.65	J	ND		ND		0.59	J	ND	
	ug/L	12/05/06	1	ND		ND		ND		ND		ND	
	ug/L	05/30/07	5	0.60	J	dry		dry		0.55	J	ND	
	ug/L	11/30/07	5	0.6	J	dry		dry		0.42		--	
	ug/L	05/19/08	5	0.66	J	ND		ND		0.58		--	
	ug/L	11/19/08	5	0.39	J	ND		ND		0.42		--	
	ug/L	06/30/09	5	ND		dry		dry		ND		--	
	ug/L	11/30/09	5	0.52	J	ND		ND		ND		--	
	ug/L	05/20/10	5	ND		ND		ND		ND		--	
	ug/L	11/19/10	5	ND		ND		ND		ND		--	
	ug/L	05/19/11	5	ND		ND		ND		ND		--	
	ug/L	11/28/11	5	ND		dry		ND		ND		ND	
	ug/L	5/23/12	5	ND		ND		ND		ND		ND	

TABLE 5

Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream	Downstream			Blanks
				S-4	S-1	S-2	S-3	
pH (field)	S.U.	05/26/98	--	--	--	--	--	--
	S.U.	12/01/98	--	--	--	--	--	--
	S.U.	06/07/99	--	6	dry	dry	5.76	--
	S.U.	07/08/99	--	--	dry	dry	--	--
	S.U.	12/13/99	--	6.47	6.3	6.44	6.58	--
	S.U.	06/06/00	--	6.54	dry	dry	dry	--
	S.U.	12/11/00	--	7.48	dry	dry	dry	--
	S.U.	06/04/01	--	7.08	6.92	6.94	7.11	--
	S.U.	12/03/01	--	6.59	dry	dry	5.99	--
	S.U.	06/10/02	--	7.81	dry	dry	8.13	--
	S.U.	12/16/02	--	7.28	7.66	6.81	7.2	--
	S.U.	06/09/03	--	7.14	7.58	--	7.49	--
	S.U.	12/09/03	--	8.46	7.82	8.58	8.46	--
	S.U.	06/24/04	--	7.53	6.91	7.4	7.57	--
	S.U.	12/20/04	--	7.64	8	--	7.66	--
	S.U.	06/08/05	--	7.5	7.69	7.31	7.59	--
	S.U.	12/07/05	--	7.2	7.3	7.14	7.47	--
	S.U.	06/05/06	--	7.58	7.24	dry	7.49	--
	S.U.	12/05/06	--	7.39	7.63	8.54	15.2	--
	S.U.	05/31/07	--	8.55	dry	dry	8.64	--
	S.U.	11/30/07	--	--	dry	dry	--	--
	S.U.	05/19/08	--	8.26	8.25	8.35	8.3	--
	S.U.	11/19/08	--	7.51	7.36	7.53	7.18	--
	S.U.	06/30/09	--	7.21	dry	dry	7.36	--
	S.U.	11/30/09	--	8.21	7.80	7.75	8.30	--
	S.U.	05/20/10	--	7.61	7.83	6.67	7.73	--
	S.U.	11/19/10	--	--	7.44	7.71	7.75	--
	S.U.	05/19/11	--	7.67	7.50	6.27	7.86	--
	S.U.	11/28/11	--	7.41	dry	6.57	6.73	--
	S.U.	05/23/12	--	6.68	7.31	6.25	6.21	--
Conductivity (field)	µS/cm	05/26/98	--	--	--	--	--	--
	µS/cm	12/01/98	--	--	--	--	--	--
	µS/cm	06/07/99	--	198	dry	dry	167	--
	µS/cm	07/08/99	--	--	dry	dry	--	--
	µS/cm	12/13/99	--	257.4	272.8	137.8	134.5	--
	µS/cm	06/06/00	--	202.3	dry	dry	dry	--
	µS/cm	12/11/00	--	277.5	dry	dry	dry	--
	µS/cm	06/04/01	--	372.6	184.8	166.9	393.4	--
	µS/cm	12/03/01	--	445	dry	dry	433.5	--
	µS/cm	06/10/02	--	451	dry	dry	250	--
	µS/cm	12/16/02	--	123	60	110	341	--
	µS/cm	06/09/03	--	186	177	--	316	--
	µS/cm	12/08/03	--	411.1	29.9	24.3	410	--
	µS/cm	06/28/04	--	451	284	277	431	--
	µS/cm	12/20/04	--	434	249	--	424	--
	µS/cm	06/08/05	--	336	197.1	190.5	345.8	--
	µS/cm	12/08/05	--	250	129	140	176	--
	µS/cm	06/05/06	--	391	161	dry	412	--
	µS/cm	12/05/06	--	392	194	232	391	--
	µS/cm	05/31/07	--	477	dry	dry	485	--
	µS/cm	11/30/07	--	--	dry	dry	--	--
	µS/cm	05/19/08	--	120	120	300	320	--
	µS/cm	11/19/08	--	370	160	160	380	--
	µS/cm	06/30/09	--	330	dry	dry	310	--
	µS/cm	11/30/09	--	400	190	200	400	--
	µS/cm	05/20/10	--	287	99	159	267	--
	µS/cm	11/19/10	--	--	226	473	469	--
	µS/cm	05/19/11	--	313	163	137	311	--
	µS/cm	11/28/11	--	207	dry	251	465	--
	µS/cm	05/23/12	--	263	116	78	240	--
Temperature (field)	°C	05/26/98	--	--	--	--	--	--
	°C	12/01/98	--	--	--	--	--	--
	°C	06/07/99	--	17.2	dry	dry	18	--
	°C	07/08/99	--	--	dry	dry	--	--
	°C	12/13/99	--	18.1	20.1	17.8	19.2	--
	°C	06/06/00	--	17.7	dry	dry	dry	--
	°C	12/11/00	--	8.9	dry	dry	dry	--
	°C	06/04/01	--	22.3	18.7	20.2	22.5	--
	°C	12/03/01	--	19.5	dry	dry	16.2	--
	°C	06/10/02	--	23.49	dry	dry	23.43	--
	°C	12/16/02	--	11.19	3.52	4.3	10.53	--
	°C	06/09/03	--	23.36	23.23	--	23.08	--
	°C	12/09/03	--	13.3	6.6	7.8	13.2	--
	°C	06/24/04	--	22.92	21.22	23.4	22.84	--
	°C	12/20/04	--	12.07	1.95	--	9.37	--
	°C	06/08/05	--	23.06	20.83	21.45	22.9	--
	°C	12/07/05	--	12.26	9.29	8.98	10.33	--
	°C	06/05/06	--	21.8	20.12	dry	21.75	--
	°C	12/05/06	--	15.02	8.32	8	15.2	--
	°C	05/31/07	--	24.28	dry	dry	23.8	--
	°C	11/30/07	--	--	dry	dry	--	--
	°C	05/19/08	--	19.0	19.0	22.6	21.7	--
	°C	11/19/08	--	14.7	7.5	6	14.6	--
	°C	06/30/09	--	20.4	dry	dry	20.3	--
	°C	11/30/09	--	18.4	17.3	17.6	18.6	--
	°C	05/20/10	--	23.04	18.36	20.8	22.38	--
	°C	11/19/10	--	--	7.69	19.34	19.43	--
	°C	05/19/11	--	21.01	15.61	18.00	21.49	--
	°C	11/28/11	--	13.91	dry	15.05	19.17	--
	°C	05/23/12	--	21.68	19.79	19.69	21.28	--

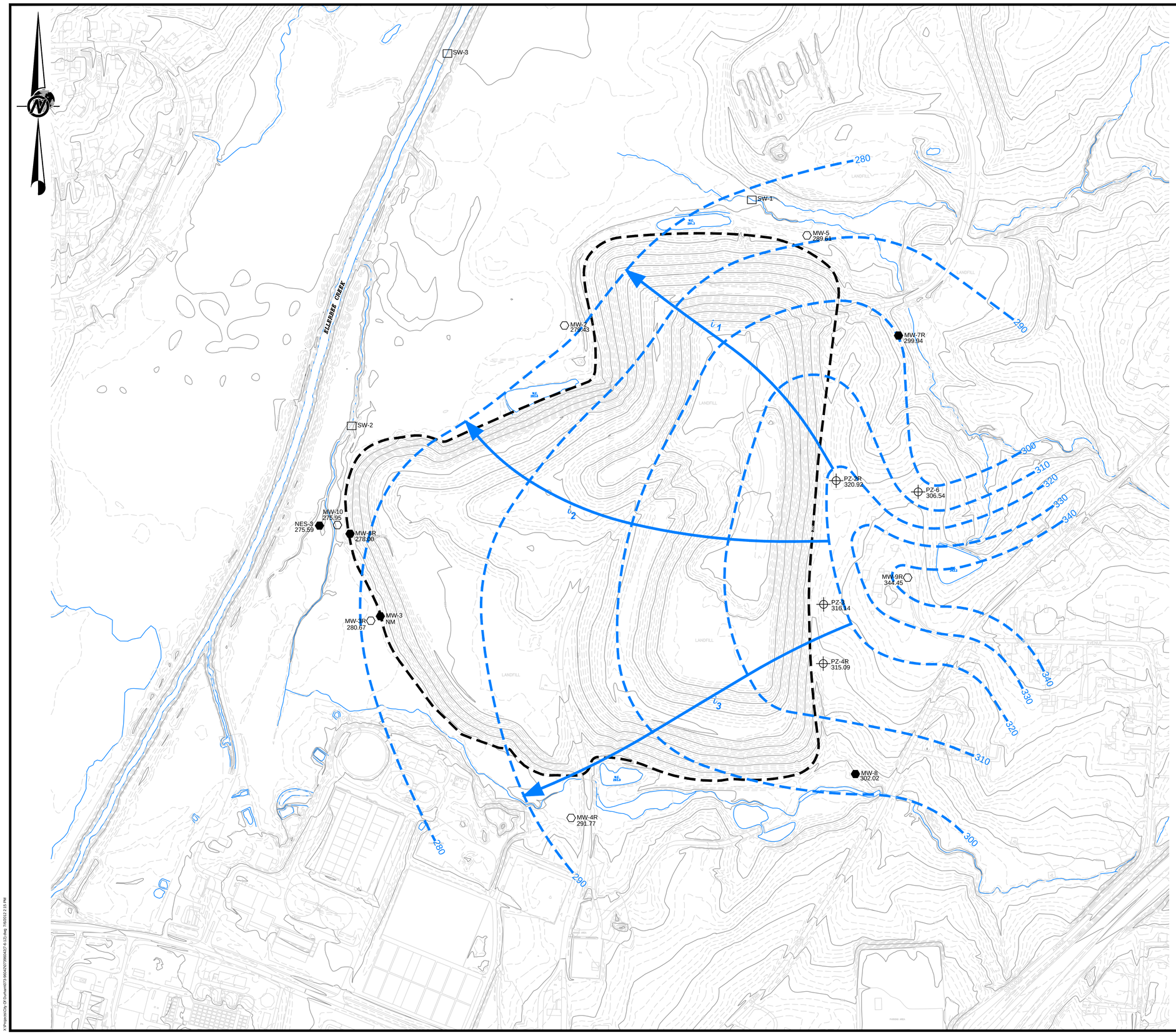
TABLE 5

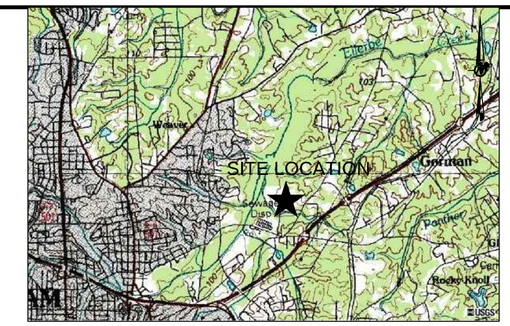
Summary of Surface Water Monitoring Results
City of Durham Closed Landfill, Permit No. 32-01
Durham County, North Carolina

Detected Monitoring Constituent/Parameter	Reporting Units	Sample Date	SWS Reporting Limit	Upstream	Downstream			Blanks
				S-4	S-1	S-2	S-3	
Turbidity (field)	NTU	05/26/98	--	--	--	--	--	--
	NTU	12/01/98	--	--	--	--	--	--
	NTU	06/07/99	--	12	dry	dry	--	--
	NTU	07/08/99	--	--	dry	dry	--	--
	NTU	12/13/99	--	139.2	229	139.8	146.7	--
	NTU	06/06/00	--	42.8	dry	dry	dry	--
	NTU	12/11/00	--	27.3	dry	dry	dry	--
	NTU	06/04/01	--	17.2	18.2	90	7.6	--
	NTU	12/03/01	--	--	dry	dry	2.2	--
	NTU	06/10/02	--	3.2	dry	dry	2.6	--
	NTU	12/16/02	--	6.4	9	10	5.8	--
	NTU	06/09/03	--	34	65.2	--	18	--
	NTU	12/09/03	--	12	25	23	13	--
	NTU	06/04/04	--	--	--	--	--	--
	NTU	12/20/04	--	--	--	--	--	--
	NTU	06/08/05	--	7.55	22.1	53	8.99	--
	NTU	12/07/05	--	88	31	66	120	--
	NTU	06/05/06	--	15.6	26.4	dry	17.9	--
	NTU	12/05/06	--	4.44	20.6	27.5	8.31	--
	NTU	05/31/07	--	0	dry	dry	56.9	--
	NTU	11/30/07	--	--	dry	dry	--	--
	NTU	05/19/08	--	--	--	--	--	--
	NTU	11/19/08	--	--	--	--	--	--
	NTU	06/30/09	--	--	dry	dry	--	--
	NTU	11/30/09	--	--	--	--	--	--
	NTU	05/20/10	--	11.2	38.6	64.6	26	--
	NTU	11/19/10	--	--	10.5	0.3	0	--
	NTU	05/19/11	--	0.7	13.5	80.2	0.1	--
	NTU	11/28/11	--	26.0	dry	30.9	3.37	--
	NTU	05/23/12	--	93.2	97.1	179	91.4	--
Oxidation Reduction Potential (field)	mV	05/31/07	--	70	dry	dry	45	--
	mV	11/30/07	--	--	dry	dry	--	--
	mV	05/19/08	--	--	--	--	--	--
	mV	11/19/08	--	--	--	--	--	--
	mV	06/30/09	--	--	dry	dry	--	--
	mV	11/30/09	--	--	--	--	--	--
	mV	05/20/10	--	91.6	52.4	53.4	7.65	--
	mV	11/19/10	--	--	-72	2.6	71.5	--
	mV	05/19/11	--	31	-122	5.1	42	--
	mV	11/28/11	--	7.2	dry	52.8	106.3	--
	mV	05/23/12	--	38.7	21.1	12.8	105.3	--
Dissolved Oxygen (field)	mg/L	12/01/01	--	5.9	dry	dry	4.7	--
	mg/L	06/10/02	--	9.1	dry	dry	13.3	--
	mg/L	12/16/02	--	11.64	10.81	10.51	11.57	--
	mg/L	06/09/03	--	10.16	7.8	--	10.04	--
	mg/L	12/08/03	--	10.5	12.6	12.5	10.5	--
	mg/L	06/24/04	--	8.01	4.53	7.4	7.83	--
	mg/L	12/20/04	--	9.93	12.2	--	10.01	--
	mg/L	06/08/05	--	--	--	--	--	--
	mg/L	06/05/06	--	6.59	5.45	dry	6.74	--
	mg/L	12/05/06	--	8.25	4.46	9.89	7.24	--
	mg/L	05/31/07	--	8.1	dry	dry	7.7	--
	mg/L	11/30/07	--	--	dry	dry	--	--
	mg/L	05/19/08	--	--	--	--	--	--
	mg/L	11/19/08	--	--	--	--	--	--
	mg/L	06/30/09	--	--	dry	dry	--	--
	mg/L	11/30/09	--	--	--	--	--	--
	mg/L	05/20/10	--	8.08	8.53	7.84	7.85	--
	mg/L	11/19/10	--	--	7.57	8.62	10.04	--
	mg/L	05/19/11	--	0.56	4.73	0.1	8.8	--
	mg/L	11/28/11	--	7.34	dry	8.10	8.87	--
	mg/L	05/23/12	--	7.09	7.57	8.68	6.72	--

Notes:
mg/L = milligrams per liter
ug/L = micrograms per liter
S.U. = Standard Units
NTU = Nephelometric Turbidity Units
ND = Not detected at the stated reporting limit
J = estimated concentration
B = blank-qualified result
dry = no flowing water at time of sampling
µS/cm= microsiemens per centimeter
mV = Millivolts
-- = no data
Blanks = field, trip and method blanks
Surface Water Standards SW Standards are WS Standards (Ellerbee Creek is a WS-IV Classification) or Freshwater Aquatic Life Standards if no WS Standard exists.
Shaded = Concentrations above the applicable Surface Water Standards have been shaded.
# Freshwater Aquatic Life Standards
* Standard is a Narrative Standard
** Standard is an Action Limit
Sample data from September 1994 through December 1998 compiled and reported by Malcolm Pirnie, Inc.
Sample data from June 1999 through December 2006 collected, compiled and reported by Weston Solutions, Inc.
Sample data from May 2007, November 2011 through current collected, compiled, and reported by Golder Associates NC, Inc.
Sample data collected from November 2007 to May 2011 collected, complied, and reported by S&ME.
Laboratory data prior to November 2011 was not validated by Golder Associates.
SWS Reporting Limit = NCPQL from 09/14/94 through 12/05/06 and NCSWSL for 05/30/07 and later

DRAWING





LEGEND

	EXISTING 10' GROUND SURFACE CONTOUR
	EXISTING 2' GROUND SURFACE CONTOUR
	APPROXIMATE LIMITS OF WASTE
	EXISTING ROAD
300	GROUNDWATER ELEVATION 10' CONTOURS
i_1	GROUNDWATER FLOW ARROW
PZ-2R 320.92	PIEZOMETER LOCATION AND GROUNDWATER ELEVATION
SW-1	SURFACE WATER MONITORING POINT
MW-2 279.43	COMPLIANCE MONITORING WELL AND WATER LEVEL ELEVATION
NM	NOT MEASURED
MW-2	NON-COMPLAINACE MONITORING WELL AND WATER LEVEL ELEVATION

NOTES

1) TOPOGRAPHIC CONTOUR INTERVAL = 2 FEET

2) GROUNDWATER SURFACE CONTOUR INTERVAL = 10 FEET

3) GROUNDWATER CONTOURS BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATA, TOPOGRAPHIC CONTOURS, AND KNOWN FIELD CONDITIONS. THEREFORE, GROUNDWATER CONTOURS MAY NOT REFLECT ACTUAL CONDITIONS.

4) GROUNDWATER ELEVATIONS MEASURED ON MAY 22, 2012.

5) TOC ELEVATIONS WERE SURVEYED BY MULKEY ENGINEERING IN JANUARY 2001. TOC ELEVATIONS WERE SURVEYED FOR WELLS PZ-2R, PZ-4R, MW-6R, MW-7R AND MW-9R IN 2005 BY MULKEY ENGINEERING.

6) MW-10 SURVEYED BY BATEMAN CIVIL SURVEY.

7) MW-3R HAS NOT BEEN SURVEYED AND WAS NOT USED IN THE INTERPRETATION OF CONTOUR LINES.

8) WELLS MW-1, MW-4, MW-6, MW-7, MW-9, PZ-1, PZ-2 AND PZ-4 HAVE BEEN ABANDONED, DAMAGED OR DESTROYED AND ARE NOT SHOWN ON THIS MAP.

9) MW-3 WAS NOT GAUGED DURING THE SAMPLING EVENT.

10) BASE MAP TOPOGRAPHIC MAP PROVIDED BY WESTON SOLUTIONS, INC. (FROM THEIR GROUNDWATER REPORT FOR THE DECEMBER 2006 SAMPLING EVENT).

200 0 200 400
SCALE FEET

REV	DATE	DES	REVISION DESCRIPTION	CADD	CHK	RVW
2	6/6/12	DYR	MAY 2012 GROUNDWATER CONTOUR	LKB		
1	12/14/11	NLR	NOVEMBER 2011 GROUNDWATER CONTOUR	LKB	DYR	RPK

PROJECT
CITY OF DURHAM
CLOSED LANDFILL PERMIT #32-01
DURHAM, NORTH CAROLINA

TITLE
GROUNDWATER CONTOUR MAP
MAY 22, 2012

Golder Associates
GREENSBORO, NC

PROJECT No.		073-96042	FILE No. 073-96042(7-6-12)	
DESIGN	JAD	07/03/07	SCALE AS SHOWN	REV. –
CADD	LKB	07/03/07		
CHECK	DYR	07/03/07	DWG 1	
REVIEW	RPK	07/03/07		

X:\Projects\City Of Durham\073-96042\0739604207-6-12.dwg 7/6/2012 2:15 PM

APPENDIX A

Groundwater and Surface Water Sampling Logs

DATE: 5/23/12

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham **Project No./Phase No.:** 0739604212.100
Well ID: MW-2 **Sampler(s):** K. Sizemore / J. DeVore
Well Diameter: 2 inches **Initial Depth to Water:** 6.22 feet
Depth to Bottom: 15.66 feet **Water Column Thickness:** _____ feet
Well Location: Located NW of Landfill in tree-line
Equipment: YSI 556, QED MP-15, Water Level Meter, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
10:54	5.01	0.188	29.6	7.74	15.42	94.3	7.22'
10:57	5.44	0.135	23.7	3.00	15.38	115.0	7.54'
11:00	5.47	0.101	16.5	1.82	15.30	125.7	7.98'
11:03	5.47	0.090	16.4	1.65	15.28	133.7	7.93'
11:06	5.44	0.082	29.5	1.67	15.28	144.5	8.25'
		Sampled @ 11:06 for MC App II					

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Purge rate @ 200 mL/min Weather: Mostly cloudy, 70's, humid

Signature: _____ **Date:** 5/23/12
QA/QC Sign Off: _____ **Date:** 6/26/12

DATE: 5/22/12

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham **Project No./Phase No.:** 0739604212.100
Well ID: MW-3R **Sampler(s):** K. Sizemore / J. DeVore
Well Diameter: 2 inches **Initial Depth to Water:** 4.52' feet
Depth to Bottom: 14.29' feet **Water Column Thickness:** _____ feet
Well Location: Located downhill of perimeter road, West of Landfill
Equipment: YSI 556, QED MP-15, Water Level Meter, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
11:53	7.54	1.378	9.98	3.44	17.00	-51.2	4.86'
11:57	7.67	1.414	6.62	1.96	16.74	-65.7	4.96
12:01	7.78	1.432	5.86	1.17	16.55	-74.7	4.99
12:05	7.87	1.432	4.16	0.91	16.41	-83.0	5.00
12:09	7.93	1.429	3.86	0.81	16.32	-88.6	5.00
12:13	7.98	1.421	4.81	0.69	16.20	-90.4	5.05
12:17	8.01	1.413	4.10	0.61	16.07	-93.4	5.05
		Sampled @ 12:17 for NC Map II					

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Weather: Partly cloudy, upper 70's Purge rate = 150 mL/min

Signature: _____ **Date:** 5/22/12
QA/QC Sign Off: _____ **Date:** 6-26-12

DATE: 5/22/12

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham **Project No./Phase No.:** 0739604 217 100
Well ID: MW-4R **Sampler(s):** K. Sizemore / J. DeVore
Well Diameter: 2 inches **Initial Depth to Water:** 2.71 feet
Depth to Bottom: 12.88 feet **Water Column Thickness:** _____ feet
Well Location: Located in wetlands to left of entrance road
Equipment: YSI 556, QED MP-15, Water Level Meter, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
10:43	7.42	0.674	9.36	4.79	17.38	13.4	3.93
10:47	7.52	0.667	4.39	2.68	17.04	-12.6	4.50
10:51	7.65	0.654	3.47	0.77	16.68	-29.9	5.61
10:55	7.83	0.648	2.70	0.59	16.57	-33.6	6.49
10:59	8.08	0.643	2.11	0.67	16.50	-34.8	7.25
11:03	8.00	0.640	2.10	0.49	16:43	-35.7	7.88
	Sampled @ 11:03 for NC App. II						

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Weather: Partly cloudy, mid 70's Purgerate: 150 mL/min

Signature: _____ **Date:** 5/22/12
QA/QC Sign Off: Patty Reedy **Date:** 6.26.12

DATE: 5/23/12

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham **Project No./Phase No.:** 0739604212/100
Well ID: MW-5 **Sampler(s):** K. Sizemore / J. DeVore
Well Diameter: 2 inches **Initial Depth to Water:** 8.95 feet
Depth to Bottom: 17.99 feet **Water Column Thickness:** _____ feet
Well Location: Located NE of landfill along perimeter road
Equipment: YSI 556, QED MP-15, Water Level Meter, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
12:24	6.89	0.898	21.9	6.90	17.26	30.9	9.45
12:27	6.97	0.914	71.1	6.80	17.05	-4.8	9.45
12:30	7.19	0.916	135.0	2.44	16.76	-56.7	9.45
12:33	7.28	0.923	192.0	0.73	16.70	-71.6	9.45
12:36	7.32	0.923	158.0	0.60	16.59	-74.8	9.45
12:39	7.34	0.922	130.0	0.55	16.58	-76.3	9.49
12:42	7.38	0.922	93.6	0.46	16.50	-79.4	9.51
12:45	7.40	0.919	72.3	0.49	16.40	-80.9	9.51
		Sampled @12:48					
12:48	7.43	0.918	63.5	0.37	16.39	-81.6	9.52

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Purge rate at 200 ml/min Weather: Cloudy, mid 70's, calm winds, humid

Signature: _____ **Date:** 5/23/12
QA/QC Sign Off: _____ **Date:** 6.26.12

DATE: 5/23/12

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham
Project No./Phase No.: 0739604212.100
Well ID: MW-9R
Sampler(s): K. Sizemore / J. DeVore
Well Diameter: 2 inches
Initial Depth to Water: 16.13' feet
Depth to Bottom: 23.38' feet
Water Column Thickness: _____ feet
Well Location: Located East of landfill along fence and perimeter road
Equipment: YSI 556, QED MP-15, Water Level Meter, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
13:27	5.52	0.069	83.9	6.37	18.43	138.9	15.65'
13:30	5.05	0.061	69.4	5.04	17.85	187.8	15.67'
13:33	4.97	0.055	46.8	1.70	17.75	215.2	15.75'
13:36	5.10	0.054	41.9	1.46	17.67	227.0	15.75'
13:39	5.14	0.053	40.9	1.38	17.60	239.5	15.75'
13:42	5.16	0.053	40.0	1.31	17.79	243.7	15.75
		Sampled @ 13:42 for NC TMP II					

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Weather: Mostly cloudy, upper 70's, humid
Purge rate = 200 ml/min

Signature: [signature] **Date:** 5/23/12
QA/QC Sign Off: [signature] **Date:** 6-20-12

DATE: 5/23/12

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham
Project No./Phase No.: 0739604212100
Well ID: MW-10
Sampler(s): K. Sizemore / J. DeVore
Well Diameter: 2 **inches**
Initial Depth to Water: 6.86' **feet**
Depth to Bottom: 12.89' **feet**
Water Column Thickness: _____ **feet**
Well Location: Located off perimeter road, downhill near stream
Equipment: YSI 556, QED MP-15, Water Level Meter, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
9:35	5.85	0.510	24.3	5.50	15.88	63.9	6.96'
9:38	5.89	0.669	18.1	2.44	15.64	27.6	7.00'
9:41	6.01	0.693	16.4	1.79	15.53	15.9	7.02'
9:44	6.10	0.695	22.1	1.49	15.55	7.8	7.08'
9:47	6.18	0.680	30.7	1.41	15.58	2.4	7.11'
9:50	6.20	0.614	22.8	1.29	15.64	3.6	7.14'
	Sampled @ 9:50 for NCAP II						

