DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

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

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- 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):

Municipal Engineering Services Co., P.A. (MESCO)

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

Name: Jonathan Pfohl Phone: (919) 772-5393

E-mail: jpfohl@mesco.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Iredell County Subtitle D Lined MSWLF, Phases 3 & 4	354 Twin Oaks Road Statesville, NC 28625	49-03	.1600	January 21-23, 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 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.

Jonathan Pfohl	Environmental Specialist	(919) 772-5393
Facility Representative Name (Print)	Title	(Area Code) Telephone Number
Signature	6/8/09 Date	Affix NC Licensed/ Professional Geologist/Engineer Seal here:

Revised 01/2007

Groundwater Sampling Report and Statistical Analysis

Prepared for

Iredell County Subtitle D Lined MSWLF, Phases 3 & 4
Statesville, North Carolina

January 2009

Permit Number: 49-03
MESCO Project Number: G09014.0

Completed on June 8, 2009

Municipal Services Garner, NC
Engineering Company, P.A. Boone, NC
Municipal Engineering Services Company, P.A.
Garner, Boone and Morehead City, North Carolina

OPERATION/CONSTRUCTION MANAGERS

Municipal Services

CIVIL/SANITARY ENGINEERS

Engineering Company, P.A.

June 8, 2009

Mr. Ervin Lane
Solid Waste Section
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road, Suite 150
Raleigh, NC 27605

Re: Groundwater Sampling and Statistical Analysis
Iredell County Subtitle D Lined MSWLF, Phases 3 & 4
Permit No. 49-03
MESCO Project No. G09014.0

Dear Mr. Lane:

The Iredell County Subtitle D Lined Municipal Solid Waste Landfill (MSWLF) Phases 3 & 4 located in Statesville NC, currently operating under permit #49-03 is required to submit semi-annual compliance reports as a condition of the detection monitoring program. Municipal Engineering Services Company, P.A. (MESCO) performed this sampling event between January 14 & 15, 2009 in accordance to the semi-annual monitoring schedule prescribed by the NC Solid Waste Section rules/regulations as promulgated in 15A NCAC 13B.1600.

This portion of the facility is comprised of two Phases (3 & 4) which are contiguous therefore they are combined and treated as a single unit for overall continuity in this report. The detection monitoring program outlined in the approved Sampling and Analysis Plans (SAP) for both phases consist of a total of thirteen (13) monitoring locations. The sampling locations consist of eleven groundwater, one surface water, and a leachate sampling location. This report includes a summary of field procedures, laboratory analysis, tables of current data, statistical analysis, single day potentiometric map with flow directions/rates, and the complete laboratory analytical report.

Sampling Procedure

MESCO conducted this sampling event in accordance with the site specific SAP. This event consisted of collection of water samples from all monitoring locations including ten downgradient groundwater monitoring wells (MW-18, MW-19SR, MW-19D, MW-20, MW-21S, MW-21D, MW-27S, MW-27D, MW-28, MW-29), one background well (MW-17), one surface water point (SW-5) and a leachate sample (FORCEMAIN). Since Phase 4 just commenced operation in August 2008 this is the premier event that both Phases have been monitored in conjunction. All monitoring locations are shown upon the enclosed single-day potentiometric map formulated for the entire facility.

All sampling was conducted utilizing methodology outlined in the *Solid Waste Section Guidelines for Groundwater, Soil, and Surface Water Sampling* revised April 2008. The depth to water in each well was gaged with an electronic probe prior to purging to quantify the static water level for construction of the single-day potentiometric map. In addition to the required field measurements (pH, specific conductance, temperature) additional field parameters (DO and TDS) were also quantified to better discern the water quality.

MESCO utilized portable monitoring methods and all samples were collected in laboratory-prepared pre-preserved containers. Low flow pumping methodology was utilized to adequately purge the wells and samples were then immediately procured via a disposable baler. All samples were properly collected, separated based upon likelihood of potential cross-contamination, kept upon ice, and transported to a NC certified laboratory under proper chain-of -custody (C-O-C) within the specified hold times for each analysis.

PO Box 97, Garner, North Carolina 27529 (919) 772-5393
PO Box 828, Morehead City, NC 28557 (252) 726-9481 PO Box 349, Boone, North Carolina 28607 (828) 262-1767

Field and Laboratory Results

Environmental Conservation Laboratories Inc. (ENCO) of Cary, NC completed the laboratory analysis of all of the collected groundwater and surface water samples for the complete Appendix I list of volatile organic compounds (VOCs) via EPA 8260 and total unfiltered metals via EPA 6010. A leachate sample was also procured from the sump which serves both Phases 3 & 4. The leachate sample was analyzed for the required leachate specific list which includes the Appendix I list of VOCs and total metals. Quality control measures were also implemented during this event which included submittal and subsequent quantification of blanks for VOC analysis only.

The enclosed field data sheet consists of all field parameter data and it appears to be generally consistent relative to each other and congruent with data historically reported. All water samples were analyzed utilizing the Method Detection Limits (MDL) with reference to the Solid Waste Section detection limit (SWSL) values current as of the sampling event. All detected constituents were referenced to the Groundwater Protection Standards (GWP) and compared to the North Carolina Groundwater Standards (NCGW2L) or the North Carolina Surface Water Standards (NCSW2B) for regulatory exceedance. The results are shown in the enclosed tables titled "Detection Scan".

Quantifiable concentrations (>SWSL) of VOCs continue to be absent from samples obtained from all groundwater and surface water monitoring locations. Metal(s) were found in concentrations above the SWSL in samples collected from seven of the eleven monitoring wells including the background well. The only constituent detected in exceedance of the NCGW2L was cadmium within MW-21D. The sample collected from surface water point SW-5 was found to contain a concentration of silver in levels above the applicable NCSW2B Action Level (AL) Standard, however, the detection was reported as an estimated concentration between the MDL and the SWSL ("j" qualifier).

Statistical Analysis

MESCO also completed the statistical analysis as required by the Solid Waste Section. The statistical analysis was conducted upon all of the monitoring wells surrounding the entire lined MSWLF. Since Phase 4 commenced operation in August 2008 this is the premier event that a statistical analysis has been conducted for the wells that monitor this phase. The purpose of these analyses was to determine, in comparison to background levels, statistical significance of the few constituents detected within the downgradient wells during the January 2009 event. Since there were no VOCs detected in concentrations in exceedance of the SWSL during this event, statistical analysis was only conducted for total metals.

Interwell Analyses (Metals)

MESCO conducted an interwell statistical analysis on all of the detected metals. Historical data from monitoring well MW-17 was defined as the background well, and an upper tolerance limit (UTL) with 95% coverage was computed for each detected constituent from the background data at a 95% level of confidence. For each tested constituent, an appropriate statistical analysis method was selected based on the percentages of non-detects (%ND) in the historical background data. The following table (Table 1) summarizes the methods used for four different %ND ranges.

Table 1. Statistical Analysis Methods for Various %ND Ranges

%ND	Analysis Method	ND Substitution
%ND<15%	Parametric tolerance limit	1/2 ND
15%<%ND<50%	Parametric tolerance limit	Cohen or 1/2 ND
50%<%ND<90%	Non-parametric tolerance limit	1/2 ND
90%<%ND	Poisson tolerance limit	-

NOTE: For parametric tolerance interval, normality of the background data was checked by the Shapiro-Wilks normality test, as the method requires that the data be normally distributed.

A preliminary data screening was conducted upon the metals detected in all monitoring locations. Detected parameters with concentrations found below quantifiable levels (SWSL) and below those detected within the background well were eliminated and a statistical analysis was not conducted for that particular constituent/well. A total of five metals were tested for statistical significance. For cadmium within MW-21D the Poisson tolerance limit method without ND Substituion was used since the consituent has rarely been detected within the background well. For all other detected metals the non-parametric tolerance limit with ½ NDs was used on the original data as the non-detection rates within the background well were between 50% and 90% and the background data was not normally distributed.

Intrawell Analyses (Metals)

Intrawell Analyses were conducted only upon those constituents that were initially found to be statistically significant by interwell analysis. In general, intrawell analysis is conducted in order to attempt to differentiate true contamination from spatial variability. Baseline levels in this context are defined as the background level derived from the data in a given downgradient well. Intrawell analyses through Shewhart-CUSUM control charts require a minimum of eight independent historical sampling events and a detection rate greater than 25% (%ND≤75%). Due to the minimum sampling event criteria the historical data for MW-19S was combined with the recent data for it's directly adjacent replacement well MW-19SR.

Results

Data distributions were reviewed using box and whiskers plots. In order to evaluate variability in concentrations with respect to time and season, time series plots were generated for all of the analytes detected above the NCGW2L. Time series plots were also visually evaluated for seasonality and "outliers" (defined as data that appears to be incongruent with respect to historical results). There appears to not be any apparent outliers or seasonality in the latest data record.

The number and type of metal detections continue to be consistent with historical results. Cadmium detected in concentrations above the NCGW2L Standard within MW-21D is likely naturally inherent as it was previously detected in concentrations several orders of magnitude higher during the pre-operation baseline events and continues to not be detected within the leachate sample. The interwell analysis results conducted upon all of the monitoring wells indicate that downgradient MW-19SR and MW-20 were found to contain concentrations of cobalt over established background levels. However, according to further intrawell analysis through Shewahart-CUSUM chart formulation, none of the metals were found to have increased compared to their own historical levels.

Groundwater and Surface Water Characterization

MESCO completed and enclosed a single-day potentiometric map from groundwater elevation data obtained during this event. Groundwater flow rates and directions were also calculated based upon this data and is included in the attached table. The flow rates ranged from approximately 1 feet/year (MW-21S) to 142 feet/year (MW-28) averaging approximately 44 feet/year. All of the streams located within the facility boundaries were visually observed to be either dry or of extremely low volume with very low flow. The drought and subsequent low stream conditions may contribute to the concentration of non-quantifiable concentration of silver detected within SW-5. The flow directions and gradients are consistent with historical observations, showing no changes that would result in a different interpretation of the groundwater system or hinder the effectiveness of the current monitoring network.

Conclusion

The results of the laboratory and subsequent statistical analysis indicate no signs of contamination originating from the Iredell County Lined Subtitle D MSWLF Phases 3 & 4. MESCO recommends that the facility continue detection monitoring and is tentatively scheduled to be sampled again in July 2009. If you have any questions regarding this report, please contact me at (919) 772-5393 or by email at jpfohl@mesco.com.

Sincerely,
MUNICIPAL ENGINEERING SERVICES CO., P.A.

Jonathan Pfohl
Environmental Specialist

Enclosures
cc: Mr. David Lambert
Iredell County

Detection Scan All Detections above SWS, GWP or NCGW2L
Iredell County Subtitle D Landfill, Phase 3 & 4

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	NCGW 2L [4]	NCSW 2B [5]	GWP [6]	Exceedance	Preliminary Cause
MW-17	Zinc	1/14/09	13.8	ug/L	3.8	10	1050				
MW-18	Chromium	1/14/09	35.9	ug/L	1.0	10	50				
MW-19SR	Barium	1/14/09	128	ug/L	1.00	100	2000				
MW-19SR	Cobalt	1/14/09	19.7	ug/L	1.1	10			70		
MW-20	Barium	1/14/09	103	ug/L	1.00	100	2000				
MW-20	Cobalt	1/14/09	67.9	ug/L	1.1	10			70		
MW-21D	**Cadmium**	**1/14/09**	**2**	**ug/L**	**0.36**	**1**	**1.75**			**0.25**	**Natural**
MW-21D	Zinc	1/14/09	12.7	ug/L	3.8	10	1050				
MW-27D	**Vanadium**	**1/14/09**	**6.5[j]**	**ug/L**	**1.4**	**25**			**3.5**	**3**	**Natural**
MW-27D	Zinc	1/14/09	14.3	ug/L	3.8	10	1050				
MW-28	**Vanadium**	**1/14/09**	**3.7[j]**	**ug/L**	**1.4**	**25**			**3.5**	**0.2**	**Natural**
SW-5	Barium	1/14/09	28.7	ug/L	1.00			200000			
SW-5	Cobalt	1/14/09	1.6	ug/L	1.1			270			
SW-5	Selenium	1/14/09	2.9	ug/L	2.7			5			
SW-5	**Silver**	**1/14/09**	**2.5[j]**	**ug/L**	**1.9**	**10**		**0.06**		**2.44**	**Natural**
SW-5	Zinc	1/14/09	6.6	ug/L	3.8			50			
FORCEMAIN	2-Butanone	1/15/09	380	ug/L	2.0	100	4200				
FORCEMAIN	Acetone	1/15/09	260	ug/L	3.0	100	700				
FORCEMAIN	Barium	1/15/09	924	ug/L	1.00	100	2000				
FORCEMAIN	**Benzene**	**1/15/09**	**8.2**	**ug/L**	**0.40**	**1**	**1**			**7.2**	
FORCEMAIN	Cobalt	1/15/09	14.9	ug/L	1.1	10					
FORCEMAIN	Copper	1/15/09	370	ug/L	1.60	10	1000				
FORCEMAIN	Ethylbenzene	1/15/09	17	ug/L	0.40	1	550				
FORCEMAIN	**Lead**	**1/15/09**	**82.4**	**ug/L**	**1.9**	**10**	**15**			**67.4**	
FORCEMAIN	Nickel	1/15/09	90.6	ug/L	1.8	50	100				
FORCEMAIN	Nitrate as N	1/15/09	39	ug/L	10	10	10				
FORCEMAIN	Nitrite as N	1/15/09	12	ug/L	10	1					
FORCEMAIN	Toluene	1/15/09	18	ug/L	0.54	1	1000				
FORCEMAIN	**Vinyl chloride**	**1/15/09**	**1.7**	**ug/L**	**0.60**	**1**	**0.015**			**1.685**	
FORCEMAIN	Xylenes (Total)	1/15/09	30	ug/L	0.80	5					
FORCEMAIN	Zinc	1/15/09	79.6	ug/L	3.8	10	1050				
FB	**1,2-Dichloroethane**	**1/27/09**	**2**	**ug/L**	**0.65**	**1**	**0.38**			**1.62**	**Artifact**

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	NCGW 2L [4]	NCSW 2B [5]	GWP [6]	Exceedance	Preliminary Cause

[1] Table only contains detected constituents detected above the SWSL, GWP, NCGW2L or NCSW2B Standards

[2] MDL = Method Detection Limit

[3] SWSL = Solid Waste Section Reporting Limit (Current as of Sampling Event)

[4] NCGW2L = North Carolina Ground Water 2L Standard (Current as of Sampling Event)

[5] NCSW2B = North Carolina Surface Water 2B Standard for Specific Stream Classification (Current as of Sampling Event)

[6] GWP = Groundwater Protection Standard (Current as of Sampling Event)

[J] =The reported value is estimated & between the laboratory MDL & the SWSL, adjusted for actual sample preparation data and moisture content.

LFG = Landfill Gas

NE = Not Established

BOLD = Concentration >GWP, NCGW2L, or NCSW2B Standard (Current as of Sampling Event)

Detection Scan All Detections above MDL
Iredell County Subtitle D Landfill, Phase 3 & 4

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	NCGW 2L [4]	NCSW 2B [5]	GWP [6]	Exceedance	Preliminary Cause
MW-17	Chromium	1/14/09	3.4	ug/L	1.0	10	50				
MW-17	Barium	1/14/09	43	ug/L	1.00	100	2000				
MW-17	Zinc	1/14/09	13.8	ug/L	3.8	10	1050				
MW-17	Copper	1/14/09	2.3	ug/L	1.60	10	1000				
MW-17	Cobalt	1/14/09	2.9	ug/L	1.1	10			70		
MW-17	Toluene	1/14/09	0.56	ug/L	0.27	1	1000				
MW-17	Vanadium	1/14/09	3	ug/L	1.4	25			3.5		
MW-18	Vanadium	1/14/09	1.5	ug/L	1.4	25			3.5		
MW-18	Barium	1/14/09	21.3	ug/L	1.00	100	2000				
MW-18	Chromium	1/14/09	35.9	ug/L	1.0	10	50				
MW-18	Cobalt	1/14/09	1.5	ug/L	1.1	10			70		
MW-18	Nickel	1/14/09	14.4	ug/L	1.8	50	100				
MW-19D	Barium	1/14/09	1.3	ug/L	1.00	100	2000				
MW-19D	Copper	1/14/09	2.6	ug/L	1.60	10	1000				
MW-19D	Vanadium	1/14/09	2.7	ug/L	1.4	25			3.5		
MW-19D	Silver	1/14/09	2.8	ug/L	1.9	10	18				
MW-19D	Cobalt	1/14/09	1.5	ug/L	1.1	10			70		
MW-19SR	Cobalt	1/14/09	19.7	ug/L	1.1	10			70		
MW-19SR	Barium	1/14/09	128	ug/L	1.00	100	2000				
MW-19SR	Silver	1/14/09	2.1	ug/L	1.9	10	18				
MW-20	Cobalt	1/14/09	67.9	ug/L	1.1	10			70		
MW-20	Barium	1/14/09	103	ug/L	1.00	100	2000				
MW-20	Nickel	1/14/09	6.3	ug/L	1.8	50	100				
MW-21D	Vanadium	1/14/09	3.3	ug/L	1.4	25			3.5		
MW-21D	Antimony	1/14/09	1.25	ug/L	0.68	6			1.4		
MW-21D	Cobalt	1/14/09	1.6	ug/L	1.1	10			70		
MW-21D	Barium	1/14/09	17.7	ug/L	1.00	100	2000				
MW-21D	Carbon disulfide	1/14/09	1.4	ug/L	0.54	100	700				
MW-21D	Copper	1/14/09	4.6	ug/L	1.60	10	1000				
MW-21D	Zinc	1/14/09	12.7	ug/L	3.8	10	1050				
MW-21D	**Cadmium**	**1/14/09**	**2**	**ug/L**	**0.36**	**1**	**1.75**			**0.25**	**Natural**
MW-21D	Silver	1/14/09	2.3	ug/L	1.9	10	18				
MW-21D	Nickel	1/14/09	2.7	ug/L	1.8	50	100				
MW-21S	Vanadium	1/14/09	1.4	ug/L	1.4	25			3.5		
MW-21S	Cobalt	1/14/09	2.2	ug/L	1.1	10			70		
MW-21S	Chromium	1/14/09	1	ug/L	1.0	10	50				
MW-21S	Beryllium	1/14/09	0.1	ug/L	0.10	1			4		
MW-21S	Cadmium	1/14/09	0.4	ug/L	0.36	1	1.75				
MW-21S	Silver	1/14/09	2.4	ug/L	1.9	10	18				
MW-21S	Barium	1/14/09	31.5	ug/L	1.00	100	2000				
MW-21S	Copper	1/14/09	1.8	ug/L	1.60	10	1000				
MW-21S	Zinc	1/14/09	4.2	ug/L	3.8	10	1050				
MW-27D	Cobalt	1/14/09	3.6	ug/L	1.1	10			70		
MW-27D	**Vanadium**	**1/14/09**	**6.5[j]**	**ug/L**	**1.4**	**25**			**3.5**	**3**	**Natural**
MW-27D	Beryllium	1/14/09	0.1	ug/L	0.10	1			4		
MW-27D	Lead	1/14/09	4.5	ug/L	1.9	10	15				

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	NCGW 2L [4]	NCSW 2B [5]	GWP [6]	Exceedance	Preliminary Cause
MW-27D	Chromium	1/14/09	7.4	ug/L	1.0	10	50				
MW-27D	Barium	1/14/09	17.7	ug/L	1.00	100	2000				
MW-27D	Zinc	1/14/09	14.3	ug/L	3.8	10	1050				
MW-27S	Cobalt	1/14/09	4.1	ug/L	1.1	10			70		
MW-27S	Vanadium	1/14/09	2.8	ug/L	1.4	25			3.5		
MW-27S	Cadmium	1/14/09	0.8	ug/L	0.36	1	1.75				
MW-27S	Silver	1/14/09	4.3	ug/L	1.9	10	18				
MW-27S	Beryllium	1/14/09	0.1	ug/L	0.10	1			4		
MW-27S	Chromium	1/14/09	2.2	ug/L	1.0	10	50				
MW-27S	Barium	1/14/09	20.1	ug/L	1.00	100	2000				
MW-27S	Copper	1/14/09	3.5	ug/L	1.60	10	1000				
MW-28	**Vanadium**	**1/14/09**	**3.7[j]**	**ug/L**	**1.4**	**25**			**3.5**	**0.2**	**Natural**
MW-28	Beryllium	1/14/09	0.2	ug/L	0.10	1			4		
MW-28	Cobalt	1/14/09	4.1	ug/L	1.1	10			70		
MW-28	Zinc	1/14/09	9.6	ug/L	3.8	10	1050				
MW-28	Chromium	1/14/09	1.8	ug/L	1.0	10	50				
MW-28	Barium	1/14/09	23.4	ug/L	1.00	100	2000				
MW-29	Barium	1/14/09	39.3	ug/L	1.00	100	2000				
MW-29	Chromium	1/14/09	1.3	ug/L	1.0	10	50				
MW-29	Beryllium	1/14/09	0.3	ug/L	0.10	1			4		
MW-29	Zinc	1/14/09	4	ug/L	3.8	10	1050				
SW-5	Cobalt	1/14/09	1.6	ug/L	1.1			270			
SW-5	Zinc	1/14/09	6.6	ug/L	3.8			50			
SW-5	**Silver**	**1/14/09**	**2.5**	**ug/L**	**1.9**	**10**		**0.06**		**2.44**	**Natural**
SW-5	Barium	1/14/09	28.7	ug/L	1.00			200000			
SW-5	Selenium	1/14/09	2.9	ug/L	2.7			5			

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	NCGW 2L [4]	NCSW 2B [5]	GWP [6]	Exceedance	Preliminary Cause
FORCEMAIN	Nitrate/Nitrite as N	1/15/09	51	ug/L	17	NE					
FORCEMAIN	Cobalt	1/15/09	14.9	ug/L	1.1	10					
FORCEMAIN	COD	1/15/09	630000	ug/L	10000	NE					
FORCEMAIN	Acetone	1/15/09	260	ug/L	3.0	100	700				
FORCEMAIN	Nitrate as N	1/15/09	39	ug/L	10	10	10				
FORCEMAIN	Silver	1/15/09	5	ug/L	1.9	10	18				
FORCEMAIN	Phosphorus	1/15/09	500	ug/L	50	NE					
FORCEMAIN	TSS	1/15/09	27000	ug/L	1000	NE					
FORCEMAIN	Xylenes (Total)	1/15/09	30	ug/L	0.80	5					
FORCEMAIN	BOD	1/15/09	39000	ug/L	2000	NE					
FORCEMAIN	Nitrite as N	1/15/09	12	ug/L	10	1					
FORCEMAIN	4-Methyl-2-pentanone	1/15/09	18	ug/L	2.2	100					
FORCEMAIN	Zinc	1/15/09	79.6	ug/L	3.8	10	1050				
FORCEMAIN	Copper	1/15/09	370	ug/L	1.60	10	1000				
FORCEMAIN	2-Butanone	1/15/09	380	ug/L	2.0	100	4200				
FORCEMAIN	Barium	1/15/09	924	ug/L	1.00	100	2000				
FORCEMAIN	**Vinyl chloride**	**1/15/09**	**1.7**	**ug/L**	**0.60**	**1**	**0.015**			**1.685**	
FORCEMAIN	**Benzene**	**1/15/09**	**8.2**	**ug/L**	**0.40**	**1**	**1**			**7.2**	
FORCEMAIN	**Lead**	**1/15/09**	**82.4**	**ug/L**	**1.9**	**10**	**15**			**67.4**	
FORCEMAIN	Antimony	1/15/09	2.71	ug/L	0.68	6					
FORCEMAIN	Toluene	1/15/09	18	ug/L	0.54	1	1000				
FORCEMAIN	Nickel	1/15/09	90.6	ug/L	1.8	50	100				
FORCEMAIN	Ethylbenzene	1/15/09	17	ug/L	0.40	1	550				
EB	Carbon disulfide	1/27/09	1.3	ug/L	0.54	100	700				
EB	Chloroform	1/27/09	0.92	ug/L	0.20	5	70				
FB	Chloroform	1/27/09	0.83	ug/L	0.20	5	70				
FB	**1,2-Dichloroethane**	**1/27/09**	**2**	**ug/L**	**0.65**	**1**	**0.38**			**1.62**	**Artifact**

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	NCGW 2L [4]	NCSW 2B [5]	GWP [6]	Exceedance	Preliminary Cause

[1] Table contains all constituents detected above MDL

[2] MDL = Method Detection Limit

[3] SWSL = Solid Waste Section Reporting Limit (Current as of Sampling Event)

[4] NCGW2L = North Carolina Ground Water 2L Standard (Current as of Sampling Event)

[5] NCSW2B = North Carolina Surface Water 2B Standard for Specific Stream Classification (Current as of Sampling Event)

[6] GWP = Groundwater Protection Standard (Current as of Sampling Event)

[J] =The reported value is estimated & between the laboratory MDL & the SWSL, adjusted for actual sample preparation data and moisture content.

