OCTOBER 2009
SEMI-ANNUAL MONITORING OF
GROUNDWATER AND SURFACE WATER

LINCOLN COUNTY LANDFILL
PERMIT # 55-03
LINCOLN COUNTY
CROUSE, NORTH CAROLINA
S&ME PROJECT No. 1356-07-004

Prepared for:

LINCOLN COUNTY
5291 Crouse Road
Crouse, North Carolina 28033

Prepared by:

S&ME, INC.
9751 Southern Pine Blvd.
Charlotte, North Carolina 28273

Courtney R. Withers

Courtney R. Withers, P.G.
Project Geologist

Julie R. Petersen, P.G.
Senior Geologist / Project Manager

Senior Reviewed by M. Neal McElveen, P.E.

January 19, 2010

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NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- In Accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- 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):

Consultant - S&ME, INC.

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

Name: Courtney R. Withers, P.G. Phone: 704-523-4726

E-mail: crwithers@smeinc.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Lincoln County Landfill	5291 Crouse Rd. Crouse, NC 28033	55-03	.0500 and .1600	October 12-14, 2009

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 or explosive methane gas limits 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.

Courtney R. Withers, P.G.	Project Geologist	704-523-4726
Facility Representative Name (Print)	Title	(Area Code) Telephone Number

Courtney R. Withers 1/19/10
Signature Date

Affix NC Licensed/ Professional Geologist/Engineer Seal here:

NORTH CAROLINA LICENSED SEAL 2203 GEOLOGIST COURTNEY REID WITHERS

Revised 10/2006

TABLE OF CONTENTS

Section **Page**

1.0 INTRODUCTION **1**

2.0 GROUNDWATER LEVELS AND FLOW DATA **1**

3.0 ANALYTICAL DATA **1**

3.1 MONITORING WELL SAMPLING 1

3.1.1 MSW Area "E" and Phase 1 ..... *1*

3.1.1.1 Volatile Organic Compounds (VOCs) *2*

3.1.1.2 Inorganic Constituents (Metals) *2*

3.1.2 MSW Phase 2 ..... *3*

3.1.2.1 Volatile Organic Compounds (VOCs) *3*

3.1.2.2 Inorganic Constituents (Metals) *3*

3.1.3 MSW Phase 3 ..... *3*

3.1.3.1 Volatile Organic Compounds (VOCs) *4*

3.1.3.2 Inorganic Constituents (Metals) *4*

3.1.4 C&D Landfill Phase 1 and Phase 2 ..... *4*

3.1.4.1 Volatile Organic Compounds (VOCs) *4*

3.1.4.2 Inorganic Constituents (Metals) *5*

3.1.4.3 Classical Chemistry Compounds *5*

3.2 SURFACE WATER SAMPLING 5

3.3 LEACHATE SAMPLING 6

4.0 STATISTICAL ANALYSIS **6**

4.1 VOLATILE ORGANIC COMPOUNDS (VOCS) 8

4.2 TOTAL METALS 8

TABLES

TABLE 1: Water Level Elevations
TABLE 2: Detected Analytes in Monitoring Wells for MSW Area "E" and Phase 1
TABLE 3: Detected Analytes in Monitoring Wells for MSW Phase 2
TABLE 4: Detected Analytes in Monitoring Wells for MSW Phase 3
TABLE 5: Detected Analytes in Monitoring Wells for C&D Phase 1
TABLE 6: Detected Analytes in Monitoring Wells for C&D Phase 2
TABLE 7: Detected Analytes in Surface Water Samples
TABLE 8: Detected Analytes in Leachate

FIGURES

FIGURE 1: Groundwater Surface Map

APPENDICES

APPENDIX I: Well Sampling Logs and Laboratory Reports
APPENDIX II: Statistical Analysis Procedure Sheets

1.0 INTRODUCTION

S&ME, Inc. (S&ME) was contracted by Lincoln County to provide groundwater, surface water, and leachate monitoring services at the Lincoln County Landfill located at 5291 Crouse Road in Crouse, North Carolina. This monitoring event was conducted on October 12 through 14, 2009.

This report presents the results of the second sampling event for the year 2009 at the facility. The facility's monitoring network includes one (1) background well (MW-1A), twenty-eight (28) compliance wells, five (5) surface water sample locations, and one (1) leachate sample. The next sampling event is scheduled for April 2010.

2.0 GROUNDWATER LEVELS AND FLOW DATA

The water table elevations and our interpretation of the groundwater surface expressed as a potentiometric map along with groundwater flow direction are shown on ***Figure 1***. Based upon the groundwater elevations in the vicinity of the landfill, groundwater in this area is projected to flow primarily to the south, with secondary flow toward the southwest and southeast toward tributaries located east and west of the landfills. Groundwater levels for the monitoring wells are presented in ***Table 1***.

3.0 ANALYTICAL DATA

Analytical results for the landfill monitoring wells, surface water samples, and leachate sample are summarized in Tables 2 through 8. The detections above the NCAC 2L groundwater Standards, NCAC 2B surface water Standards, and/or SW GWP Standard are highlighted in grey. Well sampling logs containing field measurements of pH, conductivity, temperature and water levels are included in ***Appendix I***.

3.1 MONITORING WELL SAMPLING

3.1.1 MSW Area "E" and Phase 1

MSW Area "E" and Phase 1 monitoring well locations were sampled for Appendix I volatile organic constituents (VOCs) and Appendix I metals. In addition to Appendix I VOCs and metals, the groundwater analysis for background monitoring well MW-1A also included inorganic constituents iron and manganese. A summary of the detected analytes associated with this Phase of the landfill is included as ***Table 2***. The monitoring well network associated with these areas include background well MW-1A, compliance wells MW-8, MW-9, and MW-10R which monitor the recently abandoned leachate pond, and compliance wells MW-12 through MW-20 which monitor down gradient and side gradient of the unlined MSW landfill Area "E" and the lined MSW landfill identified as Phase 1.

Based on the laboratory analytical reports, fourteen volatile organic compounds and sixteen metals were detected in MSW Area "E" and Phase 1 monitoring wells during the October 2009 monitoring event.

3.1.1.1 Volatile Organic Compounds (VOCs)

Background monitoring well MW-1A had a detection of Chloroform at a concentration of 22 µg/L, which is below the 2L Standard of 70 µg/L. Both Bromoform and Chloroform have historically been detected in monitoring well MW-1A which are commonly associated with chlorinated municipal water. Due to MW-1A's close proximity to Crouse Road, it is likely the detection of Chloroform in the well is from a leaking nearby municipal water or sewer line.

Monitoring wells MW-9 through MW-20 contained thirteen volatile organic compounds. Of the VOCs detected, five compounds were detected above their respective 2L Standard: 1,4-Dichlorobenzene, Benzene, Methylene Chloride, Tetrachloroethene, and Vinyl Chloride. Please note that monitoring wells MW-9, MW-10R, MW-12, MW-15, and MW-18 had no VOC detections above the method detection limit (MDL), and monitoring well MW-8 was dry.

The analytical results for monitoring well MW-13 indicated that 1,4-Dichlorobenzene, Benzene, Tetrachloroethene, and Vinyl Chloride were detected above their respective 2L Standards at concentrations of 2.7, 5, 3.9 and 1.1 µg/L, respectively. The results for monitoring well MW-16R indicated that 1,4-Dichlorobenzene, Benzene, and Vinyl Chloride were detected above their respective 2L Standard at concentrations of 2.5, 6.4, and 3.9 µg/L, respectively. The results for monitoring well MW-19R indicated that Tetrachloroethene was detected at a concentration of 1.3 µg/L, which is above the 2L Standard of 0.7 µg/L. The results for monitoring well MW-20 indicated that Benzene, Methylene Chloride, and Tetrachloroethene were detected above their respective 2L Standard at concentrations of 2, 6.6, and 1.6 µg/L, respectively.

Monitoring wells MW-13, MW-14, MW-16R, MW-17, MW-19R and MW-20 monitor down gradient and side gradient of the of the unlined Area "E" landfill and the volatile organic constituents detected in these wells are associated with the unlined landfill.

3.1.1.2 Inorganic Constituents (Metals)

The monitoring wells associated with the MSW Area "E" and Phase 1 landfills had four or more Appendix I metals detected, however only three constituents were detected above their respective SW GWP Standard: Antimony, Cobalt, and Vanadium. Iron was also detected in background monitoring well MW-1A above its respective 2L Standard.

Antimony was detected above its SW GWP Standard of 1.4 µg/L in monitoring well MW-14 at a concentration of 1.70 J µg/L. Cobalt was detected above its SW GWP Standard of 70 µg/L in monitoring well MW-13 at a concentration of 195 µg/L. Vanadium was detected above its SW GWP Standard of 3.5 µg/L in monitoring wells MW-10R, MW-15, and MW-18 at concentrations of 18.0 J, 6.84 J, and 5.03 J µg/L, respectively. Vanadium was also detected in the background monitoring well MW-1A above its respective SW GWP Standard at a concentration of 6.31 J µg/L.

Total metal concentrations in groundwater sampled from wells are often dependant on the turbidity or suspended particulates (from the aquifer formation) retrieved with the groundwater sample. The turbidity is a function of the sampling method, well construction, how the well was developed, and the grain size/consolidation of the lithologic unit sampled. Since the unfiltered samples are acidified in the field at the time of collection, metals contained within the particulates are dissolved into the sample. Thus, the presence of turbidity in groundwater samples often results in elevated (false positive) analytical results for total metal concentrations. Therefore, the presence of elevated total metal concentrations does not necessarily correlate with groundwater impact.

Based on historical water quality data, the background well and each of the compliance wells (excluding MW-19R) have contained at least one total metal at concentrations above the 2L Standards. Metal concentrations in several wells have fluctuated below and above detection limits. In the background well MW-1A, beryllium, cadmium, chromium, cobalt, iron, lead, silver, and vanadium have been detected at concentrations above the 2L Standards. Based on this data, it appears that the majority of the metals detected within the monitoring wells are either naturally occurring or a product of turbidity during sampling.

3.1.2 MSW Phase 2

MSW Phase 2 monitoring well locations were sampled for Appendix I volatile organic compounds (VOCs) and Appendix I metals. A summary of the detected analytes associated with this Phase of the landfill is included as ***Table 3***. The monitoring well network associated with this Phase is compliance wells MW-21 and MW-24 which monitor side gradient of the landfill and MW-25 and MW-25A which monitor the Phase 2 sump.

3.1.2.1 Volatile Organic Compounds (VOCs)

No volatile organic compounds were detected in the MSW Phase 2 compliance monitoring wells during the October 2009 sampling event.

3.1.2.2 Inorganic Constituents (Metals)

The monitoring wells associated with the Phase 2 landfill had three or more Appendix I metals detections, however, none were detected above their SW GWP Standard or their NCAC 2L Standard.

As previously discussed above, it appears that the majority of the metals detected within the monitoring wells are either naturally occurring or a product of turbidity during sampling.

3.1.3 MSW Phase 3

MSW Phase 3 monitoring well locations were sampled for Appendix I volatile organic compounds (VOCs) and Appendix I metals. A summary of the detected analytes associated with this phase of the landfill is included in ***Table 4***. The monitoring well

network associated with this area include compliance wells MW-32R and MW-34 which monitor down gradient and side gradient of the landfill and MW-33/33A and MW-35/35A which monitor the Phase 3 sump locations.

3.1.3.1 Volatile Organic Compounds (VOCs)

No volatile organic compounds were detected in the MSW Phase 3 compliance monitoring wells during the October 2009 sampling event.

3.1.3.2 Inorganic Constituents (Metals)

The monitoring wells associated with the Phase 3 landfill had three or more Appendix I metals detected, however only two constituents were detected above their respective NCAC 2L Standard or SW GWP Standard: Lead and Vanadium.

Lead was detected in monitoring well MW-32R at a concentration of 17 µg/L which is above the NCAC 2L Standard of 15 µg/L.

Vanadium was detected in monitoring wells MW-32R, MW-35, and MW-35A at concentrations of 16.4 J, 4.22 J, and 3.78 J µg/L, respectively, which are above the SW GWP Standard of 3.5 µg/L.

As previously discussed above, it appears that the majority of the metals detected within the monitoring wells are either naturally occurring or a product of turbidity during sampling.

3.1.4 C&D Landfill Phase 1 and Phase 2

C&D Landfill Phase 1 and Phase 2 monitoring well locations were sampled for Appendix I volatile organic compounds (VOCs); Appendix I metals plus mercury, manganese, and iron; and four classical chemistry compounds: Chloride, Total Dissolved Solids, Sulfate, and Alkalinity. A summary of the detected analytes associated with the C&D Landfills is included as ***Table 5*** and ***6***. The monitoring well network associated with the C&D landfills include compliance wells MW-26, MW-27, and MW-28 which monitor Phase 1 and MW-29, MW-30, and MW-31 which monitor Phase 2.

3.1.4.1 Volatile Organic Compounds (VOCs)

Monitoring wells MW-26, MW-29, MW-30, and MW-31 had no volatile organic compounds detected during the October 2009 monitoring event; however the laboratory analytical results indicated that monitoring wells MW-27 and MW-28 had at least two VOC detections.

Monitoring well MW-27 had detections of cis-1,2-Dichloroethene, Acetone, Benzene, Ethylbenzene, and total Xylenes at concentrations of 0.55 J, 2.5 J, 0.47 J, 0.57 J, and 0.74 J µg/L, respectively, which are below their respective 2L Standards. Monitoring well MW-28 had a detection of Tetrachloroethene at a concentration of 2.6 µg/L which is above the respective 2L Standard of 0.7 µg/L. MW-28 also had a detection of Acetone at a concentration of 4.2 J µg/L, which is below its respective 2L Standard of 700 µg/L.

3.1.4.2 Inorganic Constituents (Metals)

The monitoring wells associated with the C&D landfills had six or more metals detections, and five constituents were detected above their respective 2LStandard and/or SW GWP Standard: Iron, Lead, Manganese, Thallium, and Vanadium.

Iron was detected above its respective NCAC 2L Standard of 300 µg/L in C&D landfill monitoring wells MW-26, MW-28, MW-29, MW-30, and MW-31 at concentrations ranging from 367 to 70,600 µg/L. Manganese was detected in C&D landfill monitoring wells MW-27 and MW-29 at concentrations of 493 and 136 µg/L, respectively, which are above the NCAC 2L Standard of 50 µg/L. Vanadium was detected in MW-27 and MW-29 at concentrations of 5.08 J and 56.4 J µg/L, respectively, which are above the GWP ST Standard of 3.5 µg/L.

As previously discussed above, it appears that the majority of the metals detected within the monitoring wells are either naturally occurring or a product of turbidity during sampling. This is the sixth sampling event in which iron and manganese have been included in the analysis for the C&D wells and the fifth sampling event in which they were included in the analysis for the background well MW-1A. Iron and manganese have been detected in MW-1A in all five sampling events that have included their analysis. Also, the C&D wells were noted in the field to be visually turbid during sampling.

3.1.4.3 Classical Chemistry Compounds

Total Dissolved Solids, Chloride, Sulfate, and Alkalinity were analyzed for in the C&D landfill wells. The results of which are summarized in Tables 5 and 6. Please note that none of the classical chemistry compounds analyzed for in the C&D landfill wells exceeded any of the established NCAC 2L Standards and/or SW GWP Standards.

3.2 SURFACE WATER SAMPLING

Lincoln County Landfill has five (5) surface water sampling locations positioned in the tributaries located to the east, south, and west of the landfill as indicated on the attached Figure 1. The surface water samples were analyzed for Appendix I VOCs and Appendix I metals plus Mercury, Iron and Manganese. A summary of the detected analytes associated with the surface water samples is included as ***Table 7***.

Based on the laboratory analytical results, only one volatile organic compound was detected in the surface water samples during the October 2009 sampling event. Acetone was detected in surface water sample SW-2 at a concentration of 3.4 J µg/L, which is below its respective NCAC 2B Standard of 500 µg/L. Please note that surface water sampling location SW-3 was dry during the October 2009 sampling event.

Three or more metals were detected in surface water sampling locations SW-1, SW-2, SW-4, and SW-5; however, only one constituent exceeded its respective NCAC 2B Standard: Iron.

Iron was detected above its respective NCAC 2B Standard of 1000 µg/L in surface water samples SW-1, SW-2, and SW-5 at concentrations ranging from 1170 to 8700 µg/L.

3.3 LEACHATE SAMPLING

A sample of the leachate from the leachate collection system for the landfill was collected from the lift station prior to entering the on-site leachate holding tanks. The leachate sample was analyzed for Appendix I VOCs, Appendix I metals, Biologic Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Nitrate/Nitrite, Sulfate, Total Suspended Solids (TSS), and Phosphorous. A summary of the detected analytes for the leachate is included as ***Table 8***.

4.0 STATISTICAL ANALYSIS

S&ME compared the water quality data with the 15A NCAC 2L groundwater Standards and the SW GWP Standards and performed a statistical evaluation of the data. S&ME utilized two statistical methods to evaluate statistically significant increases between the compliance monitoring wells and the background monitoring well (MW-1A).

The first method utilized was a one-way parametric Analysis of Variance (Parametric ANOVA). The parametric ANOVA analysis is recommended by the 1992 guidance document for parameters with fewer than 15% non-detects in a specific well.

The second method used was the Kruskal-Wallis non-parametric rank method. The Kruskal-Wallis method is recommended by the 1992 guidance document for parameters that have 15% to 90% non-detects in a specific well.

Both analyses were run for each well with a detection, then compared. If both methods showed a statistical increase for a detected parameter in a well, then both sets of data were used. If only one method showed a statistical increase for a detected parameter in a well, then the data was used for the method that corresponded with the percent non-detects. The table below summarizes the statistical increases found by both methods. Copies of the analytical procedures used to perform both analysis used by the ChemStat® software are included in Appendix II. A copy of the statistical analysis results, for parameters with detections, has been included on the attached CD.

Parameter	Well I.D.	Statistical Analysis Method		Percent Non-Detects	Statistical Increase	Notes
		Parametric ANOVA	Kruskal Wallis			
Acetone	MW-13		X	67	Yes	2
Benzene	MW-13	X	X	49	Yes	
	MW-16	X		75	No	
Beryllium	MW-10	X		67	No	2
	MW-15	X		56	No	2
Chloroethane	MW-13	X	X	36	Yes	2
	MW-16		X	50	Yes	2
1,1-Dichloroethane	MW-13	X	X	3	Yes	2
	MW-16	X	X	38	Yes	2
	MW-19		X	50	Yes	2
	MW-20	X	X	50	Yes	2
cis-1,2-Dichloroethene	MW-13		X	67	Yes	2
Methylene Chloride	MW-13	X	X	46	Yes	2
	MW-16	X	X	47	Yes	2
	MW-19		X	54	Yes	2
	MW-20		X	50	Yes	
Vinyl Chloride	MW-16		X	37	Yes	
Xylenes (Total)	MW-13	X	X	56	Yes	2
	MW-16	X	X	59	Yes	2
Barium	MW-15	X	X	31	Yes	2
	MW-32		X	17	Yes	2
	MW-33		X	17	Yes	2
	MW-34		X	17	Yes	2
	MW-35		X	17	Yes	2
Beryllium	MW-10	X		69	No	2
	MW-15	X		58	No	2
	MW-32	X		67	No	2
	MW-33	X		83	No	2
	MW-34	X		75	No	2
	MW-35	X		75	No	2
	MW-35A	X		83	No	2
Cadmium	MW-8	X		70	No	
Chromium	MW-17	X		53	No	1
Cobalt	MW-8		X	35	Yes	
	MW-12		X	42	Yes	2
	MW-13	X	X	0	Yes	
	MW-16		X	13	No	2
	MW-34	X		50	No	2
Lead	MW-8	X		57	No	
Vanadium	MW-8	X		39	No	
	MW-10	X		37	No	
Zinc	MW-12	X	X	0	Yes	2

X indicates that there was statistical increase shown using the indicated analytical method.
1 – Nondetect in October 2009
2- Was not detected above its respective 2L Standard or SW GWP Standard.

4.1 VOLATILE ORGANIC COMPOUNDS (VOCs)

Acetone, Benzene, Chloroethane, Methylene Chloride, total Xylenes, 1,1-Dichloroethane, and cis-1,2-Dichloroethene were found to be at statistically significant higher levels than the background well for MW-13. Chloroethane, 1,1-Dichloroethane, Methylene Chloride, total Xylenes and Vinyl Chloride were found to be at statistically significant higher levels than the background well for MW-16. 1,1-Dichloroethane and Methylene Chloride were found to be at statistically significant higher levels than the background well for MW-19 and MW-20. Monitor wells MW-13, MW-16, MW-19, and MW-20 are located downgradient from the unlined closed landfill Area E.

4.2 TOTAL METALS

Total metal concentrations in groundwater sampled from wells are often dependent on the turbidity or suspended particulates (from the aquifer formation) retrieved with the groundwater sample. The turbidity is a function of the sampling method, well construction, how the well was developed, and the grain size/consolidation of the lithologic unit sampled. Since the unfiltered samples are acidified in the field at the time of sample collection, metals contained within the particulates are dissolved into the water sample. Thus, the presence of turbidity in groundwater samples often results in elevated (false positive) analytical results for total metal concentrations. Therefore, the presence of elevated total metal concentrations does not necessarily correlate with groundwater impact.

Based on the historical water quality data, the upgradient well and each of the downgradient wells (excluding MW-19, 24, and 25) have contained at least one total metal at concentrations above the 2L Standards. The statistical evaluation indicates that eight of the downgradient wells (MW-8, 12, 13, 15, 32, 33, 34, and 35) contain at least one metal at a statistically significant level higher than the background well. Metal concentrations in several wells have fluctuated between non-detectable and detectable levels. In the background well, MW-1A, beryllium, cadmium, chromium, cobalt, iron, lead, silver, and vanadium have been detected at concentrations above the 2L Standards.

TABLES

Table 1
October 2009 - Water Level Elevations
Lincoln County Landfill
S&ME Project No. 1356-07-004

Well Identification		Top of Casing Elevation (ft - MSL)	Depth to Groundwater From Top of Casing (ft)	Groundwater Elevation (ft - MSL)
Background Well	MW-1A	929.27	41.12	888.15
Leachate Lagoon	MW-8	840.03	**DRY**	**DRY**
Leachate Lagoon	MW-9	840.20	34.58	805.62
Leachate Lagoon	MW-10R	834.97	28.78	806.19
Area "E" and Phase 1	MW-12	827.57	10.98	816.59
Area "E" and Phase 1	MW-13	872.78	32.82	839.96
Area "E" and Phase 1	MW-14	871.44	31.26	840.18
Area "E" and Phase 1	MW-15	847.86	27.87	819.99
Area "E" and Phase 1	MW-16R	876.39	16.45	859.94
Area "E" and Phase 1	MW-17	899.64	35.38	864.26
Area "E" and Phase 1	MW-18	861.41	23.81	837.60
Area "E" and Phase 1	MW-19R	862.40	27.44	834.96
Area "E" and Phase 1	MW-20	860.00	15.92	844.08
Phase 2	MW-21	855.91	39.66	816.25
Phase 2	MW-24	841.13	26.17	814.96
Phase 2	MW-25	838.73	30.07	808.66
Phase 2	MW-25A	838.84	30.42	808.42
C&D Phase 1	MW-26	871.19	13.40	857.79
C&D Phase 1	MW-27	880.90	18.42	862.48
C&D Phase 1	MW-28	915.68	45.80	869.88
C&D Phase 2	MW-29	879.97	38.69	841.28
C&D Phase 2	MW-30	886.35	53.26	833.09
C&D Phase 2	MW-31	879.88	31.52	848.36
Phase 3	MW-32R	827.25	17.57	809.68
Phase 3	MW-33	819.38	15.22	804.16
Phase 3	MW-33A	818.67	15.31	803.36
Phase 3	MW-34	832.77	30.27	802.50
Phase 3	MW-35	839.64	34.36	805.28
Phase 3	MW-35A	839.65	35.14	804.51

Notes:

(ft - MSL) - Feet Mean Sea Level

(ft) - Feet

The "A" suffix on the well locations indicates the deep well of the pair.

Notes for Tables 2 through 8
Lincoln County Landfill
S&ME Project No. 1356-07-004

Notes:

(1) ug/L = micrograms per liter (parts per billion)
(2) mg/L = milligrams per liter (parts per million)
(3) 15A NCAC 2L = North Carolina Groundwater Quality Standards
(4) 15A NCAC 2B = North Carolina Surface Water Quality Standards
(5) GWP ST = Solid Waste Groundwater Protection Standard
(6) NE = No established standard
(7) Bold and highlighted indicates above 15A NCAC 2L, 15A NCAC 2B, or SW GWP standard
(8) Compounds not shown were not detected.
(9) SWSL = North Carolina Department of Environmtent and Natural Resources Solid Waste Section Limit established in 2007
(10) NA = Not Analyzed
(11) J = Analyte detected is between the Method Detection Limit (MDL) and the SWSL
(12) B = Analyte was detected in the associated method blank
(13) D = The sample was analyzed at dilution

Table 2
October 2009 - Detected Analytes in Monitoring Wells for MSW Area "E" and Phase 1
Lincoln County Landfill
S&ME Project No. 1356-07-004

EPA Appendix I Volatile Organic Compounds Method 8260 (ug/L)	**NCDENR SWSL**	**15A NCAC 2L**	**Soild Waste GWP ST**	**MW-1A**	**MW-8**	**MW-9**	**MW-10R**	**MW-12**	**MW-13**	**MW-14**	**MW-15**	**MW-16R**	**MW-17**	**MW-18**	**MW-19**	**MW-20**
1,1-Dichloroethane	5	70	NE		DRY				15	2.1 J		6.6			6.8	20
1,4 - Dichlorobenzene	1	1.4	NE						**2.7**			**2.5**				0.73 J
cis-1,2,-Dichloroethene	5	70	NE						3.2 J			5.5			0.41 J	3.0 J
Acetone	100	700	NE						11 J							
Benzene	1	1	NE						**5**			**6.4**				**2**
Chlorobenzene	3	50	NE									1.7 J				
Chloroethane	10	2800	2800						2.4 J			1.6 J				2.4 J
Chloroform	5	70	NE	22												
Xylenes (total)	5	530	NE						3.0 J			8.6				2.2 J
Methylene chloride	1	4.6	NE						1.4			4.2			1.2	**6.6**
Tetrachloroethene	1	0.7	NE						**3.9**	0.47 J			0.65 J		**1.3**	**1.6**
Toluene	1	1000	NE						0.53 J							
Trichloroethene	1	2.8	NE						2.4						0.84 J	2
Vinyl chloride	1	0.015	NE						**1.1**			**3.9**				0.69 J
EPA Appendix I Metals Method 6010B/6020 (ug/L)																
Antimony	6	NE	1.4	1.50 J		0.256 J				**1.70 J**					0.228 J	
Arsenic	10	50	NE					4.75 J	5.57 J		3.43 J	2.99 J				
Barium	100	2000	NE	48.7 J		27.8 J	14.8 J	183	76.2 J	22.6 J	151	245	62.4 J	62.2 J	24.9 J	64.3 J
Beryllium	1	NE	4	0.341 J		0.147 J	0.177 J	0.238 J	0.607 J		0.978 J	0.238 J	0.256 J	0.140 J	0.116 J	0.168 J
Chromium	10	50	NE	10.9		2.88 J	4.68 J	2.67 J	6.19 J		1.21 J	9.01 J		3.12 J		
Cobalt	10	NE	70	1.52 J				23.5	**195**		1.31 J	15	10.8			2.90 J
Copper	10	1000	NE	4.14 J					4.35 J	2.13 J				3.26 J		
Iron	300	300	NE	**3370**												
Lead	10	15	NE								4.19 J					
Manganese	50	50	NE	35.9 J												
Nickel	50	100	NE	7.99 J				4.87 J	17.9 J			7.97 J	10.6 J	2.51 J		
Silver	10	17.5	NE									3.26 J				
Selenium	10	50	NE	3.16 J,B												
Thallium	5.5	NE	0.28	0.128 J				0.147 J	1.07 J		0.129 J	1.10 J		0.156 J		
Vanadium	25	NE	3.5	**6.31 J**		1.60 J	**18.0 J**		1.68 J		**6.84 J**			**5.03 J**		
Zinc	10	1050	NE	25.3		5.41 J		53.1	14.8	28	17.7	14.7	8.21 J	8.47 J	9.27 J	4.01 J

Table 3
October 2009 - Detected Analytes in Monitoring Wells for MSW Phase 2
Lincoln County Landfill
S&ME Project No. 1356-07-004

EPA Appendix I Volatile Organic Compounds Method 8260 (ug/L)	**NCDENR SWSL**	**15A NCAC 2L**	**Soild Waste GWP ST**	**MW-21**	**MW-24**	**MW-25**	**MW-25A**
No Volatile Organic Compounds Detected in MSW Phase 2 Wells							
EPA Appendix I Metals Method 6010B/6020 (ug/L)							
Antimony	6	NE	1.4				0.975 J
Arsenic	10	50	NE			3.57 J	3.61 J
Barium	100	2000	NE	42.5 J	41.0 J	171	35.1 J
Beryllium	1	NE	4	0.327 J	0.487 J	0.363 J	0.107 J
Chromium	10	50	NE	1.16 J		5.94 J	4.81 J
Cobalt	10	NE	70				1.53 J
Vanadium	25	NE	3.5	1.87 J			2.87 J
Zinc	10	1050	NE	4.56 J	6.43 J	16.3	7.50 J

Table 4
October 2009 - Detected Analytes in Monitoring Wells for MSW Phase 3
Lincoln County Landfill
S&ME Project No. 1356-07-004

EPA Appendix I Volatile Organic Compounds Method 8260 (ug/L)	**NCDENR SWSL**	**15A NCAC 2L**	**Soild Waste GWP ST**	**MW-32R**	**MW-33**	**MW-33A**	**MW-34**	**MW-35**	**MW-35A**
No Volatile Organic Compounds Detected in MSW Phase 3 Wells									
EPA Appendix I Metals Method 6010B/6020 (ug/L)									
Antimony	6	NE	1.4			0.767 J		1.88 J	0.265 J
Arsenic	10	50	NE	3.14 J					
Barium	100	2000	NE	146	49.1 J	8.64 J	117	49.7 J	40.0 J
Beryllium	1	NE	4	1.54	0.275 J		0.756 J	0.244 J,B	0.184 J,B
Chromium	10	50	NE	4.11 J				1.76 J	4.23 J
Cobalt	10	NE	70	2.01 J			4.5 J	1.40 J	
Copper	10	1000	NE			2.51 J			
Lead	10	15	NE	**17**					
Nickel	50	100	NE	2.91 J					
Selenium	10	50	NE						3.89 J
Thallium	5.5	NE	0.28	0.232 J			0.136 J		
Vanadium	25	NE	3.5	**16.4 J**			1.72 J	**4.22 J**	**3.78 J**
Zinc	10	1050	NE	48.3	5.53 J	37	11	13.3	7.46 J

Table 5
October 2009 - Detected Analytes in Monitoring Wells for C&D Phase 1
Lincoln County Landfill
S&ME Project No. 1356-07-004

EPA Appendix I Volatile Organic Compounds Method 8260 (ug/L)	**NCDENR SWSL**	**15A NCAC 2L**	**Soild Waste GWP ST**	**MW-26**	**MW-27**	**MW-28**
cis-1,2,-Dichloroethene	5	70	NE		0.55 J	
Acetone	100	700	NE		2.5 J	4.2 J
Benzene	1	1	NE		0.47 J	
Ethylbenzene	1	550	NE		0.57 J	
Tetrachlorethene	1	0.7	NE			**2.6**
Xylenes (Total)	5	530	NE		0.74 J	
EPA Appendix I Metals Method 6010B/6020 (ug/L)						
Arsenic	10	50	NE	2.87 J		
Barium	100	2000	NE	56.8 J	265	50.5 J
Beryllium	1	NE	4	0.561 J	0.601 J	0.167 J
Cadmium	1	1.75	NE	0.377 J	0.370 J	
Chromium	10	50	NE	4.21 J	1.51 J	2.84 J
Cobalt	10	NE	70	1.34 J	7.13 J	1.27 J
Iron	300	300	NE	**367**	255 J	**469**
Lead	10	15	NE			
Manganese	50	50	NE	9.41 J	**493**	20.5 J
Nickel	50	100	NE	2.19 J	9.81 J	3.00 J
Vanadium	25	NE	3.5	1.54 J	**5.08 J**	
Zinc	10	1050	NE	30.9	31.8	16.1
Classical Chemistry Compounds (mg/L)						
Chloride	NE	250	NE	3.3 J	10	2.7 J
Sulfate as SO4	250	250	NE	3.6 J	5.7 J	1.9 J
Total Dissolved Solids	NE	500000	NE	78	120	
Total Alkalinity	NE	NE	NE	22	43	8.4 J

Table 6
October 2009 - Detected Analytes in Monitoring Wells for C&D Phase 2
Lincoln County Landfill
S&ME Project No. 1356-07-004