Comments (weather conditions, color, type of sample, purge-water management, etc.):
Purge rate 200ml/min Weather: Mostly Cloudy, low 70's, humid

Signature: _____ **Date:** 5/23/12
QA/QC Sign Off: _____ **Date:** 6-26-12

DATE: 5/23/12

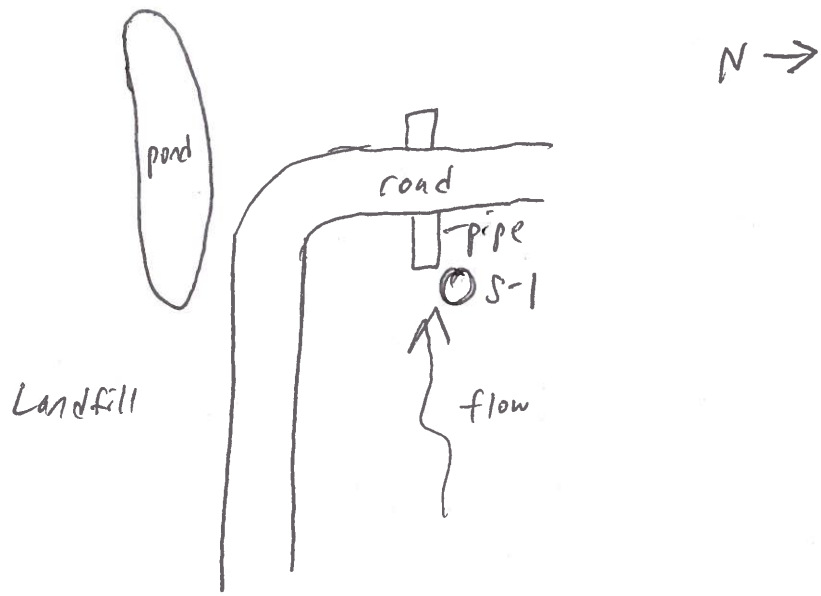
Golder Associates

SURFACE WATER SAMPLING LOG

Project Name: City of Durham
Project No./Phase No.: 739604212100
Sample ID: S-1
Sampler(s): K. Sizemore / J. DeVore
Sampling Location:
Equipment: YSI 556, Hach Turbidity Meter

Time	13:00
pH s.u.	7.31
Cond. mS/cm	0.116
Turb. ntu	~~21.1~~ 97.1
Dis. O2 mg/L	7.57
Temp. oC	19.79
TDS Sal	–
ORP mv	21.1

Surface Water Location Sketch



Comments (sample methodology, weather conditions, color, silt, etc.):
Weather: Cloudy, mid 70's, humid, flowing water observed, rain overnight

Signature: Date: 5/23/12
QA/QC Sign Off: Date: 6-26-12

DATE: 5/23/12

Golder Associates

SURFACE WATER SAMPLING LOG

Project Name: City of Durham **Project No./Phase No.:** 739604212.100

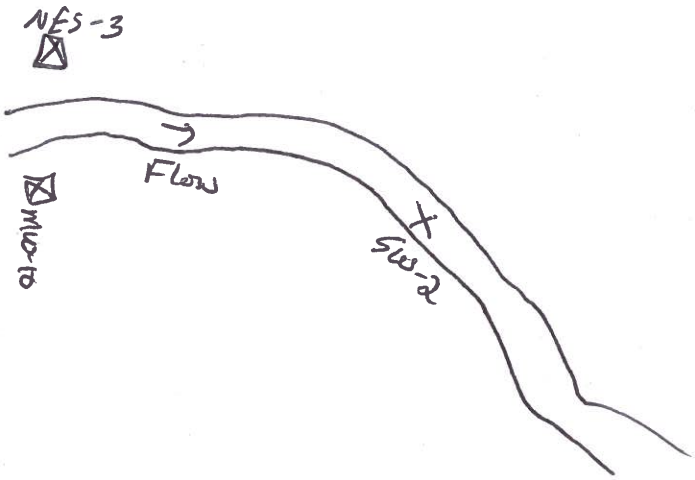
Sample ID: S-2 **Sampler(s):** K. Sizemore / J. DeVore

Sampling Location: Downstream of MW-18

Equipment: YSI 556, Hach Turbidity Meter

Time	10:15
pH s.u.	6.23
Cond. mS/cm	0.078
Turb. ntu	179
Dis. O2 mg/L	8.68
Temp. oC	19.69
TDS Sal	—
ORP mv	12.8

Surface Water Location Sketch



Comments (sample methodology, weather conditions, color, silt, etc.):

Weather: Partly cloudy, mid 70's, humid, rain overnight, flow observed

Signature: Date: 5/23/12

QA/QC Sign Off: Date: 6-26-12

DATE: 5/23/12

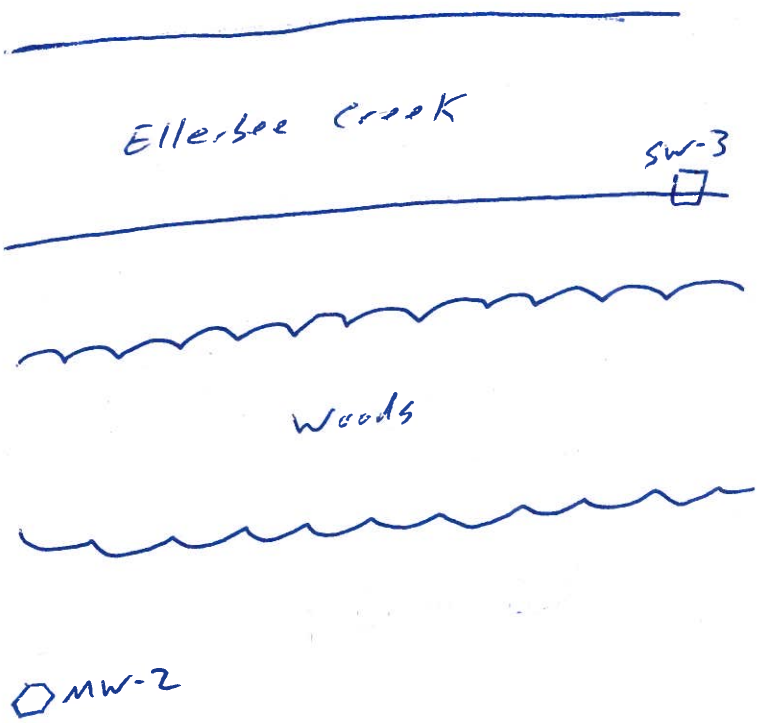
Golder Associates

SURFACE WATER SAMPLING LOG

Project Name: City of Durham
Project No./Phase No.: 739604212.100
Sample ID: S-3
Sampler(s): K. Sizemore / J. DeVore
Sampling Location:
Equipment: YSI 556, Hach Turbidity Meter

Time	11:55
pH s.u.	6.21
Cond. mS/cm	0.240
Turb. ntu	91.4
Dis. O2 mg/L	6.72
Temp. oC	21.28
TDS Sal	–
ORP mv	105.3

Surface Water Location Sketch



Comments (sample methodology, weather conditions, color, silt, etc.):
Weather: Cloudy, 70's, humid hi water, rain overnight

Signature: Date: 5/23/12
QA/QC Sign Off: Date: 6-26-12

DATE: 5/23/12

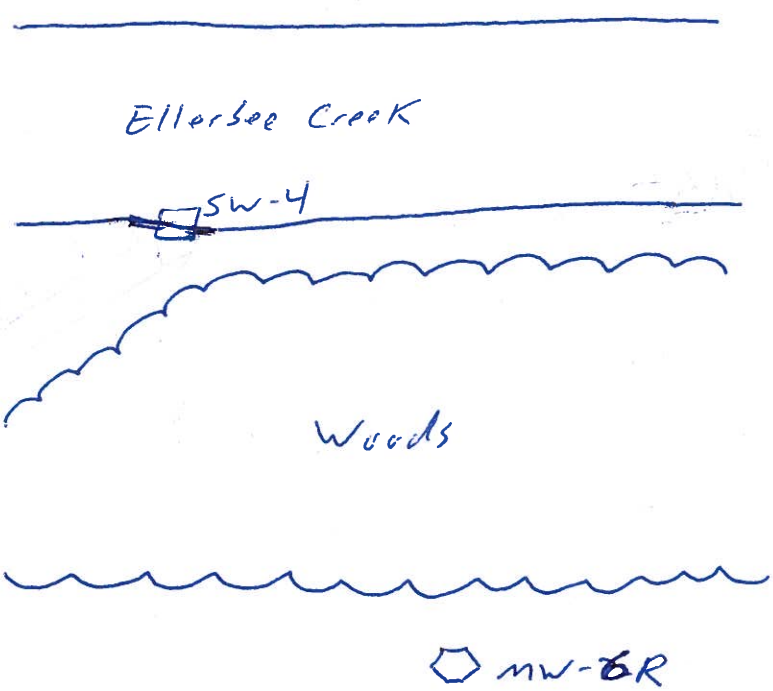
Golder Associates

SURFACE WATER SAMPLING LOG

Project Name: City of Durham
Project No./Phase No.: 739604211.100
Sample ID: S-4
Sampler(s): K. Sizemore / J. DeVore
Sampling Location:
Equipment: YSI 556, Hach Turbidity Meter

Time	10:27
pH s.u.	6.68
Cond. mS/cm	0.263
Turb. ntu	93.2
Dis. O2 mg/L	7.09
Temp. oC	21.68
TDS Sal	–
ORP mv	38.7

Surface Water Location Sketch



Comments (sample methodology, weather conditions, color, silt, etc.):
Weather: Mostly cloudy, 70's, heavy rain overnight, turbid

Signature: Date: 5/23/12
QA/QC Sign Off: Date: 6-26-12

DATE: 6-15-2012

Golder Associates

GROUNDWATER SAMPLING LOG

Project Name: City of Durham **Project No./Phase No.:** 739604212.100
Well ID: MW-5 **Sampler(s):** B. Draper/K. Brewer
Well Diameter: 2 inches **Initial Depth to Water:** 9.22 feet
Depth to Bottom: 17.99 feet **Water Column Thickness:** 8.77 feet
Well Location: Located NE of landfill along perimeter road
Equipment: YSI 556, QED MP-10, Water Level Indicator, Dedicated Bladder Pump, and Hach Turbidity Meter

Time	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	Dis O2 (mg/L)	Temp. (oC)	ORP (millivolts)	DTW (feet)
11:37	6.54	0.999	49.4	3.70	17.12	-322.1	9.95
11:40	6.70	0.958	19.5	1.41	16.41	-317.0	9.98
11:43	6.75	0.957	10.3	1.01	16.24	-329.7	10.11
11:46	6.77	0.956	8.72	0.85	16.11	-331.6	10.13
11:49	6.79	0.956	8.45	0.78	16.07	-331.6	10.15
11:52	6.80	0.956	5.54	0.67	16.07	-332.5	10.17
		Sampled @		11:52			

Comments (weather conditions, color, type of sample, purge-water management, etc.):

Signature: [signature] **Date:** 6-15-2012
QA/QC Sign Off: [signature] **Date:** 7-3-12

Golder Associates

WELL CONDITION SUMMARY

DATE: 5-22-12

Project Name: City of Durham LF

Project No./Task No. 0739604212.100

Personnel: K. Sizemore / J. DeVore

Page 1 of 1

Well ID	Protective Casing	Well Casing	Label	Lock	Pad Condition	Comments/ Observations*
MW-9R	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☐ OK ☑ Damaged	well pad cracked
MW-2	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	
MW-3R	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	
MW-4R	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	well pad covered
MW-5	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	well pad covered
MW-10	☑ OK ☐ Damaged	☑ OK ☐ Damaged	☑ OK ☐ Inadequate	☑ Yes ☐ No	☑ OK ☐ Damaged	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No	☐ OK ☐ Damaged	

* Note ponding water, weep holes, condition of surrounding area, including any disturbance of the ground since last inspection, evidence of contamination.

Signature: Ken Sizemore Date: 5-22-12

QA / QC Signature: Patty Reedy Date: 7-6-12

APPENDIX B

May 2012 Groundwater Certificate-of-Analysis, Chain of Custody Form(s) and Laboratory Data Review

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515
www.encolabs.com

Tuesday, June 12, 2012

Golder Associates, Inc. (GO007)

Attn: Dusty Reedy

5B Oak Branch Drive

Greensboro, NC 27407

RE: Laboratory Results for
Project Number: 073-9604211.100, Project Name/Desc: City of Durham
ENCO Workorder(s): C205531

Dear Dusty Reedy,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, May 24, 2012.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Chuck Smith For Stephanie Franz

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 117.

PROJECT NARRATIVE

Date: 12 June 2012
Client: Golder Associates, Inc. (GO007)
Project: City of Durham
Lab ID: C205531

Overview

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

The spike recovery of Sulfide was outside of control limits for the MS and MSD samples. The QC batch was approved based on acceptable LCS recovery of this analyte.

The Method 8270 target analyte Diethylphthalate was detected in the Method Blank at a concentration above the MDL but below the MRL. Diethylphthalate was also detected in samples 3201-MW3R MS/MSD and 3201-MW4R. The samples detections have been "B" flagged and denoted as a common laboratory contaminant (O-01).

Quality Control Remarks

The surrogate spike recovery of 4-Bromofluorobenzene in samples MW-9R, S1, S2, S3, S4, and the Field Blank and Method Blank and Dibromofluoromethane in sample MW-5 exceeded control limits. The samples were approved based on acceptable recoveries of the other surrogate standards.

The Method 8270 analytes 2,4-Dinitrophenol, 2-Acetylaminofluorene, 7,12-Dimethylbenz(a)anthracene, Benzo(b)fluoranthene and Benzo(k)fluoranthene exhibited high bias in the associated continuing calibration verification. Since the sample results are non-detect, the impact on data quality is minimal. The sample results for these analytes have been flagged with a QV-01 qualifier.

The Method 8270 analytes 3,3'-Dimethylbenzidine and Methypyrilene exhibited low bias in the associated continuing calibration verification. The reported results should be considered a minimum estimate. The sample results for these analytes have been flagged with a QV-02 qualifier.

Other Comments

All samples received under this work order arrived in acceptable conditions. The samples were not checked for residual chlorine, as it is not required. One of two containers for the Trip Blank arrived broken; the other vial was cracked, and it broke during the analysis process. No results are available for the Trip Blank.

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:
Environmental Conservation Laboratories, Inc.

Chuck Smith
Project Manager

www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 3201-MW2 **Lab ID: C205531-01** **Sampled: 05/23/12 11:06** **Received: 05/24/12 11:35**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:18
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:07
EPA 7470A	06/20/12		05/25/12	08:59	5/25/2012 15:01
EPA 8081B	05/30/12	07/08/12	05/29/12	12:58	6/7/2012 16:32
EPA 8082A	05/23/13	05/23/13	05/29/12	13:02	6/7/2012 16:32
EPA 8151A	05/30/12	07/08/12	05/29/12	12:15	5/31/2012 23:18
EPA 8260B	06/06/12		05/25/12	10:15	5/25/2012 16:25
EPA 8270D	05/30/12	07/09/12	05/30/12	07:30	6/11/2012 22:37
EPA 9014	06/06/12		05/31/12	11:10	6/1/2012 14:29
SM18 4500-S D	05/30/12		05/29/12	12:08	5/29/2012 12:35

Client ID: 3201-MW3R MS/MSD **Lab ID: C205531-02** **Sampled: 05/22/12 12:17** **Received: 05/24/12 11:35**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/18/12		05/24/12	14:13	5/25/2012 13:02
EPA 6020A	11/18/12		05/24/12	14:23	5/29/2012 11:49
EPA 7470A	06/19/12		05/25/12	08:59	5/25/2012 14:50
EPA 8081B	05/29/12	07/08/12	05/29/12	12:58	6/7/2012 16:45
EPA 8082A	05/22/13	05/22/13	05/29/12	13:02	6/7/2012 16:45
EPA 8151A	05/29/12	07/08/12	05/29/12	12:15	5/31/2012 21:08
EPA 8260B	06/05/12		05/25/12	10:15	5/25/2012 15:56
EPA 8270D	05/29/12	07/08/12	05/29/12	18:53	6/11/2012 23:03
EPA 9014	06/05/12		05/31/12	11:10	6/1/2012 14:23
SM18 4500-S D	05/29/12		05/29/12	12:08	5/29/2012 12:35

Client ID: 3201-MW4R **Lab ID: C205531-03** **Sampled: 05/22/12 11:03** **Received: 05/24/12 11:35**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/18/12		05/24/12	14:13	5/25/2012 13:20
EPA 6020A	11/18/12		05/24/12	14:23	5/29/2012 12:11
EPA 7470A	06/19/12		05/25/12	08:59	5/25/2012 15:03
EPA 8081B	05/29/12	07/08/12	05/29/12	12:58	6/7/2012 16:58
EPA 8082A	05/22/13	05/22/13	05/29/12	13:02	6/7/2012 16:58
EPA 8151A	05/29/12	07/08/12	05/29/12	12:15	5/31/2012 23:44
EPA 8260B	06/05/12		05/25/12	10:15	5/25/2012 16:54
EPA 8270D	05/29/12	07/08/12	05/29/12	18:53	6/11/2012 23:30
EPA 9014	06/05/12		05/25/12	10:07	5/25/2012 17:45
SM18 4500-S D	05/29/12		05/29/12	12:08	5/29/2012 12:35

www.encolabs.com

Client ID: 3201-MW5	Lab ID: C205531-04	Sampled: 05/23/12 12:48	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:22
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:15
EPA 7470A	06/20/12		05/25/12	08:59	5/25/2012 15:05
EPA 8081B	05/30/12	07/08/12	05/29/12	12:58	6/7/2012 17:11
EPA 8082A	05/23/13	05/23/13	05/29/12	13:02	6/7/2012 17:11
EPA 8151A	05/30/12	07/08/12	05/29/12	12:15	6/1/2012 00:10
EPA 8260B	06/06/12		05/25/12	10:15	5/25/2012 17:23
EPA 8270D	05/30/12	07/09/12	05/30/12	07:30	6/11/2012 23:57
EPA 9014	06/06/12		05/31/12	11:10	6/1/2012 14:31
SM18 4500-S D	05/30/12		05/29/12	12:08	5/29/2012 12:35

Client ID: 3201-MW9R	Lab ID: C205531-05	Sampled: 05/23/12 13:42	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:24
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:32
EPA 7470A	06/20/12		05/25/12	08:59	5/25/2012 15:12
EPA 8081B	05/30/12	07/08/12	05/29/12	12:58	6/7/2012 17:24
EPA 8082A	05/23/13	05/23/13	05/29/12	13:02	6/7/2012 17:24
EPA 8151A	05/30/12	07/08/12	05/29/12	12:15	6/1/2012 00:35
EPA 8260B	06/06/12		05/25/12	16:41	5/29/2012 20:30
EPA 8270D	05/30/12	07/09/12	05/30/12	07:30	6/12/2012 00:23
EPA 9014	06/06/12		05/31/12	11:10	6/1/2012 14:33
SM18 4500-S D	05/30/12		05/29/12	12:08	5/29/2012 12:35

Client ID: 3201-MW10	Lab ID: C205531-06	Sampled: 05/23/12 09:50	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:26
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:36
EPA 7470A	06/20/12		05/25/12	08:59	5/25/2012 15:14
EPA 8081B	05/30/12	07/08/12	05/29/12	12:58	6/7/2012 17:38
EPA 8082A	05/23/13	05/23/13	05/29/12	13:02	6/7/2012 17:38
EPA 8151A	05/30/12	07/08/12	05/29/12	12:15	6/1/2012 01:01
EPA 8270D	05/30/12	07/09/12	05/30/12	07:30	6/12/2012 00:50
EPA 9014	06/06/12		05/31/12	11:10	6/1/2012 14:34
SM18 4500-S D	05/30/12		05/29/12	12:08	5/29/2012 12:35

Client ID: 3201-MW10	Lab ID: C205531-06RE1	Sampled: 05/23/12 09:50	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8260B	06/06/12		05/30/12	09:51	5/31/2012 05:26

Client ID: 3201-S1	Lab ID: C205531-07	Sampled: 05/23/12 13:00	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:28
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:39
EPA 8260B	06/06/12		05/25/12	16:41	5/29/2012 21:29

www.encolabs.com

Client ID: 3201-S2	Lab ID: C205531-08	Sampled: 05/23/12 10:15	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:30
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:43
EPA 8260B	06/06/12		05/25/12	16:41	5/29/2012 21:59

Client ID: 3201-S3	Lab ID: C205531-09	Sampled: 05/23/12 11:55	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:37
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:47
EPA 8260B	06/06/12		05/25/12	16:41	5/29/2012 22:28

Client ID: 3201-S4	Lab ID: C205531-10	Sampled: 05/23/12 10:27	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:39
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:51
EPA 8260B	06/06/12		05/25/12	16:41	5/29/2012 22:58

Client ID: 3201-Field Blank	Lab ID: C205531-11	Sampled: 05/23/12 14:00	Received: 05/24/12 11:35

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010C	11/19/12		05/24/12	14:13	5/25/2012 13:41
EPA 6020A	11/19/12		05/24/12	14:23	5/29/2012 12:54
EPA 7470A	06/20/12		05/25/12	08:59	5/25/2012 15:17
EPA 8081B	05/30/12	07/08/12	05/29/12	12:58	6/7/2012 18:04
EPA 8082A	05/23/13	05/23/13	05/29/12	13:02	6/7/2012 18:04
EPA 8151A	05/30/12	07/08/12	05/29/12	12:15	6/1/2012 01:27
EPA 8260B	06/06/12		05/25/12	16:41	5/29/2012 23:28
EPA 8270D	05/30/12	07/09/12	05/30/12	07:30	6/12/2012 01:16
EPA 9014	06/06/12		06/04/12	10:27	6/5/2012 13:38
SM18 4500-S D	05/30/12		05/29/12	12:08	5/29/2012 12:35

www.encolabs.com

NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 3201-MW2 **Lab ID: C205531-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.542	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	82.2	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.214	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	5.55	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.18	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	2.12	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	3.36	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Silver - Total	5.61	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	2.24	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	8.53	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-MW3R MS/MSD **Lab ID: C205531-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	1.37	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	212		1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	4.28	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	4.70	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Diethylphthalate	6.6	JB	1	2.1	10	6000	ug/L	EPA 8270D	B, O-01
Nickel - Total	5.84	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Silver - Total	2.88	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Sulfide	120	J	1	10	100	1000	ug/L	SM18 4500-S D	
Tin - Total	33.8	J	1	2.10	10.0	100	ug/L	EPA 6010C	
Vanadium - Total	2.60	J	1	1.40	10.0	25	ug/L	EPA 6010C	

Client ID: 3201-MW4R **Lab ID: C205531-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.224	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	577		1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	1.51	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.24	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	3.91	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Diethylphthalate	12	JB	1	2.1	10	6000	ug/L	EPA 8270D	B, O-01
Nickel - Total	4.50	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Phenol	1.5	J	1	1.4	10	10	ug/L	EPA 8270D	
Silver - Total	2.73	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Tin - Total	3.67	J	1	2.10	10.0	100	ug/L	EPA 6010C	
Zinc - Total	5.43	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-MW5 **Lab ID: C205531-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	7.51	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	1920		1	1.00	10.0	100	ug/L	EPA 6010C	
Bis(2-ethylhexyl)phthalate	7.7	J	1	1.7	5.0	15	ug/L	EPA 8270D	
Chromium - Total	1.86	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.13	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Tin - Total	5.63	J	1	2.10	10.0	100	ug/L	EPA 6010C	

Client ID: 3201-MW9R **Lab ID: C205531-05**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	50.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.456	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	2.09	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	5.64	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	1.76	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	2.21	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.77	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Silver - Total	7.43	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	1.74	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	6.59	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-MW10 **Lab ID: C205531-06**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	664		1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	2.76	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	4.63	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	5.26	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Silver - Total	5.95	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Zinc - Total	39.0		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-MW10 **Lab ID: C205531-06RE1**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,2-Dichloropropane	4.5	D	2	0.20	2.0	1	ug/L	EPA 8260B	
Benzene	1.7	JD	2	0.30	2.0	1	ug/L	EPA 8260B	
cis-1,2-Dichloroethene	200	D	2	0.30	2.0	5	ug/L	EPA 8260B	
trans-1,2-Dichloroethene	4.4	JD	2	0.42	2.0	5	ug/L	EPA 8260B	
Trichloroethene	9.8	D	2	0.30	2.0	1	ug/L	EPA 8260B	
Vinyl chloride	15	D	2	0.64	2.0	1	ug/L	EPA 8260B	

Client ID: 3201-S1 **Lab ID: C205531-07**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetone	5.4	J	1	1.2	5.0	100	ug/L	EPA 8260B	
Barium - Total	96.5	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.190	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	5.48	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	3.16	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	7.36	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	7.51	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	4.77	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	8.23	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	17.1		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-S2 **Lab ID: C205531-08**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetone	9.2	J	1	1.2	5.0	100	ug/L	EPA 8260B	
Antimony - Total	0.269	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	70.7	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.217	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	6.08	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	2.53	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	7.57	J	1	1.60	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-S2 **Lab ID: C205531-08**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Lead - Total	6.25	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	4.35	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	9.68	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	22.1		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-S3 **Lab ID: C205531-09**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetone	10	J	1	1.2	5.0	100	ug/L	EPA 8260B	
Antimony - Total	0.378	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	38.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	3.57	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.80	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	6.19	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	9.08	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	3.48	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	5.98	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	34.0		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-S4 **Lab ID: C205531-10**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetone	11	J	1	1.2	5.0	100	ug/L	EPA 8260B	
Antimony - Total	0.398	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Barium - Total	34.4	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	3.73	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	2.13	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	6.32	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	7.33	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.85	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	6.43	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	38.8		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 3201-Field Blank **Lab ID: C205531-11**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
2-Butanone	5.4	J	1	1.3	5.0	100	ug/L	EPA 8260B	
Acetone	16	J	1	1.2	5.0	100	ug/L	EPA 8260B	

www.encolabs.com

ANALYTICAL RESULTS

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/25/12 16:25	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/25/12 16:25	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	15	EPA 8260B	05/25/12 16:25	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/25/12 16:25	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/25/12 16:25	JKG	
3-Chloropropene [107-05-1] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/25/12 16:25	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/25/12 16:25	JKG	
Acetonitrile [75-05-8] ^	5.0	U	ug/L	1	5.0	10	55	EPA 8260B	05/25/12 16:25	JKG	
Acrolein [107-02-8] ^	4.0	U	ug/L	1	4.0	10	53	EPA 8260B	05/25/12 16:25	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/25/12 16:25	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/25/12 16:25	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/25/12 16:25	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/25/12 16:25	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 16:25	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Chloroprene [126-99-8] ^	0.64	U	ug/L	1	0.64	1.0	20	EPA 8260B	05/25/12 16:25	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 16:25	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	05/25/12 16:25	JKG	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Ethyl Methacrylate [97-63-2] ^	0.38	U	ug/L	1	0.38	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/25/12 16:25	JKG	
Isobutyl alcohol [78-83-1] ^	11	U	ug/L	1	11	50	100	EPA 8260B	05/25/12 16:25	JKG	
Methacrylonitrile [126-98-7] ^	4.9	U	ug/L	1	4.9	10	100	EPA 8260B	05/25/12 16:25	JKG	
Methyl Methacrylate [80-62-6] ^	0.51	U	ug/L	1	0.51	1.0	30	EPA 8260B	05/25/12 16:25	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 16:25	JKG	
Propionitrile [107-12-0] ^	5.0	U	ug/L	1	5.0	10	150	EPA 8260B	05/25/12 16:25	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 16:25	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/25/12 16:25	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/25/12 16:25	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/25/12 16:25	JKG	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/25/12 16:25	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*108 %*	*51-122*	*2E25012*	*EPA 8260B*	*05/25/12 16:25*	*JKG*	
Dibromofluoromethane	*56*	*1*	*50.0*	*113 %*	*68-117*	*2E25012*	*EPA 8260B*	*05/25/12 16:25*	*JKG*	
Toluene-d8	*51*	*1*	*50.0*	*101 %*	*67-127*	*2E25012*	*EPA 8260B*	*05/25/12 16:25*	*JKG*	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/11/12 22:37	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 22:37	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/11/12 22:37	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 22:37	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/11/12 22:37	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/11/12 22:37	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 22:37	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/11/12 22:37	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 22:37	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/11/12 22:37	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 22:37	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/11/12 22:37	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/11/12 22:37	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/11/12 22:37	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 22:37	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 22:37	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/11/12 22:37	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/11/12 22:37	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 22:37	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	QV-01