LFG = Landfill Gas

NE = Not Established

BOLD = Concentration >GWP, NCGW2L, or NCSW2B Standard (Current as of Sampling Event)

Monitoring Well	Hydraulic Conductivity (cm/sec)	Effective Porosity (%)	Hydraulic Gradient	Flow Rate (ft/yr)	Flow Direction	Water Table Depth (ft)	Water Table Elevation (ft)	Screened Interval Lithology
MW-17	3.73E-05	21.70%	0.02	4	S23E	38.61	815.74	Silt
MW-18	7.43E-04	21.70%	0.03	113	S30E	7.89	792.83	Silt
MW-19SR	4.54E-04	21.70%	0.02	33	S72E	9.00	788.26	Sandy Silt
MW-19D	2.81E-03	21.70%	n/a	n/a	S72E	8.11	787.70	Fractured Rock
MW-20	9.50E-04	21.70%	0.05	238	S22E	4.71	791.22	Silt
MW-21S	1.67E-05	21.70%	0.01	0.487	S76E	34.15	789.82	Saprolite
MW-21D	9.08E-07	21.70%	n/a	n/a	S76E	31.79	790.97	Fractured Rock
MW-27S	5.62E-04	17.00%	0.02	59	S32E	11.81	795.44	Silty Sand
MW-27D	4.67E-04	6.00%	n/a	n/a	S32E	10.89	796.06	Clayey Sand
MW-28	1.52E-03	17.00%	0.02	142	S18E	7.40	802.77	Silty Sand
MW-29	7.70E-04	17.00%	0.01	68	S07E	9.48	799.58	Silty Sand

NOTE: Values for hydraulic conductivity on all wells and piezometers determined via slug test by MESCO
Wells screened in rock not utilized for flow directions/gradients.
Hydraulic Conductivity value for MW-19SR assumed identical to previously adjacent MW-19S
Hydrologic Gradient taken from the January 14, 2009 sampling event.

$$Q = -\frac{K}{n_e} \cdot \frac{dh}{dl}$$

where

K = hydraulic conductivity
ne = effective porosity
dh = head difference
dl = horizontal distance

Project: Iredell County Subtitle D MSWLF, Phase 3 & 4

Samplers: J. Pfohl

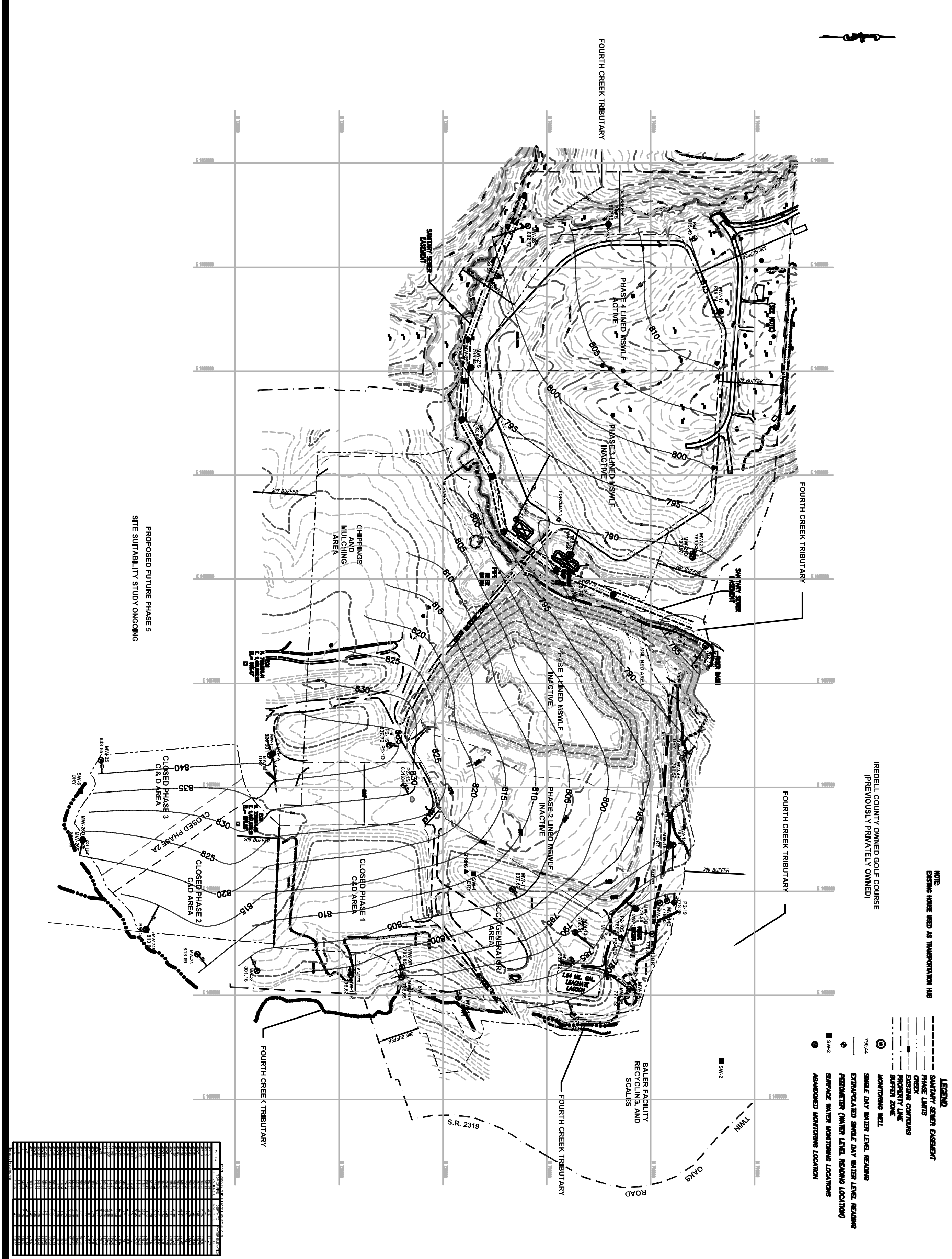
Monitoring Point	Sample Date	Sample Time	Sampling Parameters: Depth to Water (BTOP) Static	Lab Parameters to be analyzed for	Volume Purged (Gal)	Sample Type	Goes Dry During Purge	Comments	Total Depth	Water Quality Parameters: Cl⁻ (mg/l)	DO (mg/L)	ORP	pH	Temp. ©	Specific Cond. (us/cm	TDS (mg/L)	Turbidity	CH4 (ppm)
MW-17	1/14/09	8:10	38.61	I	4	P&DB	Y		45 BGS	NR	2.9	NR	6.3	16.1	60	20	C	NR
MW-18	1/14/09	11:30	7.59	I	8	P&DB	N		20		5.2		6.4	13.8	60	30	C	
MW-19SR	1/14/09	1:35	9.00	I	6	P&DB	N	Hydrogen Sulfide Smell	22.02		1.8		6.7	13.8	560	280	C	
MW-19D	1/14/09	2:10	8.11	I	8	P&DB	N		59		6.2		6.7	15.6	70	30	C	
MW-20	1/14/09	12:05	4.71	I	24	P&DB	N		20		1.6		6.8	16.8	380	180	C	
MW-21S	1/14/09	2:40	34.15	I	3	P&DB	Y		41		6.4		6.6	15.8	20	10	C	
MW-21D	1/14/09	3:55	31.79	I	38	P&DB	Y		138.25		0.7		7.0	15.8	210	100	C	
FORCEMAIN	1/15/09	4:00	—	Leachate	—	Pour	—		—								C	
SW-5	1/14/09	10:50	—	I	—	Dip	—		—		7.9		6.9	7.2	30	10	C	
MW-27S	1/14/09	10:35	11.81	I	4	P&DB	N		20.09		3.8		6.2	16.3	60	30	C	NR
MW-27D	1/14/09	10:00	10.87	I	16	P&DB	N		44.42		0.5		6.1	14.3	180	80	C	NR
MW-28	1/14/09	9:00	7.40	I	2	P&DB	Y		12.42		0.5	NR	6.0	18.3	110	40	C	NR
MW-29	1/14/09	9:35	9.48	I	4	P&DB	N		17.68		1.8	NR	6.1	18.6	130	60	C	NR
P-4	NS	—	23.76	—	—	—												
P4-7S	NS	—	9.59	—	—	—												
P4-7D	NS	—	8.43	—	—	—												

Comments

SS B=Stainless Steel Baler, D B=Disposable Baler, P=Low flow Pump, PD=Purged Dry

VT=Very Turbid, MT=Moderately Turbid, ST=Slightly Turbid, C=Clear

NR=No Reading Attempted, NS=No Sample Obtained



DATE	BY	REV.	DESCRIPTION
7/2/09	LCH	2	ADDED MONITORING WELL 25S/D
6/13/09	LCH	1	ADDED LEACHATE MONITORING POINT

SCALE: 1"=300'
DATE: 6/28/09
DRWN. BY: M. GERMAN
CHKD. BY: J. PFOHL
PROJECT NUMBER: 06008.0
DRAWING NO.
SHEET NO. 1 OF 1

POTENTIOMETRIC MAP (1/28/09)

MUNICIPAL SOLID WASTE LANDFILL FACILITY
IREDELL COUNTY
NORTH CAROLINA

Municipal Services Engineering Company, P.A.

Statistical Analysis Results Summary

Inter-Well Analyses Summary
Iredell County Subtitle D Landfill, phase 3 & 4

Background Well: (MW-17)

Barium, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
56.25	no	Non-parametric tolerance interval	1/2 ND	260	ug/l

Well	Result	Significance
MW-19SR	128.00	no
MW-20	103	no

Cadmium, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
93.75	-	Poisson Tolerance Limit	ND	4	ug/l

Well	Result	Significance
MW-21D	2	no

Chromium, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
62.50	no	Non-parametric tolerance interval	1/2 ND	72	ug/l

Well	Result	Significance
MW-18	35.9	no

Cobalt, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
87.50	no	Non-parametric tolerance interval	1/2 ND	10	ug/l

Well	Result	Significance
MW-19SR	19.70	Yes
MW-20	67.90	Yes

Zinc, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
50.00	no	Non-parametric tolerance interval	1/2 ND	130	ug/l

Well	Result	Significance
MW-27D	14.3	no

NOTE: Bold-faced monitoring points indicate detected levels exceeds NCGW2L standard

Intra-Well Analysis Summary (Metals)
Iredell County Subtitle D Landfill, phase 3 & 4

Well	Cobalt
MW-19SR	no
MW-20	no

EXPLANATION

yes=detection statistically significant by intrawell analysis
no=detection not statistically significant by intrawell analysis
n/a=unable to run intrawell analysis due to insufficient number of sampling events
Bold=Detected in exceedance of the NCGW2L Standard

NO Metals have statistically increased via Intra-Well Analysis

Summary of Pooled VOCs in Background Well (MW-17)
Iredell County Subtitle D Landfill, phase 3 & 4

Constituent	Samples	NDs	% NDs
1,1,1,2-Tetrachloroethane	15	15	100.00
1,1,1-Trichloroethane	15	15	100.00
1,1,2,2-Tetrachloroethane	15	15	100.00
1,1,2-Trichloroethane	15	15	100.00
1,1-Dichloroethane	15	15	100.00
1,1-Dichloroethene	15	15	100.00
1,2,3-Trichloropropane	15	15	100.00
1,2-Dibromo-3-chloropropane	15	15	100.00
1,2-Dibromoethane	15	15	100.00
1,2-Dichlorobenzene	15	15	100.00
1,2-Dichloroethane	15	15	100.00
1,2-Dichloropropane	15	15	100.00
1,4-Dichlorobenzene	15	15	100.00
2-Butanone	15	15	100.00
2-Hexanone	15	15	100.00
4-Methyl-2-Pentanone	15	15	100.00
Acetone	15	15	100.00
Acrylonitrile	15	15	100.00
Benzene	15	15	100.00
Bromochloromethane	15	15	100.00
Bromodichloromethane	15	15	100.00
Bromoform	15	15	100.00
Bromomethane	15	15	100.00
Carbon disulfide	15	15	100.00
Carbon tetrachloride	15	15	100.00
Chlorobenzene	15	15	100.00
Chlorodibromomethane	15	15	100.00
Chloroethane	15	15	100.00
Chloroform	15	15	100.00
Chloromethane	15	15	100.00
cis-1,2-Dichloroethene	15	15	100.00
cis-1,3-Dichloropropene	15	15	100.00
Dibromomethane	15	15	100.00
Dichloromethane	15	15	100.00
Ethylbenzene	15	15	100.00
Iodomethane	15	15	100.00
Styrene	15	15	100.00
Tetrachloroethylene	15	15	100.00
Toluene	15	15	100.00
trans-1,2-Dichloroethene	15	15	100.00
trans-1,3-Dichloropropene	15	15	100.00
trans-1,4-Dichloro-2-butene	15	15	100.00
Trichloroethylene	15	15	100.00
Trichlorofluoromethane	15	15	100.00
Vinyl acetate	15	15	100.00
Vinyl chloride	15	15	100.00
Xylene	15	15	100.00
Total	**705**	**705**	**100.00**

Poisson Prediction Interval Based upon Pooled Background VOCs
Iredell County Subtitle D Landfill, phase 3 & 4

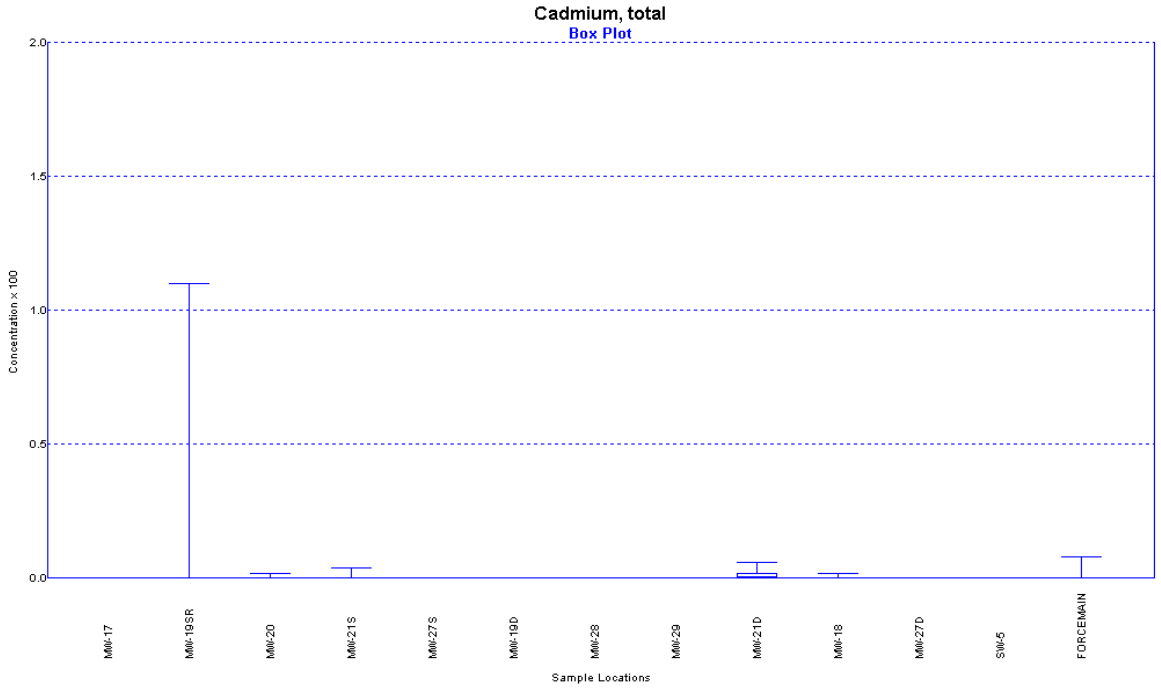
All detected VOCs (Background Well: MW-17)

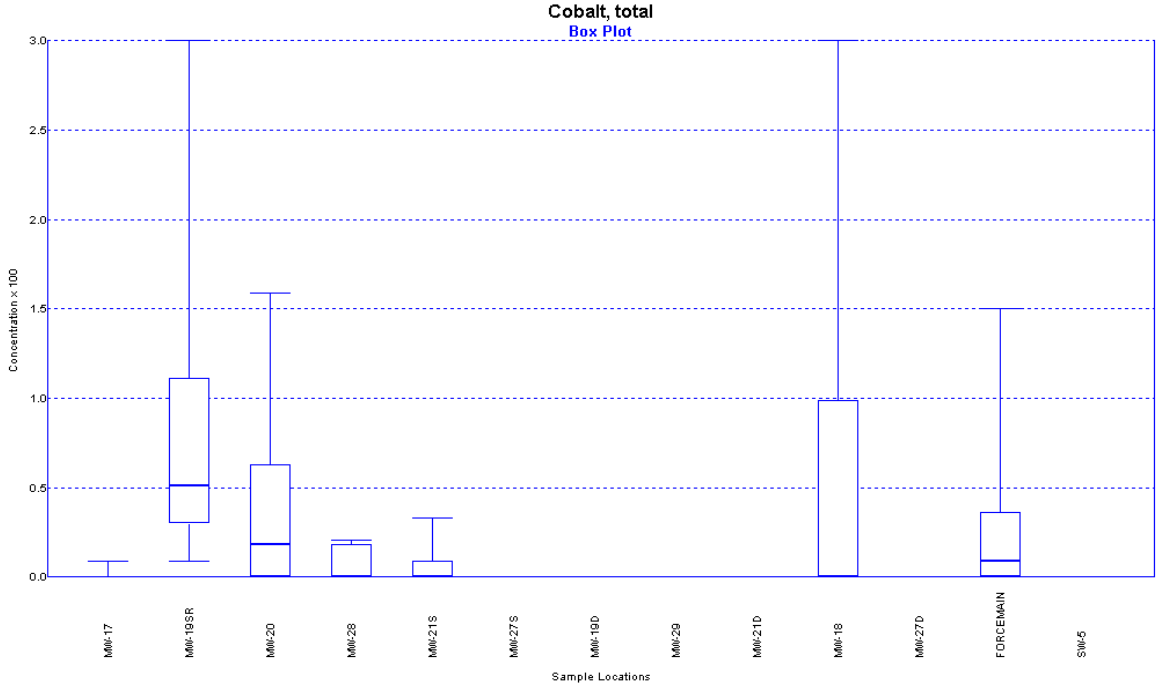
Constituent	None
None	-
Detection(s) per Scan	0.00

Total number of sampling events [n] =	15
Total number of detections in background wells [y] =	0
Number of comparisons (downgradient wells) [k] =	11
One-sided value of Student's t-statistic (95% confidence) [t] =	3.02
Expected number of detections in a single future sample [y*] =	**0.61**

NO Statistically Significant VOC detections within Any Wells at a 95% confidence level