EPA Appendix I Volatile Organic Compounds Method 8260 (ug/L)	**NCDENR SWSL**	**15A NCAC 2L**	**Soild Waste GWP ST**	**MW-29**	**MW-30**	**MW-31**
No Volatile Organic Compounds Detected in C&D Phase 2						
EPA Appendix I Metals Method 6010B/6020 (ug/L)						
Antimony	6	NE	1.4	0.0900 J		
Arsenic	10	50	NE	5.05 J		
Barium	100	2000	NE	101	42.6 J	8.80 J
Beryllium	1	NE	4	2.89		0.118 J
Cobalt	10	NE	70	28.5		
Copper	10	1000	NE	73.2		1.75 J
Chromium	10	50	NE	40.4	1.39 J	1.47 J
Iron	300	300	NE	**70600**	**719**	**5740**
Lead	10	15	NE	**16.6**		
Manganese	50	50	NE	**136**	23.3 J	32.5 J
Nickel	50	100	NE	52.1	2.03 J	2.75 J
Selenium	10	50	NE	5.98 J		
Thallium	5.5	NE	0.28	**0.347 J**		
Vanadium	25	NE	3.5	**56.4**		
Zinc	10	1050	NE	73.1	16.8	5.65 J
Classical Chemistry Compounds (mg/L)						
Chloride	NE	250	NE	3.7 J	2.8 J	3.0 J
Sulfate as SO4	250	250	NE	8.2 J	3.8 J	10 J
Total Dissolved Solids	NE	500000	NE	110	92	70
Total Alkalinity	NE	NE	NE	39	11 J	

Table 7
October 2009 - Detected Analytes in Surface Water Samples
Lincoln County Landfill
S&ME Project No. 1356-07-004

EPA Appendix I Volatile Organic Compounds Method 8260 (ug/L)	**15A NCAC 2B**	**SW-1**	**SW-2**	**SW-3**	**SW-4**	**SW-5**
Acetone	500		3.4 J	**DRY**		
EPA Appendix I Metals Method 6010B/6020 (ug/L)						
Antimony	NE	0.224 J				
Barium	1400	44.9 J	29.2 J		25.1 J	49.9 J
Beryllium	6.5					0.162 J
Chromium	50	3.59 J	2.29 J			5.46 J
Cobalt	65	1.22 J				6.78 J
Copper	7	2.29 J				2.57 J
Iron	1000	**3160**	**1170**		984	**8700**
Lead	25	2.23 J				3.71 J
Manganese	NE	256	86.3		68.7	341
Nickel	88	3.35 J				3.00 J
Vanadium	NE	3.87 J	2.07 J			6.46 J
Zinc	50	27.1	5.31 J			27.8

Table 8
October 2009 - Detected Analytes in Leachate
Lincoln County Landfill
S&ME Project No. 1356-07-004

EPA Appendix I Volatile Organic Compounds Method 8260 (ug/L)	**NCDENR SWSL**	**Leachate**
Acetone	100	9.1 J
Toluene	1	6.7
EPA Appendix I Metals Method 6010B/6020 (ug/L)		
Barium	100	79.4 J
Beryllium	1	0.170 JB
Chromium	10	9.47 J
Cobalt	10	3.88 J
Copper	10	4.43 J
Lead	10	3.92 J
Nickel	50	6.85 J
Thallium	5.5	0.200 J
Vanadium	25	11.1 J
Zinc	10	29.8
Classical Chemistry Compounds (mg/L)		
COD	NE	78
Sulfate as SO4	250	6.6 J
Phosphorous	NE	0.18
Nitrate as N	10	0.25 J
Nitrite as N	1000	0.035 JB
Nitrate/Nitrite as N	NE	0.29
Total Alkalinity	NE	33
Total Suspended Solids	NE	2600

FIGURES

DRAWING PATH: Q:\1356\LINCOLN COUNTY\0-REVISAVIEW_OCT-09.DWG

GROUNDWATER SURFACE MAP
OCTOBER 12-14, 2009

LINCOLN COUNTY LANDFILL
CROUSE, NORTH CAROLINA

SAME ENGINEERING LICENSE NO. F-0776

DRAWN BY: CLD	CHECKED BY:
DESIGNED BY: CRW	APPROVED BY: JRP
PROJECT NUMBER: 1356-07-004	
SCALE: AS SHOWN	DATE: 11-9-09
DRAWING: 1	OF: 1

NO.	DATE	DESCRIPTION	BY

SEAL: CHARLES L. DUNCAN, JR. 22240 REGISTERED PROFESSIONAL ENGINEER NORTH CAROLINA

S&ME
WWW.SMEINC.COM
9751 SOUTHERN PINE BLVD.
CHARLOTTE N.C. 28273
(704) 523-4726

LINCOLN COUNTY LANDFILL
6291 CROUSE ROAD
CROUSE, NORTH CAROLINA

LEGEND

- MW-10 — EXISTING MONITORING WELL
- S-1 — SURFACE WATER SAMPLING LOCATION
- GROUNDWATER SURFACE (10/12-14/09)
- 814.96 — GROUNDWATER ELEVATION (ft-msl)
- PROPERTY BOUNDARY

GRAPHIC SCALE

200 0 100 200 400

(IN FEET)
1 inch = 200 ft.

REFERENCE:
TOPOGRAPHIC SURVEY FOR LINCOLN COUNTY LANDFILL BY SUTTLES SURVEYING, P.A., DATED: APRIL 2, 1997.

APPENDIX I

WELL SAMPLING LOGS AND LABORATORY REPORTS

Surface Water and Leachate Samples
Lincoln County Landfill
S&ME Project 1356-07-004

Location	Date	Time Sampled	Sample Observations
SW-1	10/14/2009	11:30	Slightly Turbid
SW-2	10/14/2009	13:15	Slightly Turbid
SW-3			Dry
SW-4	10/14/2009	16:05	Slightly Turbid
SW-5	10/14/2009	15:45	Slightly Turbid
Lift Station	10/14/2009	15:15	(Sampled from Pump #2 Lift Station)

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-1A

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 2.8
Depth to Water (ft) 41.12
Depth to Base of Well (ft) 57.00
(well casing volume = water column*0.174)
Water Column (ft) 15.88
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/12/2009
Purging Equipment Field Cleaned Typhoon Pump

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	10:50	6.22	16.6	57
	2.8	10:57	5.73	16.3	12
	5.5	11:03	5.50	16.2	9
Final	8.3	11:11	5.43	16.0	9

Well Sampling Data

Sampling Date 10/13/2009
Sampling Time 08:50
Sampling Equipment disposable teflon bailer
Sample Observations cloudy

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-8

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC Well Casing Volume
Depth to Water (ft) DRY
Depth to Base of Well (ft) 31.00 (well casing volume = water column*0.174)
Water Column (ft)
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date Purging Equipment

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0				
Final					

Well Sampling Data

Sampling Date
Sampling Time
Sampling Equipment
Sample Observations

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments DRY

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-9

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 6.3
Depth to Water (ft) 34.58
Depth to Base of Well (ft) 70.50
(well casing volume = water column*0.174)
Water Column (ft) 35.92
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/12/2009
Purging Equipment Field Cleaned Typhoon Pump

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	13:40	5.72	15.3	42
	6.3	13:52	6.33	15.6	31
	12.5	14:04	6.24	15.7	33
Final	18.8	14:18	6.26	15.6	33

Well Sampling Data

Sampling Date 10/13/2009
Sampling Time 09:20
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-10R

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 0.5
Depth to Water (ft) 28.78
Depth to Base of Well (ft) 31.50
(well casing volume = water column*0.174)
Water Column (ft) 2.72
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	09:50	6.72	14.6	121
	0.5				
Final					

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 12:40
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments Dry at 0.5 gallons

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-12

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 1.3
Depth to Water (ft) 10.98
Depth to Base of Well (ft) 18.50
(well casing volume = water column*0.174)
Water Column (ft) 7.52
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Field Cleaned Typhoon Pump

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	10:20	5.85	15.6	189
	1.3	10:23	5.75	15.9	144
	2.6	10:26	5.95	15.4	188
Final	3.9	10:29	5.92	15.2	154

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 13:00
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments Broken hinge
Outer casing full of water

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-13

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Sunny/Warm
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 1.3
Depth to Water (ft) 32.82
Depth to Base of Well (ft) 40.50
(well casing volume = water column*0.174)
Water Column (ft) 7.68
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	15:01	5.62	19.0	140
	1.3	15:03	5.60	18.1	139
	2.7	15:05	5.60	17.6	152
Final	4.0	15:07	5.63	17.4	149

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 14:05
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-14

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Sunny/Warm
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 7.8
Depth to Water (ft) 31.26
Depth to Base of Well (ft) 76.00
(well casing volume = water column*0.174)
Water Column (ft) 44.74
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Field Cleaned Typhoon Pump

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	14:57	5.87	21.2	70
	7.8	15:08	5.91	17.4	75
	15.6	15:18	6.00	17.5	73
Final	23.4	15:28	5.99	17.5	73

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 14:10
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-15

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 0.5
Depth to Water (ft) 27.87
Depth to Base of Well (ft) 30.50
(well casing volume = water column*0.174)
Water Column (ft) 2.63
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/14/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	09:42	5.95	13.5	23
	0.5	09:44	5.74	13.9	20
	0.9	09:46	5.71	14.1	18
Final	1.4	09:48	5.71	14.2	20

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 14:40
Sampling Equipment disposable teflon bailer
Sample Observations slightly turbid

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-16R

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Sunny/Warm
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 0.9
Depth to Water (ft) 16.45
Depth to Base of Well (ft) 21.60
(well casing volume = water column*0.174)
Water Column (ft) 5.15
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	15:58	5.86	19.2	405
	0.9	16:00	5.91	18.5	415
	1.8	16:02	5.94	17.9	433
Final	2.7	16:04	5.96	17.6	423

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 13:55
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-17

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 0.2
Depth to Water (ft) 35.38
Depth to Base of Well (ft) 36.50
(well casing volume = water column*0.174)
Water Column (ft) 1.12
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	10:43	5.36	15.9	43
	0.2	10:45	5.33	16.0	37
Final					

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 10:55
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments Dry at 0.2 gallons

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-18

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Sunny/Warm
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 1.4
Depth to Water (ft) 23.81
Depth to Base of Well (ft) 32.00
(well casing volume = water column*0.174)
Water Column (ft) 8.19
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	16:26	5.93	17.6	156
	1.4	16:28	5.85	16.5	154
Final					

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 14:20
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments Dry at 1.5 gallons

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-19

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Sunny/Warm
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 7.8
Depth to Water (ft) 27.44
Depth to Base of Well (ft) 72.00
(well casing volume = water column*0.174)
Water Column (ft) 44.56
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Field Cleaned Typhoon Pump

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	16:20	6.15	18.3	110
	7.8	16:27	6.01	16.7	86
	15.5	16:35	6.06	16.8	84
Final	23.3	16:45	6.00	16.4	85

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 14:30
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-20

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Sunny/Warm
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 1.9
Depth to Water (ft) 15.92
Depth to Base of Well (ft) 27.00
(well casing volume = water column*0.174)
Water Column (ft) 11.08
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	15:40	5.58	18.8	94
	1.9	15:43	5.52	18.2	83
	3.9	15:45	5.50	17.2	67
Final	5.8	15:48	5.45	16.8	67

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 13:45
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-21

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 0.8
Depth to Water (ft) 39.66
Depth to Base of Well (ft) 44.11
(well casing volume = water column*0.174)
Water Column (ft) 4.45
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/14/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	09:25	5.97	14.0	49
	0.8	09:28	5.82	14.5	58
	1.5	09:30	5.80	14.7	55
Final	2.3	09:32	5.80	14.8	53

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 15:10
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-24

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 0.9
Depth to Water (ft) 26.17
Depth to Base of Well (ft) 31.60
(well casing volume = water column*0.174)
Water Column (ft) 5.43
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	10:00	6.97	14.8	31
	0.9	10:02	6.44	15.0	35
	1.9	10:04	6.27	15.1	31
Final	2.8	10:06	6.02	15.1	27

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 12:50
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-25

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 0.2
Depth to Water (ft) 30.07
Depth to Base of Well (ft) 31.50
(well casing volume = water column*0.174)
Water Column (ft) 1.43
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	14:32	5.63	16.3	93
	0.2	14:34	5.61	16.4	93
Final					

Well Sampling Data

Sampling Date 10/13/2009
Sampling Time 09:25
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments Dry at 0.75 Gallons

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-25A

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 5.1
Depth to Water (ft) 30.42
Depth to Base of Well (ft) 60.00
(well casing volume = water column*0.174)
Water Column (ft) 29.58
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/12/2009
Purging Equipment Field Cleaned Typhoon Pump

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	14:30	6.21	15.7	31
	5.1	14:38	6.16	16.1	28
	10.3	14:45	6.24	16.3	24
Final	15.4	14:52	6.31	16.2	24

Well Sampling Data

Sampling Date 10/13/2009
Sampling Time 09:30
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-26

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Sunny/Warm
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 1.7
Depth to Water (ft) 13.40
Depth to Base of Well (ft) 23.00
(well casing volume = water column*0.174)
Water Column (ft) 9.60
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	13:45	5.64	18.6	44
	1.7	13:50	5.61	17.7	39
	3.3	13:53	5.58	17.3	40
Final	5.0	13:56	5.62	16.9	40

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 11:45
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3
Alkalinity	(1) 500 mL plastic bottle	None
TDS	(1) 250 mL plastic bottle	None
Chloride/Sulfate	(1) 125 mL plastic bottle	None

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-27

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions SunnyWarm
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 1.5
Depth to Water (ft) 18.42
Depth to Base of Well (ft) 27.00
(well casing volume = water column*0.174)
Water Column (ft) 8.58
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	14:00	5.10	18.2	93
	1.5	14:04	5.12	17.4	101
	3.0	14:06	5.15	17.0	107
Final	4.5	14:08	5.20	16.7	133

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 11:55
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3
Alkalinity	(1) 500 mL plastic bottle	None
TDS	(1) 250 mL plastic bottle	None
Chloride/Sulfate	(1) 125 mL plastic bottle	None

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-28

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions SunnyWarm
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 1.5
Depth to Water (ft) 45.80
Depth to Base of Well (ft) 54.50
(well casing volume = water column*0.174)
Water Column (ft) 8.70
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	14:16	5.42	18.6	15
	1.5	14:20	5.23	17.3	11
	3.0	14:24	5.15	16.9	14
Final	4.5	14:29	5.13	16.8	15

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 12:10
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3
Alkalinity	(1) 500 mL plastic bottle	None
TDS	(1) 250 mL plastic bottle	None
Chloride/Sulfate	(1) 125 mL plastic bottle	None

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-29

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 1.1
Depth to Water (ft) 38.69
Depth to Base of Well (ft) 45.00
(well casing volume = water column*0.174)
Water Column (ft) 6.31
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Disposable Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	10:43	5.59	16.2	87
	1.1	10:45	5.64	16.0	90
	2.2	10:47	5.65	16.1	92
Final	3.3	10:50	5.67	16.1	92

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 11:00
Sampling Equipment disposable teflon bailer
Sample Observations slightly turbid

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3
Alkalinity	(1) 500 mL plastic bottle	None
TDS	(1) 250 mL plastic bottle	None
Chloride/Sulfate	(1) 125 mL plastic bottle	None

Comments
Broken Hinge on Protective Cover

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-30

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions SunnyWarm
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 1.9
Depth to Water (ft) 53.26
Depth to Base of Well (ft) 64.00
(well casing volume = water column*0.174)
Water Column (ft) 10.74
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	13:20	5.69	18.0	32
	1.9	13:24	5.67	15.9	20
	3.7	13:28	5.64	15.7	28
Final	5.6	13:36	5.68	15.6	30

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 11:15
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3
Alkalinity	(1) 500 mL plastic bottle	None
TDS	(1) 250 mL plastic bottle	None
Chloride/Sulfate	(1) 125 mL plastic bottle	None

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-31

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 1.5
Depth to Water (ft) 31.52
Depth to Base of Well (ft) 40.00
(well casing volume = water column*0.174)
Water Column (ft) 8.48
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/13/2009
Purging Equipment Field Cleaned Typhoon Pump

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	10:55	5.91	15.9	56
	1.5	10:57	5.95	15.5	35
	3.0	10:59	5.61	15.4	22
Final	4.4	11:01	5.46	15.2	22

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 11:20
Sampling Equipment disposable teflon bailer
Sample Observations moderately turbid

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottle	HNO3
Alkalinity	(1) 500 mL plastic bottle	None
TDS	(1) 250 mL plastic bottle	None
Chloride/Sulfate	(1) 125 mL plastic bottle	None

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-32R

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 1.8
Depth to Water (ft) 17.57
Depth to Base of Well (ft) 28.05
(well casing volume = water column*0.174)
Water Column (ft) 10.48
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/14/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	09:10	6.30	14.5	55
	1.8	09:13	6.06	15.2	50
	3.6	09:15	5.90	15.3	48
Final	5.5	09:17	5.84	15.3	48

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 15:00
Sampling Equipment disposable teflon bailer
Sample Observations slightly turbid

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottles	HNO3

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-33

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 1.8
Depth to Water (ft) 15.22
Depth to Base of Well (ft) 25.30
(well casing volume = water column*0.174)
Water Column (ft) 10.08
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/14/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	08:41	6.24	15.2	93
	1.8	08:44	6.01	15.9	90
Final					

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 14:50
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottles	HNO3

Comments Dry at 2.25 gallons

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-33A

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 8.6
Depth to Water (ft) 15.31
Depth to Base of Well (ft) 64.55
(well casing volume = water column*0.174)
Water Column (ft) 49.24
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/14/2009
Purging Equipment Field Cleaned Typhoon Pump

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	08:40	6.88	14.2	136
	8.6	08:48	6.83	15.2	159
	17.1	08:56	7.02	14.7	155
Final	25.7	09:01	7.05	14.8	145

Well Sampling Data

Sampling Date 10/14/2009
Sampling Time 14:45
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottles	HNO3

Comments

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-34

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 0.9
Depth to Water (ft) 30.27
Depth to Base of Well (ft) 35.27
(well casing volume = water column*0.174)
Water Column (ft) 5.00
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/12/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	12:25	5.13	15.2	41
	0.9	12:27	5.23	15.5	33
Final					

Well Sampling Data

Sampling Date 10/13/2009
Sampling Time 09:00
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottles	HNO3

Comments Dry at 1 gallon

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-35

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 0.5
Depth to Water (ft) 34.36
Depth to Base of Well (ft) 37.25
(well casing volume = water column*0.174)
Water Column (ft) 2.89
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/12/2009
Purging Equipment Disposable Teflon Bailer

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	13:00	5.39	14.8	11
	0.5	13:02	5.11	14.8	9
	1.0	13:05	5.08	14.8	8
Final					

Well Sampling Data

Sampling Date 10/13/2009
Sampling Time 09:10
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottles	HNO3

Comments Dry at 1 gallon

Project Name: Lincoln County Landfill
Project Location: Crouse, North Carolina
Project Number: 1356-07-004

Well ID MW-35A

Sampling Personnel (1) Brian Wilson (2) David Reames
Weather Conditions Rainy/Cool
Unusual Site Conditions

Water Level Data

Measuring Point Location TOC
Well Casing Volume 6.0
Depth to Water (ft) 35.14
Depth to Base of Well (ft) 69.69
(well casing volume = water column*0.174)
Water Column (ft) 34.55
Equipment Used to Measure Depths Electric Water Level Probe

Well Purging Data

Date 10/12/2009
Purging Equipment Field Cleaned Typhoon Pump

	Total Voume (Gal)	Time	pH	Temp (C)	Conductance (µS)
Initial	0	12:57	5.81	15.0	50
Final					

Well Sampling Data

Sampling Date 10/13/2009
Sampling Time 09:15
Sampling Equipment disposable teflon bailer
Sample Observations clear

Analytical Data

Method	Container Type and No.	Preservation
Appendix I VOCs	(3) 40 mL glass vials	HCL
Appendix I Metals	(1) 500 mL plastic bottles	HNO3

Comments Dry at 5 gallons

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

Thursday, October 29, 2009

S&ME, Inc. (SM002)

Attn: Julie Petersen

9751 Southern Pine Blvd.

Charlotte, NC 28273

RE: Laboratory Results for
Project Number: 1356-07-004, Project Name/Desc: Lincoln County LF - App Is
ENCO Workorder: C911287

Dear Julie Petersen,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, October 15, 2009.

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

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 96.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 5503-MW1A **Lab ID:** C911287-01 **Sampled:** 10/13/09 08:50 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/11/10	10/15/09 12:08	10/28/2009 11:01
EPA 6020A	04/11/10	10/15/09 12:10	10/21/2009 13:12
EPA 7470A	11/10/09	10/15/09 10:08	10/15/2009 16:26
EPA 8260B	10/27/09	10/17/09 15:54	10/18/2009 05:34

Client ID: 5503-MW9 **Lab ID:** C911287-02 **Sampled:** 10/13/09 09:20 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/11/10	10/15/09 12:08	10/28/2009 11:04
EPA 6020A	04/11/10	10/15/09 12:10	10/21/2009 13:36
EPA 8260B	10/27/09	10/17/09 15:54	10/18/2009 06:02

Client ID: 5503-MW10R **Lab ID:** C911287-03 **Sampled:** 10/14/09 12:40 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 11:07
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 13:39
EPA 8260B	10/28/09	10/17/09 15:54	10/18/2009 06:31

Client ID: 5503-MW12 **Lab ID:** C911287-04 **Sampled:** 10/14/09 13:00 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 11:10
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 13:43
EPA 8260B	10/28/09	10/17/09 15:54	10/18/2009 06:59

Client ID: 5503-MW13 **Lab ID:** C911287-05 **Sampled:** 10/14/09 14:05 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 10:35
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 13:46
EPA 8260B	10/28/09	10/17/09 15:54	10/18/2009 07:28

Client ID: 5503-MW14 **Lab ID:** C911287-06 **Sampled:** 10/14/09 14:10 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 11:13
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 13:50
EPA 8260B	10/28/09	10/17/09 15:54	10/18/2009 07:56

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Client ID: 5503-MW15	Lab ID: C911287-07	Sampled: 10/14/09 14:40	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 11:16
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 13:53
EPA 8260B	10/28/09	10/17/09 15:54	10/18/2009 08:25

Client ID: 5503-MW16R	Lab ID: C911287-08	Sampled: 10/14/09 13:55	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 11:27
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 13:57
EPA 8260B	10/28/09	10/17/09 15:54	10/18/2009 08:53

Client ID: 5503-MW17	Lab ID: C911287-09	Sampled: 10/14/09 10:55	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 11:31
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 14:01
EPA 8260B	10/28/09	10/17/09 15:54	10/18/2009 09:21

Client ID: 5503-MW18	Lab ID: C911287-10	Sampled: 10/14/09 14:20	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 11:34
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 14:04
EPA 8260B	10/28/09	10/17/09 15:54	10/18/2009 09:50

Client ID: 5503-MW19	Lab ID: C911287-11	Sampled: 10/14/09 14:30	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 11:37
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 14:08
EPA 8260B	10/28/09	10/17/09 15:54	10/18/2009 10:18

Client ID: 5503-MW20	Lab ID: C911287-12	Sampled: 10/14/09 13:45	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 11:40
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 14:18
EPA 8260B	10/28/09	10/17/09 15:54	10/18/2009 10:46

Client ID: 5503-MW21	Lab ID: C911287-13	Sampled: 10/14/09 15:10	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 11:44
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 14:22
EPA 8260B	10/28/09	10/17/09 15:54	10/18/2009 11:15

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Client ID: 5503-MW24	Lab ID: C911287-14	Sampled: 10/14/09 12:50	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 11:47
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 14:25
EPA 8260B	10/28/09	10/17/09 15:54	10/18/2009 11:43

Client ID: 5503-MW25	Lab ID: C911287-15	Sampled: 10/13/09 09:25	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/11/10	10/15/09 12:08	10/28/2009 11:50
EPA 6020A	04/11/10	10/15/09 12:10	10/21/2009 14:29
EPA 8260B	10/27/09	10/17/09 15:54	10/18/2009 12:12

Client ID: 5503-MW25A	Lab ID: C911287-16	Sampled: 10/13/09 09:30	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/11/10	10/15/09 12:08	10/28/2009 11:53
EPA 6020A	04/11/10	10/15/09 12:10	10/21/2009 14:32
EPA 8260B	10/27/09	10/19/09 14:29	10/19/2009 20:46

Client ID: 5503-MW32R	Lab ID: C911287-17	Sampled: 10/14/09 15:00	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 11:56
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 14:36
EPA 8260B	10/28/09	10/19/09 14:29	10/19/2009 21:15

Client ID: 5503-MW33	Lab ID: C911287-18	Sampled: 10/14/09 14:50	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 12:07
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 14:39
EPA 8260B	10/28/09	10/19/09 14:29	10/19/2009 21:43

Client ID: 5503-MW33A	Lab ID: C911287-19	Sampled: 10/14/09 14:45	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/15/09 12:08	10/28/2009 12:10
EPA 6020A	04/12/10	10/15/09 12:10	10/21/2009 14:43
EPA 8260B	10/28/09	10/19/09 14:29	10/19/2009 22:12

Client ID: 5503-MW34	Lab ID: C911287-20	Sampled: 10/13/09 09:00	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/11/10	10/15/09 12:08	10/28/2009 12:14
EPA 6020A	04/11/10	10/15/09 12:10	10/21/2009 14:46
EPA 8260B	10/27/09	10/19/09 14:29	10/19/2009 22:40

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Client ID:	5503-MW35	Lab ID:	C911287-21	Sampled:	10/13/09 09:10	Received:	10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)	
EPA 6010C	04/11/10	10/15/09	13:56	10/27/2009	17:16
EPA 6020A	04/11/10	10/15/09	14:04	10/21/2009	10:04
EPA 8260B	10/27/09	10/19/09	14:42	10/20/2009	10:40

Client ID:	5503-MW35A	Lab ID:	C911287-22	Sampled:	10/13/09 09:15	Received:	10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)	
EPA 6010C	04/11/10	10/15/09	13:56	10/27/2009	17:19
EPA 6020A	04/11/10	10/15/09	14:04	10/21/2009	11:11
EPA 8260B	10/27/09	10/19/09	14:42	10/20/2009	11:08

Client ID:	5503-Trip Blank	Lab ID:	C911287-23RE1	Sampled:	10/13/09 08:50	Received:	10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)	
EPA 8260B	10/27/09	10/20/09	14:30	10/21/2009	05:51

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 5503-MW1A **Lab ID: C911287-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	1.50	J	1	0.0730	2.00	6	ug/L	EPA 6020A	
Barium - Total	48.7	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.341	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chloroform	22		1	0.20	1.0	5	ug/L	EPA 8260B	
Chromium - Total	10.9		1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.52	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	4.14	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Iron - Total	3370		1	22.0	50.0	300	ug/L	EPA 6010C	
Manganese - Total	35.9	J	1	1.10	10.0	50	ug/L	EPA 6010C	
Nickel - Total	7.99	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	3.16	JB	1	2.70	10.0	10	ug/L	EPA 6010C	J-01
Thallium - Total	0.128	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Vanadium - Total	6.31	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	25.3		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW9 **Lab ID: C911287-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.256	J	1	0.0730	2.00	6	ug/L	EPA 6020A	
Barium - Total	27.8	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.147	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	2.88	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	1.60	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	5.41	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW10R **Lab ID: C911287-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	14.8	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.177	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	4.68	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	18.0	J	1	1.40	10.0	25	ug/L	EPA 6010C	

Client ID: 5503-MW12 **Lab ID: C911287-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	4.75	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	183		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.238	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	2.67	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	23.5		1	1.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	4.87	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Thallium - Total	0.147	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Zinc - Total	53.1		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW13 **Lab ID: C911287-05**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	15		1	0.33	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	2.7		1	0.38	1.0	1	ug/L	EPA 8260B	
Acetone	11	J	1	1.5	5.0	100	ug/L	EPA 8260B	
Arsenic - Total	5.57	J	1	2.80	10.0	10	ug/L	EPA 6010C	

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Client ID: 5503-MW13						Lab ID: C911287-05			
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
Barium - Total	76.2	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	5.0		1	0.20	1.0	1	ug/L	EPA 8260B	
Beryllium - Total	0.607	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chloroethane	2.4	J	1	0.30	1.0	10	ug/L	EPA 8260B	
Chromium - Total	6.19	J	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	3.2	J	1	0.36	1.0	5	ug/L	EPA 8260B	
Cobalt - Total	195		1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	4.35	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Methylene chloride	1.4		1	0.53	1.0	1	ug/L	EPA 8260B	
Nickel - Total	17.9	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Tetrachloroethene	3.9		1	0.36	1.0	1	ug/L	EPA 8260B	
Thallium - Total	1.07	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Toluene	0.53	J	1	0.27	1.0	1	ug/L	EPA 8260B	
Trichloroethene	2.4		1	0.38	1.0	1	ug/L	EPA 8260B	
Vanadium - Total	1.68	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Vinyl chloride	1.1		1	0.30	1.0	1	ug/L	EPA 8260B	
Xylenes (Total)	3.0	J	1	0.40	1.0	5	ug/L	EPA 8260B	
Zinc - Total	14.8		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW14						Lab ID: C911287-06			
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
1,1-Dichloroethane	2.1	J	1	0.33	1.0	5	ug/L	EPA 8260B	
Antimony - Total	1.70	J	1	0.0730	2.00	6	ug/L	EPA 6020A	
Barium - Total	22.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Copper - Total	2.13	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Tetrachloroethene	0.47	J	1	0.36	1.0	1	ug/L	EPA 8260B	
Zinc - Total	28.0		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW15						Lab ID: C911287-07			
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
Arsenic - Total	3.43	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	151		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.978	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	1.21	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.31	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Lead - Total	4.19	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Thallium - Total	0.129	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Vanadium - Total	6.84	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	17.7		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW16R						Lab ID: C911287-08			
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
1,1-Dichloroethane	6.6		1	0.33	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	2.5		1	0.38	1.0	1	ug/L	EPA 8260B	
Arsenic - Total	2.99	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	245		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	6.4		1	0.20	1.0	1	ug/L	EPA 8260B	
Beryllium - Total	0.238	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chlorobenzene	1.7	J	1	0.27	1.0	3	ug/L	EPA 8260B	
Chloroethane	1.6	J	1	0.30	1.0	10	ug/L	EPA 8260B	
Chromium - Total	9.01	J	1	1.00	10.0	10	ug/L	EPA 6010C	

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Client ID: 5503-MW16R						Lab ID: C911287-08			
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
cis-1,2-Dichloroethene	5.5		1	0.36	1.0	5	ug/L	EPA 8260B	
Cobalt - Total	15.0		1	1.10	10.0	10	ug/L	EPA 6010C	
Methylene chloride	4.2		1	0.53	1.0	1	ug/L	EPA 8260B	
Nickel - Total	7.97	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Silver - Total	3.26	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Thallium - Total	1.10	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Vinyl chloride	3.9		1	0.30	1.0	1	ug/L	EPA 8260B	
Xylenes (Total)	8.6		1	0.40	1.0	5	ug/L	EPA 8260B	
Zinc - Total	14.7		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW17						Lab ID: C911287-09			
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	62.4	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.256	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Cobalt - Total	10.8		1	1.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	10.6	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Tetrachloroethene	0.65	J	1	0.36	1.0	1	ug/L	EPA 8260B	
Zinc - Total	8.21	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW18						Lab ID: C911287-10			
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	62.2	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.140	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	3.12	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Copper - Total	3.26	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.51	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Thallium - Total	0.156	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Vanadium - Total	5.03	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	8.47	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW19						Lab ID: C911287-11			
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	6.8		1	0.33	1.0	5	ug/L	EPA 8260B	
Antimony - Total	0.228	J	1	0.0730	2.00	6	ug/L	EPA 6020A	
Barium - Total	24.9	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.116	J	1	0.100	1.00	1	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	0.41	J	1	0.36	1.0	5	ug/L	EPA 8260B	
Methylene chloride	1.2		1	0.53	1.0	1	ug/L	EPA 8260B	
Tetrachloroethene	1.3		1	0.36	1.0	1	ug/L	EPA 8260B	
Trichloroethene	0.84	J	1	0.38	1.0	1	ug/L	EPA 8260B	
Zinc - Total	9.27	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW20						Lab ID: C911287-12			
Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	20		1	0.33	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	0.73	J	1	0.38	1.0	1	ug/L	EPA 8260B	
Barium - Total	64.3	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	2.0		1	0.20	1.0	1	ug/L	EPA 8260B	
Beryllium - Total	0.168	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chloroethane	2.4	J	1	0.30	1.0	10	ug/L	EPA 8260B	
cis-1,2-Dichloroethene	3.0	J	1	0.36	1.0	5	ug/L	EPA 8260B	