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/11/12 22:37	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/11/12 22:37	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Diethylphthalate [84-66-2] ^	2.1	U	ug/L	1	2.1	10	6000	EPA 8270D	06/11/12 22:37	DFM	
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 22:37	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 22:37	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 22:37	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 22:37	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 22:37	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 22:37	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 22:37	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/11/12 22:37	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/11/12 22:37	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 22:37	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/11/12 22:37	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 22:37	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 22:37	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/11/12 22:37	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 22:37	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 22:37	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 22:37	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 22:37	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Phenol [108-95-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 22:37	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 22:37	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 22:37	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 22:37	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 22:37	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*54*	*1*	*100*	*54 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/11/12 22:37*	*DFM*	
2-Fluorobiphenyl	*27*	*1*	*50.0*	*54 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 22:37*	*DFM*	
2-Fluorophenol	*36*	*1*	*100*	*36 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/11/12 22:37*	*DFM*	
Nitrobenzene-d5	*27*	*1*	*50.0*	*55 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 22:37*	*DFM*	
Phenol-d5	*33*	*1*	*100*	*33 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/11/12 22:37*	*DFM*	
Terphenyl-d14	*34*	*1*	*50.0*	*69 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/11/12 22:37*	*DFM*	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 16:32	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 16:32	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 16:32	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 16:32	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 16:32	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 16:32	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 16:32	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 16:32	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 16:32	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 16:32	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 16:32	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 16:32	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 16:32	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 16:32	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*1.0*	*1*	*1.00*	*101 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 16:32*	*MSZ*	
Decachlorobiphenyl	*1.3*	*1*	*1.00*	*128 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 16:32*	*MSZ*	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 16:32	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 16:32	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 16:32	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 16:32	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 16:32	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 16:32	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*1.0*	*1*	*1.00*	*101 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 16:32*	*MSZ*	
Decachlorobiphenyl	*1.3*	*1*	*1.00*	*128 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 16:32*	*MSZ*	

www.encolabs.com

Description:	3201-MW2	**Lab Sample ID:**	C205531-01	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/23/12 11:06	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 15:01	KER	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.542**	J	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:07	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:18	JDH	
Barium [7440-39-3] ^	**82.2**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:18	JDH	
Beryllium [7440-41-7] ^	**0.214**	J	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:18	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:18	JDH	
Chromium [7440-47-3] ^	**5.55**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:18	JDH	
Cobalt [7440-48-4] ^	**1.18**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:18	JDH	
Copper [7440-50-8] ^	**2.12**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:18	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:18	JDH	
Nickel [7440-02-0] ^	**3.36**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:18	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:07	VLO	
Silver [7440-22-4] ^	**5.61**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:18	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:07	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:18	JDH	
Vanadium [7440-62-2] ^	**2.24**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:18	JDH	
Zinc [7440-66-6] ^	**8.53**	J	ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:18	JDH	

www.encolabs.com

Description: 3201-MW2
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-01
Sampled: 05/23/12 11:06
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	06/01/12 14:29	AJB	
Sulfide [18496-25-8] ^	10	U	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description: 3201-MW2 | **Lab Sample ID:** C205531-01 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 11:06 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	05/31/12 23:18	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	05/31/12 23:18	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	05/31/12 23:18	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	05/31/12 23:18	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	05/31/12 23:18	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.7*	*1*	*2.00*	*85 %*	*68-139*	*2E29003*	*EPA 8151A*	*05/31/12 23:18*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-MW3R MS/MSD | **Lab Sample ID:** C205531-02 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/22/12 12:17 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/25/12 15:56	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/25/12 15:56	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	15	EPA 8260B	05/25/12 15:56	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/25/12 15:56	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/25/12 15:56	JKG	
3-Chloropropene [107-05-1] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/25/12 15:56	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/25/12 15:56	JKG	
Acetonitrile [75-05-8] ^	5.0	U	ug/L	1	5.0	10	55	EPA 8260B	05/25/12 15:56	JKG	
Acrolein [107-02-8] ^	4.0	U	ug/L	1	4.0	10	53	EPA 8260B	05/25/12 15:56	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/25/12 15:56	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/25/12 15:56	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/25/12 15:56	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/25/12 15:56	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 15:56	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Chloroprene [126-99-8] ^	0.64	U	ug/L	1	0.64	1.0	20	EPA 8260B	05/25/12 15:56	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 15:56	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
Ethyl Methacrylate [97-63-2] ^	0.38	U	ug/L	1	0.38	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/25/12 15:56	JKG	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Isobutyl alcohol [78-83-1] ^	11	U	ug/L	1	11	50	100	EPA 8260B	05/25/12 15:56	JKG	
Methacrylonitrile [126-98-7] ^	4.9	U	ug/L	1	4.9	10	100	EPA 8260B	05/25/12 15:56	JKG	
Methyl Methacrylate [80-62-6] ^	0.51	U	ug/L	1	0.51	1.0	30	EPA 8260B	05/25/12 15:56	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 15:56	JKG	
Propionitrile [107-12-0] ^	5.0	U	ug/L	1	5.0	10	150	EPA 8260B	05/25/12 15:56	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 15:56	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/25/12 15:56	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/25/12 15:56	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/25/12 15:56	JKG	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/25/12 15:56	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*53*	*1*	*50.0*	*105 %*	*51-122*	*2E25012*	*EPA 8260B*	*05/25/12 15:56*	*JKG*	
Dibromofluoromethane	*52*	*1*	*50.0*	*104 %*	*68-117*	*2E25012*	*EPA 8260B*	*05/25/12 15:56*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*100 %*	*67-127*	*2E25012*	*EPA 8260B*	*05/25/12 15:56*	*JKG*	

www.encolabs.com

Description: 3201-MW3R MS/MSD | **Lab Sample ID:** C205531-02 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/22/12 12:17 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/11/12 23:03	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 23:03	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/11/12 23:03	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:03	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/11/12 23:03	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/11/12 23:03	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:03	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/11/12 23:03	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:03	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/11/12 23:03	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 23:03	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/11/12 23:03	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/11/12 23:03	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/11/12 23:03	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 23:03	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:03	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/11/12 23:03	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/11/12 23:03	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:03	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	QV-01

www.encolabs.com

Description: 3201-MW3R MS/MSD | **Lab Sample ID:** C205531-02 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/22/12 12:17 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/11/12 23:03	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/11/12 23:03	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Diethylphthalate [84-66-2] ^	**6.6**	JB	ug/L	1	2.1	10	6000	EPA 8270D	06/11/12 23:03	DFM	B, O-01
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 23:03	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:03	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 23:03	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 23:03	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:03	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:03	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 23:03	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/11/12 23:03	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/11/12 23:03	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 23:03	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/11/12 23:03	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:03	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 23:03	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/11/12 23:03	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:03	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:03	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 23:03	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 23:03	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Phenol [108-95-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:03	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:03	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:03	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:03	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 23:03	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*64*	*1*	*100*	*64 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/11/12 23:03*	*DFM*	
2-Fluorobiphenyl	*31*	*1*	*50.0*	*61 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 23:03*	*DFM*	
2-Fluorophenol	*36*	*1*	*100*	*36 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/11/12 23:03*	*DFM*	
Nitrobenzene-d5	*29*	*1*	*50.0*	*57 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 23:03*	*DFM*	
Phenol-d5	*35*	*1*	*100*	*35 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/11/12 23:03*	*DFM*	
Terphenyl-d14	*37*	*1*	*50.0*	*74 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/11/12 23:03*	*DFM*	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 16:45	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 16:45	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 16:45	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 16:45	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 16:45	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 16:45	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 16:45	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 16:45	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 16:45	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 16:45	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 16:45	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 16:45	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 16:45	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 16:45	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.83*	*1*	*1.00*	*83 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 16:45*	*MSZ*	
Decachlorobiphenyl	*0.93*	*1*	*1.00*	*93 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 16:45*	*MSZ*	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 16:45	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 16:45	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 16:45	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 16:45	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 16:45	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 16:45	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.83*	*1*	*1.00*	*83 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 16:45*	*MSZ*	
Decachlorobiphenyl	*0.93*	*1*	*1.00*	*93 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 16:45*	*MSZ*	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 14:50	KER	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**1.37**	J	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 11:49	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:02	JDH	
Barium [7440-39-3] ^	**212**		ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:02	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:02	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:02	JDH	
Chromium [7440-47-3] ^	**4.28**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:02	JDH	
Cobalt [7440-48-4] ^	**4.70**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:02	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:02	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:02	JDH	
Nickel [7440-02-0] ^	**5.84**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:02	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 11:49	VLO	
Silver [7440-22-4] ^	**2.88**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:02	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 11:49	VLO	
Tin [7440-31-5] ^	**33.8**	J	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:02	JDH	
Vanadium [7440-62-2] ^	**2.60**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:02	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:02	JDH	

www.encolabs.com

Description:	3201-MW3R MS/MSD	**Lab Sample ID:**	C205531-02	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/22/12 12:17	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	06/01/12 14:23	AJB	
Sulfide [18496-25-8] ^	**120**	J	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description: 3201-MW3R MS/MSD
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-02
Sampled: 05/22/12 12:17
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	05/31/12 21:08	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	05/31/12 21:08	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	05/31/12 21:08	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	05/31/12 21:08	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	05/31/12 21:08	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.9*	*1*	*2.00*	*93 %*	*68-139*	*2E29003*	*EPA 8151A*	*05/31/12 21:08*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/25/12 16:54	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/25/12 16:54	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	15	EPA 8260B	05/25/12 16:54	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/25/12 16:54	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/25/12 16:54	JKG	
3-Chloropropene [107-05-1] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/25/12 16:54	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/25/12 16:54	JKG	
Acetonitrile [75-05-8] ^	5.0	U	ug/L	1	5.0	10	55	EPA 8260B	05/25/12 16:54	JKG	
Acrolein [107-02-8] ^	4.0	U	ug/L	1	4.0	10	53	EPA 8260B	05/25/12 16:54	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/25/12 16:54	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/25/12 16:54	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/25/12 16:54	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/25/12 16:54	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 16:54	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Chloroprene [126-99-8] ^	0.64	U	ug/L	1	0.64	1.0	20	EPA 8260B	05/25/12 16:54	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 16:54	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
Ethyl Methacrylate [97-63-2] ^	0.38	U	ug/L	1	0.38	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/25/12 16:54	JKG	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Isobutyl alcohol [78-83-1] ^	11	U	ug/L	1	11	50	100	EPA 8260B	05/25/12 16:54	JKG	
Methacrylonitrile [126-98-7] ^	4.9	U	ug/L	1	4.9	10	100	EPA 8260B	05/25/12 16:54	JKG	
Methyl Methacrylate [80-62-6] ^	0.51	U	ug/L	1	0.51	1.0	30	EPA 8260B	05/25/12 16:54	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 16:54	JKG	
Propionitrile [107-12-0] ^	5.0	U	ug/L	1	5.0	10	150	EPA 8260B	05/25/12 16:54	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 16:54	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/25/12 16:54	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/25/12 16:54	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/25/12 16:54	JKG	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/25/12 16:54	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*108 %*	*51-122*	*2E25012*	*EPA 8260B*	*05/25/12 16:54*	*JKG*	
Dibromofluoromethane	*55*	*1*	*50.0*	*111 %*	*68-117*	*2E25012*	*EPA 8260B*	*05/25/12 16:54*	*JKG*	
Toluene-d8	*48*	*1*	*50.0*	*96 %*	*67-127*	*2E25012*	*EPA 8260B*	*05/25/12 16:54*	*JKG*	

www.encolabs.com

Description: 3201-MW4R | **Lab Sample ID:** C205531-03 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/22/12 11:03 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/11/12 23:30	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 23:30	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/11/12 23:30	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:30	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/11/12 23:30	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/11/12 23:30	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:30	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/11/12 23:30	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:30	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/11/12 23:30	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 23:30	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/11/12 23:30	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/11/12 23:30	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/11/12 23:30	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 23:30	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:30	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/11/12 23:30	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/11/12 23:30	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:30	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	QV-01

www.encolabs.com

Description: 3201-MW4R | **Lab Sample ID:** C205531-03 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/22/12 11:03 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/11/12 23:30	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/11/12 23:30	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Diethylphthalate [84-66-2] ^	**12**	JB	ug/L	1	2.1	10	6000	EPA 8270D	06/11/12 23:30	DFM	B, O-01
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 23:30	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:30	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 23:30	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 23:30	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:30	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:30	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 23:30	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/11/12 23:30	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/11/12 23:30	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 23:30	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/11/12 23:30	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:30	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 23:30	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/11/12 23:30	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:30	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:30	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 23:30	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 23:30	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Phenol [108-95-2] ^	**1.5**	J	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:30	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:30	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:30	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:30	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 23:30	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*66*	*1*	*100*	*66 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/11/12 23:30*	*DFM*	
2-Fluorobiphenyl	*33*	*1*	*50.0*	*66 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 23:30*	*DFM*	
2-Fluorophenol	*42*	*1*	*100*	*42 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/11/12 23:30*	*DFM*	
Nitrobenzene-d5	*33*	*1*	*50.0*	*65 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 23:30*	*DFM*	
Phenol-d5	*37*	*1*	*100*	*37 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/11/12 23:30*	*DFM*	
Terphenyl-d14	*41*	*1*	*50.0*	*82 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/11/12 23:30*	*DFM*	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 16:58	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 16:58	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 16:58	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 16:58	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 16:58	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 16:58	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 16:58	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 16:58	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 16:58	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 16:58	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 16:58	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 16:58	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 16:58	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 16:58	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.85*	*1*	*1.00*	*85 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 16:58*	*MSZ*	
Decachlorobiphenyl	*1.1*	*1*	*1.00*	*110 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 16:58*	*MSZ*	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 16:58	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 16:58	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 16:58	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 16:58	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 16:58	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 16:58	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.85*	*1*	*1.00*	*85 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 16:58*	*MSZ*	
Decachlorobiphenyl	*1.1*	*1*	*1.00*	*110 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 16:58*	*MSZ*	

www.encolabs.com

Description:	3201-MW4R	**Lab Sample ID:**	C205531-03	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/22/12 11:03	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 15:03	KER	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.224**	J	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:11	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:20	JDH	
Barium [7440-39-3] ^	**577**		ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:20	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:20	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:20	JDH	
Chromium [7440-47-3] ^	**1.51**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:20	JDH	
Cobalt [7440-48-4] ^	**1.24**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:20	JDH	
Copper [7440-50-8] ^	**3.91**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:20	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:20	JDH	
Nickel [7440-02-0] ^	**4.50**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:20	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:11	VLO	
Silver [7440-22-4] ^	**2.73**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:20	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:11	VLO	
Tin [7440-31-5] ^	**3.67**	J	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:20	JDH	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:20	JDH	
Zinc [7440-66-6] ^	**5.43**	J	ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:20	JDH	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	05/25/12 17:45	AJB	
Sulfide [18496-25-8] ^	10	U	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description: 3201-MW4R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-03
Sampled: 05/22/12 11:03
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	05/31/12 23:44	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	05/31/12 23:44	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	05/31/12 23:44	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	05/31/12 23:44	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	05/31/12 23:44	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.5*	*1*	*2.00*	*77 %*	*68-139*	*2E29003*	*EPA 8151A*	*05/31/12 23:44*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/25/12 17:23	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/25/12 17:23	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	15	EPA 8260B	05/25/12 17:23	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/25/12 17:23	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/25/12 17:23	JKG	
3-Chloropropene [107-05-1] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/25/12 17:23	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/25/12 17:23	JKG	
Acetonitrile [75-05-8] ^	5.0	U	ug/L	1	5.0	10	55	EPA 8260B	05/25/12 17:23	JKG	
Acrolein [107-02-8] ^	4.0	U	ug/L	1	4.0	10	53	EPA 8260B	05/25/12 17:23	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/25/12 17:23	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/25/12 17:23	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/25/12 17:23	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/25/12 17:23	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 17:23	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Chloroprene [126-99-8] ^	0.64	U	ug/L	1	0.64	1.0	20	EPA 8260B	05/25/12 17:23	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/25/12 17:23	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
Ethyl Methacrylate [97-63-2] ^	0.38	U	ug/L	1	0.38	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/25/12 17:23	JKG	

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Isobutyl alcohol [78-83-1] ^	11	U	ug/L	1	11	50	100	EPA 8260B	05/25/12 17:23	JKG	
Methacrylonitrile [126-98-7] ^	4.9	U	ug/L	1	4.9	10	100	EPA 8260B	05/25/12 17:23	JKG	
Methyl Methacrylate [80-62-6] ^	0.51	U	ug/L	1	0.51	1.0	30	EPA 8260B	05/25/12 17:23	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/25/12 17:23	JKG	
Propionitrile [107-12-0] ^	5.0	U	ug/L	1	5.0	10	150	EPA 8260B	05/25/12 17:23	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/25/12 17:23	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/25/12 17:23	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/25/12 17:23	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/25/12 17:23	JKG	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/25/12 17:23	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*54*	*1*	*50.0*	*109 %*	*51-122*	*2E25012*	*EPA 8260B*	*05/25/12 17:23*	*JKG*	
Dibromofluoromethane	*59*	*1*	*50.0*	*119 %*	*68-117*	*2E25012*	*EPA 8260B*	*05/25/12 17:23*	*JKG*	*QS-03*
Toluene-d8	*47*	*1*	*50.0*	*94 %*	*67-127*	*2E25012*	*EPA 8260B*	*05/25/12 17:23*	*JKG*	

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/11/12 23:57	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 23:57	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/11/12 23:57	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:57	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/11/12 23:57	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/11/12 23:57	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:57	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/11/12 23:57	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:57	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/11/12 23:57	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 23:57	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/11/12 23:57	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/11/12 23:57	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/11/12 23:57	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 23:57	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:57	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/11/12 23:57	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/11/12 23:57	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/11/12 23:57	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	QV-01

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/11/12 23:57	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	**7.7**	J	ug/L	1	1.7	5.0	15	EPA 8270D	06/11/12 23:57	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Diethylphthalate [84-66-2] ^	2.1	U	ug/L	1	2.1	10	6000	EPA 8270D	06/11/12 23:57	DFM	
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 23:57	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:57	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/11/12 23:57	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 23:57	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:57	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:57	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 23:57	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/11/12 23:57	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/11/12 23:57	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/11/12 23:57	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/11/12 23:57	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/11/12 23:57	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/11/12 23:57	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/11/12 23:57	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/11/12 23:57	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/11/12 23:57	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/11/12 23:57	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/11/12 23:57	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Phenol [108-95-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/11/12 23:57	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/11/12 23:57	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/11/12 23:57	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/11/12 23:57	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/11/12 23:57	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*72*	*1*	*100*	*72 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/11/12 23:57*	*DFM*	
2-Fluorobiphenyl	*34*	*1*	*50.0*	*67 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 23:57*	*DFM*	
2-Fluorophenol	*40*	*1*	*100*	*40 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/11/12 23:57*	*DFM*	
Nitrobenzene-d5	*34*	*1*	*50.0*	*68 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/11/12 23:57*	*DFM*	
Phenol-d5	*34*	*1*	*100*	*34 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/11/12 23:57*	*DFM*	
Terphenyl-d14	*43*	*1*	*50.0*	*86 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/11/12 23:57*	*DFM*	

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 17:11	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 17:11	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 17:11	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 17:11	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 17:11	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 17:11	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 17:11	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 17:11	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 17:11	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 17:11	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 17:11	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 17:11	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 17:11	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 17:11	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.97*	*1*	*1.00*	*97 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 17:11*	*MSZ*	
Decachlorobiphenyl	*1.3*	*1*	*1.00*	*129 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 17:11*	*MSZ*	

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 17:11	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 17:11	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 17:11	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 17:11	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 17:11	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 17:11	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.97*	*1*	*1.00*	*97 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 17:11*	*MSZ*	
Decachlorobiphenyl	*1.3*	*1*	*1.00*	*129 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 17:11*	*MSZ*	

www.encolabs.com

Description:	3201-MW5	**Lab Sample ID:**	C205531-04	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/23/12 12:48	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 15:05	KER	

www.encolabs.com

Description: 3201-MW5 | **Lab Sample ID:** C205531-04 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 12:48 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:15	VLO	
Arsenic [7440-38-2] ^	**7.51**	J	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:22	JDH	
Barium [7440-39-3] ^	**1920**		ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:22	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:22	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:22	JDH	
Chromium [7440-47-3] ^	**1.86**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:22	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:22	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:22	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:22	JDH	
Nickel [7440-02-0] ^	**2.13**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:22	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:15	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:22	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:15	VLO	
Tin [7440-31-5] ^	**5.63**	J	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:22	JDH	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:22	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:22	JDH	

www.encolabs.com

Description: 3201-MW5
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-04
Sampled: 05/23/12 12:48
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	06/01/12 14:31	AJB	
Sulfide [18496-25-8] ^	10	U	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description:	3201-MW5	**Lab Sample ID:**	C205531-04	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/23/12 12:48	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	06/01/12 00:10	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	06/01/12 00:10	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	06/01/12 00:10	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	06/01/12 00:10	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	06/01/12 00:10	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.8*	*1*	*2.00*	*91 %*	*68-139*	*2E29003*	*EPA 8151A*	*06/01/12 00:10*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/29/12 20:30	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/29/12 20:30	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	15	EPA 8260B	05/29/12 20:30	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/29/12 20:30	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/29/12 20:30	JKG	
3-Chloropropene [107-05-1] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/29/12 20:30	JKG	
Acetone [67-64-1] ^	1.2	U	ug/L	1	1.2	5.0	100	EPA 8260B	05/29/12 20:30	JKG	
Acetonitrile [75-05-8] ^	5.0	U	ug/L	1	5.0	10	55	EPA 8260B	05/29/12 20:30	JKG	
Acrolein [107-02-8] ^	4.0	U	ug/L	1	4.0	10	53	EPA 8260B	05/29/12 20:30	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/29/12 20:30	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/29/12 20:30	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/29/12 20:30	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/29/12 20:30	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 20:30	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Chloroprene [126-99-8] ^	0.64	U	ug/L	1	0.64	1.0	20	EPA 8260B	05/29/12 20:30	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 20:30	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
Ethyl Methacrylate [97-63-2] ^	0.38	U	ug/L	1	0.38	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/29/12 20:30	JKG	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Isobutyl alcohol [78-83-1] ^	11	U	ug/L	1	11	50	100	EPA 8260B	05/29/12 20:30	JKG	
Methacrylonitrile [126-98-7] ^	4.9	U	ug/L	1	4.9	10	100	EPA 8260B	05/29/12 20:30	JKG	
Methyl Methacrylate [80-62-6] ^	0.51	U	ug/L	1	0.51	1.0	30	EPA 8260B	05/29/12 20:30	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/29/12 20:30	JKG	
Propionitrile [107-12-0] ^	5.0	U	ug/L	1	5.0	10	150	EPA 8260B	05/29/12 20:30	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 20:30	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/29/12 20:30	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/29/12 20:30	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/29/12 20:30	JKG	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/29/12 20:30	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*67*	*1*	*50.0*	*134 %*	*51-122*	*2E25030*	*EPA 8260B*	*05/29/12 20:30*	*JKG*	*QS-03*
Dibromofluoromethane	*47*	*1*	*50.0*	*94 %*	*68-117*	*2E25030*	*EPA 8260B*	*05/29/12 20:30*	*JKG*	
Toluene-d8	*49*	*1*	*50.0*	*97 %*	*67-127*	*2E25030*	*EPA 8260B*	*05/29/12 20:30*	*JKG*	

www.encolabs.com

Description: 3201-MW9R | **Lab Sample ID:** C205531-05 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 13:42 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/12/12 00:23	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/12/12 00:23	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/12/12 00:23	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:23	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/12/12 00:23	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/12/12 00:23	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:23	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/12/12 00:23	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 00:23	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/12/12 00:23	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/12/12 00:23	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/12/12 00:23	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/12/12 00:23	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/12/12 00:23	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/12/12 00:23	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 00:23	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/12/12 00:23	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/12/12 00:23	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 00:23	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	QV-01

www.encolabs.com

Description: 3201-MW9R | **Lab Sample ID:** C205531-05 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 13:42 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/12/12 00:23	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/12/12 00:23	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Diethylphthalate [84-66-2] ^	2.1	U	ug/L	1	2.1	10	6000	EPA 8270D	06/12/12 00:23	DFM	
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/12/12 00:23	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:23	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/12/12 00:23	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/12/12 00:23	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 00:23	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 00:23	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/12/12 00:23	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/12/12 00:23	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/12/12 00:23	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/12/12 00:23	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/12/12 00:23	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:23	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/12/12 00:23	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/12/12 00:23	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 00:23	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:23	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/12/12 00:23	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/12/12 00:23	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Phenol [108-95-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:23	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:23	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 00:23	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:23	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/12/12 00:23	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*65*	*1*	*100*	*65 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/12/12 00:23*	*DFM*	
2-Fluorobiphenyl	*34*	*1*	*50.0*	*68 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/12/12 00:23*	*DFM*	
2-Fluorophenol	*40*	*1*	*100*	*40 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/12/12 00:23*	*DFM*	
Nitrobenzene-d5	*34*	*1*	*50.0*	*68 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/12/12 00:23*	*DFM*	
Phenol-d5	*34*	*1*	*100*	*34 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/12/12 00:23*	*DFM*	
Terphenyl-d14	*40*	*1*	*50.0*	*80 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/12/12 00:23*	*DFM*	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 17:24	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 17:24	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 17:24	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 17:24	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 17:24	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 17:24	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 17:24	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 17:24	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 17:24	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 17:24	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 17:24	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 17:24	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 17:24	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 17:24	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.78*	*1*	*1.00*	*78 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 17:24*	*MSZ*	
Decachlorobiphenyl	*1.2*	*1*	*1.00*	*117 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 17:24*	*MSZ*	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 17:24	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 17:24	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 17:24	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 17:24	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 17:24	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 17:24	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.78*	*1*	*1.00*	*78 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 17:24*	*MSZ*	
Decachlorobiphenyl	*1.2*	*1*	*1.00*	*117 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 17:24*	*MSZ*	