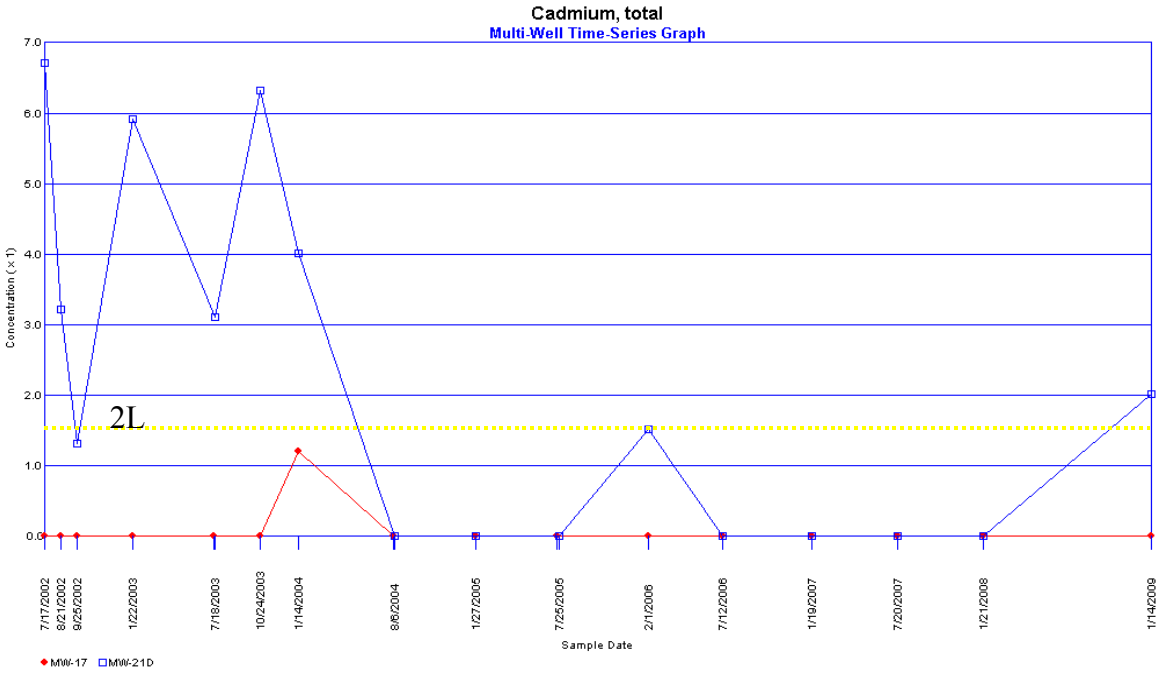
Box Plots for Select Constituents (Metals)
Iredell County Subtitle D Landfill, phase 3 & 4

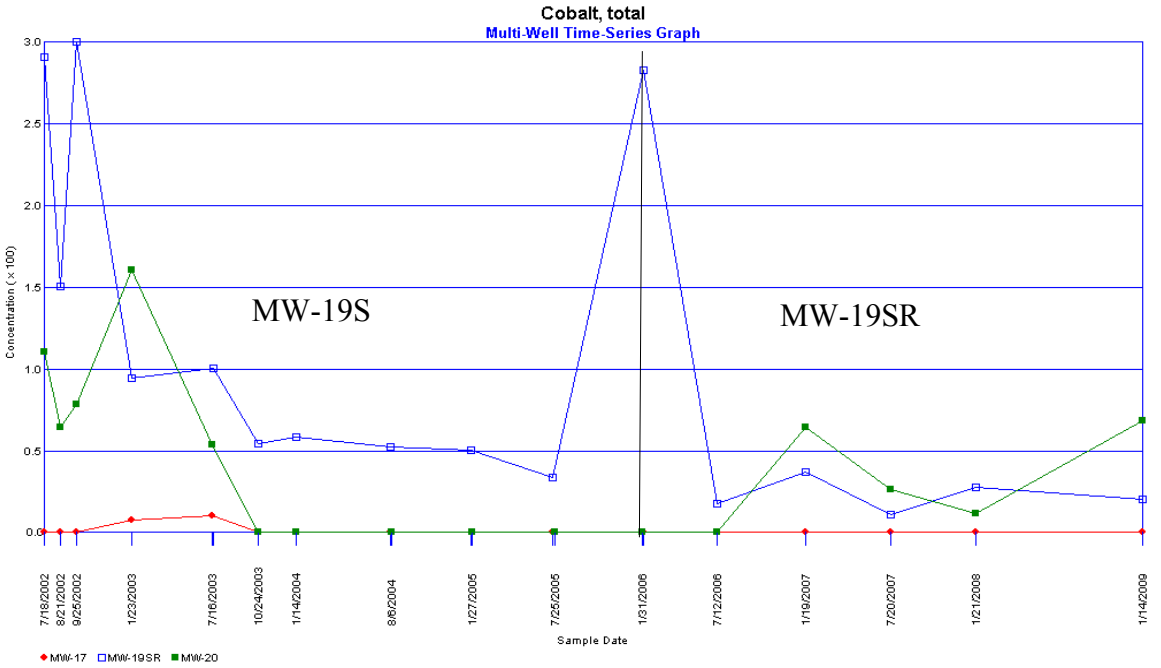




Historical data from previously adjacent MW-19S combined with recent data from replacement well MW-19SR chart formulation

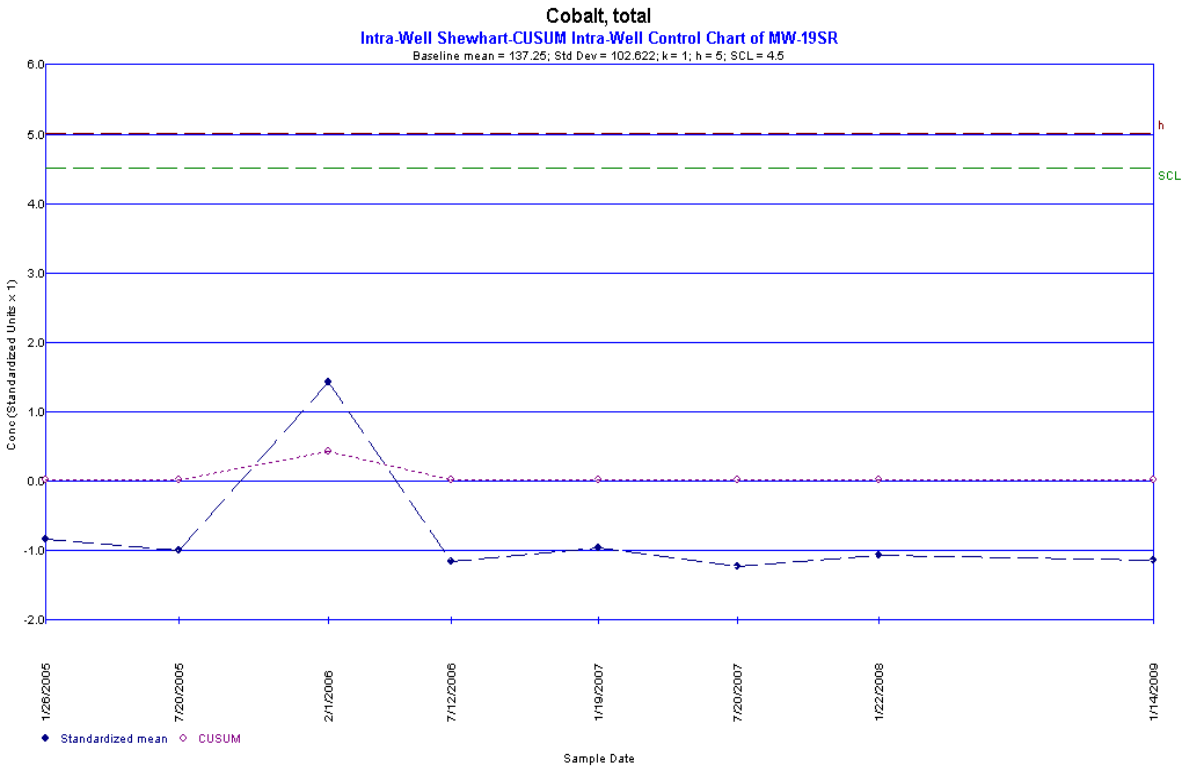
Time Series Plots for Select Constituents (Metals)
Iredell County Subtitle D Landfill, phase 3 & 4



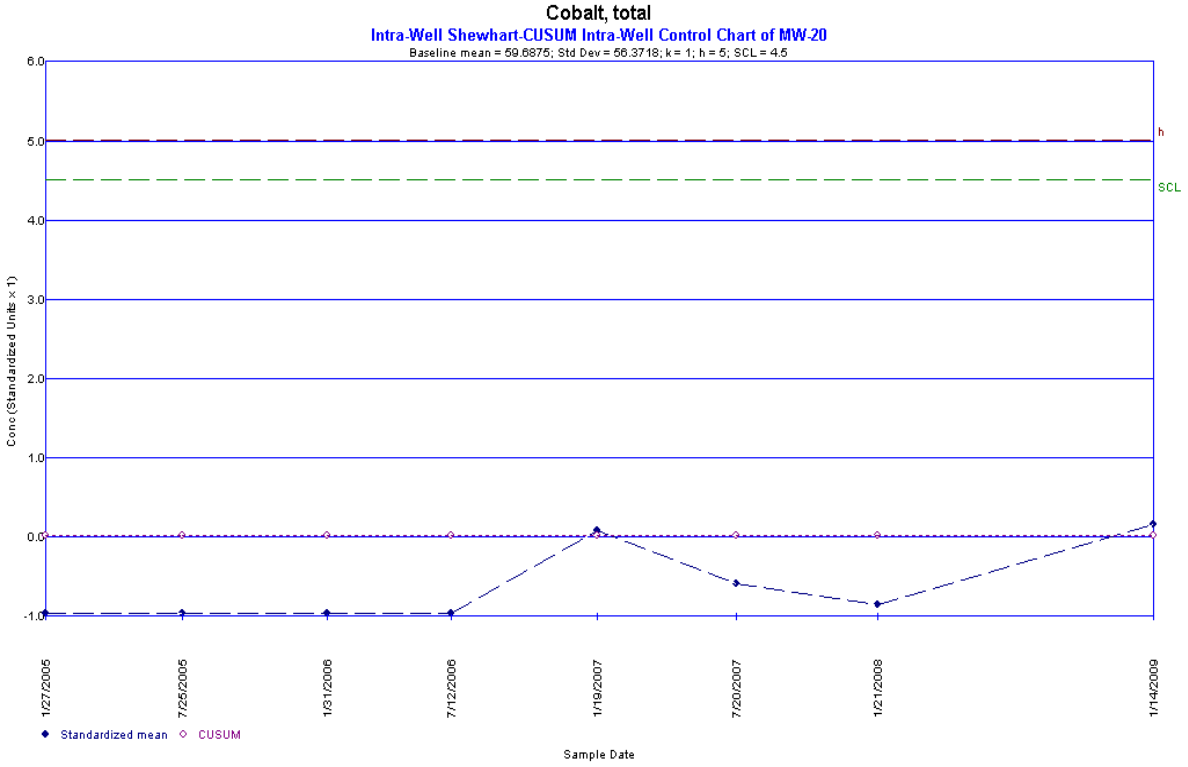


Historical data from previously adjacent MW-19S (<1/19/07) combined with recent data from replacement well MW-19SR for chart formulation

Shewart-CUSUM charts for select constituents
Iredell County Subtitle D Landfill, phase 3 & 4



Historical data from previously adjacent MW-19S combined with recent data from replacement well MW-19SR chart formulation



Basic Statistics

Basic Statistics

Parameter: Barium, total

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

	Total Observations
154	
Total Non-Detects	85
Pooled Mean	328.212
Pooled Std Dev	587.778
Background Mean	135.075
Background Std Dev	112.304

Background Wells

There is 1 background well

Well	Samples	Non-Detects	% ND	Total
MW-17	16	9	56.25	2161.2

Well	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-17	135.075	112.304	0	1142	71.375

Compliance Wells

There are 12 compliance wells

Well	Samples	Non-Detects	% ND	Total
MW-27D	5	5	100	1.7
MW-28	5	3	60	533.5
MW-21S	16	8	50	4927.5
MW-27S	5	5	100	1.7
MW-29	5	5	100	1.7
SW-5	11	8	72.7273	1329.5
MW-18	16	9	56.25	10774.3
MW-19D	16	9	56.25	1653.3
MW-21D	16	9	56.25	1750
MW-20	16	8	50	3748.2
MW-19SR	16	5	31.25	16224
FORCEMAIN	11	2	18.1818	7438

Well	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-27D	0.34	0.219089	-134.735	264.029	215	43
MW-28	106.7	145.86	-28.375	264.029	371	74.2
MW-21S	307.969	226.728	172.894	182.197	1366	85.375
MW-27S	0.34	0.219089	-134.735	264.029	215	43
MW-29	0.34	0.219089	-134.735	264.029	215	43
SW-5	120.864	124.078	-14.2114	201.842	633	57.5455
MW-18	673.394	879.906	538.319	182.197	1315	82.1875
MW-19D	103.331	118.164	-31.7438	182.197	1033	64.5625
MW-21D	109.375	113.761	-25.7	182.197	1083	67.6875
MW-20	234.262	154.307	99.1875	182.197	1315	82.1875
MW-19SR	1014	1234.88	878.925	182.197	1704	106.5
FORCEMAIN	676.182	315.824	541.107	201.842	1328	120.727

Analysis of Variance Statistics

SS Wells	1.5414e+007
SS Total	5.28588e+007

Kruskal-Wallis Statistics

Non-Detect Rank	43
Background Rank Sum	1142
Background Rank Mean	71.375
H Statistic	31.5776
H Adjusted for Ties	37.9599

Basic Statistics

Parameter: Cadmium, total

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

	Total Observations
154	
Total Non-Detects	126
Pooled Mean	1.59513
Pooled Std Dev	8.89472
Background Mean	0.4925
Background Std Dev	0.218556

Background Wells

There is 1 background well

Well	Samples	Non-Detects	% ND	Total
MW-17	16	15	93.75	7.88

Well	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-17	0.4925	0.218556	0	1081.5	67.5938

Compliance Wells

There are 12 compliance wells

Well	Samples	Non-Detects	% ND	Total
MW-21S	16	13	81.25	13.48
MW-27S	5	5	100	1.04
MW-21D	16	7	43.75	37
MW-19SR	16	11	68.75	128.18
SW-5	11	9	81.8182	6.23
MW-19D	16	16	100	7.18
FORCEMAIN	11	8	72.7273	17.88
MW-20	16	13	81.25	11.38
MW-18	16	14	87.5	12.28
MW-28	5	5	100	1.04
MW-27D	5	5	100	1.04
MW-29	5	5	100	1.04

Well	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-21S	0.8425	1.18548	0.35	3.16714	1236.5	77.2813
MW-27S	0.208	0.0383406	-0.2845	4.58962	317.5	63.5
MW-21D	2.3125	2.29481	1.82	3.16714	1731.5	108.219
MW-19SR	8.01125	27.2401	7.51875	3.16714	1420.5	88.7813
SW-5	0.566364	0.310879	0.0738636	3.50863	829.5	75.4091
MW-19D	0.44875	0.111168	-0.04375	3.16714	1016	63.5
FORCEMAIN	1.62545	2.50987	1.13295	3.50863	945	85.9091
MW-20	0.71125	0.695384	0.21875	3.16714	1231.5	76.9688
MW-18	0.7675	0.899352	0.275	3.16714	1173	73.3125
MW-28	0.208	0.0383406	-0.2845	4.58962	317.5	63.5
MW-27D	0.208	0.0383406	-0.2845	4.58962	317.5	63.5
MW-29	0.208	0.0383406	-0.2845	4.58962	317.5	63.5

Analysis of Variance Statistics

SS Wells	790.036
SS Total	12104.8

Kruskal-Wallis Statistics

Non-Detect Rank	63.5
Background Rank Sum	1081.5
Background Rank Mean	67.5938
H Statistic	13.5094
H Adjusted for Ties	29.868

Basic Statistics

Parameter: Chromium, total

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

	Total Observations
154	
Total Non-Detects	104
Pooled Mean	59.7032
Pooled Std Dev	168.89
Background Mean	12.975
Background Std Dev	19.3667

Background Wells

There is 1 background well

Well	Samples	Non-Detects	% ND	Total
MW-17	16	10	62.5	207.6

Well	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-17	12.975	19.3667	0	1256	78.5

Compliance Wells

There are 12 compliance wells

Well	Samples	Non-Detects	% ND	Total
MW-21S	16	8	50	474.4
MW-28	5	3	60	99.5
MW-27S	5	4	80	14.4
MW-29	5	5	100	3.5
MW-27D	5	3	60	50
MW-19D	16	13	81.25	53.3
FORCEMAIN	11	9	81.8182	207.5
MW-18	16	9	56.25	3652.1
SW-5	11	11	100	34.5
MW-19SR	16	8	50	2570.1
MW-20	16	10	62.5	1766
MW-21D	16	11	68.75	61.4

Well	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-21S	29.65	43.6183	16.675	55.2875	1449	90.5625
MW-28	19.9	26.7461	6.925	80.1192	418.5	83.7
MW-27S	2.88	5.04698	-10.095	80.1192	327	65.4
MW-29	0.7	0.273861	-12.275	80.1192	262.5	52.5
MW-27D	10	13.1746	-2.975	80.1192	403.5	80.7
MW-19D	3.33125	2.00855	-9.64375	55.2875	1009.5	63.0938
FORCEMAIN	18.8636	46.9713	5.88864	61.2488	729.5	66.3182
MW-18	228.256	355.943	215.281	55.2875	1467.5	91.7188
SW-5	3.13636	2.14582	-9.83864	61.2488	577.5	52.5
MW-19SR	160.631	262.216	147.656	55.2875	1545	96.5625
MW-20	110.375	174.38	97.4	55.2875	1363	85.1875
MW-21D	3.8375	1.92488	-9.1375	55.2875	1126.5	70.4063

Analysis of Variance Statistics

SS Wells	916165
SS Total	4.36413e+006

Kruskal-Wallis Statistics

Non-Detect Rank	52.5
Background Rank Sum	1256
Background Rank Mean	78.5
H Statistic	14.6881
H Adjusted for Ties	21.2248

Basic Statistics

Parameter: Cobalt, total

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

	Total Observations
154	
Total Non-Detects	108
Pooled Mean	26.0097
Pooled Std Dev	59.4615
Background Mean	4.02813
Background Std Dev	2.42404

Background Wells

There is 1 background well

Well	Samples	Non-Detects	% ND	Total
MW-17	16	14	87.5	64.45

Well	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-17	4.02813	2.42404	0	983	61.4375

Compliance Wells

There are 12 compliance wells

Well	Samples	Non-Detects	% ND	Total
MW-19SR	16	0	0	1573.6
MW-20	16	7	43.75	665.6
FORCEMAIN	11	5	45.4545	288.3
MW-18	16	11	68.75	1072.05
MW-28	5	3	60	41.75
SW-5	11	11	100	37.55
MW-21S	16	10	62.5	146.15
MW-27S	5	5	100	3.65
MW-27D	5	5	100	3.65
MW-19D	16	16	100	52.55
MW-21D	16	16	100	52.55
MW-29	5	5	100	3.65

Well	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-19SR	98.35	101.858	94.3219	18.3754	2158	134.875
MW-20	41.6	46.6201	37.5719	18.3754	1598.5	99.9063
FORCEMAIN	26.2091	42.9766	22.181	20.3567	1030.5	93.6818
MW-18	67.0031	107.075	62.975	18.3754	1341.5	83.8438
MW-28	8.35	10.7297	4.32187	26.6285	407.5	81.5
SW-5	3.41364	1.91365	-0.614489	20.3567	599.5	54.5
MW-21S	9.13438	10.1067	5.10625	18.3754	1255	78.4375
MW-27S	0.73	0.246475	-3.29813	26.6285	272.5	54.5
MW-27D	0.73	0.246475	-3.29813	26.6285	272.5	54.5
MW-19D	3.28437	1.67747	-0.74375	18.3754	872	54.5
MW-21D	3.28437	1.67747	-0.74375	18.3754	872	54.5
MW-29	0.73	0.246475	-3.29813	26.6285	272.5	54.5

Analysis of Variance Statistics

SS Wells	160082
SS Total	540958

Kruskal-Wallis Statistics

Non-Detect Rank	54.5
Background Rank Sum	983
Background Rank Mean	61.4375
H Statistic	49.8356
H Adjusted for Ties	76.073

Basic Statistics

Parameter: Zinc, total

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

	Total Observations
154	
Total Non-Detects	85
Pooled Mean	222.617
Pooled Std Dev	1335.45
Background Mean	38.6437
Background Std Dev	34.859

Background Wells

There is 1 background well

Well	Samples	Non-Detects	% ND	Total
MW-17	16	8	50	618.3

Well	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-17	38.6437	34.859	0	1238	77.375

Compliance Wells

There are 12 compliance wells

Well	Samples	Non-Detects	% ND	Total
SW-5	11	11	100	142.9
MW-29	5	2	40	68.5
MW-21S	16	8	50	944
MW-28	5	2	40	340
MW-20	16	10	62.5	1613.9
MW-18	16	10	62.5	3215.2
MW-27S	5	4	80	23.4
MW-19D	16	12	75	240.9
MW-21D	16	9	56.25	518.7
MW-19SR	16	7	43.75	7447.9
FORCEMAIN	11	2	18.1818	18948
MW-27D	5	0	0	161.3

Well	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
SW-5	12.9909	11.6091	-25.6528	514.662	473	43
MW-29	13.7	13.8411	-24.9437	673.227	386	77.2
MW-21S	59	67.7834	20.3563	464.571	1309	81.8125
MW-28	68	84.226	29.3562	673.227	452	90.4
MW-20	100.869	139.581	62.225	464.571	1224	76.5
MW-18	200.95	306.928	162.306	464.571	1248	78
MW-27S	4.68	7.0251	-33.9637	673.227	271	54.2
MW-19D	15.0563	10.4787	-23.5875	464.571	910	56.875
MW-21D	32.4188	24.0654	-6.225	464.571	1179	73.6875
MW-19SR	465.494	893.401	426.85	464.571	1517	94.8125
FORCEMAIN	1722.55	4792.12	1683.9	514.662	1195	108.636
MW-27D	32.26	19.2386	-6.38375	673.227	533	106.6

Analysis of Variance Statistics

SS Wells	2.94139e+007
SS Total	2.72866e+008

Kruskal-Wallis Statistics

Non-Detect Rank	43
Background Rank Sum	1238
Background Rank Mean	77.375
H Statistic	21.964
H Adjusted for Ties	26.4033

Interwell Analyses for Metals

Non-Parametric Tolerance Interval

Parameter: Barium, total

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 45.8333%
Background Samples (n) = 16
Maximum Background Concentration = 260
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