Client ID: 5503-MW20 **Lab ID: C911287-12**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Cobalt - Total	2.90	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Methylene chloride	6.6		1	0.53	1.0	1	ug/L	EPA 8260B	
Tetrachloroethene	1.6		1	0.36	1.0	1	ug/L	EPA 8260B	
Trichloroethene	2.0		1	0.38	1.0	1	ug/L	EPA 8260B	
Vinyl chloride	0.69	J	1	0.30	1.0	1	ug/L	EPA 8260B	
Xylenes (Total)	2.2	J	1	0.40	1.0	5	ug/L	EPA 8260B	
Zinc - Total	4.01	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW21 **Lab ID: C911287-13**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	42.5	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.327	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	1.16	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	1.87	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	4.56	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW24 **Lab ID: C911287-14**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	41.0	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.487	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Zinc - Total	6.43	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW25 **Lab ID: C911287-15**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	3.57	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	171		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.363	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	5.94	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Zinc - Total	16.3		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW25A **Lab ID: C911287-16**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.975	J	1	0.0730	2.00	6	ug/L	EPA 6020A	
Arsenic - Total	3.61	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	35.1	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.107	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	4.81	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.53	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	2.87	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	7.50	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW32R **Lab ID: C911287-17**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	3.14	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	146		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	1.54		1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	4.11	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	2.01	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Lead - Total	17.0		1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	2.91	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Thallium - Total	0.232	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	

Client ID: 5503-MW32R **Lab ID:** C911287-17

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Vanadium - Total	16.4	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	48.3		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW33 **Lab ID:** C911287-18

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	49.1	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.275	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Zinc - Total	5.53	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW33A **Lab ID:** C911287-19

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.767	J	1	0.0730	2.00	6	ug/L	EPA 6020A	
Barium - Total	8.64	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Copper - Total	2.51	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Zinc - Total	37.0		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW34 **Lab ID:** C911287-20

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	117		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.756	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Cobalt - Total	4.50	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Thallium - Total	0.136	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Vanadium - Total	1.72	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	11.0		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW35 **Lab ID:** C911287-21

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	1.88	J	1	0.0730	2.00	6	ug/L	EPA 6020A	
Barium - Total	49.7	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.244	JB	1	0.100	1.00	1	ug/L	EPA 6010C	J-01
Chromium - Total	1.76	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.40	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	4.22	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	13.3		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW35A **Lab ID:** C911287-22

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.265	J	1	0.0730	2.00	6	ug/L	EPA 6020A	
Barium - Total	40.0	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.184	JB	1	0.100	1.00	1	ug/L	EPA 6010C	J-01
Chromium - Total	4.23	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Selenium - Total	3.89	J	1	2.70	10.0	10	ug/L	EPA 6010C	
Vanadium - Total	3.78	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	7.46	J	1	3.80	10.0	10	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: 5503-MW1A
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-01
Sampled: 10/13/09 08:50
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 05:34	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 05:34	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 05:34	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 05:34	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 05:34	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 05:34	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 05:34	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 05:34	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 05:34	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 05:34	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 05:34	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 05:34	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 05:34	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 05:34	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 05:34	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 05:34	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 05:34	JKG	
Chloroform [67-66-3] ^	**22**		ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 05:34	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 05:34	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 05:34	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 05:34	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 05:34	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 05:34	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 05:34	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 05:34	JKG	

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Description:	5503-MW1A	**Lab Sample ID:**	C911287-01	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 08:50	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 05:34	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 05:34	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 05:34	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 05:34*	*JKG*	
Dibromofluoromethane	*47*	*1*	*50.0*	*94 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 05:34*	*JKG*	
Toluene-d8	*51*	*1*	*50.0*	*102 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 05:34*	*JKG*	

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Description:	5503-MW1A	**Lab Sample ID:**	C911287-01	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 08:50	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0540	U	ug/L	1	0.0540	0.200	0.2	EPA 7470A	10/15/09 16:26	NLH	

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Description:	5503-MW1A	**Lab Sample ID:**	C911287-01	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 08:50	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	**1.50**	J	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 13:12	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:01	JDH	
Barium [7440-39-3] ^	**48.7**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:01	JDH	
Beryllium [7440-41-7] ^	**0.341**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:01	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:01	JDH	
Chromium [7440-47-3] ^	**10.9**		ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:01	JDH	
Cobalt [7440-48-4] ^	**1.52**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:01	JDH	
Copper [7440-50-8] ^	**4.14**	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:01	JDH	
Iron [7439-89-6] ^	**3370**		ug/L	1	22.0	50.0	300	EPA 6010C	10/28/09 11:01	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:01	JDH	
Manganese [7439-96-5] ^	**35.9**	J	ug/L	1	1.10	10.0	50	EPA 6010C	10/28/09 11:01	JDH	
Nickel [7440-02-0] ^	**7.99**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:01	JDH	
Selenium [7782-49-2] ^	**3.16**	JB	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:01	JDH	J-01
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:01	JDH	
Thallium [7440-28-0] ^	**0.128**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 13:12	VLO	
Vanadium [7440-62-2] ^	**6.31**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:01	JDH	
Zinc [7440-66-6] ^	**25.3**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:01	JDH	

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Description: 5503-MW9
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-02
Sampled: 10/13/09 09:20
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 06:02	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 06:02	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 06:02	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 06:02	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 06:02	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 06:02	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 06:02	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 06:02	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 06:02	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 06:02	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 06:02	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 06:02	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 06:02	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 06:02	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 06:02	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 06:02	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 06:02	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 06:02	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 06:02	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 06:02	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 06:02	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 06:02	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 06:02	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 06:02	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 06:02	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 06:02	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 06:02	JKG	

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Description:	5503-MW9	**Lab Sample ID:**	C911287-02	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 09:20	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 06:02	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*53*	*1*	*50.0*	*106 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 06:02*	*JKG*	
Dibromofluoromethane	*46*	*1*	*50.0*	*93 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 06:02*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 06:02*	*JKG*	

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Description:	5503-MW9	**Lab Sample ID:**	C911287-02	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 09:20	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	**0.256**	J	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 13:36	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:04	JDH	
Barium [7440-39-3] ^	**27.8**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:04	JDH	
Beryllium [7440-41-7] ^	**0.147**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:04	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:04	JDH	
Chromium [7440-47-3] ^	**2.88**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:04	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:04	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:04	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:04	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:04	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:04	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:04	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 13:36	VLO	
Vanadium [7440-62-2] ^	**1.60**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:04	JDH	
Zinc [7440-66-6] ^	**5.41**	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:04	JDH	

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

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Description: 5503-MW10R
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-03
Sampled: 10/14/09 12:40
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 06:31	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 06:31	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 06:31	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 06:31	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 06:31	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 06:31	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 06:31	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 06:31	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 06:31	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 06:31	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 06:31	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 06:31	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 06:31	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 06:31	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 06:31	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 06:31	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 06:31	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 06:31	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 06:31	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 06:31	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 06:31	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 06:31	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 06:31	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 06:31	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 06:31	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 06:31	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 06:31	JKG	

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Description:	5503-MW10R	**Lab Sample ID:**	C911287-03	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 12:40	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 06:31	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*53*	*1*	*50.0*	*105 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 06:31*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*95 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 06:31*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*103 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 06:31*	*JKG*	

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Description:	5503-MW10R	**Lab Sample ID:**	C911287-03	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 12:40	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 13:39	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:07	JDH	
Barium [7440-39-3] ^	**14.8**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:07	JDH	
Beryllium [7440-41-7] ^	**0.177**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:07	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:07	JDH	
Chromium [7440-47-3] ^	**4.68**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:07	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:07	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:07	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:07	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:07	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:07	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:07	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 13:39	VLO	
Vanadium [7440-62-2] ^	**18.0**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:07	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:07	JDH	

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

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Description: 5503-MW12
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-04
Sampled: 10/14/09 13:00
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 06:59	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 06:59	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 06:59	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 06:59	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 06:59	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 06:59	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 06:59	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 06:59	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 06:59	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 06:59	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 06:59	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 06:59	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 06:59	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 06:59	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 06:59	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 06:59	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 06:59	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 06:59	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 06:59	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 06:59	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 06:59	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 06:59	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 06:59	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 06:59	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 06:59	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 06:59	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 06:59	JKG	

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Description:	5503-MW12	**Lab Sample ID:**	C911287-04	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 13:00	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 06:59	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*103 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 06:59*	*JKG*	
Dibromofluoromethane	*47*	*1*	*50.0*	*94 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 06:59*	*JKG*	
Toluene-d8	*51*	*1*	*50.0*	*102 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 06:59*	*JKG*	

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Description:	5503-MW12	**Lab Sample ID:**	C911287-04	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 13:00	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 13:43	VLO	
Arsenic [7440-38-2] ^	**4.75**	J	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:10	JDH	
Barium [7440-39-3] ^	**183**		ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:10	JDH	
Beryllium [7440-41-7] ^	**0.238**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:10	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:10	JDH	
Chromium [7440-47-3] ^	**2.67**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:10	JDH	
Cobalt [7440-48-4] ^	**23.5**		ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:10	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:10	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:10	JDH	
Nickel [7440-02-0] ^	**4.87**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:10	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:10	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:10	JDH	
Thallium [7440-28-0] ^	**0.147**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 13:43	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:10	JDH	
Zinc [7440-66-6] ^	**53.1**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:10	JDH	

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Description: 5503-MW13
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-05
Sampled: 10/14/09 14:05
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 07:28	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 07:28	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
1,1-Dichloroethane [75-34-3] ^	**15**		ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 07:28	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 07:28	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 07:28	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 07:28	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
1,4-Dichlorobenzene [106-46-7] ^	**2.7**		ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 07:28	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 07:28	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 07:28	JKG	
Acetone [67-64-1] ^	**11**	J	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 07:28	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 07:28	JKG	
Benzene [71-43-2] ^	**5.0**		ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 07:28	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 07:28	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 07:28	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 07:28	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 07:28	JKG	
Chloroethane [75-00-3] ^	**2.4**	J	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 07:28	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 07:28	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	**3.2**	J	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 07:28	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 07:28	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 07:28	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 07:28	JKG	
Methylene chloride [75-09-2] ^	**1.4**		ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
Tetrachloroethene [127-18-4] ^	**3.9**		ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
Toluene [108-88-3] ^	**0.53**	J	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 07:28	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 07:28	JKG	
Trichloroethene [79-01-6] ^	**2.4**		ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 07:28	JKG	
Vinyl chloride [75-01-4] ^	**1.1**		ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 07:28	JKG	
Xylenes (Total) [1330-20-7] ^	**3.0**	J	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 07:28	JKG	

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Description:	5503-MW13	**Lab Sample ID:**	C911287-05	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 14:05	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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
Surrogates	***Results***	***DF***	***Spike Lvl***	***% Rec***	***% Rec Limits***		***Batch***	***Method***	***Analyzed***	***By***	**Notes**
4-Bromofluorobenzene	*53*	*1*	*50.0*	*105 %*	*51-122*		*9J17003*	*EPA 8260B*	*10/18/09 07:28*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*		*9J17003*	*EPA 8260B*	*10/18/09 07:28*	*JKG*	
Toluene-d8	*51*	*1*	*50.0*	*103 %*	*69-110*		*9J17003*	*EPA 8260B*	*10/18/09 07:28*	*JKG*	

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Description:	5503-MW13	**Lab Sample ID:**	C911287-05	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 14:05	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 13:46	VLO	
Arsenic [7440-38-2] ^	**5.57**	J	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 10:35	JDH	
Barium [7440-39-3] ^	**76.2**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 10:35	JDH	
Beryllium [7440-41-7] ^	**0.607**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 10:35	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 10:35	JDH	
Chromium [7440-47-3] ^	**6.19**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 10:35	JDH	
Cobalt [7440-48-4] ^	**195**		ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 10:35	JDH	
Copper [7440-50-8] ^	**4.35**	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 10:35	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 10:35	JDH	
Nickel [7440-02-0] ^	**17.9**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 10:35	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 10:35	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 10:35	JDH	
Thallium [7440-28-0] ^	**1.07**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 13:46	VLO	
Vanadium [7440-62-2] ^	**1.68**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 10:35	JDH	
Zinc [7440-66-6] ^	**14.8**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 10:35	JDH	

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

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Description: 5503-MW14
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-06
Sampled: 10/14/09 14:10
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 07:56	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 07:56	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
1,1-Dichloroethane [75-34-3] ^	**2.1**	J	ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 07:56	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 07:56	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 07:56	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 07:56	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 07:56	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 07:56	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 07:56	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 07:56	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 07:56	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 07:56	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 07:56	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 07:56	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 07:56	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 07:56	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 07:56	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 07:56	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 07:56	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 07:56	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 07:56	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 07:56	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
Tetrachloroethene [127-18-4] ^	**0.47**	J	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 07:56	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 07:56	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 07:56	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 07:56	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 07:56	JKG	

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Description:	5503-MW14	**Lab Sample ID:**	C911287-06	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 14:10	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 07:56	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 07:56*	*JKG*	
Dibromofluoromethane	*47*	*1*	*50.0*	*94 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 07:56*	*JKG*	
Toluene-d8	*51*	*1*	*50.0*	*103 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 07:56*	*JKG*	

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Description:	5503-MW14	**Lab Sample ID:**	C911287-06	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 14:10	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	**1.70**	J	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 13:50	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:13	JDH	
Barium [7440-39-3] ^	**22.6**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:13	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:13	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:13	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:13	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:13	JDH	
Copper [7440-50-8] ^	**2.13**	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:13	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:13	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:13	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:13	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:13	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 13:50	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:13	JDH	
Zinc [7440-66-6] ^	**28.0**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:13	JDH	

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Description: 5503-MW15
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-07
Sampled: 10/14/09 14:40
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 08:25	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 08:25	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 08:25	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 08:25	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 08:25	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 08:25	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 08:25	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 08:25	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 08:25	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 08:25	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 08:25	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 08:25	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 08:25	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 08:25	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 08:25	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 08:25	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 08:25	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 08:25	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 08:25	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 08:25	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 08:25	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 08:25	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 08:25	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 08:25	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 08:25	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 08:25	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 08:25	JKG	

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Description:	5503-MW15	**Lab Sample ID:**	C911287-07	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 14:40	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 08:25	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*105 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 08:25*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*95 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 08:25*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 08:25*	*JKG*	

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Description:	5503-MW15	**Lab Sample ID:**	C911287-07	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 14:40	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 13:53	VLO	
Arsenic [7440-38-2] ^	**3.43**	J	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:16	JDH	
Barium [7440-39-3] ^	**151**		ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:16	JDH	
Beryllium [7440-41-7] ^	**0.978**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:16	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:16	JDH	
Chromium [7440-47-3] ^	**1.21**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:16	JDH	
Cobalt [7440-48-4] ^	**1.31**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:16	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:16	JDH	
Lead [7439-92-1] ^	**4.19**	J	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:16	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:16	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:16	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:16	JDH	
Thallium [7440-28-0] ^	**0.129**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 13:53	VLO	
Vanadium [7440-62-2] ^	**6.84**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:16	JDH	
Zinc [7440-66-6] ^	**17.7**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:16	JDH	

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

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Description: 5503-MW16R
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-08
Sampled: 10/14/09 13:55
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 08:53	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 08:53	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
1,1-Dichloroethane [75-34-3] ^	**6.6**		ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 08:53	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 08:53	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 08:53	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 08:53	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
1,4-Dichlorobenzene [106-46-7] ^	**2.5**		ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 08:53	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 08:53	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 08:53	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 08:53	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 08:53	JKG	
Benzene [71-43-2] ^	**6.4**		ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 08:53	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 08:53	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 08:53	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 08:53	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
Chlorobenzene [108-90-7] ^	**1.7**	J	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 08:53	JKG	
Chloroethane [75-00-3] ^	**1.6**	J	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 08:53	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 08:53	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	**5.5**		ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 08:53	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 08:53	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 08:53	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 08:53	JKG	
Methylene chloride [75-09-2] ^	**4.2**		ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 08:53	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 08:53	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 08:53	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 08:53	JKG	
Vinyl chloride [75-01-4] ^	**3.9**		ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 08:53	JKG	

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Description:	5503-MW16R	**Lab Sample ID:**	C911287-08	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 13:55	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	**8.6**		ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 08:53	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*53*	*1*	*50.0*	*107 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 08:53*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*95 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 08:53*	*JKG*	
Toluene-d8	*53*	*1*	*50.0*	*105 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 08:53*	*JKG*	

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Description:	5503-MW16R	**Lab Sample ID:**	C911287-08	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 13:55	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 13:57	VLO	
Arsenic [7440-38-2] ^	**2.99**	J	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:27	JDH	
Barium [7440-39-3] ^	**245**		ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:27	JDH	
Beryllium [7440-41-7] ^	**0.238**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:27	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:27	JDH	
Chromium [7440-47-3] ^	**9.01**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:27	JDH	
Cobalt [7440-48-4] ^	**15.0**		ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:27	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:27	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:27	JDH	
Nickel [7440-02-0] ^	**7.97**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:27	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:27	JDH	
Silver [7440-22-4] ^	**3.26**	J	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:27	JDH	
Thallium [7440-28-0] ^	**1.10**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 13:57	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:27	JDH	
Zinc [7440-66-6] ^	**14.7**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:27	JDH	

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Description: 5503-MW17
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-09
Sampled: 10/14/09 10:55
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 09:21	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 09:21	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 09:21	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 09:21	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 09:21	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 09:21	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 09:21	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 09:21	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 09:21	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 09:21	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 09:21	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 09:21	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 09:21	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 09:21	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 09:21	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 09:21	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 09:21	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 09:21	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 09:21	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 09:21	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 09:21	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 09:21	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
Tetrachloroethene [127-18-4] ^	**0.65**	J	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 09:21	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 09:21	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 09:21	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 09:21	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 09:21	JKG	

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Description:	5503-MW17	**Lab Sample ID:**	C911287-09	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 10:55	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 09:21	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*105 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 09:21*	*JKG*	
Dibromofluoromethane	*47*	*1*	*50.0*	*94 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 09:21*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 09:21*	*JKG*	

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Description: 5503-MW17
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-09
Sampled: 10/14/09 10:55
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 14:01	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:31	JDH	
Barium [7440-39-3] ^	**62.4**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:31	JDH	
Beryllium [7440-41-7] ^	**0.256**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:31	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:31	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:31	JDH	
Cobalt [7440-48-4] ^	**10.8**		ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:31	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:31	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:31	JDH	
Nickel [7440-02-0] ^	**10.6**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:31	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:31	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:31	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 14:01	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:31	JDH	
Zinc [7440-66-6] ^	**8.21**	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:31	JDH	

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

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Description: 5503-MW18
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-10
Sampled: 10/14/09 14:20
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 09:50	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 09:50	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 09:50	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 09:50	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 09:50	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 09:50	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 09:50	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 09:50	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 09:50	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 09:50	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 09:50	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 09:50	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 09:50	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 09:50	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 09:50	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 09:50	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 09:50	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 09:50	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 09:50	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 09:50	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 09:50	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 09:50	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 09:50	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 09:50	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 09:50	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 09:50	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 09:50	JKG	

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Description:	5503-MW18	**Lab Sample ID:**	C911287-10	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 14:20	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 09:50	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*53*	*1*	*50.0*	*106 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 09:50*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*97 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 09:50*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 09:50*	*JKG*	

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Description:	5503-MW18	**Lab Sample ID:**	C911287-10	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 14:20	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 14:04	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:34	JDH	
Barium [7440-39-3] ^	**62.2**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:34	JDH	
Beryllium [7440-41-7] ^	**0.140**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:34	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:34	JDH	
Chromium [7440-47-3] ^	**3.12**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:34	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:34	JDH	
Copper [7440-50-8] ^	**3.26**	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:34	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:34	JDH	
Nickel [7440-02-0] ^	**2.51**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:34	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:34	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:34	JDH	
Thallium [7440-28-0] ^	**0.156**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 14:04	VLO	
Vanadium [7440-62-2] ^	**5.03**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:34	JDH	
Zinc [7440-66-6] ^	**8.47**	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:34	JDH	

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Description: 5503-MW19
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-11
Sampled: 10/14/09 14:30
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 10:18	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 10:18	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
1,1-Dichloroethane [75-34-3] ^	**6.8**		ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 10:18	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 10:18	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 10:18	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 10:18	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 10:18	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 10:18	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 10:18	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 10:18	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 10:18	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 10:18	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 10:18	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 10:18	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 10:18	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 10:18	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 10:18	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 10:18	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	**0.41**	J	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 10:18	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 10:18	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 10:18	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 10:18	JKG	
Methylene chloride [75-09-2] ^	**1.2**		ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
Tetrachloroethene [127-18-4] ^	**1.3**		ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 10:18	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 10:18	JKG	
Trichloroethene [79-01-6] ^	**0.84**	J	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 10:18	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 10:18	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 10:18	JKG	

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Description:	5503-MW19	**Lab Sample ID:**	C911287-11	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 14:30	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 10:18	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*103 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 10:18*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 10:18*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 10:18*	*JKG*	

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Description:	5503-MW19	**Lab Sample ID:**	C911287-11	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 14:30	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	**0.228**	J	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 14:08	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:37	JDH	
Barium [7440-39-3] ^	**24.9**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:37	JDH	
Beryllium [7440-41-7] ^	**0.116**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:37	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:37	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:37	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:37	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:37	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:37	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:37	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:37	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:37	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 14:08	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:37	JDH	
Zinc [7440-66-6] ^	**9.27**	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:37	JDH	

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

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Description: 5503-MW20
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-12
Sampled: 10/14/09 13:45
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 10:46	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 10:46	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
1,1-Dichloroethane [75-34-3] ^	**20**		ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 10:46	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 10:46	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 10:46	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 10:46	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
1,4-Dichlorobenzene [106-46-7] ^	**0.73**	J	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 10:46	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 10:46	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 10:46	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 10:46	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 10:46	JKG	
Benzene [71-43-2] ^	**2.0**		ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 10:46	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 10:46	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 10:46	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 10:46	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 10:46	JKG	
Chloroethane [75-00-3] ^	**2.4**	J	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 10:46	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 10:46	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	**3.0**	J	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 10:46	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 10:46	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 10:46	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 10:46	JKG	
Methylene chloride [75-09-2] ^	**6.6**		ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
Tetrachloroethene [127-18-4] ^	**1.6**		ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 10:46	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 10:46	JKG	
Trichloroethene [79-01-6] ^	**2.0**		ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 10:46	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 10:46	JKG	
Vinyl chloride [75-01-4] ^	**0.69**	J	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 10:46	JKG	

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Description:	5503-MW20	**Lab Sample ID:**	C911287-12	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 13:45	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	**2.2**	J	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 10:46	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*53*	*1*	*50.0*	*105 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 10:46*	*JKG*	
Dibromofluoromethane	*47*	*1*	*50.0*	*95 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 10:46*	*JKG*	
Toluene-d8	*51*	*1*	*50.0*	*102 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 10:46*	*JKG*	

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Description:	5503-MW20	**Lab Sample ID:**	C911287-12	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 13:45	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 14:18	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:40	JDH	
Barium [7440-39-3] ^	**64.3**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:40	JDH	
Beryllium [7440-41-7] ^	**0.168**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:40	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:40	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:40	JDH	
Cobalt [7440-48-4] ^	**2.90**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:40	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:40	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:40	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:40	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:40	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:40	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 14:18	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:40	JDH	
Zinc [7440-66-6] ^	**4.01**	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:40	JDH	

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Description: 5503-MW21
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-13
Sampled: 10/14/09 15:10
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 11:15	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 11:15	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 11:15	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 11:15	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 11:15	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 11:15	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 11:15	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 11:15	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 11:15	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 11:15	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 11:15	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 11:15	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 11:15	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 11:15	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 11:15	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 11:15	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 11:15	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 11:15	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 11:15	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 11:15	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 11:15	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 11:15	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 11:15	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 11:15	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 11:15	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 11:15	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 11:15	JKG	

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Description:	5503-MW21	**Lab Sample ID:**	C911287-13	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 15:10	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 11:15	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*53*	*1*	*50.0*	*106 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 11:15*	*JKG*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 11:15*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 11:15*	*JKG*	

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Description:	5503-MW21	**Lab Sample ID:**	C911287-13	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 15:10	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 14:22	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:44	JDH	
Barium [7440-39-3] ^	**42.5**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:44	JDH	
Beryllium [7440-41-7] ^	**0.327**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:44	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:44	JDH	
Chromium [7440-47-3] ^	**1.16**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:44	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:44	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:44	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:44	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:44	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:44	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:44	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 14:22	VLO	
Vanadium [7440-62-2] ^	**1.87**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:44	JDH	
Zinc [7440-66-6] ^	**4.56**	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:44	JDH	

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

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Description: 5503-MW24
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-14
Sampled: 10/14/09 12:50
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 11:43	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 11:43	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 11:43	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 11:43	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 11:43	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 11:43	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 11:43	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 11:43	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 11:43	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 11:43	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 11:43	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 11:43	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 11:43	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 11:43	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 11:43	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 11:43	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 11:43	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 11:43	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 11:43	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 11:43	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 11:43	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 11:43	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 11:43	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 11:43	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 11:43	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 11:43	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 11:43	JKG	

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Description:	5503-MW24	**Lab Sample ID:**	C911287-14	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 12:50	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 11:43	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*105 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 11:43*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*97 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 11:43*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*103 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 11:43*	*JKG*	

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Description:	5503-MW24	**Lab Sample ID:**	C911287-14	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 12:50	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 14:25	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:47	JDH	
Barium [7440-39-3] ^	**41.0**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:47	JDH	
Beryllium [7440-41-7] ^	**0.487**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:47	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:47	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:47	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:47	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:47	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:47	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:47	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:47	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:47	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 14:25	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:47	JDH	
Zinc [7440-66-6] ^	**6.43**	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:47	JDH	

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

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Description: 5503-MW25
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-15
Sampled: 10/13/09 09:25
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 12:12	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/18/09 12:12	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/18/09 12:12	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/18/09 12:12	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/18/09 12:12	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/18/09 12:12	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/18/09 12:12	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/18/09 12:12	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/18/09 12:12	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/18/09 12:12	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/18/09 12:12	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/18/09 12:12	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/18/09 12:12	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/18/09 12:12	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/18/09 12:12	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/18/09 12:12	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/18/09 12:12	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/18/09 12:12	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/18/09 12:12	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/18/09 12:12	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/18/09 12:12	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/18/09 12:12	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/18/09 12:12	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/18/09 12:12	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/18/09 12:12	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/18/09 12:12	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/18/09 12:12	JKG	

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Description:	5503-MW25	**Lab Sample ID:**	C911287-15	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 09:25	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/18/09 12:12	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*9J17003*	*EPA 8260B*	*10/18/09 12:12*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*9J17003*	*EPA 8260B*	*10/18/09 12:12*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*103 %*	*69-110*	*9J17003*	*EPA 8260B*	*10/18/09 12:12*	*JKG*	

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Description:	5503-MW25	**Lab Sample ID:**	C911287-15	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 09:25	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 14:29	VLO	
Arsenic [7440-38-2] ^	**3.57**	J	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:50	JDH	
Barium [7440-39-3] ^	**171**		ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:50	JDH	
Beryllium [7440-41-7] ^	**0.363**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:50	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:50	JDH	
Chromium [7440-47-3] ^	**5.94**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:50	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:50	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:50	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:50	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:50	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:50	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:50	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 14:29	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:50	JDH	
Zinc [7440-66-6] ^	**16.3**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:50	JDH	

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

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Description: 5503-MW25A
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-16
Sampled: 10/13/09 09:30
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/19/09 20:46	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/19/09 20:46	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/19/09 20:46	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/19/09 20:46	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/19/09 20:46	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/19/09 20:46	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/19/09 20:46	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/19/09 20:46	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/19/09 20:46	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/19/09 20:46	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/19/09 20:46	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/19/09 20:46	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/19/09 20:46	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/19/09 20:46	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/19/09 20:46	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/19/09 20:46	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/19/09 20:46	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/19/09 20:46	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/19/09 20:46	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/19/09 20:46	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/19/09 20:46	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/19/09 20:46	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/19/09 20:46	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/19/09 20:46	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/09 20:46	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/19/09 20:46	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/19/09 20:46	JKG	

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Description:	5503-MW25A	**Lab Sample ID:**	C911287-16	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 09:30	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/19/09 20:46	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*9J19027*	*EPA 8260B*	*10/19/09 20:46*	*JKG*	
Dibromofluoromethane	*49*	*1*	*50.0*	*99 %*	*68-117*	*9J19027*	*EPA 8260B*	*10/19/09 20:46*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*103 %*	*69-110*	*9J19027*	*EPA 8260B*	*10/19/09 20:46*	*JKG*	

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Description:	5503-MW25A	**Lab Sample ID:**	C911287-16	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 09:30	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	**0.975**	J	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 14:32	VLO	
Arsenic [7440-38-2] ^	**3.61**	J	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:53	JDH	
Barium [7440-39-3] ^	**35.1**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:53	JDH	
Beryllium [7440-41-7] ^	**0.107**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:53	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:53	JDH	
Chromium [7440-47-3] ^	**4.81**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:53	JDH	
Cobalt [7440-48-4] ^	**1.53**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:53	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:53	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:53	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:53	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:53	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:53	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 14:32	VLO	
Vanadium [7440-62-2] ^	**2.87**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:53	JDH	
Zinc [7440-66-6] ^	**7.50**	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:53	JDH	

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

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Description: 5503-MW32R
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-17
Sampled: 10/14/09 15:00
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/19/09 21:15	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/19/09 21:15	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/19/09 21:15	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/19/09 21:15	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/19/09 21:15	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/19/09 21:15	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/19/09 21:15	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/19/09 21:15	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/19/09 21:15	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/19/09 21:15	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/19/09 21:15	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/19/09 21:15	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/19/09 21:15	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/19/09 21:15	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/19/09 21:15	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/19/09 21:15	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/19/09 21:15	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/19/09 21:15	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/19/09 21:15	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/19/09 21:15	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/19/09 21:15	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/19/09 21:15	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/19/09 21:15	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/19/09 21:15	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/09 21:15	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/19/09 21:15	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/19/09 21:15	JKG	

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Description:	5503-MW32R	**Lab Sample ID:**	C911287-17	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 15:00	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/19/09 21:15	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*105 %*	*51-122*	*9J19027*	*EPA 8260B*	*10/19/09 21:15*	*JKG*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*9J19027*	*EPA 8260B*	*10/19/09 21:15*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*103 %*	*69-110*	*9J19027*	*EPA 8260B*	*10/19/09 21:15*	*JKG*	

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Description:	5503-MW32R	**Lab Sample ID:**	C911287-17	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 15:00	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 14:36	VLO	
Arsenic [7440-38-2] ^	**3.14**	J	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 11:56	JDH	
Barium [7440-39-3] ^	**146**		ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 11:56	JDH	
Beryllium [7440-41-7] ^	**1.54**		ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 11:56	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 11:56	JDH	
Chromium [7440-47-3] ^	**4.11**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 11:56	JDH	
Cobalt [7440-48-4] ^	**2.01**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 11:56	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 11:56	JDH	
Lead [7439-92-1] ^	**17.0**		ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:56	JDH	
Nickel [7440-02-0] ^	**2.91**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 11:56	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 11:56	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 11:56	JDH	
Thallium [7440-28-0] ^	**0.232**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 14:36	VLO	
Vanadium [7440-62-2] ^	**16.4**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 11:56	JDH	
Zinc [7440-66-6] ^	**48.3**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 11:56	JDH	

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

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Description: 5503-MW33
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-18
Sampled: 10/14/09 14:50
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/19/09 21:43	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/19/09 21:43	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/19/09 21:43	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/19/09 21:43	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/19/09 21:43	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/19/09 21:43	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/19/09 21:43	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/19/09 21:43	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/19/09 21:43	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/19/09 21:43	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/19/09 21:43	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/19/09 21:43	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/19/09 21:43	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/19/09 21:43	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/19/09 21:43	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/19/09 21:43	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/19/09 21:43	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/19/09 21:43	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/19/09 21:43	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/19/09 21:43	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/19/09 21:43	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/19/09 21:43	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/19/09 21:43	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/19/09 21:43	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/09 21:43	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/19/09 21:43	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/19/09 21:43	JKG	

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Description:	5503-MW33	**Lab Sample ID:**	C911287-18	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 14:50	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/19/09 21:43	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*9J19027*	*EPA 8260B*	*10/19/09 21:43*	*JKG*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*9J19027*	*EPA 8260B*	*10/19/09 21:43*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*103 %*	*69-110*	*9J19027*	*EPA 8260B*	*10/19/09 21:43*	*JKG*	

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Description: 5503-MW33
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-18
Sampled: 10/14/09 14:50
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 14:39	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 12:07	JDH	
Barium [7440-39-3] ^	**49.1**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 12:07	JDH	
Beryllium [7440-41-7] ^	**0.275**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 12:07	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 12:07	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 12:07	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 12:07	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 12:07	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:07	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 12:07	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 12:07	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:07	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 14:39	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 12:07	JDH	
Zinc [7440-66-6] ^	**5.53**	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 12:07	JDH	