www.encolabs.com

Description:	3201-MW9R	**Lab Sample ID:**	C205531-05	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/23/12 13:42	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 15:12	KER	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:32	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:24	JDH	
Barium [7440-39-3] ^	**50.6**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:24	JDH	
Beryllium [7440-41-7] ^	**0.456**	J	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:24	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:24	JDH	
Chromium [7440-47-3] ^	**2.09**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:24	JDH	
Cobalt [7440-48-4] ^	**5.64**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:24	JDH	
Copper [7440-50-8] ^	**1.76**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:24	JDH	
Lead [7439-92-1] ^	**2.21**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:24	JDH	
Nickel [7440-02-0] ^	**2.77**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:24	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:32	VLO	
Silver [7440-22-4] ^	**7.43**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:24	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:32	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:24	JDH	
Vanadium [7440-62-2] ^	**1.74**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:24	JDH	
Zinc [7440-66-6] ^	**6.59**	J	ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:24	JDH	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	06/01/12 14:33	AJB	
Sulfide [18496-25-8] ^	10	U	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description: 3201-MW9R
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-05
Sampled: 05/23/12 13:42
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	06/01/12 00:35	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	06/01/12 00:35	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	06/01/12 00:35	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	06/01/12 00:35	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	06/01/12 00:35	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.6*	*1*	*2.00*	*80 %*	*68-139*	*2E29003*	*EPA 8151A*	*06/01/12 00:35*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.34	UD	ug/L	2	0.34	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.24	UD	ug/L	2	0.24	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.56	UD	ug/L	2	0.56	2.0	3	EPA 8260B	05/31/12 05:26	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.28	UD	ug/L	2	0.28	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,1-Dichloroethane [75-34-3] ^	0.26	UD	ug/L	2	0.26	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
1,1-Dichloroethene [75-35-4] ^	0.42	UD	ug/L	2	0.42	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
1,1-Dichloropropene [563-58-6] ^	0.30	UD	ug/L	2	0.30	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.46	UD	ug/L	2	0.46	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.28	UD	ug/L	2	0.28	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.96	UD	ug/L	2	0.96	2.0	13	EPA 8260B	05/31/12 05:26	JKG	
1,2-Dibromoethane [106-93-4] ^	1.3	UD	ug/L	2	1.3	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.38	UD	ug/L	2	0.38	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
1,2-Dichloroethane [107-06-2] ^	0.42	UD	ug/L	2	0.42	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,2-Dichloropropane [78-87-5] ^	**4.5**	D	ug/L	2	0.20	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.30	UD	ug/L	2	0.30	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
1,3-Dichloropropane [142-28-9] ^	0.32	UD	ug/L	2	0.32	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	UD	ug/L	2	0.38	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
2,2-Dichloropropane [594-20-7] ^	0.56	UD	ug/L	2	0.56	2.0	15	EPA 8260B	05/31/12 05:26	JKG	
2-Butanone [78-93-3] ^	2.6	UD	ug/L	2	2.6	10	100	EPA 8260B	05/31/12 05:26	JKG	
2-Hexanone [591-78-6] ^	1.8	UD	ug/L	2	1.8	10	50	EPA 8260B	05/31/12 05:26	JKG	
3-Chloropropene [107-05-1] ^	0.22	UD	ug/L	2	0.22	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
4-Methyl-2-pentanone [108-10-1] ^	2.2	UD	ug/L	2	2.2	10	100	EPA 8260B	05/31/12 05:26	JKG	
Acetone [67-64-1] ^	2.4	UD	ug/L	2	2.4	10	100	EPA 8260B	05/31/12 05:26	JKG	
Acetonitrile [75-05-8] ^	10	UD	ug/L	2	10	20	55	EPA 8260B	05/31/12 05:26	JKG	
Acrolein [107-02-8] ^	8.0	UD	ug/L	2	8.0	20	53	EPA 8260B	05/31/12 05:26	JKG	
Acrylonitrile [107-13-1] ^	7.0	UD	ug/L	2	7.0	20	200	EPA 8260B	05/31/12 05:26	JKG	
Benzene [71-43-2] ^	**1.7**	JD	ug/L	2	0.30	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Bromochloromethane [74-97-5] ^	0.96	UD	ug/L	2	0.96	2.0	3	EPA 8260B	05/31/12 05:26	JKG	
Bromodichloromethane [75-27-4] ^	0.34	UD	ug/L	2	0.34	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Bromoform [75-25-2] ^	0.44	UD	ug/L	2	0.44	2.0	3	EPA 8260B	05/31/12 05:26	JKG	
Bromomethane [74-83-9] ^	0.28	UD	ug/L	2	0.28	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
Carbon disulfide [75-15-0] ^	3.0	UD	ug/L	2	3.0	10	100	EPA 8260B	05/31/12 05:26	JKG	
Carbon tetrachloride [56-23-5] ^	0.34	UD	ug/L	2	0.34	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Chlorobenzene [108-90-7] ^	0.34	UD	ug/L	2	0.34	2.0	3	EPA 8260B	05/31/12 05:26	JKG	
Chloroethane [75-00-3] ^	0.46	UD	ug/L	2	0.46	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
Chloroform [67-66-3] ^	0.36	UD	ug/L	2	0.36	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
Chloromethane [74-87-3] ^	0.26	UD	ug/L	2	0.26	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Chloroprene [126-99-8] ^	1.3	UD	ug/L	2	1.3	2.0	20	EPA 8260B	05/31/12 05:26	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	**200**	D	ug/L	2	0.30	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.40	UD	ug/L	2	0.40	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Dibromochloromethane [124-48-1] ^	0.34	UD	ug/L	2	0.34	2.0	3	EPA 8260B	05/31/12 05:26	JKG	
Dibromomethane [74-95-3] ^	0.54	UD	ug/L	2	0.54	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.40	UD	ug/L	2	0.40	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
Ethyl Methacrylate [97-63-2] ^	0.76	UD	ug/L	2	0.76	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
Ethylbenzene [100-41-4] ^	0.26	UD	ug/L	2	0.26	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Iodomethane [74-88-4] ^	3.4	UD	ug/L	2	3.4	10	10	EPA 8260B	05/31/12 05:26	JKG	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Isobutyl alcohol [78-83-1] ^	22	UD	ug/L	2	22	100	100	EPA 8260B	05/31/12 05:26	JKG	
Methacrylonitrile [126-98-7] ^	9.8	UD	ug/L	2	9.8	20	100	EPA 8260B	05/31/12 05:26	JKG	
Methyl Methacrylate [80-62-6] ^	1.0	UD	ug/L	2	1.0	2.0	30	EPA 8260B	05/31/12 05:26	JKG	
Methylene chloride [75-09-2] ^	0.46	UD	ug/L	2	0.46	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Naphthalene [91-20-3] ^	0.22	UD	ug/L	2	0.22	2.0	10	EPA 8260B	05/31/12 05:26	JKG	
Propionitrile [107-12-0] ^	10	UD	ug/L	2	10	20	150	EPA 8260B	05/31/12 05:26	JKG	
Styrene [100-42-5] ^	0.22	UD	ug/L	2	0.22	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Tetrachloroethene [127-18-4] ^	0.34	UD	ug/L	2	0.34	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Toluene [108-88-3] ^	0.28	UD	ug/L	2	0.28	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	**4.4**	JD	ug/L	2	0.42	2.0	5	EPA 8260B	05/31/12 05:26	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.30	UD	ug/L	2	0.30	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	1.4	UD	ug/L	2	1.4	2.0	100	EPA 8260B	05/31/12 05:26	JKG	
Trichloroethene [79-01-6] ^	**9.8**	D	ug/L	2	0.30	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Trichlorofluoromethane [75-69-4] ^	0.48	UD	ug/L	2	0.48	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Vinyl acetate [108-05-4] ^	1.9	UD	ug/L	2	1.9	10	50	EPA 8260B	05/31/12 05:26	JKG	
Vinyl chloride [75-01-4] ^	**15**	D	ug/L	2	0.64	2.0	1	EPA 8260B	05/31/12 05:26	JKG	
Xylenes (Total) [1330-20-7] ^	0.90	UD	ug/L	2	0.90	6.0	5	EPA 8260B	05/31/12 05:26	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*43*	*1*	*50.0*	*85 %*	*51-122*	*2E29023*	*EPA 8260B*	*05/31/12 05:26*	*JKG*	
Dibromofluoromethane	*40*	*1*	*50.0*	*81 %*	*68-117*	*2E29023*	*EPA 8260B*	*05/31/12 05:26*	*JKG*	
Toluene-d8	*39*	*1*	*50.0*	*79 %*	*67-127*	*2E29023*	*EPA 8260B*	*05/31/12 05:26*	*JKG*	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/12/12 00:50	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/12/12 00:50	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/12/12 00:50	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:50	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/12/12 00:50	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/12/12 00:50	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:50	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/12/12 00:50	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 00:50	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/12/12 00:50	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/12/12 00:50	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/12/12 00:50	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/12/12 00:50	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/12/12 00:50	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/12/12 00:50	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 00:50	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/12/12 00:50	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/12/12 00:50	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 00:50	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	QV-01

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/12/12 00:50	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/12/12 00:50	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Diethylphthalate [84-66-2] ^	2.1	U	ug/L	1	2.1	10	6000	EPA 8270D	06/12/12 00:50	DFM	
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/12/12 00:50	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:50	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/12/12 00:50	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/12/12 00:50	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 00:50	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 00:50	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/12/12 00:50	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/12/12 00:50	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/12/12 00:50	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/12/12 00:50	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/12/12 00:50	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 00:50	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/12/12 00:50	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/12/12 00:50	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 00:50	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 00:50	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/12/12 00:50	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/12/12 00:50	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Phenol [108-95-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 00:50	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 00:50	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 00:50	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 00:50	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/12/12 00:50	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*70*	*1*	*100*	*70 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/12/12 00:50*	*DFM*	
2-Fluorobiphenyl	*32*	*1*	*50.0*	*65 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/12/12 00:50*	*DFM*	
2-Fluorophenol	*40*	*1*	*100*	*40 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/12/12 00:50*	*DFM*	
Nitrobenzene-d5	*33*	*1*	*50.0*	*66 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/12/12 00:50*	*DFM*	
Phenol-d5	*36*	*1*	*100*	*36 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/12/12 00:50*	*DFM*	
Terphenyl-d14	*41*	*1*	*50.0*	*82 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/12/12 00:50*	*DFM*	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 17:38	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 17:38	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 17:38	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 17:38	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 17:38	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 17:38	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 17:38	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 17:38	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 17:38	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 17:38	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 17:38	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 17:38	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 17:38	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 17:38	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.83*	*1*	*1.00*	*83 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 17:38*	*MSZ*	
Decachlorobiphenyl	*0.83*	*1*	*1.00*	*83 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 17:38*	*MSZ*	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 17:38	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 17:38	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 17:38	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 17:38	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 17:38	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 17:38	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.83*	*1*	*1.00*	*83 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 17:38*	*MSZ*	
Decachlorobiphenyl	*0.83*	*1*	*1.00*	*83 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 17:38*	*MSZ*	

www.encolabs.com

Description:	3201-MW10	**Lab Sample ID:**	C205531-06	**Received:**	05/24/12 11:35
Matrix:	Ground Water	**Sampled:**	05/23/12 09:50	**Work Order:**	C205531
Project:	City of Durham	**Sampled By:**	Ken Sizemore / Jeremy De		

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 15:14	KER	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:36	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:26	JDH	
Barium [7440-39-3] ^	**664**		ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:26	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:26	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:26	JDH	
Chromium [7440-47-3] ^	**2.76**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:26	JDH	
Cobalt [7440-48-4] ^	**4.63**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:26	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:26	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:26	JDH	
Nickel [7440-02-0] ^	**5.26**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:26	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:36	VLO	
Silver [7440-22-4] ^	**5.95**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:26	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:36	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:26	JDH	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:26	JDH	
Zinc [7440-66-6] ^	**39.0**		ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:26	JDH	

www.encolabs.com

Description: 3201-MW10
Matrix: Ground Water
Project: City of Durham

Lab Sample ID: C205531-06
Sampled: 05/23/12 09:50
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	06/01/12 14:34	AJB	
Sulfide [18496-25-8] ^	10	U	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description: 3201-MW10 | **Lab Sample ID:** C205531-06 | **Received:** 05/24/12 11:35

Matrix: Ground Water | **Sampled:** 05/23/12 09:50 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	06/01/12 01:01	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	06/01/12 01:01	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	06/01/12 01:01	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	06/01/12 01:01	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	06/01/12 01:01	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.6*	*1*	*2.00*	*80 %*	*68-139*	*2E29003*	*EPA 8151A*	*06/01/12 01:01*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-S1 | **Lab Sample ID:** C205531-07 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 13:00 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/29/12 21:29	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/29/12 21:29	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/29/12 21:29	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/29/12 21:29	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/29/12 21:29	JKG	
Acetone [67-64-1] ^	**5.4**	J	ug/L	1	1.2	5.0	100	EPA 8260B	05/29/12 21:29	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/29/12 21:29	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/29/12 21:29	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/29/12 21:29	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 21:29	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/29/12 21:29	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 21:29	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/29/12 21:29	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 21:29	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/29/12 21:29	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/29/12 21:29	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 21:29	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/29/12 21:29	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/29/12 21:29	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/29/12 21:29	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/29/12 21:29	JKG	

www.encolabs.com

Description: 3201-S1 | **Lab Sample ID:** C205531-07 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 13:00 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/29/12 21:29	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*68*	*1*	*50.0*	*136 %*	*51-122*	*2E25030*	*EPA 8260B*	*05/29/12 21:29*	*JKG*	*QS-03*
Dibromofluoromethane	*47*	*1*	*50.0*	*95 %*	*68-117*	*2E25030*	*EPA 8260B*	*05/29/12 21:29*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*101 %*	*67-127*	*2E25030*	*EPA 8260B*	*05/29/12 21:29*	*JKG*	

www.encolabs.com

Description: 3201-S1 | **Lab Sample ID:** C205531-07 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 13:00 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:39	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:28	JDH	
Barium [7440-39-3] ^	**96.5**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:28	JDH	
Beryllium [7440-41-7] ^	**0.190**	J	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:28	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:28	JDH	
Chromium [7440-47-3] ^	**5.48**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:28	JDH	
Cobalt [7440-48-4] ^	**3.16**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:28	JDH	
Copper [7440-50-8] ^	**7.36**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:28	JDH	
Lead [7439-92-1] ^	**7.51**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:28	JDH	
Nickel [7440-02-0] ^	**4.77**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:28	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:39	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:28	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:39	VLO	
Vanadium [7440-62-2] ^	**8.23**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:28	JDH	
Zinc [7440-66-6] ^	**17.1**		ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:28	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-S2 | **Lab Sample ID:** C205531-08 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 10:15 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/29/12 21:59	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/29/12 21:59	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/29/12 21:59	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/29/12 21:59	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/29/12 21:59	JKG	
Acetone [67-64-1] ^	**9.2**	J	ug/L	1	1.2	5.0	100	EPA 8260B	05/29/12 21:59	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/29/12 21:59	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/29/12 21:59	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/29/12 21:59	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 21:59	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/29/12 21:59	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 21:59	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/29/12 21:59	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 21:59	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/29/12 21:59	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/29/12 21:59	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 21:59	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/29/12 21:59	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/29/12 21:59	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/29/12 21:59	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/29/12 21:59	JKG	

www.encolabs.com

Description: 3201-S2
Matrix: Surface Water
Project: City of Durham

Lab Sample ID: C205531-08
Sampled: 05/23/12 10:15
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/29/12 21:59	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*67*	*1*	*50.0*	*134 %*	*51-122*	*2E25030*	*EPA 8260B*	*05/29/12 21:59*	*JKG*	*QS-03*
Dibromofluoromethane	*46*	*1*	*50.0*	*92 %*	*68-117*	*2E25030*	*EPA 8260B*	*05/29/12 21:59*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*101 %*	*67-127*	*2E25030*	*EPA 8260B*	*05/29/12 21:59*	*JKG*	

www.encolabs.com

Description: 3201-S2 | **Lab Sample ID:** C205531-08 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 10:15 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.269**	J	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:43	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:30	JDH	
Barium [7440-39-3] ^	**70.7**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:30	JDH	
Beryllium [7440-41-7] ^	**0.217**	J	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:30	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:30	JDH	
Chromium [7440-47-3] ^	**6.08**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:30	JDH	
Cobalt [7440-48-4] ^	**2.53**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:30	JDH	
Copper [7440-50-8] ^	**7.57**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:30	JDH	
Lead [7439-92-1] ^	**6.25**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:30	JDH	
Nickel [7440-02-0] ^	**4.35**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:30	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:43	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:30	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:43	VLO	
Vanadium [7440-62-2] ^	**9.68**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:30	JDH	
Zinc [7440-66-6] ^	**22.1**		ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:30	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-S3 | **Lab Sample ID:** C205531-09 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 11:55 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/29/12 22:28	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/29/12 22:28	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/29/12 22:28	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/29/12 22:28	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/29/12 22:28	JKG	
Acetone [67-64-1] ^	**10**	J	ug/L	1	1.2	5.0	100	EPA 8260B	05/29/12 22:28	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/29/12 22:28	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/29/12 22:28	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/29/12 22:28	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 22:28	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/29/12 22:28	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 22:28	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/29/12 22:28	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 22:28	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/29/12 22:28	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/29/12 22:28	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 22:28	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/29/12 22:28	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/29/12 22:28	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/29/12 22:28	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/29/12 22:28	JKG	

www.encolabs.com

Description: 3201-S3
Matrix: Surface Water
Project: City of Durham

Lab Sample ID: C205531-09
Sampled: 05/23/12 11:55
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/29/12 22:28	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*67*	*1*	*50.0*	*133 %*	*51-122*	*2E25030*	*EPA 8260B*	*05/29/12 22:28*	*JKG*	*QS-03*
Dibromofluoromethane	*46*	*1*	*50.0*	*93 %*	*68-117*	*2E25030*	*EPA 8260B*	*05/29/12 22:28*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*100 %*	*67-127*	*2E25030*	*EPA 8260B*	*05/29/12 22:28*	*JKG*	

www.encolabs.com

Description: 3201-S3 | **Lab Sample ID:** C205531-09 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 11:55 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.378**	J	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:47	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:37	JDH	
Barium [7440-39-3] ^	**38.6**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:37	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:37	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:37	JDH	
Chromium [7440-47-3] ^	**3.57**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:37	JDH	
Cobalt [7440-48-4] ^	**1.80**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:37	JDH	
Copper [7440-50-8] ^	**6.19**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:37	JDH	
Lead [7439-92-1] ^	**9.08**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:37	JDH	
Nickel [7440-02-0] ^	**3.48**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:37	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:47	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:37	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:47	VLO	
Vanadium [7440-62-2] ^	**5.98**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:37	JDH	
Zinc [7440-66-6] ^	**34.0**		ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:37	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-S4 | **Lab Sample ID:** C205531-10 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 10:27 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/29/12 22:58	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/29/12 22:58	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
2-Butanone [78-93-3] ^	1.3	U	ug/L	1	1.3	5.0	100	EPA 8260B	05/29/12 22:58	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/29/12 22:58	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/29/12 22:58	JKG	
Acetone [67-64-1] ^	**11**	J	ug/L	1	1.2	5.0	100	EPA 8260B	05/29/12 22:58	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/29/12 22:58	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/29/12 22:58	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/29/12 22:58	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 22:58	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/29/12 22:58	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 22:58	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/29/12 22:58	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 22:58	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/29/12 22:58	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/29/12 22:58	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 22:58	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/29/12 22:58	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/29/12 22:58	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/29/12 22:58	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/29/12 22:58	JKG	

www.encolabs.com

Description: 3201-S4
Matrix: Surface Water
Project: City of Durham

Lab Sample ID: C205531-10
Sampled: 05/23/12 10:27
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/29/12 22:58	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*73*	*1*	*50.0*	*146 %*	*51-122*	*2E25030*	*EPA 8260B*	*05/29/12 22:58*	*JKG*	*QS-03*
Dibromofluoromethane	*50*	*1*	*50.0*	*99 %*	*68-117*	*2E25030*	*EPA 8260B*	*05/29/12 22:58*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*101 %*	*67-127*	*2E25030*	*EPA 8260B*	*05/29/12 22:58*	*JKG*	

www.encolabs.com

Description: 3201-S4 | **Lab Sample ID:** C205531-10 | **Received:** 05/24/12 11:35

Matrix: Surface Water | **Sampled:** 05/23/12 10:27 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.398**	J	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:51	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:39	JDH	
Barium [7440-39-3] ^	**34.4**	J	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:39	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:39	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:39	JDH	
Chromium [7440-47-3] ^	**3.73**	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:39	JDH	
Cobalt [7440-48-4] ^	**2.13**	J	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:39	JDH	
Copper [7440-50-8] ^	**6.32**	J	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:39	JDH	
Lead [7439-92-1] ^	**7.33**	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:39	JDH	
Nickel [7440-02-0] ^	**2.85**	J	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:39	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:51	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:39	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:51	VLO	
Vanadium [7440-62-2] ^	**6.43**	J	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:39	JDH	
Zinc [7440-66-6] ^	**38.8**		ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:39	JDH	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

www.encolabs.com

Description: 3201-Field Blank | **Lab Sample ID:** C205531-11 | **Received:** 05/24/12 11:35

Matrix: Water | **Sampled:** 05/23/12 14:00 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.17	U	ug/L	1	0.17	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.12	U	ug/L	1	0.12	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.28	U	ug/L	1	0.28	1.0	3	EPA 8260B	05/29/12 23:28	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,1-Dichloroethane [75-34-3] ^	0.13	U	ug/L	1	0.13	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
1,1-Dichloroethene [75-35-4] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
1,1-Dichloropropene [563-58-6] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,2,4-Trichlorobenzene [120-82-1] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/29/12 23:28	JKG	
1,2-Dibromoethane [106-93-4] ^	0.66	U	ug/L	1	0.66	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.19	U	ug/L	1	0.19	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
1,2-Dichloroethane [107-06-2] ^	0.21	U	ug/L	1	0.21	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,2-Dichloropropane [78-87-5] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,3-Dichlorobenzene [541-73-1] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
1,3-Dichloropropane [142-28-9] ^	0.16	U	ug/L	1	0.16	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.19	U	ug/L	1	0.19	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
2,2-Dichloropropane [594-20-7] ^	0.28	U	ug/L	1	0.28	1.0	15	EPA 8260B	05/29/12 23:28	JKG	
2-Butanone [78-93-3] ^	**5.4**	J	ug/L	1	1.3	5.0	100	EPA 8260B	05/29/12 23:28	JKG	
2-Hexanone [591-78-6] ^	0.88	U	ug/L	1	0.88	5.0	50	EPA 8260B	05/29/12 23:28	JKG	
3-Chloropropene [107-05-1] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/29/12 23:28	JKG	
Acetone [67-64-1] ^	**16**	J	ug/L	1	1.2	5.0	100	EPA 8260B	05/29/12 23:28	JKG	
Acetonitrile [75-05-8] ^	5.0	U	ug/L	1	5.0	10	55	EPA 8260B	05/29/12 23:28	JKG	
Acrolein [107-02-8] ^	4.0	U	ug/L	1	4.0	10	53	EPA 8260B	05/29/12 23:28	JKG	
Acrylonitrile [107-13-1] ^	3.5	U	ug/L	1	3.5	10	200	EPA 8260B	05/29/12 23:28	JKG	
Benzene [71-43-2] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Bromochloromethane [74-97-5] ^	0.48	U	ug/L	1	0.48	1.0	3	EPA 8260B	05/29/12 23:28	JKG	
Bromodichloromethane [75-27-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Bromoform [75-25-2] ^	0.22	U	ug/L	1	0.22	1.0	3	EPA 8260B	05/29/12 23:28	JKG	
Bromomethane [74-83-9] ^	0.14	U	ug/L	1	0.14	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
Carbon disulfide [75-15-0] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/29/12 23:28	JKG	
Carbon tetrachloride [56-23-5] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Chlorobenzene [108-90-7] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 23:28	JKG	
Chloroethane [75-00-3] ^	0.23	U	ug/L	1	0.23	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
Chloroform [67-66-3] ^	0.18	U	ug/L	1	0.18	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
Chloromethane [74-87-3] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Chloroprene [126-99-8] ^	0.64	U	ug/L	1	0.64	1.0	20	EPA 8260B	05/29/12 23:28	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Dibromochloromethane [124-48-1] ^	0.17	U	ug/L	1	0.17	1.0	3	EPA 8260B	05/29/12 23:28	JKG	
Dibromomethane [74-95-3] ^	0.27	U	ug/L	1	0.27	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
Dichlorodifluoromethane [75-71-8] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
Ethyl Methacrylate [97-63-2] ^	0.38	U	ug/L	1	0.38	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
Ethylbenzene [100-41-4] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Iodomethane [74-88-4] ^	1.7	U	ug/L	1	1.7	5.0	10	EPA 8260B	05/29/12 23:28	JKG	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Isobutyl alcohol [78-83-1] ^	11	U	ug/L	1	11	50	100	EPA 8260B	05/29/12 23:28	JKG	
Methacrylonitrile [126-98-7] ^	4.9	U	ug/L	1	4.9	10	100	EPA 8260B	05/29/12 23:28	JKG	
Methyl Methacrylate [80-62-6] ^	0.51	U	ug/L	1	0.51	1.0	30	EPA 8260B	05/29/12 23:28	JKG	
Methylene chloride [75-09-2] ^	0.23	U	ug/L	1	0.23	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Naphthalene [91-20-3] ^	0.11	U	ug/L	1	0.11	1.0	10	EPA 8260B	05/29/12 23:28	JKG	
Propionitrile [107-12-0] ^	5.0	U	ug/L	1	5.0	10	150	EPA 8260B	05/29/12 23:28	JKG	
Styrene [100-42-5] ^	0.11	U	ug/L	1	0.11	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Tetrachloroethene [127-18-4] ^	0.17	U	ug/L	1	0.17	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Toluene [108-88-3] ^	0.14	U	ug/L	1	0.14	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.21	U	ug/L	1	0.21	1.0	5	EPA 8260B	05/29/12 23:28	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.70	U	ug/L	1	0.70	1.0	100	EPA 8260B	05/29/12 23:28	JKG	
Trichloroethene [79-01-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Trichlorofluoromethane [75-69-4] ^	0.24	U	ug/L	1	0.24	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Vinyl acetate [108-05-4] ^	0.95	U	ug/L	1	0.95	5.0	50	EPA 8260B	05/29/12 23:28	JKG	
Vinyl chloride [75-01-4] ^	0.32	U	ug/L	1	0.32	1.0	1	EPA 8260B	05/29/12 23:28	JKG	
Xylenes (Total) [1330-20-7] ^	0.45	U	ug/L	1	0.45	3.0	5	EPA 8260B	05/29/12 23:28	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*68*	*1*	*50.0*	*137 %*	*51-122*	*2E25030*	*EPA 8260B*	*05/29/12 23:28*	*JKG*	*QS-03*
Dibromofluoromethane	*46*	*1*	*50.0*	*92 %*	*68-117*	*2E25030*	*EPA 8260B*	*05/29/12 23:28*	*JKG*	
Toluene-d8	*51*	*1*	*50.0*	*101 %*	*67-127*	*2E25030*	*EPA 8260B*	*05/29/12 23:28*	*JKG*	

www.encolabs.com

Description: 3201-Field Blank | **Lab Sample ID:** C205531-11 | **Received:** 05/24/12 11:35