Well	Sample	Result	Impacted
MW-20	7/18/2002	320	TRUE
MW-20	8/21/2002	360	TRUE
MW-20	9/25/2002	220	FALSE
MW-20	1/23/2003	600	TRUE
MW-20	7/16/2003	430	TRUE
MW-20	10/24/2003	83	FALSE
MW-20	1/14/2004	ND<250	FALSE
MW-20	8/6/2004	ND<250	FALSE
MW-20	1/27/2005	ND<250	FALSE
MW-20	7/25/2005	ND<250	FALSE
MW-20	1/31/2006	ND<250	FALSE
MW-20	7/12/2006	ND<250	FALSE
MW-20	1/19/2007	132	FALSE
MW-20	7/20/2007	ND<0.1	FALSE
MW-20	1/21/2008	ND<0.1	FALSE
MW-20	1/14/2009	103	FALSE
MW-19SR	7/18/2002	3600	TRUE
MW-19SR	8/21/2002	1800	TRUE
MW-19SR	9/25/2002	3300	TRUE
MW-19SR	1/22/2003	910	TRUE
MW-19SR	7/18/2003	1200	TRUE
MW-19SR	10/24/2003	290	TRUE
MW-19SR	1/14/2004	ND<250	FALSE
MW-19SR	8/5/2004	ND<250	FALSE
MW-19SR	1/26/2005	ND<250	FALSE
MW-19SR	7/20/2005	ND<250	FALSE
MW-19SR	2/1/2006	3060	TRUE
MW-19SR	7/12/2006	ND<250	FALSE
MW-19SR	1/19/2007	156	FALSE
MW-19SR	7/20/2007	152	FALSE
MW-19SR	1/22/2008	378	TRUE
MW-19SR	1/14/2009	128	FALSE

Poisson Tolerance Limit

Parameter: Cadmium, total

Original Data (Not Transformed)
Non-Detects Replaced with Detection Limit

Poisson Count of 16 background Samples = 14.56
Degrees of Freedom = 31

95% Confidence Values

Chi-Squared Value (95% Confidence) = 44.9853
Lambda (from Zack's formula) = 1.40579
Smallest Degrees of Freedom = 9
Upper Tolerance Limit (95%) = 3.5

99% Confidence Values

Chi-Squared Value (99% Confidence) = 52.1914
Lambda (from Zack's formula) = 1.63098
Smallest Degrees of Freedom = 12
Upper Tolerance Limit (99%) = 5

	Date	Result	Impacted 95%	Impacted 99%
MW-21D	7/17/2002	6.7	TRUE	TRUE
	8/21/2002	3.2	FALSE	FALSE
	9/25/2002	1.3	FALSE	FALSE
	1/22/2003	5.9	TRUE	TRUE
	7/18/2003	3.1	FALSE	FALSE
	10/24/2003	6.3	TRUE	TRUE
	1/14/2004	4	TRUE	FALSE
	8/6/2004	ND<1	FALSE	FALSE
	1/27/2005	ND<1	FALSE	FALSE
	7/25/2005	ND<1	FALSE	FALSE
	2/1/2006	1.5	FALSE	FALSE
	7/12/2006	ND<1	FALSE	FALSE
	1/19/2007	ND<1	FALSE	FALSE
	7/20/2007	ND<0.5	FALSE	FALSE
	1/21/2008	ND<0.5	FALSE	FALSE
	1/14/2009	2	FALSE	FALSE

Non-Parametric Tolerance Interval

Parameter: Chromium, total

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 59.375%
Background Samples (n) = 16
Maximum Background Concentration = 72
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

Well	Sample	Result	Impacted
MW-18	7/18/2002	620	TRUE
MW-18	8/21/2002	740	TRUE
MW-18	9/25/2002	1000	TRUE
MW-18	1/23/2003	790	TRUE
MW-18	7/16/2003	420	TRUE
MW-18	10/24/2003	9.2	FALSE
MW-18	1/14/2004	ND<5	FALSE
MW-18	8/6/2004	ND<5	FALSE
MW-18	1/27/2005	ND<5	FALSE
MW-18	7/25/2005	ND<5	FALSE
MW-18	1/31/2006	ND<5	FALSE
MW-18	7/12/2006	ND<5	FALSE
MW-18	1/19/2007	ND<5	FALSE
MW-18	7/20/2007	ND<1	FALSE
MW-18	1/21/2008	ND<1	FALSE
MW-18	1/14/2009	35.9	FALSE

Non-Parametric Tolerance Interval

Parameter: Cobalt, total

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 43.75%
Background Samples (n) = 16
Maximum Background Concentration = 9.6
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

Well	Sample	Result	Impacted
MW-19SR	7/18/2002	290	TRUE
MW-19SR	8/21/2002	150	TRUE
MW-19SR	9/25/2002	300	TRUE
MW-19SR	1/22/2003	94	TRUE
MW-19SR	7/18/2003	100	TRUE
MW-19SR	10/24/2003	54	TRUE
MW-19SR	1/14/2004	58	TRUE
MW-19SR	8/5/2004	52	TRUE
MW-19SR	1/26/2005	50	TRUE
MW-19SR	7/20/2005	33	TRUE
MW-19SR	2/1/2006	282	TRUE
MW-19SR	7/12/2006	16.9	TRUE
MW-19SR	1/19/2007	36.7	TRUE
MW-19SR	7/20/2007	10.3	TRUE
MW-19SR	1/22/2008	27	TRUE
MW-19SR	1/14/2009	19.7	TRUE
MW-20	7/18/2002	110	TRUE
MW-20	8/21/2002	64	TRUE
MW-20	9/25/2002	78	TRUE
MW-20	1/23/2003	160	TRUE
MW-20	7/16/2003	53	TRUE
MW-20	10/24/2003	ND<2.5	FALSE
MW-20	1/14/2004	ND<5	FALSE
MW-20	8/6/2004	ND<5	FALSE
MW-20	1/27/2005	ND<5	FALSE
MW-20	7/25/2005	ND<5	FALSE
MW-20	1/31/2006	ND<5	FALSE
MW-20	7/12/2006	ND<5	FALSE
MW-20	1/19/2007	63.7	TRUE
MW-20	7/20/2007	25.7	TRUE
MW-20	1/21/2008	10.8	TRUE
MW-20	1/14/2009	67.9	TRUE

Shapiro-Wilks Test of Normality

Parameter: Zinc, total

Background Wells

Normality Test of Parameter Concentrations

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL
K = 8; Samples = 16

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0.5	130	129.5	0.5056	65.4752
2	5	99	94	0.329	30.926
3	12	64	52	0.2521	13.1092
4	13.8	57	43.2	0.1939	8.37648
5	25	53	28	0.1447	4.0516
6	25	34	9	0.1005	0.9045
7	25	25	0	0.0593	0
8	25	25	0	0.0196	0
9	25	25	0		
10	25	25	0		
11	34	25	-9		
12	53	25	-28		
13	57	13.8	-43.2		
14	64	12	-52		
15	99	5	-94		
16	130	0.5	-129.5		

Sum of b values = 122.843
Sample Standard Deviation = 34.859
W Statistic = 0.827903
5% Critical value of 0.887 exceeds 0.827903
Evidence of non-normality at 95% level of significance
1% Critical value of 0.844 exceeds 0.827903
Evidence of non-normality at 99% level of significance

Non-Parametric Tolerance Interval

Parameter: Zinc, total

Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

Total Percent Non-Detects = 38.0952%
Background Samples (n) = 16
Maximum Background Concentration = 130
Minimum Coverage = 82.9%
Average Coverage = 94.1176%

Well	Sample	Result	Impacted
MW-27D	3/20/2008	58.4	FALSE
MW-27D	5/16/2008	46.8	FALSE
MW-27D	7/18/2008	22.5	FALSE
MW-27D	9/3/2008	19.3	FALSE
MW-27D	1/14/2009	14.3	FALSE

Laboratory Results

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

Tuesday, January 27, 2009

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Laboratory Results for
Project Number: G08013.0 (ph.3), Project Name/Desc: Iredell Co. Sub. D LF, Ph. 3
ENCO Workorder: C900447

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, January 16, 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 59.

www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: MW-17 **Lab ID:** C900447-01 **Sampled:** 01/14/09 08:10 **Received:** 01/16/09 10:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	07/13/09	01/19/09 08:43	1/23/2009 14:28
EPA 6020	07/13/09	01/19/09 08:48	1/20/2009 15:40
EPA 8260B	01/28/09	01/23/09 15:32	1/24/2009 12:40

Client ID: MW-18 **Lab ID:** C900447-02 **Sampled:** 01/14/09 11:30 **Received:** 01/16/09 10:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	07/13/09	01/19/09 08:43	1/23/2009 15:06
EPA 6020	07/13/09	01/19/09 08:48	1/20/2009 15:44
EPA 8260B	01/28/09	01/23/09 15:32	1/24/2009 13:09

Client ID: MW-19SR **Lab ID:** C900447-03 **Sampled:** 01/14/09 13:35 **Received:** 01/16/09 10:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	07/13/09	01/19/09 08:43	1/23/2009 15:46
EPA 6020	07/13/09	01/19/09 08:48	1/20/2009 15:47
EPA 8260B	01/28/09	01/23/09 15:32	1/24/2009 13:39

Client ID: MW-19D **Lab ID:** C900447-04 **Sampled:** 01/14/09 14:10 **Received:** 01/16/09 10:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	07/13/09	01/19/09 08:43	1/23/2009 15:53
EPA 6020	07/13/09	01/19/09 08:48	1/20/2009 15:51
EPA 8260B	01/28/09	01/23/09 15:32	1/24/2009 14:08

Client ID: MW-20 **Lab ID:** C900447-05 **Sampled:** 01/14/09 12:05 **Received:** 01/16/09 10:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	07/13/09	01/19/09 08:43	1/23/2009 16:01
EPA 6020	07/13/09	01/19/09 08:48	1/20/2009 15:16
EPA 8260B	01/28/09	01/23/09 15:32	1/24/2009 14:38

Client ID: MW-21S **Lab ID:** C900447-06 **Sampled:** 01/14/09 14:40 **Received:** 01/16/09 10:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	07/13/09	01/19/09 08:43	1/23/2009 16:08
EPA 6020	07/13/09	01/19/09 08:48	1/20/2009 15:54
EPA 8260B	01/28/09	01/23/09 15:32	1/24/2009 15:08

www.encolabs.com

Client ID:	MW-21D	Lab ID:	C900447-07	Sampled:	01/14/09 15:55	Received:	01/16/09 10:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	07/13/09	01/19/09 08:43	1/23/2009 16:15
EPA 6020	07/13/09	01/21/09 11:56	1/23/2009 11:48
EPA 8260B	01/28/09	01/23/09 15:32	1/24/2009 15:37

Client ID:	MW-27S	Lab ID:	C900447-08	Sampled:	01/14/09 10:35	Received:	01/16/09 10:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	07/13/09	01/19/09 08:43	1/23/2009 16:22
EPA 6020	07/13/09	01/19/09 08:48	1/20/2009 16:01
EPA 8260B	01/28/09	01/23/09 15:32	1/24/2009 16:07

Client ID:	MW-27D	Lab ID:	C900447-09	Sampled:	01/14/09 10:00	Received:	01/16/09 10:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	07/13/09	01/19/09 08:43	1/23/2009 16:29
EPA 6020	07/13/09	01/19/09 08:48	1/20/2009 16:04
EPA 8260B	01/28/09	01/23/09 15:32	1/24/2009 16:36

Client ID:	MW-28	Lab ID:	C900447-10	Sampled:	01/14/09 09:00	Received:	01/16/09 10:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	07/13/09	01/19/09 08:43	1/23/2009 16:37
EPA 6020	07/13/09	01/21/09 11:56	1/23/2009 11:52
EPA 8260B	01/28/09	01/23/09 15:32	1/24/2009 17:06

Client ID:	MW-29	Lab ID:	C900447-11	Sampled:	01/14/09 09:35	Received:	01/16/09 10:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	07/13/09	01/19/09 08:43	1/23/2009 16:44
EPA 6020	07/13/09	01/21/09 11:56	1/23/2009 11:55
EPA 8260B	01/28/09	01/23/09 15:32	1/24/2009 17:35

Client ID:	SW-5	Lab ID:	C900447-12	Sampled:	01/14/09 10:50	Received:	01/16/09 10:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	07/13/09	01/19/09 08:43	1/23/2009 16:51
EPA 6020	07/13/09	01/19/09 08:48	1/20/2009 16:22
EPA 8260B	01/28/09	01/23/09 15:32	1/24/2009 18:05

www.encolabs.com

Client ID:	FORCEMAIN	Lab ID:	C900447-13	Sampled:	01/15/09 16:00	Received:	01/16/09 10:05

Parameter	Hold Date/Time(s)			Prep Date/Time(s)		Analysis Date/Time(s)	
EPA 300.0	02/12/09			01/18/09	07:22	1/20/2009	18:08
EPA 353.2	01/17/09	16:00		01/16/09	14:35	1/16/2009	14:59
EPA 353.2	02/12/09			01/21/09	07:10	1/21/2009	10:31
EPA 353.2	02/12/09			01/27/09	10:16	1/27/2009	10:16
EPA 365.4	02/12/09			01/21/09	10:44	1/22/2009	10:08
EPA 6010B	07/14/09			01/19/09	08:43	1/23/2009	17:15
EPA 6020	07/14/09			01/19/09	08:48	1/20/2009	16:25
SM 2540D	01/22/09			01/20/09	11:50	1/21/2009	13:40
SM 5210B	01/17/09	16:00	01/21/09	01/16/09	13:35	1/21/2009	13:25
SM 5220D	02/12/09			01/21/09	13:50	1/21/2009	16:35
SM4500-H/B	01/15/09	16:14		01/16/09	14:00	1/16/2009	14:00

Client ID:	FORCEMAIN	Lab ID:	C900447-13RE1	Sampled:	01/15/09 16:00	Received:	01/16/09 10:05

Parameter	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)	
EPA 8260B	01/29/09	01/25/09	16:59	1/25/2009	18:14

www.encolabs.com

NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: MW-17 **Lab ID: C900447-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	43.0	J	1	1.00	10.0	100	ug/L	EPA 6010B	
Chromium	3.4	J	1	1.0	10.0	10	ug/L	EPA 6010B	
Cobalt	2.9	JB	1	1.1	10.0	10	ug/L	EPA 6010B	J-01
Copper	2.30	J	1	1.60	10.0	10	ug/L	EPA 6010B	
Toluene	0.56	J	1	0.27	1.0	1	ug/L	EPA 8260B	
Vanadium	3.0	J	1	1.4	10.0	25	ug/L	EPA 6010B	
Zinc	13.8		1	3.8	10.0	10	ug/L	EPA 6010B	

Client ID: MW-18 **Lab ID: C900447-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	21.3	J	1	1.00	10.0	100	ug/L	EPA 6010B	
Chromium	35.9		1	1.0	10.0	10	ug/L	EPA 6010B	
Cobalt	1.5	JB	1	1.1	10.0	10	ug/L	EPA 6010B	J-01
Nickel	14.4	J	1	1.8	10.0	50	ug/L	EPA 6010B	
Vanadium	1.5	J	1	1.4	10.0	25	ug/L	EPA 6010B	

Client ID: MW-19SR **Lab ID: C900447-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	128		1	1.00	10.0	100	ug/L	EPA 6010B	
Cobalt	19.7	B	1	1.1	10.0	10	ug/L	EPA 6010B	QB-01
Silver	2.1	J	1	1.9	10.0	10	ug/L	EPA 6010B	

Client ID: MW-19D **Lab ID: C900447-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	1.30	J	1	1.00	10.0	100	ug/L	EPA 6010B	
Cobalt	1.5	JB	1	1.1	10.0	10	ug/L	EPA 6010B	J-01
Copper	2.60	J	1	1.60	10.0	10	ug/L	EPA 6010B	
Silver	2.8	J	1	1.9	10.0	10	ug/L	EPA 6010B	
Vanadium	2.7	J	1	1.4	10.0	25	ug/L	EPA 6010B	

Client ID: MW-20 **Lab ID: C900447-05**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	103		1	1.00	10.0	100	ug/L	EPA 6010B	
Cobalt	67.9	B	1	1.1	10.0	10	ug/L	EPA 6010B	QB-01
Nickel	6.3	J	1	1.8	10.0	50	ug/L	EPA 6010B	

Client ID: MW-21S **Lab ID: C900447-06**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	31.5	J	1	1.00	10.0	100	ug/L	EPA 6010B	
Beryllium	0.10	J	1	0.10	1.00	1	ug/L	EPA 6010B	
Cadmium	0.40	J	1	0.36	1.00	1	ug/L	EPA 6010B	
Chromium	1.0	J	1	1.0	10.0	10	ug/L	EPA 6010B	
Cobalt	2.2	JB	1	1.1	10.0	10	ug/L	EPA 6010B	J-01
Copper	1.80	J	1	1.60	10.0	10	ug/L	EPA 6010B	
Silver	2.4	J	1	1.9	10.0	10	ug/L	EPA 6010B	
Vanadium	1.4	J	1	1.4	10.0	25	ug/L	EPA 6010B	
Zinc	4.2	J	1	3.8	10.0	10	ug/L	EPA 6010B	

Client ID: MW-21D **Lab ID:** C900447-07

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony	1.25	J	1	0.68	2.00	6	ug/L	EPA 6020	
Barium	17.7	J	1	1.00	10.0	100	ug/L	EPA 6010B	
Cadmium	2.00		1	0.36	1.00	1	ug/L	EPA 6010B	
Carbon disulfide	1.4	J	1	0.54	5.0	100	ug/L	EPA 8260B	
Cobalt	1.6	JB	1	1.1	10.0	10	ug/L	EPA 6010B	J-01
Copper	4.60	J	1	1.60	10.0	10	ug/L	EPA 6010B	
Nickel	2.7	J	1	1.8	10.0	50	ug/L	EPA 6010B	
Silver	2.3	J	1	1.9	10.0	10	ug/L	EPA 6010B	
Vanadium	3.3	J	1	1.4	10.0	25	ug/L	EPA 6010B	
Zinc	12.7		1	3.8	10.0	10	ug/L	EPA 6010B	

Client ID: MW-27S **Lab ID:** C900447-08

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	20.1	J	1	1.00	10.0	100	ug/L	EPA 6010B	
Beryllium	0.10	J	1	0.10	1.00	1	ug/L	EPA 6010B	
Cadmium	0.80	J	1	0.36	1.00	1	ug/L	EPA 6010B	
Chromium	2.2	J	1	1.0	10.0	10	ug/L	EPA 6010B	
Cobalt	4.1	JB	1	1.1	10.0	10	ug/L	EPA 6010B	J-01
Copper	3.50	J	1	1.60	10.0	10	ug/L	EPA 6010B	
Silver	4.3	J	1	1.9	10.0	10	ug/L	EPA 6010B	
Vanadium	2.8	J	1	1.4	10.0	25	ug/L	EPA 6010B	

Client ID: MW-27D **Lab ID:** C900447-09

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	17.7	J	1	1.00	10.0	100	ug/L	EPA 6010B	
Beryllium	0.10	J	1	0.10	1.00	1	ug/L	EPA 6010B	
Chromium	7.4	J	1	1.0	10.0	10	ug/L	EPA 6010B	
Cobalt	3.6	JB	1	1.1	10.0	10	ug/L	EPA 6010B	J-01
Lead	4.5	J	1	1.9	10.0	10	ug/L	EPA 6010B	
Vanadium	6.5	J	1	1.4	10.0	25	ug/L	EPA 6010B	
Zinc	14.3		1	3.8	10.0	10	ug/L	EPA 6010B	

Client ID: MW-28 **Lab ID:** C900447-10

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	23.4	J	1	1.00	10.0	100	ug/L	EPA 6010B	
Beryllium	0.20	J	1	0.10	1.00	1	ug/L	EPA 6010B	
Chromium	1.8	J	1	1.0	10.0	10	ug/L	EPA 6010B	
Cobalt	4.1	JB	1	1.1	10.0	10	ug/L	EPA 6010B	J-01
Vanadium	3.7	J	1	1.4	10.0	25	ug/L	EPA 6010B	
Zinc	9.6	J	1	3.8	10.0	10	ug/L	EPA 6010B	

Client ID: MW-29 **Lab ID:** C900447-11

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	39.3	J	1	1.00	10.0	100	ug/L	EPA 6010B	
Beryllium	0.30	J	1	0.10	1.00	1	ug/L	EPA 6010B	
Chromium	1.3	J	1	1.0	10.0	10	ug/L	EPA 6010B	
Zinc	4.0	J	1	3.8	10.0	10	ug/L	EPA 6010B	

Client ID: SW-5 **Lab ID:** C900447-12

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium	28.7	J	1	1.00	10.0	100	ug/L	EPA 6010B	

www.encolabs.com

Client ID: SW-5									Lab ID: C900447-12
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
Cobalt	1.6	JB	1	1.1	10.0	10	ug/L	EPA 6010B	J-01
Selenium	2.9	J	1	2.7	10.0	10	ug/L	EPA 6010B	
Silver	2.5	J	1	1.9	10.0	10	ug/L	EPA 6010B	
Zinc	6.6	J	1	3.8	10.0	10	ug/L	EPA 6010B	

Client ID: FORCEMAIN									Lab ID: C900447-13
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
Antimony	2.71	J	1	0.68	2.00	6	ug/L	EPA 6020	
Barium	924		1	1.00	10.0	100	ug/L	EPA 6010B	
Biochemical Oxygen Demand	39		1	2.0	2.0	NE	mg/L	SM 5210B	
Chemical Oxygen Demand	630		1	10	10	NE	mg/L	SM 5220D	
Cobalt	14.9	B	1	1.1	10.0	10	ug/L	EPA 6010B	J-01
Copper	370		1	1.60	10.0	10	ug/L	EPA 6010B	
Lead	82.4		1	1.9	10.0	10	ug/L	EPA 6010B	
Nickel	90.6		1	1.8	10.0	50	ug/L	EPA 6010B	
Nitrate as N	0.039	J	1	0.010	0.10	10	mg/L	EPA 353.2	
Nitrate/Nitrite as N	0.051	J	1	0.017	0.10	NE	mg/L	EPA 353.2	
Nitrite as N	0.012	J	1	0.010	0.10	1	mg/L	EPA 353.2	J-01
Phosphorus	500		1	50	100	NE	ug/L	EPA 365.4	
Silver	5.0	J	1	1.9	10.0	10	ug/L	EPA 6010B	
Total Suspended Solids	27		1	1.0	1.0	NE	mg/L	SM 2540D	
Zinc	79.6		1	3.8	10.0	10	ug/L	EPA 6010B	

