Semi-Annual Water Quality Monitoring and Statistical Analysis Report

Prepared for

City of Albemarle Subtitle D Lined MSWLF
Albemarle, North Carolina

January 2011

Permit Number: 84-01
MESCO Project Number: G10008.0

Submittal date: April 19, 2011

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

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

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

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

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Municipal Engineering Services Co., PA

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)
City of Albemarle Subtitle D Lined MSWLF, Phases 1 & 2	40592-B Stoney Gap Road Albemarle, NC 28002	84-01	.1600	January 17-18, & 20, 2011

Environmental Status: (Check all that apply)

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

Type of data submitted: (Check all that apply)

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

Notification attached?

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

Certification

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

Madeline German, PG — Professional Geologist — (919) 772-5393

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

Signature — Date: 4/19/2011

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 2275 4/19/2011 GEOLOGIST MADELINE GERMAN

P.O. BOX 97, Garner, NC 27529

Facility Representative Address

C-0281

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

Revised 6/2009

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OPERATION/CONSTRUCTION MANAGERS

Municipal Services

CIVIL/SANITARY ENGINEERS

Engineering Company, P.A.

April 19, 2011

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

Re: Semi-Annual Water Quality Monitoring and Statistical Analysis Report
City of Albemarle Subtitle D Lined MSWLF, Phases 1 & 2
Permit No. 84-01
MESCO Project No. G10008.0

Dear Mr. Lane:

Introduction

The City of Albemarle Subtitle D Lined Municipal Solid Waste Landfill (MSWLF), located in Stanley County NC, currently operating under permit #84-01, is required to submit semi-annual compliance reports as a condition of the water quality monitoring program. The lined MSWLF is comprised of two contiguous phases (1& 2) which are combined and treated as a single unit for continuity in this report. Municipal Engineering Services Company, P.A. (MESCO) of Garner NC performed this sampling event January 17, 18 & 20, 2011 in accordance with the semi-annual monitoring schedule prescribed by the NC Solid Waste Section (SWS) rules/regulations as promulgated in 15A NCAC 13B.1600. Water quality monitoring has been performed semi-annually, since commencing operations in 1999. Portions of the facility, downgradient of Phase 1 and the leachate lagoon, have been under assessment monitoring since July 2009. The subset of assessment monitoring wells, that were analyzed for Appendix II monitoring, were chosen during a meeting between MESCO and Mr. Ervin Lane of the SWS on July 14, 2009. The site location topographic map is depicted on **Plate 1**.

As specified in 15A NCAC 13B.1632(j) and the SWS Environmental Monitoring Report Form, this report contains sampling procedures, field and laboratory results, groundwater and surface water characterization, and findings. Detections compared to their respective standards tables, hyrdrogeologic properties table, a monitoring network field observations table, field parameter data results, potentiometric map, statistical analysis, quality assurance/quality control data, and laboratory analytical data results with chain-of-custody (C-O-C) are included.

Sampling Procedure

MESCO performed this sampling event utilizing portable monitoring methodology in accordance with the approved SAP contained in the *Hydrogeologic Design Study* for Phase 2 revised April 22, 2009. Eleven samples from downgradient groundwater monitoring wells (MW-13, MW-14, MW-15, MW-16S, MW-16D, MW-17, MW-18, MW-22, MW-23, MW-26, and MW-27), one background well (MW-19), four surface water points (SW-1, SW-2, SW-6 and SW-7) and a leachate sample (LAGOON) were collected for analysis. Quality control measures were implemented during this event which included submittal and subsequent quantification of blanks (equipment blank (EB), field blank (FB) and travel blank (TB)). Monitoring locations are shown on the single-day potentiometric map, formulated for the entire facility, on **Plate 2**.

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

Monitoring location function and integrity was visually evaluated, maintenance performed, and documentation is provided in **Table 6**. The depth to water in each well was electronically gaged prior to purging to quantify the static water level elevation. Low-flow pumping methodology or bailing was utilized to adequately purge the wells to a minimum of three times the volume of standing water in the well or until dry. During purging, field parameters dissolved oxygen, oxidation-reduction potential, total dissolved solids, and visual turbidity were recorded in addition to the required pH, specific conductance and temperature. The samples were then placed into laboratory-prepared, pre-preserved containers via a new disposable polyethylene bailer. Samples were properly collected/separated based on likelihood of potential cross-contamination, kept on ice, and transported to a NC-certified laboratory under proper C-O-C protocol within the specified hold times for each analysis.

Field Parameter Data

A field parameter data summary is presented in **Table 7** and the field sampling data sheets are enclosed in **Appendix B**.

Laboratory Results

Environmental Conservation Laboratories (ENCO) of Cary, NC performed the laboratory analysis on the collected groundwater and surface water samples for the Appendix I plus the Appendix II exclusive (defined in this report as not also listed in Appendix I) constituents detected during the previous July 2010 event. A leachate sample collected from the invert to the lagoon (LAGOON) was analyzed for the required leachate specific list. A sampling and analysis summary is presented on **Table 1**.

Water samples were analyzed to the laboratory-established Method Detection Limits (MDL), which are at or below the current Solid Waste Section Limit (SWSL). **Table 2** summarizes constituents detected in groundwater and surface water samples above the current SWSL, Groundwater Protection Standards (GWP), North Carolina Groundwater Standards (2L) or the applicable Class C North Carolina Surface Water Standards (2B). **Table 3** summarizes Appendix II exclusive constituents detected above the MDL. **Table 4** summarizes the constituents detected in the leachate lagoon samples. Laboratory results and C-O-Cs are presented in **Appendix B**.

Quality Control Samples

A few constituents, in low non-quantifiable ("j" qualifier) concentrations, were detected in FB (arsenic, copper) and EB (carbon disulfide). Although these blank qualified detections were identified, it appears that the latest data set's validity is not effected by false positives or high bias attributed to field and/or laboratory artifact contamination.

Groundwater Samples

Total metals were detected in concentrations above their respective 2L Standard in samples collected from MW-13 (Ar, Cr), MW-15 (Ar), MW-23 (Ar, Ca), and MW-26 (Ar, Cr). The VOCs benzene and vinyl chloride were detected in concentrations above their respective 2L Standard in samples collected from MW-23, located downgradient of the closed MSWLF and the lined leachate lagoon.

No Appendix II exclusive constituents, were detected in quantifiable concentrations (>SWSL) during this event.

Surfacewater Samples

There were no target constituents detected in concentrations above the SWSL or applicable 2B Standard in any of the surface water samples during this event.

Leachate Samples

The leachate sample (LAGOON) contained quantifiable concentrations of six VOCS and one metal as summarized in **Table 4**. Of the constituents detected above the 2L Standard in groundwater samples only benzene was identified in quantifiable concentrations in the leachate sample. The detected concentrations were not elevated and consistent with historical results.

Statistical Analysis

A statistical analysis was performed on constituents detected in quantifiable concentrations (above SWSL) from the monitoring wells. The statistical comparison between baseline and current groundwater analytical data is consistent with US EPA guidance documents and meets or exceeds the performance criteria specified in 15A NCAC 13B.1362. The overview of the statistical analysis methodologies, summary tables, graphs, and worksheets are presented in **Appendix A**.

Metal detections are fairly consistent with historic results. Interwell analysis results indicate metals have not exhibited a statistically significant increase (SSI) in concentration over background levels established by the background well MW-19.

Three VOCs, benzene, vinyl chloride and cis-1,2-dichloroethene, were detected in quantifiable concentrations in samples collected from MW-23. VOCs detected during this event have previously been found in concentrations within their historically identified range with the exception of cis-1,2-dichloroethene. A qualitative evaluation of VOC concentrations over time demonstrates neither benzene nor vinyl chloride, which were detected above the 2L Standard, exhibited an increasing trend in MW-23.

Groundwater and Surface Water Characterization

A single-day potentiometric map for the uppermost aquifer created from groundwater elevation data collected during this event is included as **Plate 2.** Groundwater flow rates and directions were calculated based on collected data and are included in **Table 5**. Groundwater in the surficial aquifer flows in a general northwestern direction beneath Phase I and Phase 2 and in a general southeastern direction beneath the lagoon. Jacob's Creek is believed to serve as the local discharge feature. The groundwater flow rates ranged from approximately <1 foot/year (MW-16S) to 151 feet/year (MW-26) averaging approximately 59 feet/year. The flow directions and gradients are consistent with historical observations. Streams located within the facility boundaries were visually observed with normal volume, flow and low turbidity.

Findings

The reported metal detections are likely not attributed to leachate but rather naturally inherent in the groundwater geochemistry. None of the metal detections exhibited a SSI per interwell analysis.

The surface waters remain unimpacted as evidenced by the absence of constituents detected in quantifiable concentrations.

Appendix II exclusive constituents continue to be absent. Benzene and vinyl chloride continue to persist in concentrations above the 2L Standard within the uppermost aquifer monitored by MW-23; an increasing concentration trend is not evident. MW-23 is located downgradient of the closed unlined MSWLF and the dual lined leachate lagoon on the south bank of upper Jacob's Creek which serves as the local discharge feature. The creek remains unaffected as evidenced by the absence of VOC detections in samples collected from downstream surface point SW-6. Since MW-23 is located within the compliance boundary, in the center of the property, and the adjacent discharge feature is monitored, it is unlikely that the water quality has been compromised beyond the nearest property boundary, located >2,000 feet downstream.

Closing

Semi-annual water quality monitoring will continue at this facility and water sample collection is tentatively scheduled to be performed again in July 2011. If you have any questions regarding this report, please contact us at (919) 772-5393 or by email at jpfohl@mesco.com or mgerman@mesco.com.

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

Jonathan Pfohl
Environmental Specialist

Madeline German, PG
Professional Geologist

NORTH CAROLINA LICENSED SEAL 2275 GEOLOGIST MADELINE GERMAN 4/19/2011

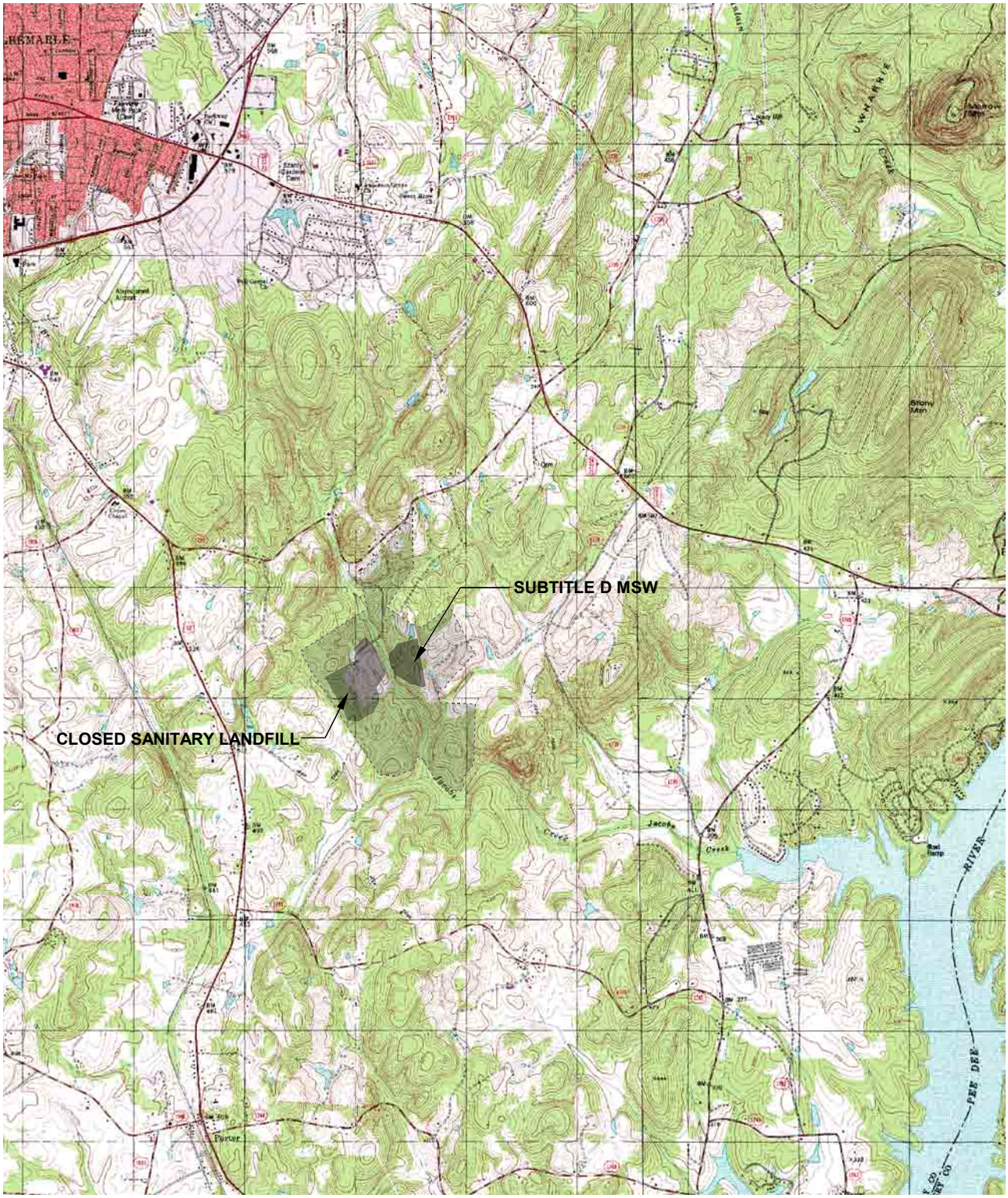
Enclosures
cc: Mr. Mike Lambert
City of Albemarle

Plates

City of Albemarle North Carolina Landfill

PLATE 1

Topographic Map with Landfill Location



QUADRANGLE LEGEND

N

ROAD CLASSIFICATION

Primary highway, hard surface

Light-duty road, hard or improved surface

Secondary highway, hard surface

Unimproved road

Interstate Route

U. S. Route

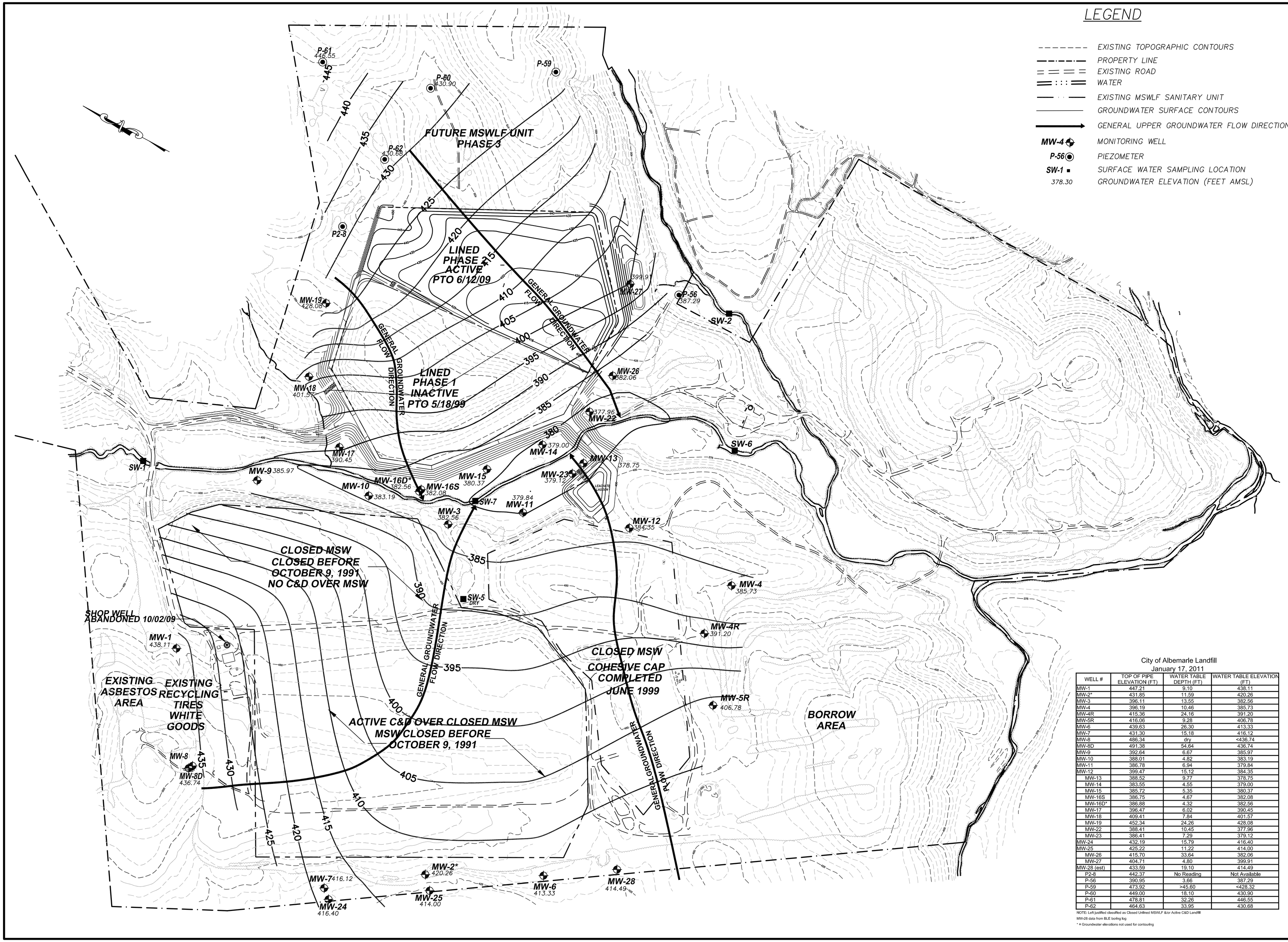
State Route

NOTE: Topographical map assembled from corresponding USGS 7.5-min. quadrangles of the subject region.

Municipal Services Engineering Company

Garner, NC Boone, NC

1 0 1 MILE



City of Albemarle Landfill
January 17, 2011

WELL #	TOP OF PIPE ELEVATION (FT)	WATER TABLE DEPTH (FT)	WATER TABLE ELEVATION (FT)
MW-1	447.21	9.10	438.11
MW-2*	431.85	11.59	420.26
MW-3	396.11	13.55	382.56
MW-4	396.19	10.46	385.73
MW-4R	415.36	24.16	391.20
MW-5R	416.06	9.28	406.78
MW-6	439.63	26.30	413.33
MW-7	431.30	15.18	416.12
MW-8	486.34	dry	<436.74
MW-8D	491.38	54.64	436.74
MW-9	392.64	6.67	385.97
MW-10	388.01	4.82	383.19
MW-11	386.78	6.94	379.84
MW-12	399.47	15.12	384.35
MW-13	388.52	9.77	378.75
MW-14	383.55	4.55	379.00
MW-15	385.72	5.35	380.37
MW-16S	386.75	4.67	382.08
MW-16D*	386.88	4.32	382.56
MW-17	396.47	6.02	390.45
MW-18	409.41	7.84	401.57
MW-19	452.34	24.26	428.08
MW-22	388.41	10.45	377.96
MW-23	386.41	7.29	379.12
MW-24	432.19	15.79	416.40
MW-25	425.22	11.22	414.00
MW-26	415.70	33.64	382.06
MW-27	404.71	4.80	399.91
MW-28 (est)	433.59	19.10	414.49
P2-8	442.37	No Reading	Not Available
P-56	390.95	3.66	387.29
P-59	473.92	>45.60	<428.32
P-60	449.00	18.10	430.90
P-61	478.81	32.26	446.55
P-62	464.63	33.95	430.68

NOTE: Left justified classified as Closed Unlined MSWLF &/or Active C&D Landfill
MW-28 data from BLE boring log
* = Groundwater elevations not used for contouring

Municipal Engineering Services Company, P.A.
LICENSE NUMBER: C-0281
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ACTIVE SUBTITLE D LINED MSWLF
ACTIVE C&D and CLOSED MSWLF
CITY OF ALBEMARLE
NORTH CAROLINA

DATE	BY	REV.	DESCRIPTION

SINGLE-DAY POTENTIOMETRIC MAP
UPPERMOST AQUIFER (JANUARY 17, 2011)

SCALE: 1" = 200'
DATE: 4/7/2011
DRWN. BY: R. MOSS
CHKD. BY: M. GERMAN
PROJECT NUMBER G10008.0
DRAWING NO. PLATE 2
SHEET NO. 1 OF 1

Tables

Table 1
Sampling and Analysis Summary
January 17, 18 & 20, 2011

		App. I		App. II										Field Parameter							Leachate					
	Reason Not Sampled	VOCs	Total Metals	VOCs	Total Metals	Pesticides	Herbicides-Chlorinated	Polychlorinated biphenyl (PCB)	Semivolatile Organics (SVOCs)	Total Cyanide	Tin	Mercury	Sulfide	Dissolved Oxygen (DO)	Oxidation Reduction Potential (ORP)	Temperature	Conductivity	Total Dissolved Solids (TDS)	pH	Turbidity	Sulfate	pH	Phosphorus	BOD, 5 day	COD	Nitrate
		Lab EPA 8260B	Lab EPA 6000/7000	Lab EPA 8260B	Lab EPA 6000/7000	Lab EPA 8081B	Lab SW8151A	Lab EPA 8082A	Lab EPA 8270D	Lab EPA 9014	Lab EPA 6010C	Lab EPA 7470A	Lab SM18 4500-S D	Field Meter	Field Meter	Field Meter	Field Meter	Field Meter	Field Meter	Field Visual	Lab ASTM D516-90	Lab SM 4500-H/B	Lab EPA365.4	Lab SM 5210B	Lab SM 5220D	Lab EPA 353.2
MW-13		x	x								x		x	x	x	x	x	x	x	x						
MW-14		x	x											x	x	x	x	x	x	x						
MW-15		x	x											x	x	x	x	x	x	x						
MW-16S		x	x								x			x	x	x	x	x	x	x						
MW-16D		x	x								x			x	x	x	x	x	x	x						
MW-17		x	x											x	x	x	x	x	x	x						
MW-18		x	x											x	x	x	x	x	x	x						
MW-19		x	x								x		x	x	x	x	x	x	x	x						
MW-22		x	x											x	x	x	x	x	x	x						
MW-23		x	x								x			x	x	x	x	x	x	x						
MW-26		x	x											x	x	x	x	x	x	x						
MW-27		x	x											x	x	x	x	x	x	x						
SW-1		x	x											x	x	x	x	x	x	x						
SW-2		x	x											x	x	x	x	x	x	x						
SW-6		x	x								x			x	x	x	x	x	x	x						
SW-7		x	x											x	x	x	x	x	x	x						
EB		x	x																							
FB		x	x																							
TB		x																								
LAGOON		x	x								x	x									x	x	x	x	x	x

App I & II = List from current 40 CFR 258

Table 2
Detections in Water Samples above SWSL, GWP, 2L or 2B (Appendix I)
January 17 & 18, 2011

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	2B [5]	GWP [6]	Exceedance	Preliminary Cause
MW-13	**Arsenic Total**	**01/18/2011**	**54.6**	**ug/L**	**2.8**	**10**	**10**			**44.6**	**N**
MW-13	**Chromium Total**	**01/18/2011**	**61**	**ug/L**	**1**	**10**	**10**			**51**	**N**
MW-13	Cobalt Total	01/18/2011	45.8	ug/L	1.1	10			70		
MW-13	Copper Total	01/18/2011	34.3	ug/L	1.6	10	1000				
MW-13	Vanadium Total	01/18/2011	37.5 j	ug/L	1.4	25			3.5	34	
MW-13	Zinc Total	01/18/2011	23.2	ug/L	3.8	10	1050				
MW-15	**Arsenic Total**	**01/17/2011**	**13.4**	**ug/L**	**2.8**	**10**	**10**			**3.4**	**N**
MW-15	Cadmium Total	01/17/2011	1.31	ug/L	0.36	1	1.75				
MW-15	Vanadium Total	01/17/2011	4.26 j	ug/L	1.4	25			3.5	0.76	
MW-16D	Cobalt Total	01/17/2011	75.5	ug/L	1.1	10			70	5.5	
MW-19	Cobalt Total	01/17/2011	10.6	ug/L	1.1	10			70		
MW-22	Cadmium Total	01/17/2011	1.65	ug/L	0.36	1	1.75				
MW-22	Vanadium Total	01/17/2011	5.52 j	ug/L	1.4	25			3.5	2.02	
MW-22	Zinc Total	01/17/2011	18.8	ug/L	3.8	10	1050				
MW-23	**Arsenic Total**	**01/18/2011**	**11**	**ug/L**	**2.8**	**10**	**10**			**1**	**N**
MW-23	**Benzene**	**01/18/2011**	**1.3**	**ug/L**	**0.2**	**1**	**1**			**0.3**	**L &/or LFG**
MW-23	**Cadmium Total**	**01/18/2011**	**6.4**	**ug/L**	**0.36**	**1**	**1.75**			**4.65**	**N**
MW-23	cis-1,2-Dichloroethene	01/18/2011	24	ug/L	0.36	5	70				
MW-23	Cobalt Total	01/18/2011	44.8	ug/L	1.1	10			70		
MW-23	**Vinyl chloride**	**01/18/2011**	**3.6**	**ug/L**	**0.3**	**1**	**0.03**			**3.57**	**L &/or LFG**
MW-26	**Arsenic Total**	**01/17/2011**	**19.4**	**ug/L**	**2.8**	**10**	**10**			**9.4**	**N**
MW-26	**Chromium Total**	**01/17/2011**	**43.8**	**ug/L**	**1**	**10**	**10**			**33.8**	**N**
MW-26	Cobalt Total	01/17/2011	11.3	ug/L	1.1	10			70		
MW-26	Copper Total	01/17/2011	48.7	ug/L	1.6	10	1000				
MW-26	Lead Total	01/17/2011	13	ug/L	1.9	10	15				
MW-26	Vanadium Total	01/17/2011	55.2	ug/L	1.4	25			3.5	51.7	
MW-26	Zinc Total	01/17/2011	55.5	ug/L	3.8	10	1050				

[1] Table contains only constituents detected above SWSL, GWP, 2L, or 2B

[2] MDL = Method Detection Limit

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

[4] 2L = North Carolina 15A NCAC 2L Groundwater Qualtity Standard (Current as of Sampling Event)

[5] 2B = North Carolina 15 NCAC 2B Surface Water Quality Standard for this Specific Stream Classification (Current as of Sampling Event)

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

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.

L = Leachate

LFG = Landfill Gas

N = Natural. Erosion of Natural Deposits

BOLD = Concentration > 2L, or 2B Standard (Current as of Sampling Event)

Table 3
Detections in Water Samples Above MDL (Appendix II Exclusive)
January 17 & 18, 2011

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	GWP [5]	Exceedance	Preliminary Cause	Comparison to Previous July 2010 Event
MW-13	Tin Total	1/18/11	2.39 j	ug/L	2.1	100	NE	NE			Up
MW-16S	Tin Total	1/17/11	3.98 j	ug/L	2.1	100	NE	NE			Down
MW-16D	Tin Total	1/17/11	2.69 j	ug/L	2.1	100	NE	NE			Down
MW-19	Tin Total	1/17/11	2.34 j	ug/L	2.1	100	NE	NE			Down

[1] Table contains detected App II exclusive constituents

[2] MDL = Method Detection Limit

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

[4] 2L = North Carolina 15A NCAC 2L Groundwater Quality Standard (Current as of Sampling Event)

[5] 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.

NE = Not Established

BOLD = Concentration >2L, or 2B Standard (Current as of Sampling Event)

Table 4
Detections in Leachate Samples above SWSL, GWP, or 2L
January 20, 2011

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	GWP [5]	Exceedance
LAGOON	Tin Total	1/20/11	11 j	ug/L	2.1	100	NE	NE	
LAGOON	Selenium Total	1/20/11	17.7	ug/L	8.3	10	20		
LAGOON	Vanadium Total	1/20/11	8.63 j	ug/L	1.4	25		3.5	
LAGOON	Xylenes (Total)	1/20/11	52	ug/L	2	5	530		
LAGOON	Chlorobenzene	1/20/11	3	ug/L	1.4	3	50		
LAGOON	Ethylbenzene	1/20/11	18	ug/L	1	1	550		
LAGOON	Toluene	1/20/11	13	ug/L	1.4	1	1000		
LAGOON	1,4-Dichlorobenzene	1/20/11	4.6	ug/L	1.9	1	6		
LAGOON	**Benzene**	**1/20/11**	**17**	**ug/L**	**1**	**1**	**1**		**16**

[1] Table contains only constituents detected above SWSL, GWP, or 2L

[2] MDL = Method Detection Limit

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

[4] 2L = North Carolina 15A NCAC 2L Groundwater Quality Standard (Current as of Sampling Event)

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

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.

NE = Not Established

BOLD = Concentration > 2L Standard (Current as of Sampling Event)

Table 5
Hydrogeologic Properties at Monitoring Well Locations
January 17, 2011

Monitoring Well	Hydraulic Conductivity (cm/sec)	Effective Porosity (%)	Hydraulic Gradient	Groundwater Velocity Rate (ft/yr)	Flow Direction	Water Table Depth (ft)	Water Table Elevation (ft)	Screened Interval Lithology
MW-13	4.59E-04	15%	0.02	59	N00E	9.77	378.75	Metatuff
MW-14	4.05E-04	15%	0.04	103	S31W	4.55	379.00	Diabase Dike
MW-15	4.22E-03	20%	0.01	128	S16W	5.35	380.37	Sandy Silt
MW-16S	3.95E-06	15%	0.02	1	S34W	4.67	382.08	Argillite
MW-17	6.90E-06	15%	0.03	1	S53W	6.02	390.45	Argillite
MW-18	5.66E-06	15%	0.06	2	S40W	7.84	401.57	Argillite
MW-19	5.97E-06	15%	0.07	3	S68W	24.26	428.08	Argillite
MW-22	3.26E-04	15%	0.06	141	S26W	10.45	377.96	Argillite
MW-23	5.37E-05	15%	0.01	5	N24E	7.29	379.12	Argillite
MW-26	3.66E-04	12%	0.05	151	S28W	33.64	382.06	Argillite
MW-27	na	12%	0.06	na	S21W	4.80	399.91	Saprolite

NOTE: Hydraulic conductivity values obtained from Slug Test analysis conducted by MESCO.
Hydrologic Gradient from water elevations collect during January 17, 2011 sampling event.
Effective porosity values from average geologic formation as shown in the table by (Hamill & Bell, 1986).