Matrix: Water | **Sampled:** 05/23/12 14:00 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,2,4,5-Tetrachlorobenzene [95-94-3] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
1,3,5-Trinitrobenzene [99-35-4] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
1,3-Dinitrobenzene [99-65-0] ^	1.9	U	ug/L	1	1.9	10	20	EPA 8270D	06/12/12 01:16	DFM	
1,4-Naphthoquinone [130-15-4] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/12/12 01:16	DFM	
1,4-Phenylenediamine [106-50-3] ^	4.0	U	ug/L	1	4.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
1-Naphthylamine [134-32-7] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,3,4,6-Tetrachlorophenol [58-90-2] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,4,5-Trichlorophenol [95-95-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,4,6-Trichlorophenol [88-06-2] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,4-Dichlorophenol [120-83-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,4-Dimethylphenol [105-67-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,4-Dinitrophenol [51-28-5] ^	2.6	U	ug/L	1	2.6	10	50	EPA 8270D	06/12/12 01:16	DFM	QV-01
2,4-Dinitrotoluene [121-14-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,6-Dichlorophenol [87-65-0] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
2,6-Dinitrotoluene [606-20-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 01:16	DFM	
2-Acetylaminofluorene [53-96-3] ^	2.5	U	ug/L	1	2.5	10	20	EPA 8270D	06/12/12 01:16	DFM	QV-01
2-Chloronaphthalene [91-58-7] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
2-Chlorophenol [95-57-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
2-Methyl-4,6-dinitrophenol [534-52-1] ^	2.9	U	ug/L	1	2.9	10	50	EPA 8270D	06/12/12 01:16	DFM	
2-Methylnaphthalene [91-57-6] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 01:16	DFM	
2-Methylphenol [95-48-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
2-Naphthylamine [91-59-8] ^	3.0	U	ug/L	1	3.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
2-Nitroaniline [88-74-4] ^	1.5	U	ug/L	1	1.5	10	50	EPA 8270D	06/12/12 01:16	DFM	
2-Nitrophenol [88-75-5] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
3 & 4-Methylphenol [108-39-4/106-44-5] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 01:16	DFM	
3,3'-Dichlorobenzidine [91-94-1] ^	3.3	U	ug/L	1	3.3	10	20	EPA 8270D	06/12/12 01:16	DFM	
3,3'-Dimethylbenzidine [119-93-7] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/12/12 01:16	DFM	QV-02
3-Methylcholanthrene [56-49-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
3-Nitroaniline [99-09-2] ^	2.1	U	ug/L	1	2.1	10	50	EPA 8270D	06/12/12 01:16	DFM	
4-Aminobiphenyl [92-67-1] ^	2.1	U	ug/L	1	2.1	10	20	EPA 8270D	06/12/12 01:16	DFM	
4-Bromophenyl-phenylether [101-55-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
4-Chloro-3-methylphenol [59-50-7] ^	1.5	U	ug/L	1	1.5	10	20	EPA 8270D	06/12/12 01:16	DFM	
4-Chloroaniline [106-47-8] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/12/12 01:16	DFM	
4-Chlorophenyl-phenylether [7005-72-3] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 01:16	DFM	
4-Nitroaniline [100-01-6] ^	3.2	U	ug/L	1	3.2	10	20	EPA 8270D	06/12/12 01:16	DFM	
4-Nitrophenol [100-02-7] ^	2.0	U	ug/L	1	2.0	10	50	EPA 8270D	06/12/12 01:16	DFM	
5-Nitro-o-toluidine [99-55-8] ^	3.2	U	ug/L	1	3.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
7,12-Dimethylbenz(a)anthracene [57-97-6] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	QV-01
Acenaphthene [83-32-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Acenaphthylene [208-96-8] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
Acetophenone [98-86-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Anthracene [120-12-7] ^	1.6	U	ug/L	1	1.6	10	10	EPA 8270D	06/12/12 01:16	DFM	
Benzo(a)anthracene [56-55-3] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Benzo(a)pyrene [50-32-8] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Benzo(b)fluoranthene [205-99-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	QV-01

www.encolabs.com

Description: 3201-Field Blank | **Lab Sample ID:** C205531-11 | **Received:** 05/24/12 11:35

Matrix: Water | **Sampled:** 05/23/12 14:00 | **Work Order:** C205531

Project: City of Durham | **Sampled By:** Ken Sizemore / Jeremy De

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Benzo(g,h,i)perylene [191-24-2] ^	2.4	U	ug/L	1	2.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Benzo(k)fluoranthene [207-08-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	QV-01
Benzyl alcohol [100-51-6] ^	1.4	U	ug/L	1	1.4	10	20	EPA 8270D	06/12/12 01:16	DFM	
Bis(2-chloroethoxy)methane [111-91-1] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Bis(2-chloroethyl)ether [111-44-4] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
Bis(2-chloroisopropyl)ether [108-60-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/12/12 01:16	DFM	
Butylbenzylphthalate [85-68-7] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Chlorobenzilate [510-15-6] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Chrysene [218-01-9] ^	2.0	U	ug/L	1	2.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Diallate [2303-16-4] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Dibenzo(a,h)anthracene [53-70-3] ^	2.3	U	ug/L	1	2.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Dibenzofuran [132-64-9] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Diethylphthalate [84-66-2] ^	2.1	U	ug/L	1	2.1	10	6000	EPA 8270D	06/12/12 01:16	DFM	
Dimethoate [60-51-5] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/12/12 01:16	DFM	
Dimethylphthalate [131-11-3] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Di-n-butylphthalate [84-74-2] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 01:16	DFM	
Di-n-octylphthalate [117-84-0] ^	3.1	U	ug/L	1	3.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
Disulfoton [298-04-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
Ethyl methanesulfonate [62-50-0] ^	1.2	U	ug/L	1	1.2	10	20	EPA 8270D	06/12/12 01:16	DFM	
Famphur [52-85-7] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/12/12 01:16	DFM	
Fluoranthene [206-44-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
Fluorene [86-73-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 01:16	DFM	
Hexachlorobenzene [118-74-1] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Hexachlorobutadiene [87-68-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
Hexachlorocyclopentadiene [77-47-4] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Hexachloroethane [67-72-1] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
Hexachloropropene [1888-71-7] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 01:16	DFM	
Indeno(1,2,3-cd)pyrene [193-39-5] ^	2.2	U	ug/L	1	2.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
Isodrin [465-73-6] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/12/12 01:16	DFM	
Isophorone [78-59-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Isosafrole [120-58-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Kepone [143-50-0] ^	7.2	U	ug/L	1	7.2	20	20	EPA 8270D	06/12/12 01:16	DFM	
Methapyrilene [91-80-5] ^	3.5	U	ug/L	1	3.5	10	100	EPA 8270D	06/12/12 01:16	DFM	QV-02
Methyl Methanesulfonate [66-27-3] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Methyl parathion [298-00-0] ^	2.5	U	ug/L	1	2.5	10	10	EPA 8270D	06/12/12 01:16	DFM	
Nitrobenzene [98-95-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
N-Nitrosodiethylamine [55-18-5] ^	1.3	U	ug/L	1	1.3	10	20	EPA 8270D	06/12/12 01:16	DFM	
N-Nitrosodimethylamine [62-75-9] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
N-Nitrosodi-n-butylamine [924-16-3] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
N-Nitroso-di-n-propylamine [621-64-7] ^	1.5	U	ug/L	1	1.5	10	10	EPA 8270D	06/12/12 01:16	DFM	
N-nitrosodiphenylamine/Diphenylamine [86-30-6/122-39-4] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
N-Nitrosomethylethylamine [10595-95-6] ^	1.9	U	ug/L	1	1.9	10	10	EPA 8270D	06/12/12 01:16	DFM	
N-Nitrosopiperidine [100-75-4] ^	1.1	U	ug/L	1	1.1	10	20	EPA 8270D	06/12/12 01:16	DFM	
N-Nitrosopyrrolidine [930-55-2] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
O,O,O-Triethyl phosphorothioate [126-68-1] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
o-Toluidine [95-53-4] ^	1.1	U	ug/L	1	1.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
Parathion [56-38-2] ^	1.7	U	ug/L	1	1.7	10	10	EPA 8270D	06/12/12 01:16	DFM	
p-Dimethylaminoazobenzene [60-11-7] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Pentachlorobenzene [608-93-5] ^	1.3	U	ug/L	1	1.3	10	10	EPA 8270D	06/12/12 01:16	DFM	
Pentachloronitrobenzene [82-68-8] ^	1.0	U	ug/L	1	1.0	10	20	EPA 8270D	06/12/12 01:16	DFM	
Phenacetin [62-44-2] ^	2.7	U	ug/L	1	2.7	10	20	EPA 8270D	06/12/12 01:16	DFM	
Phenanthrene [85-01-8] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Phenol [108-95-2] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Phorate [298-02-2] ^	1.0	U	ug/L	1	1.0	10	10	EPA 8270D	06/12/12 01:16	DFM	
Pronamide [23950-58-5] ^	1.4	U	ug/L	1	1.4	10	10	EPA 8270D	06/12/12 01:16	DFM	
Pyrene [129-00-0] ^	2.1	U	ug/L	1	2.1	10	10	EPA 8270D	06/12/12 01:16	DFM	
Safrole [94-59-7] ^	1.2	U	ug/L	1	1.2	10	10	EPA 8270D	06/12/12 01:16	DFM	
Thionazin [297-97-2] ^	2.3	U	ug/L	1	2.3	10	20	EPA 8270D	06/12/12 01:16	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*65*	*1*	*100*	*65 %*	*10-179*	*2E29024*	*EPA 8270D*	*06/12/12 01:16*	*DFM*	
2-Fluorobiphenyl	*35*	*1*	*50.0*	*71 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/12/12 01:16*	*DFM*	
2-Fluorophenol	*45*	*1*	*100*	*45 %*	*10-110*	*2E29024*	*EPA 8270D*	*06/12/12 01:16*	*DFM*	
Nitrobenzene-d5	*36*	*1*	*50.0*	*72 %*	*10-149*	*2E29024*	*EPA 8270D*	*06/12/12 01:16*	*DFM*	
Phenol-d5	*40*	*1*	*100*	*40 %*	*10-88*	*2E29024*	*EPA 8270D*	*06/12/12 01:16*	*DFM*	
Terphenyl-d14	*43*	*1*	*50.0*	*86 %*	*10-188*	*2E29024*	*EPA 8270D*	*06/12/12 01:16*	*DFM*	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Organochlorine Pesticides by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
4,4'-DDD [72-54-8] ^	0.044	U	ug/L	1	0.044	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
4,4'-DDE [72-55-9] ^	0.048	U	ug/L	1	0.048	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
4,4'-DDT [50-29-3] ^	0.049	U	ug/L	1	0.049	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
Aldrin [309-00-2] ^	0.041	U	ug/L	1	0.041	0.050	0.05	EPA 8081B	06/07/12 18:04	MSZ	
alpha-BHC [319-84-6] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 18:04	MSZ	
beta-BHC [319-85-7] ^	0.036	U	ug/L	1	0.036	0.050	0.05	EPA 8081B	06/07/12 18:04	MSZ	
Chlordane (tech) [12789-03-6] ^	0.20	U	ug/L	1	0.20	0.50	0.5	EPA 8081B	06/07/12 18:04	MSZ	
Chlordane-alpha [5103-71-9] ^	0.048	U	ug/L	1	0.048	0.050	NE	EPA 8081B	06/07/12 18:04	MSZ	
Chlordane-gamma [5566-34-7] ^	0.042	U	ug/L	1	0.042	0.050	NE	EPA 8081B	06/07/12 18:04	MSZ	
delta-BHC [319-86-8] ^	0.048	U	ug/L	1	0.048	0.050	0.05	EPA 8081B	06/07/12 18:04	MSZ	
Dieldrin [60-57-1] ^	0.045	U	ug/L	1	0.045	0.050	0.075	EPA 8081B	06/07/12 18:04	MSZ	
Endosulfan I [959-98-8] ^	0.045	U	ug/L	1	0.045	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
Endosulfan II [33213-65-9] ^	0.036	U	ug/L	1	0.036	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
Endosulfan sulfate [1031-07-8] ^	0.032	U	ug/L	1	0.032	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
Endrin [72-20-8] ^	0.041	U	ug/L	1	0.041	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
Endrin aldehyde [7421-93-4] ^	0.042	U	ug/L	1	0.042	0.050	0.1	EPA 8081B	06/07/12 18:04	MSZ	
gamma-BHC [58-89-9] ^	0.034	U	ug/L	1	0.034	0.050	0.05	EPA 8081B	06/07/12 18:04	MSZ	
Heptachlor [76-44-8] ^	0.030	U	ug/L	1	0.030	0.050	0.05	EPA 8081B	06/07/12 18:04	MSZ	
Heptachlor epoxide [1024-57-3] ^	0.037	U	ug/L	1	0.037	0.050	0.075	EPA 8081B	06/07/12 18:04	MSZ	
Methoxychlor [72-43-5] ^	0.025	U	ug/L	1	0.025	0.050	1	EPA 8081B	06/07/12 18:04	MSZ	
Toxaphene [8001-35-2] ^	0.22	U	ug/L	1	0.22	0.50	1.5	EPA 8081B	06/07/12 18:04	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.87*	*1*	*1.00*	*87 %*	*44-134*	*2E29017*	*EPA 8081B*	*06/07/12 18:04*	*MSZ*	
Decachlorobiphenyl	*1.0*	*1*	*1.00*	*101 %*	*37-149*	*2E29017*	*EPA 8081B*	*06/07/12 18:04*	*MSZ*	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Polychlorinated Biphenyls by GC

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
PCB-1016/1242 [12674-11-2/53469-21-9] ^	0.19	U	ug/L	1	0.19	0.50	2	EPA 8082A	06/07/12 18:04	MSZ	
PCB-1221 [11104-28-2] ^	0.046	U	ug/L	1	0.046	0.50	NE	EPA 8082A	06/07/12 18:04	MSZ	
PCB-1232 [11141-16-5] ^	0.028	U	ug/L	1	0.028	0.50	NE	EPA 8082A	06/07/12 18:04	MSZ	
PCB-1248 [12672-29-6] ^	0.014	U	ug/L	1	0.014	0.50	NE	EPA 8082A	06/07/12 18:04	MSZ	
PCB-1254 [11097-69-1] ^	0.015	U	ug/L	1	0.015	0.50	NE	EPA 8082A	06/07/12 18:04	MSZ	
PCB-1260 [11096-82-5] ^	0.13	U	ug/L	1	0.13	0.50	NE	EPA 8082A	06/07/12 18:04	MSZ	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,5,6-TCMX	*0.87*	*1*	*1.00*	*87 %*	*45-151*	*2E29018*	*EPA 8082A*	*06/07/12 18:04*	*MSZ*	
Decachlorobiphenyl	*1.0*	*1*	*1.00*	*101 %*	*42-159*	*2E29018*	*EPA 8082A*	*06/07/12 18:04*	*MSZ*	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	05/25/12 15:17	KER	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	05/29/12 12:54	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/25/12 13:41	JDH	
Barium [7440-39-3] ^	1.00	U	ug/L	1	1.00	10.0	100	EPA 6010C	05/25/12 13:41	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	05/25/12 13:41	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/25/12 13:41	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	05/25/12 13:41	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	05/25/12 13:41	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	05/25/12 13:41	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:41	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	05/25/12 13:41	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	05/29/12 12:54	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/25/12 13:41	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	05/29/12 12:54	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	05/25/12 13:41	JDH	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	05/25/12 13:41	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	05/25/12 13:41	JDH	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Cyanide (total) [57-12-5] ^	4.9	U	ug/L	1	4.9	10	10	EPA 9014	06/05/12 13:38	CCB	
Sulfide [18496-25-8] ^	10	U	ug/L	1	10	100	1000	SM18 4500-S D	05/29/12 12:35	JOC	

www.encolabs.com

Description: 3201-Field Blank
Matrix: Water
Project: City of Durham

Lab Sample ID: C205531-11
Sampled: 05/23/12 14:00
Sampled By: Ken Sizemore / Jeremy De

Received: 05/24/12 11:35
Work Order: C205531

Chlorinated Herbicides by GC

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
2,4,5-T [93-76-5] ^	0.23	U	ug/L	1	0.23	0.50	2	EPA 8151A	06/01/12 01:27	RGG	
2,4,5-TP (Silvex) [93-72-1] ^	0.20	U	ug/L	1	0.20	0.50	2	EPA 8151A	06/01/12 01:27	RGG	
2,4-D [94-75-7] ^	0.16	U	ug/L	1	0.16	0.50	2	EPA 8151A	06/01/12 01:27	RGG	
Dinoseb [88-85-7] ^	0.32	U	ug/L	1	0.32	0.50	1	EPA 8151A	06/01/12 01:27	RGG	
Pentachlorophenol [87-86-5] ^	0.19	U	ug/L	1	0.19	0.50	25	EPA 8151A	06/01/12 01:27	RGG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4-DCAA	*1.7*	*1*	*2.00*	*84 %*	*68-139*	*2E29003*	*EPA 8151A*	*06/01/12 01:27*	*RGG*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E25012 - EPA 5030B_MS

Blank (2E25012-BLK1) Prepared: 05/25/2012 10:15 Analyzed: 05/25/2012 13:00

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L							
1,1,1-Trichloroethane	0.12	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L							
1,1,2-Trichloroethane	0.14	U	1.0	ug/L							
1,1-Dichloroethane	0.13	U	1.0	ug/L							
1,1-Dichloroethene	0.21	U	1.0	ug/L							
1,1-Dichloropropene	0.15	U	1.0	ug/L							
1,2,3-Trichloropropane	0.23	U	1.0	ug/L							
1,2,4-Trichlorobenzene	0.14	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.19	U	1.0	ug/L							
1,2-Dichloroethane	0.21	U	1.0	ug/L							
1,2-Dichloropropane	0.10	U	1.0	ug/L							
1,3-Dichlorobenzene	0.15	U	1.0	ug/L							
1,3-Dichloropropane	0.16	U	1.0	ug/L							
1,4-Dichlorobenzene	0.19	U	1.0	ug/L							
2,2-Dichloropropane	0.28	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
3-Chloropropene	0.11	U	1.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acetonitrile	5.0	U	10	ug/L							
Acrolein	4.0	U	10	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.15	U	1.0	ug/L							
Bromochloromethane	0.48	U	1.0	ug/L							
Bromodichloromethane	0.17	U	1.0	ug/L							
Bromoform	0.22	U	1.0	ug/L							
Bromomethane	0.14	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.17	U	1.0	ug/L							
Chlorobenzene	0.17	U	1.0	ug/L							
Chloroethane	0.23	U	1.0	ug/L							
Chloroform	0.18	U	1.0	ug/L							
Chloromethane	0.13	U	1.0	ug/L							
Chloroprene	0.64	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L							
Dibromochloromethane	0.17	U	1.0	ug/L							
Dibromomethane	0.27	U	1.0	ug/L							
Dichlorodifluoromethane	0.20	U	1.0	ug/L							
Ethyl Methacrylate	0.38	U	1.0	ug/L							
Ethylbenzene	0.13	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Isobutyl alcohol	11	U	50	ug/L							
Methacrylonitrile	4.9	U	10	ug/L							
Methyl Methacrylate	0.51	U	1.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E25012 - EPA 5030B_MS

Blank (2E25012-BLK1) Continued Prepared: 05/25/2012 10:15 Analyzed: 05/25/2012 13:00

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Methylene chloride	0.23	U	1.0	ug/L							
Naphthalene	0.11	U	1.0	ug/L							
Propionitrile	5.0	U	10	ug/L							
Styrene	0.11	U	1.0	ug/L							
Tetrachloroethene	0.17	U	1.0	ug/L							
Toluene	0.14	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.15	U	1.0	ug/L							
Trichlorofluoromethane	0.24	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.32	U	1.0	ug/L							
Xylenes (Total)	0.45	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*55*			*ug/L*	*50.0*		*110*	*51-122*			
Surrogate: Dibromofluoromethane	*50*			*ug/L*	*50.0*		*100*	*68-117*			
Surrogate: Toluene-d8	*55*			*ug/L*	*50.0*		*110*	*67-127*			

LCS (2E25012-BS1) Prepared: 05/25/2012 10:15 Analyzed: 05/25/2012 13:30

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	21		1.0	ug/L	20.0		106	75-133			
Benzene	18		1.0	ug/L	20.0		92	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		100	83-117			
Toluene	19		1.0	ug/L	20.0		93	71-118			
Trichloroethene	19		1.0	ug/L	20.0		97	82-118			

Matrix Spike (2E25012-MS1) Prepared: 05/25/2012 10:15 Analyzed: 05/25/2012 13:59

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	25		1.0	ug/L	20.0	0.21 U	123	75-133			
Benzene	19		1.0	ug/L	20.0	0.15 U	97	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.17 U	101	83-117			
Toluene	19		1.0	ug/L	20.0	0.14 U	93	71-118			
Trichloroethene	20		1.0	ug/L	20.0	0.15 U	100	82-118			

Matrix Spike Dup (2E25012-MSD1) Prepared: 05/25/2012 10:15 Analyzed: 05/25/2012 14:28

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	26		1.0	ug/L	20.0	0.21 U	131	75-133	6	20	
Benzene	20		1.0	ug/L	20.0	0.15 U	99	81-134	2	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.17 U	102	83-117	2	16	
Toluene	20		1.0	ug/L	20.0	0.14 U	99	71-118	5	17	
Trichloroethene	21		1.0	ug/L	20.0	0.15 U	107	82-118	6	15	

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E25030 - EPA 5030B_MS

Blank (2E25030-BLK1) Prepared: 05/25/2012 16:41 Analyzed: 05/29/2012 16:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L							
1,1,1-Trichloroethane	0.12	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L							
1,1,2-Trichloroethane	0.14	U	1.0	ug/L							
1,1-Dichloroethane	0.13	U	1.0	ug/L							
1,1-Dichloroethene	0.21	U	1.0	ug/L							
1,1-Dichloropropene	0.15	U	1.0	ug/L							
1,2,3-Trichloropropane	0.23	U	1.0	ug/L							
1,2,4-Trichlorobenzene	0.14	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.19	U	1.0	ug/L							
1,2-Dichloroethane	0.21	U	1.0	ug/L							
1,2-Dichloropropane	0.10	U	1.0	ug/L							
1,3-Dichlorobenzene	0.15	U	1.0	ug/L							
1,3-Dichloropropane	0.16	U	1.0	ug/L							
1,4-Dichlorobenzene	0.19	U	1.0	ug/L							
2,2-Dichloropropane	0.28	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
3-Chloropropene	0.11	U	1.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acetonitrile	5.0	U	10	ug/L							
Acrolein	4.0	U	10	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.15	U	1.0	ug/L							
Bromochloromethane	0.48	U	1.0	ug/L							
Bromodichloromethane	0.17	U	1.0	ug/L							
Bromoform	0.22	U	1.0	ug/L							
Bromomethane	0.14	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.17	U	1.0	ug/L							
Chlorobenzene	0.17	U	1.0	ug/L							
Chloroethane	0.23	U	1.0	ug/L							
Chloroform	0.18	U	1.0	ug/L							
Chloromethane	0.13	U	1.0	ug/L							
Chloroprene	0.64	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L							
Dibromochloromethane	0.17	U	1.0	ug/L							
Dibromomethane	0.27	U	1.0	ug/L							
Dichlorodifluoromethane	0.20	U	1.0	ug/L							
Ethyl Methacrylate	0.38	U	1.0	ug/L							
Ethylbenzene	0.13	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Isobutyl alcohol	11	U	50	ug/L							
Methacrylonitrile	4.9	U	10	ug/L							
Methyl Methacrylate	0.51	U	1.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E25030 - EPA 5030B_MS

Blank (2E25030-BLK1) Continued Prepared: 05/25/2012 16:41 Analyzed: 05/29/2012 16:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Methylene chloride	0.23	U	1.0	ug/L							
Naphthalene	0.11	U	1.0	ug/L							
Propionitrile	5.0	U	10	ug/L							
Styrene	0.11	U	1.0	ug/L							
Tetrachloroethene	0.17	U	1.0	ug/L							
Toluene	0.14	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.15	U	1.0	ug/L							
Trichlorofluoromethane	0.24	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.32	U	1.0	ug/L							
Xylenes (Total)	0.45	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*67*			*ug/L*	*50.0*		*134*	*51-122*			*QS-03*
Surrogate: Dibromofluoromethane	*47*			*ug/L*	*50.0*		*94*	*68-117*			
Surrogate: Toluene-d8	*50*			*ug/L*	*50.0*		*100*	*67-127*			

LCS (2E25030-BS1) Prepared: 05/25/2012 16:41 Analyzed: 05/29/2012 17:04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	21		1.0	ug/L	20.0		105	75-133			
Benzene	19		1.0	ug/L	20.0		97	81-134			
Chlorobenzene	19		1.0	ug/L	20.0		95	83-117			
Toluene	18		1.0	ug/L	20.0		92	71-118			
Trichloroethene	20		1.0	ug/L	20.0		102	82-118			

Matrix Spike (2E25030-MS1) Prepared: 05/25/2012 16:41 Analyzed: 05/29/2012 17:33

Source: C205788-13

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	20		1.0	ug/L	20.0	0.21 U	102	75-133			
Benzene	19		1.0	ug/L	20.0	0.15 U	96	81-134			
Chlorobenzene	18		1.0	ug/L	20.0	0.17 U	92	83-117			
Toluene	18		1.0	ug/L	20.0	0.14 U	90	71-118			
Trichloroethene	19		1.0	ug/L	20.0	0.15 U	96	82-118			

Matrix Spike Dup (2E25030-MSD1) Prepared: 05/25/2012 16:41 Analyzed: 05/29/2012 18:03

Source: C205788-13

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	18		1.0	ug/L	20.0	0.21 U	91	75-133	11	20	
Benzene	18		1.0	ug/L	20.0	0.15 U	90	81-134	6	17	
Chlorobenzene	18		1.0	ug/L	20.0	0.17 U	89	83-117	3	16	
Toluene	18		1.0	ug/L	20.0	0.14 U	88	71-118	2	17	
Trichloroethene	18		1.0	ug/L	20.0	0.15 U	91	82-118	6	15	