Client ID: FORCEMAIN									Lab ID: C900447-13RE1
Analyte	**Results**	**Flag**	**DF**	**MDL**	**MRL**	**NC SWSL**	**Units**	**Method**	**Notes**
2-Butanone	380	D	2	2.0	10	100	ug/L	EPA 8260B	
4-Methyl-2-pentanone	18	JD	2	2.2	10	100	ug/L	EPA 8260B	
Acetone	260	D	2	3.0	10	100	ug/L	EPA 8260B	
Benzene	8.2	D	2	0.40	2.0	1	ug/L	EPA 8260B	
Ethylbenzene	17	D	2	0.40	2.0	1	ug/L	EPA 8260B	
Toluene	18	D	2	0.54	2.0	1	ug/L	EPA 8260B	
Vinyl chloride	1.7	JD	2	0.60	2.0	1	ug/L	EPA 8260B	
Xylenes (Total)	30	D	2	0.80	2.0	5	ug/L	EPA 8260B	

www.encolabs.com

ANALYTICAL RESULTS

Description: MW-17
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-01
Sampled: 01/14/09 08:10
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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	01/24/09 12:40	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/24/09 12:40	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/24/09 12:40	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/24/09 12:40	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/24/09 12:40	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/24/09 12:40	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/24/09 12:40	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/24/09 12:40	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/24/09 12:40	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/24/09 12:40	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	01/24/09 12:40	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/24/09 12:40	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/24/09 12:40	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/24/09 12:40	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/24/09 12:40	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/24/09 12:40	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/24/09 12:40	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/24/09 12:40	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/24/09 12:40	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/24/09 12:40	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/24/09 12:40	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	01/24/09 12:40	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	01/24/09 12:40	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
Toluene [108-88-3] ^	**0.56**	J	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/24/09 12:40	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/24/09 12:40	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 12:40	JKG	

www.encolabs.com

Description:	MW-17	**Lab Sample ID:**	C900447-01	**Received:**	01/16/09 10:05
Matrix:	Ground Water	**Sampled:**	01/14/09 08:10	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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	01/24/09 12:40	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	01/24/09 12:40	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/24/09 12:40	JKG	
Xylenes (Total) [1330-20-7]	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/24/09 12:40	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*44*	*1*	*50.0*	*89 %*	*51-122*	*9A23019*	*EPA 8260B*	*01/24/09 12:40*	*JKG*	
Dibromofluoromethane	*52*	*1*	*50.0*	*105 %*	*68-117*	*9A23019*	*EPA 8260B*	*01/24/09 12:40*	*JKG*	
Toluene-d8	*46*	*1*	*50.0*	*92 %*	*69-110*	*9A23019*	*EPA 8260B*	*01/24/09 12:40*	*JKG*	

www.encolabs.com

Description: MW-17
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-01
Sampled: 01/14/09 08:10
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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
Antimony [7440-36-0] ^	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	01/20/09 15:40	JDH	
Arsenic [7440-38-2] ^	2.8	U	ug/L	1	2.8	10.0	10	EPA 6010B	01/23/09 14:28	JDH	
Barium [7440-39-3] ^	**43.0**	J	ug/L	1	1.00	10.0	100	EPA 6010B	01/23/09 14:28	JDH	
Beryllium [7440-41-7] ^	0.10	U	ug/L	1	0.10	1.00	1	EPA 6010B	01/23/09 14:28	JDH	
Cadmium [7440-43-9] ^	0.36	U	ug/L	1	0.36	1.00	1	EPA 6010B	01/23/09 14:28	JDH	
Chromium [7440-47-3] ^	**3.4**	J	ug/L	1	1.0	10.0	10	EPA 6010B	01/23/09 14:28	JDH	
Cobalt [7440-48-4] ^	**2.9**	JB	ug/L	1	1.1	10.0	10	EPA 6010B	01/23/09 14:28	JDH	J-01
Copper [7440-50-8] ^	**2.30**	J	ug/L	1	1.60	10.0	10	EPA 6010B	01/23/09 14:28	JDH	
Lead [7439-92-1] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 14:28	JDH	
Nickel [7440-02-0] ^	1.8	U	ug/L	1	1.8	10.0	50	EPA 6010B	01/23/09 14:28	JDH	
Selenium [7782-49-2] ^	2.7	U	ug/L	1	2.7	10.0	10	EPA 6010B	01/23/09 14:28	JDH	
Silver [7440-22-4] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 14:28	JDH	
Thallium [7440-28-0] ^	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	01/20/09 15:40	JDH	
Vanadium [7440-62-2] ^	**3.0**	J	ug/L	1	1.4	10.0	25	EPA 6010B	01/23/09 14:28	JDH	
Zinc [7440-66-6] ^	**13.8**		ug/L	1	3.8	10.0	10	EPA 6010B	01/23/09 14:28	JDH	

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

www.encolabs.com

Description: MW-18
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-02
Sampled: 01/14/09 11:30
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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	01/24/09 13:09	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/24/09 13:09	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/24/09 13:09	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/24/09 13:09	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/24/09 13:09	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/24/09 13:09	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/24/09 13:09	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/24/09 13:09	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/24/09 13:09	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/24/09 13:09	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	01/24/09 13:09	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/24/09 13:09	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/24/09 13:09	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/24/09 13:09	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/24/09 13:09	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/24/09 13:09	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/24/09 13:09	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/24/09 13:09	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/24/09 13:09	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/24/09 13:09	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/24/09 13:09	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	01/24/09 13:09	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	01/24/09 13:09	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/24/09 13:09	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/24/09 13:09	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 13:09	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	01/24/09 13:09	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/24/09 13:09	JKG	

www.encolabs.com

Description:	MW-18	**Lab Sample ID:**	C900447-02	**Received:**	01/16/09 10:05
Matrix:	Ground Water	**Sampled:**	01/14/09 11:30	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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	01/24/09 13:09	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*44*	*1*	*50.0*	*88 %*	*51-122*	*9A23019*	*EPA 8260B*	*01/24/09 13:09*	*JKG*	
Dibromofluoromethane	*52*	*1*	*50.0*	*104 %*	*68-117*	*9A23019*	*EPA 8260B*	*01/24/09 13:09*	*JKG*	
Toluene-d8	*46*	*1*	*50.0*	*92 %*	*69-110*	*9A23019*	*EPA 8260B*	*01/24/09 13:09*	*JKG*	

www.encolabs.com

Description: MW-18
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-02
Sampled: 01/14/09 11:30
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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
Antimony [7440-36-0] ^	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	01/20/09 15:44	JDH	
Arsenic [7440-38-2] ^	2.8	U	ug/L	1	2.8	10.0	10	EPA 6010B	01/23/09 15:06	JDH	
Barium [7440-39-3] ^	**21.3**	J	ug/L	1	1.00	10.0	100	EPA 6010B	01/23/09 15:06	JDH	
Beryllium [7440-41-7] ^	0.10	U	ug/L	1	0.10	1.00	1	EPA 6010B	01/23/09 15:06	JDH	
Cadmium [7440-43-9] ^	0.36	U	ug/L	1	0.36	1.00	1	EPA 6010B	01/23/09 15:06	JDH	
Chromium [7440-47-3] ^	**35.9**		ug/L	1	1.0	10.0	10	EPA 6010B	01/23/09 15:06	JDH	
Cobalt [7440-48-4] ^	**1.5**	JB	ug/L	1	1.1	10.0	10	EPA 6010B	01/23/09 15:06	JDH	J-01
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010B	01/23/09 15:06	JDH	
Lead [7439-92-1] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 15:06	JDH	
Nickel [7440-02-0] ^	**14.4**	J	ug/L	1	1.8	10.0	50	EPA 6010B	01/23/09 15:06	JDH	
Selenium [7782-49-2] ^	2.7	U	ug/L	1	2.7	10.0	10	EPA 6010B	01/23/09 15:06	JDH	
Silver [7440-22-4] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 15:06	JDH	
Thallium [7440-28-0] ^	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	01/20/09 15:44	JDH	
Vanadium [7440-62-2] ^	**1.5**	J	ug/L	1	1.4	10.0	25	EPA 6010B	01/23/09 15:06	JDH	
Zinc [7440-66-6] ^	3.8	U	ug/L	1	3.8	10.0	10	EPA 6010B	01/23/09 15:06	JDH	

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

www.encolabs.com

Description: MW-19SR
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-03
Sampled: 01/14/09 13:35
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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	01/24/09 13:39	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/24/09 13:39	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/24/09 13:39	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/24/09 13:39	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/24/09 13:39	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/24/09 13:39	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/24/09 13:39	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/24/09 13:39	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/24/09 13:39	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/24/09 13:39	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	01/24/09 13:39	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/24/09 13:39	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/24/09 13:39	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/24/09 13:39	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/24/09 13:39	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/24/09 13:39	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/24/09 13:39	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/24/09 13:39	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/24/09 13:39	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/24/09 13:39	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/24/09 13:39	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	01/24/09 13:39	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	01/24/09 13:39	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/24/09 13:39	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/24/09 13:39	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 13:39	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	01/24/09 13:39	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/24/09 13:39	JKG	

www.encolabs.com

Description:	MW-19SR	**Lab Sample ID:**	C900447-03	**Received:**	01/16/09 10:05
Matrix:	Ground Water	**Sampled:**	01/14/09 13:35	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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	01/24/09 13:39	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*45*	*1*	*50.0*	*90 %*	*51-122*	*9A23019*	*EPA 8260B*	*01/24/09 13:39*	*JKG*	
Dibromofluoromethane	*52*	*1*	*50.0*	*104 %*	*68-117*	*9A23019*	*EPA 8260B*	*01/24/09 13:39*	*JKG*	
Toluene-d8	*47*	*1*	*50.0*	*94 %*	*69-110*	*9A23019*	*EPA 8260B*	*01/24/09 13:39*	*JKG*	

www.encolabs.com

Description: MW-19SR
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-03
Sampled: 01/14/09 13:35
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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
Antimony [7440-36-0] ^	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	01/20/09 15:47	JDH	
Arsenic [7440-38-2] ^	2.8	U	ug/L	1	2.8	10.0	10	EPA 6010B	01/23/09 15:46	JDH	
Barium [7440-39-3] ^	**128**		ug/L	1	1.00	10.0	100	EPA 6010B	01/23/09 15:46	JDH	
Beryllium [7440-41-7] ^	0.10	U	ug/L	1	0.10	1.00	1	EPA 6010B	01/23/09 15:46	JDH	
Cadmium [7440-43-9] ^	0.36	U	ug/L	1	0.36	1.00	1	EPA 6010B	01/23/09 15:46	JDH	
Chromium [7440-47-3] ^	1.0	U	ug/L	1	1.0	10.0	10	EPA 6010B	01/23/09 15:46	JDH	
Cobalt [7440-48-4] ^	**19.7**	B	ug/L	1	1.1	10.0	10	EPA 6010B	01/23/09 15:46	JDH	QB-01
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010B	01/23/09 15:46	JDH	
Lead [7439-92-1] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 15:46	JDH	
Nickel [7440-02-0] ^	1.8	U	ug/L	1	1.8	10.0	50	EPA 6010B	01/23/09 15:46	JDH	
Selenium [7782-49-2] ^	2.7	U	ug/L	1	2.7	10.0	10	EPA 6010B	01/23/09 15:46	JDH	
Silver [7440-22-4] ^	**2.1**	J	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 15:46	JDH	
Thallium [7440-28-0] ^	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	01/20/09 15:47	JDH	
Vanadium [7440-62-2] ^	1.4	U	ug/L	1	1.4	10.0	25	EPA 6010B	01/23/09 15:46	JDH	
Zinc [7440-66-6] ^	3.8	U	ug/L	1	3.8	10.0	10	EPA 6010B	01/23/09 15:46	JDH	

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

www.encolabs.com

Description: MW-19D
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-04
Sampled: 01/14/09 14:10
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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	01/24/09 14:08	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/24/09 14:08	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/24/09 14:08	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/24/09 14:08	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/24/09 14:08	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/24/09 14:08	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/24/09 14:08	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/24/09 14:08	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/24/09 14:08	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/24/09 14:08	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	01/24/09 14:08	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/24/09 14:08	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/24/09 14:08	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/24/09 14:08	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/24/09 14:08	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/24/09 14:08	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/24/09 14:08	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/24/09 14:08	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/24/09 14:08	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/24/09 14:08	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/24/09 14:08	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	01/24/09 14:08	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	01/24/09 14:08	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/24/09 14:08	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/24/09 14:08	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 14:08	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	01/24/09 14:08	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/24/09 14:08	JKG	

www.encolabs.com

Description:	MW-19D	**Lab Sample ID:**	C900447-04	**Received:**	01/16/09 10:05
Matrix:	Ground Water	**Sampled:**	01/14/09 14:10	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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	01/24/09 14:08	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*45*	*1*	*50.0*	*90 %*	*51-122*	*9A23019*	*EPA 8260B*	*01/24/09 14:08*	*JKG*	
Dibromofluoromethane	*54*	*1*	*50.0*	*108 %*	*68-117*	*9A23019*	*EPA 8260B*	*01/24/09 14:08*	*JKG*	
Toluene-d8	*46*	*1*	*50.0*	*92 %*	*69-110*	*9A23019*	*EPA 8260B*	*01/24/09 14:08*	*JKG*	

www.encolabs.com

Description: MW-19D
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-04
Sampled: 01/14/09 14:10
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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
Antimony [7440-36-0] ^	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	01/20/09 15:51	JDH	
Arsenic [7440-38-2] ^	2.8	U	ug/L	1	2.8	10.0	10	EPA 6010B	01/23/09 15:53	JDH	
Barium [7440-39-3] ^	**1.30**	J	ug/L	1	1.00	10.0	100	EPA 6010B	01/23/09 15:53	JDH	
Beryllium [7440-41-7] ^	0.10	U	ug/L	1	0.10	1.00	1	EPA 6010B	01/23/09 15:53	JDH	
Cadmium [7440-43-9] ^	0.36	U	ug/L	1	0.36	1.00	1	EPA 6010B	01/23/09 15:53	JDH	
Chromium [7440-47-3] ^	1.0	U	ug/L	1	1.0	10.0	10	EPA 6010B	01/23/09 15:53	JDH	
Cobalt [7440-48-4] ^	**1.5**	JB	ug/L	1	1.1	10.0	10	EPA 6010B	01/23/09 15:53	JDH	J-01
Copper [7440-50-8] ^	**2.60**	J	ug/L	1	1.60	10.0	10	EPA 6010B	01/23/09 15:53	JDH	
Lead [7439-92-1] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 15:53	JDH	
Nickel [7440-02-0] ^	1.8	U	ug/L	1	1.8	10.0	50	EPA 6010B	01/23/09 15:53	JDH	
Selenium [7782-49-2] ^	2.7	U	ug/L	1	2.7	10.0	10	EPA 6010B	01/23/09 15:53	JDH	
Silver [7440-22-4] ^	**2.8**	J	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 15:53	JDH	
Thallium [7440-28-0] ^	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	01/20/09 15:51	JDH	
Vanadium [7440-62-2] ^	**2.7**	J	ug/L	1	1.4	10.0	25	EPA 6010B	01/23/09 15:53	JDH	
Zinc [7440-66-6] ^	3.8	U	ug/L	1	3.8	10.0	10	EPA 6010B	01/23/09 15:53	JDH	

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

www.encolabs.com

Description: MW-20
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-05
Sampled: 01/14/09 12:05
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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	01/24/09 14:38	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/24/09 14:38	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/24/09 14:38	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/24/09 14:38	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/24/09 14:38	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/24/09 14:38	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/24/09 14:38	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/24/09 14:38	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/24/09 14:38	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/24/09 14:38	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	01/24/09 14:38	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/24/09 14:38	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/24/09 14:38	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/24/09 14:38	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/24/09 14:38	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/24/09 14:38	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/24/09 14:38	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/24/09 14:38	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/24/09 14:38	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/24/09 14:38	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/24/09 14:38	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	01/24/09 14:38	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	01/24/09 14:38	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/24/09 14:38	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/24/09 14:38	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 14:38	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	01/24/09 14:38	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/24/09 14:38	JKG	

www.encolabs.com

Description:	MW-20	**Lab Sample ID:**	C900447-05	**Received:**	01/16/09 10:05
Matrix:	Ground Water	**Sampled:**	01/14/09 12:05	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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	01/24/09 14:38	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*47*	*1*	*50.0*	*93 %*	*51-122*	*9A23019*	*EPA 8260B*	*01/24/09 14:38*	*JKG*	
Dibromofluoromethane	*54*	*1*	*50.0*	*107 %*	*68-117*	*9A23019*	*EPA 8260B*	*01/24/09 14:38*	*JKG*	
Toluene-d8	*47*	*1*	*50.0*	*93 %*	*69-110*	*9A23019*	*EPA 8260B*	*01/24/09 14:38*	*JKG*	

www.encolabs.com

Description: MW-20
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-05
Sampled: 01/14/09 12:05
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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
Antimony [7440-36-0] ^	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	01/20/09 15:16	JDH	
Arsenic [7440-38-2] ^	2.8	U	ug/L	1	2.8	10.0	10	EPA 6010B	01/23/09 16:01	JDH	
Barium [7440-39-3] ^	**103**		ug/L	1	1.00	10.0	100	EPA 6010B	01/23/09 16:01	JDH	
Beryllium [7440-41-7] ^	0.10	U	ug/L	1	0.10	1.00	1	EPA 6010B	01/23/09 16:01	JDH	
Cadmium [7440-43-9] ^	0.36	U	ug/L	1	0.36	1.00	1	EPA 6010B	01/23/09 16:01	JDH	
Chromium [7440-47-3] ^	1.0	U	ug/L	1	1.0	10.0	10	EPA 6010B	01/23/09 16:01	JDH	
Cobalt [7440-48-4] ^	**67.9**	B	ug/L	1	1.1	10.0	10	EPA 6010B	01/23/09 16:01	JDH	QB-01
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010B	01/23/09 16:01	JDH	
Lead [7439-92-1] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:01	JDH	
Nickel [7440-02-0] ^	**6.3**	J	ug/L	1	1.8	10.0	50	EPA 6010B	01/23/09 16:01	JDH	
Selenium [7782-49-2] ^	2.7	U	ug/L	1	2.7	10.0	10	EPA 6010B	01/23/09 16:01	JDH	
Silver [7440-22-4] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:01	JDH	
Thallium [7440-28-0] ^	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	01/20/09 15:16	JDH	
Vanadium [7440-62-2] ^	1.4	U	ug/L	1	1.4	10.0	25	EPA 6010B	01/23/09 16:01	JDH	
Zinc [7440-66-6] ^	3.8	U	ug/L	1	3.8	10.0	10	EPA 6010B	01/23/09 16:01	JDH	

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

www.encolabs.com

Description: MW-21S
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-06
Sampled: 01/14/09 14:40
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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	01/24/09 15:08	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/24/09 15:08	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/24/09 15:08	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/24/09 15:08	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/24/09 15:08	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/24/09 15:08	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/24/09 15:08	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/24/09 15:08	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/24/09 15:08	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/24/09 15:08	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	01/24/09 15:08	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/24/09 15:08	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/24/09 15:08	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/24/09 15:08	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/24/09 15:08	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/24/09 15:08	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/24/09 15:08	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/24/09 15:08	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/24/09 15:08	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/24/09 15:08	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/24/09 15:08	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	01/24/09 15:08	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	01/24/09 15:08	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/24/09 15:08	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/24/09 15:08	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 15:08	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	01/24/09 15:08	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/24/09 15:08	JKG	

www.encolabs.com

Description:	MW-21S	**Lab Sample ID:**	C900447-06	**Received:**	01/16/09 10:05
Matrix:	Ground Water	**Sampled:**	01/14/09 14:40	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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	01/24/09 15:08	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*46*	*1*	*50.0*	*92 %*	*51-122*	*9A23019*	*EPA 8260B*	*01/24/09 15:08*	*JKG*	
Dibromofluoromethane	*55*	*1*	*50.0*	*110 %*	*68-117*	*9A23019*	*EPA 8260B*	*01/24/09 15:08*	*JKG*	
Toluene-d8	*47*	*1*	*50.0*	*93 %*	*69-110*	*9A23019*	*EPA 8260B*	*01/24/09 15:08*	*JKG*	

www.encolabs.com

Description: MW-21S
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-06
Sampled: 01/14/09 14:40
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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
Antimony [7440-36-0] ^	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	01/20/09 15:54	JDH	
Arsenic [7440-38-2] ^	2.8	U	ug/L	1	2.8	10.0	10	EPA 6010B	01/23/09 16:08	JDH	
Barium [7440-39-3] ^	**31.5**	J	ug/L	1	1.00	10.0	100	EPA 6010B	01/23/09 16:08	JDH	
Beryllium [7440-41-7] ^	**0.10**	J	ug/L	1	0.10	1.00	1	EPA 6010B	01/23/09 16:08	JDH	
Cadmium [7440-43-9] ^	**0.40**	J	ug/L	1	0.36	1.00	1	EPA 6010B	01/23/09 16:08	JDH	
Chromium [7440-47-3] ^	**1.0**	J	ug/L	1	1.0	10.0	10	EPA 6010B	01/23/09 16:08	JDH	
Cobalt [7440-48-4] ^	**2.2**	JB	ug/L	1	1.1	10.0	10	EPA 6010B	01/23/09 16:08	JDH	J-01
Copper [7440-50-8] ^	**1.80**	J	ug/L	1	1.60	10.0	10	EPA 6010B	01/23/09 16:08	JDH	
Lead [7439-92-1] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:08	JDH	
Nickel [7440-02-0] ^	1.8	U	ug/L	1	1.8	10.0	50	EPA 6010B	01/23/09 16:08	JDH	
Selenium [7782-49-2] ^	2.7	U	ug/L	1	2.7	10.0	10	EPA 6010B	01/23/09 16:08	JDH	
Silver [7440-22-4] ^	**2.4**	J	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:08	JDH	
Thallium [7440-28-0] ^	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	01/20/09 15:54	JDH	
Vanadium [7440-62-2] ^	**1.4**	J	ug/L	1	1.4	10.0	25	EPA 6010B	01/23/09 16:08	JDH	
Zinc [7440-66-6] ^	**4.2**	J	ug/L	1	3.8	10.0	10	EPA 6010B	01/23/09 16:08	JDH	

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

www.encolabs.com

Description: MW-21D
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-07
Sampled: 01/14/09 15:55
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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	01/24/09 15:37	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/24/09 15:37	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/24/09 15:37	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/24/09 15:37	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/24/09 15:37	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/24/09 15:37	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/24/09 15:37	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/24/09 15:37	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/24/09 15:37	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/24/09 15:37	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	01/24/09 15:37	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/24/09 15:37	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/24/09 15:37	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/24/09 15:37	JKG	
Carbon disulfide [75-15-0] ^	**1.4**	J	ug/L	1	0.54	5.0	100	EPA 8260B	01/24/09 15:37	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/24/09 15:37	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/24/09 15:37	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/24/09 15:37	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/24/09 15:37	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/24/09 15:37	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/24/09 15:37	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	01/24/09 15:37	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	01/24/09 15:37	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/24/09 15:37	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/24/09 15:37	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 15:37	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	01/24/09 15:37	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/24/09 15:37	JKG	

www.encolabs.com

Description:	MW-21D	**Lab Sample ID:**	C900447-07	**Received:**	01/16/09 10:05
Matrix:	Ground Water	**Sampled:**	01/14/09 15:55	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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	01/24/09 15:37	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*46*	*1*	*50.0*	*92 %*	*51-122*	*9A23019*	*EPA 8260B*	*01/24/09 15:37*	*JKG*	
Dibromofluoromethane	*54*	*1*	*50.0*	*108 %*	*68-117*	*9A23019*	*EPA 8260B*	*01/24/09 15:37*	*JKG*	
Toluene-d8	*47*	*1*	*50.0*	*95 %*	*69-110*	*9A23019*	*EPA 8260B*	*01/24/09 15:37*	*JKG*	

www.encolabs.com

Description: MW-21D
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-07
Sampled: 01/14/09 15:55
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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
Antimony [7440-36-0] ^	**1.25**	J	ug/L	1	0.68	2.00	6	EPA 6020	01/23/09 11:48	VLO	
Arsenic [7440-38-2] ^	2.8	U	ug/L	1	2.8	10.0	10	EPA 6010B	01/23/09 16:15	JDH	
Barium [7440-39-3] ^	**17.7**	J	ug/L	1	1.00	10.0	100	EPA 6010B	01/23/09 16:15	JDH	
Beryllium [7440-41-7] ^	0.10	U	ug/L	1	0.10	1.00	1	EPA 6010B	01/23/09 16:15	JDH	
Cadmium [7440-43-9] ^	**2.00**		ug/L	1	0.36	1.00	1	EPA 6010B	01/23/09 16:15	JDH	
Chromium [7440-47-3] ^	1.0	U	ug/L	1	1.0	10.0	10	EPA 6010B	01/23/09 16:15	JDH	
Cobalt [7440-48-4] ^	**1.6**	JB	ug/L	1	1.1	10.0	10	EPA 6010B	01/23/09 16:15	JDH	J-01
Copper [7440-50-8] ^	**4.60**	J	ug/L	1	1.60	10.0	10	EPA 6010B	01/23/09 16:15	JDH	
Lead [7439-92-1] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:15	JDH	
Nickel [7440-02-0] ^	**2.7**	J	ug/L	1	1.8	10.0	50	EPA 6010B	01/23/09 16:15	JDH	
Selenium [7782-49-2] ^	2.7	U	ug/L	1	2.7	10.0	10	EPA 6010B	01/23/09 16:15	JDH	
Silver [7440-22-4] ^	**2.3**	J	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:15	JDH	
Thallium [7440-28-0] ^	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	01/23/09 11:48	VLO	
Vanadium [7440-62-2] ^	**3.3**	J	ug/L	1	1.4	10.0	25	EPA 6010B	01/23/09 16:15	JDH	
Zinc [7440-66-6] ^	**12.7**		ug/L	1	3.8	10.0	10	EPA 6010B	01/23/09 16:15	JDH	

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

www.encolabs.com

Description: MW-27S
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-08
Sampled: 01/14/09 10:35
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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	01/24/09 16:07	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/24/09 16:07	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/24/09 16:07	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/24/09 16:07	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/24/09 16:07	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/24/09 16:07	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/24/09 16:07	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/24/09 16:07	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/24/09 16:07	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/24/09 16:07	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	01/24/09 16:07	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/24/09 16:07	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/24/09 16:07	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/24/09 16:07	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/24/09 16:07	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/24/09 16:07	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/24/09 16:07	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/24/09 16:07	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/24/09 16:07	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/24/09 16:07	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/24/09 16:07	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	01/24/09 16:07	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	01/24/09 16:07	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/24/09 16:07	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/24/09 16:07	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 16:07	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	01/24/09 16:07	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/24/09 16:07	JKG	

www.encolabs.com

Description:	MW-27S	**Lab Sample ID:**	C900447-08	**Received:**	01/16/09 10:05
Matrix:	Ground Water	**Sampled:**	01/14/09 10:35	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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	01/24/09 16:07	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*95 %*	*51-122*	*9A23019*	*EPA 8260B*	*01/24/09 16:07*	*JKG*	
Dibromofluoromethane	*54*	*1*	*50.0*	*109 %*	*68-117*	*9A23019*	*EPA 8260B*	*01/24/09 16:07*	*JKG*	
Toluene-d8	*46*	*1*	*50.0*	*92 %*	*69-110*	*9A23019*	*EPA 8260B*	*01/24/09 16:07*	*JKG*	

www.encolabs.com

Description: MW-27S
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-08
Sampled: 01/14/09 10:35
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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
Antimony [7440-36-0] ^	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	01/20/09 16:01	JDH	
Arsenic [7440-38-2] ^	2.8	U	ug/L	1	2.8	10.0	10	EPA 6010B	01/23/09 16:22	JDH	
Barium [7440-39-3] ^	**20.1**	J	ug/L	1	1.00	10.0	100	EPA 6010B	01/23/09 16:22	JDH	
Beryllium [7440-41-7] ^	**0.10**	J	ug/L	1	0.10	1.00	1	EPA 6010B	01/23/09 16:22	JDH	
Cadmium [7440-43-9] ^	**0.80**	J	ug/L	1	0.36	1.00	1	EPA 6010B	01/23/09 16:22	JDH	
Chromium [7440-47-3] ^	**2.2**	J	ug/L	1	1.0	10.0	10	EPA 6010B	01/23/09 16:22	JDH	
Cobalt [7440-48-4] ^	**4.1**	JB	ug/L	1	1.1	10.0	10	EPA 6010B	01/23/09 16:22	JDH	J-01
Copper [7440-50-8] ^	**3.50**	J	ug/L	1	1.60	10.0	10	EPA 6010B	01/23/09 16:22	JDH	
Lead [7439-92-1] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:22	JDH	
Nickel [7440-02-0] ^	1.8	U	ug/L	1	1.8	10.0	50	EPA 6010B	01/23/09 16:22	JDH	
Selenium [7782-49-2] ^	2.7	U	ug/L	1	2.7	10.0	10	EPA 6010B	01/23/09 16:22	JDH	
Silver [7440-22-4] ^	**4.3**	J	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:22	JDH	
Thallium [7440-28-0] ^	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	01/20/09 16:01	JDH	
Vanadium [7440-62-2] ^	**2.8**	J	ug/L	1	1.4	10.0	25	EPA 6010B	01/23/09 16:22	JDH	
Zinc [7440-66-6] ^	3.8	U	ug/L	1	3.8	10.0	10	EPA 6010B	01/23/09 16:22	JDH	

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

www.encolabs.com

Description: MW-27D
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-09
Sampled: 01/14/09 10:00
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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	01/24/09 16:36	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/24/09 16:36	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/24/09 16:36	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/24/09 16:36	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/24/09 16:36	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/24/09 16:36	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/24/09 16:36	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/24/09 16:36	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/24/09 16:36	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/24/09 16:36	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	01/24/09 16:36	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/24/09 16:36	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/24/09 16:36	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/24/09 16:36	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/24/09 16:36	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/24/09 16:36	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/24/09 16:36	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/24/09 16:36	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/24/09 16:36	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/24/09 16:36	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/24/09 16:36	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	01/24/09 16:36	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	01/24/09 16:36	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/24/09 16:36	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/24/09 16:36	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 16:36	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	01/24/09 16:36	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/24/09 16:36	JKG	

www.encolabs.com

Description:	MW-27D	**Lab Sample ID:**	C900447-09	**Received:**	01/16/09 10:05
Matrix:	Ground Water	**Sampled:**	01/14/09 10:00	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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	01/24/09 16:36	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*47*	*1*	*50.0*	*94 %*	*51-122*	*9A23019*	*EPA 8260B*	*01/24/09 16:36*	*JKG*	
Dibromofluoromethane	*57*	*1*	*50.0*	*113 %*	*68-117*	*9A23019*	*EPA 8260B*	*01/24/09 16:36*	*JKG*	
Toluene-d8	*47*	*1*	*50.0*	*94 %*	*69-110*	*9A23019*	*EPA 8260B*	*01/24/09 16:36*	*JKG*	

www.encolabs.com

Description: MW-27D
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-09
Sampled: 01/14/09 10:00
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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
Antimony [7440-36-0] ^	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	01/20/09 16:04	JDH	
Arsenic [7440-38-2] ^	2.8	U	ug/L	1	2.8	10.0	10	EPA 6010B	01/23/09 16:29	JDH	
Barium [7440-39-3] ^	**17.7**	J	ug/L	1	1.00	10.0	100	EPA 6010B	01/23/09 16:29	JDH	
Beryllium [7440-41-7] ^	**0.10**	J	ug/L	1	0.10	1.00	1	EPA 6010B	01/23/09 16:29	JDH	
Cadmium [7440-43-9] ^	0.36	U	ug/L	1	0.36	1.00	1	EPA 6010B	01/23/09 16:29	JDH	
Chromium [7440-47-3] ^	**7.4**	J	ug/L	1	1.0	10.0	10	EPA 6010B	01/23/09 16:29	JDH	
Cobalt [7440-48-4] ^	**3.6**	JB	ug/L	1	1.1	10.0	10	EPA 6010B	01/23/09 16:29	JDH	J-01
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010B	01/23/09 16:29	JDH	
Lead [7439-92-1] ^	**4.5**	J	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:29	JDH	
Nickel [7440-02-0] ^	1.8	U	ug/L	1	1.8	10.0	50	EPA 6010B	01/23/09 16:29	JDH	
Selenium [7782-49-2] ^	2.7	U	ug/L	1	2.7	10.0	10	EPA 6010B	01/23/09 16:29	JDH	
Silver [7440-22-4] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:29	JDH	
Thallium [7440-28-0] ^	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	01/20/09 16:04	JDH	
Vanadium [7440-62-2] ^	**6.5**	J	ug/L	1	1.4	10.0	25	EPA 6010B	01/23/09 16:29	JDH	
Zinc [7440-66-6] ^	**14.3**		ug/L	1	3.8	10.0	10	EPA 6010B	01/23/09 16:29	JDH	

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

www.encolabs.com

Description: MW-28
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-10
Sampled: 01/14/09 09:00
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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	01/24/09 17:06	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/24/09 17:06	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/24/09 17:06	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/24/09 17:06	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/24/09 17:06	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/24/09 17:06	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/24/09 17:06	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/24/09 17:06	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/24/09 17:06	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/24/09 17:06	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	01/24/09 17:06	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/24/09 17:06	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/24/09 17:06	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/24/09 17:06	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/24/09 17:06	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/24/09 17:06	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/24/09 17:06	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/24/09 17:06	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/24/09 17:06	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/24/09 17:06	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/24/09 17:06	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	01/24/09 17:06	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	01/24/09 17:06	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/24/09 17:06	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 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	01/24/09 17:06	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 17:06	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	01/24/09 17:06	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/24/09 17:06	JKG	

www.encolabs.com

Description:	MW-28	**Lab Sample ID:**	C900447-10	**Received:**	01/16/09 10:05
Matrix:	Ground Water	**Sampled:**	01/14/09 09:00	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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	01/24/09 17:06	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*47*	*1*	*50.0*	*93 %*	*51-122*	*9A23019*	*EPA 8260B*	*01/24/09 17:06*	*JKG*	
Dibromofluoromethane	*56*	*1*	*50.0*	*113 %*	*68-117*	*9A23019*	*EPA 8260B*	*01/24/09 17:06*	*JKG*	
Toluene-d8	*46*	*1*	*50.0*	*93 %*	*69-110*	*9A23019*	*EPA 8260B*	*01/24/09 17:06*	*JKG*	

www.encolabs.com

Description:	MW-28	**Lab Sample ID:**	C900447-10	**Received:**	01/16/09 10:05
Matrix:	Ground Water	**Sampled:**	01/14/09 09:00	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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
Antimony [7440-36-0] ^	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	01/23/09 11:52	VLO	
Arsenic [7440-38-2] ^	2.8	U	ug/L	1	2.8	10.0	10	EPA 6010B	01/23/09 16:37	JDH	
Barium [7440-39-3] ^	**23.4**	J	ug/L	1	1.00	10.0	100	EPA 6010B	01/23/09 16:37	JDH	
Beryllium [7440-41-7] ^	**0.20**	J	ug/L	1	0.10	1.00	1	EPA 6010B	01/23/09 16:37	JDH	
Cadmium [7440-43-9] ^	0.36	U	ug/L	1	0.36	1.00	1	EPA 6010B	01/23/09 16:37	JDH	
Chromium [7440-47-3] ^	**1.8**	J	ug/L	1	1.0	10.0	10	EPA 6010B	01/23/09 16:37	JDH	
Cobalt [7440-48-4] ^	**4.1**	JB	ug/L	1	1.1	10.0	10	EPA 6010B	01/23/09 16:37	JDH	J-01
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010B	01/23/09 16:37	JDH	
Lead [7439-92-1] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:37	JDH	
Nickel [7440-02-0] ^	1.8	U	ug/L	1	1.8	10.0	50	EPA 6010B	01/23/09 16:37	JDH	
Selenium [7782-49-2] ^	2.7	U	ug/L	1	2.7	10.0	10	EPA 6010B	01/23/09 16:37	JDH	
Silver [7440-22-4] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:37	JDH	
Thallium [7440-28-0] ^	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	01/23/09 11:52	VLO	
Vanadium [7440-62-2] ^	**3.7**	J	ug/L	1	1.4	10.0	25	EPA 6010B	01/23/09 16:37	JDH	
Zinc [7440-66-6] ^	**9.6**	J	ug/L	1	3.8	10.0	10	EPA 6010B	01/23/09 16:37	JDH	

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

www.encolabs.com

Description: MW-29
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-11
Sampled: 01/14/09 09:35
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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	01/24/09 17:35	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/24/09 17:35	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/24/09 17:35	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/24/09 17:35	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/24/09 17:35	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/24/09 17:35	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/24/09 17:35	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/24/09 17:35	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/24/09 17:35	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/24/09 17:35	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	01/24/09 17:35	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/24/09 17:35	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/24/09 17:35	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/24/09 17:35	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/24/09 17:35	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/24/09 17:35	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/24/09 17:35	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/24/09 17:35	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/24/09 17:35	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/24/09 17:35	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/24/09 17:35	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	01/24/09 17:35	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	01/24/09 17:35	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/24/09 17:35	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 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	01/24/09 17:35	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 17:35	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	01/24/09 17:35	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/24/09 17:35	JKG	

www.encolabs.com

Description:	MW-29	**Lab Sample ID:**	C900447-11	**Received:**	01/16/09 10:05
Matrix:	Ground Water	**Sampled:**	01/14/09 09:35	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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	01/24/09 17:35	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*47*	*1*	*50.0*	*95 %*	*51-122*	*9A23019*	*EPA 8260B*	*01/24/09 17:35*	*JKG*	
Dibromofluoromethane	*55*	*1*	*50.0*	*111 %*	*68-117*	*9A23019*	*EPA 8260B*	*01/24/09 17:35*	*JKG*	
Toluene-d8	*46*	*1*	*50.0*	*93 %*	*69-110*	*9A23019*	*EPA 8260B*	*01/24/09 17:35*	*JKG*	

www.encolabs.com

Description:	MW-29	**Lab Sample ID:**	C900447-11	**Received:**	01/16/09 10:05
Matrix:	Ground Water	**Sampled:**	01/14/09 09:35	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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
Antimony [7440-36-0] ^	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	01/23/09 11:55	VLO	
Arsenic [7440-38-2] ^	2.8	U	ug/L	1	2.8	10.0	10	EPA 6010B	01/23/09 16:44	JDH	
Barium [7440-39-3] ^	**39.3**	J	ug/L	1	1.00	10.0	100	EPA 6010B	01/23/09 16:44	JDH	
Beryllium [7440-41-7] ^	**0.30**	J	ug/L	1	0.10	1.00	1	EPA 6010B	01/23/09 16:44	JDH	
Cadmium [7440-43-9] ^	0.36	U	ug/L	1	0.36	1.00	1	EPA 6010B	01/23/09 16:44	JDH	
Chromium [7440-47-3] ^	**1.3**	J	ug/L	1	1.0	10.0	10	EPA 6010B	01/23/09 16:44	JDH	
Cobalt [7440-48-4] ^	1.1	U	ug/L	1	1.1	10.0	10	EPA 6010B	01/23/09 16:44	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010B	01/23/09 16:44	JDH	
Lead [7439-92-1] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:44	JDH	
Nickel [7440-02-0] ^	1.8	U	ug/L	1	1.8	10.0	50	EPA 6010B	01/23/09 16:44	JDH	
Selenium [7782-49-2] ^	2.7	U	ug/L	1	2.7	10.0	10	EPA 6010B	01/23/09 16:44	JDH	
Silver [7440-22-4] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:44	JDH	
Thallium [7440-28-0] ^	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	01/23/09 11:55	VLO	
Vanadium [7440-62-2] ^	1.4	U	ug/L	1	1.4	10.0	25	EPA 6010B	01/23/09 16:44	JDH	
Zinc [7440-66-6] ^	**4.0**	J	ug/L	1	3.8	10.0	10	EPA 6010B	01/23/09 16:44	JDH	

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

www.encolabs.com

Description: SW-5
Matrix: Surface Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-12
Sampled: 01/14/09 10:50
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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	01/24/09 18:05	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/24/09 18:05	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/24/09 18:05	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/24/09 18:05	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/24/09 18:05	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/24/09 18:05	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/24/09 18:05	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/24/09 18:05	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/24/09 18:05	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/24/09 18:05	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	01/24/09 18:05	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/24/09 18:05	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/24/09 18:05	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/24/09 18:05	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/24/09 18:05	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/24/09 18:05	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/24/09 18:05	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/24/09 18:05	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/24/09 18:05	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/24/09 18:05	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/24/09 18:05	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	01/24/09 18:05	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	01/24/09 18:05	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/24/09 18:05	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/24/09 18:05	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/24/09 18:05	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	01/24/09 18:05	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/24/09 18:05	JKG	

www.encolabs.com

Description:	SW-5	**Lab Sample ID:**	C900447-12	**Received:**	01/16/09 10:05
Matrix:	Surface Water	**Sampled:**	01/14/09 10:50	**Work Order:**	C900447
Project:	Iredell Co. Sub. D LF, Ph. 3	**Sampled By:**	Jonathan Pfohl		

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	01/24/09 18:05	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*49*	*1*	*50.0*	*97 %*	*51-122*	*9A23019*	*EPA 8260B*	*01/24/09 18:05*	*JKG*	
Dibromofluoromethane	*55*	*1*	*50.0*	*110 %*	*68-117*	*9A23019*	*EPA 8260B*	*01/24/09 18:05*	*JKG*	
Toluene-d8	*46*	*1*	*50.0*	*92 %*	*69-110*	*9A23019*	*EPA 8260B*	*01/24/09 18:05*	*JKG*	

www.encolabs.com

Description: SW-5
Matrix: Surface Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-12
Sampled: 01/14/09 10:50
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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
Antimony [7440-36-0] ^	0.68	U	ug/L	1	0.68	2.00	6	EPA 6020	01/20/09 16:22	JDH	
Arsenic [7440-38-2] ^	2.8	U	ug/L	1	2.8	10.0	10	EPA 6010B	01/23/09 16:51	JDH	
Barium [7440-39-3] ^	**28.7**	J	ug/L	1	1.00	10.0	100	EPA 6010B	01/23/09 16:51	JDH	
Beryllium [7440-41-7] ^	0.10	U	ug/L	1	0.10	1.00	1	EPA 6010B	01/23/09 16:51	JDH	
Cadmium [7440-43-9] ^	0.36	U	ug/L	1	0.36	1.00	1	EPA 6010B	01/23/09 16:51	JDH	
Chromium [7440-47-3] ^	1.0	U	ug/L	1	1.0	10.0	10	EPA 6010B	01/23/09 16:51	JDH	
Cobalt [7440-48-4] ^	**1.6**	JB	ug/L	1	1.1	10.0	10	EPA 6010B	01/23/09 16:51	JDH	J-01
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010B	01/23/09 16:51	JDH	
Lead [7439-92-1] ^	1.9	U	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:51	JDH	
Nickel [7440-02-0] ^	1.8	U	ug/L	1	1.8	10.0	50	EPA 6010B	01/23/09 16:51	JDH	
Selenium [7782-49-2] ^	**2.9**	J	ug/L	1	2.7	10.0	10	EPA 6010B	01/23/09 16:51	JDH	
Silver [7440-22-4] ^	**2.5**	J	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 16:51	JDH	
Thallium [7440-28-0] ^	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	01/20/09 16:22	JDH	
Vanadium [7440-62-2] ^	1.4	U	ug/L	1	1.4	10.0	25	EPA 6010B	01/23/09 16:51	JDH	
Zinc [7440-66-6] ^	**6.6**	J	ug/L	1	3.8	10.0	10	EPA 6010B	01/23/09 16:51	JDH	

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

www.encolabs.com

Description: FORCEMAIN
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-13
Sampled: 01/15/09 16:00
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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] ^	0.80	UD	ug/L	2	0.80	2.0	5	EPA 8260B	01/25/09 18:14	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.54	UD	ug/L	2	0.54	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.66	UD	ug/L	2	0.66	2.0	3	EPA 8260B	01/25/09 18:14	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.74	UD	ug/L	2	0.74	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
1,1-Dichloroethane [75-34-3] ^	0.66	UD	ug/L	2	0.66	2.0	5	EPA 8260B	01/25/09 18:14	JKG	
1,1-Dichloroethene [75-35-4] ^	0.48	UD	ug/L	2	0.48	2.0	5	EPA 8260B	01/25/09 18:14	JKG	
1,2,3-Trichloropropane [96-18-4] ^	1.1	UD	ug/L	2	1.1	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.96	UD	ug/L	2	0.96	2.0	13	EPA 8260B	01/25/09 18:14	JKG	
1,2-Dibromoethane [106-93-4] ^	0.84	UD	ug/L	2	0.84	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.54	UD	ug/L	2	0.54	2.0	5	EPA 8260B	01/25/09 18:14	JKG	
1,2-Dichloroethane [107-06-2] ^	1.3	UD	ug/L	2	1.3	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
1,2-Dichloropropane [78-87-5] ^	0.40	UD	ug/L	2	0.40	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.76	UD	ug/L	2	0.76	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
2-Butanone [78-93-3] ^	**380**	D	ug/L	2	2.0	10	100	EPA 8260B	01/25/09 18:14	JKG	
2-Hexanone [591-78-6] ^	1.4	UD	ug/L	2	1.4	10	50	EPA 8260B	01/25/09 18:14	JKG	
4-Methyl-2-pentanone [108-10-1] ^	**18**	JD	ug/L	2	2.2	10	100	EPA 8260B	01/25/09 18:14	JKG	
Acetone [67-64-1] ^	**260**	D	ug/L	2	3.0	10	100	EPA 8260B	01/25/09 18:14	JKG	
Acrylonitrile [107-13-1] ^	4.2	UD	ug/L	2	4.2	10	200	EPA 8260B	01/25/09 18:14	JKG	
Benzene [71-43-2] ^	**8.2**	D	ug/L	2	0.40	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
Bromochloromethane [74-97-5] ^	0.84	UD	ug/L	2	0.84	2.0	3	EPA 8260B	01/25/09 18:14	JKG	
Bromodichloromethane [75-27-4] ^	0.74	UD	ug/L	2	0.74	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
Bromoform [75-25-2] ^	1.4	UD	ug/L	2	1.4	2.0	3	EPA 8260B	01/25/09 18:14	JKG	
Bromomethane [74-83-9] ^	0.98	UD	ug/L	2	0.98	2.0	10	EPA 8260B	01/25/09 18:14	JKG	
Carbon disulfide [75-15-0] ^	1.1	UD	ug/L	2	1.1	10	100	EPA 8260B	01/25/09 18:14	JKG	
Carbon tetrachloride [56-23-5] ^	0.76	UD	ug/L	2	0.76	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
Chlorobenzene [108-90-7] ^	0.54	UD	ug/L	2	0.54	2.0	3	EPA 8260B	01/25/09 18:14	JKG	
Chloroethane [75-00-3] ^	0.60	UD	ug/L	2	0.60	2.0	10	EPA 8260B	01/25/09 18:14	JKG	
Chloroform [67-66-3] ^	0.40	UD	ug/L	2	0.40	2.0	5	EPA 8260B	01/25/09 18:14	JKG	
Chloromethane [74-87-3] ^	0.68	UD	ug/L	2	0.68	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.72	UD	ug/L	2	0.72	2.0	5	EPA 8260B	01/25/09 18:14	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.56	UD	ug/L	2	0.56	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
Dibromochloromethane [124-48-1] ^	0.64	UD	ug/L	2	0.64	2.0	3	EPA 8260B	01/25/09 18:14	JKG	
Dibromomethane [74-95-3] ^	0.74	UD	ug/L	2	0.74	2.0	10	EPA 8260B	01/25/09 18:14	JKG	
Ethylbenzene [100-41-4] ^	**17**	D	ug/L	2	0.40	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
Iodomethane [74-88-4] ^	1.0	UD	ug/L	2	1.0	4.0	10	EPA 8260B	01/25/09 18:14	JKG	
Methylene chloride [75-09-2] ^	1.1	UD	ug/L	2	1.1	4.0	1	EPA 8260B	01/25/09 18:14	JKG	
Styrene [100-42-5] ^	0.52	UD	ug/L	2	0.52	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
Tetrachloroethene [127-18-4] ^	0.72	UD	ug/L	2	0.72	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
Toluene [108-88-3] ^	**18**	D	ug/L	2	0.54	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.68	UD	ug/L	2	0.68	2.0	5	EPA 8260B	01/25/09 18:14	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.76	UD	ug/L	2	0.76	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	1.1	UD	ug/L	2	1.1	2.0	100	EPA 8260B	01/25/09 18:14	JKG	
Trichloroethene [79-01-6] ^	0.76	UD	ug/L	2	0.76	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
Trichlorofluoromethane [75-69-4] ^	0.56	UD	ug/L	2	0.56	2.0	1	EPA 8260B	01/25/09 18:14	JKG	
Vinyl acetate [108-05-4] ^	2.0	UD	ug/L	2	2.0	4.0	50	EPA 8260B	01/25/09 18:14	JKG	
Vinyl chloride [75-01-4] ^	**1.7**	JD	ug/L	2	0.60	2.0	1	EPA 8260B	01/25/09 18:14	JKG	

www.encolabs.com

Description: FORCEMAIN
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-13
Sampled: 01/15/09 16:00
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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]	**30**	D	ug/L	2	0.80	2.0	5	EPA 8260B	01/25/09 18:14	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*50*	*1*	*50.0*	*101 %*	*51-122*	*9A24003*	*EPA 8260B*	*01/25/09 18:14*	*JKG*	
Dibromofluoromethane	*51*	*1*	*50.0*	*101 %*	*68-117*	*9A24003*	*EPA 8260B*	*01/25/09 18:14*	*JKG*	
Toluene-d8	*46*	*1*	*50.0*	*92 %*	*69-110*	*9A24003*	*EPA 8260B*	*01/25/09 18:14*	*JKG*	

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
Antimony [7440-36-0] ^	**2.71**	J	ug/L	1	0.68	2.00	6	EPA 6020	01/20/09 16:25	JDH	
Arsenic [7440-38-2] ^	2.8	U	ug/L	1	2.8	10.0	10	EPA 6010B	01/23/09 17:15	JDH	
Barium [7440-39-3] ^	**924**		ug/L	1	1.00	10.0	100	EPA 6010B	01/23/09 17:15	JDH	
Beryllium [7440-41-7] ^	0.10	U	ug/L	1	0.10	1.00	1	EPA 6010B	01/23/09 17:15	JDH	
Cadmium [7440-43-9] ^	0.36	U	ug/L	1	0.36	1.00	1	EPA 6010B	01/23/09 17:15	JDH	
Chromium [7440-47-3] ^	1.0	U	ug/L	1	1.0	10.0	10	EPA 6010B	01/23/09 17:15	JDH	
Cobalt [7440-48-4] ^	**14.9**	B	ug/L	1	1.1	10.0	10	EPA 6010B	01/23/09 17:15	JDH	J-01
Copper [7440-50-8] ^	**370**		ug/L	1	1.60	10.0	10	EPA 6010B	01/23/09 17:15	JDH	
Lead [7439-92-1] ^	**82.4**		ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 17:15	JDH	
Nickel [7440-02-0] ^	**90.6**		ug/L	1	1.8	10.0	50	EPA 6010B	01/23/09 17:15	JDH	
Selenium [7782-49-2] ^	2.7	U	ug/L	1	2.7	10.0	10	EPA 6010B	01/23/09 17:15	JDH	
Silver [7440-22-4] ^	**5.0**	J	ug/L	1	1.9	10.0	10	EPA 6010B	01/23/09 17:15	JDH	
Thallium [7440-28-0] ^	0.036	U	ug/L	1	0.036	1.00	5.5	EPA 6020	01/20/09 16:25	JDH	
Vanadium [7440-62-2] ^	1.4	U	ug/L	1	1.4	10.0	25	EPA 6010B	01/23/09 17:15	JDH	
Zinc [7440-66-6] ^	**79.6**		ug/L	1	3.8	10.0	10	EPA 6010B	01/23/09 17:15	JDH	

www.encolabs.com

Description: FORCEMAIN
Matrix: Ground Water
Project: Iredell Co. Sub. D LF, Ph. 3

Lab Sample ID: C900447-13
Sampled: 01/15/09 16:00
Sampled By: Jonathan Pfohl

Received: 01/16/09 10:05
Work Order: C900447

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 [NA] ^	**39**		mg/L	1	2.0	2.0	NE	SM 5210B	01/21/09 13:25	GPW	
Chemical Oxygen Demand [NA] ^	**630**		mg/L	1	10	10	NE	SM 5220D	01/21/09 16:35	GPW	
Nitrate as N [14797-55-8] ^	**0.039**	J	mg/L	1	0.010	0.10	10	EPA 353.2	01/27/09 10:16	PEV	
Nitrate/Nitrite as N [NA] ^	**0.051**	J	mg/L	1	0.017	0.10	NE	EPA 353.2	01/21/09 10:31	PEV	
Nitrite as N [14797-65-0] ^	**0.012**	J	mg/L	1	0.010	0.10	1	EPA 353.2	01/16/09 14:59	AJB	J-01
pH [NA] ^	**7.0**		pH Units	1	1.0	1.0		SM4500-H/B	01/16/09 14:00	FLT	Q
Phosphorus [7723-14-0] ^	**500**		ug/L	1	50	100	NE	EPA 365.4	01/22/09 10:08	PEV	
Sulfate as SO4 [14808-79-8] ^	50	U	ug/L	1	50	5000	250	EPA 300.0	01/20/09 18:08	PEV	
Total Suspended Solids [NA] ^	**27**		mg/L	1	1.0	1.0	NE	SM 2540D	01/21/09 13:40	FLT	

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 9A23019 - EPA 5030B_MS

Blank (9A23019-BLK1) Prepared: 01/23/2009 15:32 Analyzed: 01/24/2009 10:11

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	5.0	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	2.0	ug/L							
Methylene chloride	0.53	U	2.0	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	2.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*45*			*ug/L*	*50.0*		*90*	*51-122*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9A23019 - EPA 5030B_MS

Blank (9A23019-BLK1) Continued Prepared: 01/23/2009 15:32 Analyzed: 01/24/2009 10:11

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*53*			*ug/L*	*50.0*		*106*	*68-117*			
Surrogate: Toluene-d8	*46*			*ug/L*	*50.0*		*91*	*69-110*			

LCS (9A23019-BS1) Prepared: 01/23/2009 15:32 Analyzed: 01/24/2009 10:41

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	18		1.0	ug/L	20.0		88	81-134			
Chlorobenzene	18		1.0	ug/L	20.0		88	83-117			
Toluene	17		1.0	ug/L	20.0		87	71-118			
Trichloroethene	17		1.0	ug/L	20.0		87	75-115			

Matrix Spike (9A23019-MS1) Prepared: 01/23/2009 15:32 Analyzed: 01/24/2009 11:11

Source: C900760-16

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	106	75-133			
Benzene	20		1.0	ug/L	20.0	0.20 U	100	81-134			
Chlorobenzene	18		1.0	ug/L	20.0	0.27 U	91	83-117			
Toluene	18		1.0	ug/L	20.0	0.27 U	92	71-118			
Trichloroethene	19		1.0	ug/L	20.0	0.38 U	94	75-115			

Matrix Spike Dup (9A23019-MSD1) Prepared: 01/23/2009 15:32 Analyzed: 01/24/2009 11:40

Source: C900760-16

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	2	20	
Benzene	19		1.0	ug/L	20.0	0.20 U	96	81-134	4	17	
Chlorobenzene	18		1.0	ug/L	20.0	0.27 U	92	83-117	0.8	16	
Toluene	18		1.0	ug/L	20.0	0.27 U	92	71-118	0	17	
Trichloroethene	19		1.0	ug/L	20.0	0.38 U	94	75-115	0.2	18	

Batch 9A24003 - EPA 5030B_MS

Blank (9A24003-BLK1) Prepared: 01/24/2009 12:59 Analyzed: 01/25/2009 10:51

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 9A24003 - EPA 5030B_MS

Blank (9A24003-BLK1) Continued Prepared: 01/24/2009 12:59 Analyzed: 01/25/2009 10:51

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	5.0	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	2.0	ug/L							
Methylene chloride	0.53	U	2.0	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	2.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*47*			*ug/L*	*50.0*		*95*	*51-122*			
Surrogate: Dibromofluoromethane	*51*			*ug/L*	*50.0*		*101*	*68-117*			
Surrogate: Toluene-d8	*46*			*ug/L*	*50.0*		*93*	*69-110*			

LCS (9A24003-BS1) Prepared: 01/24/2009 12:59 Analyzed: 01/25/2009 11:21

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		100	75-133			
Benzene	18		1.0	ug/L	20.0		92	81-134			
Chlorobenzene	18		1.0	ug/L	20.0		91	83-117			
Toluene	18		1.0	ug/L	20.0		88	71-118			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9A24003 - EPA 5030B_MS

LCS (9A24003-BS1) Continued Prepared: 01/24/2009 12:59 Analyzed: 01/25/2009 11:21

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Trichloroethene	18		1.0	ug/L	20.0		91	75-115			

Matrix Spike (9A24003-MS1) Prepared: 01/24/2009 12:59 Analyzed: 01/25/2009 12:04

Source: C814597-01

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	116	75-133			
Benzene	20		1.0	ug/L	20.0	0.20 U	100	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	102	83-117			
Toluene	20		1.0	ug/L	20.0	0.27 U	100	71-118			
Trichloroethene	20		1.0	ug/L	20.0	0.38 U	102	75-115			

Matrix Spike Dup (9A24003-MSD1) Prepared: 01/24/2009 12:59 Analyzed: 01/25/2009 12:34

Source: C814597-01

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	116	75-133	0.04	20	
Benzene	20		1.0	ug/L	20.0	0.20 U	101	81-134	0.7	17	
Chlorobenzene	21		1.0	ug/L	20.0	0.27 U	105	83-117	3	16	
Toluene	21		1.0	ug/L	20.0	0.27 U	103	71-118	2	17	
Trichloroethene	21		1.0	ug/L	20.0	0.38 U	105	75-115	3	18	

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 9A19006 - EPA 3005A

Blank (9A19006-BLK1) Prepared: 01/19/2009 08:43 Analyzed: 01/23/2009 14:12

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	2.8	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Beryllium	0.10	U	1.00	ug/L							
Cadmium	0.36	U	1.00	ug/L							
Chromium	1.0	U	10.0	ug/L							
Cobalt	**1.5**	**J**	10.0	ug/L							
Copper	1.60	U	10.0	ug/L							
Lead	1.9	U	10.0	ug/L							
Nickel	1.8	U	10.0	ug/L							
Selenium	2.7	U	10.0	ug/L							
Silver	1.9	U	10.0	ug/L							
Vanadium	1.4	U	10.0	ug/L							
Zinc	3.8	U	10.0	ug/L							

LCS (9A19006-BS1) Prepared: 01/19/2009 08:43 Analyzed: 01/23/2009 14:19

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	488		10.0	ug/L	500		98	82-117			
Barium	523		10.0	ug/L	500		105	72-125			

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 9A19006 - EPA 3005A

LCS (9A19006-BS1) Continued Prepared: 01/19/2009 08:43 Analyzed: 01/23/2009 14:19

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Beryllium	234		1.00	ug/L	250		94	75-121			
Cadmium	259		1.00	ug/L	250		104	72-120			
Chromium	472		10.0	ug/L	500		94	78-119			
Cobalt	466	B	10.0	ug/L	500		93	76-117			
Copper	245		10.0	ug/L	250		98	80-117			
Lead	474		10.0	ug/L	500		95	72-121			
Nickel	511		10.0	ug/L	500		102	78-116			
Selenium	502		10.0	ug/L	500		100	82-127			
Silver	49.4		10.0	ug/L	50.0		99	80-128			
Vanadium	232		10.0	ug/L	250		93	78-117			
Zinc	486		10.0	ug/L	500		97	80-120			

Matrix Spike (9A19006-MS1) Prepared: 01/19/2009 08:43 Analyzed: 01/23/2009 14:35

Source: C900447-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	474		10.0	ug/L	500	2.8 U	95	64-126			
Barium	578		10.0	ug/L	500	43.0	107	74-119			
Beryllium	233		1.00	ug/L	250	0.10 U	93	70-131			
Cadmium	258		1.00	ug/L	250	0.36 U	103	68-121			
Chromium	474		10.0	ug/L	500	3.4	94	73-120			
Cobalt	459	B	10.0	ug/L	500	2.9	91	76-120			
Copper	242		10.0	ug/L	250	2.30	96	75-123			
Lead	473		10.0	ug/L	500	1.9 U	95	68-126			
Nickel	511		10.0	ug/L	500	1.8 U	102	64-126			
Selenium	486		10.0	ug/L	500	2.7 U	97	65-129			
Silver	44.1		10.0	ug/L	50.0	1.9 U	88	69-121			
Vanadium	228		10.0	ug/L	250	3.0	90	71-130			
Zinc	490		10.0	ug/L	500	13.8	95	63-131			

Matrix Spike Dup (9A19006-MSD1) Prepared: 01/19/2009 08:43 Analyzed: 01/23/2009 14:43

Source: C900447-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	483		10.0	ug/L	500	2.8 U	97	64-126	2	12	
Barium	588		10.0	ug/L	500	43.0	109	74-119	2	11	
Beryllium	238		1.00	ug/L	250	0.10 U	95	70-131	2	21	
Cadmium	262		1.00	ug/L	250	0.36 U	105	68-121	2	12	
Chromium	481		10.0	ug/L	500	3.4	96	73-120	1	10	
Cobalt	468	B	10.0	ug/L	500	2.9	93	76-120	2	17	
Copper	246		10.0	ug/L	250	2.30	97	75-123	2	16	
Lead	485		10.0	ug/L	500	1.9 U	97	68-126	2	19	
Nickel	518		10.0	ug/L	500	1.8 U	104	64-126	1	12	
Selenium	494		10.0	ug/L	500	2.7 U	99	65-129	2	10	
Silver	42.6		10.0	ug/L	50.0	1.9 U	85	69-121	3	12	
Vanadium	231		10.0	ug/L	250	3.0	91	71-130	1	16	
Zinc	499		10.0	ug/L	500	13.8	97	63-131	2	24	

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 9A19006 - EPA 3005A

Batch 9A19008 - EPA 3005A

Blank (9A19008-BLK1) Prepared: 01/19/2009 08:48 Analyzed: 01/20/2009 15:09

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.68	U	2.00	ug/L							
Thallium	0.036	U	1.00	ug/L							

LCS (9A19008-BS1) Prepared: 01/19/2009 08:48 Analyzed: 01/20/2009 15:12

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	26.9		2.00	ug/L	25.0		108	85-115			
Thallium	25.1		1.00	ug/L	25.0		101	85-115			

Matrix Spike (9A19008-MS1) Prepared: 01/19/2009 08:48 Analyzed: 01/20/2009 15:19

Source: C900447-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	27.1		2.00	ug/L	25.0	0.68 U	108	85-115			
Thallium	24.7		1.00	ug/L	25.0	0.036 U	99	85-115			

Matrix Spike Dup (9A19008-MSD1) Prepared: 01/19/2009 08:48 Analyzed: 01/20/2009 15:23

Source: C900447-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	27.6		2.00	ug/L	25.0	0.68 U	110	85-115	2	20	
Thallium	24.7		1.00	ug/L	25.0	0.036 U	99	85-115	0.2	20	

Post Spike (9A19008-PS1) Prepared: 01/19/2009 08:48 Analyzed: 01/20/2009 15:26

Source: C900447-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.03		0.002	mg/L	0.0250	0.0002	110	75-125			
Thallium	0.026		0.001	mg/L	0.0250	-0.0001	103	75-125			

Batch 9A21016 - EPA 3005A

Blank (9A21016-BLK1) Prepared: 01/21/2009 11:56 Analyzed: 01/23/2009 10:53

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.68	U	2.00	ug/L							
Thallium	0.036	U	1.00	ug/L							

LCS (9A21016-BS1) Prepared: 01/21/2009 11:56 Analyzed: 01/23/2009 10:57

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	23.8		2.00	ug/L	25.0		95	85-115			
Thallium	23.2		1.00	ug/L	25.0		93	85-115			

www.encolabs.com

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 9A21016 - EPA 3005A

Matrix Spike (9A21016-MS1) Prepared: 01/21/2009 11:56 Analyzed: 01/23/2009 11:03

Source: C814597-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.8		2.00	ug/L	25.0	0.68 U	103	85-115			
Thallium	24.2		1.00	ug/L	25.0	0.036 U	97	85-115			

Matrix Spike Dup (9A21016-MSD1) Prepared: 01/21/2009 11:56 Analyzed: 01/23/2009 11:07

Source: C814597-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.9		2.00	ug/L	25.0	0.68 U	103	85-115	0.1	20	
Thallium	24.3		1.00	ug/L	25.0	0.036 U	97	85-115	0.8	20	

Post Spike (9A21016-PS1) Prepared: 01/21/2009 11:56 Analyzed: 01/23/2009 11:10

Source: C814597-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	0.03		0.002	mg/L	0.0250	0.00001	110	75-125			
Thallium	0.026		0.001	mg/L	0.0250	-0.000005	105	75-125			

Classical Chemistry Parameters - Quality Control

Batch 9A16024 - NO PREP

LCS (9A16024-BS1) Prepared & Analyzed: 01/16/2009 14:00

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
pH	7.0		1.0	pH Units	7.01		101	90-110			

Duplicate (9A16024-DUP1) Prepared & Analyzed: 01/16/2009 14:00

Source: C900660-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
pH	6.0		1.0	pH Units		6.0			0.8	25	Q

Batch 9A16027 - NO PREP

Blank (9A16027-BLK1) Prepared: 01/16/2009 13:35 Analyzed: 01/21/2009 13:25

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 (9A16027-BS1) Prepared: 01/16/2009 13:35 Analyzed: 01/21/2009 13:25

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		105	85-115			

Duplicate (9A16027-DUP1) Prepared: 01/16/2009 13:35 Analyzed: 01/21/2009 13:25

Source: C813734-01

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 9A16027 - NO PREP

Duplicate (9A16027-DUP1) Continued Prepared: 01/16/2009 13:35 Analyzed: 01/21/2009 13:25

Source: C813734-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	2.5		2.0	mg/L		2.3			10	25	

Batch 9A18001 - NO PREP

Blank (9A18001-BLK1) Prepared: 01/18/2009 07:22 Analyzed: 01/20/2009 09:44

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	51	U	5000	ug/L							

LCS (9A18001-BS1) Prepared: 01/18/2009 07:22 Analyzed: 01/20/2009 10:11

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	46		5.0	mg/L	50.0		91	90-110			

Matrix Spike (9A18001-MS1) Prepared: 01/18/2009 07:22 Analyzed: 01/20/2009 13:44

Source: C900109-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	53		5.0	mg/L	50.0	8.1	90	80-120			

Matrix Spike Dup (9A18001-MSD1) Prepared: 01/18/2009 07:22 Analyzed: 01/20/2009 14:11

Source: C900109-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	52		5.0	mg/L	50.0	8.1	87	80-120	3	15	

Batch 9A20007 - NO PREP

Blank (9A20007-BLK1) Prepared: 01/20/2009 11:50 Analyzed: 01/21/2009 13:40

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 (9A20007-BS1) Prepared: 01/20/2009 11:50 Analyzed: 01/21/2009 13:40

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Suspended Solids	89		1.0	mg/L	80.0		111	82-119			

Duplicate (9A20007-DUP1) Prepared: 01/20/2009 11:50 Analyzed: 01/21/2009 13:40

Source: C900622-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Suspended Solids	36		1.0	mg/L		30			20	10	QM-12

Batch 9A21002 - Same

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Blank (9A21002-BLK1) Prepared: 01/21/2009 10:44 Analyzed: 01/22/2009 09:46

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	50	U	100	ug/L							

LCS (9A21002-BS1) Prepared: 01/21/2009 10:44 Analyzed: 01/22/2009 09:48

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	1500		100	ug/L	1600		95	80-120			

Matrix Spike (9A21002-MS1) Prepared: 01/21/2009 10:44 Analyzed: 01/22/2009 09:51

Source: C900015-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	1700		100	ug/L	1600	84	98	80-120			

Matrix Spike Dup (9A21002-MSD1) Prepared: 01/21/2009 10:44 Analyzed: 01/22/2009 09:53

Source: C900015-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	1800		100	ug/L	1600	84	104	80-120	6	25	

Batch 9A21003 - NO PREP

Blank (9A21003-BLK1) Prepared: 01/21/2009 07:10 Analyzed: 01/21/2009 09:25

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	0.017	U	0.10	mg/L							

LCS (9A21003-BS1) Prepared: 01/21/2009 07:10 Analyzed: 01/21/2009 09:52

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	1.3		0.10	mg/L	1.25		102	80-120			

Matrix Spike (9A21003-MS1) Prepared: 01/21/2009 07:10 Analyzed: 01/21/2009 10:03

Source: C814732-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	1.3		0.10	mg/L	1.28	0.061	93	80-120			

Matrix Spike Dup (9A21003-MSD1) Prepared: 01/21/2009 07:10 Analyzed: 01/21/2009 10:05

Source: C814732-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	1.4		0.10	mg/L	1.28	0.061	103	80-120	9	25	

Batch 9A21018 - NO PREP

Blank (9A21018-BLK1) Prepared: 01/21/2009 13:50 Analyzed: 01/21/2009 16:35

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

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 9A21018 - NO PREP

Blank (9A21018-BLK1) Continued Prepared: 01/21/2009 13:50 Analyzed: 01/21/2009 16:35

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	10	U	10	mg/L							

LCS (9A21018-BS1) Prepared: 01/21/2009 13:50 Analyzed: 01/21/2009 16:35

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	520		10	mg/L	500		104	90-110			

Matrix Spike (9A21018-MS1) Prepared: 01/21/2009 13:50 Analyzed: 01/21/2009 16:35

Source: C813737-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	610		10	mg/L	500	92	104	90-110			

Matrix Spike (9A21018-MS2) Prepared: 01/22/2009 13:10 Analyzed: 01/22/2009 16:15

Source: C900010-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	570		10	mg/L	500	62	102	90-110			

Matrix Spike Dup (9A21018-MSD1) Prepared: 01/21/2009 13:50 Analyzed: 01/21/2009 16:35

Source: C813737-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	600		10	mg/L	500	92	102	90-110	1	10	

Matrix Spike Dup (9A21018-MSD2) Prepared: 01/22/2009 13:10 Analyzed: 01/22/2009 16:15

Source: C900010-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	570		10	mg/L	500	62	101	90-110	0.4	10	

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.
Q	Analysis performed outside of method - specified holding time.
QB-01	The method blank had a positive result for the analyte; however, the concentration in the method blank is less than 10% of the sample result, which minimizes the impact of the deviation.
QM-12	Precision between duplicate samples was outside acceptance limits.

~~Force main Sample to be submitted later but complete w/ this C.F.~~

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
1015 Passport Way Cary, NC 27513 (919) 677-1669 Fax (919) 677-9846

Page 1 of 1

Client Name	Municipal Engineering Services (MESCO) (MN0001)
Address	PO Box 97
City/ST/Zip	Garner NC 27529
Tel	(919) 772-5393
Fax	(919) 773-1176
Sampler(s) Name, Affiliation (Print)	Jonathan Pfohl
Sampler(s) Signature	
Project Number	
Project Name/Desc	Iredell Co. Beaver Water F, ph 3&4
PO # / Billing Info	
Reporting Contact	Jonathan Pfohl (jpfohl@mesco.com)
Billing Contact	
Facility # (if required)	

Requested Analyses: 8260 VOAs NC App I; Total Metals NC App I; BOD 405.1D; COD 410.4, NOX 353.2, P; N-Nitrate Calc 353.2; Nitrites N 353.2, pH 9040C, Sulfate 375.4; TSS 160.2

Preservation (See Codes) (Combine as necessary): HCL; N

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

Lab Workorder: C900447

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	HCL	N								Sample Comments
	MW-17	1/14/09	8:10	Grab	GW	4	✓	✓								
	MW-18	↓	11:30	↓	↓	↓	↓	↓								
	MW-19SR		1:35			3										
	MW-19D		3:10													
	MW-20		12:05			4										
	MW-21S		2:40													
	MW-21D		3:55													
	MW-27S		10:35													
	MW-27D		10:00													
	MW-28		9:00													
	MW-29		9:35													
	SW-5		10:50		SW											
	~~Force Main - To be submitted later~~			Grab	WW	10	✓	✓								
						Total # of Containers	✓	✓								

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time 1/16/09 10:05	Received By	Date/Time 01/16/09 1005
Comments ~~Report w/ these results.~~ 1/15/09 4:00		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time

Cooler #'s & Temps on Receipt: 1.2 °C - 364

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: Non R-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.

www.encolabs.com

ENVIRONMENTAL CONSERVATION LABORATORIES, INC

Sample preservation verification

☒ Cary ☐ Jacksonville ☐ Orlando

Work order: C900447 Page: 1 of 1 Initials: BJG Date: 1/14/09

A check mark (✓) in any space under the appropriate column heading for the selected sample indicates that the pH met the required pH.
An asterisk (*) in any space under the appropriate column heading for the selected sample indicates that the pH was adjusted in the lab as described in the comments column.

Sample No	Metals	TPH	Ammonia	COD	Cyanide	TOC	Hardness	TKN/TON	Oil & grease	Phenolics	NOx	Extractables	Sulfide	FL-PRO	COMMENTS
pH →	<2	<2	<2	<2	>12	<2	<2	<2	<2	<2	<2	5-9	>9	<2	
01	✓														
02	✓														
03	✓														
04	✓														
05	✓														
06	✓														
07	✓														
08	✓														
09	✓														
10	✓														
11	✓														
12	✓														
13	✓	✓	*	✓							✓				
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															
25															
26															
27															
28															
29															
30															

	Reagent name	ID		Reagent name	ID		Reagent name	ID
1			3			5		
2			4			6		

LOGIN SAMPLE PRESERVATION CHECK (9/22/08)

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

Monday, February 9, 2009

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Laboratory Results for
Project Number: G08013.0 (Blanks), Project Name/Desc: Iredell Co. LF - Blanks
ENCO Workorder: C900511

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Wednesday, January 28, 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 13.

www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID:	EB	Lab ID:	C900511-01	Sampled:	01/27/09 11:05	Received:	01/28/09 09:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	02/10/09	02/03/09 15:13	2/4/2009 07:28

Client ID:	FB	Lab ID:	C900511-02	Sampled:	01/27/09 11:00	Received:	01/28/09 09:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	02/10/09	02/03/09 15:13	2/4/2009 07:56

Client ID:	TB	Lab ID:	C900511-03	Sampled:	01/27/09 11:05	Received:	01/28/09 09:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	02/10/09	02/03/09 15:13	2/4/2009 02:23

www.encolabs.com

NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: EB **Lab ID:** C900511-01

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon disulfide	1.3	J	1	0.54	5.0	100	ug/L	EPA 8260B	
Chloroform	0.92	J	1	0.20	1.0	5	ug/L	EPA 8260B	

Client ID: FB **Lab ID:** C900511-02

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,2-Dichloroethane	2.0		1	0.65	1.0	1	ug/L	EPA 8260B	
Chloroform	0.83	J	1	0.20	1.0	5	ug/L	EPA 8260B	

www.encolabs.com

ANALYTICAL RESULTS

Description: EB
Matrix: Water
Project: Iredell Co. LF - Blanks

Lab Sample ID: C900511-01
Sampled: 01/27/09 11:05
Sampled By: Jonathan Pfohl

Received: 01/28/09 09:00
Work Order: C900511

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	02/04/09 07:28	REF	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	02/04/09 07:28	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	02/04/09 07:28	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	02/04/09 07:28	REF	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	02/04/09 07:28	REF	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	02/04/09 07:28	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	02/04/09 07:28	REF	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	02/04/09 07:28	REF	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	02/04/09 07:28	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	02/04/09 07:28	REF	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	02/04/09 07:28	REF	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	02/04/09 07:28	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	02/04/09 07:28	REF	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	02/04/09 07:28	REF	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	02/04/09 07:28	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	02/04/09 07:28	REF	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	02/04/09 07:28	REF	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	02/04/09 07:28	REF	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	02/04/09 07:28	REF	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	02/04/09 07:28	REF	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	02/04/09 07:28	REF	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	02/04/09 07:28	REF	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	02/04/09 07:28	REF	
Carbon disulfide [75-15-0] ^	**1.3**	J	ug/L	1	0.54	5.0	100	EPA 8260B	02/04/09 07:28	REF	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	02/04/09 07:28	REF	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	02/04/09 07:28	REF	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	02/04/09 07:28	REF	
Chloroform [67-66-3] ^	**0.92**	J	ug/L	1	0.20	1.0	5	EPA 8260B	02/04/09 07:28	REF	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	02/04/09 07:28	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	02/04/09 07:28	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	02/04/09 07:28	REF	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	02/04/09 07:28	REF	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	02/04/09 07:28	REF	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	02/04/09 07:28	REF	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	02/04/09 07:28	REF	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	02/04/09 07:28	REF	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	02/04/09 07:28	REF	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	02/04/09 07:28	REF	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	02/04/09 07:28	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	02/04/09 07:28	REF	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	02/04/09 07:28	REF	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	02/04/09 07:28	REF	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	02/04/09 07:28	REF	

www.encolabs.com

Description:	EB	**Lab Sample ID:**	C900511-01	**Received:**	01/28/09 09:00
Matrix:	Water	**Sampled:**	01/27/09 11:05	**Work Order:**	C900511
Project:	Iredell Co. LF - Blanks	**Sampled By:**	Jonathan Pfohl		

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	02/04/09 07:28	REF	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	02/04/09 07:28	REF	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	02/04/09 07:28	REF	
Xylenes (Total) [1330-20-7]	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	02/04/09 07:28	REF	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*49*	*1*	*50.0*	*98 %*	*51-122*	*9B03022*	*EPA 8260B*	*02/04/09 07:28*	*REF*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*9B03022*	*EPA 8260B*	*02/04/09 07:28*	*REF*	
Toluene-d8	*50*	*1*	*50.0*	*100 %*	*69-110*	*9B03022*	*EPA 8260B*	*02/04/09 07:28*	*REF*	

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

www.encolabs.com

Description: FB
Matrix: Water
Project: Iredell Co. LF - Blanks

Lab Sample ID: C900511-02
Sampled: 01/27/09 11:00
Sampled By: Jonathan Pfohl

Received: 01/28/09 09:00
Work Order: C900511

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	02/04/09 07:56	REF	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	02/04/09 07:56	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	02/04/09 07:56	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	02/04/09 07:56	REF	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	02/04/09 07:56	REF	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	02/04/09 07:56	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	02/04/09 07:56	REF	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	02/04/09 07:56	REF	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	02/04/09 07:56	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	02/04/09 07:56	REF	
1,2-Dichloroethane [107-06-2] ^	**2.0**		ug/L	1	0.65	1.0	1	EPA 8260B	02/04/09 07:56	REF	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	02/04/09 07:56	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	02/04/09 07:56	REF	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	02/04/09 07:56	REF	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	02/04/09 07:56	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	02/04/09 07:56	REF	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	02/04/09 07:56	REF	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	02/04/09 07:56	REF	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	02/04/09 07:56	REF	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	02/04/09 07:56	REF	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	02/04/09 07:56	REF	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	02/04/09 07:56	REF	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	02/04/09 07:56	REF	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	02/04/09 07:56	REF	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	02/04/09 07:56	REF	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	02/04/09 07:56	REF	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	02/04/09 07:56	REF	
Chloroform [67-66-3] ^	**0.83**	J	ug/L	1	0.20	1.0	5	EPA 8260B	02/04/09 07:56	REF	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	02/04/09 07:56	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	02/04/09 07:56	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	02/04/09 07:56	REF	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	02/04/09 07:56	REF	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	02/04/09 07:56	REF	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	02/04/09 07:56	REF	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	02/04/09 07:56	REF	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	02/04/09 07:56	REF	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	02/04/09 07:56	REF	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	02/04/09 07:56	REF	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	02/04/09 07:56	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	02/04/09 07:56	REF	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	02/04/09 07:56	REF	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	02/04/09 07:56	REF	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	02/04/09 07:56	REF	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	02/04/09 07:56	REF	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	02/04/09 07:56	REF	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	02/04/09 07:56	REF	

www.encolabs.com

Description:	FB	**Lab Sample ID:**	C900511-02	**Received:**	01/28/09 09:00
Matrix:	Water	**Sampled:**	01/27/09 11:00	**Work Order:**	C900511
Project:	Iredell Co. LF - Blanks	**Sampled By:**	Jonathan Pfohl		

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	02/04/09 07:56	REF	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*49*	*1*	*50.0*	*98 %*	*51-122*	*9B03022*	*EPA 8260B*	*02/04/09 07:56*	*REF*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*9B03022*	*EPA 8260B*	*02/04/09 07:56*	*REF*	
Toluene-d8	*51*	*1*	*50.0*	*101 %*	*69-110*	*9B03022*	*EPA 8260B*	*02/04/09 07:56*	*REF*	

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

www.encolabs.com

Description: TB
Matrix: Water
Project: Iredell Co. LF - Blanks

Lab Sample ID: C900511-03
Sampled: 01/27/09 11:05
Sampled By: Jonathan Pfohl

Received: 01/28/09 09:00
Work Order: C900511

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	02/04/09 02:23	REF	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	02/04/09 02:23	REF	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	02/04/09 02:23	REF	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	02/04/09 02:23	REF	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	02/04/09 02:23	REF	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	02/04/09 02:23	REF	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	02/04/09 02:23	REF	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	02/04/09 02:23	REF	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	02/04/09 02:23	REF	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	02/04/09 02:23	REF	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	02/04/09 02:23	REF	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	02/04/09 02:23	REF	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	02/04/09 02:23	REF	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	02/04/09 02:23	REF	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	02/04/09 02:23	REF	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	02/04/09 02:23	REF	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	02/04/09 02:23	REF	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	5.0	200	EPA 8260B	02/04/09 02:23	REF	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	02/04/09 02:23	REF	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	02/04/09 02:23	REF	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	02/04/09 02:23	REF	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	02/04/09 02:23	REF	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	02/04/09 02:23	REF	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	02/04/09 02:23	REF	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	02/04/09 02:23	REF	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	02/04/09 02:23	REF	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	02/04/09 02:23	REF	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	02/04/09 02:23	REF	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	02/04/09 02:23	REF	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	02/04/09 02:23	REF	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	02/04/09 02:23	REF	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	02/04/09 02:23	REF	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	02/04/09 02:23	REF	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	02/04/09 02:23	REF	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	2.0	10	EPA 8260B	02/04/09 02:23	REF	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	2.0	1	EPA 8260B	02/04/09 02:23	REF	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	02/04/09 02:23	REF	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	02/04/09 02:23	REF	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	02/04/09 02:23	REF	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	02/04/09 02:23	REF	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	02/04/09 02:23	REF	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	02/04/09 02:23	REF	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	02/04/09 02:23	REF	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	02/04/09 02:23	REF	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	2.0	50	EPA 8260B	02/04/09 02:23	REF	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	02/04/09 02:23	REF	

www.encolabs.com

Description:	TB	**Lab Sample ID:**	C900511-03	**Received:**	01/28/09 09:00
Matrix:	Water	**Sampled:**	01/27/09 11:05	**Work Order:**	C900511
Project:	Iredell Co. LF - Blanks	**Sampled By:**	Jonathan Pfohl		

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	02/04/09 02:23	REF	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*49*	*1*	*50.0*	*97 %*	*51-122*	*9B03022*	*EPA 8260B*	*02/04/09 02:23*	*REF*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*9B03022*	*EPA 8260B*	*02/04/09 02:23*	*REF*	
Toluene-d8	*50*	*1*	*50.0*	*99 %*	*69-110*	*9B03022*	*EPA 8260B*	*02/04/09 02:23*	*REF*	

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 9B03022 - EPA 5030B_MS

Blank (9B03022-BLK1) Prepared: 02/03/2009 15:13 Analyzed: 02/04/2009 00:03

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	5.0	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	2.0	ug/L							
Methylene chloride	0.53	U	2.0	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	2.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*49*			*ug/L*	*50.0*		*97*	*51-122*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 9B03022 - EPA 5030B_MS

Blank (9B03022-BLK1) Continued Prepared: 02/03/2009 15:13 Analyzed: 02/04/2009 00:03

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*48*			*ug/L*	*50.0*		*96*	*68-117*			
Surrogate: Toluene-d8	*50*			*ug/L*	*50.0*		*99*	*69-110*			

LCS (9B03022-BS1) Prepared: 02/03/2009 15:13 Analyzed: 02/04/2009 00:31

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		98	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	20		1.0	ug/L	20.0		102	71-118			
Trichloroethene	19		1.0	ug/L	20.0		97	75-115			

Matrix Spike (9B03022-MS1) Prepared: 02/03/2009 15:13 Analyzed: 02/04/2009 00:59

Source: C900512-17

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	12		1.0	ug/L	20.0	0.24 U	62	75-133			QM-07
Benzene	15		1.0	ug/L	20.0	2.9	59	81-134			QM-07
Chlorobenzene	12		1.0	ug/L	20.0	0.27 U	61	83-117			QM-07
Toluene	13		1.0	ug/L	20.0	0.27 U	63	71-118			QM-07
Trichloroethene	24		1.0	ug/L	20.0	12	59	75-115			QM-07

Matrix Spike Dup (9B03022-MSD1) Prepared: 02/03/2009 15:13 Analyzed: 02/04/2009 01:27

Source: C900512-17

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	109	75-133	54	20	QM-07
Benzene	24		1.0	ug/L	20.0	2.9	107	81-134	50	17	QM-07
Chlorobenzene	22		1.0	ug/L	20.0	0.27 U	109	83-117	57	16	QM-07
Toluene	22		1.0	ug/L	20.0	0.27 U	111	71-118	56	17	QM-07
Trichloroethene	34		1.0	ug/L	20.0	12	109	75-115	34	18	QM-07

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.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

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: Municipal Engineering Services (MU001)	Project Number: G08013.0 (Blanks)
Address: P.O. Box 97	Project Name/Desc: Iredell Co. LF - Blanks
City/ST/Zip: Garner, NC 27529	PO # / Billing Info:
Tel: (919) 772-5393 Fax: (919) 772-1176	Reporting Contact: Jonathan Pfohl
Sampler(s) Name, Affiliation (Print): Jonathan Pfohl, MESCO	Billing Contact: Accounts Payable
Sampler(s) Signature:	Facility # (if required):

Requested Analyses: 8260B Appendix 1

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due __/__/__

Lab Workorder: C900511

Preservation (See Codes) (Combine as necessary): H

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	H	Sample Comments
	EB	1/27/09	11:05	Grab	WA	3	X	
	FB	↓	11:00		WA	3	X	
	TB	↓	ENCO	Filled	WA	3	X	

<-- Total # of Containers

Sample Kit Prepared By: LEN	Date/Time: 1/14/09	Relinquished By: [signature]	Date/Time: 1/28/09 9:00	Received By: [signature]	Date/Time: 1-28-09 9:00
Comments: Fred lion distilled water : Disposable Bailer for EB. Blanks for entire facility. TB carried during all events		Relinquished By:	Date/Time:	Received By:	Date/Time:
		Relinquished By:	Date/Time:	Received By:	Date/Time:
		Cooler #'s & Temps on Receipt: C-591B 4.2°C		Condition Upon Receipt: ___ 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