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

Min v_x: 1
Mean v_x: 59
Median v_x: 32
Max v_x: 151

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

Table 6
Field Observations of Monitoring Locations
January 17, 18 & 20, 2011

Sample Location	Viable Monitoring Location	Lack of Any Evidence of Tampering	Locked	Hinge/Hasp Operational	Tagged or Labeled	Concrete Surface Pad Effective	Degree of Visual Turbidity of Collected Sample	Comments
MW-13	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
MW-14	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
MW-15	Yes	Yes	Yes	Yes	Yes	Yes	Clear	Bumped since 7/21/10 so hinge replaced1/17/11. Slight Constriction.
MW-16S	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
MW-16D	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
MW-17	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
MW-18	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
MW-19	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
MW-22	Yes	Yes	Yes	Yes	Yes	Yes	Clear	Lock Replaced 1/17/11
MW-23	Yes	Yes	Yes	Yes	Yes	Yes	Clear	
MW-26	Yes	Yes	Yes	Yes	Yes	Yes	Clear	Lock Replaced 1/17/11
MW-27	Yes	Yes	Yes	Yes	Yes	Yes	Clear	Lock Replaced 1/17/11
SW-1	Yes	-	-	-	-	-	Clear	
SW-2	Yes	-	-	-	-	-	Clear	
SW-6	Yes	-	-	-	-	-	Clear	
SW-7	Yes	-	-	-	-	-	Clear	
LAGOON	Yes	-	-	-	-	-	Clear	Sample Collected from Ph 1 invert

Any unusual field conditions, observations, or events:

Majority of wells have been maintained (cleared around & painted) since July 2010 by City.

Table 7
Field Parameter Data Summary
January 17 & 18, 2011

Parameter	WLR (BTOC)	Water Elevation	TOC Elevation	Temp.	ORP	DO	pH	Specific Conductance	TDS	Turbidity
Units	ft	ft (amsl)	ft (amsl)	C	mV	mg/L	SU	uohms/cm	mg/L	Visual
MW-13	9.77	378.75	388.52	14.6	-31	2.0	6.87	580	240	Clear
MW-14	4.55	379.00	383.55	13.8	104	1.8	6.38	810	404	Clear
MW-15	5.35	380.37	385.72	14.0	-19	0.8	6.21	216	104	Clear
MW-16S	4.67	382.08	386.75	13.7	-38	0.6	5.91	698	341	Clear
MW-16D	4.32	382.56	386.88	13.9	-91	1.1	5.93	703	348	Clear
MW-17	6.02	390.45	396.47	14.0	-101	1.6	6.60	201	100	Clear
MW-18	7.84	401.57	409.41	13.8	-36	1.1	6.87	88	42	Clear
MW-19	24.26	428.08	452.34	16.0	61	5.2	6.46	886	431	Clear
MW-22	10.45	377.96	388.41	12.9	-31	2.4	6.20	610	301	Clear
MW-23	7.29	379.12	386.41	12.7	46	1.1	6.21	619	309	Clear
MW-26	33.64	382.06	415.7	15.8	35	3.5	5.93	82	36	Slight
MW-27	4.80	399.91	404.71	16.0	196	1.9	6.38	301	148	Clear
P-56	3.66	387.29	390.95	-	-	-	-	-	-	-
P-59	>45.60	<428.32	473.92	-	-	-	-	-	-	-
P-60	18.10	430.90	449	-	-	-	-	-	-	-
P-61	32.26	446.55	478.81	-	-	-	-	-	-	-
P-62	33.95	430.68	464.63	-	-	-	-	-	-	-
Minimum	4.32	377.96	383.55	12.7	-101	0.6	5.91	82	36	Clear
Maximum	33.64	428.08	452.34	16.0	196	5.2	6.87	886	431	Clear
Average	10.25	388.49	398.74	14.3	8	1.9	6.33	483	234	Clear
SW-1	-	-	-	4.9	124	8.7	7.39	137	68	Clear
SW-2	-	-	-	5.1	128	8	7.01	88	42	Clear
SW-6	-	-	-	4.8	119	8.6	6.99	74	34	Clear
SW-7	-	-	-	5	124	8.7	6.97	80	41	Clear
Minimum	-	-	-	4.8	119	8	6.97	74	34	Clear
Maximum	-	-	-	5.1	128	8.7	7.39	137	68	Clear
Average	-	-	-	5.0	124	8.5	7.09	94.75	46	Clear

WLRs Taken from Below Top Of Casing on January 17, 2011

Appendix A
Statistical Analysis

Statistical Analysis Methodology

Statistical Analysis Methodologies

A statistical analysis was performed on metal and VOC detections utilizing Chemstat software, which was developed specifically for RCRA Subtitle D sites and conforms to both current EPA and SWS protocols. A step-wise approach was utilized to evaluate trends in groundwater quality to identify a potential release from the landfill. Analytical data underwent preliminary data evaluation to reduce the data set and to determine if any "outliers" (defined as data that appears to be incongruent with respect to historical results) or seasonality exists that may potentially effect the results of the subsequent statistical analysis. All statistical tests were evaluated at the 0.05 level of significance, 95% confidence level, and were conducted as one-tailed tests. Statistical background values were calculated using un-manipulated data from historical semi-annual sampling events for this facility from prior to operation in 1999 to the current event. Historical data compiled for monitoring well(s) were used as the baseline. Groundwater data from the downgradient well(s) were compared to the pooled background groundwater data (inter-well) using methods which varied depending upon the percentage of non-detects. If necessary and applicable further intra-well analysis was conducted to compare current data from a single well to it's own respective historical data. Finally, parameters that indicated statistical significance after previous tests were evaluated to estimate the change in concentration over time to determine the presence of an upward trend.

Preliminary Data Evaluation

A preliminary data screening was conducted on detections. Parameters detected with concentrations found below quantifiable levels (SWSL) and below those detected in the background well were eliminated and a statistical analysis was not conducted for that particular constituent/well.

Data distributions were reviewed using box and whiskers plots (enclosed charts). In order to evaluate variability in concentrations with respect to time and season, time series plots were generated for select constituents (enclosed charts). Time series plots were also visually evaluated for seasonality and "outliers". Suspected outliers were than further evaluated through the applicable Dixon's, Rosner's, &/or Discordance Test for Outliers depending upon the number of samples and the data distribution. Outliers are generally not censored from the current nor historical data set prior to statistical analysis but are further evaluated and or qualified as necessary.

Inter-well Analyses

Inter-well statistical analysis was conducted upon total metals detected during this sampling event. Monitoring well MW-1 was defined as the background well. 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 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.

Intra-well Analysis

Intra-well analysis was conducted only on those constituents found to be statistically significant by inter-well analysis with sufficient historical samples known to not be impacted. With intra-well comparisons, data from a single well is compared to historical data from the same well. In general, intra-well analysis is typically used to differentiate true contamination from spatial variability. Intra-well analysis is generally conducted through interpretation of Shewhart-CUSUM and/or Exponentially Weighted Moving Average (EWMA) control charts. where applicable.

Poisson Prediction Interval (VOCs)

Historical VOC detections in the background well MW-1 were pooled to determine the total number of detections, from which the expected number of detections in a single downgradient monitoring point (y^*) was derived by utilizing the Poisson prediction interval. The parameter y^* is defined by the following equation:

$$y^* = cy + \frac{t^2 c}{2} + tc\sqrt{y\left(1+\frac{1}{c}\right)+\frac{t^2}{4}}$$

where

c = 1/ n (n =number of background samples)
t = one-sided value of student's t -Statistic at 95% confidence [a]
y = number of events observed in n previous samples
y^* = expected number of events in a single future sample

[a] Gibbons, R.D., 1994, Statistical methods for groundwater monitoring: John Wiley & Sons, Inc., p.12.

For each monitoring location showing any VOC detections, the number of detected VOCs was counted with each detection being considered a "hit". The number was then compared with the expected number of detections derived from the background VOC data. The value of Student's t -Statistic was derived from tabulated values included in Gibbons (1994).

Determine Data Trend Over Time

The parameters that indicated statistical significance a further qualitative evaluation is employed to determine trends in concentration over time. Implementation of Mann-Kendall Trend Analysis or Sen's Slope Analysis is generally used to determine if the concentration trend is increasing, decreasing, or remaining constant.

Statistical Analysis Summary
Tables & Graphs

Inter-Well Analyses Summary
January 17 & 18, 2011

Background Well: MW-19

Arsenic, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
76.92	-	Non-Parametric tolerance interval	1/2ND	260	ug/l

Well	Result	Significance
MW-13	54.6	no
MW-15	13.4	no
MW-23	11	no
MW-26	19.4	no

Cadmium, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
88.46	-	Non-Parametric tolerance interval	ND	240	ug/l

Well	Result	Significance
MW-15	1.31	no
MW-22	1.65	no
MW-23	6.4	no

Chromium, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
61.54	-	Non-Parametric tolerance interval	1/2ND	250	ug/l

Well	Result	Significance
MW-13	61	no
MW-26	43.8	no

Cobalt, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
57.69	-	Non-Parametric tolerance interval	1/2ND	230	ug/l

Well	Result	Significance
MW-13	45.8	no
MW-16D	75.5	no
MW-23	44.8	no
MW-26	11.3	no

Copper, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
65.38	no	Non-Parametric tolerance interval	1/2ND	290	ug/l

Well	Result	Significance
MW-13	34.3	no
MW-26	48.7	no

Lead, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
61.54	no	Non-Parametric tolerance interval	1/2ND	240	ug/l

Well	Result	Significance
MW-26	13	no

Vanadium, total

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

Well	Result	Significance
MW-26	55.2	no

Zinc, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
42.31	no	Non-Parametric tolerance interval	1/2ND	330	ug/l

Well	Result	Significance
MW-13	23.2	no
MW-22	18.8	no
MW-26	55.5	no

NOTE: **Bold**-faced monitoring locations indicate detected levels exceed the 2L Standard

Summary of Pooled VOCs in Background Well (MW-19)
January 17 & 18, 2011

Constituent	Samples	NDs	% NDs
1,1,1,2-Tetrachloroethane	26	26	100.00
1,1,1-Trichloroethane	26	26	100.00
1,1,2,2-Tetrachloroethane	26	26	100.00
1,1,2-Trichloroethane	26	26	100.00
1,1-Dichloroethane	26	26	100.00
1,1-Dichloroethene	26	26	100.00
1,2,3-Trichloropropane	26	26	100.00
1,2-Dibromo-3-chloropropane	26	26	100.00
1,2-Dibromoethane	26	26	100.00
1,2-Dichlorobenzene	26	26	100.00
1,2-Dichloroethane	26	26	100.00
1,2-Dichloropropane	26	26	100.00
1,4-Dichlorobenzene	26	26	100.00
2-Butanone	26	26	100.00
2-Hexanone	26	26	100.00
4-Methyl-2-Pentanone	26	26	100.00
Acetone	26	26	100.00
Acrylonitrile	26	26	100.00
Benzene	26	26	100.00
Bromochloromethane	26	26	100.00
Bromodichloromethane	26	26	100.00
Bromoform	26	26	100.00
Bromomethane	26	26	100.00
Carbon disulfide	26	26	100.00
Carbon tetrachloride	26	26	100.00
Chlorobenzene	26	26	100.00
Chloroethane	26	26	100.00
Chloroform	26	26	100.00
Chloromethane	26	26	100.00
cis-1,2-Dichloroethene	26	26	100.00
cis-1,3-Dichloropropene	26	26	100.00
Chlorodibromomethane	26	26	100.00
Dibromomethane	26	26	100.00
Ethylbenzene	26	26	100.00
Iodomethane	26	26	100.00
Dichloromethane	26	26	100.00
Styrene	26	26	100.00
Tetrachloroethylene	26	26	100.00
Toluene	26	26	100.00
trans-1,2-Dichloroethene	26	26	100.00
trans-1,3-Dichloropropene	26	26	100.00
trans-1,4-Dichloro-2-butene	26	26	100.00
Trichloroethylene	26	26	100.00
Trichlorofluoromethane	26	26	100.00
Vinyl acetate	26	26	100.00
Vinyl chloride	26	26	100.00
Xylene	26	26	100.00
Total	**1222**	**1222**	**100.00**

Summary of Detected VOCs in Background Well (MW-19)
January 17 & 18, 2011

Constituent	Date	Concentration (ug/l)	Recommended SWSL (ug/l)	Detection Treated As
Carbon Disulfide	6/28/99	7.8	100	ND
Carbon Disulfide	6/6/00	17	100	ND
Carbon Disulfide	12/6/00	11	100	ND
Carbon Disulfide	7/16/01	23	100	ND
Carbon Disulfide	1/10/02	5.5	100	ND
Carbon Disulfide	12/16/02	11	100	ND

Historical Detections within the Background Well
Considered to be ND for Statistical Analysis Purposes since Concentrations <SWSL

Poisson Prediction Interval Based upon Pooled Background VOCs
January 17 & 18, 2011

All detected VOCs (Background Well: MW-19)

Constituent	MW-23	Total
Benzene	**1.3**	1.3
cis-1,2-Dichloroethene	24 ↑	24
Vinyl Chloride	**3.6**	3.6
Cumulative Total	28.9	28.9
Detection(s) per Scan	3	-

all concentrations in ug/l

Bold indicates detected levels exceed 2L Standard

"j" qualifier concentrations treated as non-detection

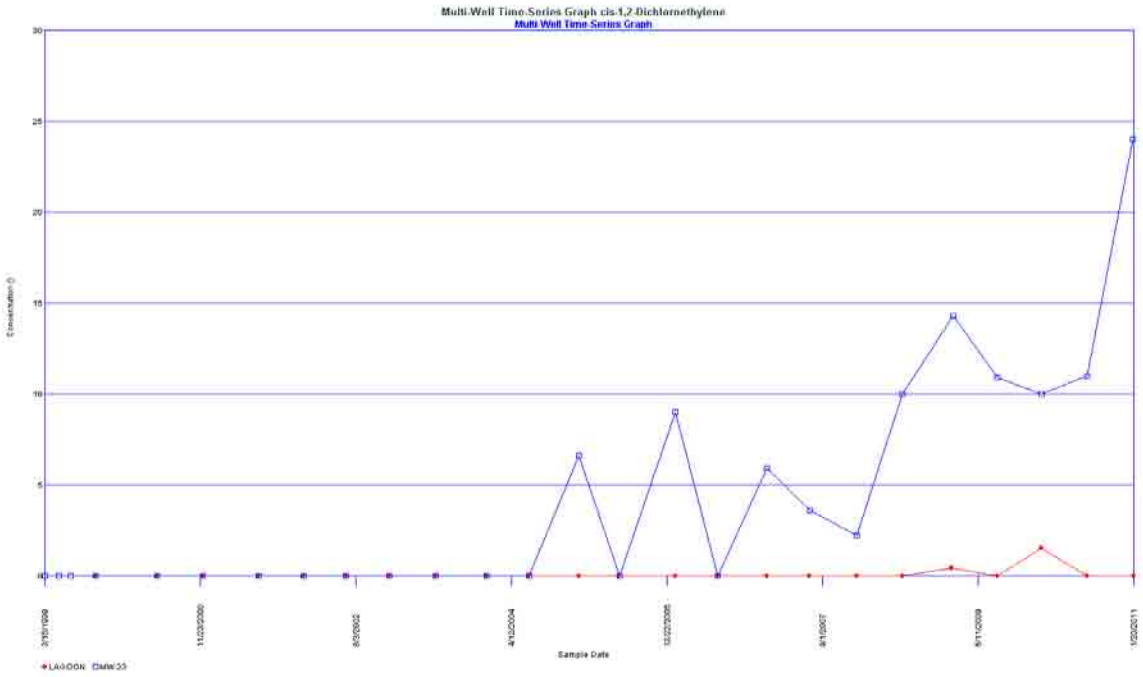
↑ Indicates an upward trend per Sen's Slope Analysis &/or Mann Kendall Trend Analysis. No arrow indicates no data trend

Underlined indicates detected outside own historically identified range

Total number of sampling events [n] = 26
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] = 2.82
Expected number of detections in a single future sample [y*] = **0.3067**

Statistically Significant # of VOC detections within MW-23 at a 95% confidence level

Time Series Plots for Select Constituents
January 17 & 18, 2011



NonDetects (ND) represented at Zero

Statistical Analysis
Basic Statistics

Basic Statistics

Parameter: Arsenic, total

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

Total Measurements	109
Total Non-Detects	52 (47.7064%)
Pooled Mean	23.8128
Pooled Std Dev	43.4262
Compliance Meas.	83
Compliance Mean	25.0916
Compliance Std Dev	41.2622
Background Meas.	26
Background Mean	19.7308
Background Std Dev	50.3945

Background Locations

There is 1 background location

Location	Meas.	Non-Detects	% ND	Total
MW-19	26	20	76.9231	513

Location	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-19	19.7308	50.3945	0	1069	41.1154

Compliance Locations

There are 4 compliance location

Location	Obs.	Non-Detects	% ND	Total
MW-15	26	9	34.6154	988
MW-13	26	3	11.5385	789.4
MW-23	26	17	65.3846	254.7
MW-26	5	3	60	50.5

Location	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-15	38	62.9689	18.2692	11.8808	1582.5	60.8654
MW-13	30.3615	32.2684	10.6308	11.8808	2025.5	77.9038
MW-23	9.79615	8.92459	-9.93462	11.8808	1093.5	42.0577
MW-26	10.1	7.08025	-9.63077	20.9183	224.5	44.9

Analysis of Variance Statistics

SS Wells	12829.8
SS Total	203670

Kruskal-Wallis Statistics

Non-Detect Rank	26.5
Background Rank Sum	1069
Background Rank Mean	41.1154
H Statistic	24.4316
H Adjusted for Ties	27.4064

Basic Statistics

Parameter: Cadmium, total

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

Total Measurements	104
Total Non-Detects	94 (90.3846%)
Pooled Mean	2.95144
Pooled Std Dev	23.4802
Compliance Meas.	78
Compliance Mean	0.67
Compliance Std Dev	0.769841
Background Meas.	26
Background Mean	9.79577
Background Std Dev	46.9537

Background Locations

There is 1 background location

Location	Meas.	Non-Detects	% ND	Total
MW-19	26	23	88.4615	254.69

Location	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-19	9.79577	46.9537	0	1393.5	53.5962

Compliance Locations

There are 3 compliance location

Location	Obs.	Non-Detects	% ND	Total
MW-15	26	25	96.1538	13.81
MW-23	26	23	88.4615	22.4
MW-22	26	23	88.4615	16.05

Location	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-15	0.531154	0.158854	-9.26462	6.51391	1285.5	49.4423
MW-23	0.861538	1.27533	-8.93423	6.51391	1392.5	53.5577
MW-22	0.617308	0.335542	-9.17846	6.51391	1388.5	53.4038

Analysis of Variance Statistics

SS Wells	1625.48
SS Total	56785.9

Kruskal-Wallis Statistics

Non-Detect Rank	47.5
Background Rank Sum	1393.5
Background Rank Mean	53.5962
H Statistic	0.356762
H Adjusted for Ties	1.36362

Basic Statistics

Parameter: Chromium, total

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

Total Measurements	57
Total Non-Detects	38 (66.6667%)
Pooled Mean	80.9386
Pooled Std Dev	282.518
Compliance Meas.	31
Compliance Mean	119.835
Compliance Std Dev	377.142
Background Meas.	26
Background Mean	34.5615
Background Std Dev	63.1864

Background Locations

There is 1 background location

Location	Meas.	Non-Detects	% ND	Total
MW-19	26	16	61.5385	898.6

Location	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-19	34.5615	63.1864	0	779	29.9615

Compliance Locations

There are 2 compliance location

Location	Obs.	Non-Detects	% ND	Total
MW-13	26	19	73.0769	3616
MW-26	5	3	60	98.9

Location	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-13	139.077	410.158	104.515	78.3302	722.5	27.7885
MW-26	19.78	20.2806	-14.7815	137.915	151.5	30.3

Analysis of Variance Statistics

SS Wells	162505
SS Total	4.46971e+006

Kruskal-Wallis Statistics

Non-Detect Rank	19.5
Background Rank Sum	779
Background Rank Mean	29.9615
H Statistic	0.25645
H Adjusted for Ties	0.36437

Basic Statistics

Parameter: Cobalt, total

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

Total Measurements	109
Total Non-Detects	19 (17.4312%)
Pooled Mean	111.33
Pooled Std Dev	229.202
Compliance Meas.	83
Compliance Mean	136.851
Compliance Std Dev	256.213
Background Meas.	26
Background Mean	29.8615
Background Std Dev	50.64

Background Locations

There is 1 background location

Location	Meas.	Non-Detects	% ND	Total
MW-19	26	15	57.6923	776.4

Location	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-19	29.8615	50.64	0	689	26.5

Compliance Locations

There are 4 compliance location

Location	Obs.	Non-Detects	% ND	Total
MW-13	26	0	0	4693
MW-26	5	3	60	37.6
MW-16D	26	0	0	5765
MW-23	26	1	3.84615	863

Location	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-13	180.5	167.163	150.638	59.8763	2155	82.8846
MW-26	7.52	3.45065	-22.3415	105.423	75	15
MW-16D	221.731	402.786	191.869	59.8763	2032	78.1538
MW-23	33.1923	33.7624	3.33077	59.8763	1044	40.1538

Analysis of Variance Statistics

SS Wells	826484
SS Total	5.67364e+006

Kruskal-Wallis Statistics

Non-Detect Rank	10
Background Rank Sum	689
Background Rank Mean	26.5
H Statistic	69.0616
H Adjusted for Ties	69.4284

Basic Statistics

Parameter: Copper

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

Total Measurements	57
Total Non-Detects	40 (70.1754%)
Pooled Mean	48.5842
Pooled Std Dev	140.467
Compliance Meas.	31
Compliance Mean	59.7097
Compliance Std Dev	180.403
Background Meas.	26
Background Mean	35.3192
Background Std Dev	69.3292

Background Locations

There is 1 background location

Location	Meas.	Non-Detects	% ND	Total
MW-19	26	17	65.3846	918.3

Location	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-19	35.3192	69.3292	0	782.5	30.0962

Compliance Locations

There are 2 compliance location

Location	Obs.	Non-Detects	% ND	Total
MW-13	26	20	76.9231	1753.5
MW-26	5	3	60	97.5

Location	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-13	67.4423	196.472	32.1231	39.3481	714	27.4615
MW-26	19.5	20.5419	-15.8192	69.2794	156.5	31.3

Analysis of Variance Statistics

SS Wells	18050.7
SS Total	1.10494e+006

Kruskal-Wallis Statistics

Non-Detect Rank	20.5
Background Rank Sum	782.5
Background Rank Mean	30.0962
H Statistic	0.432773
H Adjusted for Ties	0.661202

Basic Statistics

Parameter: Lead, total

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

Total Measurements	31
Total Non-Detects	19 (61.2903%)
Pooled Mean	29.2581
Pooled Std Dev	53.1727
Compliance Meas.	5
Compliance Mean	8.88
Compliance Std Dev	5.4472
Background Meas.	26
Background Mean	33.1769
Background Std Dev	57.3501

Background Locations

There is 1 background location

Location	Meas.	Non-Detects	% ND	Total
MW-19	26	16	61.5385	862.6

Location	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-19	33.1769	57.3501	0	421	16.1923

Compliance Locations

There is 1 compliance location

Location	Obs.	Non-Detects	% ND	Total
MW-26	5	3	60	44.4

Location	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-26	8.88	5.4472	-24.2969	26.0212	75	15

Analysis of Variance Statistics

SS Wells	2475.62
SS Total	84820.2

Kruskal-Wallis Statistics

Non-Detect Rank	10
Background Rank Sum	421
Background Rank Mean	16.1923
H Statistic	0.0721154
H Adjusted for Ties	0.0936367

Basic Statistics

Parameter: Vanadium

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

Total Measurements	31
Total Non-Detects	24 (77.4194%)
Pooled Mean	31.7516
Pooled Std Dev	49.7623
Compliance Meas.	5
Compliance Mean	27.66
Compliance Std Dev	21.0343
Background Meas.	26
Background Mean	32.5385
Background Std Dev	53.8215

Background Locations

There is 1 background location

Location	Meas.	Non-Detects	% ND	Total
MW-19	26	21	80.7692	846

Location	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-19	32.5385	53.8215	0	406.5	15.6346

Compliance Locations

There is 1 compliance location

Location	Obs.	Non-Detects	% ND	Total
MW-26	5	3	60	138.3

Location	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-26	27.66	21.0343	-4.87846	24.699	89.5	17.9

Analysis of Variance Statistics

SS Wells	99.8039
SS Total	74288.5

Kruskal-Wallis Statistics

Non-Detect Rank	12.5
Background Rank Sum	406.5
Background Rank Mean	15.6346
H Statistic	0.260337
H Adjusted for Ties	0.48544

Basic Statistics

Parameter: Zinc, total

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

Total Measurements	83
Total Non-Detects	42 (50.6024%)
Pooled Mean	61.0084
Pooled Std Dev	142.255
Compliance Meas.	57
Compliance Mean	61.5298
Compliance Std Dev	160.001
Background Meas.	26
Background Mean	59.8654
Background Std Dev	95.0198

Background Locations

There is 1 background location

Location	Meas.	Non-Detects	% ND	Total
MW-19	26	11	42.3077	1556.5

Location	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-19	59.8654	95.0198	0	1202.5	46.25

Compliance Locations

There are 3 compliance location

Location	Obs.	Non-Detects	% ND	Total
MW-26	5	3	60	133.2
MW-22	26	14	53.8462	1489.8
MW-13	26	14	53.8462	1884.2

Location	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-26	26.64	29.7409	-33.2254	70.5658	203.5	40.7
MW-22	57.3	136.306	-2.56538	40.0787	1051	40.4231
MW-13	72.4692	195.543	12.6038	40.0787	1029	39.5769

Analysis of Variance Statistics

SS Wells	9712.58
SS Total	1.65938e+006

Kruskal-Wallis Statistics

Non-Detect Rank	21.5
Background Rank Sum	1202.5
Background Rank Mean	46.25
H Statistic	1.19687
H Adjusted for Ties	1.37495

Statistical Analysis
Inter-well Analysis

Non-Parametric Tolerance Interval

Parameter: Arsenic, total

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

Total Percent Non-Detects = 47.7064%
Background measurements (n) = 26
Maximum Background Concentration = 260
Minimum Coverage = 89.1%
Average Coverage = 96.2963%

Location	Date	Value	Significant
MW-26	11/5/2008	ND<5	FALSE
MW-26	7/29/2009	ND<5	FALSE
MW-26	1/19/2010	16.1	FALSE
MW-26	7/19/2010	ND<5	FALSE
MW-26	1/17/2011	19.4	FALSE
MW-13	3/16/1999	ND<5	FALSE
MW-13	5/12/1999	54	FALSE
MW-13	6/28/1999	170	FALSE
MW-13	10/4/1999	25	FALSE
MW-13	6/6/2000	18	FALSE
MW-13	12/6/2000	24	FALSE
MW-13	7/16/2001	22	FALSE
MW-13	1/10/2002	28	FALSE
MW-13	6/25/2002	20	FALSE
MW-13	12/17/2002	25	FALSE
MW-13	6/19/2003	32	FALSE
MW-13	1/7/2004	18	FALSE
MW-13	6/24/2004	20	FALSE
MW-13	1/7/2005	22	FALSE
MW-13	6/17/2005	46	FALSE
MW-13	1/25/2006	18.6	FALSE
MW-13	7/14/2006	14.4	FALSE
MW-13	1/26/2007	ND<5	FALSE
MW-13	7/17/2007	ND<5	FALSE
MW-13	1/15/2008	67.3	FALSE
MW-13	7/15/2008	13	FALSE
MW-13	2/4/2009	22.9	FALSE
MW-13	7/28/2009	19.4	FALSE
MW-13	1/20/2010	20	FALSE
MW-13	7/20/2010	20.2	FALSE
MW-13	1/18/2011	54.6	FALSE
MW-15	3/16/1999	61	FALSE
MW-15	5/12/1999	190	FALSE
MW-15	**6/28/1999**	**270**	**TRUE**
MW-15	10/5/1999	13	FALSE
MW-15	6/7/2000	11	FALSE
MW-15	12/6/2000	89	FALSE
MW-15	7/16/2001	66	FALSE
MW-15	1/10/2002	13	FALSE
MW-15	6/26/2002	81	FALSE
MW-15	12/17/2002	56	FALSE
MW-15	6/19/2003	13	FALSE
MW-15	1/7/2004	ND<5	FALSE
MW-15	6/24/2004	12	FALSE
MW-15	1/7/2005	ND<5	FALSE
MW-15	6/17/2005	12	FALSE
MW-15	1/26/2006	ND<5	FALSE
MW-15	7/14/2006	ND<5	FALSE
MW-15	1/26/2007	11.5	FALSE
MW-15	7/17/2007	ND<5	FALSE
MW-15	1/15/2008	ND<5	FALSE
MW-15	7/15/2008	ND<5	FALSE
MW-15	2/3/2009	ND<5	FALSE
MW-15	7/27/2009	11.1	FALSE
MW-15	1/19/2010	20	FALSE
MW-15	7/21/2010	ND<5	FALSE
MW-15	1/17/2011	13.4	FALSE
MW-23	3/16/1999	42	FALSE

MW-23	5/12/1999	25	FALSE
MW-23	6/28/1999	25	FALSE
MW-23	10/4/1999	12	FALSE
MW-23	6/6/2000	ND<5	FALSE
MW-23	12/6/2000	ND<5	FALSE
MW-23	7/16/2001	ND<5	FALSE
MW-23	1/10/2002	15	FALSE
MW-23	6/25/2002	ND<5	FALSE
MW-23	12/17/2002	ND<5	FALSE
MW-23	6/19/2003	ND<5	FALSE
MW-23	1/7/2004	ND<5	FALSE
MW-23	6/24/2004	10	FALSE
MW-23	1/7/2005	ND<5	FALSE
MW-23	6/17/2005	12	FALSE
MW-23	1/25/2006	ND<5	FALSE
MW-23	7/14/2006	ND<5	FALSE
MW-23	1/26/2007	ND<5	FALSE
MW-23	7/17/2007	ND<5	FALSE
MW-23	1/15/2008	ND<5	FALSE
MW-23	7/15/2008	ND<5	FALSE
MW-23	2/4/2009	ND<5	FALSE
MW-23	7/28/2009	ND<5	FALSE
MW-23	1/20/2010	ND<5	FALSE
MW-23	7/20/2010	17.7	FALSE
MW-23	1/18/2011	11	FALSE

Non-Parametric Tolerance Interval

Parameter: Cadmium, total

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

Total Percent Non-Detects = 90.3846%
Background measurements (n) = 26
Maximum Background Concentration = 240
Minimum Coverage = 89.1%
Average Coverage = 96.2963%

Location	Date	Value	Significant
MW-15	3/16/1999	ND<0.5	FALSE
MW-15	5/12/1999	ND<0.5	FALSE
MW-15	6/28/1999	ND<0.5	FALSE
MW-15	10/5/1999	ND<0.5	FALSE
MW-15	6/7/2000	ND<0.5	FALSE
MW-15	12/6/2000	ND<0.5	FALSE
MW-15	7/16/2001	ND<0.5	FALSE
MW-15	1/10/2002	ND<0.5	FALSE
MW-15	6/26/2002	ND<0.5	FALSE
MW-15	12/17/2002	ND<0.5	FALSE
MW-15	6/19/2003	ND<0.5	FALSE
MW-15	1/7/2004	ND<0.5	FALSE
MW-15	6/24/2004	ND<0.5	FALSE
MW-15	1/7/2005	ND<0.5	FALSE
MW-15	6/17/2005	ND<0.5	FALSE
MW-15	1/26/2006	ND<0.5	FALSE
MW-15	7/14/2006	ND<0.5	FALSE
MW-15	1/26/2007	ND<0.5	FALSE
MW-15	7/17/2007	ND<0.5	FALSE
MW-15	1/15/2008	ND<0.5	FALSE
MW-15	7/15/2008	ND<0.5	FALSE
MW-15	2/3/2009	ND<0.5	FALSE
MW-15	7/27/2009	ND<0.5	FALSE
MW-15	1/19/2010	ND<0.5	FALSE
MW-15	7/21/2010	ND<0.5	FALSE
MW-15	1/17/2011	1.31	FALSE
MW-23	3/16/1999	3.5	FALSE
MW-23	5/12/1999	ND<0.5	FALSE
MW-23	6/28/1999	ND<0.5	FALSE
MW-23	10/4/1999	ND<0.5	FALSE
MW-23	6/6/2000	ND<0.5	FALSE
MW-23	12/6/2000	ND<0.5	FALSE
MW-23	7/16/2001	ND<0.5	FALSE
MW-23	1/10/2002	ND<0.5	FALSE
MW-23	6/25/2002	ND<0.5	FALSE
MW-23	12/17/2002	ND<0.5	FALSE
MW-23	6/19/2003	1	FALSE
MW-23	1/7/2004	ND<0.5	FALSE
MW-23	6/24/2004	ND<0.5	FALSE
MW-23	1/7/2005	ND<0.5	FALSE
MW-23	6/17/2005	ND<0.5	FALSE
MW-23	1/25/2006	ND<0.5	FALSE
MW-23	7/14/2006	ND<0.5	FALSE
MW-23	1/26/2007	ND<0.5	FALSE
MW-23	7/17/2007	ND<0.5	FALSE
MW-23	1/15/2008	ND<0.5	FALSE
MW-23	7/15/2008	ND<0.5	FALSE
MW-23	2/4/2009	ND<0.5	FALSE
MW-23	7/28/2009	ND<0.5	FALSE
MW-23	1/20/2010	ND<0.5	FALSE
MW-23	7/20/2010	ND<0.5	FALSE
MW-23	1/18/2011	6.4	FALSE
MW-22	3/16/1999	1.6	FALSE
MW-22	5/12/1999	ND<0.5	FALSE
MW-22	6/30/1999	ND<0.5	FALSE
MW-22	10/4/1999	ND<0.5	FALSE
MW-22	6/6/2000	ND<0.5	FALSE
MW-22	12/6/2000	ND<0.5	FALSE
MW-22	7/16/2001	ND<0.5	FALSE
MW-22	1/9/2002	ND<0.5	FALSE

MW-22	6/26/2002	ND<0.5	FALSE
MW-22	12/16/2002	ND<0.5	FALSE
MW-22	6/19/2003	ND<0.5	FALSE
MW-22	1/7/2004	ND<0.5	FALSE
MW-22	6/24/2004	ND<0.5	FALSE
MW-22	1/7/2005	ND<0.5	FALSE
MW-22	6/17/2005	ND<0.5	FALSE
MW-22	1/25/2006	ND<0.5	FALSE
MW-22	7/13/2006	ND<0.5	FALSE
MW-22	1/26/2007	ND<0.5	FALSE
MW-22	7/17/2007	ND<0.5	FALSE
MW-22	1/15/2008	ND<0.5	FALSE
MW-22	7/15/2008	ND<0.5	FALSE
MW-22	2/3/2009	ND<0.5	FALSE
MW-22	7/27/2009	1.3	FALSE
MW-22	1/19/2010	ND<0.5	FALSE
MW-22	7/19/2010	ND<0.5	FALSE
MW-22	1/17/2011	1.65	FALSE

Non-Parametric Tolerance Interval

Parameter: Chromium, total

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

Total Percent Non-Detects = 66.6667%
Background measurements (n) = 26
Maximum Background Concentration = 250
Minimum Coverage = 89.1%
Average Coverage = 96.2963%

Location	Date	Value	Significant
MW-26	11/5/2008	ND<5	FALSE
MW-26	7/29/2009	ND<5	FALSE
MW-26	1/19/2010	40.1	FALSE
MW-26	7/19/2010	ND<5	FALSE
MW-26	1/17/2011	43.8	FALSE
MW-13	**3/16/1999**	**1700**	**TRUE**
MW-13	**5/12/1999**	**340**	**TRUE**
MW-13	**6/28/1999**	**1300**	**TRUE**
MW-13	10/4/1999	92	FALSE
MW-13	6/6/2000	ND<5	FALSE
MW-13	12/6/2000	14	FALSE
MW-13	7/16/2001	ND<5	FALSE
MW-13	1/10/2002	ND<5	FALSE
MW-13	6/25/2002	ND<5	FALSE
MW-13	12/17/2002	ND<5	FALSE
MW-13	6/19/2003	ND<5	FALSE
MW-13	1/7/2004	ND<5	FALSE
MW-13	6/24/2004	ND<5	FALSE
MW-13	1/7/2005	ND<5	FALSE
MW-13	6/17/2005	ND<5	FALSE
MW-13	1/25/2006	ND<5	FALSE
MW-13	7/14/2006	ND<5	FALSE
MW-13	1/26/2007	ND<5	FALSE
MW-13	7/17/2007	ND<5	FALSE
MW-13	1/15/2008	ND<5	FALSE
MW-13	7/15/2008	ND<5	FALSE
MW-13	2/4/2009	ND<5	FALSE
MW-13	7/28/2009	ND<5	FALSE
MW-13	1/20/2010	14	FALSE
MW-13	7/20/2010	ND<5	FALSE
MW-13	1/18/2011	61	FALSE

Non-Parametric Tolerance Interval

Parameter: Cobalt, total

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

Total Percent Non-Detects = 17.4312%
Background measurements (n) = 26
Maximum Background Concentration = 230
Minimum Coverage = 89.1%
Average Coverage = 96.2963%

Location	Date	Value	Significant
MW-26	11/5/2008	ND<5	FALSE
MW-26	7/29/2009	ND<5	FALSE
MW-26	1/19/2010	11.3	FALSE
MW-26	7/19/2010	ND<5	FALSE
MW-26	1/17/2011	11.3	FALSE
MW-13	**3/16/1999**	**900**	**TRUE**
MW-13	5/12/1999	110	FALSE
MW-13	**6/28/1999**	**410**	**TRUE**
MW-13	10/4/1999	41	FALSE
MW-13	6/6/2000	130	FALSE
MW-13	12/6/2000	96	FALSE
MW-13	7/16/2001	93	FALSE
MW-13	1/10/2002	110	FALSE
MW-13	6/25/2002	110	FALSE
MW-13	12/17/2002	140	FALSE
MW-13	6/19/2003	230	FALSE
MW-13	1/7/2004	200	FALSE
MW-13	6/24/2004	220	FALSE
MW-13	1/7/2005	220	FALSE
MW-13	6/17/2005	220	FALSE
MW-13	1/25/2006	224	FALSE
MW-13	7/14/2006	171	FALSE
MW-13	**1/26/2007**	**235**	**TRUE**
MW-13	7/17/2007	116	FALSE
MW-13	1/15/2008	54.6	FALSE
MW-13	7/15/2008	134	FALSE
MW-13	2/4/2009	134	FALSE
MW-13	7/28/2009	70.8	FALSE
MW-13	1/20/2010	186	FALSE
MW-13	7/20/2010	91.8	FALSE
MW-13	1/18/2011	45.8	FALSE
MW-16D	**3/16/1999**	**2100**	**TRUE**
MW-16D	**5/12/1999**	**320**	**TRUE**
MW-16D	**6/28/1999**	**260**	**TRUE**
MW-16D	10/5/1999	22	FALSE
MW-16D	6/6/2000	180	FALSE
MW-16D	12/6/2000	160	FALSE
MW-16D	**7/16/2001**	**280**	**TRUE**
MW-16D	1/10/2002	85	FALSE
MW-16D	6/26/2002	160	FALSE
MW-16D	12/17/2002	130	FALSE
MW-16D	6/19/2003	96	FALSE
MW-16D	1/7/2004	69	FALSE
MW-16D	6/24/2004	100	FALSE
MW-16D	1/7/2005	75	FALSE
MW-16D	6/17/2005	77	FALSE
MW-16D	1/26/2006	93.8	FALSE
MW-16D	**7/14/2006**	**652**	**TRUE**
MW-16D	1/26/2007	128	FALSE
MW-16D	7/17/2007	56.4	FALSE
MW-16D	1/15/2008	145	FALSE
MW-16D	7/15/2008	116	FALSE
MW-16D	2/3/2009	87.3	FALSE
MW-16D	7/27/2009	110	FALSE
MW-16D	1/11/2010	69	FALSE
MW-16D	7/20/2010	118	FALSE
MW-16D	1/17/2011	75.5	FALSE
MW-23	3/16/1999	190	FALSE

MW-23	5/12/1999	55	FALSE
MW-23	6/28/1999	42	FALSE
MW-23	10/4/1999	21	FALSE
MW-23	6/6/2000	24	FALSE
MW-23	12/6/2000	14	FALSE
MW-23	7/16/2001	25	FALSE
MW-23	1/10/2002	20	FALSE
MW-23	6/25/2002	29	FALSE
MW-23	12/17/2002	42	FALSE
MW-23	6/19/2003	32	FALSE
MW-23	1/7/2004	26	FALSE
MW-23	6/24/2004	39	FALSE
MW-23	1/7/2005	32	FALSE
MW-23	6/17/2005	18	FALSE
MW-23	1/25/2006	20.5	FALSE
MW-23	7/14/2006	21.5	FALSE
MW-23	1/26/2007	19.6	FALSE
MW-23	7/17/2007	18	FALSE
MW-23	1/15/2008	19.2	FALSE
MW-23	7/15/2008	29.5	FALSE
MW-23	2/4/2009	31.5	FALSE
MW-23	7/28/2009	ND<5	FALSE
MW-23	1/20/2010	21.2	FALSE
MW-23	7/20/2010	23.2	FALSE
MW-23	1/18/2011	44.8	FALSE

Non-Parametric Tolerance Interval

Parameter: Copper

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

Total Percent Non-Detects = 70.1754%
Background measurements (n) = 26
Maximum Background Concentration = 290
Minimum Coverage = 89.1%
Average Coverage = 96.2963%

Location	Date	Value	Significant
MW-26	11/5/2008	ND<5	FALSE
MW-26	7/29/2009	ND<5	FALSE
MW-26	1/19/2010	33.8	FALSE
MW-26	7/19/2010	ND<5	FALSE
MW-26	1/17/2011	48.7	FALSE
MW-13	**3/16/1999**	**810**	**TRUE**
MW-13	5/12/1999	120	FALSE
MW-13	**6/28/1999**	**640**	**TRUE**
MW-13	10/4/1999	37	FALSE
MW-13	6/6/2000	ND<5	FALSE
MW-13	12/6/2000	ND<5	FALSE
MW-13	7/16/2001	ND<5	FALSE
MW-13	1/10/2002	ND<5	FALSE
MW-13	6/25/2002	ND<5	FALSE
MW-13	12/17/2002	ND<5	FALSE
MW-13	6/19/2003	ND<5	FALSE
MW-13	1/7/2004	ND<5	FALSE
MW-13	6/24/2004	ND<5	FALSE
MW-13	1/7/2005	ND<5	FALSE
MW-13	6/17/2005	ND<5	FALSE
MW-13	1/25/2006	ND<5	FALSE
MW-13	7/14/2006	ND<5	FALSE
MW-13	1/26/2007	12.2	FALSE
MW-13	7/17/2007	ND<5	FALSE
MW-13	1/15/2008	ND<5	FALSE
MW-13	7/15/2008	ND<5	FALSE
MW-13	2/4/2009	ND<5	FALSE
MW-13	7/28/2009	ND<5	FALSE
MW-13	1/20/2010	ND<5	FALSE
MW-13	7/20/2010	ND<5	FALSE
MW-13	1/18/2011	34.3	FALSE

Non-Parametric Tolerance Interval

Parameter: Lead, total

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

Total Percent Non-Detects = 61.2903%
Background measurements (n) = 26
Maximum Background Concentration = 240
Minimum Coverage = 89.1%
Average Coverage = 96.2963%

Location	Date	Value	Significant
MW-26	11/5/2008	ND<5	FALSE
MW-26	7/29/2009	ND<5	FALSE
MW-26	1/19/2010	16.4	FALSE
MW-26	7/19/2010	ND<5	FALSE
MW-26	1/17/2011	13	FALSE

Non-Parametric Tolerance Interval

Parameter: Vanadium

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

Total Percent Non-Detects = 77.4194%
Background measurements (n) = 26
Maximum Background Concentration = 260
Minimum Coverage = 89.1%
Average Coverage = 96.2963%

Location	Date	Value	Significant
MW-26	11/5/2008	ND<12.5	FALSE
MW-26	7/29/2009	ND<12.5	FALSE
MW-26	1/19/2010	45.6	FALSE
MW-26	7/19/2010	ND<12.5	FALSE
MW-26	1/17/2011	55.2	FALSE

Non-Parametric Tolerance Interval

Parameter: Zinc, total

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

Total Percent Non-Detects = 50.6024%
Background measurements (n) = 26
Maximum Background Concentration = 330
Minimum Coverage = 89.1%
Average Coverage = 96.2963%

Location	Date	Value	Significant
MW-26	11/5/2008	ND<5	FALSE
MW-26	7/29/2009	ND<5	FALSE
MW-26	1/19/2010	62.7	FALSE
MW-26	7/19/2010	ND<5	FALSE
MW-26	1/17/2011	55.5	FALSE
MW-22	**3/16/1999**	**650**	**TRUE**
MW-22	5/12/1999	250	FALSE
MW-22	6/30/1999	230	FALSE
MW-22	10/4/1999	68	FALSE
MW-22	6/6/2000	23	FALSE
MW-22	12/6/2000	32	FALSE
MW-22	7/16/2001	19	FALSE
MW-22	1/9/2002	43	FALSE
MW-22	6/26/2002	14	FALSE
MW-22	12/16/2002	42	FALSE
MW-22	6/19/2003	30	FALSE
MW-22	1/7/2004	ND<5	FALSE
MW-22	6/24/2004	ND<5	FALSE
MW-22	1/7/2005	ND<5	FALSE
MW-22	6/17/2005	ND<5	FALSE
MW-22	1/25/2006	ND<5	FALSE
MW-22	7/13/2006	ND<5	FALSE
MW-22	1/26/2007	ND<5	FALSE
MW-22	7/17/2007	ND<5	FALSE
MW-22	1/15/2008	ND<5	FALSE
MW-22	7/15/2008	ND<5	FALSE
MW-22	2/3/2009	ND<5	FALSE
MW-22	7/27/2009	ND<5	FALSE
MW-22	1/19/2010	ND<5	FALSE
MW-22	7/19/2010	ND<5	FALSE
MW-22	1/17/2011	18.8	FALSE
MW-13	**3/16/1999**	**840**	**TRUE**
MW-13	5/12/1999	140	FALSE
MW-13	**6/28/1999**	**600**	**TRUE**
MW-13	10/4/1999	51	FALSE
MW-13	6/6/2000	24	FALSE
MW-13	12/6/2000	31	FALSE
MW-13	7/16/2001	16	FALSE
MW-13	1/10/2002	22	FALSE
MW-13	6/25/2002	21	FALSE
MW-13	12/17/2002	21	FALSE
MW-13	6/19/2003	25	FALSE
MW-13	1/7/2004	ND<5	FALSE
MW-13	6/24/2004	ND<5	FALSE
MW-13	1/7/2005	ND<5	FALSE
MW-13	6/17/2005	ND<5	FALSE
MW-13	1/25/2006	ND<5	FALSE
MW-13	7/14/2006	ND<5	FALSE
MW-13	1/26/2007	ND<5	FALSE
MW-13	7/17/2007	ND<5	FALSE
MW-13	1/15/2008	ND<5	FALSE
MW-13	7/15/2008	ND<5	FALSE
MW-13	2/4/2009	ND<5	FALSE
MW-13	7/28/2009	ND<5	FALSE
MW-13	1/20/2010	ND<5	FALSE
MW-13	7/20/2010	ND<5	FALSE
MW-13	1/18/2011	23.2	FALSE

Statistical Analysis
Trend Analysis Report(s)

Mann-Kendall Trend Analysis
Parameter: cis-1,2-Dichloroethylene
Location: MW-23
Original Data (Not Transformed)
Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<2.5	ND<2.5	0	0	0
ND<2.5	ND<2.5	0	0	0
ND<2.5	ND<2.5	0	0	0
ND<2.5	ND<2.5	0	0	0
ND<2.5	ND<2.5	0	0	0
ND<2.5	ND<2.5	0	0	0
ND<0.5	ND<2.5	-2	0	1
ND<2.5	ND<2.5	0	0	1
ND<2.5	ND<2.5	0	0	1
ND<2.5	ND<2.5	0	0	1
ND<2.5	ND<2.5	0	0	1
ND<2.5	ND<2.5	0	0	1
6.6	ND<2.5	4.1	1	1
ND<2.5	ND<2.5	0	1	1
9	ND<2.5	6.5	2	1
ND<2.5	ND<2.5	0	2	1
5.9	ND<2.5	3.4	3	1
3.6	ND<2.5	1.1	4	1
2.2	ND<2.5	-0.3	4	2
10	ND<2.5	7.5	5	2
14.3	ND<2.5	11.8	6	2
10.9	ND<2.5	8.4	7	2
10	ND<2.5	7.5	8	2
11	ND<2.5	8.5	9	2
24	ND<2.5	21.5	10	2
ND<2.5	ND<2.5	0	10	2
ND<2.5	ND<2.5	0	10	2
ND<2.5	ND<2.5	0	10	2
ND<2.5	ND<2.5	0	10	2
ND<2.5	ND<2.5	0	10	2
ND<0.5	ND<2.5	-2	10	3
ND<2.5	ND<2.5	0	10	3
ND<2.5	ND<2.5	0	10	3
ND<2.5	ND<2.5	0	10	3
ND<2.5	ND<2.5	0	10	3
ND<2.5	ND<2.5	0	10	3
6.6	ND<2.5	4.1	11	3
ND<2.5	ND<2.5	0	11	3
9	ND<2.5	6.5	12	3
ND<2.5	ND<2.5	0	12	3
5.9	ND<2.5	3.4	13	3
3.6	ND<2.5	1.1	14	3
2.2	ND<2.5	-0.3	14	4
10	ND<2.5	7.5	15	4
14.3	ND<2.5	11.8	16	4
10.9	ND<2.5	8.4	17	4
10	ND<2.5	7.5	18	4
11	ND<2.5	8.5	19	4
24	ND<2.5	21.5	20	4
ND<2.5	ND<2.5	0	20	4
ND<2.5	ND<2.5	0	20	4
ND<2.5	ND<2.5	0	20	4
ND<2.5	ND<2.5	0	20	4
ND<0.5	ND<2.5	-2	20	5
ND<2.5	ND<2.5	0	20	5
ND<2.5	ND<2.5	0	20	5
ND<2.5	ND<2.5	0	20	5
ND<2.5	ND<2.5	0	20	5
ND<2.5	ND<2.5	0	20	5
6.6	ND<2.5	4.1	21	5
ND<2.5	ND<2.5	0	21	5
9	ND<2.5	6.5	22	5
ND<2.5	ND<2.5	0	22	5
5.9	ND<2.5	3.4	23	5

3.6	ND<2.5	1.1	24	5
2.2	ND<2.5	-0.3	24	6
10	ND<2.5	7.5	25	6
14.3	ND<2.5	11.8	26	6
10.9	ND<2.5	8.4	27	6
10	ND<2.5	7.5	28	6
11	ND<2.5	8.5	29	6
24	ND<2.5	21.5	30	6
ND<2.5	ND<2.5	0	30	6
ND<2.5	ND<2.5	0	30	6
ND<2.5	ND<2.5	0	30	6
ND<0.5	ND<2.5	-2	30	7
ND<2.5	ND<2.5	0	30	7
ND<2.5	ND<2.5	0	30	7
ND<2.5	ND<2.5	0	30	7
ND<2.5	ND<2.5	0	30	7
ND<2.5	ND<2.5	0	30	7
6.6	ND<2.5	4.1	31	7
ND<2.5	ND<2.5	0	31	7
9	ND<2.5	6.5	32	7
ND<2.5	ND<2.5	0	32	7
5.9	ND<2.5	3.4	33	7
3.6	ND<2.5	1.1	34	7
2.2	ND<2.5	-0.3	34	8
10	ND<2.5	7.5	35	8
14.3	ND<2.5	11.8	36	8
10.9	ND<2.5	8.4	37	8
10	ND<2.5	7.5	38	8
11	ND<2.5	8.5	39	8
24	ND<2.5	21.5	40	8
ND<2.5	ND<2.5	0	40	8
ND<2.5	ND<2.5	0	40	8
ND<0.5	ND<2.5	-2	40	9
ND<2.5	ND<2.5	0	40	9
ND<2.5	ND<2.5	0	40	9
ND<2.5	ND<2.5	0	40	9
ND<2.5	ND<2.5	0	40	9
ND<2.5	ND<2.5	0	40	9
6.6	ND<2.5	4.1	41	9
ND<2.5	ND<2.5	0	41	9
9	ND<2.5	6.5	42	9
ND<2.5	ND<2.5	0	42	9
5.9	ND<2.5	3.4	43	9
3.6	ND<2.5	1.1	44	9
2.2	ND<2.5	-0.3	44	10
10	ND<2.5	7.5	45	10
14.3	ND<2.5	11.8	46	10
10.9	ND<2.5	8.4	47	10
10	ND<2.5	7.5	48	10
11	ND<2.5	8.5	49	10
24	ND<2.5	21.5	50	10
ND<2.5	ND<2.5	0	50	10
ND<0.5	ND<2.5	-2	50	11
ND<2.5	ND<2.5	0	50	11
ND<2.5	ND<2.5	0	50	11
ND<2.5	ND<2.5	0	50	11
ND<2.5	ND<2.5	0	50	11
ND<2.5	ND<2.5	0	50	11
6.6	ND<2.5	4.1	51	11
ND<2.5	ND<2.5	0	51	11
9	ND<2.5	6.5	52	11
ND<2.5	ND<2.5	0	52	11
5.9	ND<2.5	3.4	53	11
3.6	ND<2.5	1.1	54	11
2.2	ND<2.5	-0.3	54	12
10	ND<2.5	7.5	55	12
14.3	ND<2.5	11.8	56	12
10.9	ND<2.5	8.4	57	12
10	ND<2.5	7.5	58	12
11	ND<2.5	8.5	59	12
24	ND<2.5	21.5	60	12
ND<0.5	ND<2.5	-2	60	13
ND<2.5	ND<2.5	0	60	13

ND<2.5	ND<2.5	0	60	13
ND<2.5	ND<2.5	0	60	13
ND<2.5	ND<2.5	0	60	13
ND<2.5	ND<2.5	0	60	13
6.6	ND<2.5	4.1	61	13
ND<2.5	ND<2.5	0	61	13
9	ND<2.5	6.5	62	13
ND<2.5	ND<2.5	0	62	13
5.9	ND<2.5	3.4	63	13
3.6	ND<2.5	1.1	64	13
2.2	ND<2.5	-0.3	64	14
10	ND<2.5	7.5	65	14
14.3	ND<2.5	11.8	66	14
10.9	ND<2.5	8.4	67	14
10	ND<2.5	7.5	68	14
11	ND<2.5	8.5	69	14
24	ND<2.5	21.5	70	14
ND<2.5	ND<0.5	2	71	14
ND<2.5	ND<0.5	2	72	14
ND<2.5	ND<0.5	2	73	14
ND<2.5	ND<0.5	2	74	14
ND<2.5	ND<0.5	2	75	14
6.6	ND<0.5	6.1	76	14
ND<2.5	ND<0.5	2	77	14
9	ND<0.5	8.5	78	14
ND<2.5	ND<0.5	2	79	14
5.9	ND<0.5	5.4	80	14
3.6	ND<0.5	3.1	81	14
2.2	ND<0.5	1.7	82	14
10	ND<0.5	9.5	83	14
14.3	ND<0.5	13.8	84	14
10.9	ND<0.5	10.4	85	14
10	ND<0.5	9.5	86	14
11	ND<0.5	10.5	87	14
24	ND<0.5	23.5	88	14
ND<2.5	ND<2.5	0	88	14
ND<2.5	ND<2.5	0	88	14
ND<2.5	ND<2.5	0	88	14
ND<2.5	ND<2.5	0	88	14
6.6	ND<2.5	4.1	89	14
ND<2.5	ND<2.5	0	89	14
9	ND<2.5	6.5	90	14
ND<2.5	ND<2.5	0	90	14
5.9	ND<2.5	3.4	91	14
3.6	ND<2.5	1.1	92	14
2.2	ND<2.5	-0.3	92	15
10	ND<2.5	7.5	93	15
14.3	ND<2.5	11.8	94	15
10.9	ND<2.5	8.4	95	15
10	ND<2.5	7.5	96	15
11	ND<2.5	8.5	97	15
24	ND<2.5	21.5	98	15
ND<2.5	ND<2.5	0	98	15
ND<2.5	ND<2.5	0	98	15
ND<2.5	ND<2.5	0	98	15
6.6	ND<2.5	4.1	99	15
ND<2.5	ND<2.5	0	99	15
9	ND<2.5	6.5	100	15
ND<2.5	ND<2.5	0	100	15
5.9	ND<2.5	3.4	101	15
3.6	ND<2.5	1.1	102	15
2.2	ND<2.5	-0.3	102	16
10	ND<2.5	7.5	103	16
14.3	ND<2.5	11.8	104	16
10.9	ND<2.5	8.4	105	16
10	ND<2.5	7.5	106	16
11	ND<2.5	8.5	107	16
24	ND<2.5	21.5	108	16
ND<2.5	ND<2.5	0	108	16
ND<2.5	ND<2.5	0	108	16
6.6	ND<2.5	4.1	109	16
ND<2.5	ND<2.5	0	109	16
9	ND<2.5	6.5	110	16

ND<2.5	ND<2.5	0	110	16
5.9	ND<2.5	3.4	111	16
3.6	ND<2.5	1.1	112	16
2.2	ND<2.5	-0.3	112	17
10	ND<2.5	7.5	113	17
14.3	ND<2.5	11.8	114	17
10.9	ND<2.5	8.4	115	17
10	ND<2.5	7.5	116	17
11	ND<2.5	8.5	117	17
24	ND<2.5	21.5	118	17
ND<2.5	ND<2.5	0	118	17
6.6	ND<2.5	4.1	119	17
ND<2.5	ND<2.5	0	119	17
9	ND<2.5	6.5	120	17
ND<2.5	ND<2.5	0	120	17
5.9	ND<2.5	3.4	121	17
3.6	ND<2.5	1.1	122	17
2.2	ND<2.5	-0.3	122	18
10	ND<2.5	7.5	123	18
14.3	ND<2.5	11.8	124	18
10.9	ND<2.5	8.4	125	18
10	ND<2.5	7.5	126	18
11	ND<2.5	8.5	127	18
24	ND<2.5	21.5	128	18
6.6	ND<2.5	4.1	129	18
ND<2.5	ND<2.5	0	129	18
9	ND<2.5	6.5	130	18
ND<2.5	ND<2.5	0	130	18
5.9	ND<2.5	3.4	131	18
3.6	ND<2.5	1.1	132	18
2.2	ND<2.5	-0.3	132	19
10	ND<2.5	7.5	133	19
14.3	ND<2.5	11.8	134	19
10.9	ND<2.5	8.4	135	19
10	ND<2.5	7.5	136	19
11	ND<2.5	8.5	137	19
24	ND<2.5	21.5	138	19
ND<2.5	6.6	-4.1	138	20
9	6.6	2.4	139	20
ND<2.5	6.6	-4.1	139	21
5.9	6.6	-0.7	139	22
3.6	6.6	-3	139	23
2.2	6.6	-4.4	139	24
10	6.6	3.4	140	24
14.3	6.6	7.7	141	24
10.9	6.6	4.3	142	24
10	6.6	3.4	143	24
11	6.6	4.4	144	24
24	6.6	17.4	145	24
9	ND<2.5	6.5	146	24
ND<2.5	ND<2.5	0	146	24
5.9	ND<2.5	3.4	147	24
3.6	ND<2.5	1.1	148	24
2.2	ND<2.5	-0.3	148	25
10	ND<2.5	7.5	149	25
14.3	ND<2.5	11.8	150	25
10.9	ND<2.5	8.4	151	25
10	ND<2.5	7.5	152	25
11	ND<2.5	8.5	153	25
24	ND<2.5	21.5	154	25
ND<2.5	9	-6.5	154	26
5.9	9	-3.1	154	27
3.6	9	-5.4	154	28
2.2	9	-6.8	154	29
10	9	1	155	29
14.3	9	5.3	156	29
10.9	9	1.9	157	29
10	9	1	158	29
11	9	2	159	29
24	9	15	160	29
5.9	ND<2.5	3.4	161	29

3.6	ND<2.5	1.1	162	29
2.2	ND<2.5	-0.3	162	30
10	ND<2.5	7.5	163	30
14.3	ND<2.5	11.8	164	30
10.9	ND<2.5	8.4	165	30
10	ND<2.5	7.5	166	30
11	ND<2.5	8.5	167	30
24	ND<2.5	21.5	168	30
3.6	5.9	-2.3	168	31
2.2	5.9	-3.7	168	32
10	5.9	4.1	169	32
14.3	5.9	8.4	170	32
10.9	5.9	5	171	32
10	5.9	4.1	172	32
11	5.9	5.1	173	32
24	5.9	18.1	174	32
2.2	3.6	-1.4	174	33
10	3.6	6.4	175	33
14.3	3.6	10.7	176	33
10.9	3.6	7.3	177	33
10	3.6	6.4	178	33
11	3.6	7.4	179	33
24	3.6	20.4	180	33
10	2.2	7.8	181	33
14.3	2.2	12.1	182	33
10.9	2.2	8.7	183	33
10	2.2	7.8	184	33
11	2.2	8.8	185	33
24	2.2	21.8	186	33
14.3	10	4.3	187	33
10.9	10	0.9	188	33
10	10	0	188	33
11	10	1	189	33
24	10	14	190	33
10.9	14.3	-3.4	190	34
10	14.3	-4.3	190	35
11	14.3	-3.3	190	36
24	14.3	9.7	191	36
10	10.9	-0.9	191	37
11	10.9	0.1	192	37
24	10.9	13.1	193	37
11	10	1	194	37
24	10	14	195	37
24	11	13	196	37

S Statistic = 196 - 37 = 159

Tied Group	Value	Members
1	2.5	14
2	10	2

Time Period	Observations
3/16/1999	1
5/12/1999	1
6/28/1999	1
10/4/1999	1
6/6/2000	1
12/6/2000	1
7/16/2001	1
1/10/2002	1
6/25/2002	1
12/17/2002	1
6/19/2003	1
1/7/2004	1
6/24/2004	1
1/7/2005	1
6/17/2005	1
1/25/2006	1

7/14/2006	1
1/26/2007	1
7/17/2007	1
1/15/2008	1
7/15/2008	1
2/4/2009	1
7/28/2009	1
1/20/2010	1
7/20/2010	1
1/18/2011	1

There are 0 time periods with multiple data

A = 6024
B = 0
C = 2184
D = 0
E = 184
F = 0
a = 37050
b = 140400
c = 1300
Group Variance = 1723.67
Z-Score = 3.80566
Comparison Level at 95% confidence level = 1.65463 (upward trend)
3.80566 > 1.65463 indicating an upward trend

Mann-Kendall Trend Analysis

Parameter: Benzene

Location: MW-23

Original Data (Not Transformed)

Non-Detects Replaced with 1/2 DL

95% Confidence Level

Xj	Xk	Xj - Xk	Positives	Negatives
ND<2.5	ND<2.5	0	0	0
ND<2.5	ND<2.5	0	0	0
ND<2.5	ND<2.5	0	0	0
ND<2.5	ND<2.5	0	0	0
ND<2.5	ND<2.5	0	0	0
ND<2.5	ND<2.5	0	0	0
ND<0.5	ND<2.5	-2	0	1
ND<2.5	ND<2.5	0	0	1
ND<2.5	ND<2.5	0	0	1
ND<2.5	ND<2.5	0	0	1
ND<2.5	ND<2.5	0	0	1
ND<2.5	ND<2.5	0	0	1
ND<2.5	ND<2.5	0	0	1
ND<2.5	ND<2.5	0	0	1
ND<2.5	ND<2.5	0	0	1
ND<2.5	ND<2.5	0	0	1
0.91	ND<2.5	-1.59	0	2
0.71	ND<2.5	-1.79	0	3
ND<0.5	ND<2.5	-2	0	4
ND<0.1	ND<2.5	-2.4	0	5
0.88	ND<2.5	-1.62	0	6
1.2	ND<2.5	-1.3	0	7
1.2	ND<2.5	-1.3	0	8
1.5	ND<2.5	-1	0	9
1.3	ND<2.5	-1.2	0	10
ND<2.5	ND<2.5	0	0	10
ND<2.5	ND<2.5	0	0	10
ND<2.5	ND<2.5	0	0	10
ND<2.5	ND<2.5	0	0	10
ND<2.5	ND<2.5	0	0	10
ND<0.5	ND<2.5	-2	0	11
ND<2.5	ND<2.5	0	0	11
ND<2.5	ND<2.5	0	0	11
ND<2.5	ND<2.5	0	0	11
ND<2.5	ND<2.5	0	0	11
ND<2.5	ND<2.5	0	0	11
ND<2.5	ND<2.5	0	0	11
ND<2.5	ND<2.5	0	0	11
ND<2.5	ND<2.5	0	0	11
ND<2.5	ND<2.5	0	0	11
0.91	ND<2.5	-1.59	0	12
0.71	ND<2.5	-1.79	0	13
ND<0.5	ND<2.5	-2	0	14
ND<0.1	ND<2.5	-2.4	0	15
0.88	ND<2.5	-1.62	0	16
1.2	ND<2.5	-1.3	0	17
1.2	ND<2.5	-1.3	0	18
1.5	ND<2.5	-1	0	19
1.3	ND<2.5	-1.2	0	20
ND<2.5	ND<2.5	0	0	20
ND<2.5	ND<2.5	0	0	20
ND<2.5	ND<2.5	0	0	20
ND<2.5	ND<2.5	0	0	20
ND<0.5	ND<2.5	-2	0	21
ND<2.5	ND<2.5	0	0	21
ND<2.5	ND<2.5	0	0	21
ND<2.5	ND<2.5	0	0	21
ND<2.5	ND<2.5	0	0	21
ND<2.5	ND<2.5	0	0	21
ND<2.5	ND<2.5	0	0	21
ND<2.5	ND<2.5	0	0	21
ND<2.5	ND<2.5	0	0	21
ND<2.5	ND<2.5	0	0	21
0.91	ND<2.5	-1.59	0	22

0.71	ND<2.5	-1.79	0	23
ND<0.5	ND<2.5	-2	0	24
ND<0.1	ND<2.5	-2.4	0	25
0.88	ND<2.5	-1.62	0	26
1.2	ND<2.5	-1.3	0	27
1.2	ND<2.5	-1.3	0	28
1.5	ND<2.5	-1	0	29
1.3	ND<2.5	-1.2	0	30
ND<2.5	ND<2.5	0	0	30
ND<2.5	ND<2.5	0	0	30
ND<2.5	ND<2.5	0	0	30
ND<0.5	ND<2.5	-2	0	31
ND<2.5	ND<2.5	0	0	31
ND<2.5	ND<2.5	0	0	31
ND<2.5	ND<2.5	0	0	31
ND<2.5	ND<2.5	0	0	31
ND<2.5	ND<2.5	0	0	31
ND<2.5	ND<2.5	0	0	31
ND<2.5	ND<2.5	0	0	31
ND<2.5	ND<2.5	0	0	31
ND<2.5	ND<2.5	0	0	31
0.91	ND<2.5	-1.59	0	32
0.71	ND<2.5	-1.79	0	33
ND<0.5	ND<2.5	-2	0	34
ND<0.1	ND<2.5	-2.4	0	35
0.88	ND<2.5	-1.62	0	36
1.2	ND<2.5	-1.3	0	37
1.2	ND<2.5	-1.3	0	38
1.5	ND<2.5	-1	0	39
1.3	ND<2.5	-1.2	0	40
ND<2.5	ND<2.5	0	0	40
ND<2.5	ND<2.5	0	0	40
ND<0.5	ND<2.5	-2	0	41
ND<2.5	ND<2.5	0	0	41
ND<2.5	ND<2.5	0	0	41
ND<2.5	ND<2.5	0	0	41
ND<2.5	ND<2.5	0	0	41
ND<2.5	ND<2.5	0	0	41
ND<2.5	ND<2.5	0	0	41
ND<2.5	ND<2.5	0	0	41
ND<2.5	ND<2.5	0	0	41
ND<2.5	ND<2.5	0	0	41
0.91	ND<2.5	-1.59	0	42
0.71	ND<2.5	-1.79	0	43
ND<0.5	ND<2.5	-2	0	44
ND<0.1	ND<2.5	-2.4	0	45
0.88	ND<2.5	-1.62	0	46
1.2	ND<2.5	-1.3	0	47
1.2	ND<2.5	-1.3	0	48
1.5	ND<2.5	-1	0	49
1.3	ND<2.5	-1.2	0	50
ND<2.5	ND<2.5	0	0	50
ND<0.5	ND<2.5	-2	0	51
ND<2.5	ND<2.5	0	0	51
ND<2.5	ND<2.5	0	0	51
ND<2.5	ND<2.5	0	0	51
ND<2.5	ND<2.5	0	0	51
ND<2.5	ND<2.5	0	0	51
ND<2.5	ND<2.5	0	0	51
ND<2.5	ND<2.5	0	0	51
ND<2.5	ND<2.5	0	0	51
ND<2.5	ND<2.5	0	0	51
0.91	ND<2.5	-1.59	0	52
0.71	ND<2.5	-1.79	0	53
ND<0.5	ND<2.5	-2	0	54
ND<0.1	ND<2.5	-2.4	0	55
0.88	ND<2.5	-1.62	0	56
1.2	ND<2.5	-1.3	0	57
1.2	ND<2.5	-1.3	0	58
1.5	ND<2.5	-1	0	59
1.3	ND<2.5	-1.2	0	60
ND<0.5	ND<2.5	-2	0	61
ND<2.5	ND<2.5	0	0	61

ND<2.5	ND<2.5	0	0	61
ND<2.5	ND<2.5	0	0	61
ND<2.5	ND<2.5	0	0	61
ND<2.5	ND<2.5	0	0	61
ND<2.5	ND<2.5	0	0	61
ND<2.5	ND<2.5	0	0	61
ND<2.5	ND<2.5	0	0	61
ND<2.5	ND<2.5	0	0	61
0.91	ND<2.5	-1.59	0	62
0.71	ND<2.5	-1.79	0	63
ND<0.5	ND<2.5	-2	0	64
ND<0.1	ND<2.5	-2.4	0	65
0.88	ND<2.5	-1.62	0	66
1.2	ND<2.5	-1.3	0	67
1.2	ND<2.5	-1.3	0	68
1.5	ND<2.5	-1	0	69
1.3	ND<2.5	-1.2	0	70
ND<2.5	ND<0.5	2	1	70
ND<2.5	ND<0.5	2	2	70
ND<2.5	ND<0.5	2	3	70
ND<2.5	ND<0.5	2	4	70
ND<2.5	ND<0.5	2	5	70
ND<2.5	ND<0.5	2	6	70
ND<2.5	ND<0.5	2	7	70
ND<2.5	ND<0.5	2	8	70
ND<2.5	ND<0.5	2	9	70
0.91	ND<0.5	0.41	10	70
0.71	ND<0.5	0.21	11	70
ND<0.5	ND<0.5	0	11	70
ND<0.1	ND<0.5	-0.4	11	71
0.88	ND<0.5	0.38	12	71
1.2	ND<0.5	0.7	13	71
1.2	ND<0.5	0.7	14	71
1.5	ND<0.5	1	15	71
1.3	ND<0.5	0.8	16	71
ND<2.5	ND<2.5	0	16	71
ND<2.5	ND<2.5	0	16	71
ND<2.5	ND<2.5	0	16	71
ND<2.5	ND<2.5	0	16	71
ND<2.5	ND<2.5	0	16	71
ND<2.5	ND<2.5	0	16	71
ND<2.5	ND<2.5	0	16	71
ND<2.5	ND<2.5	0	16	71
0.91	ND<2.5	-1.59	16	72
0.71	ND<2.5	-1.79	16	73
ND<0.5	ND<2.5	-2	16	74
ND<0.1	ND<2.5	-2.4	16	75
0.88	ND<2.5	-1.62	16	76
1.2	ND<2.5	-1.3	16	77
1.2	ND<2.5	-1.3	16	78
1.5	ND<2.5	-1	16	79
1.3	ND<2.5	-1.2	16	80
ND<2.5	ND<2.5	0	16	80
ND<2.5	ND<2.5	0	16	80
ND<2.5	ND<2.5	0	16	80
ND<2.5	ND<2.5	0	16	80
ND<2.5	ND<2.5	0	16	80
ND<2.5	ND<2.5	0	16	80
ND<2.5	ND<2.5	0	16	80
0.91	ND<2.5	-1.59	16	81
0.71	ND<2.5	-1.79	16	82
ND<0.5	ND<2.5	-2	16	83
ND<0.1	ND<2.5	-2.4	16	84
0.88	ND<2.5	-1.62	16	85
1.2	ND<2.5	-1.3	16	86
1.2	ND<2.5	-1.3	16	87
1.5	ND<2.5	-1	16	88
1.3	ND<2.5	-1.2	16	89
ND<2.5	ND<2.5	0	16	89
ND<2.5	ND<2.5	0	16	89
ND<2.5	ND<2.5	0	16	89
ND<2.5	ND<2.5	0	16	89
ND<2.5	ND<2.5	0	16	89

ND<2.5	ND<2.5	0	16	89
0.91	ND<2.5	-1.59	16	90
0.71	ND<2.5	-1.79	16	91
ND<0.5	ND<2.5	-2	16	92
ND<0.1	ND<2.5	-2.4	16	93
0.88	ND<2.5	-1.62	16	94
1.2	ND<2.5	-1.3	16	95
1.2	ND<2.5	-1.3	16	96
1.5	ND<2.5	-1	16	97
1.3	ND<2.5	-1.2	16	98
ND<2.5	ND<2.5	0	16	98
ND<2.5	ND<2.5	0	16	98
ND<2.5	ND<2.5	0	16	98
ND<2.5	ND<2.5	0	16	98
ND<2.5	ND<2.5	0	16	98
0.91	ND<2.5	-1.59	16	99
0.71	ND<2.5	-1.79	16	100
ND<0.5	ND<2.5	-2	16	101
ND<0.1	ND<2.5	-2.4	16	102
0.88	ND<2.5	-1.62	16	103
1.2	ND<2.5	-1.3	16	104
1.2	ND<2.5	-1.3	16	105
1.5	ND<2.5	-1	16	106
1.3	ND<2.5	-1.2	16	107
ND<2.5	ND<2.5	0	16	107
ND<2.5	ND<2.5	0	16	107
ND<2.5	ND<2.5	0	16	107
ND<2.5	ND<2.5	0	16	107
0.91	ND<2.5	-1.59	16	108
0.71	ND<2.5	-1.79	16	109
ND<0.5	ND<2.5	-2	16	110
ND<0.1	ND<2.5	-2.4	16	111
0.88	ND<2.5	-1.62	16	112
1.2	ND<2.5	-1.3	16	113
1.2	ND<2.5	-1.3	16	114
1.5	ND<2.5	-1	16	115
1.3	ND<2.5	-1.2	16	116
ND<2.5	ND<2.5	0	16	116
ND<2.5	ND<2.5	0	16	116
ND<2.5	ND<2.5	0	16	116
0.91	ND<2.5	-1.59	16	117
0.71	ND<2.5	-1.79	16	118
ND<0.5	ND<2.5	-2	16	119
ND<0.1	ND<2.5	-2.4	16	120
0.88	ND<2.5	-1.62	16	121
1.2	ND<2.5	-1.3	16	122
1.2	ND<2.5	-1.3	16	123
1.5	ND<2.5	-1	16	124
1.3	ND<2.5	-1.2	16	125
ND<2.5	ND<2.5	0	16	125
ND<2.5	ND<2.5	0	16	125
0.91	ND<2.5	-1.59	16	126
0.71	ND<2.5	-1.79	16	127
ND<0.5	ND<2.5	-2	16	128
ND<0.1	ND<2.5	-2.4	16	129
0.88	ND<2.5	-1.62	16	130
1.2	ND<2.5	-1.3	16	131
1.2	ND<2.5	-1.3	16	132
1.5	ND<2.5	-1	16	133
1.3	ND<2.5	-1.2	16	134
ND<2.5	ND<2.5	0	16	134
0.91	ND<2.5	-1.59	16	135
0.71	ND<2.5	-1.79	16	136
ND<0.5	ND<2.5	-2	16	137
ND<0.1	ND<2.5	-2.4	16	138
0.88	ND<2.5	-1.62	16	139
1.2	ND<2.5	-1.3	16	140
1.2	ND<2.5	-1.3	16	141
1.5	ND<2.5	-1	16	142
1.3	ND<2.5	-1.2	16	143
0.91	ND<2.5	-1.59	16	144

0.71	ND<2.5	-1.79	16	145
ND<0.5	ND<2.5	-2	16	146
ND<0.1	ND<2.5	-2.4	16	147
0.88	ND<2.5	-1.62	16	148
1.2	ND<2.5	-1.3	16	149
1.2	ND<2.5	-1.3	16	150
1.5	ND<2.5	-1	16	151
1.3	ND<2.5	-1.2	16	152
0.71	0.91	-0.2	16	153
ND<0.5	0.91	-0.41	16	154
ND<0.1	0.91	-0.81	16	155
0.88	0.91	-0.03	16	156
1.2	0.91	0.29	17	156
1.2	0.91	0.29	18	156
1.5	0.91	0.59	19	156
1.3	0.91	0.39	20	156
ND<0.5	0.71	-0.21	20	157
ND<0.1	0.71	-0.61	20	158
0.88	0.71	0.17	21	158
1.2	0.71	0.49	22	158
1.2	0.71	0.49	23	158
1.5	0.71	0.79	24	158
1.3	0.71	0.59	25	158
ND<0.1	ND<0.5	-0.4	25	159
0.88	ND<0.5	0.38	26	159
1.2	ND<0.5	0.7	27	159
1.2	ND<0.5	0.7	28	159
1.5	ND<0.5	1	29	159
1.3	ND<0.5	0.8	30	159
0.88	ND<0.1	0.78	31	159
1.2	ND<0.1	1.1	32	159
1.2	ND<0.1	1.1	33	159
1.5	ND<0.1	1.4	34	159
1.3	ND<0.1	1.2	35	159
1.2	0.88	0.32	36	159
1.2	0.88	0.32	37	159
1.5	0.88	0.62	38	159
1.3	0.88	0.42	39	159
1.2	1.2	0	39	159
1.5	1.2	0.3	40	159
1.3	1.2	0.1	41	159
1.5	1.2	0.3	42	159
1.3	1.2	0.1	43	159
1.3	1.5	-0.2	43	160

S Statistic = 43 - 160 = -117

Tied Group	Value	Members
1	2.5	16
2	0.5	2
3	1.2	2

Time Period	Observations
3/16/1999	1
5/12/1999	1
6/28/1999	1
10/4/1999	1
6/6/2000	1
12/6/2000	1
7/16/2001	1
1/10/2002	1
6/25/2002	1
12/17/2002	1
6/19/2003	1
1/7/2004	1
6/24/2004	1
1/7/2005	1
6/17/2005	1

1/25/2006	1
7/14/2006	1
1/26/2007	1
7/17/2007	1
1/15/2008	1
7/15/2008	1
2/4/2009	1
7/28/2009	1
1/20/2010	1
7/20/2010	1
1/18/2011	1

There are 0 time periods with multiple data

A = 8916
B = 0
C = 3360
D = 0
E = 244
F = 0
a = 37050
b = 140400
c = 1300
Group Variance = 1563
Z-Score = -2.93412
Comparison Level at 95% confidence level = 1.65463 (upward trend)
-2.93412 <= 1.65463 indicating no evidence of an upward trend

Appendix B
Laboratory Analysis Report
Chains of Custody
Field Sampling Parameter
Data Sheet(s)

Laboratory Analysis Report
Chains of Custody

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

Monday, January 31, 2011

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Laboratory Results for
Project Number: G10055.0, Project Name/Desc: Albemarle Lined MSWLF
ENCO Workorder: C100056

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, January 20, 2011.

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 52.

www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: MW-13 | **Lab ID: C100056-01** | **Sampled: 01/18/11 08:35** | **Received: 01/20/11 15:00**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/17/11	01/24/11 13:12	1/26/2011 13:22
EPA 6020A	07/17/11	01/24/11 11:38	1/26/2011 12:26
EPA 8260B	02/01/11	01/25/11 15:57	1/26/2011 02:28

Client ID: MW-14 | **Lab ID: C100056-02** | **Sampled: 01/17/11 14:10** | **Received: 01/20/11 15:00**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/16/11	01/24/11 13:12	1/26/2011 13:45
EPA 6020A	07/16/11	01/24/11 11:38	1/26/2011 12:37
EPA 8260B	01/31/11	01/25/11 15:57	1/26/2011 02:57

Client ID: MW-15 | **Lab ID: C100056-03** | **Sampled: 01/17/11 13:40** | **Received: 01/20/11 15:00**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/16/11	01/24/11 13:12	1/26/2011 13:48
EPA 6020A	07/16/11	01/24/11 11:38	1/26/2011 12:41
EPA 8260B	01/31/11	01/25/11 15:57	1/26/2011 03:25

Client ID: MW-16S | **Lab ID: C100056-04** | **Sampled: 01/17/11 15:40** | **Received: 01/20/11 15:00**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/16/11	01/24/11 13:12	1/26/2011 13:50
EPA 6020A	07/16/11	01/24/11 11:38	1/26/2011 12:44
EPA 8260B	01/31/11	01/25/11 15:57	1/26/2011 03:54

Client ID: MW-16D | **Lab ID: C100056-05** | **Sampled: 01/17/11 16:35** | **Received: 01/20/11 15:00**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/16/11	01/24/11 13:12	1/26/2011 13:52
EPA 6020A	07/16/11	01/24/11 11:38	1/26/2011 12:48
EPA 8260B	01/31/11	01/25/11 15:57	1/26/2011 04:23

Client ID: MW-17 | **Lab ID: C100056-06** | **Sampled: 01/17/11 14:50** | **Received: 01/20/11 15:00**

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/16/11	01/24/11 13:12	1/26/2011 13:54
EPA 6020A	07/16/11	01/24/11 11:38	1/26/2011 12:52
EPA 8260B	01/31/11	01/25/11 15:57	1/26/2011 04:51

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Client ID: MW-18	Lab ID: C100056-07	Sampled: 01/17/11 12:10	Received: 01/20/11 15:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/16/11	01/24/11 13:12	1/26/2011 13:56
EPA 6020A	07/16/11	01/24/11 11:38	1/26/2011 12:55
EPA 8260B	01/31/11	01/25/11 15:57	1/26/2011 05:20

Client ID: MW-19	Lab ID: C100056-08	Sampled: 01/17/11 11:30	Received: 01/20/11 15:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/16/11	01/24/11 13:12	1/26/2011 13:58
EPA 6020A	07/16/11	01/24/11 11:38	1/26/2011 12:59
EPA 8260B	01/31/11	01/25/11 15:57	1/26/2011 05:48

Client ID: MW-22	Lab ID: C100056-09	Sampled: 01/17/11 10:45	Received: 01/20/11 15:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/16/11	01/24/11 13:12	1/26/2011 14:00
EPA 6020A	07/16/11	01/24/11 11:38	1/26/2011 13:03
EPA 8260B	01/31/11	01/25/11 15:57	1/26/2011 06:17

Client ID: MW-23	Lab ID: C100056-10	Sampled: 01/18/11 09:00	Received: 01/20/11 15:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/17/11	01/24/11 13:12	1/26/2011 14:03
EPA 6020A	07/17/11	01/24/11 11:38	1/26/2011 13:06
EPA 8260B	02/01/11	01/25/11 15:57	1/26/2011 06:46

Client ID: MW-26	Lab ID: C100056-11	Sampled: 01/17/11 10:05	Received: 01/20/11 15:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/16/11	01/24/11 13:12	1/26/2011 14:05
EPA 6020A	07/16/11	01/24/11 11:38	1/26/2011 13:10
EPA 8260B	01/31/11	01/25/11 15:57	1/26/2011 07:14

Client ID: MW-27	Lab ID: C100056-12	Sampled: 01/17/11 09:35	Received: 01/20/11 15:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/16/11	01/24/11 13:12	1/26/2011 14:23
EPA 6020A	07/16/11	01/24/11 11:38	1/26/2011 13:21
EPA 8260B	01/31/11	01/25/11 15:57	1/26/2011 07:43

Client ID: SW-2	Lab ID: C100056-13	Sampled: 01/17/11 15:10	Received: 01/20/11 15:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/16/11	01/24/11 13:12	1/26/2011 14:16
EPA 6020A	07/16/11	01/24/11 11:38	1/26/2011 13:24
EPA 8260B	01/31/11	01/25/11 15:57	1/26/2011 08:12

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: MW-13 **Lab ID: C100056-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	54.6		1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	61.3	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	61.0		1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	45.8		1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	34.3		1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	4.60	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	30.4	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	0.910	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Tin - Total	2.39	J	1	2.10	10.0	100	ug/L	EPA 6010C	
Vanadium - Total	37.5		1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	23.2		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-14 **Lab ID: C100056-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	6.98	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	2.38	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	0.412	J	1	0.360	1.00	1	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	0.45	J	1	0.36	1.0	5	ug/L	EPA 8260B	
Cobalt - Total	6.00	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	25.7	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	3.12	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Vanadium - Total	2.33	J	1	1.40	10.0	25	ug/L	EPA 6010C	

Client ID: MW-15 **Lab ID: C100056-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	13.4		1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	16.3	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	1.31		1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	2.86	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Copper - Total	5.90	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	2.01	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	6.77	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	4.26	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	6.00	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-16S **Lab ID: C100056-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	3.65	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	5.03	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	0.659	J	1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	1.27	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	3.01	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	6.32	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	5.62	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	1.83	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Tin - Total	3.98	J	1	2.10	10.0	100	ug/L	EPA 6010C	
Zinc - Total	4.04	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-16D **Lab ID: C100056-05**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.721	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Arsenic - Total	6.49	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	62.1	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	0.893	J	1	0.360	1.00	1	ug/L	EPA 6010C	
Cobalt - Total	75.5		1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	2.06	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	13.9	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Tin - Total	2.69	J	1	2.10	10.0	100	ug/L	EPA 6010C	
Vanadium - Total	1.86	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	5.11	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-17 **Lab ID: C100056-06**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	5.42	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	11.9	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	0.362	J	1	0.360	1.00	1	ug/L	EPA 6010C	
Zinc - Total	7.41	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-18 **Lab ID: C100056-07**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	8.61	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	0.403	J	1	0.360	1.00	1	ug/L	EPA 6010C	

Client ID: MW-19 **Lab ID: C100056-08**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.296	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Arsenic - Total	6.53	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	15.4	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	3.70	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	10.6		1	1.10	10.0	10	ug/L	EPA 6010C	
Lead - Total	5.70	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Selenium - Total	5.17	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Tin - Total	2.34	J	1	2.10	10.0	100	ug/L	EPA 6010C	
Vanadium - Total	2.56	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	5.46	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-22 **Lab ID: C100056-09**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Antimony - Total	0.723	J	1	0.220	2.00	6	ug/L	EPA 6020A	
Arsenic - Total	7.92	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	27.8	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	1.65		1	0.360	1.00	1	ug/L	EPA 6010C	
Chromium - Total	3.29	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	3.14	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	8.48	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	4.81	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	5.52	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	18.8		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-23 **Lab ID: C100056-10**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes

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Client ID: MW-23 **Lab ID: C100056-10**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	4.9	J	1	0.33	1.0	5	ug/L	EPA 8260B	
Arsenic - Total	11.0		1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	53.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	1.3		1	0.20	1.0	1	ug/L	EPA 8260B	
Cadmium - Total	6.40		1	0.360	1.00	1	ug/L	EPA 6010C	
Chloroethane	3.8	J	1	0.30	1.0	10	ug/L	EPA 8260B	
Chromium - Total	2.96	J	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	24		1	0.36	1.0	5	ug/L	EPA 8260B	
Cobalt - Total	44.8		1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	3.02	J	1	1.60	10.0	10	ug/L	EPA 6010C	
Nickel - Total	18.8	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	4.46	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Vanadium - Total	2.13	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Vinyl chloride	3.6		1	0.30	1.0	1	ug/L	EPA 8260B	
Zinc - Total	6.25	J	1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-26 **Lab ID: C100056-11**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	19.4		1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	38.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	43.8		1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	11.3		1	1.10	10.0	10	ug/L	EPA 6010C	
Copper - Total	48.7		1	1.60	10.0	10	ug/L	EPA 6010C	
Lead - Total	13.0		1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	23.8	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	2.14	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Thallium - Total	0.132	J	1	0.110	1.00	5.5	ug/L	EPA 6020A	
Vanadium - Total	55.2		1	1.40	10.0	25	ug/L	EPA 6010C	
Zinc - Total	55.5		1	3.80	10.0	10	ug/L	EPA 6010C	

Client ID: MW-27 **Lab ID: C100056-12**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	7.79	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	21.8	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cobalt - Total	7.07	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	8.97	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Selenium - Total	1.38	J	1	0.830	1.00	10	ug/L	EPA 6020A	
Vanadium - Total	1.77	J	1	1.40	10.0	25	ug/L	EPA 6010C	

Client ID: SW-2 **Lab ID: C100056-13**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Barium - Total	13.6	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	0.393	J	1	0.360	1.00	1	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: MW-13 | **Lab Sample ID:** C100056-01 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/18/11 08:35 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/26/11 02:28	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/26/11 02:28	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/26/11 02:28	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/26/11 02:28	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/26/11 02:28	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/26/11 02:28	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/26/11 02:28	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/26/11 02:28	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/26/11 02:28	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/26/11 02:28	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/26/11 02:28	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/26/11 02:28	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/26/11 02:28	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/26/11 02:28	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/26/11 02:28	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/26/11 02:28	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/26/11 02:28	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/26/11 02:28	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/26/11 02:28	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/26/11 02:28	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/26/11 02:28	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/26/11 02:28	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/26/11 02:28	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/26/11 02:28	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 02:28	JKG	

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Description: MW-13 | **Lab Sample ID:** C100056-01 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/18/11 08:35 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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	01/26/11 02:28	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/26/11 02:28	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/26/11 02:28	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/26/11 02:28	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*47*	*1*	*50.0*	*94 %*	*51-122*	*1A25034*	*EPA 8260B*	*01/26/11 02:28*	*JKG*	
Dibromofluoromethane	*50*	*1*	*50.0*	*99 %*	*68-117*	*1A25034*	*EPA 8260B*	*01/26/11 02:28*	*JKG*	
Toluene-d8	*48*	*1*	*50.0*	*95 %*	*69-110*	*1A25034*	*EPA 8260B*	*01/26/11 02:28*	*JKG*	

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Description: MW-13 | **Lab Sample ID:** C100056-01 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/18/11 08:35 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/26/11 12:26	VLO	
Arsenic [7440-38-2] ^	**54.6**		ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 13:22	JDH	
Barium [7440-39-3] ^	**61.3**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 13:22	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 13:22	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 13:22	JDH	
Chromium [7440-47-3] ^	**61.0**		ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 13:22	JDH	
Cobalt [7440-48-4] ^	**45.8**		ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 13:22	JDH	
Copper [7440-50-8] ^	**34.3**		ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 13:22	JDH	
Lead [7439-92-1] ^	**4.60**	J	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:22	JDH	
Nickel [7440-02-0] ^	**30.4**	J	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 13:22	JDH	
Selenium [7782-49-2] ^	**0.910**	J	ug/L	1	0.830	1.00	10	EPA 6020A	01/26/11 12:26	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:22	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/26/11 12:26	VLO	
Tin [7440-31-5] ^	**2.39**	J	ug/L	1	2.10	10.0	100	EPA 6010C	01/26/11 13:22	JDH	
Vanadium [7440-62-2] ^	**37.5**		ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 13:22	JDH	
Zinc [7440-66-6] ^	**23.2**		ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 13:22	JDH	

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

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Description: MW-14 | **Lab Sample ID:** C100056-02 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 14:10 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/26/11 02:57	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/26/11 02:57	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/26/11 02:57	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/26/11 02:57	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/26/11 02:57	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/26/11 02:57	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/26/11 02:57	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/26/11 02:57	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/26/11 02:57	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/26/11 02:57	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/26/11 02:57	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/26/11 02:57	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/26/11 02:57	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/26/11 02:57	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/26/11 02:57	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/26/11 02:57	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/26/11 02:57	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/26/11 02:57	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	**0.45**	J	ug/L	1	0.36	1.0	5	EPA 8260B	01/26/11 02:57	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/26/11 02:57	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/26/11 02:57	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/26/11 02:57	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/26/11 02:57	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/26/11 02:57	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 02:57	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/26/11 02:57	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/26/11 02:57	JKG	

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Description: MW-14 | **Lab Sample ID:** C100056-02 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 14:10 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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	01/26/11 02:57	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*47*	*1*	*50.0*	*94 %*	*51-122*	*1A25034*	*EPA 8260B*	*01/26/11 02:57*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*96 %*	*68-117*	*1A25034*	*EPA 8260B*	*01/26/11 02:57*	*JKG*	
Toluene-d8	*48*	*1*	*50.0*	*95 %*	*69-110*	*1A25034*	*EPA 8260B*	*01/26/11 02:57*	*JKG*	

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Description: MW-14 | **Lab Sample ID:** C100056-02 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 14:10 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/26/11 12:37	VLO	
Arsenic [7440-38-2] ^	**6.98**	J	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 13:45	JDH	
Barium [7440-39-3] ^	**2.38**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 13:45	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 13:45	JDH	
Cadmium [7440-43-9] ^	**0.412**	J	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 13:45	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 13:45	JDH	
Cobalt [7440-48-4] ^	**6.00**	J	ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 13:45	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 13:45	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:45	JDH	
Nickel [7440-02-0] ^	**25.7**	J	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 13:45	JDH	
Selenium [7782-49-2] ^	**3.12**	J	ug/L	1	0.830	1.00	10	EPA 6020A	01/26/11 12:37	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:45	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/26/11 12:37	VLO	
Vanadium [7440-62-2] ^	**2.33**	J	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 13:45	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 13:45	JDH	

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

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Description: MW-15 | **Lab Sample ID:** C100056-03 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 13:40 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/26/11 03:25	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/26/11 03:25	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/26/11 03:25	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/26/11 03:25	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/26/11 03:25	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/26/11 03:25	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/26/11 03:25	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/26/11 03:25	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/26/11 03:25	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/26/11 03:25	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/26/11 03:25	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/26/11 03:25	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/26/11 03:25	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/26/11 03:25	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/26/11 03:25	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/26/11 03:25	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/26/11 03:25	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/26/11 03:25	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/26/11 03:25	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/26/11 03:25	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/26/11 03:25	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/26/11 03:25	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/26/11 03:25	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/26/11 03:25	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 03:25	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/26/11 03:25	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/26/11 03:25	JKG	

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Description: MW-15 | **Lab Sample ID:** C100056-03 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 13:40 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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	01/26/11 03:25	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*96 %*	*51-122*	*1A25034*	*EPA 8260B*	*01/26/11 03:25*	*JKG*	
Dibromofluoromethane	*51*	*1*	*50.0*	*103 %*	*68-117*	*1A25034*	*EPA 8260B*	*01/26/11 03:25*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*99 %*	*69-110*	*1A25034*	*EPA 8260B*	*01/26/11 03:25*	*JKG*	

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Description: MW-15 | **Lab Sample ID:** C100056-03 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 13:40 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/26/11 12:41	VLO	
Arsenic [7440-38-2] ^	**13.4**		ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 13:48	JDH	
Barium [7440-39-3] ^	**16.3**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 13:48	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 13:48	JDH	
Cadmium [7440-43-9] ^	**1.31**		ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 13:48	JDH	
Chromium [7440-47-3] ^	**2.86**	J	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 13:48	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 13:48	JDH	
Copper [7440-50-8] ^	**5.90**	J	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 13:48	JDH	
Lead [7439-92-1] ^	**2.01**	J	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:48	JDH	
Nickel [7440-02-0] ^	**6.77**	J	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 13:48	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	01/26/11 12:41	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:48	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/26/11 12:41	VLO	
Vanadium [7440-62-2] ^	**4.26**	J	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 13:48	JDH	
Zinc [7440-66-6] ^	**6.00**	J	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 13:48	JDH	

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

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Description: MW-16S
Matrix: Ground Water
Project: Albemarle Lined MSWLF

Lab Sample ID: C100056-04
Sampled: 01/17/11 15:40
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100056

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	01/26/11 03:54	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/26/11 03:54	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/26/11 03:54	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/26/11 03:54	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/26/11 03:54	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/26/11 03:54	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/26/11 03:54	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/26/11 03:54	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/26/11 03:54	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/26/11 03:54	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/26/11 03:54	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/26/11 03:54	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/26/11 03:54	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/26/11 03:54	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/26/11 03:54	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/26/11 03:54	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/26/11 03:54	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/26/11 03:54	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/26/11 03:54	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/26/11 03:54	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/26/11 03:54	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/26/11 03:54	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/26/11 03:54	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/26/11 03:54	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 03:54	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/26/11 03:54	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/26/11 03:54	JKG	

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Description: MW-16S
Matrix: Ground Water
Project: Albemarle Lined MSWLF

Lab Sample ID: C100056-04
Sampled: 01/17/11 15:40
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100056

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	01/26/11 03:54	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*47*	*1*	*50.0*	*94 %*	*51-122*	*1A25034*	*EPA 8260B*	*01/26/11 03:54*	*JKG*	
Dibromofluoromethane	*47*	*1*	*50.0*	*95 %*	*68-117*	*1A25034*	*EPA 8260B*	*01/26/11 03:54*	*JKG*	
Toluene-d8	*48*	*1*	*50.0*	*95 %*	*69-110*	*1A25034*	*EPA 8260B*	*01/26/11 03:54*	*JKG*	

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Description: MW-16S
Matrix: Ground Water
Project: Albemarle Lined MSWLF

Lab Sample ID: C100056-04
Sampled: 01/17/11 15:40
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100056

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/26/11 12:44	VLO	
Arsenic [7440-38-2] ^	**3.65**	J	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 13:50	JDH	
Barium [7440-39-3] ^	**5.03**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 13:50	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 13:50	JDH	
Cadmium [7440-43-9] ^	**0.659**	J	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 13:50	JDH	
Chromium [7440-47-3] ^	**1.27**	J	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 13:50	JDH	
Cobalt [7440-48-4] ^	**3.01**	J	ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 13:50	JDH	
Copper [7440-50-8] ^	**6.32**	J	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 13:50	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:50	JDH	
Nickel [7440-02-0] ^	**5.62**	J	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 13:50	JDH	
Selenium [7782-49-2] ^	**1.83**	J	ug/L	1	0.830	1.00	10	EPA 6020A	01/26/11 12:44	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:50	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/26/11 12:44	VLO	
Tin [7440-31-5] ^	**3.98**	J	ug/L	1	2.10	10.0	100	EPA 6010C	01/26/11 13:50	JDH	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 13:50	JDH	
Zinc [7440-66-6] ^	**4.04**	J	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 13:50	JDH	

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

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Description: MW-16D
Matrix: Ground Water
Project: Albemarle Lined MSWLF

Lab Sample ID: C100056-05
Sampled: 01/17/11 16:35
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100056

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	01/26/11 04:23	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/26/11 04:23	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/26/11 04:23	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/26/11 04:23	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/26/11 04:23	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/26/11 04:23	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/26/11 04:23	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/26/11 04:23	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/26/11 04:23	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/26/11 04:23	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/26/11 04:23	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/26/11 04:23	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/26/11 04:23	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/26/11 04:23	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/26/11 04:23	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/26/11 04:23	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/26/11 04:23	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/26/11 04:23	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/26/11 04:23	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/26/11 04:23	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/26/11 04:23	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/26/11 04:23	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/26/11 04:23	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/26/11 04:23	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 04:23	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/26/11 04:23	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/26/11 04:23	JKG	

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Description: MW-16D
Matrix: Ground Water
Project: Albemarle Lined MSWLF

Lab Sample ID: C100056-05
Sampled: 01/17/11 16:35
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100056

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	01/26/11 04:23	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*47*	*1*	*50.0*	*94 %*	*51-122*	*1A25034*	*EPA 8260B*	*01/26/11 04:23*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*95 %*	*68-117*	*1A25034*	*EPA 8260B*	*01/26/11 04:23*	*JKG*	
Toluene-d8	*48*	*1*	*50.0*	*96 %*	*69-110*	*1A25034*	*EPA 8260B*	*01/26/11 04:23*	*JKG*	

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Description: MW-16D
Matrix: Ground Water
Project: Albemarle Lined MSWLF

Lab Sample ID: C100056-05
Sampled: 01/17/11 16:35
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100056

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.721**	J	ug/L	1	0.220	2.00	6	EPA 6020A	01/26/11 12:48	VLO	
Arsenic [7440-38-2] ^	**6.49**	J	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 13:52	JDH	
Barium [7440-39-3] ^	**62.1**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 13:52	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 13:52	JDH	
Cadmium [7440-43-9] ^	**0.893**	J	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 13:52	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 13:52	JDH	
Cobalt [7440-48-4] ^	**75.5**		ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 13:52	JDH	
Copper [7440-50-8] ^	**2.06**	J	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 13:52	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:52	JDH	
Nickel [7440-02-0] ^	**13.9**	J	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 13:52	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	01/26/11 12:48	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:52	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/26/11 12:48	VLO	
Tin [7440-31-5] ^	**2.69**	J	ug/L	1	2.10	10.0	100	EPA 6010C	01/26/11 13:52	JDH	
Vanadium [7440-62-2] ^	**1.86**	J	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 13:52	JDH	
Zinc [7440-66-6] ^	**5.11**	J	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 13:52	JDH	

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

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Description: MW-17 | **Lab Sample ID:** C100056-06 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 14:50 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/26/11 04:51	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/26/11 04:51	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/26/11 04:51	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/26/11 04:51	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/26/11 04:51	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/26/11 04:51	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/26/11 04:51	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/26/11 04:51	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/26/11 04:51	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/26/11 04:51	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/26/11 04:51	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/26/11 04:51	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/26/11 04:51	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/26/11 04:51	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/26/11 04:51	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/26/11 04:51	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/26/11 04:51	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/26/11 04:51	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/26/11 04:51	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/26/11 04:51	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/26/11 04:51	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/26/11 04:51	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/26/11 04:51	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/26/11 04:51	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 04:51	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/26/11 04:51	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/26/11 04:51	JKG	

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Description: MW-17 | **Lab Sample ID:** C100056-06 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 14:50 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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	01/26/11 04:51	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*95 %*	*51-122*	*1A25034*	*EPA 8260B*	*01/26/11 04:51*	*JKG*	
Dibromofluoromethane	*50*	*1*	*50.0*	*99 %*	*68-117*	*1A25034*	*EPA 8260B*	*01/26/11 04:51*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*100 %*	*69-110*	*1A25034*	*EPA 8260B*	*01/26/11 04:51*	*JKG*	

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Description: MW-17 | **Lab Sample ID:** C100056-06 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 14:50 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/26/11 12:52	VLO	
Arsenic [7440-38-2] ^	**5.42**	J	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 13:54	JDH	
Barium [7440-39-3] ^	**11.9**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 13:54	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 13:54	JDH	
Cadmium [7440-43-9] ^	**0.362**	J	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 13:54	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 13:54	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 13:54	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 13:54	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:54	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 13:54	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	01/26/11 12:52	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:54	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/26/11 12:52	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 13:54	JDH	
Zinc [7440-66-6] ^	**7.41**	J	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 13:54	JDH	

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

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Description: MW-18 | **Lab Sample ID:** C100056-07 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 12:10 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/26/11 05:20	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/26/11 05:20	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/26/11 05:20	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/26/11 05:20	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/26/11 05:20	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/26/11 05:20	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/26/11 05:20	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/26/11 05:20	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/26/11 05:20	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/26/11 05:20	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/26/11 05:20	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/26/11 05:20	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/26/11 05:20	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/26/11 05:20	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/26/11 05:20	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/26/11 05:20	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/26/11 05:20	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/26/11 05:20	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/26/11 05:20	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/26/11 05:20	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/26/11 05:20	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/26/11 05:20	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/26/11 05:20	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/26/11 05:20	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 05:20	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/26/11 05:20	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/26/11 05:20	JKG	

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Description: MW-18 | **Lab Sample ID:** C100056-07 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 12:10 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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	01/26/11 05:20	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*47*	*1*	*50.0*	*94 %*	*51-122*	*1A25034*	*EPA 8260B*	*01/26/11 05:20*	*JKG*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*1A25034*	*EPA 8260B*	*01/26/11 05:20*	*JKG*	
Toluene-d8	*49*	*1*	*50.0*	*99 %*	*69-110*	*1A25034*	*EPA 8260B*	*01/26/11 05:20*	*JKG*	

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Description: MW-18 | **Lab Sample ID:** C100056-07 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 12:10 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/26/11 12:55	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 13:56	JDH	
Barium [7440-39-3] ^	**8.61**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 13:56	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 13:56	JDH	
Cadmium [7440-43-9] ^	**0.403**	J	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 13:56	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 13:56	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 13:56	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 13:56	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:56	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 13:56	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	01/26/11 12:55	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:56	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/26/11 12:55	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 13:56	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 13:56	JDH	

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Description: MW-19 | **Lab Sample ID:** C100056-08 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 11:30 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/26/11 05:48	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/26/11 05:48	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/26/11 05:48	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/26/11 05:48	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/26/11 05:48	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/26/11 05:48	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/26/11 05:48	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/26/11 05:48	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/26/11 05:48	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/26/11 05:48	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/26/11 05:48	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/26/11 05:48	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/26/11 05:48	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/26/11 05:48	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/26/11 05:48	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/26/11 05:48	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/26/11 05:48	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/26/11 05:48	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/26/11 05:48	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/26/11 05:48	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/26/11 05:48	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/26/11 05:48	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/26/11 05:48	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/26/11 05:48	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 05:48	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/26/11 05:48	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/26/11 05:48	JKG	

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Description: MW-19 | **Lab Sample ID:** C100056-08 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 11:30 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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	01/26/11 05:48	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*47*	*1*	*50.0*	*93 %*	*51-122*	*1A25034*	*EPA 8260B*	*01/26/11 05:48*	*JKG*	
Dibromofluoromethane	*50*	*1*	*50.0*	*99 %*	*68-117*	*1A25034*	*EPA 8260B*	*01/26/11 05:48*	*JKG*	
Toluene-d8	*49*	*1*	*50.0*	*98 %*	*69-110*	*1A25034*	*EPA 8260B*	*01/26/11 05:48*	*JKG*	

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Description: MW-19 | **Lab Sample ID:** C100056-08 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 11:30 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.296**	J	ug/L	1	0.220	2.00	6	EPA 6020A	01/26/11 12:59	VLO	
Arsenic [7440-38-2] ^	**6.53**	J	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 13:58	JDH	
Barium [7440-39-3] ^	**15.4**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 13:58	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 13:58	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 13:58	JDH	
Chromium [7440-47-3] ^	**3.70**	J	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 13:58	JDH	
Cobalt [7440-48-4] ^	**10.6**		ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 13:58	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 13:58	JDH	
Lead [7439-92-1] ^	**5.70**	J	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:58	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 13:58	JDH	
Selenium [7782-49-2] ^	**5.17**	J	ug/L	1	0.830	1.00	10	EPA 6020A	01/26/11 12:59	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:58	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/26/11 12:59	VLO	
Tin [7440-31-5] ^	**2.34**	J	ug/L	1	2.10	10.0	100	EPA 6010C	01/26/11 13:58	JDH	
Vanadium [7440-62-2] ^	**2.56**	J	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 13:58	JDH	
Zinc [7440-66-6] ^	**5.46**	J	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 13:58	JDH	

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

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Description: MW-22 | **Lab Sample ID:** C100056-09 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 10:45 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/26/11 06:17	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/26/11 06:17	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/26/11 06:17	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/26/11 06:17	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/26/11 06:17	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/26/11 06:17	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/26/11 06:17	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/26/11 06:17	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/26/11 06:17	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/26/11 06:17	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/26/11 06:17	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/26/11 06:17	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/26/11 06:17	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/26/11 06:17	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/26/11 06:17	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/26/11 06:17	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/26/11 06:17	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/26/11 06:17	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/26/11 06:17	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/26/11 06:17	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/26/11 06:17	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/26/11 06:17	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/26/11 06:17	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/26/11 06:17	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 06:17	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/26/11 06:17	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/26/11 06:17	JKG	

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Description: MW-22 | **Lab Sample ID:** C100056-09 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 10:45 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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	01/26/11 06:17	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*96 %*	*51-122*	*1A25034*	*EPA 8260B*	*01/26/11 06:17*	*JKG*	
Dibromofluoromethane	*46*	*1*	*50.0*	*92 %*	*68-117*	*1A25034*	*EPA 8260B*	*01/26/11 06:17*	*JKG*	
Toluene-d8	*48*	*1*	*50.0*	*96 %*	*69-110*	*1A25034*	*EPA 8260B*	*01/26/11 06:17*	*JKG*	

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Description: MW-22 | **Lab Sample ID:** C100056-09 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 10:45 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	**0.723**	J	ug/L	1	0.220	2.00	6	EPA 6020A	01/26/11 13:03	VLO	
Arsenic [7440-38-2] ^	**7.92**	J	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 14:00	JDH	
Barium [7440-39-3] ^	**27.8**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 14:00	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 14:00	JDH	
Cadmium [7440-43-9] ^	**1.65**		ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 14:00	JDH	
Chromium [7440-47-3] ^	**3.29**	J	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 14:00	JDH	
Cobalt [7440-48-4] ^	**3.14**	J	ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 14:00	JDH	
Copper [7440-50-8] ^	**8.48**	J	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 14:00	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:00	JDH	
Nickel [7440-02-0] ^	**4.81**	J	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 14:00	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	01/26/11 13:03	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:00	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/26/11 13:03	VLO	
Vanadium [7440-62-2] ^	**5.52**	J	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 14:00	JDH	
Zinc [7440-66-6] ^	**18.8**		ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 14:00	JDH	

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Description: MW-23 | **Lab Sample ID:** C100056-10 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/18/11 09:00 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/26/11 06:46	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/26/11 06:46	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
1,1-Dichloroethane [75-34-3] ^	**4.9**	J	ug/L	1	0.33	1.0	5	EPA 8260B	01/26/11 06:46	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/26/11 06:46	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/26/11 06:46	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/26/11 06:46	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/26/11 06:46	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/26/11 06:46	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/26/11 06:46	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/26/11 06:46	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/26/11 06:46	JKG	
Benzene [71-43-2] ^	**1.3**		ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/26/11 06:46	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/26/11 06:46	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/26/11 06:46	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/26/11 06:46	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/26/11 06:46	JKG	
Chloroethane [75-00-3] ^	**3.8**	J	ug/L	1	0.30	1.0	10	EPA 8260B	01/26/11 06:46	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/26/11 06:46	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	**24**		ug/L	1	0.36	1.0	5	EPA 8260B	01/26/11 06:46	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/26/11 06:46	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/26/11 06:46	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/26/11 06:46	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/26/11 06:46	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/26/11 06:46	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 06:46	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/26/11 06:46	JKG	
Vinyl chloride [75-01-4] ^	**3.6**		ug/L	1	0.30	1.0	1	EPA 8260B	01/26/11 06:46	JKG	

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Description: MW-23 | **Lab Sample ID:** C100056-10 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/18/11 09:00 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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	01/26/11 06:46	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*97 %*	*51-122*	*1A25034*	*EPA 8260B*	*01/26/11 06:46*	*JKG*	
Dibromofluoromethane	*47*	*1*	*50.0*	*94 %*	*68-117*	*1A25034*	*EPA 8260B*	*01/26/11 06:46*	*JKG*	
Toluene-d8	*49*	*1*	*50.0*	*97 %*	*69-110*	*1A25034*	*EPA 8260B*	*01/26/11 06:46*	*JKG*	

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Description: MW-23 | **Lab Sample ID:** C100056-10 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/18/11 09:00 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/26/11 13:06	VLO	
Arsenic [7440-38-2] ^	**11.0**		ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 14:03	JDH	
Barium [7440-39-3] ^	**53.6**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 14:03	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 14:03	JDH	
Cadmium [7440-43-9] ^	**6.40**		ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 14:03	JDH	
Chromium [7440-47-3] ^	**2.96**	J	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 14:03	JDH	
Cobalt [7440-48-4] ^	**44.8**		ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 14:03	JDH	
Copper [7440-50-8] ^	**3.02**	J	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 14:03	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:03	JDH	
Nickel [7440-02-0] ^	**18.8**	J	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 14:03	JDH	
Selenium [7782-49-2] ^	**4.46**	J	ug/L	1	0.830	1.00	10	EPA 6020A	01/26/11 13:06	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:03	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/26/11 13:06	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	01/26/11 14:03	JDH	
Vanadium [7440-62-2] ^	**2.13**	J	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 14:03	JDH	
Zinc [7440-66-6] ^	**6.25**	J	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 14:03	JDH	

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Description: MW-26 | **Lab Sample ID:** C100056-11 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 10:05 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/26/11 07:14	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/26/11 07:14	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/26/11 07:14	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/26/11 07:14	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/26/11 07:14	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/26/11 07:14	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/26/11 07:14	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/26/11 07:14	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/26/11 07:14	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/26/11 07:14	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/26/11 07:14	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/26/11 07:14	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/26/11 07:14	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/26/11 07:14	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/26/11 07:14	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/26/11 07:14	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/26/11 07:14	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/26/11 07:14	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/26/11 07:14	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/26/11 07:14	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/26/11 07:14	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/26/11 07:14	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/26/11 07:14	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/26/11 07:14	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 07:14	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/26/11 07:14	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/26/11 07:14	JKG	

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Description: MW-26 | **Lab Sample ID:** C100056-11 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 10:05 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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	01/26/11 07:14	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*46*	*1*	*50.0*	*91 %*	*51-122*	*1A25034*	*EPA 8260B*	*01/26/11 07:14*	*JKG*	
Dibromofluoromethane	*51*	*1*	*50.0*	*102 %*	*68-117*	*1A25034*	*EPA 8260B*	*01/26/11 07:14*	*JKG*	
Toluene-d8	*49*	*1*	*50.0*	*97 %*	*69-110*	*1A25034*	*EPA 8260B*	*01/26/11 07:14*	*JKG*	

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Description: MW-26 | **Lab Sample ID:** C100056-11 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 10:05 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/26/11 13:10	VLO	
Arsenic [7440-38-2] ^	**19.4**		ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 14:05	JDH	
Barium [7440-39-3] ^	**38.6**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 14:05	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 14:05	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 14:05	JDH	
Chromium [7440-47-3] ^	**43.8**		ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 14:05	JDH	
Cobalt [7440-48-4] ^	**11.3**		ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 14:05	JDH	
Copper [7440-50-8] ^	**48.7**		ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 14:05	JDH	
Lead [7439-92-1] ^	**13.0**		ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:05	JDH	
Nickel [7440-02-0] ^	**23.8**	J	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 14:05	JDH	
Selenium [7782-49-2] ^	**2.14**	J	ug/L	1	0.830	1.00	10	EPA 6020A	01/26/11 13:10	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:05	JDH	
Thallium [7440-28-0] ^	**0.132**	J	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/26/11 13:10	VLO	
Vanadium [7440-62-2] ^	**55.2**		ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 14:05	JDH	
Zinc [7440-66-6] ^	**55.5**		ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 14:05	JDH	

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Description: MW-27 | **Lab Sample ID:** C100056-12 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 09:35 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/26/11 07:43	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/26/11 07:43	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/26/11 07:43	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/26/11 07:43	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/26/11 07:43	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/26/11 07:43	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/26/11 07:43	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/26/11 07:43	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/26/11 07:43	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/26/11 07:43	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/26/11 07:43	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/26/11 07:43	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/26/11 07:43	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/26/11 07:43	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/26/11 07:43	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/26/11 07:43	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/26/11 07:43	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/26/11 07:43	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/26/11 07:43	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/26/11 07:43	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/26/11 07:43	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/26/11 07:43	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/26/11 07:43	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/26/11 07:43	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 07:43	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/26/11 07:43	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/26/11 07:43	JKG	

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Description: MW-27 | **Lab Sample ID:** C100056-12 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 09:35 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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	01/26/11 07:43	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*97 %*	*51-122*	*1A25034*	*EPA 8260B*	*01/26/11 07:43*	*JKG*	
Dibromofluoromethane	*50*	*1*	*50.0*	*101 %*	*68-117*	*1A25034*	*EPA 8260B*	*01/26/11 07:43*	*JKG*	
Toluene-d8	*49*	*1*	*50.0*	*97 %*	*69-110*	*1A25034*	*EPA 8260B*	*01/26/11 07:43*	*JKG*	

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Description: MW-27 | **Lab Sample ID:** C100056-12 | **Received:** 01/20/11 15:00

Matrix: Ground Water | **Sampled:** 01/17/11 09:35 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/26/11 13:21	VLO	
Arsenic [7440-38-2] ^	**7.79**	J	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 14:23	JDH	
Barium [7440-39-3] ^	**21.8**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 14:23	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 14:23	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 14:23	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 14:23	JDH	
Cobalt [7440-48-4] ^	**7.07**	J	ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 14:23	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 14:23	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:23	JDH	
Nickel [7440-02-0] ^	**8.97**	J	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 14:23	JDH	
Selenium [7782-49-2] ^	**1.38**	J	ug/L	1	0.830	1.00	10	EPA 6020A	01/26/11 13:21	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:23	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/26/11 13:21	VLO	
Vanadium [7440-62-2] ^	**1.77**	J	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 14:23	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 14:23	JDH	

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Description: SW-2 | **Lab Sample ID:** C100056-13 | **Received:** 01/20/11 15:00

Matrix: Surface Water | **Sampled:** 01/17/11 15:10 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/26/11 08:12	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/26/11 08:12	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/26/11 08:12	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/26/11 08:12	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/26/11 08:12	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/26/11 08:12	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/26/11 08:12	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/26/11 08:12	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/26/11 08:12	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/26/11 08:12	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/26/11 08:12	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/26/11 08:12	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/26/11 08:12	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/26/11 08:12	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/26/11 08:12	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/26/11 08:12	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/26/11 08:12	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/26/11 08:12	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/26/11 08:12	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/26/11 08:12	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/26/11 08:12	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/26/11 08:12	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/26/11 08:12	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/26/11 08:12	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/26/11 08:12	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/26/11 08:12	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/26/11 08:12	JKG	

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Description: SW-2 | **Lab Sample ID:** C100056-13 | **Received:** 01/20/11 15:00

Matrix: Surface Water | **Sampled:** 01/17/11 15:10 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **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	01/26/11 08:12	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*46*	*1*	*50.0*	*92 %*	*51-122*	*1A25034*	*EPA 8260B*	*01/26/11 08:12*	*JKG*	
Dibromofluoromethane	*48*	*1*	*50.0*	*95 %*	*68-117*	*1A25034*	*EPA 8260B*	*01/26/11 08:12*	*JKG*	
Toluene-d8	*48*	*1*	*50.0*	*97 %*	*69-110*	*1A25034*	*EPA 8260B*	*01/26/11 08:12*	*JKG*	

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Description: SW-2 | **Lab Sample ID:** C100056-13 | **Received:** 01/20/11 15:00

Matrix: Surface Water | **Sampled:** 01/17/11 15:10 | **Work Order:** C100056

Project: Albemarle Lined MSWLF | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/26/11 13:24	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 14:16	JDH	
Barium [7440-39-3] ^	**13.6**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 14:16	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 14:16	JDH	
Cadmium [7440-43-9] ^	**0.393**	J	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 14:16	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 14:16	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 14:16	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 14:16	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:16	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 14:16	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	01/26/11 13:24	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:16	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/26/11 13:24	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 14:16	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 14:16	JDH	

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

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1A25034 - EPA 5030B_MS

Blank (1A25034-BLK1) Prepared: 01/25/2011 15:57 Analyzed: 01/26/2011 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	10	ug/L							
Benzene	0.20	U	1.0	ug/L							
Bromochloromethane	0.42	U	1.0	ug/L							
Bromodichloromethane	0.37	U	1.0	ug/L							
Bromoform	0.71	U	1.0	ug/L							
Bromomethane	0.49	U	1.0	ug/L							
Carbon disulfide	0.54	U	5.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
Chlorobenzene	0.27	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
Chloroform	0.20	U	1.0	ug/L							
Chloromethane	0.34	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L							
Dibromochloromethane	0.32	U	1.0	ug/L							
Dibromomethane	0.37	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
Iodomethane	0.52	U	5.0	ug/L							
Methylene chloride	0.53	U	1.0	ug/L							
Styrene	0.26	U	1.0	ug/L							
Tetrachloroethene	0.36	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Trichlorofluoromethane	0.28	U	1.0	ug/L							
Vinyl acetate	0.98	U	5.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*47*			*ug/L*	*50.0*		*94*	*51-122*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1A25034 - EPA 5030B_MS

Blank (1A25034-BLK1) Continued Prepared: 01/25/2011 15:57 Analyzed: 01/26/2011 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*		*97*	*68-117*			
Surrogate: Toluene-d8	*47*			*ug/L*	*50.0*		*95*	*69-110*			

LCS (1A25034-BS1) Prepared: 01/25/2011 15:57 Analyzed: 01/26/2011 00:32

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		113	75-133			
Benzene	20		1.0	ug/L	20.0		102	81-134			
Chlorobenzene	21		1.0	ug/L	20.0		103	83-117			
Toluene	21		1.0	ug/L	20.0		103	71-118			
Trichloroethene	21		1.0	ug/L	20.0		103	75-115			
Surrogate: 4-Bromofluorobenzene	*49*			*ug/L*	*50.0*		*97*	*51-122*			
Surrogate: Dibromofluoromethane	*47*			*ug/L*	*50.0*		*95*	*68-117*			
Surrogate: Toluene-d8	*47*			*ug/L*	*50.0*		*95*	*69-110*			

Matrix Spike (1A25034-MS1) Prepared: 01/25/2011 15:57 Analyzed: 01/26/2011 01:01

Source: C100961-02

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	110	75-133			
Benzene	21		1.0	ug/L	20.0	0.20 U	105	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	102	71-118			
Trichloroethene	21		1.0	ug/L	20.0	0.38 U	105	75-115			
Surrogate: 4-Bromofluorobenzene	*48*			*ug/L*	*50.0*		*96*	*51-122*			
Surrogate: Dibromofluoromethane	*48*			*ug/L*	*50.0*		*96*	*68-117*			
Surrogate: Toluene-d8	*48*			*ug/L*	*50.0*		*96*	*69-110*			

Matrix Spike Dup (1A25034-MSD1) Prepared: 01/25/2011 15:57 Analyzed: 01/26/2011 01:30

Source: C100961-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	21		1.0	ug/L	20.0	0.24 U	104	75-133	6	20	
Benzene	21		1.0	ug/L	20.0	0.20 U	105	81-134	0.3	17	
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	101	83-117	0.9	16	
Toluene	20		1.0	ug/L	20.0	0.27 U	100	71-118	3	17	
Trichloroethene	20		1.0	ug/L	20.0	0.38 U	100	75-115	5	18	
Surrogate: 4-Bromofluorobenzene	*50*			*ug/L*	*50.0*		*100*	*51-122*			
Surrogate: Dibromofluoromethane	*47*			*ug/L*	*50.0*		*94*	*68-117*			
Surrogate: Toluene-d8	*50*			*ug/L*	*50.0*		*100*	*69-110*			

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

Batch 1A24013 - EPA 3005A

Blank (1A24013-BLK1) Prepared: 01/24/2011 11:38 Analyzed: 01/26/2011 11:32

QUALITY CONTROL

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

Batch 1A24013 - EPA 3005A

Blank (1A24013-BLK1) Continued Prepared: 01/24/2011 11:38 Analyzed: 01/26/2011 11:32

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

LCS (1A24013-BS1) Prepared: 01/24/2011 11:38 Analyzed: 01/26/2011 11:36

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.4		2.00	ug/L	25.0		101	80-120			
Selenium	26.1		1.00	ug/L	25.0		104	80-120			
Thallium	25.6		1.00	ug/L	25.0		102	80-120			

Matrix Spike (1A24013-MS1) Prepared: 01/24/2011 11:38 Analyzed: 01/26/2011 11:43

Source: C015864-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.7		2.00	ug/L	25.0	0.220 U	99	75-125			
Selenium	26.6		1.00	ug/L	25.0	0.830 U	106	75-125			
Thallium	25.8		1.00	ug/L	25.0	0.110 U	103	75-125			

Matrix Spike Dup (1A24013-MSD1) Prepared: 01/24/2011 11:38 Analyzed: 01/26/2011 11:54

Source: C015864-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.9		2.00	ug/L	25.0	0.220 U	99	75-125	0.8	20	
Selenium	26.6		1.00	ug/L	25.0	0.830 U	106	75-125	0.2	20	
Thallium	25.5		1.00	ug/L	25.0	0.110 U	102	75-125	1	20	

Post Spike (1A24013-PS1) Prepared: 01/24/2011 11:38 Analyzed: 01/26/2011 11:58

Source: C015864-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	24.9		2.00	ug/L	25.0	0.00500	100	80-120			
Selenium	26.1		1.00	ug/L	25.0	0.00200	104	80-120			
Thallium	25.3		1.00	ug/L	25.0	0.00900	101	80-120			

Batch 1A24020 - EPA 3005A

Blank (1A24020-BLK1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 16:40

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	2.80	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Beryllium	0.100	U	1.00	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.00	U	10.0	ug/L							
Cobalt	1.10	U	10.0	ug/L							
Copper	1.60	U	10.0	ug/L							

QUALITY CONTROL

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

Batch 1A24020 - EPA 3005A

Blank (1A24020-BLK1) Continued Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 16:40

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	1.90	U	10.0	ug/L							
Nickel	1.80	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							
Tin	2.10	U	10.0	ug/L							
Vanadium	1.40	U	10.0	ug/L							
Zinc	3.80	U	10.0	ug/L							

LCS (1A24020-BS1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:15

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	523		10.0	ug/L	500		105	80-120			
Barium	519		10.0	ug/L	500		104	80-120			
Beryllium	268		1.00	ug/L	250		107	80-120			
Cadmium	260		1.00	ug/L	250		104	80-120			
Chromium	523		10.0	ug/L	500		105	80-120			
Cobalt	503		10.0	ug/L	500		101	80-120			
Copper	261		10.0	ug/L	250		104	80-120			
Lead	518		10.0	ug/L	500		104	80-120			
Nickel	517		10.0	ug/L	500		103	80-120			
Silver	256		10.0	ug/L	250		103	80-120			
Tin	511		10.0	ug/L	500		102	80-120			
Vanadium	254		10.0	ug/L	250		102	80-120			
Zinc	514		10.0	ug/L	500		103	80-120			

Matrix Spike (1A24020-MS1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:24

Source: C100056-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	597		10.0	ug/L	500	54.6	109	75-125			
Barium	587		10.0	ug/L	500	61.3	105	75-125			
Beryllium	268		1.00	ug/L	250	0.100 U	107	75-125			
Cadmium	263		1.00	ug/L	250	0.360 U	105	75-125			
Chromium	600		10.0	ug/L	500	61.0	108	75-125			
Cobalt	554		10.0	ug/L	500	45.8	102	75-125			
Copper	309		10.0	ug/L	250	34.3	110	75-125			
Lead	530		10.0	ug/L	500	4.60	105	75-125			
Nickel	553		10.0	ug/L	500	30.4	104	75-125			
Silver	264		10.0	ug/L	250	1.90 U	106	75-125			
Tin	521		10.0	ug/L	500	2.39	104	75-125			
Vanadium	305		10.0	ug/L	250	37.5	107	75-125			
Zinc	547		10.0	ug/L	500	23.2	105	75-125			

Matrix Spike Dup (1A24020-MSD1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:26

Source: C100056-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	589		10.0	ug/L	500	54.6	107	75-125	2	20	

QUALITY CONTROL

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

Batch 1A24020 - EPA 3005A

Matrix Spike Dup (1A24020-MSD1) Continued Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:26

Source: C100056-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Barium	595		10.0	ug/L	500	61.3	107	75-125	1	20	
Beryllium	271		1.00	ug/L	250	0.100 U	108	75-125	1	20	
Cadmium	266		1.00	ug/L	250	0.360 U	106	75-125	1	20	
Chromium	607		10.0	ug/L	500	61.0	109	75-125	1	20	
Cobalt	559		10.0	ug/L	500	45.8	103	75-125	1	20	
Copper	311		10.0	ug/L	250	34.3	111	75-125	0.7	20	
Lead	531		10.0	ug/L	500	4.60	105	75-125	0.2	20	
Nickel	560		10.0	ug/L	500	30.4	106	75-125	1	20	
Silver	268		10.0	ug/L	250	1.90 U	107	75-125	1	20	
Tin	526		10.0	ug/L	500	2.39	105	75-125	0.9	20	
Vanadium	310		10.0	ug/L	250	37.5	109	75-125	1	20	
Zinc	554		10.0	ug/L	500	23.2	106	75-125	1	20	

Post Spike (1A24020-PS1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:28

Source: C100056-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.13		0.0100	mg/L	1.00	0.0546	108	80-120			
Barium	1.11		0.0100	mg/L	1.00	0.0613	105	80-120			
Beryllium	0.541		0.00100	mg/L	0.500	-0.00165	108	80-120			
Cadmium	0.526		0.00100	mg/L	0.500	-0.000177	105	80-120			
Chromium	1.12		0.0100	mg/L	1.00	0.0610	106	80-120			
Cobalt	1.06		0.0100	mg/L	1.00	0.0458	102	80-120			
Copper	0.578		0.0100	mg/L	0.500	0.0343	109	80-120			
Lead	1.05		0.0100	mg/L	1.00	0.00460	105	80-120			
Nickel	1.07		0.0100	mg/L	1.00	0.0304	104	80-120			
Silver	0.514		0.0100	mg/L	0.500	0.000396	103	80-120			
Tin	1.07		0.0100	mg/L	1.00	0.00239	107	80-120			
Vanadium	0.558		0.0100	mg/L	0.500	0.0375	104	80-120			
Zinc	1.07		0.0100	mg/L	1.00	0.0232	105	80-120			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

10775 Central Port Dr.
Orlando, FL 32824
(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 211
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102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

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Page 1 of 1

Client Name: Municipal Engineering Services (MU001)	Project Number: G10055.0
Address: P.O. Box 97	Project Name/Desc: Albemarle Lined MSWLF
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	Billing Contact: Accounts Payable
Sampler(s) Signature: [signature]	Site Location / Time Zone

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C100056

Requested Analyses / Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn	sulfide	Tin							Sample Comments
	MW-13	1/18/11	8:35	Grab	GW	4	X	X	X	X							
	MW-14	1/17/11	2:10		SW	4	X	X									
	MW-15	1/17/11	1:40		SW	4	X	X									
	MW-16S	1/17/11	3:40		SW	4	X	X		X							
	MW-16D	1/17/11	4:35		SW	4	X	X		X							
	MW-17	1/17/11	2:50		SW	4	X	X									
	MW-18	1/17/11	12:10		SW	4	X	X									
	MW-19	1/17/11	11:30		SW	4	X	X	X	X							
	MW-22	1/17/11	10:45		SW	4	X	X									
	MW-23	1/18/11	9:00		SW	4	X	X		X							
	MW-26	1/17/11	10:05		SW	4	X	X									
	~~MW-27~~	~~1/17/11~~	~~9:35~~		~~SW~~	~~4~~	~~X~~	~~X~~									
	SW-2	1/17/11	3:10	↓	SW	4	X	X									
						<-- Total # of Containers											

Sample Kit Prepared By: LS	Date/Time: 1/6	Relinquished By: [signature] /MESCO 1/20/11	Date/Time: 11:00 AM	Received By: James Hays	Date/Time: 1/20/11 11:00
Comments/Special Reporting Requirements: App I Plus App II Detections Previous 7/10 event. No sulfide containers received. BSG 1/20/11		Relinquished By: James Hays	Date/Time: 1/20/11 1500	Received By: Briana Gregory	Date/Time: 1/20/11 15:00
		Relinquished By:	Date/Time:	Received By:	Date/Time:
		Cooler #'s & Temps on Receipt: C-162 2.4°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments) **Preservation:** I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

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

Monday, January 31, 2011

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Laboratory Results for
Project Number: G10055.0, Project Name/Desc: Albemarle SWs Shared
ENCO Workorder: C100052

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, January 20, 2011.

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 19.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: SW-1	Lab ID: C100052-01	Sampled: 01/18/11 09:20	Received: 01/20/11 15:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/17/11	01/24/11 13:12	1/26/2011 13:32
EPA 6020A	07/17/11	01/24/11 10:14	1/25/2011 12:42
EPA 8260B	02/01/11	01/26/11 15:09	1/27/2011 08:30

Client ID: SW-6	Lab ID: C100052-02	Sampled: 01/18/11 10:00	Received: 01/20/11 15:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/17/11	01/24/11 13:12	1/26/2011 13:34
EPA 6020A	07/17/11	01/24/11 10:14	1/25/2011 12:46
EPA 8260B	02/01/11	01/26/11 15:09	1/27/2011 08:59

Client ID: SW-7	Lab ID: C100052-03	Sampled: 01/18/11 09:40	Received: 01/20/11 15:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/17/11	01/24/11 13:12	1/26/2011 13:36
EPA 6020A	07/17/11	01/24/11 10:14	1/25/2011 12:49
EPA 8260B	02/01/11	01/26/11 15:09	1/27/2011 09:28

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: SW-1 **Lab ID: C100052-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	3.99	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	22.8	J	1	1.00	10.0	100	ug/L	EPA 6010C	
Chromium - Total	1.96	J	1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	1.53	J	1	1.10	10.0	10	ug/L	EPA 6010C	
Nickel - Total	1.85	J	1	1.80	10.0	50	ug/L	EPA 6010C	
Vanadium - Total	2.24	J	1	1.40	10.0	25	ug/L	EPA 6010C	

Client ID: SW-6 **Lab ID: C100052-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	4.64	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	14.9	J	1	1.00	10.0	100	ug/L	EPA 6010C	

Client ID: SW-7 **Lab ID: C100052-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	3.77	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	14.8	J	1	1.00	10.0	100	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: SW-1 **Lab Sample ID:** C100052-01 **Received:** 01/20/11 15:00

Matrix: Surface Water **Sampled:** 01/18/11 09:20 **Work Order:** C100052

Project: Albemarle SWs Shared **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/27/11 08:30	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/27/11 08:30	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/27/11 08:30	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/27/11 08:30	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/27/11 08:30	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/27/11 08:30	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/27/11 08:30	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/27/11 08:30	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/27/11 08:30	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/27/11 08:30	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/27/11 08:30	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/27/11 08:30	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/27/11 08:30	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/27/11 08:30	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/27/11 08:30	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/27/11 08:30	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/27/11 08:30	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/27/11 08:30	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/27/11 08:30	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/27/11 08:30	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/27/11 08:30	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/27/11 08:30	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/27/11 08:30	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/27/11 08:30	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 08:30	JKG	

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Description: SW-1 | **Lab Sample ID:** C100052-01 | **Received:** 01/20/11 15:00

Matrix: Surface Water | **Sampled:** 01/18/11 09:20 | **Work Order:** C100052

Project: Albemarle SWs Shared | **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	01/27/11 08:30	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/27/11 08:30	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/27/11 08:30	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/27/11 08:30	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*47*	*1*	*50.0*	*95 %*	*51-122*	*1A26029*	*EPA 8260B*	*01/27/11 08:30*	*JKG*	
Dibromofluoromethane	*51*	*1*	*50.0*	*102 %*	*68-117*	*1A26029*	*EPA 8260B*	*01/27/11 08:30*	*JKG*	
Toluene-d8	*49*	*1*	*50.0*	*98 %*	*69-110*	*1A26029*	*EPA 8260B*	*01/27/11 08:30*	*JKG*	

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Description: SW-1 | **Lab Sample ID:** C100052-01 | **Received:** 01/20/11 15:00

Matrix: Surface Water | **Sampled:** 01/18/11 09:20 | **Work Order:** C100052

Project: Albemarle SWs Shared | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/25/11 12:42	VLO	
Arsenic [7440-38-2] ^	**3.99**	J	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 13:32	JDH	
Barium [7440-39-3] ^	**22.8**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 13:32	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 13:32	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 13:32	JDH	
Chromium [7440-47-3] ^	**1.96**	J	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 13:32	JDH	
Cobalt [7440-48-4] ^	**1.53**	J	ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 13:32	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 13:32	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:32	JDH	
Nickel [7440-02-0] ^	**1.85**	J	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 13:32	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	01/25/11 12:42	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:32	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/25/11 12:42	VLO	
Vanadium [7440-62-2] ^	**2.24**	J	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 13:32	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 13:32	JDH	

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

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Description: SW-6 | **Lab Sample ID:** C100052-02 | **Received:** 01/20/11 15:00

Matrix: Surface Water | **Sampled:** 01/18/11 10:00 | **Work Order:** C100052

Project: Albemarle SWs Shared | **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/27/11 08:59	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/27/11 08:59	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/27/11 08:59	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/27/11 08:59	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/27/11 08:59	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/27/11 08:59	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/27/11 08:59	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/27/11 08:59	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/27/11 08:59	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/27/11 08:59	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/27/11 08:59	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/27/11 08:59	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/27/11 08:59	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/27/11 08:59	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/27/11 08:59	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/27/11 08:59	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/27/11 08:59	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/27/11 08:59	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/27/11 08:59	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/27/11 08:59	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/27/11 08:59	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/27/11 08:59	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/27/11 08:59	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/27/11 08:59	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/27/11 08:59	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/27/11 08:59	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/27/11 08:59	JKG	

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Description: SW-6
Matrix: Surface Water
Project: Albemarle SWs Shared

Lab Sample ID: C100052-02
Sampled: 01/18/11 10:00
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100052

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	01/27/11 08:59	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*95 %*	*51-122*	*1A26029*	*EPA 8260B*	*01/27/11 08:59*	*JKG*	
Dibromofluoromethane	*53*	*1*	*50.0*	*106 %*	*68-117*	*1A26029*	*EPA 8260B*	*01/27/11 08:59*	*JKG*	
Toluene-d8	*51*	*1*	*50.0*	*102 %*	*69-110*	*1A26029*	*EPA 8260B*	*01/27/11 08:59*	*JKG*	

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Description: SW-6 | **Lab Sample ID:** C100052-02 | **Received:** 01/20/11 15:00

Matrix: Surface Water | **Sampled:** 01/18/11 10:00 | **Work Order:** C100052

Project: Albemarle SWs Shared | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/25/11 12:46	VLO	
Arsenic [7440-38-2] ^	**4.64**	J	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 13:34	JDH	
Barium [7440-39-3] ^	**14.9**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 13:34	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 13:34	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 13:34	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 13:34	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 13:34	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 13:34	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:34	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 13:34	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	01/25/11 12:46	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:34	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/25/11 12:46	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	01/26/11 13:34	JDH	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 13:34	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 13:34	JDH	

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

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Description: SW-7 | **Lab Sample ID:** C100052-03 | **Received:** 01/20/11 15:00

Matrix: Surface Water | **Sampled:** 01/18/11 09:40 | **Work Order:** C100052

Project: Albemarle SWs Shared | **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
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/27/11 09:28	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/27/11 09:28	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/27/11 09:28	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/27/11 09:28	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/27/11 09:28	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/27/11 09:28	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/27/11 09:28	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/27/11 09:28	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/27/11 09:28	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/27/11 09:28	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/27/11 09:28	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/27/11 09:28	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/27/11 09:28	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/27/11 09:28	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/27/11 09:28	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/27/11 09:28	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/27/11 09:28	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/27/11 09:28	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/27/11 09:28	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/27/11 09:28	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/27/11 09:28	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/27/11 09:28	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/27/11 09:28	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/27/11 09:28	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/27/11 09:28	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/27/11 09:28	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/27/11 09:28	JKG	

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Description:	SW-7	**Lab Sample ID:**	C100052-03	**Received:**	01/20/11 15:00
Matrix:	Surface Water	**Sampled:**	01/18/11 09:40	**Work Order:**	C100052
Project:	Albemarle SWs Shared	**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	01/27/11 09:28	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*95 %*	*51-122*	*1A26029*	*EPA 8260B*	*01/27/11 09:28*	*JKG*	
Dibromofluoromethane	*53*	*1*	*50.0*	*106 %*	*68-117*	*1A26029*	*EPA 8260B*	*01/27/11 09:28*	*JKG*	
Toluene-d8	*49*	*1*	*50.0*	*98 %*	*69-110*	*1A26029*	*EPA 8260B*	*01/27/11 09:28*	*JKG*	

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Description: SW-7 | **Lab Sample ID:** C100052-03 | **Received:** 01/20/11 15:00

Matrix: Surface Water | **Sampled:** 01/18/11 09:40 | **Work Order:** C100052

Project: Albemarle SWs Shared | **Sampled By:** Jonathan Pfohl

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/25/11 12:49	VLO	
Arsenic [7440-38-2] ^	**3.77**	J	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 13:36	JDH	
Barium [7440-39-3] ^	**14.8**	J	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 13:36	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 13:36	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 13:36	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 13:36	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 13:36	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 13:36	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:36	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 13:36	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	01/25/11 12:49	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 13:36	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/25/11 12:49	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 13:36	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 13:36	JDH	

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

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1A26029 - EPA 5030B_MS

Blank (1A26029-BLK1) Prepared: 01/26/2011 15:09 Analyzed: 01/27/2011 00:51

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							
1,2-Dichloroethane	0.65	U	1.0	ug/L							
1,2-Dichloropropane	0.20	U	1.0	ug/L							
1,4-Dichlorobenzene	0.38	U	1.0	ug/L							
2-Butanone	1.0	U	5.0	ug/L							
2-Hexanone	0.69	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.5	U	5.0	ug/L							
Acrylonitrile	2.1	U	10	ug/L							
Benzene	0.20	U	1.0	ug/L							
Bromochloromethane	0.42	U	1.0	ug/L							
Bromodichloromethane	0.37	U	1.0	ug/L							
Bromoform	0.71	U	1.0	ug/L							
Bromomethane	0.49	U	1.0	ug/L							
Carbon disulfide	0.54	U	5.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
Chlorobenzene	0.27	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
Chloroform	0.20	U	1.0	ug/L							
Chloromethane	0.34	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L							
Dibromochloromethane	0.32	U	1.0	ug/L							
Dibromomethane	0.37	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
Iodomethane	0.52	U	5.0	ug/L							
Methylene chloride	0.53	U	1.0	ug/L							
Styrene	0.26	U	1.0	ug/L							
Tetrachloroethene	0.36	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Trichlorofluoromethane	0.28	U	1.0	ug/L							
Vinyl acetate	0.98	U	5.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*49*			*ug/L*	*50.0*		*99*	*51-122*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1A26029 - EPA 5030B_MS

Blank (1A26029-BLK1) Continued Prepared: 01/26/2011 15:09 Analyzed: 01/27/2011 00:51

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*49*			*ug/L*	*50.0*		*98*	*68-117*			
Surrogate: Toluene-d8	*49*			*ug/L*	*50.0*		*99*	*69-110*			

LCS (1A26029-BS1) Prepared: 01/26/2011 15:09 Analyzed: 01/27/2011 01:19

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		114	75-133			
Benzene	22		1.0	ug/L	20.0		112	81-134			
Chlorobenzene	21		1.0	ug/L	20.0		105	83-117			
Toluene	21		1.0	ug/L	20.0		103	71-118			
Trichloroethene	22		1.0	ug/L	20.0		109	75-115			

Matrix Spike (1A26029-MS1) Prepared: 01/26/2011 15:09 Analyzed: 01/27/2011 01:48

Source: C100961-06

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	117	75-133			
Benzene	21		1.0	ug/L	20.0	0.20 U	106	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	100	83-117			
Toluene	20		1.0	ug/L	20.0	0.27 U	102	71-118			
Trichloroethene	20		1.0	ug/L	20.0	0.38 U	101	75-115			

Matrix Spike Dup (1A26029-MSD1) Prepared: 01/26/2011 15:09 Analyzed: 01/27/2011 02:16

Source: C100961-06

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	8	20	
Benzene	21		1.0	ug/L	20.0	0.20 U	105	81-134	1	17	
Chlorobenzene	21		1.0	ug/L	20.0	0.27 U	103	83-117	3	16	
Toluene	20		1.0	ug/L	20.0	0.27 U	102	71-118	0.5	17	
Trichloroethene	20		1.0	ug/L	20.0	0.38 U	102	75-115	0.9	18	

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

Batch 1A24007 - EPA 3005A

Blank (1A24007-BLK1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:30

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

LCS (1A24007-BS1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:33

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.3		2.00	ug/L	25.0		101	80-120			
Selenium	24.6		1.00	ug/L	25.0		98	80-120			

QUALITY CONTROL

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

Batch 1A24007 - EPA 3005A

LCS (1A24007-BS1) Continued Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:33

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Thallium	26.4		1.00	ug/L	25.0		106	80-120			

Matrix Spike (1A24007-MS1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:41

Source: C015019-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.7		2.00	ug/L	25.0	0.220 U	103	75-125			
Selenium	25.5		1.00	ug/L	25.0	0.830 U	102	75-125			
Thallium	25.7		1.00	ug/L	25.0	0.381	101	75-125			

Matrix Spike Dup (1A24007-MSD1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:52

Source: C015019-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	26.3		2.00	ug/L	25.0	0.220 U	105	75-125	2	20	
Selenium	25.5		1.00	ug/L	25.0	0.830 U	102	75-125	0.08	20	
Thallium	26.3		1.00	ug/L	25.0	0.381	104	75-125	2	20	

Post Spike (1A24007-PS1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:55

Source: C015019-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.0		2.00	ug/L	25.0	0.179	99	80-120			
Selenium	25.1		1.00	ug/L	25.0	0.377	99	80-120			
Thallium	25.6		1.00	ug/L	25.0	0.381	101	80-120			

Batch 1A24020 - EPA 3005A

Blank (1A24020-BLK1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 16:40

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

LCS (1A24020-BS1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:15

QUALITY CONTROL

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

Batch 1A24020 - EPA 3005A

LCS (1A24020-BS1) Continued Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:15

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	523		10.0	ug/L	500		105	80-120			
Barium	519		10.0	ug/L	500		104	80-120			
Beryllium	268		1.00	ug/L	250		107	80-120			
Cadmium	260		1.00	ug/L	250		104	80-120			
Chromium	523		10.0	ug/L	500		105	80-120			
Cobalt	503		10.0	ug/L	500		101	80-120			
Copper	261		10.0	ug/L	250		104	80-120			
Lead	518		10.0	ug/L	500		104	80-120			
Nickel	517		10.0	ug/L	500		103	80-120			
Silver	256		10.0	ug/L	250		103	80-120			
Tin	511		10.0	ug/L	500		102	80-120			
Vanadium	254		10.0	ug/L	250		102	80-120			
Zinc	514		10.0	ug/L	500		103	80-120			

Matrix Spike (1A24020-MS1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:24

Source: C100056-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	597		10.0	ug/L	500	54.6	109	75-125			
Barium	587		10.0	ug/L	500	61.3	105	75-125			
Beryllium	268		1.00	ug/L	250	0.100 U	107	75-125			
Cadmium	263		1.00	ug/L	250	0.360 U	105	75-125			
Chromium	600		10.0	ug/L	500	61.0	108	75-125			
Cobalt	554		10.0	ug/L	500	45.8	102	75-125			
Copper	309		10.0	ug/L	250	34.3	110	75-125			
Lead	530		10.0	ug/L	500	4.60	105	75-125			
Nickel	553		10.0	ug/L	500	30.4	104	75-125			
Silver	264		10.0	ug/L	250	1.90 U	106	75-125			
Tin	521		10.0	ug/L	500	2.39	104	75-125			
Vanadium	305		10.0	ug/L	250	37.5	107	75-125			
Zinc	547		10.0	ug/L	500	23.2	105	75-125			

Matrix Spike Dup (1A24020-MSD1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:26

Source: C100056-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	589		10.0	ug/L	500	54.6	107	75-125	2	20	
Barium	595		10.0	ug/L	500	61.3	107	75-125	1	20	
Beryllium	271		1.00	ug/L	250	0.100 U	108	75-125	1	20	
Cadmium	266		1.00	ug/L	250	0.360 U	106	75-125	1	20	
Chromium	607		10.0	ug/L	500	61.0	109	75-125	1	20	
Cobalt	559		10.0	ug/L	500	45.8	103	75-125	1	20	
Copper	311		10.0	ug/L	250	34.3	111	75-125	0.7	20	
Lead	531		10.0	ug/L	500	4.60	105	75-125	0.2	20	
Nickel	560		10.0	ug/L	500	30.4	106	75-125	1	20	
Silver	268		10.0	ug/L	250	1.90 U	107	75-125	1	20	
Tin	526		10.0	ug/L	500	2.39	105	75-125	0.9	20	
Vanadium	310		10.0	ug/L	250	37.5	109	75-125	1	20	

QUALITY CONTROL

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

Batch 1A24020 - EPA 3005A

Matrix Spike Dup (1A24020-MSD1) Continued Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:26

Source: C100056-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Zinc	554		10.0	ug/L	500	23.2	106	75-125	1	20	

Post Spike (1A24020-PS1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:28

Source: C100056-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.13		0.0100	mg/L	1.00	0.0546	108	80-120			
Barium	1.11		0.0100	mg/L	1.00	0.0613	105	80-120			
Beryllium	0.541		0.00100	mg/L	0.500	-0.00165	108	80-120			
Cadmium	0.526		0.00100	mg/L	0.500	-0.000177	105	80-120			
Chromium	1.12		0.0100	mg/L	1.00	0.0610	106	80-120			
Cobalt	1.06		0.0100	mg/L	1.00	0.0458	102	80-120			
Copper	0.578		0.0100	mg/L	0.500	0.0343	109	80-120			
Lead	1.05		0.0100	mg/L	1.00	0.00460	105	80-120			
Nickel	1.07		0.0100	mg/L	1.00	0.0304	104	80-120			
Silver	0.514		0.0100	mg/L	0.500	0.000396	103	80-120			
Tin	1.07		0.0100	mg/L	1.00	0.00239	107	80-120			
Vanadium	0.558		0.0100	mg/L	0.500	0.0375	104	80-120			
Zinc	1.07		0.0100	mg/L	1.00	0.0232	105	80-120			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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4810 Executive Park Court, Suite 211
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102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

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Page 1 of 1

Client Name: Municipal Engineering Services (MU001)	Project Number: G10055.0
Address: P.O. Box 97	Project Name/Desc: Albemarle SWs Shared
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	Billing Contact: Accounts Payable
Sampler(s) Signature:	Site Location / Time Zone

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C100052

Requested Analyses / Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn	T.S.								Sample Comments
	SW-1	1/18/11	9:20	Grab	SW	4	X	X									
	SW-6	↓	10:00	↓	SW	4	X	X	X								
	SW-7	↓	9:40	↓	SW	4	X	X									

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
LB	1/6	/ MESCO	1120/11 11:00AM	[illegible]	1/20/11 11:00
Comments/Special Reporting Requirements: Jacobs Branch surface waters; Stretch Between Lined & unlined MSWLF's		Relinquished By: [illegible]	1/20/11 1500	Received By: Briana Gregory	1/20/11 15:00
		Relinquished By: / MESCO		Received By	

Cooler #'s & Temps on Receipt: C-1360 C-559 1.2°C

Condition Upon Receipt: X Acceptable ___ Unacceptable

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

Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

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

Thursday, February 3, 2011

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Laboratory Results for
Project Number: G10055.0, Project Name/Desc: Albemarle Leachate
ENCO Workorder: C100053

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, January 20, 2011.

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 19.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: LAGOON **Lab ID: C100053-01** **Sampled: 01/20/11 08:30** **Received: 01/20/11 15:00**

Parameter	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 300.0	02/17/11		01/21/11	11:05	1/22/2011 01:10
EPA 353.2	02/17/11		02/02/11	13:30	2/2/2011 16:06
EPA 365.4	02/17/11		01/31/11	11:39	2/2/2011 22:30
EPA 6010C	07/19/11		01/21/11	11:12	1/25/2011 14:43
EPA 6020A	07/19/11		01/24/11	10:14	1/25/2011 12:53
EPA 7470A	02/17/11		01/25/11	08:55	1/25/2011 15:19
EPA 8260B	02/03/11		01/27/11	11:04	1/27/2011 19:38
SM 5210B	01/22/11	08:30	01/21/11	18:19	1/21/2011 18:19
SM 5220D	02/17/11		01/25/11	13:36	1/25/2011 16:09
SM4500-H/B	01/20/11	08:44	01/21/11	14:23	1/24/2011 14:23

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: LAGOON **Lab ID:** C100053-01

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,4-Dichlorobenzene	4.6	JD	5	1.9	5.0	1	ug/L	EPA 8260B	
Arsenic - Total	60.4		1	2.80	10.0	10	ug/L	EPA 6010C	
Barium - Total	128		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	17	D	5	1.0	5.0	1	ug/L	EPA 8260B	
Biochemical Oxygen Demand	41000		1	2000	2000	NE	ug/L	SM 5210B	
Chemical Oxygen Demand	430000		1	2800	10000	NE	ug/L	SM 5220D	
Chlorobenzene	3.0	JD	5	1.4	5.0	3	ug/L	EPA 8260B	
Chromium - Total	13.3		1	1.00	10.0	10	ug/L	EPA 6010C	
Cobalt - Total	32.4		1	1.10	10.0	10	ug/L	EPA 6010C	
Ethylbenzene	18	D	5	1.0	5.0	1	ug/L	EPA 8260B	
Lead - Total	2.02	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Nickel - Total	72.6		1	1.80	10.0	50	ug/L	EPA 6010C	
Nitrate as N	660	J	1	25	100	10000	ug/L	EPA 353.2	
pH	6.7		1	1.0	1.0	NE	pH Units	SM4500-H/B	Q
Phosphorus	540		1	21	100	NE	ug/L	EPA 365.4	
Selenium - Total	17.7	D	10	8.30	10.0	10	ug/L	EPA 6020A	
Silver - Total	2.04	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Sulfate as SO4	5500	J	1	120	5000	250000	ug/L	EPA 300.0	
Tin - Total	11.0	J	1	2.10	10.0	100	ug/L	EPA 6010C	
Toluene	13	D	5	1.4	5.0	1	ug/L	EPA 8260B	
Vanadium - Total	8.63	J	1	1.40	10.0	25	ug/L	EPA 6010C	
Xylenes (Total)	52	D	5	2.0	5.0	5	ug/L	EPA 8260B	
Zinc - Total	7.26	J	1	3.80	10.0	10	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: LAGOON
Matrix: Waste Water
Project: Albemarle Leachate

Lab Sample ID: C100053-01
Sampled: 01/20/11 08:30
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100053

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] ^	2.0	UD	ug/L	5	2.0	5.0	5	EPA 8260B	01/27/11 19:38	JKG	
1,1,1-Trichloroethane [71-55-6] ^	1.4	UD	ug/L	5	1.4	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	1.6	UD	ug/L	5	1.6	5.0	3	EPA 8260B	01/27/11 19:38	JKG	
1,1,2-Trichloroethane [79-00-5] ^	1.8	UD	ug/L	5	1.8	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
1,1-Dichloroethane [75-34-3] ^	1.6	UD	ug/L	5	1.6	5.0	5	EPA 8260B	01/27/11 19:38	JKG	
1,1-Dichloroethene [75-35-4] ^	1.2	UD	ug/L	5	1.2	5.0	5	EPA 8260B	01/27/11 19:38	JKG	
1,2,3-Trichloropropane [96-18-4] ^	2.8	UD	ug/L	5	2.8	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	2.4	UD	ug/L	5	2.4	5.0	13	EPA 8260B	01/27/11 19:38	JKG	
1,2-Dibromoethane [106-93-4] ^	2.1	UD	ug/L	5	2.1	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
1,2-Dichlorobenzene [95-50-1] ^	1.4	UD	ug/L	5	1.4	5.0	5	EPA 8260B	01/27/11 19:38	JKG	
1,2-Dichloroethane [107-06-2] ^	3.2	UD	ug/L	5	3.2	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
1,2-Dichloropropane [78-87-5] ^	1.0	UD	ug/L	5	1.0	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
1,4-Dichlorobenzene [106-46-7] ^	**4.6**	JD	ug/L	5	1.9	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
2-Butanone [78-93-3] ^	5.0	UD	ug/L	5	5.0	25	100	EPA 8260B	01/27/11 19:38	JKG	
2-Hexanone [591-78-6] ^	3.4	UD	ug/L	5	3.4	25	50	EPA 8260B	01/27/11 19:38	JKG	
4-Methyl-2-pentanone [108-10-1] ^	5.5	UD	ug/L	5	5.5	25	100	EPA 8260B	01/27/11 19:38	JKG	
Acetone [67-64-1] ^	7.5	UD	ug/L	5	7.5	25	100	EPA 8260B	01/27/11 19:38	JKG	
Acrylonitrile [107-13-1] ^	10	UD	ug/L	5	10	50	200	EPA 8260B	01/27/11 19:38	JKG	
Benzene [71-43-2] ^	**17**	D	ug/L	5	1.0	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
Bromochloromethane [74-97-5] ^	2.1	UD	ug/L	5	2.1	5.0	3	EPA 8260B	01/27/11 19:38	JKG	
Bromodichloromethane [75-27-4] ^	1.8	UD	ug/L	5	1.8	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
Bromoform [75-25-2] ^	3.6	UD	ug/L	5	3.6	5.0	3	EPA 8260B	01/27/11 19:38	JKG	
Bromomethane [74-83-9] ^	2.4	UD	ug/L	5	2.4	5.0	10	EPA 8260B	01/27/11 19:38	JKG	
Carbon disulfide [75-15-0] ^	2.7	UD	ug/L	5	2.7	25	100	EPA 8260B	01/27/11 19:38	JKG	
Carbon tetrachloride [56-23-5] ^	1.9	UD	ug/L	5	1.9	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
Chlorobenzene [108-90-7] ^	**3.0**	JD	ug/L	5	1.4	5.0	3	EPA 8260B	01/27/11 19:38	JKG	
Chloroethane [75-00-3] ^	1.5	UD	ug/L	5	1.5	5.0	10	EPA 8260B	01/27/11 19:38	JKG	
Chloroform [67-66-3] ^	1.0	UD	ug/L	5	1.0	5.0	5	EPA 8260B	01/27/11 19:38	JKG	
Chloromethane [74-87-3] ^	1.7	UD	ug/L	5	1.7	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	1.8	UD	ug/L	5	1.8	5.0	5	EPA 8260B	01/27/11 19:38	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	1.4	UD	ug/L	5	1.4	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
Dibromochloromethane [124-48-1] ^	1.6	UD	ug/L	5	1.6	5.0	3	EPA 8260B	01/27/11 19:38	JKG	
Dibromomethane [74-95-3] ^	1.8	UD	ug/L	5	1.8	5.0	10	EPA 8260B	01/27/11 19:38	JKG	
Ethylbenzene [100-41-4] ^	**18**	D	ug/L	5	1.0	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
Iodomethane [74-88-4] ^	2.6	UD	ug/L	5	2.6	25	10	EPA 8260B	01/27/11 19:38	JKG	
Methylene chloride [75-09-2] ^	2.6	UD	ug/L	5	2.6	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
Styrene [100-42-5] ^	1.3	UD	ug/L	5	1.3	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
Tetrachloroethene [127-18-4] ^	1.8	UD	ug/L	5	1.8	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
Toluene [108-88-3] ^	**13**	D	ug/L	5	1.4	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	1.7	UD	ug/L	5	1.7	5.0	5	EPA 8260B	01/27/11 19:38	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	1.9	UD	ug/L	5	1.9	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	2.7	UD	ug/L	5	2.7	5.0	100	EPA 8260B	01/27/11 19:38	JKG	
Trichloroethene [79-01-6] ^	1.9	UD	ug/L	5	1.9	5.0	1	EPA 8260B	01/27/11 19:38	JKG	

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Description: LAGOON
Matrix: Waste Water
Project: Albemarle Leachate

Lab Sample ID: C100053-01
Sampled: 01/20/11 08:30
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100053

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] ^	1.4	UD	ug/L	5	1.4	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
Vinyl acetate [108-05-4] ^	4.9	UD	ug/L	5	4.9	25	50	EPA 8260B	01/27/11 19:38	JKG	
Vinyl chloride [75-01-4] ^	1.5	UD	ug/L	5	1.5	5.0	1	EPA 8260B	01/27/11 19:38	JKG	
Xylenes (Total) [1330-20-7] ^	**52**	D	ug/L	5	2.0	5.0	5	EPA 8260B	01/27/11 19:38	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*48*	*1*	*50.0*	*96 %*	*51-122*	*1A27024*	*EPA 8260B*	*01/27/11 19:38*	*JKG*	
Dibromofluoromethane	*52*	*1*	*50.0*	*104 %*	*68-117*	*1A27024*	*EPA 8260B*	*01/27/11 19:38*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*99 %*	*69-110*	*1A27024*	*EPA 8260B*	*01/27/11 19:38*	*JKG*	

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Description: LAGOON
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Lab Sample ID: C100053-01
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Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	01/25/11 15:19	NLH	

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Description: LAGOON
Matrix: Waste Water
Project: Albemarle Leachate

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Sampled: 01/20/11 08:30
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100053

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	2.20	UD	ug/L	10	2.20	20.0	6	EPA 6020A	01/25/11 12:53	VLO	
Arsenic [7440-38-2] ^	**60.4**		ug/L	1	2.80	10.0	10	EPA 6010C	01/25/11 14:43	JDH	
Barium [7440-39-3] ^	**128**		ug/L	1	1.00	10.0	100	EPA 6010C	01/25/11 14:43	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/25/11 14:43	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	01/25/11 14:43	JDH	
Chromium [7440-47-3] ^	**13.3**		ug/L	1	1.00	10.0	10	EPA 6010C	01/25/11 14:43	JDH	
Cobalt [7440-48-4] ^	**32.4**		ug/L	1	1.10	10.0	10	EPA 6010C	01/25/11 14:43	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	01/25/11 14:43	JDH	
Lead [7439-92-1] ^	**2.02**	J	ug/L	1	1.90	10.0	10	EPA 6010C	01/25/11 14:43	JDH	
Nickel [7440-02-0] ^	**72.6**		ug/L	1	1.80	10.0	50	EPA 6010C	01/25/11 14:43	JDH	
Selenium [7782-49-2] ^	**17.7**	D	ug/L	10	8.30	10.0	10	EPA 6020A	01/25/11 12:53	VLO	
Silver [7440-22-4] ^	**2.04**	J	ug/L	1	1.90	10.0	10	EPA 6010C	01/25/11 14:43	JDH	
Thallium [7440-28-0] ^	1.10	UD	ug/L	10	1.10	10.0	5.5	EPA 6020A	01/25/11 12:53	VLO	
Tin [7440-31-5] ^	**11.0**	J	ug/L	1	2.10	10.0	100	EPA 6010C	01/25/11 14:43	JDH	
Vanadium [7440-62-2] ^	**8.63**	J	ug/L	1	1.40	10.0	25	EPA 6010C	01/25/11 14:43	JDH	
Zinc [7440-66-6] ^	**7.26**	J	ug/L	1	3.80	10.0	10	EPA 6010C	01/25/11 14:43	JDH	

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Matrix: Waste Water
Project: Albemarle Leachate

Lab Sample ID: C100053-01
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Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Biochemical Oxygen Demand [ECL-0017] ^	**41000**		ug/L	1	2000	2000	NE	SM 5210B	01/21/11 18:19	JOC	
Chemical Oxygen Demand [ECL-0035] ^	**430000**		ug/L	1	2800	10000	NE	SM 5220D	01/25/11 16:09	JOC	
Nitrate as N [14797-55-8] ^	**660**	J	ug/L	1	25	100	10000	EPA 353.2	02/02/11 16:06	AJB	
pH [ECL-0062] ^	**6.7**		pH Units	1	1.0	1.0	NE	SM4500-H/B	01/24/11 14:23	KLJ	Q
Phosphorus [7723-14-0] ^	**540**		ug/L	1	21	100	NE	EPA 365.4	02/02/11 22:30	CCB	
Sulfate as SO4 [14808-79-8] ^	**5500**	J	ug/L	1	120	5000	250000	EPA 300.0	01/22/11 01:10	AJB	

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 1A27024 - EPA 5030B_MS

Blank (1A27024-BLK1) Prepared: 01/27/2011 11:04 Analyzed: 01/27/2011 13:11

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	10	ug/L							
Benzene	0.20	U	1.0	ug/L							
Bromochloromethane	0.42	U	1.0	ug/L							
Bromodichloromethane	0.37	U	1.0	ug/L							
Bromoform	0.71	U	1.0	ug/L							
Bromomethane	0.49	U	1.0	ug/L							
Carbon disulfide	0.54	U	5.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
Chlorobenzene	0.27	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
Chloroform	0.20	U	1.0	ug/L							
Chloromethane	0.34	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L							
Dibromochloromethane	0.32	U	1.0	ug/L							
Dibromomethane	0.37	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
Iodomethane	0.52	U	5.0	ug/L							
Methylene chloride	0.53	U	1.0	ug/L							
Styrene	0.26	U	1.0	ug/L							
Tetrachloroethene	0.36	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Trichlorofluoromethane	0.28	U	1.0	ug/L							
Vinyl acetate	0.98	U	5.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*47*			*ug/L*	*50.0*		*94*	*51-122*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1A27024 - EPA 5030B_MS

Blank (1A27024-BLK1) Continued Prepared: 01/27/2011 11:04 Analyzed: 01/27/2011 13:11

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*49*			*ug/L*	*50.0*		*97*	*68-117*			
Surrogate: Toluene-d8	*48*			*ug/L*	*50.0*		*95*	*69-110*			

LCS (1A27024-BS1) Prepared: 01/27/2011 11:04 Analyzed: 01/27/2011 13:40

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		110	75-133			
Benzene	21		1.0	ug/L	20.0		105	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		102	83-117			
Toluene	20		1.0	ug/L	20.0		99	71-118			
Trichloroethene	20		1.0	ug/L	20.0		100	75-115			
Surrogate: 4-Bromofluorobenzene	*49*			*ug/L*	*50.0*		*98*	*51-122*			
Surrogate: Dibromofluoromethane	*49*			*ug/L*	*50.0*		*99*	*68-117*			
Surrogate: Toluene-d8	*48*			*ug/L*	*50.0*		*97*	*69-110*			

Matrix Spike (1A27024-MS1) Prepared: 01/27/2011 11:04 Analyzed: 01/27/2011 14:09

Source: C100961-08

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	112	75-133			
Benzene	21		1.0	ug/L	20.0	0.20 U	105	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	100	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	99	75-115			
Surrogate: 4-Bromofluorobenzene	*49*			*ug/L*	*50.0*		*98*	*51-122*			
Surrogate: Dibromofluoromethane	*50*			*ug/L*	*50.0*		*101*	*68-117*			
Surrogate: Toluene-d8	*50*			*ug/L*	*50.0*		*99*	*69-110*			

Matrix Spike Dup (1A27024-MSD1) Prepared: 01/27/2011 11:04 Analyzed: 01/27/2011 14:39

Source: C100961-08

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	2	20	
Benzene	20		1.0	ug/L	20.0	0.20 U	100	81-134	5	17	
Chlorobenzene	19		1.0	ug/L	20.0	0.27 U	96	83-117	4	16	
Toluene	20		1.0	ug/L	20.0	0.27 U	99	71-118	1	17	
Trichloroethene	19		1.0	ug/L	20.0	0.38 U	95	75-115	5	18	
Surrogate: 4-Bromofluorobenzene	*50*			*ug/L*	*50.0*		*101*	*51-122*			
Surrogate: Dibromofluoromethane	*51*			*ug/L*	*50.0*		*102*	*68-117*			
Surrogate: Toluene-d8	*49*			*ug/L*	*50.0*		*99*	*69-110*			

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 1A25006 - EPA 245.1

Blank (1A25006-BLK1) Prepared: 01/25/2011 08:55 Analyzed: 01/25/2011 14:32

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 1A25006 - EPA 245.1

Blank (1A25006-BLK1) Continued Prepared: 01/25/2011 08:55 Analyzed: 01/25/2011 14:32

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

LCS (1A25006-BS1) Prepared: 01/25/2011 08:55 Analyzed: 01/25/2011 14:35

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.89		0.200	ug/L	5.00		98	85-115			

Matrix Spike (1A25006-MS1) Prepared: 01/25/2011 08:55 Analyzed: 01/25/2011 14:41

Source: C015864-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.96		0.200	ug/L	5.00	0.170 U	99	85-115			

Matrix Spike Dup (1A25006-MSD1) Prepared: 01/25/2011 08:55 Analyzed: 01/25/2011 14:44

Source: C015864-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.02		0.200	ug/L	5.00	0.170 U	100	85-115	1	15	

Post Spike (1A25006-PS1) Prepared: 01/25/2011 08:55 Analyzed: 01/25/2011 14:47

Source: C015864-07

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.15		0.200	ug/L	5.00	-0.0133	83	75-125			

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

Batch 1A21032 - EPA 3005A

Blank (1A21032-BLK1) Prepared: 01/21/2011 11:12 Analyzed: 01/25/2011 13:33

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

LCS (1A21032-BS1) Prepared: 01/21/2011 11:12 Analyzed: 01/25/2011 13:35

QUALITY CONTROL

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

Batch 1A21032 - EPA 3005A

LCS (1A21032-BS1) Continued Prepared: 01/21/2011 11:12 Analyzed: 01/25/2011 13:35

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	520		10.0	ug/L	500		104	80-120			
Barium	523		10.0	ug/L	500		105	80-120			
Beryllium	266		1.00	ug/L	250		107	80-120			
Cadmium	258		1.00	ug/L	250		103	80-120			
Chromium	529		10.0	ug/L	500		106	80-120			
Cobalt	505		10.0	ug/L	500		101	80-120			
Copper	265		10.0	ug/L	250		106	80-120			
Lead	522		10.0	ug/L	500		104	80-120			
Nickel	524		10.0	ug/L	500		105	80-120			
Silver	261		10.0	ug/L	250		105	80-120			
Tin	512		10.0	ug/L	500		102	80-120			
Vanadium	257		10.0	ug/L	250		103	80-120			
Zinc	517		10.0	ug/L	500		103	80-120			

Matrix Spike (1A21032-MS1) Prepared: 01/21/2011 11:12 Analyzed: 01/25/2011 13:51

Source: C015019-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	537		10.0	ug/L	500	9.57	106	75-125			
Barium	1280		10.0	ug/L	500	728	110	75-125			
Beryllium	264		1.00	ug/L	250	0.178	105	75-125			
Cadmium	260		1.00	ug/L	250	0.360 U	104	75-125			
Chromium	521		10.0	ug/L	500	1.00 U	104	75-125			
Cobalt	551		10.0	ug/L	500	43.2	102	75-125			
Copper	269		10.0	ug/L	250	3.27	106	75-125			
Lead	524		10.0	ug/L	500	2.05	104	75-125			
Nickel	525		10.0	ug/L	500	6.10	104	75-125			
Silver	265		10.0	ug/L	250	2.85	105	75-125			
Tin	523		10.0	ug/L	500	3.46	104	75-125			
Vanadium	255		10.0	ug/L	250	1.40 U	102	75-125			
Zinc	544		10.0	ug/L	500	20.0	105	75-125			

Matrix Spike Dup (1A21032-MSD1) Prepared: 01/21/2011 11:12 Analyzed: 01/25/2011 13:54

Source: C015019-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	522		10.0	ug/L	500	9.57	102	75-125	3	20	
Barium	1270		10.0	ug/L	500	728	109	75-125	0.3	20	
Beryllium	262		1.00	ug/L	250	0.178	105	75-125	0.7	20	
Cadmium	257		1.00	ug/L	250	0.360 U	103	75-125	1	20	
Chromium	516		10.0	ug/L	500	1.00 U	103	75-125	1	20	
Cobalt	546		10.0	ug/L	500	43.2	100	75-125	1	20	
Copper	266		10.0	ug/L	250	3.27	105	75-125	0.9	20	
Lead	517		10.0	ug/L	500	2.05	103	75-125	1	20	
Nickel	521		10.0	ug/L	500	6.10	103	75-125	0.6	20	
Silver	262		10.0	ug/L	250	2.85	104	75-125	1	20	
Tin	514		10.0	ug/L	500	3.46	102	75-125	2	20	
Vanadium	254		10.0	ug/L	250	1.40 U	101	75-125	0.5	20	

QUALITY CONTROL

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

Batch 1A21032 - EPA 3005A

Matrix Spike Dup (1A21032-MSD1) Continued Prepared: 01/21/2011 11:12 Analyzed: 01/25/2011 13:54

Source: C015019-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Zinc	538		10.0	ug/L	500	20.0	104	75-125	1	20	

Post Spike (1A21032-PS1) Prepared: 01/21/2011 11:12 Analyzed: 01/25/2011 13:56

Source: C015019-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.05		0.0100	mg/L	1.00	0.00957	104	80-120			
Barium	1.77		0.0100	mg/L	1.00	0.728	104	80-120			
Beryllium	0.530		0.00100	mg/L	0.500	0.000178	106	80-120			
Cadmium	0.516		0.00100	mg/L	0.500	0.000324	103	80-120			
Chromium	1.04		0.0100	mg/L	1.00	-0.00590	105	80-120			
Cobalt	1.07		0.0100	mg/L	1.00	0.0432	103	80-120			
Copper	0.533		0.0100	mg/L	0.500	0.00327	106	80-120			
Lead	1.02		0.0100	mg/L	1.00	0.00205	102	80-120			
Nickel	1.04		0.0100	mg/L	1.00	0.00610	103	80-120			
Silver	0.511		0.0100	mg/L	0.500	0.00285	102	80-120			
Tin	1.06		0.0100	mg/L	1.00	0.00346	105	80-120			
Vanadium	0.510		0.0100	mg/L	0.500	-0.00144	102	80-120			
Zinc	1.06		0.0100	mg/L	1.00	0.0200	104	80-120			

Batch 1A24007 - EPA 3005A

Blank (1A24007-BLK1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:30

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

LCS (1A24007-BS1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:33

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.3		2.00	ug/L	25.0		101	80-120			
Selenium	24.6		1.00	ug/L	25.0		98	80-120			
Thallium	26.4		1.00	ug/L	25.0		106	80-120			

Matrix Spike (1A24007-MS1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:41

Source: C015019-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.7		2.00	ug/L	25.0	0.220 U	103	75-125			
Selenium	25.5		1.00	ug/L	25.0	0.830 U	102	75-125			
Thallium	25.7		1.00	ug/L	25.0	0.381	101	75-125			

Matrix Spike Dup (1A24007-MSD1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:52

Source: C015019-04

QUALITY CONTROL

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

Batch 1A24007 - EPA 3005A

Matrix Spike Dup (1A24007-MSD1) Continued Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:52

Source: C015019-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	26.3		2.00	ug/L	25.0	0.220 U	105	75-125	2	20	
Selenium	25.5		1.00	ug/L	25.0	0.830 U	102	75-125	0.08	20	
Thallium	26.3		1.00	ug/L	25.0	0.381	104	75-125	2	20	

Post Spike (1A24007-PS1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:55

Source: C015019-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.0		2.00	ug/L	25.0	0.179	99	80-120			
Selenium	25.1		1.00	ug/L	25.0	0.377	99	80-120			
Thallium	25.6		1.00	ug/L	25.0	0.381	101	80-120			

Classical Chemistry Parameters - Quality Control

Batch 1A20027 - NO PREP

LCS (1A20027-BS1) Prepared: 01/20/2011 16:18 Analyzed: 01/20/2011 20:45

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrite as N	1.0		0.10	mg/L	1.00		100	90-110			

Matrix Spike (1A20027-MS1) Prepared: 01/20/2011 16:18 Analyzed: 01/20/2011 21:44

Source: C100745-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrite as N	0.96		0.10	mg/L	1.00	0.0065	95	90-110			

Matrix Spike Dup (1A20027-MSD1) Prepared: 01/20/2011 16:18 Analyzed: 01/20/2011 21:45

Source: C100745-05

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrite as N	0.96		0.10	mg/L	1.00	0.0065	95	90-110	0.05	10	

Batch 1A21024 - NO PREP

Blank (1A21024-BLK1) Prepared & Analyzed: 01/21/2011 18:19

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	2000	U	2000	ug/L							

LCS (1A21024-BS1) Prepared & Analyzed: 01/21/2011 18:19

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	200		2.0	mg/L	198		103	85-115			

Duplicate (1A21024-DUP1) Prepared & Analyzed: 01/21/2011 18:19

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 1A21024 - NO PREP

Duplicate (1A21024-DUP1) Continued Prepared & Analyzed: 01/21/2011 18:19

Source: C009321-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	17000		2000	ug/L		17000			4	25	

Batch 1A21025 - NO PREP

LCS (1A21025-BS1) Prepared: 01/21/2011 14:23 Analyzed: 01/24/2011 14:23

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		100	99-101			

Duplicate (1A21025-DUP1) Prepared: 01/21/2011 14:23 Analyzed: 01/24/2011 14:23

Source: C100053-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
pH	6.6		1.0	pH Units		6.7			0.3	25	

Batch 1A21029 - NO PREP

Blank (1A21029-BLK1) Prepared: 01/21/2011 11:05 Analyzed: 01/21/2011 13:23

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	120	U	5000	ug/L							

LCS (1A21029-BS1) Prepared: 01/21/2011 11:05 Analyzed: 01/21/2011 14:23

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	49		5.0	mg/L	50.0		97	90-110			

Matrix Spike (1A21029-MS1) Prepared: 01/21/2011 11:05 Analyzed: 01/21/2011 14:42

Source: C015021-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	29		5.0	mg/L	20.0	11	91	90-110			

Matrix Spike (1A21029-MS2) Prepared: 01/21/2011 11:05 Analyzed: 01/21/2011 17:19

Source: C015021-01RE2

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	21		5.0	mg/L	20.0	2.0	97	90-110			

Matrix Spike Dup (1A21029-MSD1) Prepared: 01/21/2011 11:05 Analyzed: 01/21/2011 15:02

Source: C015021-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	28		5.0	mg/L	20.0	11	88	90-110	2	10	QM-05

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 1A21029 - NO PREP

Matrix Spike Dup (1A21029-MSD2) Prepared: 01/21/2011 11:05 Analyzed: 01/21/2011 17:39

Source: C015021-01RE2

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	19		5.0	mg/L	20.0	2.0	85	90-110	12	10	

Batch 1A25014 - Same

Blank (1A25014-BLK1) Prepared: 01/25/2011 13:36 Analyzed: 01/25/2011 16:09

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	2800	U	10000	ug/L							

LCS (1A25014-BS1) Prepared: 01/25/2011 13:36 Analyzed: 01/25/2011 16:09

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	460		10	mg/L	500		91	90-110			

Matrix Spike (1A25014-MS1) Prepared: 01/25/2011 13:36 Analyzed: 01/25/2011 16:09

Source: C015021-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	920		10	mg/L	500	420	100	90-110			

Matrix Spike Dup (1A25014-MSD1) Prepared: 01/25/2011 13:36 Analyzed: 01/25/2011 16:09

Source: C015021-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	920		10	mg/L	500	420	100	90-110	0.2	10	

Batch 1A28024 - Same

Blank (1A28024-BLK1) Prepared: 01/31/2011 11:39 Analyzed: 02/02/2011 15:53

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	21	U	100	ug/L							

LCS (1A28024-BS1) Prepared: 01/31/2011 11:39 Analyzed: 02/02/2011 15:55

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	1.4		0.10	mg/L	1.60		90	80-120			

Matrix Spike (1A28024-MS1) Prepared: 01/31/2011 11:39 Analyzed: 02/02/2011 18:24

Source: C009321-01RE1

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	7.0	D	0.10	mg/L	0.640	6.2	126	80-120			QM-05

Matrix Spike Dup (1A28024-MSD1) Prepared: 01/31/2011 11:39 Analyzed: 02/02/2011 18:25

QUALITY CONTROL

Classical Chemistry Parameters - Quality Control

Batch 1A28024 - Same

Matrix Spike Dup (1A28024-MSD1) Continued Prepared: 01/31/2011 11:39 Analyzed: 02/02/2011 18:25

Source: C009321-01RE1

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	6.8	D	0.10	mg/L	0.640	6.2	86	80-120	4	25	

Batch 1A29011 - NO PREP

LCS (1A29011-BS1) Prepared: 01/29/2011 23:02 Analyzed: 01/30/2011 01:35

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	1.2		0.10	mg/L	1.25		93	90-110			

Matrix Spike (1A29011-MS1) Prepared: 01/29/2011 23:02 Analyzed: 01/30/2011 13:17

Source: C015021-01RE1

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	0.048		0.10	mg/L	0.513	0.040	2	90-110			QM-05

Matrix Spike Dup (1A29011-MSD1) Prepared: 01/29/2011 23:02 Analyzed: 01/30/2011 13:18

Source: C015021-01RE1

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	0.046		0.10	mg/L	0.513	0.040	1	90-110	3	10	QM-05

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.
Q	Analysis performed outside of method - specified holding time.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

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

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Page 1 of 1

Client Name: Municipal Engineering Services (MU001)	Project Number: G10055.0
Address: P.O. Box 97	Project Name/Desc: Albemarle Leachate
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	Billing Contact: Accounts Payable
Sampler(s) Signature: [signature]	Site Location / Time Zone

Requested Analyses

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn	BOD SM5210B	COD SM5220D	Hg	Nitrate Calc 353.2	Nitrite as N 353.2,pH SM4500-H B	NOX 353.2,P	Sulfate 300		Sample Comments
	~~Lagoon~~ LA-60N	1/20/10	8:30AM	Grab	WW	7	X	X	X	X	X	X	X	X	X		
	All Tanks																

<-- Total # of Containers

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

___ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C100053

Sample Kit Prepared By: [signature]	Date/Time: 1/6	Relinquished By: [signature] / MESCO 1/20/11	Date/Time: ~~1:00~~ 11:00AM	Received By: James Hayes	Date/Time: 1/20/11 11:00
Comments/Special Reporting Requirements		Relinquished By: James Hayes	Date/Time: 1/20/11 1500	Received By: Briana Gregory	Date/Time: 1/20/11 15:00
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #s & Temps on Receipt: E-11 1.4°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments) Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

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

Monday, January 31, 2011

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Laboratory Results for
Project Number: G10008.0 (Blanks), Project Name/Desc: Albemarle Blanks
ENCO Workorder: C100057

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, January 20, 2011.

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 18.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: EB	Lab ID: C100057-01	Sampled: 01/20/11 00:00	Received: 01/20/11 15:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/19/11	01/24/11 13:12	1/26/2011 14:18
EPA 6020A	07/19/11	01/24/11 10:14	1/25/2011 12:57
EPA 8260B	02/03/11	01/27/11 11:04	1/27/2011 16:42

Client ID: FB	Lab ID: C100057-02	Sampled: 01/20/11 00:00	Received: 01/20/11 15:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010C	07/19/11	01/24/11 13:12	1/26/2011 14:21
EPA 6020A	07/19/11	01/24/11 10:14	1/25/2011 13:00
EPA 8260B	02/03/11	01/27/11 11:04	1/27/2011 16:11

Client ID: TB	Lab ID: C100057-03	Sampled: 01/20/11 00:00	Received: 01/20/11 15:00

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	02/03/11	01/27/11 11:04	1/27/2011 15:40

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: EB **Lab ID: C100057-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Carbon disulfide	0.57	J	1	0.54	5.0	100	ug/L	EPA 8260B	

Client ID: FB **Lab ID: C100057-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
Arsenic - Total	3.51	J	1	2.80	10.0	10	ug/L	EPA 6010C	
Copper - Total	2.87	J	1	1.60	10.0	10	ug/L	EPA 6010C	

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ANALYTICAL RESULTS

Description: EB
Matrix: Water
Project: Albemarle Blanks

Lab Sample ID: C100057-01
Sampled: 01/20/11 00:00
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100057

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	01/27/11 16:42	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/27/11 16:42	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/27/11 16:42	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/27/11 16:42	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/27/11 16:42	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/27/11 16:42	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/27/11 16:42	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/27/11 16:42	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/27/11 16:42	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/27/11 16:42	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/27/11 16:42	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/27/11 16:42	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/27/11 16:42	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/27/11 16:42	JKG	
Carbon disulfide [75-15-0] ^	**0.57**	J	ug/L	1	0.54	5.0	100	EPA 8260B	01/27/11 16:42	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/27/11 16:42	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/27/11 16:42	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/27/11 16:42	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/27/11 16:42	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/27/11 16:42	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/27/11 16:42	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/27/11 16:42	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/27/11 16:42	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/27/11 16:42	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 16:42	JKG	

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Description: EB
Matrix: Water
Project: Albemarle Blanks

Lab Sample ID: C100057-01
Sampled: 01/20/11 00:00
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100057

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	01/27/11 16:42	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/27/11 16:42	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/27/11 16:42	JKG	
Xylenes (Total) [1330-20-7] ^	0.40	U	ug/L	1	0.40	1.0	5	EPA 8260B	01/27/11 16:42	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*47*	*1*	*50.0*	*94 %*	*51-122*	*1A27024*	*EPA 8260B*	*01/27/11 16:42*	*JKG*	
Dibromofluoromethane	*51*	*1*	*50.0*	*101 %*	*68-117*	*1A27024*	*EPA 8260B*	*01/27/11 16:42*	*JKG*	
Toluene-d8	*52*	*1*	*50.0*	*104 %*	*69-110*	*1A27024*	*EPA 8260B*	*01/27/11 16:42*	*JKG*	

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Description: EB
Matrix: Water
Project: Albemarle Blanks

Lab Sample ID: C100057-01
Sampled: 01/20/11 00:00
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100057

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/25/11 12:57	VLO	
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 14:18	JDH	
Barium [7440-39-3] ^	1.00	U	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 14:18	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 14:18	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 14:18	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 14:18	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 14:18	JDH	
Copper [7440-50-8] ^	1.60	U	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 14:18	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:18	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 14:18	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	01/25/11 12:57	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:18	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/25/11 12:57	VLO	
Tin [7440-31-5] ^	2.10	U	ug/L	1	2.10	10.0	100	EPA 6010C	01/26/11 14:18	JDH	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 14:18	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 14:18	JDH	

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

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Description: FB
Matrix: Water
Project: Albemarle Blanks

Lab Sample ID: C100057-02
Sampled: 01/20/11 00:00
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100057

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	01/27/11 16:11	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/27/11 16:11	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/27/11 16:11	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/27/11 16:11	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/27/11 16:11	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/27/11 16:11	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/27/11 16:11	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/27/11 16:11	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/27/11 16:11	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/27/11 16:11	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/27/11 16:11	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/27/11 16:11	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/27/11 16:11	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/27/11 16:11	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/27/11 16:11	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/27/11 16:11	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/27/11 16:11	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/27/11 16:11	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/27/11 16:11	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/27/11 16:11	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/27/11 16:11	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/27/11 16:11	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/27/11 16:11	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/27/11 16:11	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/27/11 16:11	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/27/11 16:11	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/27/11 16:11	JKG	

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Description: FB
Matrix: Water
Project: Albemarle Blanks

Lab Sample ID: C100057-02
Sampled: 01/20/11 00:00
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100057

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	01/27/11 16:11	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*46*	*1*	*50.0*	*91 %*	*51-122*	*1A27024*	*EPA 8260B*	*01/27/11 16:11*	*JKG*	
Dibromofluoromethane	*49*	*1*	*50.0*	*98 %*	*68-117*	*1A27024*	*EPA 8260B*	*01/27/11 16:11*	*JKG*	
Toluene-d8	*48*	*1*	*50.0*	*96 %*	*69-110*	*1A27024*	*EPA 8260B*	*01/27/11 16:11*	*JKG*	

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Description: FB
Matrix: Water
Project: Albemarle Blanks

Lab Sample ID: C100057-02
Sampled: 01/20/11 00:00
Sampled By: Jonathan Pfohl

Received: 01/20/11 15:00
Work Order: C100057

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Antimony [7440-36-0] ^	0.220	U	ug/L	1	0.220	2.00	6	EPA 6020A	01/25/11 13:00	VLO	
Arsenic [7440-38-2] ^	**3.51**	J	ug/L	1	2.80	10.0	10	EPA 6010C	01/26/11 14:21	JDH	
Barium [7440-39-3] ^	1.00	U	ug/L	1	1.00	10.0	100	EPA 6010C	01/26/11 14:21	JDH	
Beryllium [7440-41-7] ^	0.100	U	ug/L	1	0.100	1.00	1	EPA 6010C	01/26/11 14:21	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	01/26/11 14:21	JDH	
Chromium [7440-47-3] ^	1.00	U	ug/L	1	1.00	10.0	10	EPA 6010C	01/26/11 14:21	JDH	
Cobalt [7440-48-4] ^	1.10	U	ug/L	1	1.10	10.0	10	EPA 6010C	01/26/11 14:21	JDH	
Copper [7440-50-8] ^	**2.87**	J	ug/L	1	1.60	10.0	10	EPA 6010C	01/26/11 14:21	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:21	JDH	
Nickel [7440-02-0] ^	1.80	U	ug/L	1	1.80	10.0	50	EPA 6010C	01/26/11 14:21	JDH	
Selenium [7782-49-2] ^	0.830	U	ug/L	1	0.830	1.00	10	EPA 6020A	01/25/11 13:00	VLO	
Silver [7440-22-4] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	01/26/11 14:21	JDH	
Thallium [7440-28-0] ^	0.110	U	ug/L	1	0.110	1.00	5.5	EPA 6020A	01/25/11 13:00	VLO	
Vanadium [7440-62-2] ^	1.40	U	ug/L	1	1.40	10.0	25	EPA 6010C	01/26/11 14:21	JDH	
Zinc [7440-66-6] ^	3.80	U	ug/L	1	3.80	10.0	10	EPA 6010C	01/26/11 14:21	JDH	

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

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Description: TB
Matrix: Water
Project: Albemarle Blanks

Lab Sample ID: C100057-03
Sampled: 01/20/11 00:00
Sampled By: ENCO

Received: 01/20/11 15:00
Work Order: C100057

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	01/27/11 15:40	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.33	U	ug/L	1	0.33	1.0	3	EPA 8260B	01/27/11 15:40	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
1,1-Dichloroethane [75-34-3] ^	0.33	U	ug/L	1	0.33	1.0	5	EPA 8260B	01/27/11 15:40	JKG	
1,1-Dichloroethene [75-35-4] ^	0.24	U	ug/L	1	0.24	1.0	5	EPA 8260B	01/27/11 15:40	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.55	U	ug/L	1	0.55	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	01/27/11 15:40	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.27	U	ug/L	1	0.27	1.0	5	EPA 8260B	01/27/11 15:40	JKG	
1,2-Dichloroethane [107-06-2] ^	0.65	U	ug/L	1	0.65	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
1,2-Dichloropropane [78-87-5] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
1,4-Dichlorobenzene [106-46-7] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	01/27/11 15:40	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	01/27/11 15:40	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	01/27/11 15:40	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	01/27/11 15:40	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	01/27/11 15:40	JKG	
Benzene [71-43-2] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
Bromochloromethane [74-97-5] ^	0.42	U	ug/L	1	0.42	1.0	3	EPA 8260B	01/27/11 15:40	JKG	
Bromodichloromethane [75-27-4] ^	0.37	U	ug/L	1	0.37	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
Bromoform [75-25-2] ^	0.71	U	ug/L	1	0.71	1.0	3	EPA 8260B	01/27/11 15:40	JKG	
Bromomethane [74-83-9] ^	0.49	U	ug/L	1	0.49	1.0	10	EPA 8260B	01/27/11 15:40	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	01/27/11 15:40	JKG	
Carbon tetrachloride [56-23-5] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
Chlorobenzene [108-90-7] ^	0.27	U	ug/L	1	0.27	1.0	3	EPA 8260B	01/27/11 15:40	JKG	
Chloroethane [75-00-3] ^	0.30	U	ug/L	1	0.30	1.0	10	EPA 8260B	01/27/11 15:40	JKG	
Chloroform [67-66-3] ^	0.20	U	ug/L	1	0.20	1.0	5	EPA 8260B	01/27/11 15:40	JKG	
Chloromethane [74-87-3] ^	0.34	U	ug/L	1	0.34	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	0.36	U	ug/L	1	0.36	1.0	5	EPA 8260B	01/27/11 15:40	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
Dibromochloromethane [124-48-1] ^	0.32	U	ug/L	1	0.32	1.0	3	EPA 8260B	01/27/11 15:40	JKG	
Dibromomethane [74-95-3] ^	0.37	U	ug/L	1	0.37	1.0	10	EPA 8260B	01/27/11 15:40	JKG	
Ethylbenzene [100-41-4] ^	0.20	U	ug/L	1	0.20	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	01/27/11 15:40	JKG	
Methylene chloride [75-09-2] ^	0.53	U	ug/L	1	0.53	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
Styrene [100-42-5] ^	0.26	U	ug/L	1	0.26	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
Tetrachloroethene [127-18-4] ^	0.36	U	ug/L	1	0.36	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
Toluene [108-88-3] ^	0.27	U	ug/L	1	0.27	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.34	U	ug/L	1	0.34	1.0	5	EPA 8260B	01/27/11 15:40	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	01/27/11 15:40	JKG	
Trichloroethene [79-01-6] ^	0.38	U	ug/L	1	0.38	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
Trichlorofluoromethane [75-69-4] ^	0.28	U	ug/L	1	0.28	1.0	1	EPA 8260B	01/27/11 15:40	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	01/27/11 15:40	JKG	
Vinyl chloride [75-01-4] ^	0.30	U	ug/L	1	0.30	1.0	1	EPA 8260B	01/27/11 15:40	JKG	

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Description: TB
Matrix: Water
Project: Albemarle Blanks

Lab Sample ID: C100057-03
Sampled: 01/20/11 00:00
Sampled By: ENCO

Received: 01/20/11 15:00
Work Order: C100057

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	01/27/11 15:40	JKG	

Surrogates	*Results*	*DF*	*Spike Lvl*	*% Rec*	*% Rec Limits*	*Batch*	*Method*	*Analyzed*	*By*	Notes
4-Bromofluorobenzene	*49*	*1*	*50.0*	*98 %*	*51-122*	*1A27024*	*EPA 8260B*	*01/27/11 15:40*	*JKG*	
Dibromofluoromethane	*50*	*1*	*50.0*	*100 %*	*68-117*	*1A27024*	*EPA 8260B*	*01/27/11 15:40*	*JKG*	
Toluene-d8	*50*	*1*	*50.0*	*100 %*	*69-110*	*1A27024*	*EPA 8260B*	*01/27/11 15:40*	*JKG*	

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

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1A27024 - EPA 5030B_MS

Blank (1A27024-BLK1) Prepared: 01/27/2011 11:04 Analyzed: 01/27/2011 13:11

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	10	ug/L							
Benzene	0.20	U	1.0	ug/L							
Bromochloromethane	0.42	U	1.0	ug/L							
Bromodichloromethane	0.37	U	1.0	ug/L							
Bromoform	0.71	U	1.0	ug/L							
Bromomethane	0.49	U	1.0	ug/L							
Carbon disulfide	0.54	U	5.0	ug/L							
Carbon tetrachloride	0.38	U	1.0	ug/L							
Chlorobenzene	0.27	U	1.0	ug/L							
Chloroethane	0.30	U	1.0	ug/L							
Chloroform	0.20	U	1.0	ug/L							
Chloromethane	0.34	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.36	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.28	U	1.0	ug/L							
Dibromochloromethane	0.32	U	1.0	ug/L							
Dibromomethane	0.37	U	1.0	ug/L							
Ethylbenzene	0.20	U	1.0	ug/L							
Iodomethane	0.52	U	5.0	ug/L							
Methylene chloride	0.53	U	1.0	ug/L							
Styrene	0.26	U	1.0	ug/L							
Tetrachloroethene	0.36	U	1.0	ug/L							
Toluene	0.27	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.34	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.38	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L							
Trichloroethene	0.38	U	1.0	ug/L							
Trichlorofluoromethane	0.28	U	1.0	ug/L							
Vinyl acetate	0.98	U	5.0	ug/L							
Vinyl chloride	0.30	U	1.0	ug/L							
Xylenes (Total)	0.40	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	*47*			*ug/L*	*50.0*		*94*	*51-122*			

QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 1A27024 - EPA 5030B_MS

Blank (1A27024-BLK1) Continued Prepared: 01/27/2011 11:04 Analyzed: 01/27/2011 13:11

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*49*			*ug/L*	*50.0*		*97*	*68-117*			
Surrogate: Toluene-d8	*48*			*ug/L*	*50.0*		*95*	*69-110*			

LCS (1A27024-BS1) Prepared: 01/27/2011 11:04 Analyzed: 01/27/2011 13:40

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		110	75-133			
Benzene	21		1.0	ug/L	20.0		105	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		102	83-117			
Toluene	20		1.0	ug/L	20.0		99	71-118			
Trichloroethene	20		1.0	ug/L	20.0		100	75-115			

Matrix Spike (1A27024-MS1) Prepared: 01/27/2011 11:04 Analyzed: 01/27/2011 14:09

Source: C100961-08

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	112	75-133			
Benzene	21		1.0	ug/L	20.0	0.20 U	105	81-134			
Chlorobenzene	20		1.0	ug/L	20.0	0.27 U	100	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	99	75-115			

Matrix Spike Dup (1A27024-MSD1) Prepared: 01/27/2011 11:04 Analyzed: 01/27/2011 14:39

Source: C100961-08

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	2	20	
Benzene	20		1.0	ug/L	20.0	0.20 U	100	81-134	5	17	
Chlorobenzene	19		1.0	ug/L	20.0	0.27 U	96	83-117	4	16	
Toluene	20		1.0	ug/L	20.0	0.27 U	99	71-118	1	17	
Trichloroethene	19		1.0	ug/L	20.0	0.38 U	95	75-115	5	18	

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

Batch 1A24007 - EPA 3005A

Blank (1A24007-BLK1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:30

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

LCS (1A24007-BS1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:33

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.3		2.00	ug/L	25.0		101	80-120			
Selenium	24.6		1.00	ug/L	25.0		98	80-120			

QUALITY CONTROL

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

Batch 1A24007 - EPA 3005A

LCS (1A24007-BS1) Continued Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:33

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Thallium	26.4		1.00	ug/L	25.0		106	80-120			

Matrix Spike (1A24007-MS1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:41

Source: C015019-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.7		2.00	ug/L	25.0	0.220 U	103	75-125			
Selenium	25.5		1.00	ug/L	25.0	0.830 U	102	75-125			
Thallium	25.7		1.00	ug/L	25.0	0.381	101	75-125			

Matrix Spike Dup (1A24007-MSD1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:52

Source: C015019-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	26.3		2.00	ug/L	25.0	0.220 U	105	75-125	2	20	
Selenium	25.5		1.00	ug/L	25.0	0.830 U	102	75-125	0.08	20	
Thallium	26.3		1.00	ug/L	25.0	0.381	104	75-125	2	20	

Post Spike (1A24007-PS1) Prepared: 01/24/2011 10:14 Analyzed: 01/25/2011 11:55

Source: C015019-04

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony	25.0		2.00	ug/L	25.0	0.179	99	80-120			
Selenium	25.1		1.00	ug/L	25.0	0.377	99	80-120			
Thallium	25.6		1.00	ug/L	25.0	0.381	101	80-120			

Batch 1A24020 - EPA 3005A

Blank (1A24020-BLK1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 16:40

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

LCS (1A24020-BS1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:15

QUALITY CONTROL

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

Batch 1A24020 - EPA 3005A

LCS (1A24020-BS1) Continued Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:15

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	523		10.0	ug/L	500		105	80-120			
Barium	519		10.0	ug/L	500		104	80-120			
Beryllium	268		1.00	ug/L	250		107	80-120			
Cadmium	260		1.00	ug/L	250		104	80-120			
Chromium	523		10.0	ug/L	500		105	80-120			
Cobalt	503		10.0	ug/L	500		101	80-120			
Copper	261		10.0	ug/L	250		104	80-120			
Lead	518		10.0	ug/L	500		104	80-120			
Nickel	517		10.0	ug/L	500		103	80-120			
Silver	256		10.0	ug/L	250		103	80-120			
Tin	511		10.0	ug/L	500		102	80-120			
Vanadium	254		10.0	ug/L	250		102	80-120			
Zinc	514		10.0	ug/L	500		103	80-120			

Matrix Spike (1A24020-MS1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:24

Source: C100056-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	597		10.0	ug/L	500	54.6	109	75-125			
Barium	587		10.0	ug/L	500	61.3	105	75-125			
Beryllium	268		1.00	ug/L	250	0.100 U	107	75-125			
Cadmium	263		1.00	ug/L	250	0.360 U	105	75-125			
Chromium	600		10.0	ug/L	500	61.0	108	75-125			
Cobalt	554		10.0	ug/L	500	45.8	102	75-125			
Copper	309		10.0	ug/L	250	34.3	110	75-125			
Lead	530		10.0	ug/L	500	4.60	105	75-125			
Nickel	553		10.0	ug/L	500	30.4	104	75-125			
Silver	264		10.0	ug/L	250	1.90 U	106	75-125			
Tin	521		10.0	ug/L	500	2.39	104	75-125			
Vanadium	305		10.0	ug/L	250	37.5	107	75-125			
Zinc	547		10.0	ug/L	500	23.2	105	75-125			

Matrix Spike Dup (1A24020-MSD1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:26

Source: C100056-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	589		10.0	ug/L	500	54.6	107	75-125	2	20	
Barium	595		10.0	ug/L	500	61.3	107	75-125	1	20	
Beryllium	271		1.00	ug/L	250	0.100 U	108	75-125	1	20	
Cadmium	266		1.00	ug/L	250	0.360 U	106	75-125	1	20	
Chromium	607		10.0	ug/L	500	61.0	109	75-125	1	20	
Cobalt	559		10.0	ug/L	500	45.8	103	75-125	1	20	
Copper	311		10.0	ug/L	250	34.3	111	75-125	0.7	20	
Lead	531		10.0	ug/L	500	4.60	105	75-125	0.2	20	
Nickel	560		10.0	ug/L	500	30.4	106	75-125	1	20	
Silver	268		10.0	ug/L	250	1.90 U	107	75-125	1	20	
Tin	526		10.0	ug/L	500	2.39	105	75-125	0.9	20	
Vanadium	310		10.0	ug/L	250	37.5	109	75-125	1	20	

QUALITY CONTROL

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

Batch 1A24020 - EPA 3005A

Matrix Spike Dup (1A24020-MSD1) Continued Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:26

Source: C100056-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Zinc	554		10.0	ug/L	500	23.2	106	75-125	1	20	

Post Spike (1A24020-PS1) Prepared: 01/24/2011 13:12 Analyzed: 01/26/2011 13:28

Source: C100056-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.13		0.0100	mg/L	1.00	0.0546	108	80-120			
Barium	1.11		0.0100	mg/L	1.00	0.0613	105	80-120			
Beryllium	0.541		0.00100	mg/L	0.500	-0.00165	108	80-120			
Cadmium	0.526		0.00100	mg/L	0.500	-0.000177	105	80-120			
Chromium	1.12		0.0100	mg/L	1.00	0.0610	106	80-120			
Cobalt	1.06		0.0100	mg/L	1.00	0.0458	102	80-120			
Copper	0.578		0.0100	mg/L	0.500	0.0343	109	80-120			
Lead	1.05		0.0100	mg/L	1.00	0.00460	105	80-120			
Nickel	1.07		0.0100	mg/L	1.00	0.0304	104	80-120			
Silver	0.514		0.0100	mg/L	0.500	0.000396	103	80-120			
Tin	1.07		0.0100	mg/L	1.00	0.00239	107	80-120			
Vanadium	0.558		0.0100	mg/L	0.500	0.0375	104	80-120			
Zinc	1.07		0.0100	mg/L	1.00	0.0232	105	80-120			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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Cary, NC 27511
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Page 1 of 1

Client Name: Municipal Engineering Services (MU001)	Project Number: G10008.0 (Blanks)
Address: P.O. Box 97	Project Name/Desc: Albemarle 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	Billing Contact: Accounts Payable
Sampler(s) Signature:	Site Location / Time Zone

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

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

✓ Standard

___ Expedited

Due ___/___/___

Lab Workorder: C100057

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	8260B Appendix 1	Ag,As,Ba,Be,Cd,Co,Cr,Cu,Ni,Pb,Sb,Se,Tl,V,Zn	Tin	Sample Comments
	EB	1/20/11		Grab	WA	4	X	X	X	
	FB	1/20/11		↓	WA	4	X	X		
	TB	ENCO Filled		↓	WA	2	X			

<-- Total # of Containers

Sample Kit Prepared By: CB	Date/Time: 1/6	Relinquished By: MESCO	Date/Time: 1/20/11 11:00	Received By: James Hays	Date/Time: 1/20/11 11:00
Comments/Special Reporting Requirements: Blanks for Both closed & Lined Facility		Relinquished By: James Hays	Date/Time: 1/20/11 1500	Received By: Briana Gregory	Date/Time: 1/20/11 15:00
		Relinquished By:	Date/Time:	Received By:	Date/Time:
		Cooler #'s & Temps on Receipt: C-559 1.2°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

Matrix : **GW**-Groundwater **SO**-Soil **DW**-Drinking Water **SE**-Sediment **SW**-Surface Water **WW**-Wastewater **A**-Air **O**-Other (detail in comments) **Preservation:** **I**-Ice **H**-HCl **N**-HNO3 **S**-H2SO4 **NO**-NaOH **O**-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

Field Sampling Parameter
Data Sheet(s)

Sampling Data Sheet

Municipal Services Engineering Company — Garner, NC — Boone, NC

Project: Albemarle Subtitle D Lined MSWLF, Ph. 1 & 2

Samplers: J. Pfohl Page 1 of 1

Monitoring Point	Sample Date	Sample Time	Sampling Parameters: Depth to Water (BTOP) 7/17/10	Depth to Water (BTOP) Static Sample Time	Lab Parameters to be analyzed for	Volume Purged (Gal)	Sample Type	Goes Dry During Purge	Total Depth Measured as expected	Total Depth Expected	Water Quality Parameters: CO2 (mg/l)	DO (mg/L)	ORP	pH	Temp. ©	Specific Cond. (us/cm	TDS (mg/L)	Turbidity	CH4 Gas Vapors (ppm)	
MW-13	1/18/11	8:35	9.77	9.77	Tin, sulfide App I	2	DB	Y	5036 Lock Y	21	NR	2.08	-31	6.87	14.6	580	240	c	NR	P
MW-14	1/17/11	2:10	4.55	-	App I	6	DB	N	Y	24.5		1.8	104	6.38	13.8	810	404	c	NR	
MW-15	1/17/11	1:40	5.35	-	App I	7	DB	N	City Damaged MES10 Replaced Hinges Y	slight constriction 23.5		0.8	-19	6.21	14.0	216	104	c	NR	
MW-16S	1/17/11	3:40	4.67	-	Tin App I	1	DB	Y	Y	9		0.6	-38	5.91	13.7	698	341	c	NR	P
MW-16D	1/17/11	4:35	4.32	-	Tin App I	3	Pd DB	N	Y	20		1.1	-91	5.93	13.9	703	348	c	NR	P
MW-17	1/17/11	2:50	6.02	6.02	App I	3	Pd DB	Y	Y	21.7		1.6	-101	6.60	14.0	201	100	c	NR	P
MW-18	1/17/11	12:10	7.84	7.84	App I	8	DB	N	Y	27		1.1	-36	6.87	13.8	88	42	c	NR	
MW-19	1/17/11	11:30	24.26	24.26	Tin, sulfide App I	5	Pd DB	Y	Y	49.5		5.2	61	6.46	16.0	886	431	c	NR	P
MW-22	1/17/11	10:45	10.45	10.45	App I	5	DB	Y	Lock Replaced Pad covered Y	20		2.4	-31	6.20	12.9	610	301	c	NR	
MW-23	1/18/11	9:00	7.29	7.30	Tin App I	5	DB	N	5036 Lock Y	17		1.1	46	6.21	12.7	619	[illegible]	c		P
MW-26	1/17/11	10:05	33.64	33.64	App I	2.5	DB	Y	Lock Replaced 2 Dry Y	38.67		3.5	35	5.93	15.8	82	36	ST	NR	P
MW-27	1/17/11	9:35	4.80	4.80	App I	10	Pd DB	N	Lock Replaced 2 Dry Y	22.91		1.9	196	6.38	16.0	301	148 ~~307~~	148 c	NR	
SW-2	1/17/11	3:10	-	-	App I	-	Dip	-	-	-		8.0	128	7.01	5.1	88	42	c	-	
LAGOON	1/26/11	8:30AM	-	-	Leachate	-		-	-	-	✓								-	

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

P= Painted since 7/10 By City

Sampling Data Sheet

Municipal Services Engineering Company
Garner, NC Boone, NC

Project: Albemarle Subtitle D Lined MSWLF, Ph. 1 & 2

Samplers: J. Pfohl Page 1 of 1

Monitoring Point	Sample Date	Sample Time	Sampling Parameters							Water Quality Parameters								
			Depth to Water (BTOP) Static 6/12/11	Lab Parameters to be analyzed for	Volume Purged (Gal)	Sample Type	Goes Dry During Purge	Notes	Total Depth	CO2 (mg/l)	DO (mg/L)	ORP	pH	Temp. ©	Specific Cond. (us/cm	TDS (mg/L)	Turbidity	CH4 Gas Vapors (ppm)
P2-8	NS	NS	NR	WLR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-56			3.66	WLR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-59			Dry 45.60	WLR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-60			18.10	WLR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P-61			32.26	WLR	Pump	-	-	-	-	-	-	-	-	-	-	-	-	-
P-62			33.95	WLR	Pump	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Sampling Data Sheet

Municipal Services Engineering Company
Garner, NC Boone, NC

Project: Albemarle MSWLF- Surface Waters Between Closed & Lined

Samplers: J. Pfohl Page 1 of 1

Monitoring Point	Sample Date	Sample Time	Sampling Parameters: Depth to Water (BTOP) 1/ /1ϕ	Depth to Water (BTOP) Static Sample Time	Lab Parameters to be analyzed for	Volume Purged (Gal)	Sample Type	Goes Dry During Purge	Total Depth Measured as expected	Total Depth Expected	Water Quality Parameters: CO2 (mg/l)	DO (mg/L)	ORP	pH	Temp. ©	Specific Cond. (us/cm	TDS (mg/L)	Turbidity	CH4 Gas Vapors (ppm)
SW-1	1/18/11	9:20	-	-	DM	-	Dip	-	-	-	NR	8.7	124	7.39	4.9	137	68	c	-
SW-6	↓	10:00	-	-	Tin DM	-	↓	-	-	-	↓	8.6	119	6.99	4.8	74	34	c	-
SW-7	↓	9:40	-	-	DM	-	↓	-	-	-	↓	8.7	124	6.97	5	80	41	c	-

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

Jacobs Branch mod Flow & Gauge, Low Turbidity.

Sampling Data Sheet

Municipal Services Engineering Company
Garner, NC Durham, NC

Project: Albemarle MSWLF- Surface Waters Between Closed & Lined

Samplers: J. Pfohl Page 1 of 1

Monitoring Point	Sample Date	Sample Time	Sampling Parameters: Depth to Water (BTOP) 1/ /1ϕ	Depth to Water (BTOP) Static Sample Time	Lab Parameters to be analyzed for	Volume Purged (Gal)	Sample Type	Goes Dry During Purge	Total Depth Measured as expected	Total Depth Expected	Water Quality Parameters: CO2 (mg/l)	DO (mg/L)	ORP	pH	Temp. ©	Specific Cond. (us/cm	TDS (mg/L)	Turbidity	CH4 Gas Vapors (ppm)
SW-1	1/18/11	9:20	-	-	DM	-	Dip	-	-	-	NR	8.7	124	7.39	4.9	137	68	C	-
SW-6	↓	10:00	-	-	TIN DM	-	↓	-	-	-	↓	8.6	119	6.99	4.8	74	34	C	-
SW-7	↓	9:40	-	-	DM	-	↓	-	-	-	↓	8.7	124	6.97	5	80	41	C	-

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

Jacobs Branch mod Flow & Gauges, Low Turbidity.