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E29023 - EPA 5030B_MS

Blank (2E29023-BLK1) Prepared: 05/29/2012 17:39 Analyzed: 05/30/2012 22:05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.17	U	1.0	ug/L							
1,1,1-Trichloroethane	0.12	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.28	U	1.0	ug/L							
1,1,2-Trichloroethane	0.14	U	1.0	ug/L							
1,1-Dichloroethane	0.13	U	1.0	ug/L							
1,1-Dichloroethene	0.21	U	1.0	ug/L							
1,1-Dichloropropene	0.15	U	1.0	ug/L							
1,2,3-Trichloropropane	0.23	U	1.0	ug/L							
1,2,4-Trichlorobenzene	0.14	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.66	U	1.0	ug/L							
1,2-Dichlorobenzene	0.19	U	1.0	ug/L							
1,2-Dichloroethane	0.21	U	1.0	ug/L							
1,2-Dichloropropane	0.10	U	1.0	ug/L							
1,3-Dichlorobenzene	0.15	U	1.0	ug/L							
1,3-Dichloropropane	0.16	U	1.0	ug/L							
1,4-Dichlorobenzene	0.19	U	1.0	ug/L							
2,2-Dichloropropane	0.28	U	1.0	ug/L							
2-Butanone	1.3	U	5.0	ug/L							
2-Hexanone	0.88	U	5.0	ug/L							
3-Chloropropene	0.11	U	1.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.2	U	5.0	ug/L							
Acetonitrile	5.0	U	10	ug/L							
Acrolein	4.0	U	10	ug/L							
Acrylonitrile	3.5	U	10	ug/L							
Benzene	0.15	U	1.0	ug/L							
Bromochloromethane	0.48	U	1.0	ug/L							
Bromodichloromethane	0.17	U	1.0	ug/L							
Bromoform	0.22	U	1.0	ug/L							
Bromomethane	0.14	U	1.0	ug/L							
Carbon disulfide	1.5	U	5.0	ug/L							
Carbon tetrachloride	0.17	U	1.0	ug/L							
Chlorobenzene	0.17	U	1.0	ug/L							
Chloroethane	0.23	U	1.0	ug/L							
Chloroform	0.18	U	1.0	ug/L							
Chloromethane	0.13	U	1.0	ug/L							
Chloroprene	0.64	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.15	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.20	U	1.0	ug/L							
Dibromochloromethane	0.17	U	1.0	ug/L							
Dibromomethane	0.27	U	1.0	ug/L							
Dichlorodifluoromethane	0.20	U	1.0	ug/L							
Ethyl Methacrylate	0.38	U	1.0	ug/L							
Ethylbenzene	0.13	U	1.0	ug/L							
Iodomethane	1.7	U	5.0	ug/L							
Isobutyl alcohol	11	U	50	ug/L							
Methacrylonitrile	4.9	U	10	ug/L							
Methyl Methacrylate	0.51	U	1.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 2E29023 - EPA 5030B_MS

Blank (2E29023-BLK1) Continued Prepared: 05/29/2012 17:39 Analyzed: 05/30/2012 22:05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Methylene chloride	0.23	U	1.0	ug/L							
Naphthalene	0.11	U	1.0	ug/L							
Propionitrile	5.0	U	10	ug/L							
Styrene	0.11	U	1.0	ug/L							
Tetrachloroethene	0.17	U	1.0	ug/L							
Toluene	0.14	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.21	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.15	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.70	U	1.0	ug/L							
Trichloroethene	0.15	U	1.0	ug/L							
Trichlorofluoromethane	0.24	U	1.0	ug/L							
Vinyl acetate	0.95	U	5.0	ug/L							
Vinyl chloride	0.32	U	1.0	ug/L							
Xylenes (Total)	0.45	U	3.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*42*			*ug/L*	*50.0*		*84*	*51-122*			
Surrogate: Dibromofluoromethane	*41*			*ug/L*	*50.0*		*82*	*68-117*			
Surrogate: Toluene-d8	*40*			*ug/L*	*50.0*		*80*	*67-127*			

LCS (2E29023-BS1) Prepared: 05/29/2012 17:39 Analyzed: 05/30/2012 22:34

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	17		1.0	ug/L	20.0		87	75-133			
Benzene	18		1.0	ug/L	20.0		90	81-134			
Chlorobenzene	18		1.0	ug/L	20.0		91	83-117			
Toluene	18		1.0	ug/L	20.0		92	71-118			
Trichloroethene	18		1.0	ug/L	20.0		88	82-118			

Matrix Spike (2E29023-MS1) Prepared: 05/29/2012 17:39 Analyzed: 05/30/2012 23:03

Source: C205906-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	18		1.0	ug/L	20.0	0.21 U	89	75-133			
Benzene	18		1.0	ug/L	20.0	0.15 U	92	81-134			
Chlorobenzene	19		1.0	ug/L	20.0	0.17 U	93	83-117			
Toluene	19		1.0	ug/L	20.0	0.14 U	95	71-118			
Trichloroethene	18		1.0	ug/L	20.0	0.15 U	88	82-118			

Matrix Spike Dup (2E29023-MSD1) Prepared: 05/29/2012 17:39 Analyzed: 05/30/2012 23:33

Source: C205906-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	17		1.0	ug/L	20.0	0.21 U	87	75-133	3	20	
Benzene	18		1.0	ug/L	20.0	0.15 U	89	81-134	3	17	
Chlorobenzene	18		1.0	ug/L	20.0	0.17 U	92	83-117	1	16	
Toluene	18		1.0	ug/L	20.0	0.14 U	92	71-118	3	17	
Trichloroethene	17		1.0	ug/L	20.0	0.15 U	86	82-118	3	15	

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 2E29024 - EPA 3510C_MS

Blank (2E29024-BLK1) Prepared: 05/29/2012 18:53 Analyzed: 06/11/2012 20:51

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2,4,5-Tetrachlorobenzene	2.0	U	10	ug/L							
1,3,5-Trinitrobenzene	3.0	U	10	ug/L							
1,3-Dinitrobenzene	1.9	U	10	ug/L							
1,4-Naphthoquinone	2.5	U	10	ug/L							
1,4-Phenylenediamine	4.0	U	10	ug/L							
1-Naphthylamine	1.9	U	10	ug/L							
2,3,4,6-Tetrachlorophenol	2.0	U	10	ug/L							
2,4,5-Trichlorophenol	1.0	U	10	ug/L							
2,4,6-Trichlorophenol	1.1	U	10	ug/L							
2,4-Dichlorophenol	1.4	U	10	ug/L							
2,4-Dimethylphenol	1.3	U	10	ug/L							
2,4-Dinitrophenol	2.6	U	10	ug/L							QV-01
2,4-Dinitrotoluene	2.4	U	10	ug/L							
2,6-Dichlorophenol	1.1	U	10	ug/L							
2,6-Dinitrotoluene	1.5	U	10	ug/L							
2-Acetylaminofluorene	2.5	U	10	ug/L							QV-01
2-Chloronaphthalene	1.0	U	10	ug/L							
2-Chlorophenol	1.2	U	10	ug/L							
2-Methyl-4,6-dinitrophenol	2.9	U	10	ug/L							
2-Methylnaphthalene	1.5	U	10	ug/L							
2-Methylphenol	1.4	U	10	ug/L							
2-Naphthylamine	3.0	U	10	ug/L							
2-Nitroaniline	1.5	U	10	ug/L							
2-Nitrophenol	1.1	U	10	ug/L							
3 & 4-Methylphenol	1.6	U	10	ug/L							
3,3'-Dichlorobenzidine	3.3	U	10	ug/L							
3,3'-Dimethylbenzidine	2.2	U	10	ug/L							QV-02
3-Methylcholanthrene	1.3	U	10	ug/L							
3-Nitroaniline	2.1	U	10	ug/L							
4-Aminobiphenyl	2.1	U	10	ug/L							
4-Bromophenyl-phenylether	1.0	U	10	ug/L							
4-Chloro-3-methylphenol	1.5	U	10	ug/L							
4-Chloroaniline	1.2	U	10	ug/L							
4-Chlorophenyl-phenylether	1.6	U	10	ug/L							
4-Nitroaniline	3.2	U	10	ug/L							
4-Nitrophenol	2.0	U	10	ug/L							
5-Nitro-o-toluidine	3.2	U	10	ug/L							
7,12-Dimethylbenz(a)anthracene	1.1	U	10	ug/L							QV-01
Acenaphthene	1.4	U	10	ug/L							
Acenaphthylene	1.2	U	10	ug/L							
Acetophenone	1.3	U	10	ug/L							
Anthracene	1.6	U	10	ug/L							
Benzo(a)anthracene	1.3	U	10	ug/L							
Benzo(a)pyrene	1.3	U	10	ug/L							
Benzo(b)fluoranthene	1.0	U	10	ug/L							QV-01
Benzo(g,h,i)perylene	2.4	U	10	ug/L							
Benzo(k)fluoranthene	1.3	U	10	ug/L							QV-01
Benzyl alcohol	1.4	U	10	ug/L							
Bis(2-chloroethoxy)methane	1.4	U	10	ug/L							

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 2E29024 - EPA 3510C_MS

Blank (2E29024-BLK1) Continued Prepared: 05/29/2012 18:53 Analyzed: 06/11/2012 20:51

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bis(2-chloroethyl)ether	1.2	U	10	ug/L							
Bis(2-chloroisopropyl)ether	1.3	U	10	ug/L							
Bis(2-ethylhexyl)phthalate	1.7	U	5.0	ug/L							
Butylbenzylphthalate	2.0	U	10	ug/L							
Chlorobenzilate	1.0	U	10	ug/L							
Chrysene	2.0	U	10	ug/L							
Diallate	1.0	U	10	ug/L							
Dibenzo(a,h)anthracene	2.3	U	10	ug/L							
Dibenzofuran	1.4	U	10	ug/L							
Diethylphthalate	**8.8**	**J**	10	ug/L							O-01
Dimethoate	2.3	U	10	ug/L							
Dimethylphthalate	1.4	U	10	ug/L							
Di-n-butylphthalate	1.5	U	10	ug/L							
Di-n-octylphthalate	3.1	U	10	ug/L							
Disulfoton	1.1	U	10	ug/L							
Ethyl methanesulfonate	1.2	U	10	ug/L							
Famphur	2.7	U	10	ug/L							
Fluoranthene	2.1	U	10	ug/L							
Fluorene	1.7	U	10	ug/L							
Hexachlorobenzene	1.0	U	10	ug/L							
Hexachlorobutadiene	1.2	U	10	ug/L							
Hexachlorocyclopentadiene	1.3	U	10	ug/L							
Hexachloroethane	1.1	U	10	ug/L							
Hexachloropropene	1.7	U	10	ug/L							
Indeno(1,2,3-cd)pyrene	2.2	U	10	ug/L							
Isodrin	1.0	U	10	ug/L							
Isophorone	1.3	U	10	ug/L							
Isosafrole	1.3	U	10	ug/L							
Kepone	7.2	U	20	ug/L							
Methapyrilene	3.5	U	10	ug/L							QV-02
Methyl Methanesulfonate	1.0	U	10	ug/L							
Methyl parathion	2.5	U	10	ug/L							
Nitrobenzene	1.2	U	10	ug/L							
N-Nitrosodiethylamine	1.3	U	10	ug/L							
N-Nitrosodimethylamine	1.3	U	10	ug/L							
N-Nitrosodi-n-butylamine	1.2	U	10	ug/L							
N-Nitroso-di-n-propylamine	1.5	U	10	ug/L							
N-nitrosodiphenylamine/Diphenylamine	2.1	U	10	ug/L							
N-Nitrosomethylethylamine	1.9	U	10	ug/L							
N-Nitrosopiperidine	1.1	U	10	ug/L							
N-Nitrosopyrrolidine	1.3	U	10	ug/L							
O,O,O-Triethyl phosphorothioate	1.3	U	10	ug/L							
o-Toluidine	1.1	U	10	ug/L							
Parathion	1.7	U	10	ug/L							
p-Dimethylaminoazobenzene	1.4	U	10	ug/L							
Pentachlorobenzene	1.3	U	10	ug/L							
Pentachloronitrobenzene	1.0	U	10	ug/L							
Phenacetin	2.7	U	10	ug/L							
Phenanthrene	1.4	U	10	ug/L							

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 2E29024 - EPA 3510C_MS

Blank (2E29024-BLK1) Continued Prepared: 05/29/2012 18:53 Analyzed: 06/11/2012 20:51

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phenol	1.4	U	10	ug/L							
Phorate	1.0	U	10	ug/L							
Pronamide	1.4	U	10	ug/L							
Pyrene	2.1	U	10	ug/L							
Safrole	1.2	U	10	ug/L							
Thionazin	2.3	U	10	ug/L							
Surrogate: 2,4,6-Tribromophenol	*39*			*ug/L*	*100*		*39*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*23*			*ug/L*	*50.0*		*46*	*10-149*			
Surrogate: 2-Fluorophenol	*34*			*ug/L*	*100*		*34*	*10-110*			
Surrogate: Nitrobenzene-d5	*22*			*ug/L*	*50.0*		*43*	*10-149*			
Surrogate: Phenol-d5	*30*			*ug/L*	*100*		*30*	*10-88*			
Surrogate: Terphenyl-d14	*33*			*ug/L*	*50.0*		*65*	*10-188*			

LCS (2E29024-BS1) Prepared: 05/29/2012 18:53 Analyzed: 06/11/2012 21:18

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	38		10	ug/L	50.0		76	40-109			
4-Chloro-3-methylphenol	45		10	ug/L	50.0		90	58-121			
4-Nitrophenol	27		10	ug/L	50.0		54	33-105			
Acenaphthene	43		10	ug/L	50.0		86	39-125			
N-Nitroso-di-n-propylamine	41		10	ug/L	50.0		82	48-126			
Phenol	26		10	ug/L	50.0		51	19-78			
Pyrene	43		10	ug/L	50.0		87	44-137			
Surrogate: 2,4,6-Tribromophenol	*74*			*ug/L*	*100*		*74*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*36*			*ug/L*	*50.0*		*71*	*10-149*			
Surrogate: 2-Fluorophenol	*45*			*ug/L*	*100*		*45*	*10-110*			
Surrogate: Nitrobenzene-d5	*36*			*ug/L*	*50.0*		*71*	*10-149*			
Surrogate: Phenol-d5	*40*			*ug/L*	*100*		*40*	*10-88*			
Surrogate: Terphenyl-d14	*43*			*ug/L*	*50.0*		*86*	*10-188*			

Matrix Spike (2E29024-MS1) Prepared: 05/29/2012 18:53 Analyzed: 06/11/2012 21:44

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	34		10	ug/L	50.0	1.2 U	67	40-109			
4-Chloro-3-methylphenol	43		10	ug/L	50.0	1.5 U	86	58-121			
4-Nitrophenol	29		10	ug/L	50.0	2.0 U	59	33-105			
Acenaphthene	39		10	ug/L	50.0	1.4 U	77	39-125			
N-Nitroso-di-n-propylamine	35		10	ug/L	50.0	1.5 U	70	48-126			
Phenol	28		10	ug/L	50.0	1.4 U	55	19-78			
Pyrene	38		10	ug/L	50.0	2.1 U	76	44-137			
Surrogate: 2,4,6-Tribromophenol	*67*			*ug/L*	*100*		*67*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*30*			*ug/L*	*50.0*		*60*	*10-149*			
Surrogate: 2-Fluorophenol	*41*			*ug/L*	*100*		*41*	*10-110*			
Surrogate: Nitrobenzene-d5	*30*			*ug/L*	*50.0*		*59*	*10-149*			
Surrogate: Phenol-d5	*39*			*ug/L*	*100*		*39*	*10-88*			
Surrogate: Terphenyl-d14	*39*			*ug/L*	*50.0*		*78*	*10-188*			

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 2E29024 - EPA 3510C_MS

Matrix Spike Dup (2E29024-MSD1) Prepared: 05/29/2012 18:53 Analyzed: 06/11/2012 22:11

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	29		10	ug/L	50.0	1.2 U	58	40-109	14	22	
4-Chloro-3-methylphenol	42		10	ug/L	50.0	1.5 U	84	58-121	2	22	
4-Nitrophenol	27		10	ug/L	50.0	2.0 U	54	33-105	8	27	
Acenaphthene	39		10	ug/L	50.0	1.4 U	79	39-125	2	25	
N-Nitroso-di-n-propylamine	33		10	ug/L	50.0	1.5 U	66	48-126	6	23	
Phenol	24		10	ug/L	50.0	1.4 U	48	19-78	13	18	
Pyrene	38		10	ug/L	50.0	2.1 U	77	44-137	1	24	
Surrogate: 2,4,6-Tribromophenol	*68*			*ug/L*	*100*		*68*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*30*			*ug/L*	*50.0*		*61*	*10-149*			
Surrogate: 2-Fluorophenol	*33*			*ug/L*	*100*		*33*	*10-110*			
Surrogate: Nitrobenzene-d5	*27*			*ug/L*	*50.0*		*54*	*10-149*			
Surrogate: Phenol-d5	*34*			*ug/L*	*100*		*34*	*10-88*			
Surrogate: Terphenyl-d14	*38*			*ug/L*	*50.0*		*76*	*10-188*			

Organochlorine Pesticides by GC - Quality Control

Batch 2E29017 - EPA 3510C

Blank (2E29017-BLK1) Prepared: 05/29/2012 12:58 Analyzed: 06/07/2012 14:59

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDD	0.044	U	0.050	ug/L							
4,4'-DDE	0.048	U	0.050	ug/L							
4,4'-DDT	0.049	U	0.050	ug/L							
Aldrin	0.041	U	0.050	ug/L							
alpha-BHC	0.036	U	0.050	ug/L							
beta-BHC	0.036	U	0.050	ug/L							
Chlordane (tech)	0.20	U	0.50	ug/L							
Chlordane-alpha	0.048	U	0.050	ug/L							
Chlordane-gamma	0.042	U	0.050	ug/L							
delta-BHC	0.048	U	0.050	ug/L							
Dieldrin	0.045	U	0.050	ug/L							
Endosulfan I	0.045	U	0.050	ug/L							
Endosulfan II	0.036	U	0.050	ug/L							
Endosulfan sulfate	0.032	U	0.050	ug/L							
Endrin	0.041	U	0.050	ug/L							
Endrin aldehyde	0.042	U	0.050	ug/L							
gamma-BHC	0.034	U	0.050	ug/L							
Heptachlor	0.030	U	0.050	ug/L							
Heptachlor epoxide	0.037	U	0.050	ug/L							
Methoxychlor	0.025	U	0.050	ug/L							
Toxaphene	0.22	U	0.50	ug/L							
Surrogate: 2,4,5,6-TCMX	*0.73*			*ug/L*	*1.00*		*73*	*44-134*			
Surrogate: Decachlorobiphenyl	*1.0*			*ug/L*	*1.00*		*104*	*37-149*			

LCS (2E29017-BS1) Prepared: 05/29/2012 12:58 Analyzed: 06/07/2012 15:12

QUALITY CONTROL

Organochlorine Pesticides by GC - Quality Control

Batch 2E29017 - EPA 3510C

LCS (2E29017-BS1) Continued Prepared: 05/29/2012 12:58 Analyzed: 06/07/2012 15:12

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	0.84		0.050	ug/L	1.00		84	37-139			
Dieldrin	0.94		0.050	ug/L	1.00		94	46-132			
Endrin	0.88		0.050	ug/L	1.00		88	43-133			
Surrogate: 2,4,5,6-TCMX	*0.86*			*ug/L*	*1.00*		*86*	*44-134*			
Surrogate: Decachlorobiphenyl	*1.1*			*ug/L*	*1.00*		*109*	*37-149*			

Matrix Spike (2E29017-MS1) Prepared: 05/29/2012 12:58 Analyzed: 06/07/2012 15:25

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	1.0		0.050	ug/L	1.00	0.049 U	102	37-139			
Dieldrin	1.1		0.050	ug/L	1.00	0.045 U	114	46-132			
Endrin	1.1		0.050	ug/L	1.00	0.041 U	108	43-133			
Surrogate: 2,4,5,6-TCMX	*1.1*			*ug/L*	*1.00*		*108*	*44-134*			
Surrogate: Decachlorobiphenyl	*1.2*			*ug/L*	*1.00*		*120*	*37-149*			

Matrix Spike Dup (2E29017-MSD1) Prepared: 05/29/2012 12:58 Analyzed: 06/07/2012 15:38

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
4,4'-DDT	1.2		0.050	ug/L	1.00	0.049 U	125	37-139	20	26	
Dieldrin	1.1		0.050	ug/L	1.00	0.045 U	108	46-132	5	27	
Endrin	1.1		0.050	ug/L	1.00	0.041 U	109	43-133	0.6	26	
Surrogate: 2,4,5,6-TCMX	*1.0*			*ug/L*	*1.00*		*103*	*44-134*			
Surrogate: Decachlorobiphenyl	*1.1*			*ug/L*	*1.00*		*111*	*37-149*			

Polychlorinated Biphenyls by GC - Quality Control

Batch 2E29018 - EPA 3510C

Blank (2E29018-BLK1) Prepared: 05/29/2012 13:02 Analyzed: 06/07/2012 14:59

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	0.19	U	0.50	ug/L							
PCB-1221	0.046	U	0.50	ug/L							
PCB-1232	0.028	U	0.50	ug/L							
PCB-1248	0.014	U	0.50	ug/L							
PCB-1254	0.015	U	0.50	ug/L							
PCB-1260	0.13	U	0.50	ug/L							
Surrogate: 2,4,5,6-TCMX	*0.73*			*ug/L*	*1.00*		*73*	*45-151*			
Surrogate: Decachlorobiphenyl	*1.0*			*ug/L*	*1.00*		*104*	*42-159*			

LCS (2E29018-BS1) Prepared: 05/29/2012 13:02 Analyzed: 06/07/2012 15:52

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	8.1		0.50	ug/L	10.0		81	66-149			
PCB-1260	8.2		0.50	ug/L	10.0		82	64-150			

QUALITY CONTROL

Polychlorinated Biphenyls by GC - Quality Control

Batch 2E29018 - EPA 3510C

LCS (2E29018-BS1) Continued Prepared: 05/29/2012 13:02 Analyzed: 06/07/2012 15:52

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: 2,4,5,6-TCMX	*0.73*			*ug/L*	*1.00*		*73*	*45-151*			
Surrogate: Decachlorobiphenyl	*0.96*			*ug/L*	*1.00*		*96*	*42-159*			

Matrix Spike (2E29018-MS1) Prepared: 05/29/2012 13:02 Analyzed: 06/07/2012 16:05

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	9.6		0.50	ug/L	10.0	0.19 U	96	66-149			
PCB-1260	8.8		0.50	ug/L	10.0	0.13 U	88	64-150			
Surrogate: 2,4,5,6-TCMX	*0.92*			*ug/L*	*1.00*		*92*	*45-151*			
Surrogate: Decachlorobiphenyl	*1.0*			*ug/L*	*1.00*		*104*	*42-159*			

Matrix Spike Dup (2E29018-MSD1) Prepared: 05/29/2012 13:02 Analyzed: 06/07/2012 16:18

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
PCB-1016/1242	9.3		0.50	ug/L	10.0	0.19 U	93	66-149	4	21	
PCB-1260	9.8		0.50	ug/L	10.0	0.13 U	98	64-150	10	18	
Surrogate: 2,4,5,6-TCMX	*0.89*			*ug/L*	*1.00*		*89*	*45-151*			
Surrogate: Decachlorobiphenyl	*1.0*			*ug/L*	*1.00*		*104*	*42-159*			

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 2E25009 - EPA 245.1

Blank (2E25009-BLK1) Prepared: 05/25/2012 08:59 Analyzed: 05/25/2012 14:46

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.170	U	0.200	ug/L							

LCS (2E25009-BS1) Prepared: 05/25/2012 08:59 Analyzed: 05/25/2012 14:48

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.37		0.200	ug/L	5.00		87	80-120			

Matrix Spike (2E25009-MS1) Prepared: 05/25/2012 08:59 Analyzed: 05/25/2012 14:52

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.11		0.200	ug/L	5.00	0.170 U	82	75-125			

Matrix Spike Dup (2E25009-MSD1) Prepared: 05/25/2012 08:59 Analyzed: 05/25/2012 14:54

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.10		0.200	ug/L	5.00	0.170 U	82	75-125	0.2	25	

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 2E25009 - EPA 245.1

Post Spike (2E25009-PS1) Prepared: 05/25/2012 08:59 Analyzed: 05/25/2012 14:56

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	3.65		0.200	ug/L	5.00	-0.0770	75	75-125			

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 2E24032 - EPA 200.7

Blank (2E24032-BLK1) Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 12:56

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	2.80	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Beryllium	0.100	U	1.00	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.00	U	10.0	ug/L							
Cobalt	1.10	U	10.0	ug/L							
Copper	1.60	U	10.0	ug/L							
Lead	1.90	U	10.0	ug/L							
Nickel	1.80	U	10.0	ug/L							
Selenium	4.50	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Tin	2.10	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (2E24032-BS1) Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 12:59

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	209		10.0	ug/L	200		104	80-120			
Barium	208		10.0	ug/L	200		104	80-120			
Beryllium	20.6		1.00	ug/L	20.0		103	80-120			
Cadmium	21.4		1.00	ug/L	20.0		107	80-120			
Chromium	206		10.0	ug/L	200		103	80-120			
Cobalt	209		10.0	ug/L	200		105	80-120			
Copper	202		10.0	ug/L	200		101	80-120			
Lead	208		10.0	ug/L	200		104	80-120			
Nickel	208		10.0	ug/L	200		104	80-120			
Selenium	213		10.0	ug/L	200		107	80-120			
Silver	210		10.0	ug/L	200		105	80-120			
Tin	206		10.0	ug/L	200		103	80-120			
Vanadium	208		10.0	ug/L	200		104	80-120			
Zinc	212		10.0	ug/L	200		106	80-120			

Matrix Spike (2E24032-MS1) Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 13:04

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	207		10.0	ug/L	200	2.80 U	104	75-125			

QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 2E24032 - EPA 200.7

Matrix Spike (2E24032-MS1) Continued Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 13:04

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Barium	412		10.0	ug/L	200	212	100	75-125			
Beryllium	20.7		1.00	ug/L	20.0	0.100 U	103	75-125			
Cadmium	21.4		1.00	ug/L	20.0	0.360 U	107	75-125			
Chromium	209		10.0	ug/L	200	4.28	102	75-125			
Cobalt	210		10.0	ug/L	200	4.70	103	75-125			
Copper	208		10.0	ug/L	200	1.60 U	104	75-125			
Lead	207		10.0	ug/L	200	1.90 U	104	75-125			
Nickel	215		10.0	ug/L	200	5.84	105	75-125			
Selenium	207		10.0	ug/L	200	4.50 U	104	75-125			
Silver	214		10.0	ug/L	200	2.88	105	75-125			
Tin	214		10.0	ug/L	200	33.8	90	75-125			
Vanadium	215		10.0	ug/L	200	2.60	106	75-125			
Zinc	211		10.0	ug/L	200	3.80 U	105	75-125			

Matrix Spike Dup (2E24032-MSD1) Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 13:12

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	209		10.0	ug/L	200	2.80 U	104	75-125	0.7	20	
Barium	409		10.0	ug/L	200	212	99	75-125	0.7	20	
Beryllium	20.6		1.00	ug/L	20.0	0.100 U	103	75-125	0.3	20	
Cadmium	21.4		1.00	ug/L	20.0	0.360 U	107	75-125	0.03	20	
Chromium	209		10.0	ug/L	200	4.28	102	75-125	0.1	20	
Cobalt	211		10.0	ug/L	200	4.70	103	75-125	0.3	20	
Copper	209		10.0	ug/L	200	1.60 U	104	75-125	0.1	20	
Lead	208		10.0	ug/L	200	1.90 U	104	75-125	0.6	20	
Nickel	215		10.0	ug/L	200	5.84	104	75-125	0.2	20	
Selenium	207		10.0	ug/L	200	4.50 U	103	75-125	0.2	20	
Silver	214		10.0	ug/L	200	2.88	106	75-125	0.2	20	
Tin	215		10.0	ug/L	200	33.8	91	75-125	0.3	20	
Vanadium	215		10.0	ug/L	200	2.60	106	75-125	0.06	20	
Zinc	211		10.0	ug/L	200	3.80 U	105	75-125	0.07	20	