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

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Description: 5503-MW33A
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-19
Sampled: 10/14/09 14:45
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/19/09 22:12	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/19/09 22:12	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/19/09 22:12	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/19/09 22:12	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/19/09 22:12	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/19/09 22:12	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/19/09 22:12	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/19/09 22:12	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/19/09 22:12	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/19/09 22:12	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/19/09 22:12	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/19/09 22:12	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/19/09 22:12	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/19/09 22:12	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/19/09 22:12	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/19/09 22:12	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/19/09 22:12	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/19/09 22:12	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/19/09 22:12	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/19/09 22:12	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/19/09 22:12	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/19/09 22:12	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/19/09 22:12	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/19/09 22:12	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/09 22:12	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/19/09 22:12	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/19/09 22:12	JKG	

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Description:	5503-MW33A	**Lab Sample ID:**	C911287-19	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 14:45	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/19/09 22:12	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*9J19027*	*EPA 8260B*	*10/19/09 22:12*	*JKG*	
Dibromofluoromethane	*49*	*1*	*50.0*	*99 %*	*68-117*	*9J19027*	*EPA 8260B*	*10/19/09 22:12*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*103 %*	*69-110*	*9J19027*	*EPA 8260B*	*10/19/09 22:12*	*JKG*	

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Description:	5503-MW33A	**Lab Sample ID:**	C911287-19	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 14:45	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	**0.767**	J	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 14:43	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 12:10	JDH	
Barium [7440-39-3] ^	**8.64**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 12:10	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 12:10	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 12:10	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 12:10	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 12:10	JDH	
Copper [7440-50-8] ^	**2.51**	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 12:10	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:10	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 12:10	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 12:10	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:10	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 14:43	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 12:10	JDH	
Zinc [7440-66-6] ^	**37.0**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 12:10	JDH	

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Description: 5503-MW34
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-20
Sampled: 10/13/09 09:00
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/19/09 22:40	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/19/09 22:40	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/19/09 22:40	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/19/09 22:40	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/19/09 22:40	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/19/09 22:40	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/19/09 22:40	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/19/09 22:40	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/19/09 22:40	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/19/09 22:40	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/19/09 22:40	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/19/09 22:40	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/19/09 22:40	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/19/09 22:40	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/19/09 22:40	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/19/09 22:40	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/19/09 22:40	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/19/09 22:40	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/19/09 22:40	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/19/09 22:40	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/19/09 22:40	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/19/09 22:40	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/19/09 22:40	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/19/09 22:40	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/19/09 22:40	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/19/09 22:40	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/19/09 22:40	JKG	

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Description:	5503-MW34	**Lab Sample ID:**	C911287-20	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 09:00	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/19/09 22:40	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*103 %*	*51-122*	*9J19027*	*EPA 8260B*	*10/19/09 22:40*	*JKG*	
Dibromofluoromethane	*50*	*1*	*50.0*	*100 %*	*68-117*	*9J19027*	*EPA 8260B*	*10/19/09 22:40*	*JKG*	
Toluene-d8	*51*	*1*	*50.0*	*102 %*	*69-110*	*9J19027*	*EPA 8260B*	*10/19/09 22:40*	*JKG*	

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Description:	5503-MW34	**Lab Sample ID:**	C911287-20	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 09:00	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 14:46	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 12:14	JDH	
Barium [7440-39-3] ^	**117**		ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 12:14	JDH	
Beryllium [7440-41-7] ^	**0.756**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 12:14	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 12:14	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 12:14	JDH	
Cobalt [7440-48-4] ^	**4.50**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 12:14	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 12:14	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:14	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 12:14	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 12:14	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:14	JDH	
Thallium [7440-28-0] ^	**0.136**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 14:46	VLO	
Vanadium [7440-62-2] ^	**1.72**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 12:14	JDH	
Zinc [7440-66-6] ^	**11.0**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 12:14	JDH	

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

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Description: 5503-MW35
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-21
Sampled: 10/13/09 09:10
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 10:40	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/20/09 10:40	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/20/09 10:40	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/20/09 10:40	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/20/09 10:40	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/20/09 10:40	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/20/09 10:40	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/20/09 10:40	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/20/09 10:40	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/20/09 10:40	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/20/09 10:40	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/20/09 10:40	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/20/09 10:40	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/20/09 10:40	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/20/09 10:40	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/20/09 10:40	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/20/09 10:40	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/20/09 10:40	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/20/09 10:40	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/20/09 10:40	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/20/09 10:40	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/20/09 10:40	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/20/09 10:40	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/20/09 10:40	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 10:40	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/20/09 10:40	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/20/09 10:40	JKG	

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Description:	5503-MW35	**Lab Sample ID:**	C911287-21	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 09:10	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 10:40	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*9J19028*	*EPA 8260B*	*10/20/09 10:40*	*JKG*	
Dibromofluoromethane	*47*	*1*	*50.0*	*94 %*	*68-117*	*9J19028*	*EPA 8260B*	*10/20/09 10:40*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*105 %*	*69-110*	*9J19028*	*EPA 8260B*	*10/20/09 10:40*	*JKG*	

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Description:	5503-MW35	**Lab Sample ID:**	C911287-21	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 09:10	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	**1.88**	J	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 10:04	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/27/09 17:16	JDH	
Barium [7440-39-3] ^	**49.7**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/27/09 17:16	JDH	
Beryllium [7440-41-7] ^	**0.244**	JB	ug/L	1	0.100	1.00	1	EPA 6010C	10/27/09 17:16	JDH	J-01
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/27/09 17:16	JDH	
Chromium [7440-47-3] ^	**1.76**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/27/09 17:16	JDH	
Cobalt [7440-48-4] ^	**1.40**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/27/09 17:16	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/27/09 17:16	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/27/09 17:16	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/27/09 17:16	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/27/09 17:16	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/27/09 17:16	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 10:04	VLO	
Vanadium [7440-62-2] ^	**4.22**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/27/09 17:16	JDH	
Zinc [7440-66-6] ^	**13.3**		ug/L	1	3.80	10.0	10	EPA 6010C	10/27/09 17:16	JDH	

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Description: 5503-MW35A
Matrix: Ground Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-22
Sampled: 10/13/09 09:15
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 11:08	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/20/09 11:08	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/20/09 11:08	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/20/09 11:08	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/20/09 11:08	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/20/09 11:08	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/20/09 11:08	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/20/09 11:08	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/20/09 11:08	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/20/09 11:08	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/20/09 11:08	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/20/09 11:08	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/20/09 11:08	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/20/09 11:08	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/20/09 11:08	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/20/09 11:08	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/20/09 11:08	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/20/09 11:08	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/20/09 11:08	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/20/09 11:08	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/20/09 11:08	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/20/09 11:08	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/20/09 11:08	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/20/09 11:08	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 11:08	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/20/09 11:08	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/20/09 11:08	JKG	

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Description:	5503-MW35A	**Lab Sample ID:**	C911287-22	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 09:15	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 11:08	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*9J19028*	*EPA 8260B*	*10/20/09 11:08*	*JKG*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*9J19028*	*EPA 8260B*	*10/20/09 11:08*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*69-110*	*9J19028*	*EPA 8260B*	*10/20/09 11:08*	*JKG*	

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Description:	5503-MW35A	**Lab Sample ID:**	C911287-22	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/13/09 09:15	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	David Reames/Brian Wilso		

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] ^	**0.265**	J	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 11:11	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/27/09 17:19	JDH	
Barium [7440-39-3] ^	**40.0**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/27/09 17:19	JDH	
Beryllium [7440-41-7] ^	**0.184**	JB	ug/L	1	0.100	1.00	1	EPA 6010C	10/27/09 17:19	JDH	J-01
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/27/09 17:19	JDH	
Chromium [7440-47-3] ^	**4.23**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/27/09 17:19	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/27/09 17:19	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/27/09 17:19	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/27/09 17:19	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/27/09 17:19	JDH	
Selenium [7782-49-2] ^	**3.89**	J	ug/L	1	2.70	10.0	10	EPA 6010C	10/27/09 17:19	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/27/09 17:19	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 11:11	VLO	
Vanadium [7440-62-2] ^	**3.78**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/27/09 17:19	JDH	
Zinc [7440-66-6] ^	**7.46**	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/27/09 17:19	JDH	

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

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Description: 5503-Trip Blank
Matrix: Water
Project: Lincoln County LF - App Is

Lab Sample ID: C911287-23
Sampled: 10/13/09 08:50
Sampled By: ENCO

Received: 10/15/09 09:30
Work Order: C911287

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/21/09 05:51	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/21/09 05:51	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/21/09 05:51	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/21/09 05:51	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/21/09 05:51	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/21/09 05:51	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/21/09 05:51	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/21/09 05:51	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/21/09 05:51	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/21/09 05:51	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/21/09 05:51	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/21/09 05:51	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/21/09 05:51	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/21/09 05:51	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/21/09 05:51	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/21/09 05:51	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/21/09 05:51	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/21/09 05:51	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/21/09 05:51	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/21/09 05:51	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/21/09 05:51	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/21/09 05:51	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/21/09 05:51	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/21/09 05:51	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/21/09 05:51	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/21/09 05:51	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/21/09 05:51	JKG	

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Description:	5503-Trip Blank	**Lab Sample ID:**	C911287-23	**Received:**	10/15/09 09:30
Matrix:	Water	**Sampled:**	10/13/09 08:50	**Work Order:**	C911287
Project:	Lincoln County LF - App Is	**Sampled By:**	ENCO		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/21/09 05:51	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*105 %*	*51-122*	*9J20018*	*EPA 8260B*	*10/21/09 05:51*	*JKG*	
Dibromofluoromethane	*50*	*1*	*50.0*	*99 %*	*68-117*	*9J20018*	*EPA 8260B*	*10/21/09 05:51*	*JKG*	
Toluene-d8	*51*	*1*	*50.0*	*102 %*	*69-110*	*9J20018*	*EPA 8260B*	*10/21/09 05:51*	*JKG*	

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QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9J17003 - EPA 5030B_MS

Blank (9J17003-BLK1) Prepared: 10/17/2009 15:54 Analyzed: 10/18/2009 03:12

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.40	U	1.0	ug/L							
1,1,1-Trichloroethane	0.27	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.33	U	1.0	ug/L							
1,1,2-Trichloroethane	0.37	U	1.0	ug/L							
1,1-Dichloroethane	0.33	U	1.0	ug/L							
1,1-Dichloroethene	0.24	U	1.0	ug/L							
1,2,3-Trichloropropane	0.55	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.42	U	1.0	ug/L							
1,2-Dichlorobenzene	0.27	U	1.0	ug/L							
1,2-Dichloroethane	0.65	U	1.0	ug/L							
1,2-Dichloropropane	0.20	U	1.0	ug/L							
1,4-Dichlorobenzene	0.38	U	1.0	ug/L							
2-Butanone	1.0	U	5.0	ug/L							
2-Hexanone	0.69	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.5	U	5.0	ug/L							
Acrylonitrile	2.1	U	10	ug/L							
Benzene	0.20	U	1.0	ug/L							
Bromochloromethane	0.42	U	1.0	ug/L							
Bromodichloromethane	0.37	U	1.0	ug/L							
Bromoform	0.71	U	1.0	ug/L							
Bromomethane	0.49	U	1.0	ug/L							
Carbon disulfide	0.54	U	5.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
Chlorobenzene	0.27	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
Chloroform	0.20	U	1.0	ug/L							
Chloromethane	0.34	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L							
Dibromochloromethane	0.32	U	1.0	ug/L							
Dibromomethane	0.37	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
Iodomethane	0.52	U	5.0	ug/L							
Methylene chloride	0.53	U	1.0	ug/L							
Styrene	0.26	U	1.0	ug/L							
Tetrachloroethene	0.36	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Trichlorofluoromethane	0.28	U	1.0	ug/L							
Vinyl acetate	0.98	U	5.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*53*			*ug/L*	*50.0*		*105*	*51-122*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9J17003 - EPA 5030B_MS

Blank (9J17003-BLK1) Continued Prepared: 10/17/2009 15:54 Analyzed: 10/18/2009 03:12

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*47*			*ug/L*	*50.0*		*94*	*68-117*			
Surrogate: Toluene-d8	*51*			*ug/L*	*50.0*		*102*	*69-110*			

LCS (9J17003-BS1) Prepared: 10/17/2009 15:54 Analyzed: 10/18/2009 04:09

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		99	75-133			
Benzene	20		1.0	ug/L	20.0		98	81-134			
Chlorobenzene	19		1.0	ug/L	20.0		96	83-117			
Toluene	21		1.0	ug/L	20.0		107	71-118			
Trichloroethene	19		1.0	ug/L	20.0		93	75-115			

Matrix Spike (9J17003-MS1) Prepared: 10/17/2009 15:54 Analyzed: 10/18/2009 04:37

Source: C912210-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0	0.24 U	115	75-133			
Benzene	21		1.0	ug/L	20.0	0.20 U	104	81-134			
Chlorobenzene	21		1.0	ug/L	20.0	0.27 U	103	83-117			
Toluene	23		1.0	ug/L	20.0	0.27 U	115	71-118			
Trichloroethene	20		1.0	ug/L	20.0	0.38 U	102	75-115			

Matrix Spike Dup (9J17003-MSD1) Prepared: 10/17/2009 15:54 Analyzed: 10/18/2009 05:06

Source: C912210-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	22		1.0	ug/L	20.0	0.24 U	108	75-133	6	20	
Benzene	21		1.0	ug/L	20.0	0.20 U	104	81-134	0.9	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	102	83-117	1	16	
Toluene	23		1.0	ug/L	20.0	0.27 U	114	71-118	1	17	
Trichloroethene	20		1.0	ug/L	20.0	0.38 U	102	75-115	0.4	18	

Batch 9J19027 - EPA 5030B_MS

Blank (9J19027-BLK1) Prepared: 10/19/2009 11:29 Analyzed: 10/19/2009 12:52

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.40	U	1.0	ug/L							
1,1,1-Trichloroethane	0.27	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.33	U	1.0	ug/L							
1,1,2-Trichloroethane	0.37	U	1.0	ug/L							
1,1-Dichloroethane	0.33	U	1.0	ug/L							
1,1-Dichloroethene	0.24	U	1.0	ug/L							
1,2,3-Trichloropropane	0.55	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.42	U	1.0	ug/L							
1,2-Dichlorobenzene	0.27	U	1.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9J19027 - EPA 5030B_MS

Blank (9J19027-BLK1) Continued Prepared: 10/19/2009 11:29 Analyzed: 10/19/2009 12:52

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dichloroethane	0.65	U	1.0	ug/L							
1,2-Dichloropropane	0.20	U	1.0	ug/L							
1,4-Dichlorobenzene	0.38	U	1.0	ug/L							
2-Butanone	1.0	U	5.0	ug/L							
2-Hexanone	0.69	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.5	U	5.0	ug/L							
Acrylonitrile	2.1	U	10	ug/L							
Benzene	0.20	U	1.0	ug/L							
Bromochloromethane	0.42	U	1.0	ug/L							
Bromodichloromethane	0.37	U	1.0	ug/L							
Bromoform	0.71	U	1.0	ug/L							
Bromomethane	0.49	U	1.0	ug/L							
Carbon disulfide	0.54	U	5.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
Chlorobenzene	0.27	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
Chloroform	0.20	U	1.0	ug/L							
Chloromethane	0.34	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L							
Dibromochloromethane	0.32	U	1.0	ug/L							
Dibromomethane	0.37	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
Iodomethane	0.52	U	5.0	ug/L							
Methylene chloride	0.53	U	1.0	ug/L							
Styrene	0.26	U	1.0	ug/L							
Tetrachloroethene	0.36	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Trichlorofluoromethane	0.28	U	1.0	ug/L							
Vinyl acetate	0.98	U	5.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*52*			*ug/L*	*50.0*		*105*	*51-122*			
Surrogate: Dibromofluoromethane	*47*			*ug/L*	*50.0*		*95*	*68-117*			
Surrogate: Toluene-d8	*52*			*ug/L*	*50.0*		*104*	*69-110*			

LCS (9J19027-BS1) Prepared: 10/19/2009 11:29 Analyzed: 10/19/2009 13:36

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		102	75-133			
Benzene	20		1.0	ug/L	20.0		99	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		99	83-117			
Toluene	22		1.0	ug/L	20.0		108	71-118			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9J19027 - EPA 5030B_MS

LCS (9J19027-BS1) Continued Prepared: 10/19/2009 11:29 Analyzed: 10/19/2009 13:36

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Trichloroethene	19		1.0	ug/L	20.0		96	75-115			

Matrix Spike (9J19027-MS1) Prepared: 10/19/2009 11:29 Analyzed: 10/19/2009 14:04

Source: C912148-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	22		1.0	ug/L	20.0	0.24 U	111	75-133			
Benzene	21		1.0	ug/L	20.0	0.20 U	103	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	100	83-117			
Toluene	22		1.0	ug/L	20.0	0.27 U	111	71-118			
Trichloroethene	20		1.0	ug/L	20.0	0.38 U	101	75-115			

Matrix Spike Dup (9J19027-MSD1) Prepared: 10/19/2009 11:29 Analyzed: 10/19/2009 14:32

Source: C912148-07

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	0.24 U	104	75-133	7	20	
Benzene	20		1.0	ug/L	20.0	0.20 U	99	81-134	5	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	98	83-117	2	16	
Toluene	22		1.0	ug/L	20.0	0.27 U	110	71-118	1	17	
Trichloroethene	19		1.0	ug/L	20.0	0.38 U	96	75-115	5	18	

Batch 9J19028 - EPA 5030B_MS

Blank (9J19028-BLK1) Prepared: 10/19/2009 14:42 Analyzed: 10/20/2009 01:30

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.40	U	1.0	ug/L							
1,1,1-Trichloroethane	0.27	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.33	U	1.0	ug/L							
1,1,2-Trichloroethane	0.37	U	1.0	ug/L							
1,1-Dichloroethane	0.33	U	1.0	ug/L							
1,1-Dichloroethene	0.24	U	1.0	ug/L							
1,2,3-Trichloropropane	0.55	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.42	U	1.0	ug/L							
1,2-Dichlorobenzene	0.27	U	1.0	ug/L							
1,2-Dichloroethane	0.65	U	1.0	ug/L							
1,2-Dichloropropane	0.20	U	1.0	ug/L							
1,4-Dichlorobenzene	0.38	U	1.0	ug/L							
2-Butanone	1.0	U	5.0	ug/L							
2-Hexanone	0.69	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.5	U	5.0	ug/L							
Acrylonitrile	2.1	U	10	ug/L							
Benzene	0.20	U	1.0	ug/L							
Bromochloromethane	0.42	U	1.0	ug/L							
Bromodichloromethane	0.37	U	1.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9J19028 - EPA 5030B_MS

Blank (9J19028-BLK1) Continued Prepared: 10/19/2009 14:42 Analyzed: 10/20/2009 01:30

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Bromoform	0.71	U	1.0	ug/L							
Bromomethane	0.49	U	1.0	ug/L							
Carbon disulfide	0.54	U	5.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
Chlorobenzene	0.27	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
Chloroform	0.20	U	1.0	ug/L							
Chloromethane	0.34	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L							
Dibromochloromethane	0.32	U	1.0	ug/L							
Dibromomethane	0.37	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
Iodomethane	0.52	U	5.0	ug/L							
Methylene chloride	0.53	U	1.0	ug/L							
Styrene	0.26	U	1.0	ug/L							
Tetrachloroethene	0.36	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Trichlorofluoromethane	0.28	U	1.0	ug/L							
Vinyl acetate	0.98	U	5.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*52*			*ug/L*	*50.0*		*103*	*51-122*			
Surrogate: Dibromofluoromethane	*48*			*ug/L*	*50.0*		*95*	*68-117*			
Surrogate: Toluene-d8	*51*			*ug/L*	*50.0*		*103*	*69-110*			

LCS (9J19028-BS1) Prepared: 10/19/2009 14:42 Analyzed: 10/20/2009 01:59

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	20		1.0	ug/L	20.0		100	81-134			
Chlorobenzene	19		1.0	ug/L	20.0		97	83-117			
Toluene	22		1.0	ug/L	20.0		108	71-118			
Trichloroethene	19		1.0	ug/L	20.0		95	75-115			

Matrix Spike (9J19028-MS1) Prepared: 10/19/2009 14:42 Analyzed: 10/20/2009 02:27

Source: C912148-08

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	0.24 U	107	75-133			
Benzene	21		1.0	ug/L	20.0	0.20 U	103	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	101	83-117			
Toluene	22		1.0	ug/L	20.0	0.27 U	112	71-118			
Trichloroethene	20		1.0	ug/L	20.0	0.38 U	100	75-115			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9J19028 - EPA 5030B_MS

Matrix Spike Dup (9J19028-MSD1) Prepared: 10/19/2009 14:42 Analyzed: 10/20/2009 02:55

Source: C912148-08

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	0.24 U	103	75-133	3	20	
Benzene	20		1.0	ug/L	20.0	0.20 U	98	81-134	4	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	98	83-117	3	16	
Toluene	21		1.0	ug/L	20.0	0.27 U	107	71-118	5	17	
Trichloroethene	20		1.0	ug/L	20.0	0.38 U	98	75-115	1	18	

Batch 9J20018 - EPA 5030B_MS

Blank (9J20018-BLK1) Prepared: 10/20/2009 11:43 Analyzed: 10/21/2009 02:33

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.40	U	1.0	ug/L							
1,1,1-Trichloroethane	0.27	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.33	U	1.0	ug/L							
1,1,2-Trichloroethane	0.37	U	1.0	ug/L							
1,1-Dichloroethane	0.33	U	1.0	ug/L							
1,1-Dichloroethene	0.24	U	1.0	ug/L							
1,2,3-Trichloropropane	0.55	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.42	U	1.0	ug/L							
1,2-Dichlorobenzene	0.27	U	1.0	ug/L							
1,2-Dichloroethane	0.65	U	1.0	ug/L							
1,2-Dichloropropane	0.20	U	1.0	ug/L							
1,4-Dichlorobenzene	0.38	U	1.0	ug/L							
2-Butanone	1.0	U	5.0	ug/L							
2-Hexanone	0.69	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.5	U	5.0	ug/L							
Acrylonitrile	2.1	U	10	ug/L							
Benzene	0.20	U	1.0	ug/L							
Bromochloromethane	0.42	U	1.0	ug/L							
Bromodichloromethane	0.37	U	1.0	ug/L							
Bromoform	0.71	U	1.0	ug/L							
Bromomethane	0.49	U	1.0	ug/L							
Carbon disulfide	0.54	U	5.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
Chlorobenzene	0.27	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
Chloroform	0.20	U	1.0	ug/L							
Chloromethane	0.34	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L							
Dibromochloromethane	0.32	U	1.0	ug/L							
Dibromomethane	0.37	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
Iodomethane	0.52	U	5.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9J20018 - EPA 5030B_MS

Blank (9J20018-BLK1) Continued Prepared: 10/20/2009 11:43 Analyzed: 10/21/2009 02:33

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Methylene chloride	0.53	U	1.0	ug/L							
Styrene	0.26	U	1.0	ug/L							
Tetrachloroethene	0.36	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Trichlorofluoromethane	0.28	U	1.0	ug/L							
Vinyl acetate	0.98	U	5.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*52*			*ug/L*	*50.0*		*104*	*51-122*			
Surrogate: Dibromofluoromethane	*51*			*ug/L*	*50.0*		*101*	*68-117*			
Surrogate: Toluene-d8	*53*			*ug/L*	*50.0*		*105*	*69-110*			

LCS (9J20018-BS1) Prepared: 10/20/2009 11:43 Analyzed: 10/21/2009 03:01

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		103	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	21		1.0	ug/L	20.0		105	71-118			
Trichloroethene	19		1.0	ug/L	20.0		95	75-115			

Matrix Spike (9J20018-MS1) Prepared: 10/20/2009 11:43 Analyzed: 10/21/2009 03:30

Source: C912170-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0	0.24 U	118	75-133			
Benzene	23		1.0	ug/L	20.0	0.87	110	81-134			
Chlorobenzene	21		1.0	ug/L	20.0	0.27 U	105	83-117			
Toluene	23		1.0	ug/L	20.0	0.27 U	115	71-118			
Trichloroethene	22		1.0	ug/L	20.0	0.38 U	108	75-115			

Matrix Spike Dup (9J20018-MSD1) Prepared: 10/20/2009 11:43 Analyzed: 10/21/2009 03:58

Source: C912170-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0	0.24 U	115	75-133	2	20	
Benzene	22		1.0	ug/L	20.0	0.87	105	81-134	4	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	101	83-117	4	16	
Toluene	22		1.0	ug/L	20.0	0.27 U	111	71-118	4	17	
Trichloroethene	21		1.0	ug/L	20.0	0.38 U	103	75-115	5	18	

Metals by EPA 6000/7000 Series Methods - Quality Control

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 9J15016 - EPA 245.1

Blank (9J15016-BLK1) Prepared: 10/15/2009 10:08 Analyzed: 10/15/2009 15:32

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.0540	U	0.200	ug/L							

LCS (9J15016-BS1) Prepared: 10/15/2009 10:08 Analyzed: 10/15/2009 15:35

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.88		0.200	ug/L	5.00		98	85-115			

Matrix Spike (9J15016-MS1) Prepared: 10/15/2009 10:08 Analyzed: 10/15/2009 15:49

Source: C911289-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.88		0.200	ug/L	5.00	0.0540 U	98	85-115			

Matrix Spike Dup (9J15016-MSD1) Prepared: 10/15/2009 10:08 Analyzed: 10/15/2009 15:52

Source: C911289-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.77		0.200	ug/L	5.00	0.0540 U	95	85-115	2	15	

Post Spike (9J15016-PS1) Prepared: 10/15/2009 10:08 Analyzed: 10/15/2009 15:55

Source: C911289-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.26		0.200	ug/L	5.00	-0.0129	86	75-125			

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

Batch 9J15023 - EPA 3005A

Blank (9J15023-BLK1) Prepared: 10/15/2009 12:08 Analyzed: 10/28/2009 10:29

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							
Iron	22.0	U	50.0	ug/L							
Lead	1.90	U	10.0	ug/L							
Manganese	1.10	U	10.0	ug/L							
Nickel	1.80	U	10.0	ug/L							
Selenium	**3.74**	**J**	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

QUALITY CONTROL

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

Batch 9J15023 - EPA 3005A

LCS (9J15023-BS1) Prepared: 10/15/2009 12:08 Analyzed: 10/28/2009 10:32

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1020		10.0	ug/L	1000		102	80-120			
Barium	1040		10.0	ug/L	1000		104	80-120			
Beryllium	531		1.00	ug/L	500		106	80-120			
Cadmium	511		1.00	ug/L	500		102	80-120			
Chromium	1040		10.0	ug/L	1000		104	80-120			
Cobalt	1020		10.0	ug/L	1000		102	80-120			
Copper	521		10.0	ug/L	500		104	80-120			
Iron	10300		50.0	ug/L	10000		103	80-120			
Lead	1030		10.0	ug/L	1000		103	80-120			
Manganese	513		10.0	ug/L	500		103	80-120			
Nickel	1030		10.0	ug/L	1000		103	80-120			
Selenium	1050	B	10.0	ug/L	1000		105	80-120			
Silver	109		10.0	ug/L	100		109	80-120			
Vanadium	528		10.0	ug/L	500		106	80-120			
Zinc	1040		10.0	ug/L	1000		104	80-120			

Matrix Spike (9J15023-MS1) Prepared: 10/15/2009 12:08 Analyzed: 10/28/2009 10:49

Source: C911287-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1010		10.0	ug/L	1000	5.57	101	75-125			
Barium	1130		10.0	ug/L	1000	76.2	105	75-125			
Beryllium	526		1.00	ug/L	500	0.607	105	75-125			
Cadmium	508		1.00	ug/L	500	0.360 U	102	75-125			
Chromium	1040		10.0	ug/L	1000	6.19	104	75-125			
Cobalt	1230		10.0	ug/L	1000	195	104	75-125			
Copper	522		10.0	ug/L	500	4.35	103	75-125			
Iron	27700		50.0	ug/L	10000	16200	114	75-125			
Lead	1020		10.0	ug/L	1000	1.90 U	102	75-125			
Manganese	7620		10.0	ug/L	500	7110	102	75-125			
Nickel	1040		10.0	ug/L	1000	17.9	102	75-125			
Selenium	1040	B	10.0	ug/L	1000	2.70 U	104	75-125			
Silver	110		10.0	ug/L	100	1.90 U	110	75-125			
Vanadium	530		10.0	ug/L	500	1.68	106	75-125			
Zinc	1040		10.0	ug/L	1000	14.8	103	75-125			

Matrix Spike Dup (9J15023-MSD1) Prepared: 10/15/2009 12:08 Analyzed: 10/28/2009 10:52

Source: C911287-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1030		10.0	ug/L	1000	5.57	102	75-125	1	20	
Barium	1140		10.0	ug/L	1000	76.2	106	75-125	1	20	
Beryllium	535		1.00	ug/L	500	0.607	107	75-125	2	20	
Cadmium	514		1.00	ug/L	500	0.360 U	103	75-125	1	20	
Chromium	1060		10.0	ug/L	1000	6.19	105	75-125	1	20	
Cobalt	1250		10.0	ug/L	1000	195	105	75-125	1	20	
Copper	527		10.0	ug/L	500	4.35	104	75-125	1	20	

QUALITY CONTROL

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

Batch 9J15023 - EPA 3005A

Matrix Spike Dup (9J15023-MSD1) Continued Prepared: 10/15/2009 12:08 Analyzed: 10/28/2009 10:52

Source: C911287-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Iron	28000		50.0	ug/L	10000	16200	118	75-125	1	20	
Lead	1030		10.0	ug/L	1000	1.90 U	103	75-125	1	20	
Manganese	7680		10.0	ug/L	500	7110	115	75-125	0.8	20	
Nickel	1050		10.0	ug/L	1000	17.9	104	75-125	1	20	
Selenium	1050	B	10.0	ug/L	1000	2.70 U	105	75-125	1	20	
Silver	112		10.0	ug/L	100	1.90 U	112	75-125	1	20	
Vanadium	536		10.0	ug/L	500	1.68	107	75-125	1	20	
Zinc	1050		10.0	ug/L	1000	14.8	104	75-125	1	20	

Post Spike (9J15023-PS1) Prepared: 10/15/2009 12:08 Analyzed: 10/28/2009 10:55

Source: C911287-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.01		0.0100	mg/L	1.00	0.00557	100	80-120			
Barium	1.13		0.0100	mg/L	1.00	0.0762	105	80-120			
Beryllium	0.523		0.00100	mg/L	0.500	0.000607	104	80-120			
Cadmium	0.509		0.00100	mg/L	0.500	0.000171	102	80-120			
Chromium	1.04		0.0100	mg/L	1.00	0.00619	104	80-120			
Cobalt	1.23		0.0100	mg/L	1.00	0.195	104	80-120			
Copper	0.521		0.0100	mg/L	0.500	0.00435	103	80-120			
Iron	27.5		0.0500	mg/L	10.0	16.2	112	80-120			
Lead	1.02		0.0100	mg/L	1.00	0.00106	102	80-120			
Manganese	7.55		0.0100	mg/L	0.500	7.11	87	80-120			
Nickel	1.04		0.0100	mg/L	1.00	0.0179	103	80-120			
Selenium	1.04	B	0.0100	mg/L	1.00	-0.000511	104	80-120			
Silver	0.113		0.0100	mg/L	0.100	0.00117	112	80-120			
Vanadium	0.530		0.0100	mg/L	0.500	0.00168	106	80-120			
Zinc	1.05		0.0100	mg/L	1.00	0.0148	103	80-120			

Batch 9J15024 - EPA 3005A

Blank (9J15024-BLK1) Prepared: 10/15/2009 12:10 Analyzed: 10/21/2009 13:04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.0730	U	2.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (9J15024-BS1) Prepared: 10/15/2009 12:10 Analyzed: 10/21/2009 13:08

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.4		2.00	ug/L	25.0		98	80-120			
Thallium	26.7		1.00	ug/L	25.0		107	80-120			

Matrix Spike (9J15024-MS1) Prepared: 10/15/2009 12:10 Analyzed: 10/21/2009 13:15

Source: C911287-01

QUALITY CONTROL

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

Batch 9J15024 - EPA 3005A

Matrix Spike (9J15024-MS1) Continued Prepared: 10/15/2009 12:10 Analyzed: 10/21/2009 13:15

Source: C911287-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	23.5		2.00	ug/L	25.0	1.50	88	75-125			
Thallium	26.4		1.00	ug/L	25.0	0.128	105	75-125			

Matrix Spike Dup (9J15024-MSD1) Prepared: 10/15/2009 12:10 Analyzed: 10/21/2009 13:18

Source: C911287-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	23.4		2.00	ug/L	25.0	1.50	87	75-125	0.6	20	
Thallium	26.5		1.00	ug/L	25.0	0.128	106	75-125	0.4	20	

Post Spike (9J15024-PS1) Prepared: 10/15/2009 12:10 Analyzed: 10/21/2009 13:22

Source: C911287-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	26.8		2.00	ug/L	25.0	1.50	101	80-120			
Thallium	27.3		1.00	ug/L	25.0	0.128	109	80-120			

Batch 9J15028 - EPA 3005A

Blank (9J15028-BLK1) Prepared: 10/15/2009 13:56 Analyzed: 10/27/2009 15:45

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	**0.105**	**J**	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	2.70	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (9J15028-BS1) Prepared: 10/15/2009 13:56 Analyzed: 10/27/2009 15:48

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1020		10.0	ug/L	1000		102	80-120			
Barium	1090		10.0	ug/L	1000		109	80-120			
Beryllium	554	B	1.00	ug/L	500		111	80-120			
Cadmium	528		1.00	ug/L	500		106	80-120			
Chromium	1110		10.0	ug/L	1000		111	80-120			
Cobalt	1070		10.0	ug/L	1000		107	80-120			
Copper	556		10.0	ug/L	500		111	80-120			

QUALITY CONTROL

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

Batch 9J15028 - EPA 3005A

LCS (9J15028-BS1) Continued Prepared: 10/15/2009 13:56 Analyzed: 10/27/2009 15:48

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	1040		10.0	ug/L	1000		104	80-120			
Nickel	1070		10.0	ug/L	1000		107	80-120			
Selenium	1030		10.0	ug/L	1000		103	80-120			
Silver	110		10.0	ug/L	100		110	80-120			
Vanadium	566		10.0	ug/L	500		113	80-120			
Zinc	1070		10.0	ug/L	1000		107	80-120			

Matrix Spike (9J15028-MS1) Prepared: 10/15/2009 13:56 Analyzed: 10/27/2009 15:54

Source: C911016-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1020		10.0	ug/L	1000	2.80 U	102	75-125			
Barium	1080		10.0	ug/L	1000	19.1	106	75-125			
Beryllium	543	B	1.00	ug/L	500	0.628	109	75-125			
Cadmium	515		1.00	ug/L	500	0.487	103	75-125			
Chromium	1070		10.0	ug/L	1000	1.02	107	75-125			
Cobalt	1040		10.0	ug/L	1000	1.49	104	75-125			
Copper	535		10.0	ug/L	500	1.60 U	107	75-125			
Lead	1040		10.0	ug/L	1000	1.90 U	104	75-125			
Nickel	1040		10.0	ug/L	1000	1.80 U	104	75-125			
Selenium	1060		10.0	ug/L	1000	2.70 U	106	75-125			
Silver	110		10.0	ug/L	100	1.90 U	110	75-125			
Vanadium	545		10.0	ug/L	500	1.40 U	109	75-125			
Zinc	1050		10.0	ug/L	1000	3.80 U	105	75-125			

Matrix Spike Dup (9J15028-MSD1) Prepared: 10/15/2009 13:56 Analyzed: 10/27/2009 16:16

Source: C911016-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1020		10.0	ug/L	1000	2.80 U	102	75-125	0.5	20	
Barium	1080		10.0	ug/L	1000	19.1	106	75-125	0.6	20	
Beryllium	538	B	1.00	ug/L	500	0.628	108	75-125	0.9	20	
Cadmium	509		1.00	ug/L	500	0.487	102	75-125	1	20	
Chromium	1060		10.0	ug/L	1000	1.02	106	75-125	0.6	20	
Cobalt	1030		10.0	ug/L	1000	1.49	103	75-125	0.9	20	
Copper	534		10.0	ug/L	500	1.60 U	107	75-125	0.2	20	
Lead	1030		10.0	ug/L	1000	1.90 U	103	75-125	0.6	20	
Nickel	1030		10.0	ug/L	1000	1.80 U	103	75-125	0.9	20	
Selenium	1050		10.0	ug/L	1000	2.70 U	105	75-125	0.9	20	
Silver	110		10.0	ug/L	100	1.90 U	110	75-125	0.4	20	
Vanadium	543		10.0	ug/L	500	1.40 U	109	75-125	0.4	20	
Zinc	1030		10.0	ug/L	1000	3.80 U	103	75-125	2	20	

Post Spike (9J15028-PS1) Prepared: 10/15/2009 13:56 Analyzed: 10/27/2009 16:19

Source: C911016-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

QUALITY CONTROL

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

Batch 9J15028 - EPA 3005A

Post Spike (9J15028-PS1) Continued Prepared: 10/15/2009 13:56 Analyzed: 10/27/2009 16:19

Source: C911016-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.07		0.0100	mg/L	1.00	0.00238	106	80-120			
Barium	1.13		0.0100	mg/L	1.00	0.0191	111	80-120			
Beryllium	0.571	B	0.00100	mg/L	0.500	0.000628	114	80-120			
Cadmium	0.534		0.00100	mg/L	0.500	0.000487	107	80-120			
Chromium	1.12		0.0100	mg/L	1.00	0.00102	111	80-120			
Cobalt	1.08		0.0100	mg/L	1.00	0.00149	108	80-120			
Copper	0.558		0.0100	mg/L	0.500	3.95E-5	112	80-120			
Lead	1.08		0.0100	mg/L	1.00	0.000593	108	80-120			
Nickel	1.08		0.0100	mg/L	1.00	0.000880	108	80-120			
Selenium	1.10		0.0100	mg/L	1.00	-0.00156	110	80-120			
Silver	0.106		0.0100	mg/L	0.100	0.000858	106	80-120			
Vanadium	0.568		0.0100	mg/L	0.500	0.000683	113	80-120			
Zinc	1.09		0.0100	mg/L	1.00	0.00302	109	80-120			

Batch 9J15029 - EPA 3005A

Blank (9J15029-BLK1) Prepared: 10/15/2009 14:04 Analyzed: 10/21/2009 11:18

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.0730	U	2.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (9J15029-BS1) Prepared: 10/15/2009 14:04 Analyzed: 10/21/2009 10:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.8		2.00	ug/L	25.0		99	80-120			
Thallium	27.1		1.00	ug/L	25.0		108	80-120			

Matrix Spike (9J15029-MS1) Prepared: 10/15/2009 14:04 Analyzed: 10/21/2009 10:08

Source: C911287-21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	26.0		2.00	ug/L	25.0	1.88	96	75-125			
Thallium	26.6		1.00	ug/L	25.0	0.110 U	107	75-125			

Matrix Spike Dup (9J15029-MSD1) Prepared: 10/15/2009 14:04 Analyzed: 10/21/2009 10:11

Source: C911287-21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.6		2.00	ug/L	25.0	1.88	95	75-125	1	20	
Thallium	26.9		1.00	ug/L	25.0	0.110 U	108	75-125	1	20	

Post Spike (9J15029-PS1) Prepared: 10/15/2009 14:04 Analyzed: 10/21/2009 10:15

Source: C911287-21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

QUALITY CONTROL

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

Batch 9J15029 - EPA 3005A

Post Spike (9J15029-PS1) Continued Prepared: 10/15/2009 14:04 Analyzed: 10/21/2009 10:15

Source: C911287-21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	26.4		2.00	ug/L	25.0	1.88	98	80-120			
Thallium	26.9		1.00	ug/L	25.0	0.0980	107	80-120			

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.
J-01	Result is estimated due to positive results in the associated method blank.

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 211
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 2

Client Name: S&ME, Inc. (SM002)	Project Number: 1356-07-004
Address: 9751 Southern Pine Blvd.	Project Name/Desc: Lincoln County LF - App Is
City/ST/Zip: Charlotte, NC 28273	PO # / Billing Info: 47789
Tel: (704) 523-4726 Fax: (704) 525-3953	Reporting Contact: Julie Petersen
Sampler(s) Name, Affiliation (Print): David Reimer / Brandon Bowling / S&ME	Billing Contact: Accounts Payable
Sampler(s) Signature: David Reimer	Facility # (if required)

Requested Analyses: 8260B Appendix 1; Ag,As,Ba,Be,Cd,Co,Cr,Cu,Fe,Mn,Ni,Pb,Sb,Se,Tl,V,Zn; Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn; Hg

Requested Turnaround Times
Note: Rush requests subject to acceptance by the facility
___ Standard
___ Expedited
Due ___/___/___

Lab Workorder: C911287

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Fe,Mn,Ni,Pb,Sb,Se,Tl,V,Zn	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn	Hg							Sample Comments
	5503-MW1A	10-13-09	0850	Grab	GW	4	X	X		X							
	~~5503-MW8~~				~~GW~~	~~4~~	~~X~~		~~X~~								Not Sampled
	5503-MW9	10-13-09	0920	Grab	GW	4	X		X								
	5503-MW10R	10-14-09	1240	Grab	GW	4	X		X								
	5503-MW12	10-14-09	1300	Grab	GW	4	X		X								
	5503-MW13	10-14-09	1405	Grab	GW	4	X		X								
	5503-MW14	10-14-09	1410	Grab	GW	4	X		X								
	5503-MW15	10-14-09	1440	Grab	GW	4	X		X								
	5503-MW16R	10-14-09	1355	Grab	GW	4	X		X								
	5503-MW17	10-14-09	1055	Grab	GW	4	X		X								
	5503-MW18	10-14-09	1420	Grab	GW	4	X		X								
	5503-MW19	10-14-09	1430	Grab	GW	4	X		X								

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
JK	9-24-09	David Reimer	10-14-09 (1915)	Briana Gregory	10-15-09 9:30
Comments		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: C-13 Blue 2.2°C C-35 2.4°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

Matrix: GW-Groundwater SO-Soil 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

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 211
Jacksonville, FL 32216-6069
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102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

Page 2 of 2

Client Name: S&ME, Inc. (SM002)	Project Number: 1356-07-004
Address: 9751 Southern Pine Blvd.	Project Name/Desc: Lincoln County LF - App Is
City/ST/Zip: Charlotte, NC 28273	PO # / Billing Info: 47789
Tel: (704) 523-4726 Fax: (704) 525-3953	Reporting Contact: Julie Petersen
Sampler(s) Name, Affiliation (Print): David Rumer / Brian W. Wilson / S&ME	Billing Contact: Accounts Payable
Sampler(s) Signature: David Rumer	Facility # (if required)

Requested Analyses: 8260B Appendix 1; Ag,As,Ba,Be,Cd,Co,Cr,Cu,Fe,Mn,Ni,Pb,Sb,Se,Tl,V,Zn; Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn; Hg

Requested Turnaround Times

Note: Rush requests subject to acceptance by the facility

___ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C911287

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1		Ag,As,Ba,Be,Cd,Co,Cr,Cu,Fe,Mn,Ni,Pb,Sb,Se,Tl,V,Zn								Sample Comments
	5503-MW20	10-14-09	1345	Grab	GW	4	X		X								
	5503-MW21	10-14-09	1510	Grab	GW	4	X		X								
	5503-MW24	10-14-09	1250	Grab	GW	4	X		X								
	5503-MW25	10-13-09	0925	Grab	GW	4	X		X								
	5503-MW25A	10-13-09	0930	Grab	GW	4	X		X								
	5503-MW32R	10-14-09	1500	Grab	GW	4	X		X								
	5503-MW33	10-14-09	1450	Grab	GW	4	X		X								
	5503-MW33A	10-14-09	1445	Grab	GW	4	X		X								
	5503-MW34	10-13-09	0900	Grab	GW	4	X		X								
	5503-MW35	10-13-09	0910	Grab	GW	4	X		X								
	5503-MW35A	10-13-09	0915	Grab	GW	4	X		X								
	5503-Trip Blank	10-14-09	—	Grab	WA	2	X										

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
JK	9-24-09	David Rumer	10-14-09 (1900)	Briana Gregory	10-15-09 9:30
Comments		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: C-13 BLUE 2.2°C C-35 2.4°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

Matrix: GW Groundwater SD Soil SE Sediment SW Surface Water WW Wastewater A Air O Other (detail in comments)

Preservation: H Ice N 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

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

Thursday, October 29, 2009

S&ME, Inc. (SM002)

Attn: Julie Petersen

9751 Southern Pine Blvd.

Charlotte, NC 28273

RE: Laboratory Results for
Project Number: 1356-07-004, Project Name/Desc: Lincoln County LF - C&D
ENCO Workorder: C911288

Dear Julie Petersen,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, October 15, 2009.

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

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 45.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 5503-MW26 **Lab ID:** C911288-01 **Sampled:** 10/14/09 11:45 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	11/11/09	10/18/09 07:24	10/19/2009 09:21
EPA 310.2	10/28/09	10/18/09 07:13	10/18/2009 08:56
EPA 6010C	04/12/10	10/16/09 09:21	10/28/2009 12:23
EPA 6020A	04/12/10	10/15/09 14:04	10/21/2009 11:29
EPA 7470A	11/11/09	10/15/09 10:06	10/15/2009 18:09
EPA 8260B	10/28/09	10/20/09 10:31	10/20/2009 16:23
SM 2540C	10/21/09	10/19/09 15:36	10/19/2009 15:36

Client ID: 5503-MW27 **Lab ID:** C911288-02 **Sampled:** 10/14/09 11:55 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	11/11/09	10/18/09 07:24	10/19/2009 09:38
EPA 310.2	10/28/09	10/18/09 07:13	10/18/2009 08:56
EPA 6010C	04/12/10	10/16/09 09:21	10/28/2009 12:52
EPA 6020A	04/12/10	10/15/09 14:04	10/21/2009 11:33
EPA 7470A	11/11/09	10/15/09 10:06	10/15/2009 18:19
EPA 8260B	10/28/09	10/20/09 10:31	10/20/2009 17:06
SM 2540C	10/21/09	10/19/09 15:36	10/19/2009 15:36

Client ID: 5503-MW28 **Lab ID:** C911288-03 **Sampled:** 10/14/09 12:10 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	11/11/09	10/18/09 07:24	10/19/2009 09:55
EPA 310.2	10/28/09	10/18/09 07:13	10/18/2009 08:57
EPA 6010C	04/12/10	10/16/09 09:21	10/28/2009 12:55
EPA 6020A	04/12/10	10/15/09 14:04	10/21/2009 11:36
EPA 7470A	11/11/09	10/15/09 10:06	10/15/2009 18:21
EPA 8260B	10/28/09	10/20/09 10:31	10/20/2009 17:35
SM 2540C	10/21/09	10/19/09 15:36	10/19/2009 15:36

Client ID: 5503-MW29 **Lab ID:** C911288-04 **Sampled:** 10/14/09 11:00 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	11/11/09	10/18/09 07:24	10/19/2009 10:11
EPA 310.2	10/28/09	10/18/09 07:13	10/18/2009 08:58
EPA 6010C	04/12/10	10/16/09 09:21	10/28/2009 12:58
EPA 6020A	04/12/10	10/15/09 14:04	10/21/2009 11:40
EPA 7470A	11/11/09	10/15/09 10:06	10/15/2009 18:26
EPA 8260B	10/28/09	10/20/09 10:31	10/20/2009 18:03
SM 2540C	10/21/09	10/19/09 15:36	10/19/2009 15:36

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Client ID: 5503-MW30	Lab ID: C911288-05	Sampled: 10/14/09 11:15	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	11/11/09	10/18/09 07:24	10/19/2009 10:28
EPA 310.2	10/28/09	10/18/09 07:13	10/18/2009 08:59
EPA 6010C	04/12/10	10/16/09 09:21	10/28/2009 13:01
EPA 6020A	04/12/10	10/15/09 14:04	10/21/2009 11:43
EPA 7470A	11/11/09	10/15/09 10:06	10/15/2009 18:29
EPA 8260B	10/28/09	10/20/09 10:31	10/20/2009 18:31
SM 2540C	10/21/09	10/19/09 15:36	10/19/2009 15:36

Client ID: 5503-MW31	Lab ID: C911288-06	Sampled: 10/14/09 11:20	Received: 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	11/11/09	10/18/09 07:24	10/19/2009 10:45
EPA 310.2	10/28/09	10/18/09 07:13	10/18/2009 09:00
EPA 6010C	04/12/10	10/16/09 09:21	10/28/2009 13:04
EPA 6020A	04/12/10	10/15/09 14:04	10/21/2009 11:47
EPA 7470A	11/11/09	10/15/09 10:06	10/15/2009 18:32
EPA 8260B	10/28/09	10/20/09 10:31	10/20/2009 18:59
SM 2540C	10/21/09	10/19/09 15:36	10/19/2009 15:36

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 5503-MW26 **Lab ID: C911288-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	2.87	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	56.8	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.561	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Cadmium - Total	0.377	J	1	0.360	1.00	1	ug/L	EPA 6010C	
Chloride	3.3	J	1	0.018	5.0	NE	mg/L	EPA 300.0	
Chromium - Total	4.21	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.34	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Iron - Total	367		1	22.0	50.0	300	ug/L	EPA 6010C	
Manganese - Total	9.41	J	1	1.10	10.0	50	ug/L	EPA 6010C	
Nickel - Total	2.19	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Sulfate as SO4	3.6	J	1	0.078	5.0	250	mg/L	EPA 300.0	
Total Alkalinity	22		1	8.3	15	NE	mg/L	EPA 310.2	
Total Dissolved Solids	78		1	10	10	NE	mg/L	SM 2540C	
Vanadium - Total	1.54	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	30.9		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW27 **Lab ID: C911288-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetone	2.5	J	1	1.5	5.0	100	ug/L	EPA 8260B	
Barium - Total	265		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	0.47	J	1	0.20	1.0	1	ug/L	EPA 8260B	
Beryllium - Total	0.601	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Cadmium - Total	0.370	J	1	0.360	1.00	1	ug/L	EPA 6010C	
Chloride	10		1	0.018	5.0	NE	mg/L	EPA 300.0	
Chromium - Total	1.51	J	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	0.55	J	1	0.36	1.0	5	ug/L	EPA 8260B	
Cobalt - Total	7.13	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Ethylbenzene	0.57	J	1	0.20	1.0	1	ug/L	EPA 8260B	
Iron - Total	225	J	1	22.0	50.0	300	ug/L	EPA 6010C	
Manganese - Total	493		1	1.10	10.0	50	ug/L	EPA 6010C	
Nickel - Total	9.81	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Sulfate as SO4	5.7	J	1	0.078	5.0	250	mg/L	EPA 300.0	
Total Alkalinity	43		1	8.3	15	NE	mg/L	EPA 310.2	
Total Dissolved Solids	120		1	10	10	NE	mg/L	SM 2540C	
Vanadium - Total	5.08	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Xylenes (Total)	0.74	J	1	0.40	1.0	5	ug/L	EPA 8260B	
Zinc - Total	31.8		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW28 **Lab ID: C911288-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetone	4.2	J	1	1.5	5.0	100	ug/L	EPA 8260B	
Barium - Total	50.5	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.167	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chloride	2.7	J	1	0.018	5.0	NE	mg/L	EPA 300.0	
Chromium - Total	2.84	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.27	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Iron - Total	469		1	22.0	50.0	300	ug/L	EPA 6010C	
Manganese - Total	20.5	J	1	1.10	10.0	50	ug/L	EPA 6010C	
Nickel - Total	3.00	J	1	1.80	10.0	50	ug/L	EPA 6010C	

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Client ID: 5503-MW28				Lab ID: C911288-03					
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
Sulfate as SO4	1.9	J	1	0.078	5.0	250	mg/L	EPA 300.0	
Tetrachloroethene	2.6		1	0.36	1.0	1	ug/L	EPA 8260B	
Total Alkalinity	8.4	J	1	8.3	15	NE	mg/L	EPA 310.2	
Zinc - Total	16.1		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW29				Lab ID: C911288-04					
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
Antimony - Total	0.0900	J	1	0.0730	2.00	6	ug/L	EPA 6020A	
Arsenic - Total	5.05	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	101		1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	2.89		1	0.100	1.00	1	ug/L	EPA 6010C	
Chloride	3.7	J	1	0.018	5.0	NE	mg/L	EPA 300.0	
Chromium - Total	40.4		1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	28.5		1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	73.2		1	1.60	10.0	10	ug/L	EPA 6010C	
Iron - Total	70600		1	22.0	50.0	300	ug/L	EPA 6010C	
Lead - Total	16.6		1	1.90	10.0	10	ug/L	EPA 6010C	
Manganese - Total	136		1	1.10	10.0	50	ug/L	EPA 6010C	
Nickel - Total	52.1		1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	5.98	J	1	2.70	10.0	10	ug/L	EPA 6010C	
Sulfate as SO4	8.2	J	1	0.078	5.0	250	mg/L	EPA 300.0	
Thallium - Total	0.347	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Total Alkalinity	39		1	8.3	15	NE	mg/L	EPA 310.2	
Total Dissolved Solids	110		1	10	10	NE	mg/L	SM 2540C	
Vanadium - Total	56.4		1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	73.1		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW30				Lab ID: C911288-05					
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
Barium - Total	42.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chloride	2.8	J	1	0.018	5.0	NE	mg/L	EPA 300.0	
Chromium - Total	1.39	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Iron - Total	719		1	22.0	50.0	300	ug/L	EPA 6010C	
Manganese - Total	23.3	J	1	1.10	10.0	50	ug/L	EPA 6010C	
Nickel - Total	2.03	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Sulfate as SO4	3.8	J	1	0.078	5.0	250	mg/L	EPA 300.0	
Total Alkalinity	11	J	1	8.3	15	NE	mg/L	EPA 310.2	
Total Dissolved Solids	92		1	10	10	NE	mg/L	SM 2540C	
Zinc - Total	16.8		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-MW31				Lab ID: C911288-06					
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
Barium - Total	8.80	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.118	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chloride	3.0	J	1	0.018	5.0	NE	mg/L	EPA 300.0	
Chromium - Total	1.47	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Copper - Total	1.75	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Iron - Total	5740		1	22.0	50.0	300	ug/L	EPA 6010C	
Manganese - Total	32.5	J	1	1.10	10.0	50	ug/L	EPA 6010C	
Nickel - Total	2.75	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Sulfate as SO4	10	J	1	0.078	5.0	250	mg/L	EPA 300.0	

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Client ID:	5503-MW31				Lab ID:	C911288-06			
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
Total Dissolved Solids	70		1	10	10	NE	mg/L	SM 2540C	
Zinc - Total	5.65	J	1	3.80	10.0	10	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: 5503-MW26
Matrix: Ground Water
Project: Lincoln County LF - C&D

Lab Sample ID: C911288-01
Sampled: 10/14/09 11:45
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911288

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 16:23	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/20/09 16:23	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/20/09 16:23	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/20/09 16:23	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/20/09 16:23	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/20/09 16:23	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/20/09 16:23	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/20/09 16:23	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/20/09 16:23	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/20/09 16:23	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/20/09 16:23	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/20/09 16:23	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/20/09 16:23	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/20/09 16:23	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/20/09 16:23	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/20/09 16:23	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/20/09 16:23	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/20/09 16:23	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/20/09 16:23	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/20/09 16:23	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/20/09 16:23	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/20/09 16:23	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/20/09 16:23	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/20/09 16:23	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 16:23	JKG	

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Description:	5503-MW26	**Lab Sample ID:**	C911288-01	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:45	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/20/09 16:23	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/20/09 16:23	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 16:23	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*9J20012*	*EPA 8260B*	*10/20/09 16:23*	*JKG*	
Dibromofluoromethane	*49*	*1*	*50.0*	*97 %*	*68-117*	*9J20012*	*EPA 8260B*	*10/20/09 16:23*	*JKG*	
Toluene-d8	*51*	*1*	*50.0*	*102 %*	*69-110*	*9J20012*	*EPA 8260B*	*10/20/09 16:23*	*JKG*	

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Description:	5503-MW26	**Lab Sample ID:**	C911288-01	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:45	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0540	U	ug/L	1	0.0540	0.200	0.2	EPA 7470A	10/15/09 18:09	NLH	

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Description:	5503-MW26	**Lab Sample ID:**	C911288-01	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:45	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 11:29	VLO	
Arsenic [7440-38-2] ^	**2.87**	J	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 12:23	JDH	
Barium [7440-39-3] ^	**56.8**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 12:23	JDH	
Beryllium [7440-41-7] ^	**0.561**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 12:23	JDH	
Cadmium [7440-43-9] ^	**0.377**	J	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 12:23	JDH	
Chromium [7440-47-3] ^	**4.21**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 12:23	JDH	
Cobalt [7440-48-4] ^	**1.34**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 12:23	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 12:23	JDH	
Iron [7439-89-6] ^	**367**		ug/L	1	22.0	50.0	300	EPA 6010C	10/28/09 12:23	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:23	JDH	
Manganese [7439-96-5] ^	**9.41**	J	ug/L	1	1.10	10.0	50	EPA 6010C	10/28/09 12:23	JDH	
Nickel [7440-02-0] ^	**2.19**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 12:23	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 12:23	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:23	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 11:29	VLO	
Vanadium [7440-62-2] ^	**1.54**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 12:23	JDH	
Zinc [7440-66-6] ^	**30.9**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 12:23	JDH	

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Description:	5503-MW26	**Lab Sample ID:**	C911288-01	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:45	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Chloride [16887-00-6] ^	**3.3**	J	mg/L	1	0.018	5.0	NE	EPA 300.0	10/19/09 09:21	PEV	
Sulfate as SO4 [14808-79-8] ^	**3.6**	J	mg/L	1	0.078	5.0	250	EPA 300.0	10/19/09 09:21	PEV	
Total Alkalinity [471-34-1] ^	**22**		mg/L	1	8.3	15	NE	EPA 310.2	10/18/09 08:56	PEV	
Total Dissolved Solids [ECL-0156] ^	**78**		mg/L	1	10	10	NE	SM 2540C	10/19/09 15:36	JOC	

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

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Description: 5503-MW27
Matrix: Ground Water
Project: Lincoln County LF - C&D

Lab Sample ID: C911288-02
Sampled: 10/14/09 11:55
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911288

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 17:06	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/20/09 17:06	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/20/09 17:06	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/20/09 17:06	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/20/09 17:06	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/20/09 17:06	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/20/09 17:06	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/20/09 17:06	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/20/09 17:06	JKG	
Acetone [67-64-1] ^	**2.5**	J	ug/L	1	1.5	5.0	100	EPA 8260B	10/20/09 17:06	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/20/09 17:06	JKG	
Benzene [71-43-2] ^	**0.47**	J	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/20/09 17:06	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/20/09 17:06	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/20/09 17:06	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/20/09 17:06	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/20/09 17:06	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/20/09 17:06	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/20/09 17:06	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	**0.55**	J	ug/L	1	0.36	1.0	5	EPA 8260B	10/20/09 17:06	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/20/09 17:06	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/20/09 17:06	JKG	
Ethylbenzene [100-41-4] ^	**0.57**	J	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/20/09 17:06	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/20/09 17:06	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/20/09 17:06	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 17:06	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/20/09 17:06	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/20/09 17:06	JKG	

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Description:	5503-MW27	**Lab Sample ID:**	C911288-02	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:55	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	**0.74**	J	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 17:06	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*103 %*	*51-122*	*9J20012*	*EPA 8260B*	*10/20/09 17:06*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*9J20012*	*EPA 8260B*	*10/20/09 17:06*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*69-110*	*9J20012*	*EPA 8260B*	*10/20/09 17:06*	*JKG*	

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Description:	5503-MW27	**Lab Sample ID:**	C911288-02	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:55	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0540	U	ug/L	1	0.0540	0.200	0.2	EPA 7470A	10/15/09 18:19	NLH	

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Description: 5503-MW27
Matrix: Ground Water
Project: Lincoln County LF - C&D

Lab Sample ID: C911288-02
Sampled: 10/14/09 11:55
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911288

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 11:33	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 12:52	JDH	
Barium [7440-39-3] ^	**265**		ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 12:52	JDH	
Beryllium [7440-41-7] ^	**0.601**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 12:52	JDH	
Cadmium [7440-43-9] ^	**0.370**	J	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 12:52	JDH	
Chromium [7440-47-3] ^	**1.51**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 12:52	JDH	
Cobalt [7440-48-4] ^	**7.13**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 12:52	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 12:52	JDH	
Iron [7439-89-6] ^	**225**	J	ug/L	1	22.0	50.0	300	EPA 6010C	10/28/09 12:52	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:52	JDH	
Manganese [7439-96-5] ^	**493**		ug/L	1	1.10	10.0	50	EPA 6010C	10/28/09 12:52	JDH	
Nickel [7440-02-0] ^	**9.81**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 12:52	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 12:52	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:52	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 11:33	VLO	
Vanadium [7440-62-2] ^	**5.08**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 12:52	JDH	
Zinc [7440-66-6] ^	**31.8**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 12:52	JDH	

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Description:	5503-MW27	**Lab Sample ID:**	C911288-02	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:55	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Chloride [16887-00-6] ^	**10**		mg/L	1	0.018	5.0	NE	EPA 300.0	10/19/09 09:38	PEV	
Sulfate as SO4 [14808-79-8] ^	**5.7**	J	mg/L	1	0.078	5.0	250	EPA 300.0	10/19/09 09:38	PEV	
Total Alkalinity [471-34-1] ^	**43**		mg/L	1	8.3	15	NE	EPA 310.2	10/18/09 08:56	PEV	
Total Dissolved Solids [ECL-0156] ^	**120**		mg/L	1	10	10	NE	SM 2540C	10/19/09 15:36	JOC	

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

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Description: 5503-MW28
Matrix: Ground Water
Project: Lincoln County LF - C&D

Lab Sample ID: C911288-03
Sampled: 10/14/09 12:10
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911288

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 17:35	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/20/09 17:35	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/20/09 17:35	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/20/09 17:35	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/20/09 17:35	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/20/09 17:35	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/20/09 17:35	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/20/09 17:35	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/20/09 17:35	JKG	
Acetone [67-64-1] ^	**4.2**	J	ug/L	1	1.5	5.0	100	EPA 8260B	10/20/09 17:35	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/20/09 17:35	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/20/09 17:35	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/20/09 17:35	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/20/09 17:35	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/20/09 17:35	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/20/09 17:35	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/20/09 17:35	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/20/09 17:35	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/20/09 17:35	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/20/09 17:35	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/20/09 17:35	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/20/09 17:35	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
Tetrachloroethene [127-18-4] ^	**2.6**		ug/L	1	0.36	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/20/09 17:35	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/20/09 17:35	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 17:35	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/20/09 17:35	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/20/09 17:35	JKG	

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Description:	5503-MW28	**Lab Sample ID:**	C911288-03	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 12:10	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 17:35	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*53*	*1*	*50.0*	*106 %*	*51-122*	*9J20012*	*EPA 8260B*	*10/20/09 17:35*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*97 %*	*68-117*	*9J20012*	*EPA 8260B*	*10/20/09 17:35*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*69-110*	*9J20012*	*EPA 8260B*	*10/20/09 17:35*	*JKG*	

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Description:	5503-MW28	**Lab Sample ID:**	C911288-03	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 12:10	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0540	U	ug/L	1	0.0540	0.200	0.2	EPA 7470A	10/15/09 18:21	NLH	

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Description:	5503-MW28	**Lab Sample ID:**	C911288-03	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 12:10	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 11:36	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 12:55	JDH	
Barium [7440-39-3] ^	**50.5**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 12:55	JDH	
Beryllium [7440-41-7] ^	**0.167**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 12:55	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 12:55	JDH	
Chromium [7440-47-3] ^	**2.84**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 12:55	JDH	
Cobalt [7440-48-4] ^	**1.27**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 12:55	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 12:55	JDH	
Iron [7439-89-6] ^	**469**		ug/L	1	22.0	50.0	300	EPA 6010C	10/28/09 12:55	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:55	JDH	
Manganese [7439-96-5] ^	**20.5**	J	ug/L	1	1.10	10.0	50	EPA 6010C	10/28/09 12:55	JDH	
Nickel [7440-02-0] ^	**3.00**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 12:55	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 12:55	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:55	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 11:36	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 12:55	JDH	
Zinc [7440-66-6] ^	**16.1**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 12:55	JDH	

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Description:	5503-MW28	**Lab Sample ID:**	C911288-03	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 12:10	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Chloride [16887-00-6] ^	**2.7**	J	mg/L	1	0.018	5.0	NE	EPA 300.0	10/19/09 09:55	PEV	
Sulfate as SO4 [14808-79-8] ^	**1.9**	J	mg/L	1	0.078	5.0	250	EPA 300.0	10/19/09 09:55	PEV	
Total Alkalinity [471-34-1] ^	**8.4**	J	mg/L	1	8.3	15	NE	EPA 310.2	10/18/09 08:57	PEV	
Total Dissolved Solids [ECL-0156] ^	10	U	mg/L	1	10	10	NE	SM 2540C	10/19/09 15:36	JOC	

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

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Description: 5503-MW29
Matrix: Ground Water
Project: Lincoln County LF - C&D

Lab Sample ID: C911288-04
Sampled: 10/14/09 11:00
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911288

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 18:03	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/20/09 18:03	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/20/09 18:03	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/20/09 18:03	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/20/09 18:03	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/20/09 18:03	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/20/09 18:03	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/20/09 18:03	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/20/09 18:03	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/20/09 18:03	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/20/09 18:03	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/20/09 18:03	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/20/09 18:03	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/20/09 18:03	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/20/09 18:03	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/20/09 18:03	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/20/09 18:03	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/20/09 18:03	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/20/09 18:03	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/20/09 18:03	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/20/09 18:03	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/20/09 18:03	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/20/09 18:03	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/20/09 18:03	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 18:03	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/20/09 18:03	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/20/09 18:03	JKG	

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Description:	5503-MW29	**Lab Sample ID:**	C911288-04	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:00	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 18:03	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*105 %*	*51-122*	*9J20012*	*EPA 8260B*	*10/20/09 18:03*	*JKG*	
Dibromofluoromethane	*50*	*1*	*50.0*	*100 %*	*68-117*	*9J20012*	*EPA 8260B*	*10/20/09 18:03*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*103 %*	*69-110*	*9J20012*	*EPA 8260B*	*10/20/09 18:03*	*JKG*	

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Description:	5503-MW29	**Lab Sample ID:**	C911288-04	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:00	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0540	U	ug/L	1	0.0540	0.200	0.2	EPA 7470A	10/15/09 18:26	NLH	

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Description:	5503-MW29	**Lab Sample ID:**	C911288-04	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:00	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	**0.0900**	J	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 11:40	VLO	
Arsenic [7440-38-2] ^	**5.05**	J	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 12:58	JDH	
Barium [7440-39-3] ^	**101**		ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 12:58	JDH	
Beryllium [7440-41-7] ^	**2.89**		ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 12:58	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 12:58	JDH	
Chromium [7440-47-3] ^	**40.4**		ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 12:58	JDH	
Cobalt [7440-48-4] ^	**28.5**		ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 12:58	JDH	
Copper [7440-50-8] ^	**73.2**		ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 12:58	JDH	
Iron [7439-89-6] ^	**70600**		ug/L	1	22.0	50.0	300	EPA 6010C	10/28/09 12:58	JDH	
Lead [7439-92-1] ^	**16.6**		ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:58	JDH	
Manganese [7439-96-5] ^	**136**		ug/L	1	1.10	10.0	50	EPA 6010C	10/28/09 12:58	JDH	
Nickel [7440-02-0] ^	**52.1**		ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 12:58	JDH	
Selenium [7782-49-2] ^	**5.98**	J	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 12:58	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 12:58	JDH	
Thallium [7440-28-0] ^	**0.347**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 11:40	VLO	
Vanadium [7440-62-2] ^	**56.4**		ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 12:58	JDH	
Zinc [7440-66-6] ^	**73.1**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 12:58	JDH	

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Description:	5503-MW29	**Lab Sample ID:**	C911288-04	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:00	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Chloride [16887-00-6] ^	**3.7**	J	mg/L	1	0.018	5.0	NE	EPA 300.0	10/19/09 10:11	PEV	
Sulfate as SO4 [14808-79-8] ^	**8.2**	J	mg/L	1	0.078	5.0	250	EPA 300.0	10/19/09 10:11	PEV	
Total Alkalinity [471-34-1] ^	**39**		mg/L	1	8.3	15	NE	EPA 310.2	10/18/09 08:58	PEV	
Total Dissolved Solids [ECL-0156] ^	**110**		mg/L	1	10	10	NE	SM 2540C	10/19/09 15:36	JOC	

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

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Description: 5503-MW30
Matrix: Ground Water
Project: Lincoln County LF - C&D

Lab Sample ID: C911288-05
Sampled: 10/14/09 11:15
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911288

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 18:31	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/20/09 18:31	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/20/09 18:31	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/20/09 18:31	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/20/09 18:31	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/20/09 18:31	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/20/09 18:31	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/20/09 18:31	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/20/09 18:31	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/20/09 18:31	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/20/09 18:31	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/20/09 18:31	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/20/09 18:31	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/20/09 18:31	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/20/09 18:31	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/20/09 18:31	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/20/09 18:31	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/20/09 18:31	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/20/09 18:31	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/20/09 18:31	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/20/09 18:31	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/20/09 18:31	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/20/09 18:31	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/20/09 18:31	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 18:31	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/20/09 18:31	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/20/09 18:31	JKG	

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Description:	5503-MW30	**Lab Sample ID:**	C911288-05	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:15	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 18:31	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*105 %*	*51-122*	*9J20012*	*EPA 8260B*	*10/20/09 18:31*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*97 %*	*68-117*	*9J20012*	*EPA 8260B*	*10/20/09 18:31*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*105 %*	*69-110*	*9J20012*	*EPA 8260B*	*10/20/09 18:31*	*JKG*	

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Description:	5503-MW30	**Lab Sample ID:**	C911288-05	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:15	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0540	U	ug/L	1	0.0540	0.200	0.2	EPA 7470A	10/15/09 18:29	NLH	

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Description: 5503-MW30
Matrix: Ground Water
Project: Lincoln County LF - C&D

Lab Sample ID: C911288-05
Sampled: 10/14/09 11:15
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911288

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 11:43	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 13:01	JDH	
Barium [7440-39-3] ^	**42.6**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 13:01	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 13:01	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 13:01	JDH	
Chromium [7440-47-3] ^	**1.39**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 13:01	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 13:01	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 13:01	JDH	
Iron [7439-89-6] ^	**719**		ug/L	1	22.0	50.0	300	EPA 6010C	10/28/09 13:01	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 13:01	JDH	
Manganese [7439-96-5] ^	**23.3**	J	ug/L	1	1.10	10.0	50	EPA 6010C	10/28/09 13:01	JDH	
Nickel [7440-02-0] ^	**2.03**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 13:01	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 13:01	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 13:01	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 11:43	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 13:01	JDH	
Zinc [7440-66-6] ^	**16.8**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 13:01	JDH	

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Description:	5503-MW30	**Lab Sample ID:**	C911288-05	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:15	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Chloride [16887-00-6] ^	**2.8**	J	mg/L	1	0.018	5.0	NE	EPA 300.0	10/19/09 10:28	PEV	
Sulfate as SO4 [14808-79-8] ^	**3.8**	J	mg/L	1	0.078	5.0	250	EPA 300.0	10/19/09 10:28	PEV	
Total Alkalinity [471-34-1] ^	**11**	J	mg/L	1	8.3	15	NE	EPA 310.2	10/18/09 08:59	PEV	
Total Dissolved Solids [ECL-0156] ^	**92**		mg/L	1	10	10	NE	SM 2540C	10/19/09 15:36	JOC	

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

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Description: 5503-MW31
Matrix: Ground Water
Project: Lincoln County LF - C&D

Lab Sample ID: C911288-06
Sampled: 10/14/09 11:20
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911288

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 18:59	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/20/09 18:59	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/20/09 18:59	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/20/09 18:59	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/20/09 18:59	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/20/09 18:59	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/20/09 18:59	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/20/09 18:59	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/20/09 18:59	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/20/09 18:59	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/20/09 18:59	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/20/09 18:59	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/20/09 18:59	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/20/09 18:59	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/20/09 18:59	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/20/09 18:59	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/20/09 18:59	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/20/09 18:59	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/20/09 18:59	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/20/09 18:59	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/20/09 18:59	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/20/09 18:59	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/20/09 18:59	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/20/09 18:59	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 18:59	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/20/09 18:59	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/20/09 18:59	JKG	

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Description:	5503-MW31	**Lab Sample ID:**	C911288-06	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:20	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 18:59	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*105 %*	*51-122*	*9J20012*	*EPA 8260B*	*10/20/09 18:59*	*JKG*	
Dibromofluoromethane	*50*	*1*	*50.0*	*100 %*	*68-117*	*9J20012*	*EPA 8260B*	*10/20/09 18:59*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*103 %*	*69-110*	*9J20012*	*EPA 8260B*	*10/20/09 18:59*	*JKG*	

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Description:	5503-MW31	**Lab Sample ID:**	C911288-06	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:20	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0540	U	ug/L	1	0.0540	0.200	0.2	EPA 7470A	10/15/09 18:32	NLH	

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Description: 5503-MW31
Matrix: Ground Water
Project: Lincoln County LF - C&D

Lab Sample ID: C911288-06
Sampled: 10/14/09 11:20
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911288

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 11:47	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 13:04	JDH	
Barium [7440-39-3] ^	**8.80**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 13:04	JDH	
Beryllium [7440-41-7] ^	**0.118**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 13:04	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 13:04	JDH	
Chromium [7440-47-3] ^	**1.47**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 13:04	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 13:04	JDH	
Copper [7440-50-8] ^	**1.75**	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 13:04	JDH	
Iron [7439-89-6] ^	**5740**		ug/L	1	22.0	50.0	300	EPA 6010C	10/28/09 13:04	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 13:04	JDH	
Manganese [7439-96-5] ^	**32.5**	J	ug/L	1	1.10	10.0	50	EPA 6010C	10/28/09 13:04	JDH	
Nickel [7440-02-0] ^	**2.75**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 13:04	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 13:04	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 13:04	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 11:47	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 13:04	JDH	
Zinc [7440-66-6] ^	**5.65**	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 13:04	JDH	

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Description:	5503-MW31	**Lab Sample ID:**	C911288-06	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 11:20	**Work Order:**	C911288
Project:	Lincoln County LF - C&D	**Sampled By:**	David Reames/Brian Wilso		

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Chloride [16887-00-6] ^	**3.0**	J	mg/L	1	0.018	5.0	NE	EPA 300.0	10/19/09 10:45	PEV	
Sulfate as SO4 [14808-79-8] ^	**10**	J	mg/L	1	0.078	5.0	250	EPA 300.0	10/19/09 10:45	PEV	
Total Alkalinity [471-34-1] ^	8.3	U	mg/L	1	8.3	15	NE	EPA 310.2	10/18/09 09:00	PEV	
Total Dissolved Solids [ECL-0156] ^	**70**		mg/L	1	10	10	NE	SM 2540C	10/19/09 15:36	JOC	

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 9J20012 - EPA 5030B_MS

Blank (9J20012-BLK1) Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 14:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.40	U	1.0	ug/L							
1,1,1-Trichloroethane	0.27	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.33	U	1.0	ug/L							
1,1,2-Trichloroethane	0.37	U	1.0	ug/L							
1,1-Dichloroethane	0.33	U	1.0	ug/L							
1,1-Dichloroethene	0.24	U	1.0	ug/L							
1,2,3-Trichloropropane	0.55	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.42	U	1.0	ug/L							
1,2-Dichlorobenzene	0.27	U	1.0	ug/L							
1,2-Dichloroethane	0.65	U	1.0	ug/L							
1,2-Dichloropropane	0.20	U	1.0	ug/L							
1,4-Dichlorobenzene	0.38	U	1.0	ug/L							
2-Butanone	1.0	U	5.0	ug/L							
2-Hexanone	0.69	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.5	U	5.0	ug/L							
Acrylonitrile	2.1	U	10	ug/L							
Benzene	0.20	U	1.0	ug/L							
Bromochloromethane	0.42	U	1.0	ug/L							
Bromodichloromethane	0.37	U	1.0	ug/L							
Bromoform	0.71	U	1.0	ug/L							
Bromomethane	0.49	U	1.0	ug/L							
Carbon disulfide	0.54	U	5.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
Chlorobenzene	0.27	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
Chloroform	0.20	U	1.0	ug/L							
Chloromethane	0.34	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L							
Dibromochloromethane	0.32	U	1.0	ug/L							
Dibromomethane	0.37	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
Iodomethane	0.52	U	5.0	ug/L							
Methylene chloride	0.53	U	1.0	ug/L							
Styrene	0.26	U	1.0	ug/L							
Tetrachloroethene	0.36	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Trichlorofluoromethane	0.28	U	1.0	ug/L							
Vinyl acetate	0.98	U	5.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*52*			*ug/L*	*50.0*		*104*	*51-122*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9J20012 - EPA 5030B_MS

Blank (9J20012-BLK1) Continued Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 14:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*48*			*ug/L*	*50.0*		*97*	*68-117*			
Surrogate: Toluene-d8	*51*			*ug/L*	*50.0*		*102*	*69-110*			

LCS (9J20012-BS1) Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 14:29

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		102	75-133			
Benzene	20		1.0	ug/L	20.0		100	81-134			
Chlorobenzene	19		1.0	ug/L	20.0		97	83-117			
Toluene	21		1.0	ug/L	20.0		106	71-118			
Trichloroethene	20		1.0	ug/L	20.0		99	75-115			

Matrix Spike (9J20012-MS1) Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 14:58

Source: C912210-03

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	0.24 U	104	75-133			
Benzene	20		1.0	ug/L	20.0	0.20 U	99	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	98	83-117			
Toluene	21		1.0	ug/L	20.0	0.27 U	107	71-118			
Trichloroethene	19		1.0	ug/L	20.0	0.38 U	96	75-115			

Matrix Spike Dup (9J20012-MSD1) Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 15:26

Source: C912210-03

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	0.24 U	99	75-133	5	20	
Benzene	19		1.0	ug/L	20.0	0.20 U	95	81-134	4	17	
Chlorobenzene	19		1.0	ug/L	20.0	0.27 U	94	83-117	4	16	
Toluene	21		1.0	ug/L	20.0	0.27 U	103	71-118	4	17	
Trichloroethene	19		1.0	ug/L	20.0	0.38 U	93	75-115	3	18	

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 9J15014 - EPA 245.1

Blank (9J15014-BLK1) Prepared: 10/15/2009 10:06 Analyzed: 10/15/2009 17:04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.0540	U	0.200	ug/L							

LCS (9J15014-BS1) Prepared: 10/15/2009 10:06 Analyzed: 10/15/2009 17:07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.02		0.200	ug/L	5.00		100	85-115			

Matrix Spike (9J15014-MS1) Prepared: 10/15/2009 10:06 Analyzed: 10/15/2009 17:14

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 9J15014 - EPA 245.1

Matrix Spike (9J15014-MS1) Continued Prepared: 10/15/2009 10:06 Analyzed: 10/15/2009 17:14

Source: C910732-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.81		0.200	ug/L	5.00	0.0540 U	96	85-115			

Matrix Spike Dup (9J15014-MSD1) Prepared: 10/15/2009 10:06 Analyzed: 10/15/2009 17:18

Source: C910732-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.92		0.200	ug/L	5.00	0.0540 U	98	85-115	2	15	

Post Spike (9J15014-PS1) Prepared: 10/15/2009 10:06 Analyzed: 10/15/2009 17:21

Source: C910732-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	3.95		0.200	ug/L	5.00	-0.0253	80	75-125			

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

Batch 9J15029 - EPA 3005A

Blank (9J15029-BLK1) Prepared: 10/15/2009 14:04 Analyzed: 10/21/2009 11:18

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.0730	U	2.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (9J15029-BS1) Prepared: 10/15/2009 14:04 Analyzed: 10/21/2009 10:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.8		2.00	ug/L	25.0		99	80-120			
Thallium	27.1		1.00	ug/L	25.0		108	80-120			

Matrix Spike (9J15029-MS1) Prepared: 10/15/2009 14:04 Analyzed: 10/21/2009 10:08

Source: C911287-21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	26.0		2.00	ug/L	25.0	1.88	96	75-125			
Thallium	26.6		1.00	ug/L	25.0	0.110 U	107	75-125			

Matrix Spike Dup (9J15029-MSD1) Prepared: 10/15/2009 14:04 Analyzed: 10/21/2009 10:11

Source: C911287-21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.6		2.00	ug/L	25.0	1.88	95	75-125	1	20	
Thallium	26.9		1.00	ug/L	25.0	0.110 U	108	75-125	1	20	

Post Spike (9J15029-PS1) Prepared: 10/15/2009 14:04 Analyzed: 10/21/2009 10:15

QUALITY CONTROL

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

Batch 9J15029 - EPA 3005A

Post Spike (9J15029-PS1) Continued Prepared: 10/15/2009 14:04 Analyzed: 10/21/2009 10:15

Source: C911287-21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	26.4		2.00	ug/L	25.0	1.88	98	80-120			
Thallium	26.9		1.00	ug/L	25.0	0.0980	107	80-120			

Batch 9J16005 - EPA 3005A

Blank (9J16005-BLK1) Prepared: 10/16/2009 09:21 Analyzed: 10/28/2009 12:17

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							
Iron	22.0	U	50.0	ug/L							
Lead	1.90	U	10.0	ug/L							
Manganese	1.10	U	10.0	ug/L							
Nickel	1.80	U	10.0	ug/L							
Selenium	2.70	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (9J16005-BS1) Prepared: 10/16/2009 09:21 Analyzed: 10/28/2009 12:20

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1020		10.0	ug/L	1000		102	80-120			
Barium	1030		10.0	ug/L	1000		103	80-120			
Beryllium	529		1.00	ug/L	500		106	80-120			
Cadmium	509		1.00	ug/L	500		102	80-120			
Chromium	1040		10.0	ug/L	1000		104	80-120			
Cobalt	1020		10.0	ug/L	1000		102	80-120			
Copper	554		10.0	ug/L	500		111	80-120			
Iron	10200		50.0	ug/L	10000		102	80-120			
Lead	1030		10.0	ug/L	1000		103	80-120			
Manganese	511		10.0	ug/L	500		102	80-120			
Nickel	1020		10.0	ug/L	1000		102	80-120			
Selenium	1050		10.0	ug/L	1000		105	80-120			
Silver	109		10.0	ug/L	100		109	80-120			
Vanadium	527		10.0	ug/L	500		105	80-120			
Zinc	1040		10.0	ug/L	1000		104	80-120			

Matrix Spike (9J16005-MS1) Prepared: 10/16/2009 09:21 Analyzed: 10/28/2009 12:26

Source: C911288-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

QUALITY CONTROL

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

Batch 9J16005 - EPA 3005A

Matrix Spike (9J16005-MS1) Continued Prepared: 10/16/2009 09:21 Analyzed: 10/28/2009 12:26

Source: C911288-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1040		10.0	ug/L	1000	2.87	103	75-125			
Barium	1150		10.0	ug/L	1000	56.8	109	75-125			
Beryllium	543		1.00	ug/L	500	0.561	109	75-125			
Cadmium	529		1.00	ug/L	500	0.377	106	75-125			
Chromium	1090		10.0	ug/L	1000	4.21	108	75-125			
Cobalt	1060		10.0	ug/L	1000	1.34	106	75-125			
Copper	539		10.0	ug/L	500	1.60 U	108	75-125			
Iron	11100		50.0	ug/L	10000	367	107	75-125			
Lead	1050		10.0	ug/L	1000	1.90 U	105	75-125			
Manganese	543		10.0	ug/L	500	9.41	107	75-125			
Nickel	1070		10.0	ug/L	1000	2.19	106	75-125			
Selenium	1070		10.0	ug/L	1000	2.70 U	107	75-125			
Silver	112		10.0	ug/L	100	1.90 U	112	75-125			
Vanadium	550		10.0	ug/L	500	1.54	110	75-125			
Zinc	1110		10.0	ug/L	1000	30.9	108	75-125			

Matrix Spike Dup (9J16005-MSD1) Prepared: 10/16/2009 09:21 Analyzed: 10/28/2009 12:28

Source: C911288-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1040		10.0	ug/L	1000	2.87	104	75-125	0.5	20	
Barium	1140		10.0	ug/L	1000	56.8	108	75-125	0.4	20	
Beryllium	546		1.00	ug/L	500	0.561	109	75-125	0.5	20	
Cadmium	526		1.00	ug/L	500	0.377	105	75-125	0.6	20	
Chromium	1080		10.0	ug/L	1000	4.21	108	75-125	0.3	20	
Cobalt	1060		10.0	ug/L	1000	1.34	105	75-125	0.2	20	
Copper	538		10.0	ug/L	500	1.60 U	108	75-125	0.1	20	
Iron	11100		50.0	ug/L	10000	367	107	75-125	0.3	20	
Lead	1050		10.0	ug/L	1000	1.90 U	105	75-125	0.1	20	
Manganese	541		10.0	ug/L	500	9.41	106	75-125	0.3	20	
Nickel	1060		10.0	ug/L	1000	2.19	106	75-125	0.3	20	
Selenium	1070		10.0	ug/L	1000	2.70 U	107	75-125	0.1	20	
Silver	112		10.0	ug/L	100	1.90 U	112	75-125	0.07	20	
Vanadium	548		10.0	ug/L	500	1.54	109	75-125	0.3	20	
Zinc	1100		10.0	ug/L	1000	30.9	107	75-125	0.2	20	

Post Spike (9J16005-PS1) Prepared: 10/16/2009 09:21 Analyzed: 10/28/2009 12:31

Source: C911288-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.01		0.0100	mg/L	1.00	0.00287	100	80-120			
Barium	1.11		0.0100	mg/L	1.00	0.0568	105	80-120			
Beryllium	0.529		0.00100	mg/L	0.500	0.000561	106	80-120			
Cadmium	0.512		0.00100	mg/L	0.500	0.000377	102	80-120			
Chromium	1.05		0.0100	mg/L	1.00	0.00421	105	80-120			
Cobalt	1.03		0.0100	mg/L	1.00	0.00134	103	80-120			
Copper	0.522		0.0100	mg/L	0.500	0.000617	104	80-120			

QUALITY CONTROL

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

Batch 9J16005 - EPA 3005A

Post Spike (9J16005-PS1) Continued Prepared: 10/16/2009 09:21 Analyzed: 10/28/2009 12:31

Source: C911288-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Iron	10.7		0.0500	mg/L	10.0	0.367	103	80-120			
Lead	1.02		0.0100	mg/L	1.00	0.000799	102	80-120			
Manganese	0.527		0.0100	mg/L	0.500	0.00941	103	80-120			
Nickel	1.03		0.0100	mg/L	1.00	0.00219	103	80-120			
Selenium	1.03		0.0100	mg/L	1.00	0.000888	103	80-120			
Silver	0.112		0.0100	mg/L	0.100	0.000978	111	80-120			
Vanadium	0.532		0.0100	mg/L	0.500	0.00154	106	80-120			
Zinc	1.08		0.0100	mg/L	1.00	0.0309	104	80-120			

Classical Chemistry Parameters - Quality Control

Batch 9J18002 - NO PREP

Blank (9J18002-BLK1) Prepared: 10/18/2009 07:13 Analyzed: 10/18/2009 08:44

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity	8.3	U	15	mg/L							

LCS (9J18002-BS1) Prepared: 10/18/2009 07:13 Analyzed: 10/18/2009 08:45

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity	100		15	mg/L	100		102	80-120			

Matrix Spike (9J18002-MS1) Prepared: 10/18/2009 07:13 Analyzed: 10/18/2009 08:49

Source: C911016-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity	96		15	mg/L	100	3.5	93	80-120			

Matrix Spike Dup (9J18002-MSD1) Prepared: 10/18/2009 07:13 Analyzed: 10/18/2009 08:50

Source: C911016-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity	99		15	mg/L	100	3.5	96	80-120	3	25	

Batch 9J18006 - NO PREP

Blank (9J18006-BLK1) Prepared: 10/18/2009 07:24 Analyzed: 10/19/2009 07:58

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloride	0.018	U	5.0	mg/L							
Sulfate as SO4	0.078	U	5.0	mg/L							

LCS (9J18006-BS1) Prepared: 10/18/2009 07:24 Analyzed: 10/19/2009 08:15

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 9J18006 - NO PREP

LCS (9J18006-BS1) Continued Prepared: 10/18/2009 07:24 Analyzed: 10/19/2009 08:15

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloride	45		5.0	mg/L	50.0		90	90-110			
Sulfate as SO4	47		5.0	mg/L	50.0		94	90-110			

Matrix Spike (9J18006-MS1) Prepared: 10/18/2009 07:24 Analyzed: 10/19/2009 08:31

Source: C911288-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloride	48		5.0	mg/L	50.0	3.3	88	80-120			
Sulfate as SO4	50		5.0	mg/L	50.0	3.6	93	80-120			

Matrix Spike Dup (9J18006-MSD1) Prepared: 10/18/2009 07:24 Analyzed: 10/19/2009 08:48

Source: C911288-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chloride	47		5.0	mg/L	50.0	3.3	88	80-120	0.8	15	
Sulfate as SO4	50		5.0	mg/L	50.0	3.6	92	80-120	0.9	15	

Batch 9J19006 - NO PREP

Blank (9J19006-BLK1) Prepared & Analyzed: 10/19/2009 15:36

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Dissolved Solids	10	U	10	mg/L							

LCS (9J19006-BS1) Prepared & Analyzed: 10/19/2009 15:36

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Dissolved Solids	310		10	mg/L	300		102	90-110			

Duplicate (9J19006-DUP1) Prepared & Analyzed: 10/19/2009 15:36

Source: C911288-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Dissolved Solids	72		10	mg/L		78			8	25	

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 211
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: S&ME, Inc. (SM002)	Project Number: 1356-07-004
Address: 9751 Southern Pine Blvd.	Project Name/Desc: Lincoln County LF - C&D
City/ST/Zip: Charlotte, NC 28273	PO #/Billing Info: 47789
Tel: (704) 523-4726 Fax: (704) 525-3953	Reporting Contact: Julie Petersen
Sampler(s) Name, Affiliation (Print): David Reames / Brian Wilson / S&ME	Billing Contact: Accounts Payable
Sampler(s) Signature: David Reames	Facility # (if required):

Requested Analyses: 8260B Appendix 1; Ag Ag Ba Be Cd Co Cr Cu Fe Mn Ni Pb Sb Se Tl V Zn; Alk/Acidity 310.2 Chloride 300 TDS SM2540C; Hg; Sulfate 300

Requested Turnaround Times

Note: Rush requests subject to acceptance by the facility

___ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C911288

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1	Ag Ag Ba Be Cd Co Cr Cu Fe Mn Ni Pb Sb Se Tl V Zn	Alk/Acidity 310.2 Chloride 300 TDS SM2540C	Hg	Sulfate 300						Sample Comments
	5503-MW26	10-14-09	1145	G/AB	GW	6	X	X	X	X	X						
	5503-MW27	10-14-09	1155	G/AB	GW	6	X	X	X	X	X						
	5503-MW28	10-14-09	1210	G/AB	GW	6	X	X	X	X	X						
	5503-MW29	10-14-09	1100	G/AB	GW	6	X	X	X	X	X						
	5503-MW30	10-14-09	1115	G/AB	GW	6	X	X	X	X	X						
	5503-MW31	10-14-09	1120	G/AB	GW	6	X	X	X	X	X						

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
CCB	09/24/09	David Reames	10-14-09 (1900)	Briana Hegazy	10-15-09 9:30
Comments		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: C-35 C-13 1.1°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

Matrix: GW Groundwater SO Soil SE Sediment SW Surface Water WW Wastewater A Air O Other (detail in comments)

Preservation: I Ice H HCl N HNO3 S H2SO4 ND 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.

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

Thursday, October 29, 2009

S&ME, Inc. (SM002)

Attn: Julie Petersen

9751 Southern Pine Blvd.

Charlotte, NC 28273

RE: Laboratory Results for
Project Number: 1356-07-004, Project Name/Desc: Lincoln County LF - Surface Waters
ENCO Workorder: C911289

Dear Julie Petersen,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, October 15, 2009.

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

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 27.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: 5503-SW1 **Lab ID:** C911289-01 **Sampled:** 10/14/09 11:30 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/16/09 09:21	10/28/2009 13:07
EPA 6020A	04/12/10	10/16/09 09:23	10/21/2009 12:29
EPA 7470A	11/11/09	10/15/09 10:08	10/15/2009 15:46
EPA 8260B	10/28/09	10/20/09 10:31	10/20/2009 19:28

Client ID: 5503-SW2 **Lab ID:** C911289-02 **Sampled:** 10/14/09 13:15 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/16/09 09:21	10/28/2009 13:10
EPA 6020A	04/12/10	10/16/09 09:23	10/21/2009 12:33
EPA 7470A	11/11/09	10/15/09 10:08	10/15/2009 16:29
EPA 8260B	10/28/09	10/20/09 10:31	10/20/2009 19:56

Client ID: 5503-SW4 **Lab ID:** C911289-03 **Sampled:** 10/14/09 16:05 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/16/09 09:21	10/28/2009 13:13
EPA 6020A	04/12/10	10/16/09 09:23	10/21/2009 11:57
EPA 7470A	11/11/09	10/15/09 10:08	10/15/2009 16:32
EPA 8260B	10/28/09	10/20/09 10:31	10/20/2009 20:25

Client ID: 5503-SW5 **Lab ID:** C911289-04 **Sampled:** 10/14/09 15:45 **Received:** 10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	04/12/10	10/16/09 09:21	10/28/2009 13:25
EPA 6020A	04/12/10	10/16/09 09:23	10/21/2009 12:36
EPA 7470A	11/11/09	10/15/09 10:08	10/15/2009 16:35
EPA 8260B	10/28/09	10/20/09 10:31	10/20/2009 20:53

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 5503-SW1 **Lab ID: C911289-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.224	J	1	0.0730	2.00	6	ug/L	EPA 6020A	
Barium - Total	44.9	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	3.59	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.22	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	2.29	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Iron - Total	3160		1	22.0	50.0	300	ug/L	EPA 6010C	
Lead - Total	2.23	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Manganese - Total	256		1	1.10	10.0	50	ug/L	EPA 6010C	
Nickel - Total	3.35	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	3.87	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	27.1		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-SW2 **Lab ID: C911289-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetone	3.4	J	1	1.5	5.0	100	ug/L	EPA 8260B	
Barium - Total	29.2	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	2.29	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Iron - Total	1170		1	22.0	50.0	300	ug/L	EPA 6010C	
Manganese - Total	86.3		1	1.10	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	2.07	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	5.31	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-SW4 **Lab ID: C911289-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	25.1	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Iron - Total	984		1	22.0	50.0	300	ug/L	EPA 6010C	
Manganese - Total	68.7		1	1.10	10.0	50	ug/L	EPA 6010C	

Client ID: 5503-SW5 **Lab ID: C911289-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	49.9	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.162	J	1	0.100	1.00	1	ug/L	EPA 6010C	
Chromium - Total	5.46	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	6.78	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	2.57	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Iron - Total	8700		1	22.0	50.0	300	ug/L	EPA 6010C	
Lead - Total	3.71	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Manganese - Total	341		1	1.10	10.0	50	ug/L	EPA 6010C	
Nickel - Total	3.00	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	6.46	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	27.8		1	3.80	10.0	10	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: 5503-SW1
Matrix: Surface Water
Project: Lincoln County LF - Surface Waters

Lab Sample ID: C911289-01
Sampled: 10/14/09 11:30
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911289

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 19:28	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/20/09 19:28	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/20/09 19:28	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/20/09 19:28	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/20/09 19:28	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/20/09 19:28	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/20/09 19:28	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/20/09 19:28	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/20/09 19:28	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/20/09 19:28	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/20/09 19:28	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/20/09 19:28	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/20/09 19:28	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/20/09 19:28	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/20/09 19:28	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/20/09 19:28	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/20/09 19:28	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/20/09 19:28	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/20/09 19:28	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/20/09 19:28	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/20/09 19:28	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/20/09 19:28	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/20/09 19:28	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/20/09 19:28	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 19:28	JKG	

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Description:	5503-SW1	**Lab Sample ID:**	C911289-01	**Received:**	10/15/09 09:30
Matrix:	Surface Water	**Sampled:**	10/14/09 11:30	**Work Order:**	C911289
Project:	Lincoln County LF - Surface Waters	**Sampled By:**	David Reames/Brian Wilso		

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
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/20/09 19:28	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/20/09 19:28	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 19:28	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*9J20012*	*EPA 8260B*	*10/20/09 19:28*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*97 %*	*68-117*	*9J20012*	*EPA 8260B*	*10/20/09 19:28*	*JKG*	
Toluene-d8	*53*	*1*	*50.0*	*105 %*	*69-110*	*9J20012*	*EPA 8260B*	*10/20/09 19:28*	*JKG*	

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Description:	5503-SW1	**Lab Sample ID:**	C911289-01	**Received:**	10/15/09 09:30
Matrix:	Surface Water	**Sampled:**	10/14/09 11:30	**Work Order:**	C911289
Project:	Lincoln County LF - Surface Waters	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0540	U	ug/L	1	0.0540	0.200	0.2	EPA 7470A	10/15/09 15:46	NLH	

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Description:	5503-SW1	**Lab Sample ID:**	C911289-01	**Received:**	10/15/09 09:30
Matrix:	Surface Water	**Sampled:**	10/14/09 11:30	**Work Order:**	C911289
Project:	Lincoln County LF - Surface Waters	**Sampled By:**	David Reames/Brian Wilso		

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	0.0730	2.00	6	EPA 6020A	10/21/09 12:29	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 13:07	JDH	
Barium [7440-39-3] ^	**44.9**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 13:07	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 13:07	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 13:07	JDH	
Chromium [7440-47-3] ^	**3.59**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 13:07	JDH	
Cobalt [7440-48-4] ^	**1.22**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 13:07	JDH	
Copper [7440-50-8] ^	**2.29**	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 13:07	JDH	
Iron [7439-89-6] ^	**3160**		ug/L	1	22.0	50.0	300	EPA 6010C	10/28/09 13:07	JDH	
Lead [7439-92-1] ^	**2.23**	J	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 13:07	JDH	
Manganese [7439-96-5] ^	**256**		ug/L	1	1.10	10.0	50	EPA 6010C	10/28/09 13:07	JDH	
Nickel [7440-02-0] ^	**3.35**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 13:07	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 13:07	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 13:07	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 12:29	VLO	
Vanadium [7440-62-2] ^	**3.87**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 13:07	JDH	
Zinc [7440-66-6] ^	**27.1**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 13:07	JDH	

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

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Description: 5503-SW2
Matrix: Surface Water
Project: Lincoln County LF - Surface Waters

Lab Sample ID: C911289-02
Sampled: 10/14/09 13:15
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911289

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 19:56	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/20/09 19:56	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/20/09 19:56	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/20/09 19:56	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/20/09 19:56	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/20/09 19:56	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/20/09 19:56	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/20/09 19:56	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/20/09 19:56	JKG	
Acetone [67-64-1] ^	**3.4**	J	ug/L	1	1.5	5.0	100	EPA 8260B	10/20/09 19:56	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/20/09 19:56	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/20/09 19:56	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/20/09 19:56	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/20/09 19:56	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/20/09 19:56	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/20/09 19:56	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/20/09 19:56	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/20/09 19:56	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/20/09 19:56	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/20/09 19:56	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/20/09 19:56	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/20/09 19:56	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/20/09 19:56	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/20/09 19:56	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 19:56	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/20/09 19:56	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/20/09 19:56	JKG	

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Description:	5503-SW2	**Lab Sample ID:**	C911289-02	**Received:**	10/15/09 09:30
Matrix:	Surface Water	**Sampled:**	10/14/09 13:15	**Work Order:**	C911289
Project:	Lincoln County LF - Surface Waters	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 19:56	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*103 %*	*51-122*	*9J20012*	*EPA 8260B*	*10/20/09 19:56*	*JKG*	
Dibromofluoromethane	*50*	*1*	*50.0*	*99 %*	*68-117*	*9J20012*	*EPA 8260B*	*10/20/09 19:56*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*69-110*	*9J20012*	*EPA 8260B*	*10/20/09 19:56*	*JKG*	

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Description:	5503-SW2	**Lab Sample ID:**	C911289-02	**Received:**	10/15/09 09:30
Matrix:	Surface Water	**Sampled:**	10/14/09 13:15	**Work Order:**	C911289
Project:	Lincoln County LF - Surface Waters	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0540	U	ug/L	1	0.0540	0.200	0.2	EPA 7470A	10/15/09 16:29	NLH	

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Description:	5503-SW2	**Lab Sample ID:**	C911289-02	**Received:**	10/15/09 09:30
Matrix:	Surface Water	**Sampled:**	10/14/09 13:15	**Work Order:**	C911289
Project:	Lincoln County LF - Surface Waters	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 12:33	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 13:10	JDH	
Barium [7440-39-3] ^	**29.2**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 13:10	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 13:10	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 13:10	JDH	
Chromium [7440-47-3] ^	**2.29**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 13:10	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 13:10	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 13:10	JDH	
Iron [7439-89-6] ^	**1170**		ug/L	1	22.0	50.0	300	EPA 6010C	10/28/09 13:10	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 13:10	JDH	
Manganese [7439-96-5] ^	**86.3**		ug/L	1	1.10	10.0	50	EPA 6010C	10/28/09 13:10	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 13:10	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 13:10	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 13:10	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 12:33	VLO	
Vanadium [7440-62-2] ^	**2.07**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 13:10	JDH	
Zinc [7440-66-6] ^	**5.31**	J	ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 13:10	JDH	

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

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Description: 5503-SW4
Matrix: Surface Water
Project: Lincoln County LF - Surface Waters

Lab Sample ID: C911289-03
Sampled: 10/14/09 16:05
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911289

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 20:25	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/20/09 20:25	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/20/09 20:25	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/20/09 20:25	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/20/09 20:25	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/20/09 20:25	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/20/09 20:25	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/20/09 20:25	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/20/09 20:25	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/20/09 20:25	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/20/09 20:25	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/20/09 20:25	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/20/09 20:25	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/20/09 20:25	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/20/09 20:25	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/20/09 20:25	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/20/09 20:25	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/20/09 20:25	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/20/09 20:25	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/20/09 20:25	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/20/09 20:25	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/20/09 20:25	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/20/09 20:25	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/20/09 20:25	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 20:25	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/20/09 20:25	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/20/09 20:25	JKG	

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Description:	5503-SW4	**Lab Sample ID:**	C911289-03	**Received:**	10/15/09 09:30
Matrix:	Surface Water	**Sampled:**	10/14/09 16:05	**Work Order:**	C911289
Project:	Lincoln County LF - Surface Waters	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 20:25	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*9J20012*	*EPA 8260B*	*10/20/09 20:25*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*97 %*	*68-117*	*9J20012*	*EPA 8260B*	*10/20/09 20:25*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*105 %*	*69-110*	*9J20012*	*EPA 8260B*	*10/20/09 20:25*	*JKG*	

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Description:	5503-SW4	**Lab Sample ID:**	C911289-03	**Received:**	10/15/09 09:30
Matrix:	Surface Water	**Sampled:**	10/14/09 16:05	**Work Order:**	C911289
Project:	Lincoln County LF - Surface Waters	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0540	U	ug/L	1	0.0540	0.200	0.2	EPA 7470A	10/15/09 16:32	NLH	

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Description:	5503-SW4	**Lab Sample ID:**	C911289-03	**Received:**	10/15/09 09:30
Matrix:	Surface Water	**Sampled:**	10/14/09 16:05	**Work Order:**	C911289
Project:	Lincoln County LF - Surface Waters	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 11:57	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 13:13	JDH	
Barium [7440-39-3] ^	**25.1**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 13:13	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 13:13	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 13:13	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 13:13	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 13:13	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 13:13	JDH	
Iron [7439-89-6] ^	**984**		ug/L	1	22.0	50.0	300	EPA 6010C	10/28/09 13:13	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 13:13	JDH	
Manganese [7439-96-5] ^	**68.7**		ug/L	1	1.10	10.0	50	EPA 6010C	10/28/09 13:13	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 13:13	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 13:13	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 13:13	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 11:57	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 13:13	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 13:13	JDH	

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Description: 5503-SW5
Matrix: Surface Water
Project: Lincoln County LF - Surface Waters

Lab Sample ID: C911289-04
Sampled: 10/14/09 15:45
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911289

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 20:53	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/20/09 20:53	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/20/09 20:53	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/20/09 20:53	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/20/09 20:53	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/20/09 20:53	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/20/09 20:53	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/20/09 20:53	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/20/09 20:53	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/20/09 20:53	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/20/09 20:53	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/20/09 20:53	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/20/09 20:53	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/20/09 20:53	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/20/09 20:53	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/20/09 20:53	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/20/09 20:53	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/20/09 20:53	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/20/09 20:53	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/20/09 20:53	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/20/09 20:53	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/20/09 20:53	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/20/09 20:53	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/20/09 20:53	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 20:53	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/20/09 20:53	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/20/09 20:53	JKG	

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Description:	5503-SW5	**Lab Sample ID:**	C911289-04	**Received:**	10/15/09 09:30
Matrix:	Surface Water	**Sampled:**	10/14/09 15:45	**Work Order:**	C911289
Project:	Lincoln County LF - Surface Waters	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 20:53	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*105 %*	*51-122*	*9J20012*	*EPA 8260B*	*10/20/09 20:53*	*JKG*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*9J20012*	*EPA 8260B*	*10/20/09 20:53*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*105 %*	*69-110*	*9J20012*	*EPA 8260B*	*10/20/09 20:53*	*JKG*	

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Description:	5503-SW5	**Lab Sample ID:**	C911289-04	**Received:**	10/15/09 09:30
Matrix:	Surface Water	**Sampled:**	10/14/09 15:45	**Work Order:**	C911289
Project:	Lincoln County LF - Surface Waters	**Sampled By:**	David Reames/Brian Wilso		

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] ^	0.0540	U	ug/L	1	0.0540	0.200	0.2	EPA 7470A	10/15/09 16:35	NLH	

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Description: 5503-SW5
Matrix: Surface Water
Project: Lincoln County LF - Surface Waters

Lab Sample ID: C911289-04
Sampled: 10/14/09 15:45
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911289

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 12:36	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/28/09 13:25	JDH	
Barium [7440-39-3] ^	**49.9**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/28/09 13:25	JDH	
Beryllium [7440-41-7] ^	**0.162**	J	ug/L	1	0.100	1.00	1	EPA 6010C	10/28/09 13:25	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/28/09 13:25	JDH	
Chromium [7440-47-3] ^	**5.46**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/28/09 13:25	JDH	
Cobalt [7440-48-4] ^	**6.78**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/28/09 13:25	JDH	
Copper [7440-50-8] ^	**2.57**	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/28/09 13:25	JDH	
Iron [7439-89-6] ^	**8700**		ug/L	1	22.0	50.0	300	EPA 6010C	10/28/09 13:25	JDH	
Lead [7439-92-1] ^	**3.71**	J	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 13:25	JDH	
Manganese [7439-96-5] ^	**341**		ug/L	1	1.10	10.0	50	EPA 6010C	10/28/09 13:25	JDH	
Nickel [7440-02-0] ^	**3.00**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/28/09 13:25	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/28/09 13:25	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/28/09 13:25	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 12:36	VLO	
Vanadium [7440-62-2] ^	**6.46**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/28/09 13:25	JDH	
Zinc [7440-66-6] ^	**27.8**		ug/L	1	3.80	10.0	10	EPA 6010C	10/28/09 13:25	JDH	

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 9J20012 - EPA 5030B_MS

Blank (9J20012-BLK1) Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 14:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.40	U	1.0	ug/L							
1,1,1-Trichloroethane	0.27	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.33	U	1.0	ug/L							
1,1,2-Trichloroethane	0.37	U	1.0	ug/L							
1,1-Dichloroethane	0.33	U	1.0	ug/L							
1,1-Dichloroethene	0.24	U	1.0	ug/L							
1,2,3-Trichloropropane	0.55	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.42	U	1.0	ug/L							
1,2-Dichlorobenzene	0.27	U	1.0	ug/L							
1,2-Dichloroethane	0.65	U	1.0	ug/L							
1,2-Dichloropropane	0.20	U	1.0	ug/L							
1,4-Dichlorobenzene	0.38	U	1.0	ug/L							
2-Butanone	1.0	U	5.0	ug/L							
2-Hexanone	0.69	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.5	U	5.0	ug/L							
Acrylonitrile	2.1	U	10	ug/L							
Benzene	0.20	U	1.0	ug/L							
Bromochloromethane	0.42	U	1.0	ug/L							
Bromodichloromethane	0.37	U	1.0	ug/L							
Bromoform	0.71	U	1.0	ug/L							
Bromomethane	0.49	U	1.0	ug/L							
Carbon disulfide	0.54	U	5.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
Chlorobenzene	0.27	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
Chloroform	0.20	U	1.0	ug/L							
Chloromethane	0.34	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L							
Dibromochloromethane	0.32	U	1.0	ug/L							
Dibromomethane	0.37	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
Iodomethane	0.52	U	5.0	ug/L							
Methylene chloride	0.53	U	1.0	ug/L							
Styrene	0.26	U	1.0	ug/L							
Tetrachloroethene	0.36	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Trichlorofluoromethane	0.28	U	1.0	ug/L							
Vinyl acetate	0.98	U	5.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*52*			*ug/L*	*50.0*		*104*	*51-122*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9J20012 - EPA 5030B_MS

Blank (9J20012-BLK1) Continued Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 14:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*48*			*ug/L*	*50.0*		*97*	*68-117*			
Surrogate: Toluene-d8	*51*			*ug/L*	*50.0*		*102*	*69-110*			

LCS (9J20012-BS1) Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 14:29

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		102	75-133			
Benzene	20		1.0	ug/L	20.0		100	81-134			
Chlorobenzene	19		1.0	ug/L	20.0		97	83-117			
Toluene	21		1.0	ug/L	20.0		106	71-118			
Trichloroethene	20		1.0	ug/L	20.0		99	75-115			

Matrix Spike (9J20012-MS1) Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 14:58

Source: C912210-03

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	0.24 U	104	75-133			
Benzene	20		1.0	ug/L	20.0	0.20 U	99	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	98	83-117			
Toluene	21		1.0	ug/L	20.0	0.27 U	107	71-118			
Trichloroethene	19		1.0	ug/L	20.0	0.38 U	96	75-115			

Matrix Spike Dup (9J20012-MSD1) Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 15:26

Source: C912210-03

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	0.24 U	99	75-133	5	20	
Benzene	19		1.0	ug/L	20.0	0.20 U	95	81-134	4	17	
Chlorobenzene	19		1.0	ug/L	20.0	0.27 U	94	83-117	4	16	
Toluene	21		1.0	ug/L	20.0	0.27 U	103	71-118	4	17	
Trichloroethene	19		1.0	ug/L	20.0	0.38 U	93	75-115	3	18	

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 9J15016 - EPA 245.1

Blank (9J15016-BLK1) Prepared: 10/15/2009 10:08 Analyzed: 10/15/2009 15:32

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.0540	U	0.200	ug/L							

LCS (9J15016-BS1) Prepared: 10/15/2009 10:08 Analyzed: 10/15/2009 15:35

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.88		0.200	ug/L	5.00		98	85-115			

Matrix Spike (9J15016-MS1) Prepared: 10/15/2009 10:08 Analyzed: 10/15/2009 15:49

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 9J15016 - EPA 245.1

Matrix Spike (9J15016-MS1) Continued Prepared: 10/15/2009 10:08 Analyzed: 10/15/2009 15:49

Source: C911289-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.88		0.200	ug/L	5.00	0.0540 U	98	85-115			

Matrix Spike Dup (9J15016-MSD1) Prepared: 10/15/2009 10:08 Analyzed: 10/15/2009 15:52

Source: C911289-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.77		0.200	ug/L	5.00	0.0540 U	95	85-115	2	15	

Post Spike (9J15016-PS1) Prepared: 10/15/2009 10:08 Analyzed: 10/15/2009 15:55

Source: C911289-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.26		0.200	ug/L	5.00	-0.0129	86	75-125			

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

Batch 9J16005 - EPA 3005A

Blank (9J16005-BLK1) Prepared: 10/16/2009 09:21 Analyzed: 10/28/2009 12:17

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							
Iron	22.0	U	50.0	ug/L							
Lead	1.90	U	10.0	ug/L							
Manganese	1.10	U	10.0	ug/L							
Nickel	1.80	U	10.0	ug/L							
Selenium	2.70	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (9J16005-BS1) Prepared: 10/16/2009 09:21 Analyzed: 10/28/2009 12:20

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1020		10.0	ug/L	1000		102	80-120			
Barium	1030		10.0	ug/L	1000		103	80-120			
Beryllium	529		1.00	ug/L	500		106	80-120			
Cadmium	509		1.00	ug/L	500		102	80-120			
Chromium	1040		10.0	ug/L	1000		104	80-120			
Cobalt	1020		10.0	ug/L	1000		102	80-120			
Copper	554		10.0	ug/L	500		111	80-120			

QUALITY CONTROL

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

Batch 9J16005 - EPA 3005A

LCS (9J16005-BS1) Continued Prepared: 10/16/2009 09:21 Analyzed: 10/28/2009 12:20

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Iron	10200		50.0	ug/L	10000		102	80-120			
Lead	1030		10.0	ug/L	1000		103	80-120			
Manganese	511		10.0	ug/L	500		102	80-120			
Nickel	1020		10.0	ug/L	1000		102	80-120			
Selenium	1050		10.0	ug/L	1000		105	80-120			
Silver	109		10.0	ug/L	100		109	80-120			
Vanadium	527		10.0	ug/L	500		105	80-120			
Zinc	1040		10.0	ug/L	1000		104	80-120			

Matrix Spike (9J16005-MS1) Prepared: 10/16/2009 09:21 Analyzed: 10/28/2009 12:26

Source: C911288-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1040		10.0	ug/L	1000	2.87	103	75-125			
Barium	1150		10.0	ug/L	1000	56.8	109	75-125			
Beryllium	543		1.00	ug/L	500	0.561	109	75-125			
Cadmium	529		1.00	ug/L	500	0.377	106	75-125			
Chromium	1090		10.0	ug/L	1000	4.21	108	75-125			
Cobalt	1060		10.0	ug/L	1000	1.34	106	75-125			
Copper	539		10.0	ug/L	500	1.60 U	108	75-125			
Iron	11100		50.0	ug/L	10000	367	107	75-125			
Lead	1050		10.0	ug/L	1000	1.90 U	105	75-125			
Manganese	543		10.0	ug/L	500	9.41	107	75-125			
Nickel	1070		10.0	ug/L	1000	2.19	106	75-125			
Selenium	1070		10.0	ug/L	1000	2.70 U	107	75-125			
Silver	112		10.0	ug/L	100	1.90 U	112	75-125			
Vanadium	550		10.0	ug/L	500	1.54	110	75-125			
Zinc	1110		10.0	ug/L	1000	30.9	108	75-125			

Matrix Spike Dup (9J16005-MSD1) Prepared: 10/16/2009 09:21 Analyzed: 10/28/2009 12:28

Source: C911288-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1040		10.0	ug/L	1000	2.87	104	75-125	0.5	20	
Barium	1140		10.0	ug/L	1000	56.8	108	75-125	0.4	20	
Beryllium	546		1.00	ug/L	500	0.561	109	75-125	0.5	20	
Cadmium	526		1.00	ug/L	500	0.377	105	75-125	0.6	20	
Chromium	1080		10.0	ug/L	1000	4.21	108	75-125	0.3	20	
Cobalt	1060		10.0	ug/L	1000	1.34	105	75-125	0.2	20	
Copper	538		10.0	ug/L	500	1.60 U	108	75-125	0.1	20	
Iron	11100		50.0	ug/L	10000	367	107	75-125	0.3	20	
Lead	1050		10.0	ug/L	1000	1.90 U	105	75-125	0.1	20	
Manganese	541		10.0	ug/L	500	9.41	106	75-125	0.3	20	
Nickel	1060		10.0	ug/L	1000	2.19	106	75-125	0.3	20	
Selenium	1070		10.0	ug/L	1000	2.70 U	107	75-125	0.1	20	
Silver	112		10.0	ug/L	100	1.90 U	112	75-125	0.07	20	
Vanadium	548		10.0	ug/L	500	1.54	109	75-125	0.3	20	
Zinc	1100		10.0	ug/L	1000	30.9	107	75-125	0.2	20	

QUALITY CONTROL

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

Batch 9J16005 - EPA 3005A

Post Spike (9J16005-PS1) Prepared: 10/16/2009 09:21 Analyzed: 10/28/2009 12:31

Source: C911288-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.01		0.0100	mg/L	1.00	0.00287	100	80-120			
Barium	1.11		0.0100	mg/L	1.00	0.0568	105	80-120			
Beryllium	0.529		0.00100	mg/L	0.500	0.000561	106	80-120			
Cadmium	0.512		0.00100	mg/L	0.500	0.000377	102	80-120			
Chromium	1.05		0.0100	mg/L	1.00	0.00421	105	80-120			
Cobalt	1.03		0.0100	mg/L	1.00	0.00134	103	80-120			
Copper	0.522		0.0100	mg/L	0.500	0.000617	104	80-120			
Iron	10.7		0.0500	mg/L	10.0	0.367	103	80-120			
Lead	1.02		0.0100	mg/L	1.00	0.000799	102	80-120			
Manganese	0.527		0.0100	mg/L	0.500	0.00941	103	80-120			
Nickel	1.03		0.0100	mg/L	1.00	0.00219	103	80-120			
Selenium	1.03		0.0100	mg/L	1.00	0.000888	103	80-120			
Silver	0.112		0.0100	mg/L	0.100	0.000978	111	80-120			
Vanadium	0.532		0.0100	mg/L	0.500	0.00154	106	80-120			
Zinc	1.08		0.0100	mg/L	1.00	0.0309	104	80-120			

Batch 9J16006 - EPA 3005A

Blank (9J16006-BLK1) Prepared: 10/16/2009 09:23 Analyzed: 10/21/2009 11:50

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.0730	U	2.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (9J16006-BS1) Prepared: 10/16/2009 09:23 Analyzed: 10/21/2009 11:54

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.2		2.00	ug/L	25.0		97	80-120			
Thallium	26.3		1.00	ug/L	25.0		105	80-120			

Matrix Spike (9J16006-MS1) Prepared: 10/16/2009 09:23 Analyzed: 10/21/2009 12:01

Source: C911289-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.9		2.00	ug/L	25.0	0.0730 U	99	75-125			
Thallium	26.9		1.00	ug/L	25.0	0.110 U	108	75-125			

Matrix Spike Dup (9J16006-MSD1) Prepared: 10/16/2009 09:23 Analyzed: 10/21/2009 12:12

Source: C911289-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.6		2.00	ug/L	25.0	0.0730 U	102	75-125	3	20	
Thallium	27.5		1.00	ug/L	25.0	0.110 U	110	75-125	2	20	

Post Spike (9J16006-PS1) Prepared: 10/16/2009 09:23 Analyzed: 10/21/2009 12:15

QUALITY CONTROL

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

Batch 9J16006 - EPA 3005A

Post Spike (9J16006-PS1) Continued Prepared: 10/16/2009 09:23 Analyzed: 10/21/2009 12:15

Source: C911289-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.6		2.00	ug/L	25.0	-0.223	103	80-120			
Thallium	27.8		1.00	ug/L	25.0	0.0190	111	80-120			

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 211
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: S&ME, Inc. (SM002)	Project Number: 1356-07-004
Address: 9751 Southern Pine Blvd.	Project Name/Desp.: Lincoln County LF - Surface Waters
City/ST/Zip: Charlotte, NC 28273	PO # / Billing info: 47789
Tel: (704) 523-4726 Fax: (704) 525-3953	Reporting Contact: Julie Petersen
Sample(s) Name, Affiliation (Print): David Reames/Brian Wilson/S&ME	Billing Contact: Accounts Payable
Sample(s) Signature: [signature]	Facility # (if required)

Requested Analyses: 8260B Appendix 1; Ag, As, Ba, Be, Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb, Sb, Se, Tl, V, Zn; Hg

Requested Turnaround Times

Note: Rush requests subject to acceptance by the facility

___ Standard

___ Expedited

Due __/__/__

Lab Workorder: C911289

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1	Ag, As, Ba, Be, Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb, Sb, Se, Tl, V, Zn	Hg								Sample Comments
	5503-SW1	10-14-09	1130	Grab	SW	4	X	X	X								
	5503-SW2	10-14-09	1315	Grab	SW	4	X	X	X								
	5503-SW3				SW	4	X	X	X								NOT SAMPLED
	5503-SW4	10-14-09	1605	Grab	SW	4	X	X	X								
	5503-SW5	10-14-09	1545	Grab	SW	4	X	X	X								

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
JK	9-24-09	[signature]	10-14-09 (noon)	Briana Gregory	10-15-09 9:30
Comments		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time

Cooler #'s & Temps on Receipt: C-397 Blue 2.2°C C-35 2.4°C

Condition Upon Receipt: X Acceptable ___ Unacceptable

Matrix: GW-Groundwater SO-Soil 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

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

Thursday, October 29, 2009

S&ME, Inc. (SM002)

Attn: Julie Petersen

9751 Southern Pine Blvd.

Charlotte, NC 28273

RE: Laboratory Results for
Project Number: 1356-07-004, Project Name/Desc: Lincoln County LF - Leachate
ENCO Workorder: C911290

Dear Julie Petersen,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, October 15, 2009.

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

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 20.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID:	5503-Lift Station	Lab ID:	C911290-01	Sampled:	10/14/09 15:15	Received:	10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 300.0	11/11/09	10/18/09 07:24	10/19/2009 11:01
EPA 310.2	10/28/09	10/18/09 07:13	10/18/2009 09:01
EPA 353.2	10/16/09 15:15	10/15/09 16:51	10/15/2009 17:46
EPA 353.2	11/11/09	10/19/09 07:53	10/19/2009 13:26
EPA 353.2	11/11/09	10/20/09 08:55	10/20/2009 08:55
EPA 365.4	11/11/09	10/23/09 10:45	10/25/2009 10:58
EPA 6010C	04/12/10	10/15/09 13:56	10/27/2009 17:22
EPA 6020A	04/12/10	10/16/09 09:23	10/21/2009 12:40
SM 2540D	10/21/09	10/19/09 10:56	10/19/2009 10:56
SM 5210B	10/16/09 15:15	10/16/09 14:43	10/16/2009 14:43
SM 5220D	11/11/09	10/21/09 11:12	10/21/2009 12:30

Client ID:	5503-Lift Station	Lab ID:	C911290-01RE1	Sampled:	10/14/09 15:15	Received:	10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	10/28/09	10/20/09 10:31	10/21/2009 11:59

Client ID:	5503-Trip Blank	Lab ID:	C911290-02	Sampled:	10/14/09 15:15	Received:	10/15/09 09:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	10/28/09	10/20/09 10:31	10/20/2009 21:49

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 5503-Lift Station **Lab ID:** C911290-01

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	79.4	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Beryllium - Total	0.170	JB	1	0.100	1.00	1	ug/L	EPA 6010C	J-01
Chemical Oxygen Demand	78		1	6.2	20	NE	mg/L	SM 5220D	
Chromium - Total	9.47	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	3.88	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	4.43	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	3.92	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	6.85	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Nitrate as N	0.25	J	1	0.0056	0.10	10	mg/L	EPA 353.2	
Nitrate/Nitrite as N	0.29		1	0.021	0.10	NE	mg/L	EPA 353.2	
Nitrite as N	0.035	JB	1	0.0056	0.10	1	mg/L	EPA 353.2	J-01
Phosphorus	0.18		1	0.025	0.10	NE	mg/L	EPA 365.4	
Sulfate as SO4	6.6	J	1	0.078	5.0	250	mg/L	EPA 300.0	
Thallium - Total	0.200	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Total Alkalinity	33		1	8.3	15	NE	mg/L	EPA 310.2	
Total Suspended Solids	2600		1	1.0	1.0	NE	mg/L	SM 2540D	
Vanadium - Total	11.1	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	29.8		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: 5503-Lift Station **Lab ID:** C911290-01RE1

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Acetone	9.1	J	1	1.5	5.0	100	ug/L	EPA 8260B	
Toluene	6.7		1	0.27	1.0	1	ug/L	EPA 8260B	

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ANALYTICAL RESULTS

Description: 5503-Lift Station
Matrix: Ground Water
Project: Lincoln County LF - Leachate

Lab Sample ID: C911290-01
Sampled: 10/14/09 15:15
Sampled By: David Reames/Brian Wilso

Received: 10/15/09 09:30
Work Order: C911290

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/21/09 11:59	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/21/09 11:59	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/21/09 11:59	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/21/09 11:59	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/21/09 11:59	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/21/09 11:59	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/21/09 11:59	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/21/09 11:59	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/21/09 11:59	JKG	
Acetone [67-64-1] ^	**9.1**	J	ug/L	1	1.5	5.0	100	EPA 8260B	10/21/09 11:59	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/21/09 11:59	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/21/09 11:59	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/21/09 11:59	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/21/09 11:59	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/21/09 11:59	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/21/09 11:59	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/21/09 11:59	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/21/09 11:59	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/21/09 11:59	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/21/09 11:59	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/21/09 11:59	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/21/09 11:59	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
Toluene [108-88-3] ^	**6.7**		ug/L	1	0.27	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/21/09 11:59	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/21/09 11:59	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/21/09 11:59	JKG	

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Description:	5503-Lift Station	**Lab Sample ID:**	C911290-01	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 15:15	**Work Order:**	C911290
Project:	Lincoln County LF - Leachate	**Sampled By:**	David Reames/Brian Wilso		

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
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/21/09 11:59	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/21/09 11:59	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/21/09 11:59	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*52*	*1*	*50.0*	*104 %*	*51-122*	*9J20018*	*EPA 8260B*	*10/21/09 11:59*	*JKG*	
Dibromofluoromethane	*51*	*1*	*50.0*	*102 %*	*68-117*	*9J20018*	*EPA 8260B*	*10/21/09 11:59*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*69-110*	*9J20018*	*EPA 8260B*	*10/21/09 11:59*	*JKG*	

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] ^	0.0730	U	ug/L	1	0.0730	2.00	6	EPA 6020A	10/21/09 12:40	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	10/27/09 17:22	JDH	
Barium [7440-39-3] ^	**79.4**	J	ug/L	1	1.00	10.0	100	EPA 6010C	10/27/09 17:22	JDH	
Beryllium [7440-41-7] ^	**0.170**	JB	ug/L	1	0.100	1.00	1	EPA 6010C	10/27/09 17:22	JDH	J-01
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	10/27/09 17:22	JDH	
Chromium [7440-47-3] ^	**9.47**	J	ug/L	1	1.00	10.0	10	EPA 6010C	10/27/09 17:22	JDH	
Cobalt [7440-48-4] ^	**3.88**	J	ug/L	1	1.10	10.0	10	EPA 6010C	10/27/09 17:22	JDH	
Copper [7440-50-8] ^	**4.43**	J	ug/L	1	1.60	10.0	10	EPA 6010C	10/27/09 17:22	JDH	
Lead [7439-92-1] ^	**3.92**	J	ug/L	1	1.90	10.0	10	EPA 6010C	10/27/09 17:22	JDH	
Nickel [7440-02-0] ^	**6.85**	J	ug/L	1	1.80	10.0	50	EPA 6010C	10/27/09 17:22	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	10/27/09 17:22	JDH	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	10/27/09 17:22	JDH	
Thallium [7440-28-0] ^	**0.200**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	10/21/09 12:40	VLO	
Vanadium [7440-62-2] ^	**11.1**	J	ug/L	1	1.40	10.0	25	EPA 6010C	10/27/09 17:22	JDH	
Zinc [7440-66-6] ^	**29.8**		ug/L	1	3.80	10.0	10	EPA 6010C	10/27/09 17:22	JDH	

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Description:	5503-Lift Station	**Lab Sample ID:**	C911290-01	**Received:**	10/15/09 09:30
Matrix:	Ground Water	**Sampled:**	10/14/09 15:15	**Work Order:**	C911290
Project:	Lincoln County LF - Leachate	**Sampled By:**	David Reames/Brian Wilso		

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Biochemical Oxygen Demand [ECL-0017] ^	60	U	mg/L	1	60	60	NE	SM 5210B	10/16/09 14:43	GPW	B-01
Chemical Oxygen Demand [ECL-0035] ^	**78**		mg/L	1	6.2	20	NE	SM 5220D	10/21/09 12:30	GPW	
Nitrate as N [14797-55-8] ^	**0.25**	J	mg/L	1	0.0056	0.10	10	EPA 353.2	10/20/09 08:55	PEV	
Nitrate/Nitrite as N [ECL-0010] ^	**0.29**		mg/L	1	0.021	0.10	NE	EPA 353.2	10/19/09 13:26	PEV	
Nitrite as N [14797-65-0] ^	**0.035**	JB	mg/L	1	0.0056	0.10	1	EPA 353.2	10/15/09 17:46	AJB	J-01
Phosphorus [7723-14-0] ^	**0.18**		mg/L	1	0.025	0.10	NE	EPA 365.4	10/25/09 10:58	PEV	
Sulfate as SO4 [14808-79-8] ^	**6.6**	J	mg/L	1	0.078	5.0	250	EPA 300.0	10/19/09 11:01	PEV	
Total Alkalinity [471-34-1] ^	**33**		mg/L	1	8.3	15	NE	EPA 310.2	10/18/09 09:01	PEV	
Total Suspended Solids [ECL-0169] ^	**2600**		mg/L	1	1.0	1.0	NE	SM 2540D	10/19/09 10:56	FLT	

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

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Description: 5503-Trip Blank
Matrix: Water
Project: Lincoln County LF - Leachate

Lab Sample ID: C911290-02
Sampled: 10/14/09 15:15
Sampled By: ENCO

Received: 10/15/09 09:30
Work Order: C911290

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 21:49	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	10/20/09 21:49	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	10/20/09 21:49	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	10/20/09 21:49	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	10/20/09 21:49	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	10/20/09 21:49	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	10/20/09 21:49	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	10/20/09 21:49	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	10/20/09 21:49	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	10/20/09 21:49	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	10/20/09 21:49	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	10/20/09 21:49	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	10/20/09 21:49	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	10/20/09 21:49	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	10/20/09 21:49	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	10/20/09 21:49	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	10/20/09 21:49	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	10/20/09 21:49	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	10/20/09 21:49	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	10/20/09 21:49	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	10/20/09 21:49	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	10/20/09 21:49	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	10/20/09 21:49	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	10/20/09 21:49	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	10/20/09 21:49	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	10/20/09 21:49	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	10/20/09 21:49	JKG	

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Description:	5503-Trip Blank	**Lab Sample ID:**	C911290-02	**Received:**	10/15/09 09:30
Matrix:	Water	**Sampled:**	10/14/09 15:15	**Work Order:**	C911290
Project:	Lincoln County LF - Leachate	**Sampled By:**	ENCO		

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] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	10/20/09 21:49	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*53*	*1*	*50.0*	*105 %*	*51-122*	*9J20012*	*EPA 8260B*	*10/20/09 21:49*	*JKG*	
Dibromofluoromethane	*50*	*1*	*50.0*	*99 %*	*68-117*	*9J20012*	*EPA 8260B*	*10/20/09 21:49*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*69-110*	*9J20012*	*EPA 8260B*	*10/20/09 21:49*	*JKG*	

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 9J20012 - EPA 5030B_MS

Blank (9J20012-BLK1) Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 14:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.40	U	1.0	ug/L							
1,1,1-Trichloroethane	0.27	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.33	U	1.0	ug/L							
1,1,2-Trichloroethane	0.37	U	1.0	ug/L							
1,1-Dichloroethane	0.33	U	1.0	ug/L							
1,1-Dichloroethene	0.24	U	1.0	ug/L							
1,2,3-Trichloropropane	0.55	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.42	U	1.0	ug/L							
1,2-Dichlorobenzene	0.27	U	1.0	ug/L							
1,2-Dichloroethane	0.65	U	1.0	ug/L							
1,2-Dichloropropane	0.20	U	1.0	ug/L							
1,4-Dichlorobenzene	0.38	U	1.0	ug/L							
2-Butanone	1.0	U	5.0	ug/L							
2-Hexanone	0.69	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.5	U	5.0	ug/L							
Acrylonitrile	2.1	U	10	ug/L							
Benzene	0.20	U	1.0	ug/L							
Bromochloromethane	0.42	U	1.0	ug/L							
Bromodichloromethane	0.37	U	1.0	ug/L							
Bromoform	0.71	U	1.0	ug/L							
Bromomethane	0.49	U	1.0	ug/L							
Carbon disulfide	0.54	U	5.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
Chlorobenzene	0.27	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
Chloroform	0.20	U	1.0	ug/L							
Chloromethane	0.34	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L							
Dibromochloromethane	0.32	U	1.0	ug/L							
Dibromomethane	0.37	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
Iodomethane	0.52	U	5.0	ug/L							
Methylene chloride	0.53	U	1.0	ug/L							
Styrene	0.26	U	1.0	ug/L							
Tetrachloroethene	0.36	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Trichlorofluoromethane	0.28	U	1.0	ug/L							
Vinyl acetate	0.98	U	5.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*52*			*ug/L*	*50.0*		*104*	*51-122*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9J20012 - EPA 5030B_MS

Blank (9J20012-BLK1) Continued Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 14:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*48*			*ug/L*	*50.0*		*97*	*68-117*			
Surrogate: Toluene-d8	*51*			*ug/L*	*50.0*		*102*	*69-110*			

LCS (9J20012-BS1) Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 14:29

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		102	75-133			
Benzene	20		1.0	ug/L	20.0		100	81-134			
Chlorobenzene	19		1.0	ug/L	20.0		97	83-117			
Toluene	21		1.0	ug/L	20.0		106	71-118			
Trichloroethene	20		1.0	ug/L	20.0		99	75-115			

Matrix Spike (9J20012-MS1) Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 14:58

Source: C912210-03

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	0.24 U	104	75-133			
Benzene	20		1.0	ug/L	20.0	0.20 U	99	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	98	83-117			
Toluene	21		1.0	ug/L	20.0	0.27 U	107	71-118			
Trichloroethene	19		1.0	ug/L	20.0	0.38 U	96	75-115			

Matrix Spike Dup (9J20012-MSD1) Prepared: 10/20/2009 10:31 Analyzed: 10/20/2009 15:26

Source: C912210-03

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	0.24 U	99	75-133	5	20	
Benzene	19		1.0	ug/L	20.0	0.20 U	95	81-134	4	17	
Chlorobenzene	19		1.0	ug/L	20.0	0.27 U	94	83-117	4	16	
Toluene	21		1.0	ug/L	20.0	0.27 U	103	71-118	4	17	
Trichloroethene	19		1.0	ug/L	20.0	0.38 U	93	75-115	3	18	

Batch 9J20018 - EPA 5030B_MS

Blank (9J20018-BLK1) Prepared: 10/20/2009 11:43 Analyzed: 10/21/2009 02:33

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.40	U	1.0	ug/L							
1,1,1-Trichloroethane	0.27	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.33	U	1.0	ug/L							
1,1,2-Trichloroethane	0.37	U	1.0	ug/L							
1,1-Dichloroethane	0.33	U	1.0	ug/L							
1,1-Dichloroethene	0.24	U	1.0	ug/L							
1,2,3-Trichloropropane	0.55	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.42	U	1.0	ug/L							
1,2-Dichlorobenzene	0.27	U	1.0	ug/L							

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9J20018 - EPA 5030B_MS

Blank (9J20018-BLK1) Continued Prepared: 10/20/2009 11:43 Analyzed: 10/21/2009 02:33

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,2-Dichloroethane	0.65	U	1.0	ug/L							
1,2-Dichloropropane	0.20	U	1.0	ug/L							
1,4-Dichlorobenzene	0.38	U	1.0	ug/L							
2-Butanone	1.0	U	5.0	ug/L							
2-Hexanone	0.69	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.5	U	5.0	ug/L							
Acrylonitrile	2.1	U	10	ug/L							
Benzene	0.20	U	1.0	ug/L							
Bromochloromethane	0.42	U	1.0	ug/L							
Bromodichloromethane	0.37	U	1.0	ug/L							
Bromoform	0.71	U	1.0	ug/L							
Bromomethane	0.49	U	1.0	ug/L							
Carbon disulfide	0.54	U	5.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
Chlorobenzene	0.27	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
Chloroform	0.20	U	1.0	ug/L							
Chloromethane	0.34	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L							
Dibromochloromethane	0.32	U	1.0	ug/L							
Dibromomethane	0.37	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
Iodomethane	0.52	U	5.0	ug/L							
Methylene chloride	0.53	U	1.0	ug/L							
Styrene	0.26	U	1.0	ug/L							
Tetrachloroethene	0.36	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Trichlorofluoromethane	0.28	U	1.0	ug/L							
Vinyl acetate	0.98	U	5.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*52*			*ug/L*	*50.0*		*104*	*51-122*			
Surrogate: Dibromofluoromethane	*51*			*ug/L*	*50.0*		*101*	*68-117*			
Surrogate: Toluene-d8	*53*			*ug/L*	*50.0*		*105*	*69-110*			

LCS (9J20018-BS1) Prepared: 10/20/2009 11:43 Analyzed: 10/21/2009 03:01

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		103	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	21		1.0	ug/L	20.0		105	71-118			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9J20018 - EPA 5030B_MS

LCS (9J20018-BS1) Continued Prepared: 10/20/2009 11:43 Analyzed: 10/21/2009 03:01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Trichloroethene	19		1.0	ug/L	20.0		95	75-115			

Matrix Spike (9J20018-MS1) Prepared: 10/20/2009 11:43 Analyzed: 10/21/2009 03:30

Source: C912170-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	24		1.0	ug/L	20.0	0.24 U	118	75-133			
Benzene	23		1.0	ug/L	20.0	0.87	110	81-134			
Chlorobenzene	21		1.0	ug/L	20.0	0.27 U	105	83-117			
Toluene	23		1.0	ug/L	20.0	0.27 U	115	71-118			
Trichloroethene	22		1.0	ug/L	20.0	0.38 U	108	75-115			

Matrix Spike Dup (9J20018-MSD1) Prepared: 10/20/2009 11:43 Analyzed: 10/21/2009 03:58

Source: C912170-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	23		1.0	ug/L	20.0	0.24 U	115	75-133	2	20	
Benzene	22		1.0	ug/L	20.0	0.87	105	81-134	4	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	101	83-117	4	16	
Toluene	22		1.0	ug/L	20.0	0.27 U	111	71-118	4	17	
Trichloroethene	21		1.0	ug/L	20.0	0.38 U	103	75-115	5	18	

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

Batch 9J15028 - EPA 3005A

Blank (9J15028-BLK1) Prepared: 10/15/2009 13:56 Analyzed: 10/27/2009 15:45

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	**0.105**	**J**	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	2.70	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (9J15028-BS1) Prepared: 10/15/2009 13:56 Analyzed: 10/27/2009 15:48

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1020		10.0	ug/L	1000		102	80-120			
Barium	1090		10.0	ug/L	1000		109	80-120			

QUALITY CONTROL

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

Batch 9J15028 - EPA 3005A

LCS (9J15028-BS1) Continued Prepared: 10/15/2009 13:56 Analyzed: 10/27/2009 15:48

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Beryllium	554	B	1.00	ug/L	500		111	80-120			
Cadmium	528		1.00	ug/L	500		106	80-120			
Chromium	1110		10.0	ug/L	1000		111	80-120			
Cobalt	1070		10.0	ug/L	1000		107	80-120			
Copper	556		10.0	ug/L	500		111	80-120			
Lead	1040		10.0	ug/L	1000		104	80-120			
Nickel	1070		10.0	ug/L	1000		107	80-120			
Selenium	1030		10.0	ug/L	1000		103	80-120			
Silver	110		10.0	ug/L	100		110	80-120			
Vanadium	566		10.0	ug/L	500		113	80-120			
Zinc	1070		10.0	ug/L	1000		107	80-120			

Matrix Spike (9J15028-MS1) Prepared: 10/15/2009 13:56 Analyzed: 10/27/2009 15:54

Source: C911016-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1020		10.0	ug/L	1000	2.80 U	102	75-125			
Barium	1080		10.0	ug/L	1000	19.1	106	75-125			
Beryllium	543	B	1.00	ug/L	500	0.628	109	75-125			
Cadmium	515		1.00	ug/L	500	0.487	103	75-125			
Chromium	1070		10.0	ug/L	1000	1.02	107	75-125			
Cobalt	1040		10.0	ug/L	1000	1.49	104	75-125			
Copper	535		10.0	ug/L	500	1.60 U	107	75-125			
Lead	1040		10.0	ug/L	1000	1.90 U	104	75-125			
Nickel	1040		10.0	ug/L	1000	1.80 U	104	75-125			
Selenium	1060		10.0	ug/L	1000	2.70 U	106	75-125			
Silver	110		10.0	ug/L	100	1.90 U	110	75-125			
Vanadium	545		10.0	ug/L	500	1.40 U	109	75-125			
Zinc	1050		10.0	ug/L	1000	3.80 U	105	75-125			

Matrix Spike Dup (9J15028-MSD1) Prepared: 10/15/2009 13:56 Analyzed: 10/27/2009 16:16

Source: C911016-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1020		10.0	ug/L	1000	2.80 U	102	75-125	0.5	20	
Barium	1080		10.0	ug/L	1000	19.1	106	75-125	0.6	20	
Beryllium	538	B	1.00	ug/L	500	0.628	108	75-125	0.9	20	
Cadmium	509		1.00	ug/L	500	0.487	102	75-125	1	20	
Chromium	1060		10.0	ug/L	1000	1.02	106	75-125	0.6	20	
Cobalt	1030		10.0	ug/L	1000	1.49	103	75-125	0.9	20	
Copper	534		10.0	ug/L	500	1.60 U	107	75-125	0.2	20	
Lead	1030		10.0	ug/L	1000	1.90 U	103	75-125	0.6	20	
Nickel	1030		10.0	ug/L	1000	1.80 U	103	75-125	0.9	20	
Selenium	1050		10.0	ug/L	1000	2.70 U	105	75-125	0.9	20	
Silver	110		10.0	ug/L	100	1.90 U	110	75-125	0.4	20	
Vanadium	543		10.0	ug/L	500	1.40 U	109	75-125	0.4	20	
Zinc	1030		10.0	ug/L	1000	3.80 U	103	75-125	2	20	

QUALITY CONTROL

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

Batch 9J15028 - EPA 3005A

Post Spike (9J15028-PS1) Prepared: 10/15/2009 13:56 Analyzed: 10/27/2009 16:19

Source: C911016-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.07		0.0100	mg/L	1.00	0.00238	106	80-120			
Barium	1.13		0.0100	mg/L	1.00	0.0191	111	80-120			
Beryllium	0.571	B	0.00100	mg/L	0.500	0.000628	114	80-120			
Cadmium	0.534		0.00100	mg/L	0.500	0.000487	107	80-120			
Chromium	1.12		0.0100	mg/L	1.00	0.00102	111	80-120			
Cobalt	1.08		0.0100	mg/L	1.00	0.00149	108	80-120			
Copper	0.558		0.0100	mg/L	0.500	3.95E-5	112	80-120			
Lead	1.08		0.0100	mg/L	1.00	0.000593	108	80-120			
Nickel	1.08		0.0100	mg/L	1.00	0.000880	108	80-120			
Selenium	1.10		0.0100	mg/L	1.00	-0.00156	110	80-120			
Silver	0.106		0.0100	mg/L	0.100	0.000858	106	80-120			
Vanadium	0.568		0.0100	mg/L	0.500	0.000683	113	80-120			
Zinc	1.09		0.0100	mg/L	1.00	0.00302	109	80-120			

Batch 9J16006 - EPA 3005A

Blank (9J16006-BLK1) Prepared: 10/16/2009 09:23 Analyzed: 10/21/2009 11:50

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.0730	U	2.00	ug/L							
Thallium	0.110	U	1.00	ug/L							

LCS (9J16006-BS1) Prepared: 10/16/2009 09:23 Analyzed: 10/21/2009 11:54

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.2		2.00	ug/L	25.0		97	80-120			
Thallium	26.3		1.00	ug/L	25.0		105	80-120			

Matrix Spike (9J16006-MS1) Prepared: 10/16/2009 09:23 Analyzed: 10/21/2009 12:01

Source: C911289-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.9		2.00	ug/L	25.0	0.0730 U	99	75-125			
Thallium	26.9		1.00	ug/L	25.0	0.110 U	108	75-125			

Matrix Spike Dup (9J16006-MSD1) Prepared: 10/16/2009 09:23 Analyzed: 10/21/2009 12:12

Source: C911289-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.6		2.00	ug/L	25.0	0.0730 U	102	75-125	3	20	
Thallium	27.5		1.00	ug/L	25.0	0.110 U	110	75-125	2	20	

Post Spike (9J16006-PS1) Prepared: 10/16/2009 09:23 Analyzed: 10/21/2009 12:15

Source: C911289-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

QUALITY CONTROL

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

Batch 9J16006 - EPA 3005A

Post Spike (9J16006-PS1) Continued Prepared: 10/16/2009 09:23 Analyzed: 10/21/2009 12:15

Source: C911289-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.6		2.00	ug/L	25.0	-0.223	103	80-120			
Thallium	27.8		1.00	ug/L	25.0	0.0190	111	80-120			

Classical Chemistry Parameters - Quality Control

Batch 9J15002 - NO PREP

Blank (9J15002-BLK1) Prepared: 10/15/2009 06:26 Analyzed: 10/15/2009 07:28

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrite as N	**0.0057**	**J**	0.10	mg/L							

LCS (9J15002-BS1) Prepared: 10/15/2009 06:26 Analyzed: 10/15/2009 07:29

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrite as N	1.0	B	0.10	mg/L	1.00		100	80-120			

Matrix Spike (9J15002-MS1) Prepared: 10/15/2009 06:26 Analyzed: 10/15/2009 07:44

Source: C911096-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrite as N	1.0	B	0.10	mg/L	1.00	0.046	99	80-120			

Matrix Spike Dup (9J15002-MSD1) Prepared: 10/15/2009 06:26 Analyzed: 10/15/2009 07:45

Source: C911096-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrite as N	1.0	B	0.10	mg/L	1.00	0.046	100	80-120	0.9	25	

Batch 9J16020 - NO PREP

Blank (9J16020-BLK1) Prepared & Analyzed: 10/16/2009 14:43

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	2.0	U	2.0	mg/L							

LCS (9J16020-BS1) Prepared & Analyzed: 10/16/2009 14:43

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	210		2.0	mg/L	198		106	85-115			

Duplicate (9J16020-DUP1) Prepared & Analyzed: 10/16/2009 14:43

Source: C909518-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	2.0	U	2.0	mg/L		2.0 U				25	

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 9J16020 - NO PREP

Batch 9J18002 - NO PREP

Blank (9J18002-BLK1) Prepared: 10/18/2009 07:13 Analyzed: 10/18/2009 08:44

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity	8.3	U	15	mg/L							

LCS (9J18002-BS1) Prepared: 10/18/2009 07:13 Analyzed: 10/18/2009 08:45

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity	100		15	mg/L	100		102	80-120			

Matrix Spike (9J18002-MS1) Prepared: 10/18/2009 07:13 Analyzed: 10/18/2009 08:49

Source: C911016-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity	96		15	mg/L	100	3.5	93	80-120			

Matrix Spike Dup (9J18002-MSD1) Prepared: 10/18/2009 07:13 Analyzed: 10/18/2009 08:50

Source: C911016-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Alkalinity	99		15	mg/L	100	3.5	96	80-120	3	25	

Batch 9J18006 - NO PREP

Blank (9J18006-BLK1) Prepared: 10/18/2009 07:24 Analyzed: 10/19/2009 07:58

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	0.078	U	5.0	mg/L							

LCS (9J18006-BS1) Prepared: 10/18/2009 07:24 Analyzed: 10/19/2009 08:15

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	47		5.0	mg/L	50.0		94	90-110			

Matrix Spike (9J18006-MS1) Prepared: 10/18/2009 07:24 Analyzed: 10/19/2009 08:31

Source: C911288-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	50		5.0	mg/L	50.0	3.6	93	80-120			

Matrix Spike Dup (9J18006-MSD1) Prepared: 10/18/2009 07:24 Analyzed: 10/19/2009 08:48

Source: C911288-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	50		5.0	mg/L	50.0	3.6	92	80-120	0.9	15	

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 9J19003 - NO PREP

Blank (9J19003-BLK1) Prepared: 10/19/2009 07:53 Analyzed: 10/19/2009 13:05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	0.021	U	0.10	mg/L							

LCS (9J19003-BS1) Prepared: 10/19/2009 07:53 Analyzed: 10/19/2009 13:07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	1.1		0.10	mg/L	1.25		89	80-120			

Matrix Spike (9J19003-MS1) Prepared: 10/19/2009 07:53 Analyzed: 10/19/2009 13:11

Source: C909658-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	1.9		0.10	mg/L	1.28	0.69	94	80-120			

Matrix Spike Dup (9J19003-MSD1) Prepared: 10/19/2009 07:53 Analyzed: 10/19/2009 13:13

Source: C909658-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	2.0		0.10	mg/L	1.28	0.69	100	80-120	4	25	

Batch 9J19009 - NO PREP

Blank (9J19009-BLK1) Prepared & Analyzed: 10/19/2009 10:56

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Suspended Solids	1.0	U	1.0	mg/L							

LCS (9J19009-BS1) Prepared & Analyzed: 10/19/2009 10:56

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Suspended Solids	87		1.0	mg/L	80.0		109	82-119			

Duplicate (9J19009-DUP1) Prepared & Analyzed: 10/19/2009 10:56

Source: C911290-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Suspended Solids	2500		1.0	mg/L		2600			4	25	

Batch 9J21012 - NO PREP

Blank (9J21012-BLK1) Prepared: 10/21/2009 11:12 Analyzed: 10/21/2009 12:30

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	3.1	U	10	mg/L							

LCS (9J21012-BS1) Prepared: 10/21/2009 11:12 Analyzed: 10/21/2009 12:30

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 9J21012 - NO PREP

LCS (9J21012-BS1) Continued Prepared: 10/21/2009 11:12 Analyzed: 10/21/2009 12:30

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	530		10	mg/L	500		106	90-110			

Matrix Spike (9J21012-MS1) Prepared: 10/21/2009 11:12 Analyzed: 10/21/2009 12:30

Source: C912228-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	610		10	mg/L	500	110	100	90-110			

Matrix Spike Dup (9J21012-MSD1) Prepared: 10/21/2009 11:12 Analyzed: 10/21/2009 12:30

Source: C912228-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	620		10	mg/L	500	110	101	90-110	0.8	10	

Batch 9J22023 - Same

Blank (9J22023-BLK1) Prepared: 10/23/2009 10:45 Analyzed: 10/25/2009 10:29

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	0.025	U	0.10	mg/L							

LCS (9J22023-BS1) Prepared: 10/23/2009 10:45 Analyzed: 10/25/2009 10:31

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	1.6		0.10	mg/L	1.60		98	80-120			

Matrix Spike (9J22023-MS1) Prepared: 10/23/2009 10:45 Analyzed: 10/25/2009 10:33

Source: C910602-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	1.6		0.10	mg/L	1.60	0.025 U	101	80-120			

Matrix Spike Dup (9J22023-MSD1) Prepared: 10/23/2009 10:45 Analyzed: 10/25/2009 10:34

Source: C910602-03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	1.7		0.10	mg/L	1.60	0.025 U	104	80-120	4	25	

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.
B-01	The sample dilutions set-up for the analysis did not meet the oxygen depletion criteria of at least 2 mg/l dissolved oxygen depletion. Therefore the reported result is an estimated value only.
J-01	Result is estimated due to positive results in the associated method blank.

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 211
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: S&ME, Inc. (SM002)	Project Number: 1356-07-004
Address: 9751 Southern Pine Blvd.	Project Name/Desc.: Lincoln County LF - Leachate
City/St/Zip: Charlotte, NC 28273	PO # / Billing Info: 47789
Tel: (704) 523-4726 Fax: (704) 525-3953	Reporting Contact: Julie Petersen
Sampler(s) Name, Affiliation (Print): David Reams / Brian Wilson / S&ME	Billing Contact: Accounts Payable
Sampler(s) Signature: David Reams	Facility # (if required)

Requested Analyses

Requested Turnaround Times

Note: Rush requests subject to acceptance by the facility

___ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C911290

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn	Alkalinity 310.2,Nitrite as N 353.2	BOD SM5210B	COD SM5220D	Nitrate Calc 353.2	NOX 353.2,P	Sulfate 300	TSS SM2540D		Sample Comments
	5503-Lift Station	10-14-09	1515	Grab	GW	8	X	X	X	X	X	X	X	X	X		
	5503-Trip Blank	10-14-09	1515	Grab	WA	2	X										

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
JK	9-24-09	David Reams	10-14-09 (1900)	Briana Gregory	10-15-09 9:30
Comments		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: C-397 2.3°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

Matrix: GW-Groundwater SO-Soil 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.

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APPENDIX II

STATISTICAL ANALYSIS PROCEDURE SHEETS

4.3 Parametric Methods

4.3.1 Parametric ANOVA

Analysis | Parametric ANOVA

Description:

The one-way parametric Analysis of Variance (Parametric ANOVA) is useful for compliance to background (inter-well) comparisons.

The 1989 guidance recommends that for p wells (where p >= 2), there be at least 3 observations for each well and that the total sample size N is large enough that N-p >= 5. With fewer samples, the ability to detect contamination will be reduced.

The 1992 guidance recommends that there be fewer than 15% non-detects for the parametric ANOVA.

ChemStat performs the parametric ANOVA on the entire data set for a parameter. Individual comparisons for each well are then performed.

Use:

For inter-well comparisons.

Implementation:

1. For each well, calculate the totals and means of all samples from the individual well.

2. For the ith well and the jth sample from the ith well (including background wells), compute well totals and means as follows:

$$X_i = \sum_{j=1}^{n_i} x_{ij}$$: the total of all n_i observations at well i

$$\overline{X}_i = \frac{1}{n_i} X_i$$: average of all n_i observations at well i

$$X = \sum_{i=1}^{p} \sum_{j=1}^{n_i} x_{ij}$$: grand total of all observations for all wells

$$\overline{X} = \frac{1}{N} X$$: grand mean of all N observations

where:
N = the total number of samples from all wells
x_{ij} = the jth sample result from the ith well
p = the total number of wells

3. Compute the sum of squares of difference between well means and the grand mean:

$$SS_{wells} = \left(\sum_{i=1}^{p} \frac{1}{n_i} x_i^2 \right) - \frac{1}{N} X^2$$

with (p-1) degrees of freedom.

4. Compute the corrected total sum of squares

$$SS_{total} = \left(\sum_{i=1}^{p} \sum_{j=1}^{n_i} x_{ij}^2 \right) - \frac{X^2}{N}$$

with (N-1) degrees of freedom.

5. Compute the sum of squares of differences of observations within wells from the well means (sum of squares due to error).

$$SS_{error} = SS_{total} - SS_{wells}$$

with (N-p) degrees of freedom.

6. Calculate mean square quantities

$$MS_{wells} = SS_{wells} / (p - 1)$$

$$MS_{error} = SS_{error} / (N - p)$$

7. Set up the ANOVA table

Source of Variation	Sums of Squares	Degrees of Freedom	Mean Squares	F
Between Wells	SS_{wells}	p-1	MS_{wells}	$F = MS_{wells}/MS_{error}$
Error (within wells)	SS_{error}	N-p	MS_{error}	
Total	SS_{total}	N-1		

8. Compare the computed F statistic with a tabulated F-statistic with p-1 and N-p degrees of freedom at the 5% significance level. This is included in Table 2, Appendix B of the 1989 guidance document.

If the calculated F value exceeds the tabulated value, reject the hypothesis of equal well means (the down-gradient wells indicate contamination). Otherwise conclude that there is no significant difference between the concentrations at the p wells and therefore no evidence of contamination.

Individual Well Comparisons

Up to this point, the parametric ANOVA can only show that some well shows contamination, however the specific well or wells have not been identified. The Bonferroni t-statistic test is used to determine the individual wells that show statistically elevated concentrations of the parameter.

1. Assume that of the p wells, u are background wells and m are compliance wells. Obtain the total sample size n_b of all background wells:

$$n_b = \sum_{i=1}^{u} n_i$$

2. Compute the average concentration from the u background wells.

$$\overline{X}_b = \frac{1}{n_b} \sum_{i=1}^{u} \overline{x}_i$$

3. Compute the m differences between the average concentration of each compliance well and the average concentration of the background wells.

4. For the ith well, compute the standard error of each difference as:

$$SE_i = \left[MS_{error} \cdot \left(\frac{1}{n_b} + \frac{1}{n_i} \right) \right]^{1/2}$$

5. Obtain the t-statistic from Bonferroni's t-table (Table 3, Appendix B in the 1989 guidance) with (N-p) degrees of freedom. For more than 5 down-gradient wells, use the 1% significance level ($\alpha = 0.01$), otherwise use the 5% experitmentwise significance level ($\alpha = 0.05/m$ for individual well comparisons). If $m > 5$, use the table entry for $m = 5$.

6. Compute the Critical Value (D_i) for each compliance well.

$$D_i = SE_i \cdot t$$

7. For the ith well, compute the difference between the well mean and the background mean.

$$\delta = \overline{X}_i - \overline{X}_b$$

8. If $\delta > D_i$ the well shows a statistically significant increase in contamination. Otherwise, contamination of the well is not indicated.

9. Compute the residual (R_{ij}) for each compliance well sample.

$$R_{ij} = x_{ij} - \overline{x}_{ij}$$

If the residuals are not normally distributed, the parametric ANOVA is inappropriate.

Remarks:

The 1992 USEPA Statistical Guidance incorrectly states, and many authors have incorrectly stated, that the data set must be normally distributed and have equal well variance for the parametric ANOVA to be appropriate. The USEPA 1989 Statistical Guidance correctly states that the *residuals* must be normally distributed for the parametric ANOVA to be appropriate. Shapiro-Wilks method, Shapiro-Francia method, D'Agostino's method, and probability plots are methods included in ChemStat to test the normality of the residuals. The USEPA 1992 Statistical Guidance correctly states that normality is required for the parametric prediction limit and the parametric tolerance limit.

4.3.2 Parametric Prediction Limit (Inter-Well)

Inter-Well [illegible]

Description:

The inter-well parametric prediction limit is used to compare samples from background wells to a selected number of recent sampling dates for from compliance wells. If there are more than one sample per date, the samples for that date are averaged, and the average is compared to the prediction limit.

$$\overline{X} \pm t_{(0.99,n-1)} S/\sqrt{n}$$

ChemStat calculates the confidence interval at both the 95% and 99% levels of significance.

To determine if contamination exists in the well, the lower boundary of the confidence interval is compared to the comparison level. If the lower boundary of the confidence interval exceeds the Comparison level, the well shows a statistically significant level of contamination.

Remarks:

The parametric confidence interval is presented in detail in the 1989 guidance, along with two example data sets, which are included with ChemStat.

The 1992 guidance indicates that confidence intervals should not be used to compare to an MCL because it is possible for samples to exceed the MCL, and yet the mean of confidence limit would still fall below the MCL, indicating no contamination, when in fact, regulatory limits had been exceeded. The 1992 guidance also points out that unlike tolerance intervals, confidence intervals do not indicate how often individual samples will exceed the MCL.

4.4 Non-Parametric Methods

4.4.1 Kruskal-Wallis Non-Parametric Rank Method

Description:

The Kruskal-Wallis test is a non-parametric rank-based method that compares each compliance well to a group of background wells. It is recommended in the 1992 guidance document for data sets that do not follow a normal distribution, or have 15% to 90% non-detects.

ChemStat compares each compliance well to the background wells. Two comparisons are provided. The first comparison is performed at a minimum of 1% individual well comparison error level. The second comparison is performed at an experimentwise 5% error level, however the minimum error level may fall below the USEPA required value of 1%. The first comparison is compliant with USEPA guidance. The second comparison is less likely to produce false positives, but is more statistically accurate.

USEPA guidance recommends at least 4 observations for each well. Fewer observations will decrease the ability of the method to show statistical significance.

Use:

For comparison of compliance wells to background wells when data does not follow a normal distribution, or there are 15% to 90% non-detects.

Implementation:

1. Data from all background wells are pooled and the background is considered a group. Each compliance well is then also considered a group. For n observations in each of k groups, and N total observations:

2. Rank all N observations from least to greatest. R_{ij} is the rank of the jth observation for the ith group. Consider the background wells as group 1.

3. For each group, calculate the sum R_i and mean $\overline{R}_i$ of the ranks.

4. Calculate the Kruskal-Wallis statistic (H):

$$H = \left[\frac{12}{N(N+1)} \cdot \sum_{i=1}^{k} \frac{R_i^2}{n_i} \right] - 3(N+1)$$

5. Compare the calculated Kruskal-Wallis statistic to the tabulated chi-square value with (k-1) degrees of freedom (Table 1, Appendix B 1989 guidance).

If the computed value exceeds the tabulated value, there is evidence of contamination in at least one compliance well.

6. For each compliance well, compute the critical difference (C) of the well comparison to background.

$$C_i = Z_{(\alpha/(k-1))} \left[\frac{N(N+1)}{12} \right]^{1/2} \cdot \left(\frac{1}{n_1} + \frac{1}{n_i} \right)^{(1/2)}$$

where:

n_1 is the number of background samples (group 1 is considered the background group), and

$Z_{(\alpha/(k-1))}$ is the upper $(\alpha/(k-1))$ percentile of the standard normal distribution (Table 4, Appendix B, 1989 guidance). The 1989 guidance recommends that for (k > 6), use Z(0.01), the upper 1 percentile of the standard normal distribution.

Note that the above equation is presented incorrectly on page 5-16 of the 1989 guidance. The second exponent of ½ has been omitted.

7. For each compliance well, compare the difference of the average rank and the background average rank to the critical difference computer in step 6. If the critical difference is greater, the well shows evidence of contamination.

Adjusting for Ties:

ChemStat adjusts for tied observations for non-detect values only.

Remarks:

The Kruskal-Wallis test can only determine which compliance well is elevated with respect to background, but can not determine which specific samples cause the statistical trigger.

The 1992 guidance example problem for the Kruskal-Wallis method has an error. On page 43, the rank sum and rank mean for Well 3 are given as 51 and 10 respectively. The rank sum and rank mean should be 61 and 12.2 respectively.

4.4.2 Wilcoxon Rank-Sum Inter-Well Comparison

Analysis | Wilcoxon Rank-Sum (Inter-Well)

Description:

The Wilcoxon Rank-Sum method is a non-parametric method for comparing a selected compliance well to the background well.

ChemStat performs the comparison at the 99% level of significance.

At least four samples are recommended for each well.

Use:

For comparison of a single compliance well to background wells when data does not follow a normal distribution, or there are 15% to 90% non-detects.

Implementation:

1. For n compliance wells, and m background wells, with N total samples, combine the compliance and background well data and rank the ordered values from 1 to N.

2. Calculate the Wilcoxon statistic (W):

$$W = \sum_{i=1}^{n} C_i - \frac{1}{2} n(n+1)$$