Post Spike (2E24032-PS1) Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 13:14

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.203		0.0100	mg/L	0.200	-0.00284	103	80-120			
Barium	0.402		0.0100	mg/L	0.200	0.212	95	80-120			
Beryllium	0.0201		0.00100	mg/L	0.0200	-2.86E-5	101	80-120			
Cadmium	0.0212		0.00100	mg/L	0.0200	-8.63E-5	107	80-120			
Chromium	0.203		0.0100	mg/L	0.200	0.00428	100	80-120			
Cobalt	0.208		0.0100	mg/L	0.200	0.00470	102	80-120			
Copper	0.203		0.0100	mg/L	0.200	-0.00312	103	80-120			
Lead	0.205		0.0100	mg/L	0.200	-0.00136	103	80-120			
Nickel	0.213		0.0100	mg/L	0.200	0.00584	103	80-120			
Selenium	0.216		0.0100	mg/L	0.200	-0.0144	115	80-120			

QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 2E24032 - EPA 200.7

Post Spike (2E24032-PS1) Continued Prepared: 05/24/2012 14:13 Analyzed: 05/25/2012 13:14

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Silver	0.224		0.0100	mg/L	0.200	0.00288	111	80-120			
Tin	0.242		0.0100	mg/L	0.200	0.0338	104	80-120			
Vanadium	0.209		0.0100	mg/L	0.200	0.00260	103	80-120			
Zinc	0.209		0.0100	mg/L	0.200	0.00170	104	80-120			

Batch 2E24033 - EPA 200.8

Blank (2E24033-BLK1) Prepared: 05/24/2012 14:23 Analyzed: 05/29/2012 11:41

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.220	U	2.00	ug/L							
Selenium	0.830	U	1.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (2E24033-BS1) Prepared: 05/24/2012 14:23 Analyzed: 05/29/2012 11:45

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	207		2.00	ug/L	200		104	80-120			
Selenium	221		1.00	ug/L	200		110	80-120			
Thallium	207		1.00	ug/L	200		104	80-120			

Matrix Spike (2E24033-MS1) Prepared: 05/24/2012 14:23 Analyzed: 05/29/2012 11:52

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	214		2.00	ug/L	200	1.37	106	75-125			
Selenium	217		1.00	ug/L	200	0.830 U	109	75-125			
Thallium	180		1.00	ug/L	200	0.110 U	90	75-125			

Matrix Spike Dup (2E24033-MSD1) Prepared: 05/24/2012 14:23 Analyzed: 05/29/2012 11:56

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	213		2.00	ug/L	200	1.37	106	75-125	0.4	20	
Selenium	220		1.00	ug/L	200	0.830 U	110	75-125	1	20	
Thallium	177		1.00	ug/L	200	0.110 U	89	75-125	2	20	

Post Spike (2E24033-PS1) Prepared: 05/24/2012 14:23 Analyzed: 05/29/2012 12:00

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	211		2.00	ug/L	200	1.37	105	80-120			
Selenium	227		1.00	ug/L	200	0.744	113	80-120			
Thallium	179		1.00	ug/L	200	0.0484	89	80-120			

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 2E25003 - Same

Blank (2E25003-BLK1) Prepared: 05/25/2012 10:07 Analyzed: 05/25/2012 17:40

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	4.9	U	10	ug/L							

LCS (2E25003-BS1) Prepared: 05/25/2012 10:07 Analyzed: 05/25/2012 17:42

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150		115	85-115			

Matrix Spike (2E25003-MS1) Prepared: 05/25/2012 10:07 Analyzed: 05/25/2012 17:47

Source: C205531-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150	0.0009	112	85-115			

Matrix Spike Dup (2E25003-MSD1) Prepared: 05/25/2012 10:07 Analyzed: 05/25/2012 17:49

Source: C205531-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150	0.0009	114	85-115		20	

Batch 2E29014 - NO PREP

Blank (2E29014-BLK1) Prepared: 05/29/2012 12:08 Analyzed: 05/29/2012 12:35

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfide	10	U	100	ug/L							

LCS (2E29014-BS1) Prepared: 05/29/2012 12:08 Analyzed: 05/29/2012 12:35

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfide	0.4		0.1	mg/L	0.401		90	80-120			

Matrix Spike (2E29014-MS1) Prepared: 05/29/2012 12:08 Analyzed: 05/29/2012 12:35

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfide	0.3		0.1	mg/L	0.401	0.1	43	80-120			QM-05

Matrix Spike Dup (2E29014-MSD1) Prepared: 05/29/2012 12:08 Analyzed: 05/29/2012 12:35

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfide	0.3		0.1	mg/L	0.401	0.1	47	80-120		25	QM-05

Batch 2E31008 - Same

Blank (2E31008-BLK1) Prepared: 05/31/2012 11:10 Analyzed: 06/01/2012 13:54

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 2E31008 - Same

Blank (2E31008-BLK1) Continued Prepared: 05/31/2012 11:10 Analyzed: 06/01/2012 13:54

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	4.9	U	10	ug/L							

LCS (2E31008-BS1) Prepared: 05/31/2012 11:10 Analyzed: 06/01/2012 13:56

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.1		0.01	mg/L	0.150		96	85-115			

Matrix Spike (2E31008-MS1) Prepared: 05/31/2012 11:10 Analyzed: 06/01/2012 14:25

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150	0.003	97	85-115			

Matrix Spike Dup (2E31008-MSD1) Prepared: 05/31/2012 11:10 Analyzed: 06/01/2012 14:27

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150	0.003	99	85-115		20	

Batch 2F04004 - Same

Blank (2F04004-BLK1) Prepared: 06/04/2012 10:27 Analyzed: 06/05/2012 13:27

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	4.9	U	10	ug/L							

LCS (2F04004-BS1) Prepared: 06/04/2012 10:27 Analyzed: 06/05/2012 13:29

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150		100	85-115			

Matrix Spike (2F04004-MS1) Prepared: 06/04/2012 10:27 Analyzed: 06/05/2012 13:31

Source: C205894-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150	0.0007	98	85-115			

Matrix Spike Dup (2F04004-MSD1) Prepared: 06/04/2012 10:27 Analyzed: 06/05/2012 13:33

Source: C205894-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cyanide (total)	0.2		0.01	mg/L	0.150	0.0007	104	85-115		20	

QUALITY CONTROL

Chlorinated Herbicides by GC - Quality Control

QUALITY CONTROL

Chlorinated Herbicides by GC - Quality Control

Batch 2E29003 - EPA 3510C

Blank (2E29003-BLK1) Prepared: 05/29/2012 12:15 Analyzed: 05/31/2012 18:58

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-T	0.23	U	0.50	ug/L							
2,4,5-TP (Silvex)	0.20	U	0.50	ug/L							
2,4-D	0.16	U	0.50	ug/L							
Dinoseb	0.32	U	0.50	ug/L							
Pentachlorophenol	0.19	U	0.50	ug/L							
Surrogate: 2,4-DCAA	*1.6*			*ug/L*	*2.00*		*82*	*68-139*			

LCS (2E29003-BS1) Prepared: 05/29/2012 12:15 Analyzed: 05/31/2012 19:50

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.6		0.50	ug/L	2.00		78	70-114			
2,4-D	1.7		0.50	ug/L	2.00		83	37-129			
Surrogate: 2,4-DCAA	*1.7*			*ug/L*	*2.00*		*83*	*68-139*			

Matrix Spike (2E29003-MS1) Prepared: 05/29/2012 12:15 Analyzed: 05/31/2012 20:16

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.6		0.50	ug/L	2.00	0.20 U	82	70-114			
2,4-D	1.8		0.50	ug/L	2.00	0.16 U	88	37-129			
Surrogate: 2,4-DCAA	*1.8*			*ug/L*	*2.00*		*92*	*68-139*			

Matrix Spike Dup (2E29003-MSD1) Prepared: 05/29/2012 12:15 Analyzed: 05/31/2012 20:42

Source: C205531-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2,4,5-TP (Silvex)	1.5		0.50	ug/L	2.00	0.20 U	74	70-114	10	15	
2,4-D	1.6		0.50	ug/L	2.00	0.16 U	78	37-129	12	33	
Surrogate: 2,4-DCAA	*1.7*			*ug/L*	*2.00*		*84*	*68-139*			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
O-01	This compound is a common laboratory contaminant.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QS-03	Surrogate recovery outside acceptance limits
QV-01	The associated continuing calibration verification standard exhibited high bias; since the result is ND, the impact on data quality is minimal.
QV-02	The associated continuing calibration verification standard exhibited low bias; the reported result should be considered to be a minimum estimate.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

www.encolabs.com

10775 Central Port Dr.
Orlando, FL 32824
(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 111
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

Page 1 of 1

Client Name: Golder Associates, Inc. (GO007)	Project Number: 073-9604211.100
Address: 5B Oak Branch Drive	Project Name/Desc: City of Durham
City/ST/Zip: Greensboro, NC 27407	PO # / Billing Info:
Tel: (336) 852-4903 / Fax: (336) 852-4904	Reporting Contact: Dusty Reedy
Sampler(s) Name, Affiliation (Print): ENCO	Billing Contact: Accounts Payable
Sampler(s) Signature: Ken Dymon / Jeremy DeLore	Site Location / Time Zone: NC / E.S.T.

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C205531

Requested Analyses

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8011 - KS	8081B Appendix 2, 8082A Appendix 2, 8151A Appendix 2, 8270D Appendix 2	8260B Appendix 1	8260B Appendix 2	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Sn,Ti,V,Zn	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Ti,V,Zn	Cyanide Total 9014	Hg	Sulfide SM4500-S D		Sample Comments
	3201-MW2	5-23-12	11:06	G	GW	10		X		X	X		X	X	X		
	3201-MW3R MS/MSD	5-22-12	12:17	G	GW	20		X		X	X		X	X	X		
	3201-MW4R	5-22-12	11:03	G	GW	10		X		X	X		X	X	X		
	3201-MW5	5-23-12	12:48	G	GW	10	X	X		X	X		X	X	X		
	3201-MW9R	5-23-12	13:42	G	GW	10	KS X	X		X	X		X	X	X		
	3201-MW10	5-23-12	09:30	G	GW	10	X	X		X	X		X	X	X		
	3201-S1	5-23-12	13:00	G	SW	4			X			X					
	3201-S2	5-23-12	10:13	G	SW	4			X			X					
	3201-S3	5-23-12	11:33	G	SW	4			X			X					
	3201-S4	5-23-12	10:27	G	SW	4			X			X					
	3201-Field Blank	5-23-12	14:00	G	WA	10		X		X	X		X	X	X		
	3201-Trip Blank	5-23-12	—	—	WA	2				X							

<-- Total # of Containers

Sample Kit Prepared By: LB	Date/Time: 5/17	Relinquished By: Ken Dymon	Date/Time: 5-24-12/10:00	Received By: Briana Gregory	Date/Time: 5/24/12 11:35
Comments/Special Reporting Requirements: 1. Please Provide A Level 2 Data Report 2. Unit Rates per Basic Ordering Agreement for Laboratory Services dated April 9, 2004 + the 2011 Unit Price Sheet. 3. Estimated Fee: $4920		Relinquished By:	Date/Time:	Received By:	Date/Time:
		Relinquished By:	Date/Time:	Received By:	Date/Time:
		Cooler #'s & Temps on Receipt: C-835 2.8°C, C-382 2.9°C, C-211 1.7°C, C-807 2.1°C, C-5 1.9°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments) Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

4.) Chain Covers 4 coolers.

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

www.encolabs.com

WORK ORDER

Printed: 6/14/2012 9:57:17AM

C205531

ENCO Cary

Sample Receipt Conditions

Client:	**Golder Associates, Inc. (GO007)**	**Lab Project Mgr:**	**Stephanie Franz**
Project:	**City of Durham**	**Project Number:**	**073-9604211.100**
PO #:			

Report To:
Golder Associates, Inc. (GO007)
Dusty Reedy
5B Oak Branch Drive
Greensboro, NC 27407
Phone: (336) 852-4903
Fax: (336) 852-4904

Invoice To:
Golder Associates, Inc. (GO007)
Accounts Payable
5B Oak Branch Drive
Greensboro, NC 27407
Phone :(804) 358-7900
Fax: 804-358-2900

Received By:	Briana J Gregory	Date Received:	24-May-12 11:35
Logged In By:	Briana J Gregory	Date Logged In:	24-May-12 13:15

Work Order Comments:

C-211 received at 1.7°C

Containers Intact	Y	Containers Properly Preserved	Y	Proper Containers Received	Y	All Samples in PreLog Received	Y	COC/Labels Agree	Y
Custody Seals Intact	Y	Volatile Containers Preserved	Y	Volatile Containers Headspace Free	Y	Aqueous Samples Checked for Residual Cl	N	Received On Ice	Y

C-382 received at 2.9°C

Containers Intact	Y	Containers Properly Preserved	Y	Proper Containers Received	Y	All Samples in PreLog Received	Y	COC/Labels Agree	Y
Custody Seals Intact	Y	Volatile Containers Preserved	Y	Volatile Containers Headspace Free	Y	Aqueous Samples Checked for Residual Cl	N	Received On Ice	Y

C-5 received at 1.9°C

Containers Intact	Y	Containers Properly Preserved	Y	Proper Containers Received	Y	All Samples in PreLog Received	Y	COC/Labels Agree	Y
Custody Seals Intact	Y	Volatile Containers Preserved	Y	Volatile Containers Headspace Free	Y	Aqueous Samples Checked for Residual Cl	N	Received On Ice	Y

C-807 received at 2.1°C

Containers Intact	Y	Containers Properly Preserved	Y	Proper Containers Received	Y	All Samples in PreLog Received	Y	COC/Labels Agree	Y
Custody Seals Intact	Y	Volatile Containers Preserved	Y	Volatile Containers Headspace Free	Y	Aqueous Samples Checked for Residual Cl	N	Received On Ice	Y

C-835 received at 2.8°C

Containers Intact	Y	Containers Properly Preserved	Y	Proper Containers Received	Y	All Samples in PreLog Received	Y	COC/Labels Agree	Y
Custody Seals Intact	Y	Volatile Containers Preserved	Y	Volatile Containers Headspace Free	Y	Aqueous Samples Checked for Residual Cl	N	Received On Ice	Y

GOLDER ASSOCIATES INC.
QUALITY ASSURANCE & QUALITY CONTROL
LABORATORY DATA REVIEW

Project Name: City of Durham Closed MSW Landfill

Project Reference Number: 0739-604212.100

Sampling Event Date: May 22 and 23, 2012

Review Date: June 13, 2012 *Initials:* JD

Report #: C205531

Person(s) performing the review are to initial each item on this form as acknowledgement of data acceptance, or as acknowledgement of a review issue. In the case of the latter, a brief explanation should follow the applicable item.

Golder Associates Inc. has reviewed the laboratory certificates of analysis, chain-of-custody form, and laboratory provided sample group quality assurance and quality control data for the above referenced sample group to identify potential bias or inaccuracy, in general accordance with the following United States Environmental Protection Agency documents:

- Region III Modifications to Functional Guidelines for Organic Data Review Multi-Media, Multi-Concentration, September 1994;
- Region III Modifications to the Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses, April 1993; and
- Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses, July 1998.

COMPLIANCE ANALYTE LIST(S) (check all that apply)

___ NC Closed Facility List (.500 Rules)

___ NC C & D List (New Rules)

X NC Appendix I

___ NC Appendix I + Detects

X NC Appendix II

___ NC Subtitle D Leachate List

Other: cyanide, mercury, sulfide, PCBs, pesticides

1.0 CHAIN OF CUSTODY (COC) REVIEW

JD COC was properly signed by all parties.

JD Correct project name and number are on the form.

JD Sample receipt condition at laboratory was acceptable.

- ***Per the laboratory narrative, one of the two trip blank containers arrived at the lab broken; the other vial was cracked, and it broke during the analysis process. No results are available for the trip blank.***

JD Each sample and blank submitted for analysis appears in the report.

- ***See above***

2.0 SAMPLE HOLDING TIMES

JD Holding times for extraction and/or analysis were met for each analytical Method (see below for reference).

Notes: _____

Review Criteria		
Method	**Analytes**	**Holding Time**
SW-846 Method 8260 and 8011	VOCs	14 days
SW-846 Methods 8270, 8080, 8081, 8082, and 8151	SVOCs, PCBs, pesticides and herbicides	7 days for extraction, 40 days from extraction for analysis
SW-846 Methods 6000 and 7000 Series	Metals except mercury	6 months (no temperature requirements)
SW-846 Method 7470	Mercury	28 days
SW-846 Method 376.1	Sulfide	7 days
SW-846 Method 9010	Cyanide	14 days
EPA Method 300	Nitrate/Sulfate	48 hours/28 days
EPA Method 405.1	BOD	48 hours
EPA Method 410.4	COD	28 days
EPA Method 365.4	Phosphorous	28 days

3.0 LABORATORY QUALITY CONTROL REVIEW

JD Laboratory analyzed at least one internal blank for each method, where applicable.

JD Laboratory blank is interference-free.

- ***Diethylphthalate was detected in the method blank at a concentration of 8.8 ug/L (J).***

JD Surrogate recoveries are provided for each analytical method, where applicable.

JD Surrogate recoveries for each method are within the acceptable limits (i.e., at least 50% of the surrogates were within range).

- ***The surrogate spike recovery of 4-bromofluorobenzene in samples MW-9R, S1, S2, S3, S4, field blank, and method blank and dichloroflurometh**ane in sample MW-5 exceeded control limits. The samples were approved based on acceptable recoveries of the other surrogate standards.***

JD MS/MSD/LCS data results are provided for each analytical method.

JD MS/MSD/LCS recoveries for each method are within the acceptable limits (i.e., at least 1 of the 3 were within range).

- ***The spike recovery of sulfide was outside of control limits for the MS and MSD***

samples. The QC batch was approved based on acceptable LCS recovery of this analyte.

- ***The following Method 8270D analytes exhibited high bias in the associated continuing calibration verification: 2,4-dinitrobiphenyl, 2-acetylaminofluorene, 7,12-dimethylbenz(a)anthracene, benzo(b)fluoranthene, and benzo(k)fluoranthene. Sample results were non-detect.***

- ***The following Method 8270D analytes exhibited low bias in the associated continuing calibration verification: 3,3'-dimethylbenzidine and methylpryilene. Sample results were non-detect.***

4.0 ANALYTE LISTS/METHODS

JD The proper number of constituents are present for each analyte list as identified above (including detects where applicable).

JD Proper EPA SW-846 analytical methods were used for analysis.

5.0 DATA REPORTING

JD All analytical reporting associated with the event was performed by the contracted lab.

JD Trip, field and/or equipment, and laboratory blank results have all been reported. All detects for blanks are listed below by constituent. All laboratory method blanks, if any, have been 'flagged' with a 'B' where detected in other samples as appropriate and a laboratory narrative was provided. If the sample was flagged by the laboratory and is not within 5X of the concentration in the blank (or 10X for commonly detected laboratory contaminants-acetone, methylene chloride and phthalates), list below with explanation if flags should be removed. If flags need to be added for samples, also list below.

Method Blank:

- ***Diethylphthalate @ 8.8 ug/L (J)*** ****B-flags for MW-3R and MW-4R (within 10x)***

Field Blank:

- ***2-butanone @ 5.4 ug/L (J)***
- ***Acetone @ 16 ug/L (J)*** ****B-flags for S1, S2, S3, and S4 (within 10x)***

JD It is clear from the laboratory report that samples have or have not been diluted during analysis, and if the samples have been diluted, the result is reported as a multiple of the dilution (e.g., a sample diluted 10x resulting in an analytical detection of 1.0 should be reported as 10). Those that have been diluted are listed below with the dilution factor.

- ***MW-10: 8260B VOCs diluted by 2x***

JD The report provides the reporting limit for each constituent.

JD The results were reported at or below their proper reporting limits (i.e., MDLs with SWSLs reported). Those that are not reported correctly are listed below (by constituent) with the proper reporting limit listed beside them. State if the reporting limit error is due to dilutions.

- ***Reporting limits for MW-10 elevated due to dilution factor of 2x.***
- ***NC SWSL reported as 6000 ug/L for diethylphthalate for all 8270D analyses. Correct SWSL is 10 ug/L.***

JD No organic constituents were reported above their respective SWSLs, and no inorganic or organic constituents were reported above their respective NC 2L Drinking Water Standards/GWPS in wells, or field/equipment/trip blanks, or above applicable surface water standards in surface water points.

Organic Constituents Above SWSLs and/or NC 2L:

MW-5:

- ***Bis(2-ethylhexyl) phthalate @ 7.7 ug/L (J) (NC2L = 3 ug/L)***

MW-10:

- ***1,2-dichloropropane @ 4.5 ug/L (SWSL = 1 ug/L) (NC2L = 0.6 ug/L)***
- ***Benzene @ 1.7 ug/L (SWSL and NC2L = 1 ug/L)***
- ***Cis-1,2-dichloroethene @ 200 ug/L (SWSL = 5 ug/L) (NC2L = 70 ug/L)***
- ***Trichloroethene @ 9.8 ug/L (SWSL = 1 ug/L) (NC2L = 3 ug/L)***
- ***Vinyl chloride @ 15 ug/L (SWSL = 15 ug/L) (NC2L = 0.03 ug/L)***

Inorganic constituents above NC 2L and/or GWPS, or Surface Water Standards:

MW-2:

- ***Cobalt @ 1.18 ug/L (J) (GWPS = 1 ug/L)***
- ***Vanadium @ 2.24 ug/L (J) (GWPS = 0.3 ug/L)***

MW-3R:

- ***Cobalt @ 4.70 ug/L (J) (GWPS = 1 ug/L)***
- ***Vanadium @ 2.60 ug/L (J) (GWPS = 1 ug/L)***

MW-4R:

- ***Cobalt @ 1.24 ug/L (J) (GWPS = 1 ug/L)***

MW-5:

- ***Barium @ 1920 ug/L (NC2L = 700 ug/L)***

MW-9:

- ***Cobalt @ 5.64 ug/L (J)*** ***(GWPS = 1 ug/L)***
- ***Vanadium @ 1.74 ug/L (J)*** ***(GWPS = 0.3 ug/L)***

MW-10:

- ***Cobalt @ 4.63 ug/L (J)*** ***(GWPS = 1 ug/L)***

S-1:

- ***Copper @ 7.63 ug/L (J)*** ***(SWS = 7 ug/L)***

S-2:

- ***Copper @ 7.57 ug/L (J)*** ***(SWS = 7 ug/L)***

JD No inorganic or organic constituents were detected in a well or surface water point at quantified concentrations outside of their historical range (more than 5X previous concentrations or first-time detections).

S-4:

- ***Zinc @ 38.8 ug/L*** ***(>5x previous concentration)***

JD Other report issues/Communications with laboratory/etc.:

Notes: _____

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515
www.encolabs.com

Monday, June 18, 2012

Golder Associates, Inc. (GO007)

Attn: Dusty Reedy

5B Oak Branch Drive

Greensboro, NC 27407

RE: Laboratory Results for
Project Number: 073-9604211.100, Project Name/Desc: City of Durham-Resample
ENCO Workorder(s): C207090

Dear Dusty Reedy,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, June 15, 2012.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Stephanie Franz

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 9.

www.encolabs.com

PROJECT NARRATIVE

Date: 18 June 2012
Client: Golder Associates, Inc. (GO007)
Project: City of Durham-Resample
Lab ID: C207090

Overview

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

No Comments

Quality Control Remarks

No Comments

Other Comments

All samples received under this work order arrived in acceptable conditions. The samples were not checked for residual chlorine, as it is not required. No aqueous volatile samples were received, negating the need to check for preservation or headspace.

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:
Environmental Conservation Laboratories, Inc.

Stephanie Franz
Project Manager

www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 3201-MW5	Lab ID: C207090-01	Sampled: 06/15/12 11:52	Received: 06/15/12 13:15

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 8270D	06/22/12	07/25/12	06/15/12	17:00	6/15/2012 21:01

SAMPLE DETECTION SUMMARY

No positive results detected.

www.encolabs.com

ANALYTICAL RESULTS

Description: 3201-MW5
Matrix: Ground Water
Project: City of Durham-Resample

Lab Sample ID: C207090-01
Sampled: 06/15/12 11:52
Sampled By: B. Draper/K.Brewer

Received: 06/15/12 13:15
Work Order: C207090

Semivolatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Bis(2-ethylhexyl)phthalate [117-81-7] ^	1.7	U	ug/L	1	1.7	5.0	15	EPA 8270D	06/15/12 21:01	DFM	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
2,4,6-Tribromophenol	*75*	*1*	*100*	*75 %*	*10-179*	*2F15009*	*EPA 8270D*	*06/15/12 21:01*	*DFM*	
2-Fluorobiphenyl	*35*	*1*	*50.0*	*71 %*	*10-149*	*2F15009*	*EPA 8270D*	*06/15/12 21:01*	*DFM*	
2-Fluorophenol	*47*	*1*	*100*	*47 %*	*10-110*	*2F15009*	*EPA 8270D*	*06/15/12 21:01*	*DFM*	
Nitrobenzene-d5	*35*	*1*	*50.0*	*71 %*	*10-149*	*2F15009*	*EPA 8270D*	*06/15/12 21:01*	*DFM*	
Phenol-d5	*41*	*1*	*100*	*41 %*	*10-88*	*2F15009*	*EPA 8270D*	*06/15/12 21:01*	*DFM*	
Terphenyl-d14	*39*	*1*	*50.0*	*77 %*	*10-188*	*2F15009*	*EPA 8270D*	*06/15/12 21:01*	*DFM*	

This report relates only to the sample as received by the laboratory, and may only be reproduced in full.

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 2F15009 - EPA 3510C_MS

Blank (2F15009-BLK1) Prepared: 06/15/2012 10:34 Analyzed: 06/15/2012 18:51

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bis(2-ethylhexyl)phthalate	1.7	U	5.0	ug/L							
Surrogate: 2,4,6-Tribromophenol	*80*			*ug/L*	*100*		*80*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*36*			*ug/L*	*50.0*		*73*	*10-149*			
Surrogate: 2-Fluorophenol	*53*			*ug/L*	*100*		*53*	*10-110*			
Surrogate: Nitrobenzene-d5	*38*			*ug/L*	*50.0*		*76*	*10-149*			
Surrogate: Phenol-d5	*44*			*ug/L*	*100*		*44*	*10-88*			
Surrogate: Terphenyl-d14	*39*			*ug/L*	*50.0*		*78*	*10-188*			

LCS (2F15009-BS1) Prepared: 06/15/2012 10:34 Analyzed: 06/15/2012 19:17

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	38		10	ug/L	50.0		75	40-109			
4-Chloro-3-methylphenol	38		10	ug/L	50.0		75	58-121			
4-Nitrophenol	29		10	ug/L	50.0		58	33-105			
Acenaphthene	39		10	ug/L	50.0		78	39-125			
N-Nitroso-di-n-propylamine	36		10	ug/L	50.0		72	48-126			
Phenol	24		10	ug/L	50.0		48	19-78			
Pyrene	40		10	ug/L	50.0		81	44-137			
Surrogate: 2,4,6-Tribromophenol	*79*			*ug/L*	*100*		*79*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*39*			*ug/L*	*50.0*		*77*	*10-149*			
Surrogate: 2-Fluorophenol	*55*			*ug/L*	*100*		*55*	*10-110*			
Surrogate: Nitrobenzene-d5	*39*			*ug/L*	*50.0*		*78*	*10-149*			
Surrogate: Phenol-d5	*43*			*ug/L*	*100*		*43*	*10-88*			
Surrogate: Terphenyl-d14	*43*			*ug/L*	*50.0*		*85*	*10-188*			

Matrix Spike (2F15009-MS1) Prepared: 06/15/2012 10:34 Analyzed: 06/15/2012 19:43

Source: C207201-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	38		10	ug/L	50.0	1.2 U	77	40-109			
4-Chloro-3-methylphenol	40		10	ug/L	50.0	1.5 U	81	58-121			
4-Nitrophenol	29		10	ug/L	50.0	2.0 U	58	33-105			
Acenaphthene	41		10	ug/L	50.0	1.4 U	82	39-125			
N-Nitroso-di-n-propylamine	38		10	ug/L	50.0	1.5 U	75	48-126			
Phenol	24		10	ug/L	50.0	1.4 U	48	19-78			
Pyrene	43		10	ug/L	50.0	2.1 U	85	44-137			
Surrogate: 2,4,6-Tribromophenol	*78*			*ug/L*	*100*		*78*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*39*			*ug/L*	*50.0*		*79*	*10-149*			
Surrogate: 2-Fluorophenol	*54*			*ug/L*	*100*		*54*	*10-110*			
Surrogate: Nitrobenzene-d5	*39*			*ug/L*	*50.0*		*79*	*10-149*			
Surrogate: Phenol-d5	*42*			*ug/L*	*100*		*42*	*10-88*			
Surrogate: Terphenyl-d14	*44*			*ug/L*	*50.0*		*88*	*10-188*			

Matrix Spike Dup (2F15009-MSD1) Prepared: 06/15/2012 10:34 Analyzed: 06/15/2012 20:09

Source: C207201-03

QUALITY CONTROL

Semivolatile Organic Compounds by GCMS - Quality Control

Batch 2F15009 - EPA 3510C_MS

Matrix Spike Dup (2F15009-MSD1) Continued Prepared: 06/15/2012 10:34 Analyzed: 06/15/2012 20:09

Source: C207201-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
2-Chlorophenol	36		10	ug/L	50.0	1.2 U	73	40-109	5	22	
4-Chloro-3-methylphenol	42		10	ug/L	50.0	1.5 U	83	58-121	3	22	
4-Nitrophenol	31		10	ug/L	50.0	2.0 U	61	33-105	6	27	
Acenaphthene	40		10	ug/L	50.0	1.4 U	81	39-125	2	25	
N-Nitroso-di-n-propylamine	37		10	ug/L	50.0	1.5 U	73	48-126	3	23	
Phenol	25		10	ug/L	50.0	1.4 U	49	19-78	3	18	
Pyrene	43		10	ug/L	50.0	2.1 U	86	44-137	0.8	24	
Surrogate: 2,4,6-Tribromophenol	*80*			*ug/L*	*100*		*80*	*10-179*			
Surrogate: 2-Fluorobiphenyl	*38*			*ug/L*	*50.0*		*75*	*10-149*			
Surrogate: 2-Fluorophenol	*52*			*ug/L*	*100*		*52*	*10-110*			
Surrogate: Nitrobenzene-d5	*37*			*ug/L*	*50.0*		*75*	*10-149*			
Surrogate: Phenol-d5	*44*			*ug/L*	*100*		*44*	*10-88*			
Surrogate: Terphenyl-d14	*44*			*ug/L*	*50.0*		*89*	*10-188*			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

10775 Central Port Dr.
Orlando, FL 32824
(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 111
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

www.encolabs.com

Page 1 of 1

Client Name	Golder Associates, Inc. (GO007)
Address	5B Oak Branch Drive
City/ST/Zip	Greensboro, NC 27407
Tel	(336) 852-4903
Fax	(336) 852-4904
Sampler(s) Name, Affiliation (Print)	B. Dragone / K. Brewer Golder
Sampler(s) Signature	
Project Number	073-9604211.100
Project Name/Desc	City of Durham-Resample
PO # / Billing Info	
Reporting Contact	Dusty Reedy
Billing Contact	Accounts Payable
Site Location / Time Zone	Durham, NC / EST

Requested Analyses: 8270D Appendix 2

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C207090

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8270D Appendix 2	Sample Comments
	3201-MW5	11:52	6-15-2012	G	GW	3	X	Bis-2-ethylhexylpthalate

Preservation (See Codes) (Combine as necessary)

<-- Total # of Containers

Sample Kit Prepared By: RY	Date/Time: 6/14		
Relinquished By:	Date/Time: 6-15-2012 12:00	Received By: ME Stamper	Date/Time: 6/15/12 1315
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Comments/Special Reporting Requirements: 1. Please provide "level 2" data report

Cooler #'s & Temps on Receipt: 2.1°C

Condition Upon Receipt: X Acceptable ___ Unacceptable

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments)

Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

WORK ORDER

Printed: 6/18/2012 2:43:54PM

C207090

ENCO Cary

Sample Receipt Conditions

Client:	**Golder Associates, Inc. (GO007)**	**Lab Project Mgr:**	**Stephanie Franz**
Project:	**City of Durham-Resample**	**Project Number:**	**073-9604211.100**
PO #:			

Report To:

Golder Associates, Inc. (GO007)
Dusty Reedy
5B Oak Branch Drive
Greensboro, NC 27407
Phone: (336) 852-4903
Fax: (336) 852-4904

Invoice To:

Golder Associates, Inc. (GO007)
Accounts Payable
5B Oak Branch Drive
Greensboro, NC 27407
Phone :(804) 358-7900
Fax: 804-358-2900

Received By:	Miranda E Stamper	Date Received:	15-Jun-12 13:15
Logged In By:	Miranda E Stamper	Date Logged In:	15-Jun-12 14:34

Work Order Comments:

C-170 received at 2.1°C

Containers Intact	**Y**	Containers Properly Preserved	**Y**	Proper Containers Received	**Y**	All Samples in PreLog Received	**Y**	COC/Labels Agree	**Y**
Custody Seals Intact	**Y**	Volatile Containers Preserved	**N**	Volatile Containers Headspace Free	**N**	Aqueous Samples Checked for Residual Cl	**N**	Received On Ice	**Y**

Reviewed By

Date

APPENDIX C

Statistical Evaluation Summary Table and Worksheets

Summary of Statistical Analysis

City of Durham Closed Landfill, Permit No. 32-01

Durham County, North Carolina

May 2012									
Detected Monitoring Constituent/ Analytes	Reporting Units	SWS Reporting Limit	Groundwater Standard		Downgradient Monitoring Well	Constituent/ Analyte Concentration	Statistical Analysis		Statistical Determination
			NC 2L	GWPS			Interwell	Intrawell	
Barium	ug/L	100	700	--	MW-5	1920	5564	NA	Not SSI

Notes:

1. Statistical worksheets are provided as Appendix C.
2. ug/L = micrograms per liter
3. NC 2L = North Carolina 2L Groundwater Standard
4. GWPS = North Carolina Solid Waste Section Groundwater Protection Standard
5. NA = not applicable
6. SSI = statistically significant increase
7. SWS = Solid Waste Section
8. North Carolina Appendix I Inorganic constituents detected above their respective Solid Waste Section Reporting Limit and Groundwater Standard in samples from downgradient monitoring wells were statistically evaluated.

Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 06/14/12

Analyte: Barium

Sample No.	Sample Date	Location	Concentration (ug/L)		Quantitation Limit (ug/L)
1	09/19/94	PZ-6	1834		--
2	12/02/94	PZ-6	760		--
3	02/07/95	PZ-6	2648		--
4	03/13/95	PZ-6	524		--
5	11/01/95	PZ-6	970		--
6	06/10/96	PZ-6	891		--
7	11/12/96	PZ-6	1555		--
8	03/18/97	PZ-6	850		--
9	10/02/97	PZ-6	840		--
10	05/26/98	PZ-6	779		--
11	12/01/98	PZ-6	2390		--
12	06/07/99	PZ-6	1850		--
13	12/15/99	PZ-6	944		--
14	06/06/00	PZ-6	2488		--
15	12/27/00	PZ-6	1826		--
16	06/04/01	PZ-6	2804		--
17	12/03/01	PZ-6	965		--
18	06/10/02	PZ-6	849		--
19	12/16/02	PZ-6	620		--
20	06/09/03	PZ-6	432		--
21	12/08/03	PZ-6	2881		--
22	06/29/04	PZ-6	5664		--
23	12/20/04	PZ-6	578		--
24	06/05/05	PZ-6	952		--
25	12/05/05	PZ-6	435		--
26	06/05/06	PZ-6	575		--
27	12/05/06	PZ-6	635		--
28	05/30/07	PZ-6	619		100
29	11/19/07	PZ-6	1300		100
30	05/19/08	MW-9R	55	J	100
31	11/19/08	MW-9R	38	J	100
32	06/30/09	MW-9R	51.2	J	100
33	11/30/09	MW-9R	45.8	J	100
34	05/20/10	MW-9R	45.1	J	100
35	11/19/10	MW-9R	53.3	J	100
36	05/19/11	MW-9R	53.1	J	100
37	11/28/11	MW-9R	80.4	J	100
38	05/23/12	MW-9R	50.6	J	100

Number of Data	38
Number of Truncated Data	0
Percentage of Truncated Data	0%

Nonparametric Prediction Interval: **5664** ug/L

Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 6/14/12

Probability Plots to determine the distribution of Barium

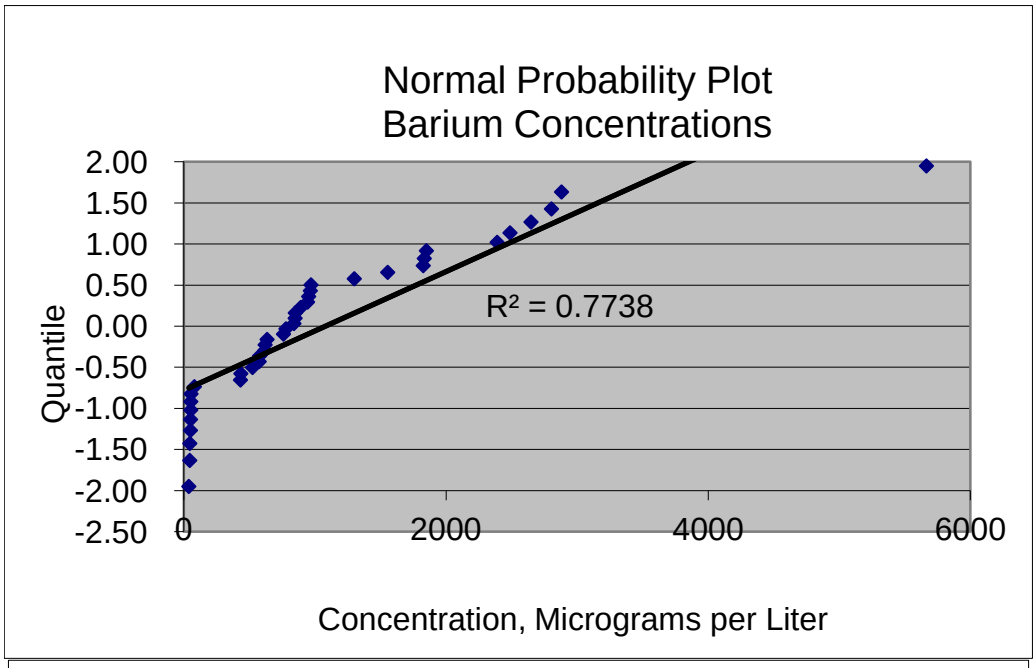
Complete the following table where:

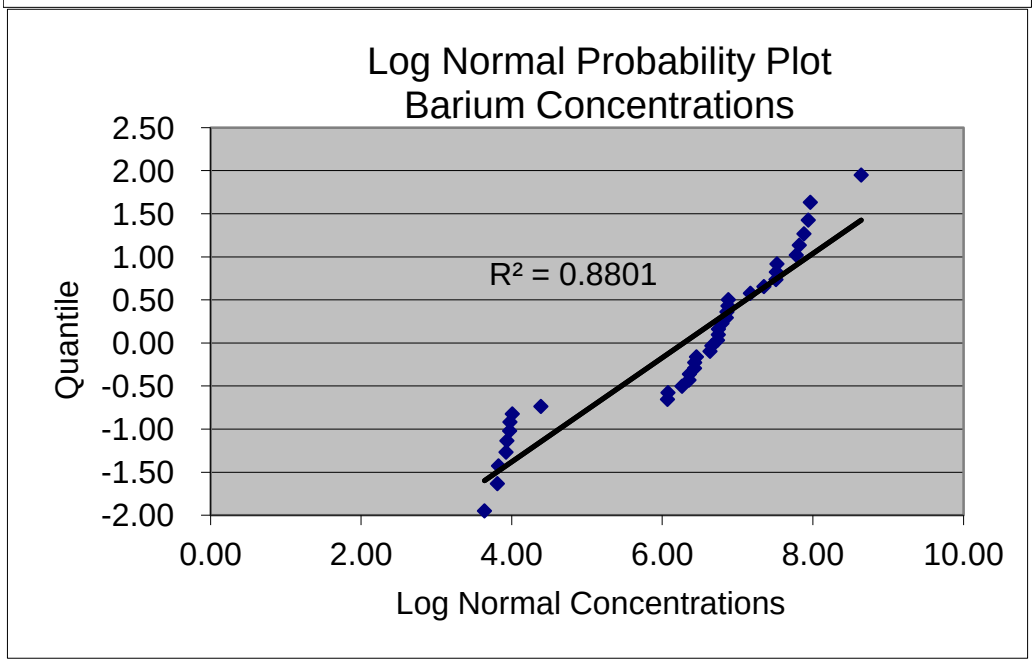
i = ordered value of sample, arranged from smallest to largest
X(i) = sample values arranged from smallest to largest
LN[X(i)] = Natural Log Value of sample concentrations arranged from smallest to largest
[i/(n+1)] = Cumulative probability
n = number of samples = 38

X(i)	LN[X(i)]	i	Rank	[Rank/(n+1)]	Quantiles
38	3.64	1	1	0.026	-1.95
45.1	3.81	2	2	0.051	-1.63
45.8	3.82	3	3	0.077	-1.43
50.6	3.92	4	4	0.103	-1.27
51.2	3.94	5	5	0.128	-1.13
53.1	3.97	6	6	0.154	-1.02
53.3	3.98	7	7	0.179	-0.92
55	4.01	8	8	0.205	-0.82
80.4	4.39	9	9	0.231	-0.74
432	6.07	10	10	0.256	-0.65
435	6.08	11	11	0.282	-0.58
524	6.26	12	12	0.308	-0.50
575	6.35	13	13	0.333	-0.43
578	6.36	14	14	0.359	-0.36
619	6.43	15	15	0.385	-0.29
620	6.43	16	16	0.410	-0.23
635	6.45	17	17	0.436	-0.16
760	6.63	18	18	0.462	-0.10
779	6.66	19	19	0.487	-0.03
840	6.73	20	20	0.513	0.03
849	6.74	21	21	0.538	0.10
850	6.75	22	22	0.564	0.16
891	6.79	23	23	0.590	0.23
944	6.85	24	24	0.615	0.29
952	6.86	25	25	0.641	0.36
965	6.87	26	26	0.667	0.43
970	6.88	27	27	0.692	0.50
1300	7.17	28	28	0.718	0.58
1555	7.35	29	29	0.744	0.65
1826	7.51	30	30	0.769	0.74
1834	7.51	31	31	0.795	0.82
1850	7.52	32	32	0.821	0.92
2390	7.78	33	33	0.846	1.02
2488	7.82	34	34	0.872	1.13
2648	7.88	35	35	0.897	1.27
2804	7.94	36	36	0.923	1.43
2881	7.97	37	37	0.949	1.63
5664	8.64	38	38	0.974	1.95

Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 06/14/12

Probability Plots to determine the distribution of Barium





Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 06/14/12

Determination of reported background value as an outlier

Analyte: Barium

Background Data

Sample No.	Sample Date	Location	Concentration (ug/l)	Quantitation Limit (ug/l)
1	09/19/94	PZ-6	1834	--
2	12/02/94	PZ-6	760	--
3	02/07/95	PZ-6	2648	--
4	03/13/95	PZ-6	524	--
5	11/01/95	PZ-6	970	--
6	06/10/96	PZ-6	891	--
7	11/12/96	PZ-6	1555	--
8	03/18/97	PZ-6	850	--
9	10/02/97	PZ-6	840	--
10	05/26/98	PZ-6	779	--
11	12/01/98	PZ-6	2390	--
12	06/07/99	PZ-6	1850	--
13	12/15/99	PZ-6	944	--
14	06/06/00	PZ-6	2488	--
15	12/27/00	PZ-6	1826	--
16	06/04/01	PZ-6	2804	--
17	12/03/01	PZ-6	965	--
18	06/10/02	PZ-6	849	--
19	12/16/02	PZ-6	620	--
20	06/09/03	PZ-6	432	--
21	12/08/03	PZ-6	2881	--
22	06/29/04	PZ-6	5664	--
23	12/20/04	PZ-6	578	--
24	06/05/05	PZ-6	952	--
25	12/05/05	PZ-6	435	--
26	06/05/06	PZ-6	575	--
27	12/05/06	PZ-6	635	--
28	05/30/07	PZ-6	619	--
29	11/19/07	PZ-6	1300	100
30	05/19/08	MW-9R	55	100
31	11/19/08	MW-9R	38	100
32	06/30/09	MW-9R	51.2	100
33	11/30/09	MW-9R	45.8	100
34	05/20/10	MW-9R	45.1	100
35	11/19/10	MW-9R	53.3	100
36	05/19/11	MW-9R	53.1	100
37	11/28/11	MW-9R	80.4	100
38	05/23/12	MW-9R	50.6	100

mean = 1077.118
STD = 1134.324

Note: All concentrations are micrograms per liter

Using the data listed above, form the statistic Tn:

Tn = (Xn - mean) / STD

where:

Xn =	largest observed sample value
mean =	mean of the background values
STD =	standard deviation of the background values

For	Xn =	5664.000
	mean =	1077.118
	STD =	1134.324
	Tn =	**4.044**

From Table 8 included in the Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities - Interim Final Guidance, the critical value for the given sample group is

Number of samples =	38
Tc =	**2.846**

Since Tc<Tn, the sample result is considered to be an outlier

Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 6/14/12

Determination of reported background value as an outlier

Analyte: Barium

Background Data

Sample No.	Sample Date	Location	ln(Concentration) (ug/l)	Quantitation Limit (ug/l)
1	9/19/94	PZ-6	7.514254653	--
2	12/2/94	PZ-6	6.633318433	--
3	2/7/95	PZ-6	7.881559917	--
4	3/13/95	PZ-6	6.261491684	--
5	11/1/95	PZ-6	6.877296071	--
6	6/10/96	PZ-6	6.792344427	--
7	11/12/96	PZ-6	7.349230825	--
8	3/18/97	PZ-6	6.745236349	--
9	10/2/97	PZ-6	6.733401892	--
10	5/26/98	PZ-6	6.658011046	--
11	12/1/98	PZ-6	7.779048645	--
12	6/7/99	PZ-6	7.522940918	--
13	12/15/99	PZ-6	6.850126166	--
14	6/6/00	PZ-6	7.819234454	--
15	12/27/00	PZ-6	7.509883061	--
16	6/4/01	PZ-6	7.938802248	--
17	12/3/01	PZ-6	6.872128101	--
18	6/10/02	PZ-6	6.744059186	--
19	12/16/02	PZ-6	6.429719478	--
20	6/9/03	PZ-6	6.068425588	--
21	12/8/03	PZ-6	7.965892735	--
22	6/29/04	PZ-6	8.641885635	--
23	12/20/04	PZ-6	6.359573869	--
24	6/5/05	PZ-6	6.858565035	--
25	12/5/05	PZ-6	6.075346031	--
26	6/5/06	PZ-6	6.354370041	--
27	12/5/06	PZ-6	6.453624999	--
28	5/30/07	PZ-6	6.428105273	--
29	11/19/07	PZ-6	7.170119543	100
30	5/19/08	MW-9R	4.007333185	100
31	11/19/08	MW-9R	3.63758616	100
32	6/30/09	MW-9R	3.935739532	100
33	11/30/09	MW-9R	3.824284091	100
34	5/20/10	MW-9R	3.808882247	100
35	11/19/10	MW-9R	3.975936331	100
36	5/19/11	MW-9R	3.972176928	100
37	11/28/11	MW-9R	4.387014176	100
38	5/23/12	MW-9R	3.923951576	100

mean = 6.283
STD = 1.444

Note: All concentrations are micrograms per liter

Using the data listed above, form the statistic Tn:

Tn = (Xn - mean) / STD

where:	Xn =	largest observed sample value
	mean =	mean of the background values
	STD =	standard deviation of the background values

For	Xn =	8.642
	mean =	6.283
	STD =	1.444
	Tn =	**1.634**

From Table 8 included in the Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities - Interim Final Guidance, the critical value for the given sample group is

Number of samples =	38
Tc =	**2.846**

Since Tc>Tn, the sample result is not considered to be an outlier

Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 6/14/12

Shapiro Wilk Test Statistic (W) for normality of total Barium

Complete the following table where

i = ordered value of sample, arranged from smallest to largest
X(i) = sample values arranged from smallest to largest
X(n-i+1) = sample values arranged from largest to smallest
A(n-i+1) = coefficient from table A-1, Statistical Analysis of Ground-Water Data at RCRA Facilities
B(i) = summation of (X(n-i+1)-X(i))A(n-i+1)

i	X(i)	X(n-i+1)	X(n-i+1) - X(i)	A(n-i+1)	B(i)
1	38.00	5664.00	5626.00	0.4015	2258.84
2	45.10	2881.00	2835.9	0.2774	786.68
3	45.80	2804.00	2758.2	0.2391	659.49
4	50.60	2648.00	2597.4	0.211	548.05
5	51.20	2488.00	2436.8	0.1881	458.36
6	53.10	2390.00	2336.9	0.1686	394.00
7	53.30	1850.00	1796.7	0.1513	271.84
8	55.00	1834.00	1779	0.1356	241.23
9	80.40	1826.00	1745.6	0.1211	211.39
10	432.00	1555.00	1123	0.1075	120.72
11	435.00	1300.00	865	0.0947	81.92
12	524.00	970.00	446	0.0824	36.75
13	575.00	965.00	390	0.0706	27.53
14	578.00	952.00	374	0.0592	22.14
15	619.00	944.00	325	0.0481	15.63
16	620.00	891.00	271	0.0372	10.08
17	635.00	850.00	215	0.0264	5.68
18	760.00	849.00	89	0.0158	1.41
19	779.00	840.00	61	0.0053	0.32
20	840.00	779.00			
21	849.00	760.00			
22	850.00	635.00			
23	891.00	620.00			
24	944.00	619.00			
25	952.00	578.00			
26	965.00	575.00			
27	970.00	524.00			
28	1300.00	435.00			
29	1555.00	432.00			
30	1826.00	80.40			
31	1834.00	55.00			
32	1850.00	53.30			
33	2390.00	53.10			
34	2488.00	51.20			
35	2648.00	50.60			
36	2804.00	45.80			
37	2881.00	45.10			
38	5664.00	38.00			

The test statistic W can be found using:

W = SQR[B/(SD x SQRT(n-1))]

where:	B =	summation of (X(n-i+1)-X(i))A(n-i+1)	=	6152.07
	SD =	standard deviation of the data group	=	1134.32
	n =	number of samples	=	38

W = 0.795

Compare this value to the critical value in Table A-2 of Statistical Analysisof Ground-Water Monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance (Draft) July, 1992, to determine if the data is normally distributed.

From Table A-2 with (n) samples and a 95% confidence level, the critical value is

W(crit) = 0.938
and the calculated W = 0.795

Therefore the data is Non Normal

Project Name: City of Durham - Closed Landfill
Project No: 739604212.100
Date: 6/14/12

Shapiro Wilk Test Statistic (W) for log normality of Barium

Complete the following table where

i = ordered value of sample, arranged from smallest to largest
X(i) = sample values arranged from smallest to largest
X(n-i+1) = sample values arranged from largest to smallest
A(n-i+1) = coefficient from table A-1, Statistical Analysis of Ground-Water Data at RCRA Facilities
B(i) = summation of (X(n-i+1)-X(i))A(n-i+1)

i	X(i)	X(n-i+1)	X(n-i+1) - X(i)	A(n-i+1)	B(i)
1	3.64	8.64	5.0043	0.4015	2.0092
2	3.81	7.97	4.1570	0.2774	1.1532
3	3.82	7.94	4.1145	0.2391	0.9838
4	3.92	7.88	3.9576	0.2110	0.8351
5	3.94	7.82	3.8835	0.1881	0.7305
6	3.97	7.78	3.8069	0.1686	0.6418
7	3.98	7.52	3.5470	0.1513	0.5367
8	4.01	7.51	3.5069	0.1356	0.4755
9	4.39	7.51	3.1229	0.1211	0.3782
10	6.07	7.35	1.2808	0.1075	0.1377
11	6.08	7.17	1.0948	0.0947	0.1037
12	6.26	6.88	0.6158	0.0824	0.0507
13	6.35	6.87	0.5178	0.0706	0.0366
14	6.36	6.86	0.4990	0.0592	0.0295
15	6.43	6.85	0.4220	0.0481	0.0203
16	6.43	6.79	0.3626	0.0372	0.0135
17	6.45	6.75	0.2916	0.0264	0.0077
18	6.63	6.74	0.1107	0.0158	0.0017
19	6.66	6.73	0.0754	0.0053	0.0004
20	6.73	6.66			
21	6.74	6.63			
22	6.75	6.45			
23	6.79	6.43			
24	6.85	6.43			
25	6.86	6.36			
26	6.87	6.35			
27	6.88	6.26			
28	7.17	6.08			
29	7.35	6.07			
30	7.51	4.39			
31	7.51	4.01			
32	7.52	3.98			
33	7.78	3.97			
34	7.82	3.94			
35	7.88	3.92			
36	7.94	3.82			
37	7.97	3.81			
38	8.64	3.64			

The test statistic W can be found using:

W = SQR((B/SD x SQRT(n-1))

where:	B =	summation of (X(n-i+1)-X(i))A(n-i+1)	=	8.1458
	SD =	standard deviation of the data group	=	1.4438
	n =	number of samples	=	38
			W =	0.8603

Compare this value to the critical value in Table A-2 of Statistical Analysisof Ground-Water Monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance (Draft) July, 1992, to determine if the data is normally distributed.

From Table A-2 with (n) samples and a 95% confidence level, the critical value is

W(crit) = 0.938
and the calculated W = 0.860

Therefore the data is Non Normal

At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

Africa	+ 27 11 254 4800
Asia	+ 852 2562 3658
Australasia	+ 61 3 8862 3500
Europe	+ 356 21 42 30 20
North America	+ 1 800 275 3281
South America	+ 55 21 3095 9500

solutions@golder.com
www.golder.com

Golder Associates NC, Inc.
5B Oak Branch Drive
Greensboro, NC 27407 USA
Tel: (336) 852-4903
Fax: (336) 852-4904

Golder Associates

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation