Groundwater Sampling Report and Statistical Analysis

Prepared for

City of Albemarle Closed MSWLF and Active C&D Landfill
Albemarle, North Carolina

July 2009

Permit Number: 84-01
MESCO Project Number: G09009.0

Completed on November 20, 2009

Municipal Services Garner, NC
Engineering Company, P.A. Boone, NC
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: Sean K. Patrick Phone: 919-772-5393

E-mail: spatrick@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 Closed MSWLF and Active C&D Landfill	40592-B Stoney Gap Road Albemarle, NC 28002	84-01	.1600	July 28 & 29, 2009

Environmental Status: (Check all that apply)

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

Type of data submitted: (Check all that apply)

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

Notification attached?

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

Certification

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

Sean K. Patrick — Project Hydrogeologist — 919-772-5393

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

Signature — 11/20/09 Date

Affix NC Licensed/ Professional Geologist Seal

NORTH CAROLINA LICENSED SEAL 1776 GEOLOGIST SEAN K. PATRICK 11/20/09

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

CIVIL/SANITARY/ENVIRONMENTAL ENGINEERS
SOLID WASTE MANAGEMENT
Municipal Services
Engineering Company, P.A.
SITE PLANNING/SUBDIVISIONS
SUBSURFACE UTILITY ENGINEERING (SUE)

November 20, 2009

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

Re: Groundwater Sampling and Statistical Analysis
City of Albemarle Closed Unlined MSWLF and active C&D Landfill
Permit No. 84-01
MESCO Project No. G09009.0

Dear Mr. Lane:

Municipal Engineering Services Company, P.A. (MESCO) has performed semi-annual sampling and monitoring activities at the City of Albemarle closed, unlined municipal solid waste landfill (MSWLF) and active construction and demolition (C&D) landfill located in Stanly Co., NC. This report includes a summary of field procedures, laboratory analysis, tables and graphs of current/historical data, potentiometric map, and the complete laboratory analytical report. The site location is depicted in **Plate 1** (attached).

Prior to operating as a C&D landfill, the site operated as a municipal solid waste (MSW) unlined sanitary landfill that consisted of two units. The first unit was closed prior to October 1991, and the second unit was closed by June 1999. The site is monitored under 15A NCAC 13B.1630. The monitoring well network consists of fourteen (14) groundwater monitoring wells and two (2) surfacewater sampling locations. The on-site water supply well, which was formerly included in the semi-annual sampling & monitoring schedule, was abandoned in October 2009.

Sampling Procedure

Semi-annual sampling and monitoring activities were performed by MESCO personnel on July 28 & 29, 2009. Detection monitoring was performed on monitoring wells MW-1 through MW-12, MW-24, and MW-25, and on the surfacewater sample SW-7. Surfacewater sampling location SW-5 was found to be dry and was not sampled. Groundwater and surfacewater sampling locations are depicted on the potentiometric surface map attached as **Plate 2**.

Groundwater and surfacewater samples were collected in accordance with the procedures outlined in the *Ground and Surfacewater Sampling and Analysis Plan* for the facility. Prior to purging, static groundwater depths were measured in each well using an electronic water level indicator accurate to 0.01-foot.

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PO Box 828, Morehead City, NC 28557 (252) 726-9481
PO Box 349, Boone, NC 28607 (828) 262-1767

Groundwater quality parameters including pH, oxidation-reduction potential (ORP), specific conductivity, temperature, dissolved oxygen (DO), total dissolved solids (TDS), dissolved carbon dioxide, and turbidity were measured, and are summarized in **Table 4** (attached). Disposable nitrile gloves were worn by the field technician to minimize the risk of sample cross-contamination and to limit exposure to groundwater contaminants. Monitoring wells were purged prior to sampling using low-flow sampling techniques. Groundwater samples were collected using individual disposable polyethylene bailers to minimize the risk of cross-contamination between wells. Groundwater samples were transferred to laboratory-prepared, method-specific containers, and placed in ice-filled coolers to chill the samples to approximately 4°C. The samples were transported by laboratory courier under proper chain-of-custody (COC) to Pace Analytical Laboratories (Huntersville, NC) an NCDENR-certified laboratory. All groundwater samples were analyzed for the complete Appendix I & II list of parameters. A copy of the complete laboratory analytical report including COC form is attached.

Groundwater Flow

Groundwater elevations were calculated by subtracting the groundwater depth measurements from the respective wellhead elevations, and contoured to derive the potentiometric surface map attached as **Plate 2**. Groundwater flow in the unconfined aquifer is in a general easterly direction towards the unnamed tributary of Jacobs Creek, over hydraulic gradients varying from approximately 0.005 to 0.07 feet/foot. Groundwater velocities calculated for wells MW-1 through MW-8 ranged from 0.4 ft/yr (MW-8D) to 67 ft/yr (MW-10), with a geometric mean of 12 ft/yr and a median of 22 ft/yr. Groundwater flow directions and hydraulic gradients observed during the recent sampling event were consistent with those observed historically. Groundwater flow data is presented in the attached **Table 3**.

Laboratory Analytical Results

Groundwater Samples
Laboratory analyses detected VOC concentrations exceeding 2L Standards in five of the groundwater samples. VOCs that exceed the 2L Standards are benzene (MW-7), 1,4-dichlorobenzene (MW-7), tetrachloroethene (MW-6, MW-9), and vinyl chloride (MW-11, MW-12). All other VOC concentrations detected in the groundwater samples were below 2L Standards. Benzene and tetrachloroethene are identified in the *Assessment of Corrective Measures* report as being contaminants of concern.

Inorganic compounds that exceed the respective 2L Standards are antimony (MW-1), cadmium (MW-4R, MW-6, MW-10), lead (MW-1), thallium (MW-1, MW-8D), and vanadium (MW-1, MW-9, MW-12, MW-24, MW-25). The presence of these metals in wells MW-1 and MW-8D, background wells situated upgradient of the waste limits, in addition to the site's location in the Carolina Slate Belt, indicates that these metals concentrations are of natural origin. No inorganic compounds were identified as contaminants of concern in the *Assessment of Corrective Measures* report.

Table 1 (attached) summarizes exceedances of 2L, 2B, SWSL, and Groundwater Protection Standards (GWPs). **Table 2** summarizes all compounds concentrations detected above method detection limits. Time-series graphs depicting the trends of select VOCs that have historically been detected above 2L Standards are also attached.

Surfacewater Samples
Laboratory analysis of surfacewater sample SW-7 detected an estimated silver concentration of 0.14 µg/L, which exceeds the 2B Standard of 0.06 µg/L. However, the presence of similar low level silver concentrations in samples collected from the background wells indicates that silver is of natural origin. No other inorganic compounds were found to exceed 2B Standards. No VOCs were detected in concentrations above the method detection limits in sample SW-7.

On-Site Water Supply Well
The on-site water supply well ("SHOP") was disconnected in early 2009, and was not sampled during this event. Pursuant to the *Corrective Action Plan*, the SHOP well was properly abandoned in accordance with 2C Standards in October 2009.

Discussion and Conclusions

The results of the recent sampling event indicate that groundwater contamination remains confined to the site. Statistical analysis of the analytical data indicated statistically significant compound increases over background levels in the samples collected from wells MW-6 and MW-7. Statistically significant compound increases were not indicated for surfacewater sample SW-7.

As part of corrective action at the site, groundwater samples were collected from wells MW-1, MW-2 MW-3, MW-6, MW-7, MW-9, MW-10, MW-24, and MW-25 for analysis of monitored natural attenuation parameters as outlined in the *Corrective Action Plan* approved for the site in February 2009. The results of these analyses will be discussed in a brief report to be submitted under separate cover.

Semi-annual sampling and monitoring will be continued at the facility. The next sampling event is scheduled for performance in January 2010. Please do not hesitate to contact me at (919) 772-5393 or spatrick@mesco.com if you have any questions or comments regarding this report.

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

Sean K. Patrick, L.G.
Project Manager / Hydrogeologist

Enclosures
cc: Mr. Mike Lambert, City of Albemarle

Table 1
Detection Scan All Appendix I VOCs and Metal Detections above SWSL, GWP, 2L, or 2B
City of Albemarle Closed MSWLF and Active C&D Landfill

Well ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	2B [5]	GWP [6]	Exceedance	Preliminary Cause
MW-1	**Antimony**	**7/28/09**	**5.8 J**	**µg/L**	**2.6**	**6**			**1.4**	**4.4**	**Natural**
MW-1	Arsenic	7/28/09	10.4	µg/L	2.7	10	50				
MW-1	Barium	7/28/09	178	µg/L	0.20	100	2000				
MW-1	Beryllium	7/28/09	1.2	µg/L	0.10	1			4		
MW-1	Chromium	7/28/09	35.5	µg/L	0.40	10	50				
MW-1	Cobalt	7/28/09	10.7	µg/L	0.60	10			70		
MW-1	Copper	7/28/09	59.7	µg/L	0.30	10	1000				
MW-1	**Lead**	**7/28/09**	**43.9**	**µg/L**	**4.0**	**10**	**15**			**28.9**	**Natural**
MW-1	Nickel	7/28/09	60.9	µg/L	1.7	50	100				
MW-1	**Thallium**	**7/28/09**	**5.1 J**	**µg/L**	**3.0**	**5.5**			**0.28**	**4.82**	**Natural**
MW-1	**Vanadium**	**7/28/09**	**37.6**	**µg/L**	**0.20**	**25**			**3.5**	**34.1**	**Natural**
MW-1	Zinc	7/28/09	164	µg/L	0.40	10	1050				
MW-2	Cobalt	7/29/09	18.5	µg/L	0.60	10			70		
MW-2	Copper	7/29/09	10.9	µg/L	0.30	10	1000				
MW-2	Zinc	7/29/09	21.3	µg/L	0.40	10	1050				
MW-3	Arsenic	7/28/09	12	µg/L	2.7	10	50				
MW-3	**Thallium**	**7/28/09**	**3.6 J**	**µg/L**	**3.0**	**5.5**			**0.28**	**3.32**	**Natural**
MW-4R	**Cadmium**	**7/29/09**	**2.4**	**µg/L**	**0.50**	**1**	**1.75**			**0.65**	**Natural**
MW-6	**Cadmium**	**7/29/09**	**2.1**	**µg/L**	**0.50**	**1**	**1.75**			**0.35**	**Natural**
MW-6	Copper	7/29/09	16.8	µg/L	0.30	10	1000				
MW-6	Methylene Chloride	7/29/09	4.1	µg/L	0.97	2	4.6				
MW-6	**Tetrachloroethene**	**7/29/09**	**1**	**µg/L**	**0.46**	**1**	**0.7**			**0.3**	**Leachate &/or LFG**
MW-6	Trichlorofluoromethane	7/29/09	5.1	µg/L	0.20	1	2100				
MW-6	Zinc	7/29/09	28	µg/L	0.40	10	1050				
MW-7	**1,4-Dichlorobenzene**	**7/29/09**	**1.9**	**µg/L**	**0.33**	**1**	**1.4**			**0.5**	**Leachate &/or LFG**
MW-7	**Benzene**	**7/29/09**	**1.9**	**µg/L**	**0.25**	**1**	**1**			**0.9**	**Leachate &/or LFG**
MW-7	Cadmium	7/29/09	1.1	µg/L	0.50	1	1.75				
MW-7	Chlorobenzene	7/29/09	5	µg/L	0.23	3	50				
MW-8D	Arsenic	7/29/09	13	µg/L	2.7	10	50				
MW-8D	**Thallium**	**7/29/09**	**3.1 J**	**µg/L**	**3.0**	**5.5**			**0.28**	**2.82**	**Natural**
MW-9	**Tetrachloroethene**	**7/28/09**	**0.83 J**	**µg/L**	**0.46**	**1**	**0.7**			**0.13**	**Leachate &/or LFG**
MW-9	**Vanadium**	**7/28/09**	**8.8 J**	**µg/L**	**0.20**	**25**			**3.5**	**5.3**	**Natural**
MW-10	**Cadmium**	**7/28/09**	**2.1**	**µg/L**	**0.50**	**1**	**1.75**			**0.35**	**Natural**
MW-10	Toluene	7/28/09	115	µg/L	0.26	1	1000				
MW-10	Zinc	7/28/09	13.9	µg/L	0.40	10	1050				
MW-11	1,1-Dichloroethane	7/29/09	7.7	µg/L	0.32	5	70				
MW-11	**Vinyl chloride**	**7/29/09**	**0.65 J**	**µg/L**	**0.62**	**1**	**0.02**			**0.64**	**Leachate &/or LFG**

Table 1
Detection Scan All Appendix I VOCs and Metal Detections above SWSL, GWP, 2L, or 2B
City of Albemarle Closed MSWLF and Active C&D Landfill

Well ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	2B [5]	GWP [6]	Exceedance	Preliminary Cause
MW-12	Arsenic	7/28/09	6.6	µg/L	2.7	5	50				
MW-12	Barium	7/28/09	42.7	µg/L	0.20	5	2000				
MW-12	Chromium	7/28/09	14.1	µg/L	0.40	5	50				
MW-12	**Cobalt**	**7/28/09**	**81.4**	**µg/L**	**0.60**	**5**			**70**	**11.4**	**Natural**
MW-12	Copper	7/28/09	15.7	µg/L	0.30	5	1000				
MW-12	Nickel	7/28/09	47.7	µg/L	1.7	5	100				
MW-12	**Vanadium**	**7/28/09**	**11.6**	**µg/L**	**0.20**	**5**			**3.5**	**8.1**	**Natural**
MW-12	**Vinyl chloride**	**7/28/09**	**1.4**	**µg/L**	**0.62**	**1**	**0.02**			**1.39**	**Leachate &/or LFG**
MW-24	**Vanadium**	**7/29/09**	**4.6 J**	**µg/L**	**0.20**	**25**			**3.5**	**1.1**	**Natural**
MW-25	Copper	7/29/09	12.6	µg/L	0.30	10	1000				
MW-25	**Vanadium**	**7/29/09**	**6.5 J**	**µg/L**	**0.20**	**25**			**3.5**	**3**	**Natural**
SW-7	Cadmium	7/28/09	1.8	µg/L	0.50	1		2			
SW-7	**Silver**	**7/28/09**	**0.14 J**	**µg/L**	**0.10**	**10**		**0.06**		**0.08**	**Natural**
EB	Barium	7/29/09	18.6	µg/L	0.20	5	2000				

1 Table contains all 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 Ground Water 2L Standard (Current as of Sampling Event)

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

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

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

LFG = Landfill Gas

NE = Not Established

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

Table 2
Detection Scan All Appendix I VOCs and Metal Detections above MDL
City of Albemarle Closed MSWLF and Active C&D Landfill

Well ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	2B [5]	GWP [6]	Exceedance	Preliminary Cause
MW-1	**Antimony**	**7/28/09**	**5.8 J**	**µg/L**	**2.6**	**6**			**1.4**	**4.4**	**Natural**
MW-1	Arsenic	7/28/09	10.4	µg/L	2.7	10	50				
MW-1	Barium	7/28/09	178	µg/L	0.20	100	2000				
MW-1	Beryllium	7/28/09	1.2	µg/L	0.10	1			4		
MW-1	Chromium	7/28/09	35.5	µg/L	0.40	10	50				
MW-1	Cobalt	7/28/09	10.7	µg/L	0.60	10			70		
MW-1	Copper	7/28/09	59.7	µg/L	0.30	10	1000				
MW-1	**Lead**	**7/28/09**	**43.9**	**µg/L**	**4.0**	**10**	**15**			**28.9**	**Natural**
MW-1	Nickel	7/28/09	60.9	µg/L	1.7	50	100				
MW-1	Silver	7/28/09	0.14	µg/L	0.10	10	18				
MW-1	**Thallium**	**7/28/09**	**5.1 J**	**µg/L**	**3.0**	**5.5**			**0.28**	**4.82**	**Natural**
MW-1	**Vanadium**	**7/28/09**	**37.6**	**µg/L**	**0.20**	**25**			**3.5**	**34.1**	**Natural**
MW-1	Zinc	7/28/09	164	µg/L	0.40	10	1050				
MW-2	Acetone	7/29/09	74.3	µg/L	2.2	100	700				
MW-2	Barium	7/29/09	14.3	µg/L	0.20	100	2000				
MW-2	Beryllium	7/29/09	0.12	µg/L	0.10	1			4		
MW-2	Chromium	7/29/09	3	µg/L	0.40	10	50				
MW-2	Cobalt	7/29/09	18.5	µg/L	0.60	10			70		
MW-2	Copper	7/29/09	10.9	µg/L	0.30	10	1000				
MW-2	Lead	7/29/09	4.2	µg/L	4.0	10	15				
MW-2	Nickel	7/29/09	16.2	µg/L	1.7	50	100				
MW-2	Silver	7/29/09	0.24	µg/L	0.10	10	18				
MW-2	Toluene	7/29/09	0.72	µg/L	0.26	1	1000				
MW-2	Vanadium	7/29/09	3.2	µg/L	0.20	25			3.5		
MW-2	Zinc	7/29/09	21.3	µg/L	0.40	10	1050				
MW-3	Arsenic	7/28/09	12	µg/L	2.7	10	50				
MW-3	Barium	7/28/09	48.2	µg/L	0.20	100	2000				
MW-3	Beryllium	7/28/09	0.24	µg/L	0.10	1			4		
MW-3	Chromium	7/28/09	1.3	µg/L	0.40	10	50				
MW-3	Cobalt	7/28/09	2.5	µg/L	0.60	10			70		
MW-3	Copper	7/28/09	1.9	µg/L	0.30	10	1000				
MW-3	Nickel	7/28/09	2.8	µg/L	1.7	50	100				
MW-3	**Thallium**	**7/28/09**	**3.6 J**	**µg/L**	**3.0**	**5.5**			**0.28**	**3.32**	**Natural**
MW-3	Toluene	7/28/09	0.31	µg/L	0.26	1	1000				
MW-3	Vanadium	7/28/09	2.7	µg/L	0.20	25			3.5		
MW-4R	Barium	7/29/09	1.4	µg/L	0.20	100	2000				
MW-4R	**Cadmium**	**7/29/09**	**2.4**	**µg/L**	**0.50**	**1**	**1.75**			**0.65**	**Natural**
MW-4R	Copper	7/29/09	0.44	µg/L	0.30	10	1000				
MW-4R	Nickel	7/29/09	13.8	µg/L	1.7	50	100				
MW-4R	Silver	7/29/09	0.3	µg/L	0.10	10	18				
MW-4R	Vanadium	7/29/09	0.97	µg/L	0.20	25			3.5		
MW-4R	Zinc	7/29/09	2.5	µg/L	0.40	10	1050				

Table 2
Detection Scan All Appendix I VOCs and Metal Detections above MDL
City of Albemarle Closed MSWLF and Active C&D Landfill

Well ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	2B [5]	GWP [6]	Exceedance	Preliminary Cause
MW-5R	Arsenic	7/29/09	8.4	µg/L	2.7	10	50				
MW-5R	Barium	7/29/09	7	µg/L	0.20	100	2000				
MW-5R	Chromium	7/29/09	0.53	µg/L	0.40	10	50				
MW-5R	Silver	7/29/09	0.3	µg/L	0.10	10	18				
MW-5R	Vanadium	7/29/09	1.6	µg/L	0.20	25			3.5		
MW-6	1,1-Dichloroethane	7/29/09	2.4	µg/L	0.32	5	70				
MW-6	1,4-Dichlorobenzene	7/29/09	0.34	µg/L	0.33	1	1.4				
MW-6	Barium	7/29/09	1.6	µg/L	0.20	100	2000				
MW-6	**Cadmium**	**7/29/09**	**2.1**	**µg/L**	**0.50**	**1**	**1.75**			**0.35**	**Natural**
MW-6	Chlorobenzene	7/29/09	0.38	µg/L	0.23	3	50				
MW-6	Chromium	7/29/09	2.4	µg/L	0.40	10	50				
MW-6	Copper	7/29/09	16.8	µg/L	0.30	10	1000				
MW-6	Lead	7/29/09	4.8	µg/L	4.0	10	15				
MW-6	Methylene Chloride	7/29/09	4.1	µg/L	0.97	2	4.6				
MW-6	Nickel	7/29/09	6.4	µg/L	1.7	50	100				
MW-6	Silver	7/29/09	0.32	µg/L	0.10	10	18				
MW-6	**Tetrachloroethene**	**7/29/09**	**1**	**µg/L**	**0.46**	**1**	**0.7**			**0.3**	**Leachate &/or LFG**
MW-6	Trichlorofluoromethane	7/29/09	5.1	µg/L	0.20	1	2100				
MW-6	Vanadium	7/29/09	2	µg/L	0.20	25			3.5		
MW-6	Zinc	7/29/09	28	µg/L	0.40	10	1050				
MW-7	1,1-Dichloroethane	7/29/09	2.6	µg/L	0.32	5	70				
MW-7	**1,4-Dichlorobenzene**	**7/29/09**	**1.9**	**µg/L**	**0.33**	**1**	**1.4**			**0.5**	**Leachate &/or LFG**
MW-7	Arsenic	7/29/09	5.2	µg/L	2.7	10	50				
MW-7	Barium	7/29/09	21.8	µg/L	0.20	100	2000				
MW-7	**Benzene**	**7/29/09**	**1.9**	**µg/L**	**0.25**	**1**	**1**			**0.9**	**Leachate &/or LFG**
MW-7	Cadmium	7/29/09	1.1	µg/L	0.50	1	1.75				
MW-7	Chlorobenzene	7/29/09	5	µg/L	0.23	3	50				
MW-7	Chromium	7/29/09	0.57	µg/L	0.40	10	50				
MW-7	cis-1,2-Dichloroethene	7/29/09	1	µg/L	0.19	5	70				
MW-7	Copper	7/29/09	4.8	µg/L	0.30	10	1000				
MW-7	Nickel	7/29/09	13.5	µg/L	1.7	50	100				
MW-7	Silver	7/29/09	0.4	µg/L	0.10	10	18				
MW-7	Vanadium	7/29/09	1.2	µg/L	0.20	25			3.5		
MW-7	Zinc	7/29/09	1.3	µg/L	0.40	10	1050				
MW-8D	Arsenic	7/29/09	13	µg/L	2.7	10	50				
MW-8D	Barium	7/29/09	14.9	µg/L	0.20	100	2000				
MW-8D	Beryllium	7/29/09	0.25	µg/L	0.10	1			4		
MW-8D	Cadmium	7/29/09	0.92	µg/L	0.50	1	1.75				
MW-8D	Selenium	7/29/09	7.4	µg/L	3.8	10	50				
MW-8D	Silver	7/29/09	1.1	µg/L	0.10	10	18				
MW-8D	**Thallium**	**7/29/09**	**3.1 J**	**µg/L**	**3.0**	**5.5**			**0.28**	**2.82**	**Natural**
MW-8D	Vanadium	7/29/09	2.4	µg/L	0.20	25			3.5		
MW-8D	Zinc	7/29/09	5.2	µg/L	0.40	10	1050				
MW-9	1,1-Dichloroethane	7/28/09	0.74	µg/L	0.32	5	70				

Table 2
Detection Scan All Appendix I VOCs and Metal Detections above MDL
City of Albemarle Closed MSWLF and Active C&D Landfill

Well ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	2B [5]	GWP [6]	Exceedance	Preliminary Cause
MW-9	Arsenic	7/28/09	3.1	µg/L	2.7	10	50				
MW-9	Barium	7/28/09	9.9	µg/L	0.20	100	2000				
MW-9	Chromium	7/28/09	8.5	µg/L	0.40	10	50				
MW-9	cis-1,2-Dichloroethene	7/28/09	0.69	µg/L	0.19	5	70				
MW-9	Copper	7/28/09	4.1	µg/L	0.30	10	1000				
MW-9	Nickel	7/28/09	6.2	µg/L	1.7	50	100				
MW-9	Silver	7/28/09	0.19	µg/L	0.10	10	18				
MW-9	**Tetrachloroethene**	**7/28/09**	**0.83 J**	**µg/L**	**0.46**	**1**	**0.7**			**0.13**	**Leachate &/or LFG**
MW-9	Trichloroethene	7/28/09	0.7	µg/L	0.47	1	2.8				
MW-9	**Vanadium**	**7/28/09**	**8.8 J**	**µg/L**	**0.20**	**25**			**3.5**	**5.3**	**Natural**
MW-9	Zinc	7/28/09	6.6	µg/L	0.40	10	1050				
MW-10	Arsenic	7/28/09	3.2	µg/L	2.7	10	50				
MW-10	Barium	7/28/09	26.2	µg/L	0.20	100	2000				
MW-10	**Cadmium**	**7/28/09**	**2.1**	**µg/L**	**0.50**	**1**	**1.75**			**0.35**	**Natural**
MW-10	Chromium	7/28/09	1.6	µg/L	0.40	10	50				
MW-10	Copper	7/28/09	3.4	µg/L	0.30	10	1000				
MW-10	Nickel	7/28/09	14.4	µg/L	1.7	50	100				
MW-10	Silver	7/28/09	0.17	µg/L	0.10	10	18				
MW-10	Toluene	7/28/09	115	µg/L	0.26	1	1000				
MW-10	Vanadium	7/28/09	2.1	µg/L	0.20	25			3.5		
MW-10	Zinc	7/28/09	13.9	µg/L	0.40	10	1050				
MW-11	1,1-Dichloroethane	7/29/09	7.7	µg/L	0.32	5	70				
MW-11	Barium	7/29/09	29	µg/L	0.20	100	2000				
MW-11	Chloroethane	7/29/09	3.4	µg/L	0.54	10	2800				
MW-11	Chromium	7/29/09	6.4	µg/L	0.40	10	50				
MW-11	cis-1,2-Dichloroethene	7/29/09	2.6	µg/L	0.19	5	70				
MW-11	Cobalt	7/29/09	1.8	µg/L	0.60	10			70		
MW-11	Copper	7/29/09	1.5	µg/L	0.30	10	1000				
MW-11	Nickel	7/29/09	11.6	µg/L	1.7	50	100				
MW-11	Silver	7/29/09	0.15	µg/L	0.10	10	18				
MW-11	Vanadium	7/29/09	3.4	µg/L	0.20	25			3.5		
MW-11	**Vinyl chloride**	**7/29/09**	**0.65 J**	**µg/L**	**0.62**	**1**	**0.02**			**0.64**	**Leachate &/or LFG**
MW-11	Zinc	7/29/09	2.4	µg/L	0.40	10	1050				
MW-12	Acetone	7/28/09	11	µg/L	2.2	100	700				
MW-12	Arsenic	7/28/09	6.6	µg/L	2.7	5	50				
MW-12	Barium	7/28/09	42.7	µg/L	0.20	5	2000				
MW-12	Chromium	7/28/09	14.1	µg/L	0.40	5	50				
MW-12	**Cobalt**	**7/28/09**	**81.4**	**µg/L**	**0.60**	**5**			**70**	**11.4**	**Natural**
MW-12	Copper	7/28/09	15.7	µg/L	0.30	5	1000				
MW-12	Nickel	7/28/09	47.7	µg/L	1.7	5	100				
MW-12	**Vanadium**	**7/28/09**	**11.6**	**µg/L**	**0.20**	**5**			**3.5**	**8.1**	**Natural**
MW-12	**Vinyl chloride**	**7/28/09**	**1.4**	**µg/L**	**0.62**	**1**	**0.02**			**1.39**	**Leachate &/or LFG**
MW-12	Zinc	7/28/09	7.3	µg/L	0.40	10	1050				
MW-24	Barium	7/29/09	6.9	µg/L	0.20	100	2000				

Table 2
Detection Scan All Appendix I VOCs and Metal Detections above MDL
City of Albemarle Closed MSWLF and Active C&D Landfill

Well ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	2B [5]	GWP [6]	Exceedance	Preliminary Cause
MW-24	Cadmium	7/29/09	0.69	µg/L	0.50	1	1.75				
MW-24	Chromium	7/29/09	3.6	µg/L	0.40	10	50				
MW-24	Copper	7/29/09	9.2	µg/L	0.30	10	1000				
MW-24	Nickel	7/29/09	4.3	µg/L	1.7	50	100				
MW-24	Silver	7/29/09	0.22	µg/L	0.10	10	18				
MW-24	**Vanadium**	**7/29/09**	**4.6 J**	**µg/L**	**0.20**	**25**			**3.5**	**1.1**	**Natural**
MW-24	Zinc	7/29/09	6.3	µg/L	0.40	10	1050				
MW-25	Barium	7/29/09	6.2	µg/L	0.20	100	2000				
MW-25	Chromium	7/29/09	5.6	µg/L	0.40	10	50				
MW-25	Copper	7/29/09	12.6	µg/L	0.30	10	1000				
MW-25	Nickel	7/29/09	6.6	µg/L	1.7	50	100				
MW-25	Silver	7/29/09	0.17	µg/L	0.10	10	18				
MW-25	**Vanadium**	**7/29/09**	**6.5 J**	**µg/L**	**0.20**	**25**			**3.5**	**3**	**Natural**
MW-25	Zinc	7/29/09	8.8	µg/L	0.40	10	1050				
SW-7	Barium	7/28/09	6.8	µg/L	0.20	100		200000			
SW-7	Cadmium	7/28/09	1.8	µg/L	0.50	1		2			
SW-7	Chromium	7/28/09	0.88	µg/L	0.40	10		50			
SW-7	Copper	7/28/09	1.6	µg/L	0.30	10		7			
SW-7	Nickel	7/28/09	1.8	µg/L	1.7	50		88			
SW-7	**Silver**	**7/28/09**	**0.14 J**	**µg/L**	**0.10**	**10**		**0.06**		**0.08**	**Natural**
SW-7	Vanadium	7/28/09	1.8	µg/L	0.20	25		NE			
SW-7	Zinc	7/28/09	6.2	µg/L	0.40	10		50			
EB	Barium	7/29/09	18.6	µg/L	0.20	5	2000				
EB	Methylene Chloride	7/29/09	1	µg/L	0.97	2	4.6				
EB	Silver	7/29/09	0.1	µg/L	0.10	5	18				
EB	Tin	7/29/09	2.5	µg/L	1.8	5			NE		
EB	Vanadium	7/29/09	0.88	µg/L	0.20	5			3.5		
EB	Zinc	7/29/09	2.3	µg/L	0.40	10	1050				
FB	Methylene Chloride	7/29/09	1.3	µg/L	0.97	2	4.6				

[1] Table contains all constituents detected above MDL
[2] MDL = Method Detection Limit
[3] SWSL = Solid Waste Section Reporting Limit (Current as of Sampling Event)
[4] 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 estimated & between the laboratory MDL & the SWSL, adjusted for actual sample preparation data and moisture content.
LFG = Landfill Gas
NE = Not Established
BOLD = Concentration =>GWP, 2L, or 2B Standard (Current as of Sampling Event)

Table 3
Hydrologic Properties at Monitoring Well Locations
City of Albemarle Closed MSWLF and Active C&D Landfill

Monitoring Well	Hydraulic Conductivity (cm/sec)	Effective Porosity (%)	Hydraulic Gradient	Groundwater Linear Velocity Rate (ft/yr)	Flow Direction	Water Table Depth (ft)	Water Table Elevation (ft)	Screened Interval Lithology
MW-1	1.4E-04	20%	0.042	30.8	S62E	15.51	431.70	Argillite
MW-2	6.6E-05	5%	0.028	38.1	n/a	7.58	424.27	Sandy Silt with Gravel
MW-3	3.4E-04	20%	0.036	63.4	N70E	12.85	383.26	Argillite
MW-4R	1.4E-05	5%	0.068	19.7	N71E	22.69	392.67	Argillite
MW-5R	5.0E-05	5%	0.038	39.0	N52E	8.74	407.32	Argillite
MW-6	4.1E-05	5%	0.017	14.2	S88E	24.18	415.45	Argillite
MW-7	2.2E-05	5%	0.021	9.6	n/a	12.74	418.56	Silty Clay with Gravel
MW-8D	6.0E-07	5%	0.028	0.4	S64E	53.65	437.73	Argillite
MW-9	8.3E-05	5%	0.007	12.4	N85E	7.80	384.84	Argillite
MW-10	7.1E-05	5%	0.045	66.6	N80E	6.45	381.56	Argillite
MW-11	2.4E-04	15%	0.025	41.8	n/a	6.62	380.16	Sandy Clay with Gravel
MW-12	7.4E-05	15%	0.046	23.6	N45E	8.12	391.35	Sandy Silt
MW-24	1.3E-05	12%	0.005	0.5	S52W	12.63	419.56	Argillite
MW-25	2.8E-06	12%	0.068	1.7	S57W	7.84	417.38	Argillite

NOTE: All values for hydraulic conductivity and effective porosity obtained from GAI Consultants Sampling Report (April, 1995).

Hydraulic gradients taken from the July 28-29, 2009 sampling event.

Groundwater velocity (v_x) is defined by the equation:

$$v_x = (K * i) / n_e$$

Where: K = hydraulic conductivity

n_e = effective porosity

i = hydraulic gradient

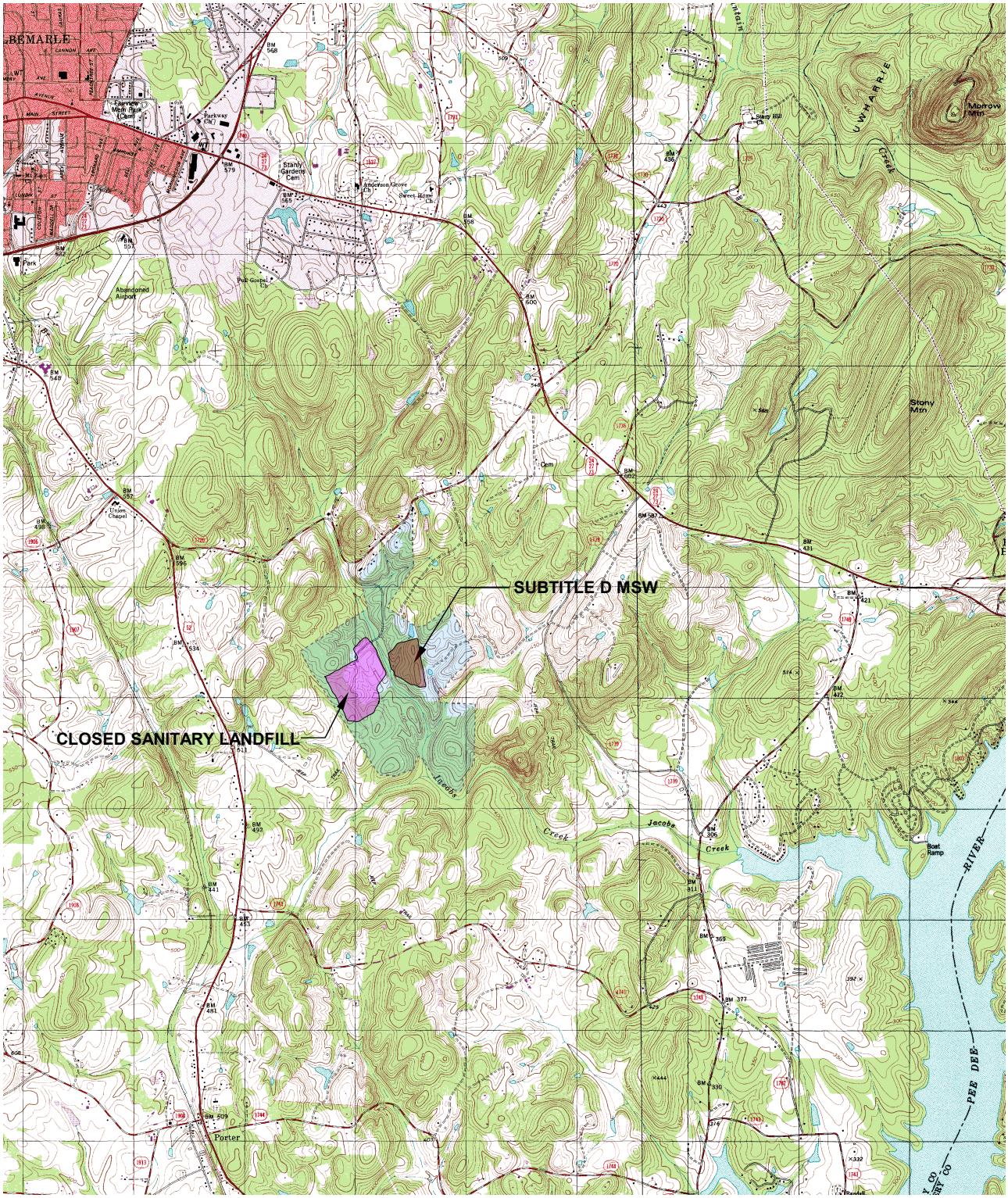
Table 4
Field Parameter Data Sheet
City of Albemarle Closed MSWLF and Active C&D Landfill
July 28 & 28, 2009 Sampling Event

Monitoring Location	Sample Date	Water Table Depth (ft BTOC)	pH	Temp (°C)	Specific Conductance (µmhos/cm)	TDS (mg/L)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
MW-1	07/28/09	15.51	5.38	20.1	570	270	0.8	156	7.19
MW-2	07/29/09	7.58	6.21	19.3	1200	590	1.3	61	11.7
MW-3	07/28/09	12.85	6.08	20.4	1100	540	2.4	113	5.34
MW-4R	07/29/09	22.69	6.11	19.1	350	170	0.9	31	12.7
MW-5R	07/29/09	8.74	6.43	17.9	700	340	0.5	43	11.3
MW-6	07/29/09	24.18	5.81	18.1	200	90	1.3	224	14.4
MW-7	07/29/09	12.74	6.31	17.2	1000	490	0.8	38	7.92
MW-8D	07/29/09	53.65	6.63	18.6	1200	590	0.8	46	3.61
MW-9	07/28/09	7.80	6.40	18.4	700	340	1.8	98	69.6
MW-10	07/28/09	6.45	6.79	18.6	370	180	0.9	106	18.1
MW-11	07/29/09	6.62	6.21	18.3	120	50	1.0	10	9.91
MW-12	07/28/09	8.12	5.89	20.8	630	310	0.9	36	28.3
MW-24	07/29/09	12.63	6.66	18.2	480	230	1.9	105	8.81
MW-25	07/29/09	7.84	6.01	17.2	330	150	1.3	42	9.82
SW-5	07/28/09	Dry - Sample Not Collected							
SW-7	07/28/09	-	7.32	22.8	-	-	6.9	135	-

Topographic Map with Landfill Location

City of Albemarle Landfill

PLATE 1



QUADRANGLE LEGEND

ROAD CLASSIFICATION

Primary highway, hard surface

Light-duty road, hard or improved surface

Secondary highway, hard surface

Unimproved road

Interstate Route

U. S. Route

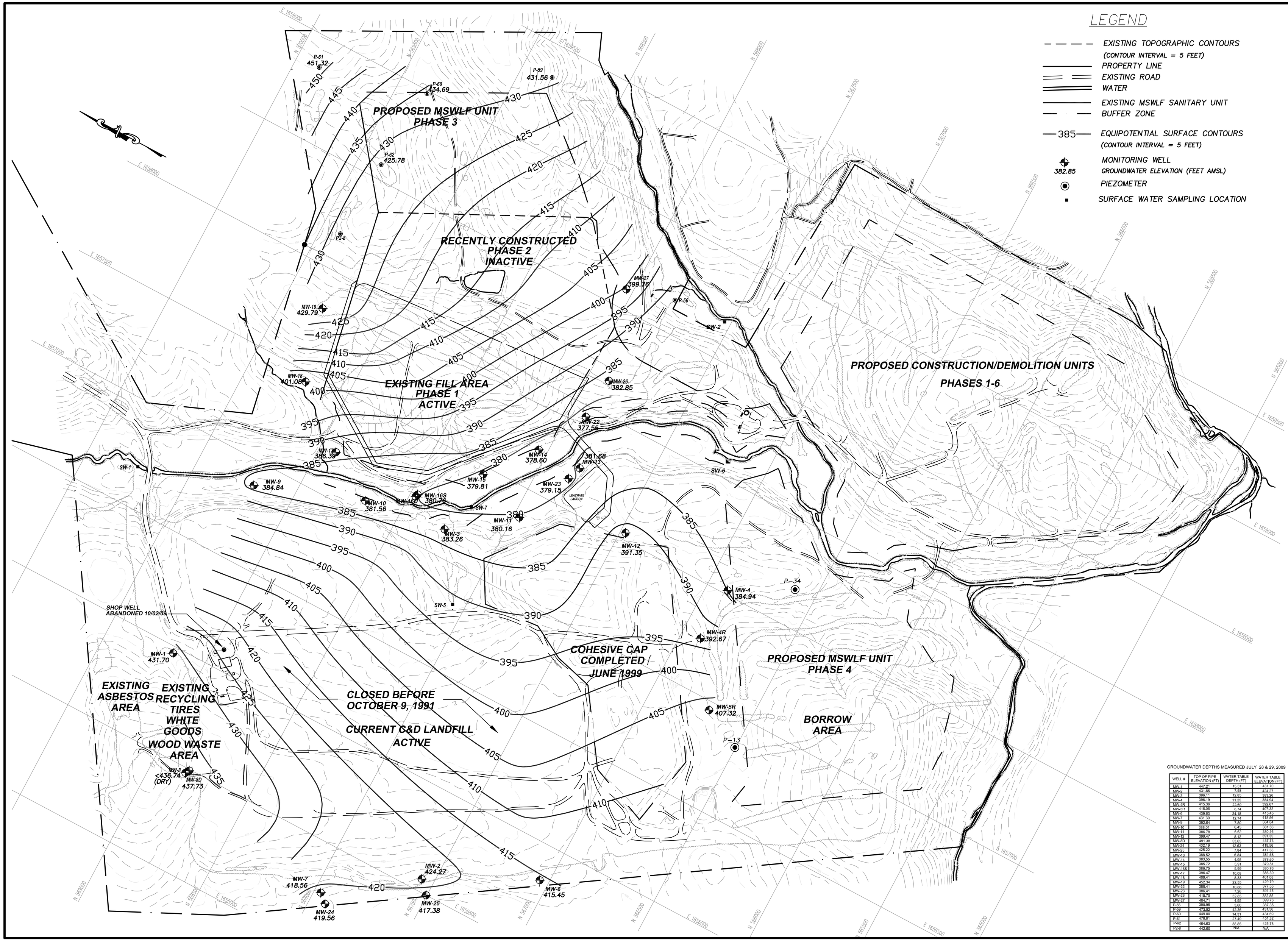
State Route

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

Date Completed	06/24/2008
Created By	M. German
Project Name	[illegible]
Site Name	City of Albemarle Landfill
Project Number	[illegible]

Municipal Engineering Services Company, PA

1 0 1 MILE



GROUNDWATER DEPTHS MEASURED JULY 28 & 29, 2009

WELL #	TOP OF PIPE ELEVATION (FT)	WATER TABLE DEPTH (FT)	WATER TABLE ELEVATION (FT)
MW-1	447.21	15.51	431.70
MW-2	431.85	7.58	424.27
MW-3	396.11	12.85	383.26
MW-4	396.19	11.25	384.94
MW-4R	415.36	22.69	392.67
MW-5R	416.06	8.74	407.32
MW-6	439.63	24.18	415.45
MW-7	431.30	12.74	418.56
MW-9	392.64	7.80	384.84
MW-10	388.01	6.45	381.56
MW-11	386.78	6.62	380.16
MW-12	399.47	8.12	391.35
MW-8D	491.38	53.65	437.73
MW-24	432.19	12.63	419.56
MW-25	425.22	7.84	417.38
MW-13	388.52	6.84	381.68
MW-14	383.55	4.95	378.60
MW-15	385.72	5.91	379.81
MW-16S	386.75	5.99	380.76
MW-17	396.47	10.08	386.39
MW-18	409.41	8.33	401.08
MW-19	452.34	22.55	429.79
MW-22	388.41	10.85	377.56
MW-23	386.41	7.26	379.15
MW-26	415.70	32.85	382.85
MW-27	404.71	4.95	399.76
P-56	390.95	3.60	387.35
P-59	473.92	42.36	431.56
P-60	449.00	14.31	434.69
P-61	478.81	27.49	451.32
P-62	464.63	38.85	425.78
P2-8	442.60	N/A	N/A

Municipal Engineering Services Company, P.A.
LICENSE NUMBER: C-0281
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393
P.O. BOX 349 BOONE, N.C. 28607 (828) 262-1767

ACTIVE SUBTITLE D LINED MSWLF CLOSED MSWLF AND ACTIVE C&D

CITY OF ALBEMARLE NORTH CAROLINA

DATE	BY	REV.	DESCRIPTION

POTENTIOMETRIC SURFACE MAP
JULY 28–29, 2009

SCALE:	1"=200'
DATE:	11/17/09
DRWN. BY:	S. PATRICK
CHKD. BY:	S. PATRICK
PROJECT NUMBER	G09008.0
DRAWING NO.	PLATE 2
SHEET NO.	1 of 1

Statistical Analysis Results Summary

Inter-Well Analyses Summary
City of Albemarle Closed MSWLF and Active C&D Landfill

Background Well: MW-1

Arsenic, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
83.33	-	Non-parametric tolerance interval	½ ND	81	ug/l

Well	Result	Significance
MW-3	12	no
MW-8D	13	no

Cadmium, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
90.00	-	Poisson Tolerance Limit	ND	3.0	ug/l

Well	Result	Significance
MW-4R	2.4	no
MW-6	2.1	no
MW-7	1.1	no
MW-10	2.1	no

Cobalt, total

%ND	Normality	Method	ND Adj.	Upper Limit (a = 95%)	Unit
16.67	log-normal	Parametric tolerance interval	½ ND	3.9791	log[ug/l]

Well	Result	Significance
MW-2	2.9178	no
MW-12	4.3994	yes

NOTE: Bold-faced monitoring points indicate detected levels exceeds 2L Standards

Intra-Well Analysis Summary (Metals)
City of Albemarle Closed MSWLF and Active C&D Landfill

Well	Cobalt
MW-12	no

EXPLANATION

Bold=detected levels above NCGW2L Standard

n/a=Significant by interwell analysis but Intrawell analysis could not be conducted due to lack of historical detections

yes=detection statistically significant by intrawell analysis

no=detection not statistically significant by intrawell analysis via both Shewhart-CUSUM and EWMA Control Charts

No Metals have increased according to Intrawell Analysis

Summary of Pooled VOCs in Background Well (MW-1)
City of Albemarle Closed MSWLF and Active C&D Landfill

Constituent	Samples	NDs	% NDs
1,1,1,2-Tetrachloroethane	29	29	100.00
1,1,1-Trichloroethane	29	29	100.00
1,1,2,2-Tetrachloroethane	29	29	100.00
1,1,2-Trichloroethane	29	29	100.00
1,1-Dichloroethane	29	29	100.00
1,1-Dichloroethene	29	29	100.00
1,2,3-Trichloropropane	29	29	100.00
1,2-Dibromo-3-chloropropane	29	29	100.00
1,2-Dibromoethane	29	29	100.00
1,2-Dichlorobenzene	29	29	100.00
1,2-Dichloroethane	29	29	100.00
1,2-Dichloropropane	29	29	100.00
1,4-Dichlorobenzene	29	29	100.00
2-Butanone	29	29	100.00
2-Hexanone	29	29	100.00
4-Methyl-2-Pentanone	29	29	100.00
Acetone	29	29	100.00
Acrylonitrile	29	29	100.00
Benzene	29	29	100.00
Bromochloromethane	29	29	100.00
Bromodichloromethane	29	29	100.00
Bromoform	29	29	100.00
Bromomethane	29	29	100.00
Carbon disulfide	29	29	100.00
Carbon tetrachloride	29	29	100.00
Chlorobenzene	29	29	100.00
Chloroethane	29	29	100.00
Chloroform	29	29	100.00
Chloromethane	29	29	100.00
cis-1,2-Dichloroethene	29	29	100.00
cis-1,3-Dichloropropene	29	29	100.00
Chlorodibromomethane	29	29	100.00
Dibromomethane	29	29	100.00
Ethylbenzene	29	29	100.00
Iodomethane	29	29	100.00
Dichloromethane	29	28	96.55
Styrene	29	29	100.00
Tetrachloroethylene	29	29	100.00
Toluene	29	28	96.55
trans-1,2-Dichloroethene	29	29	100.00
trans-1,3-Dichloropropene	29	29	100.00
trans-1,4-Dichloro-2-butene	29	29	100.00
Trichloroethylene	29	29	100.00
Trichlorofluoromethane	29	29	100.00
Vinyl acetate	29	29	100.00
Vinyl chloride	29	29	100.00
Xylene	29	29	100.00
Total	**1363**	**1361**	**99.85**

Poisson Prediction Interval Based upon Pooled Background VOCs
City of Albemarle Closed MSWLF and Active C&D Landfill

All detected VOCs (Background Well: MW-1)

Constituent	MW-6	MW-7	MW-10	MW-11	MW-12
Benzene		**x**			
Chlorobenzene		x			
1,4-Dichlorobenzene		**x**			
1,1-Dichloroethane				x	
Trichlorofluoromethane	x				
Tetrachloroethene	**x**				
Methylene Chloride	x				
Vinyl chloride					**x**
Toluene			x		
Detection(s) per Scan	3.00	3.00	1.00	1.00	1.00

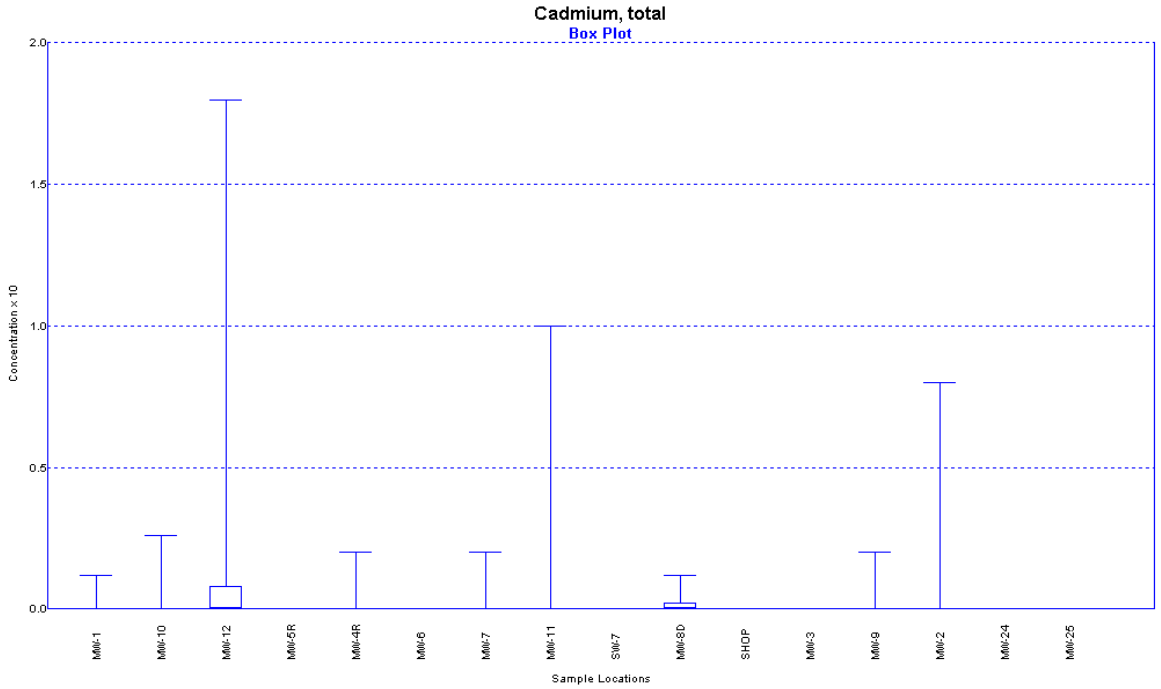
x = **Bold** indicates detected levels exceed 2L Standard

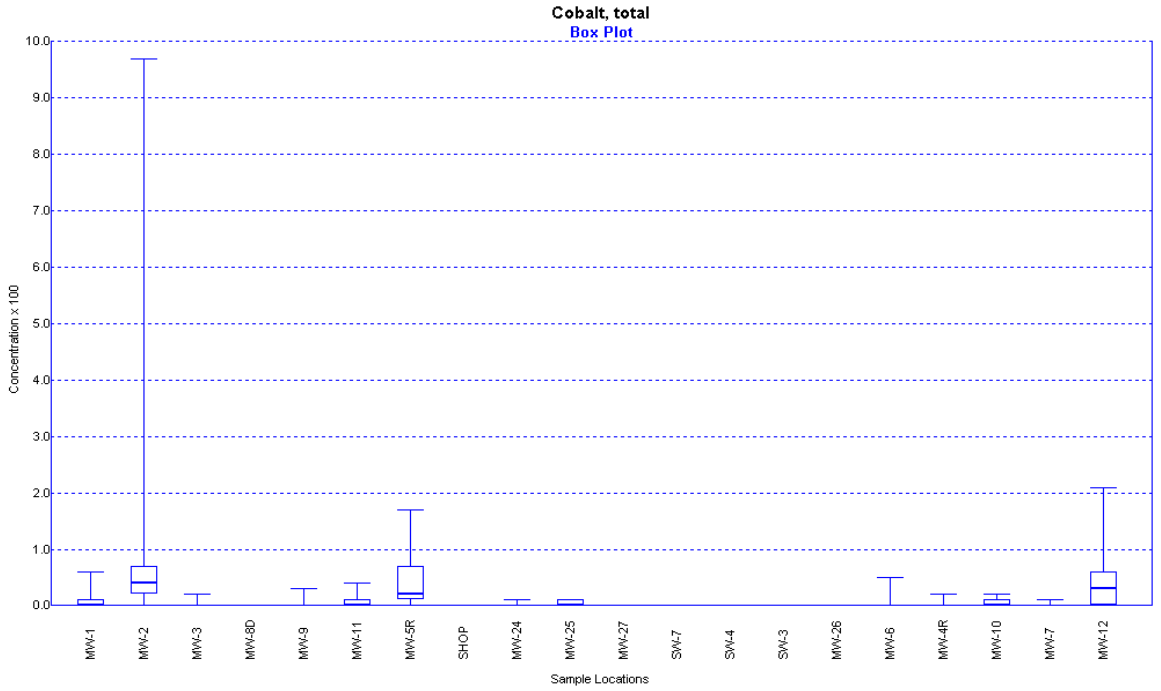
"j" qualifier concentrations treated as non-detection

Total number of sampling events [n] = 29
Total number of detections in background wells [y] = 2
Number of comparisons (downgradient wells) [k] = 14
One-sided value of Student's t-statistic (95% confidence) [t] = 2.9
Expected number of detections in a single future sample [y*] = 1

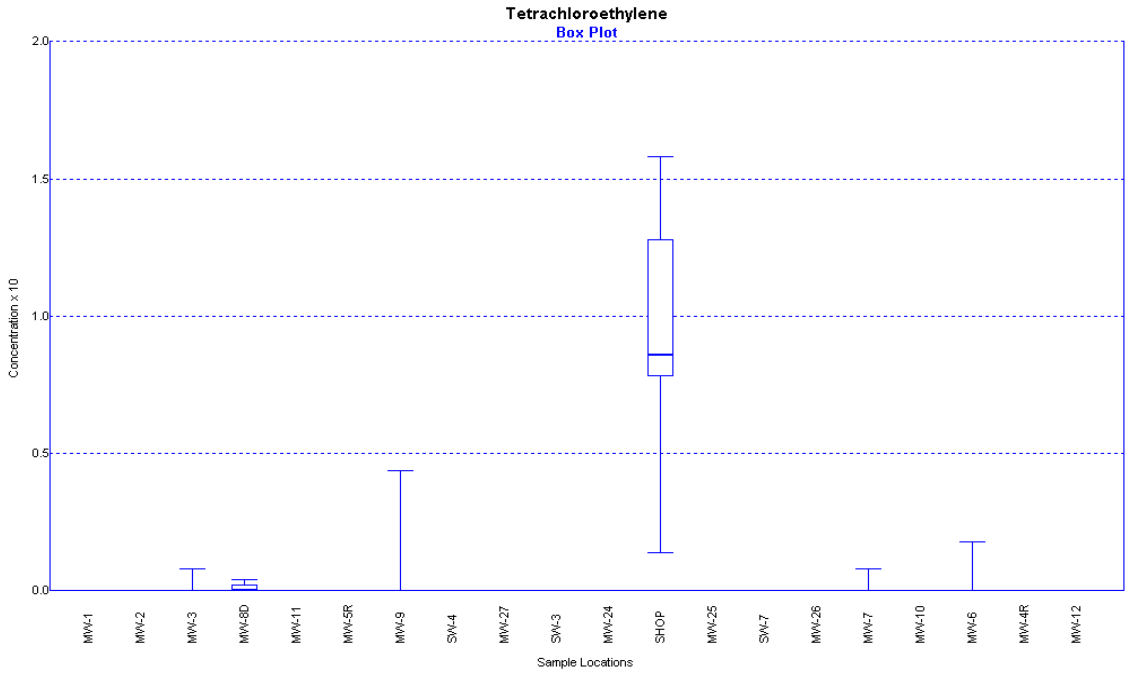
Statistically Significant VOC Detections
within MW-6 & MW-7
at a 95% confidence level

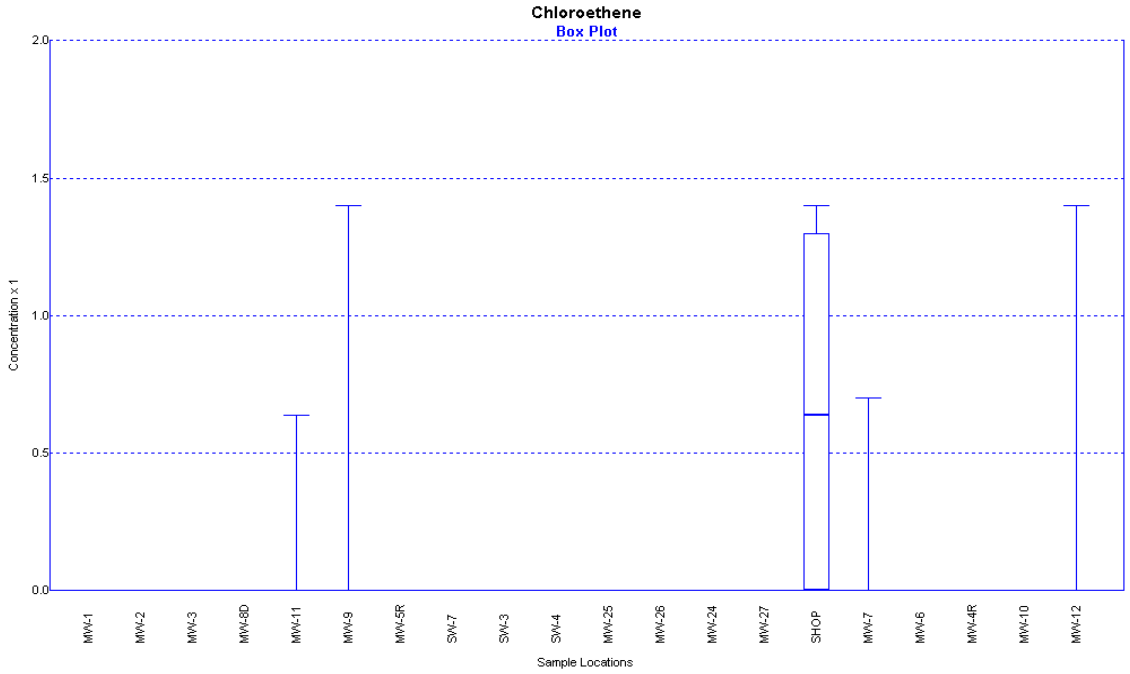
Box Plots for Select Constituents (Metals)
City of Albemarle Closed MSWLF and Active C&D Landfill



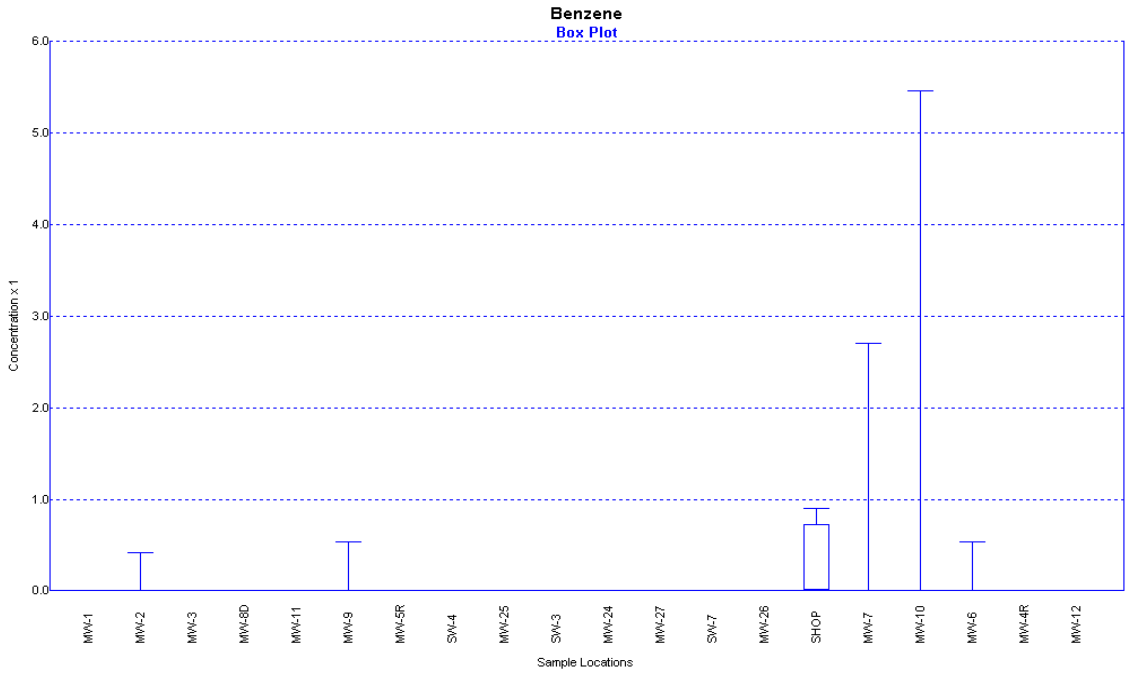


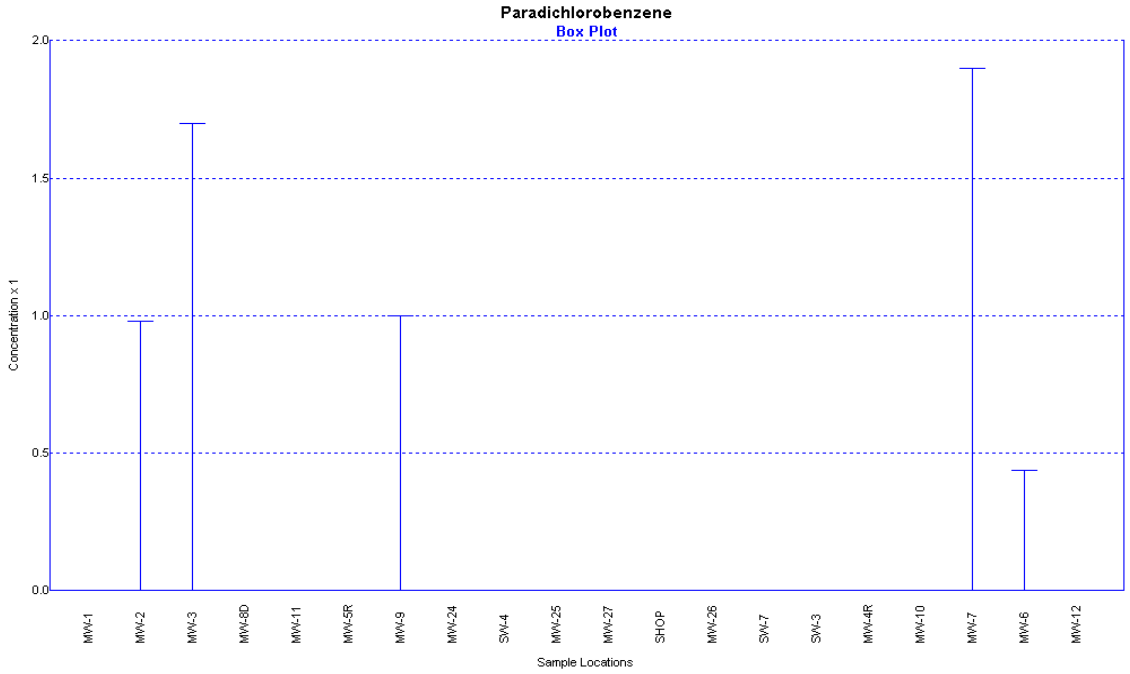
Box Plots for Select Constituents (VOCs)
City of Albemarle Closed MSWLF and Active C&D Landfill



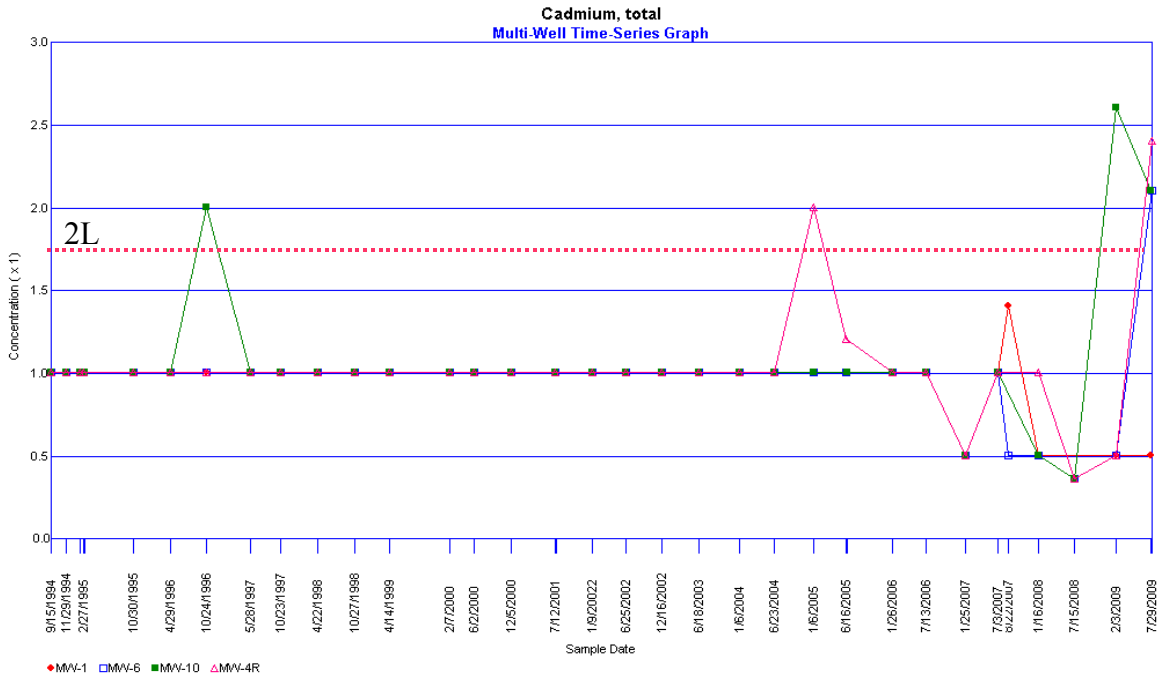


Box Plots for Select Constituents (VOCs)
City of Albemarle Closed MSWLF and Active C&D Landfill

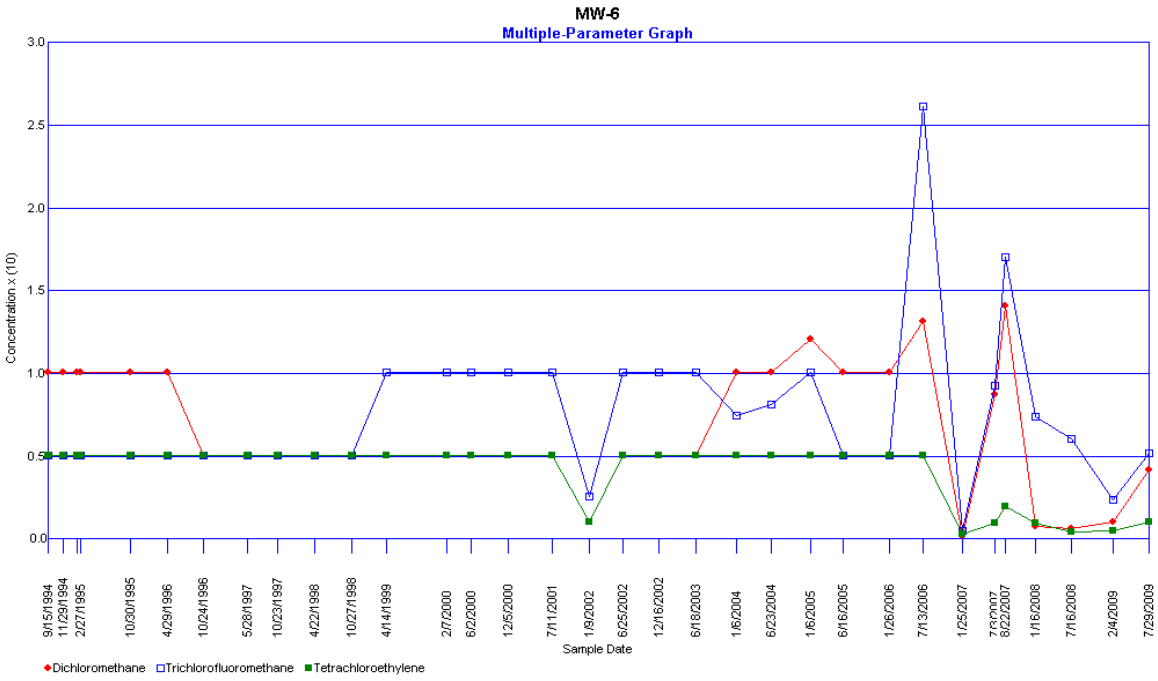


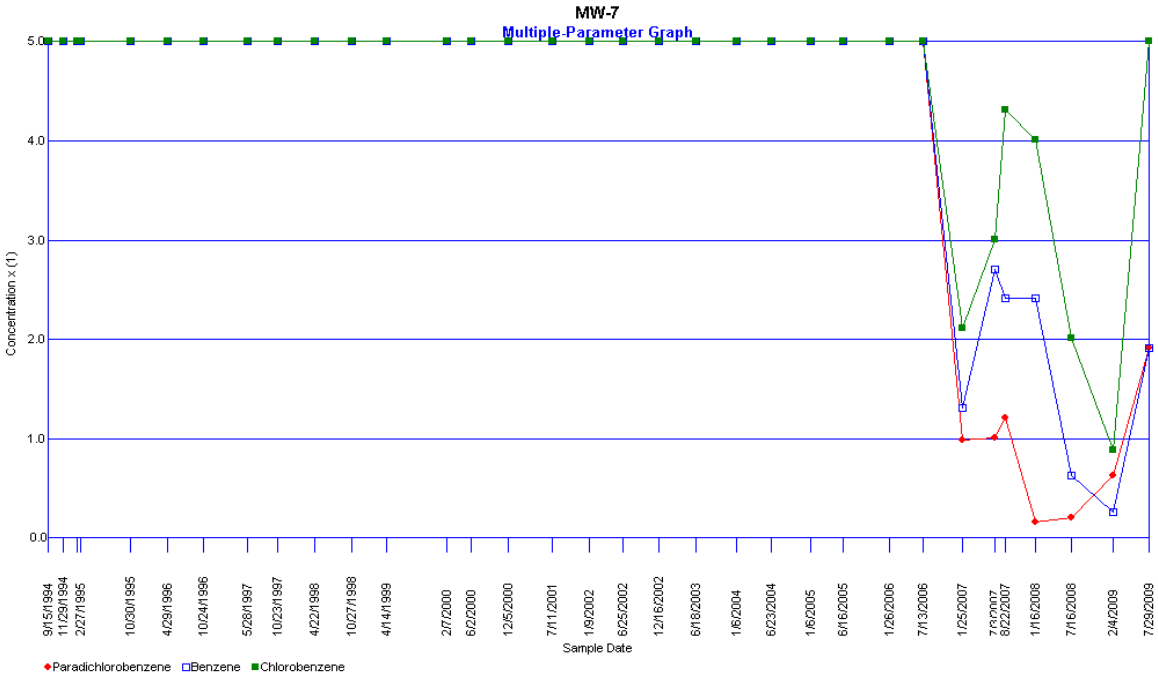


Time Series Plot for Select Constituents
City of Albemarle Closed MSWLF and Active C&D Landfill
ND Represented with Detection Limit

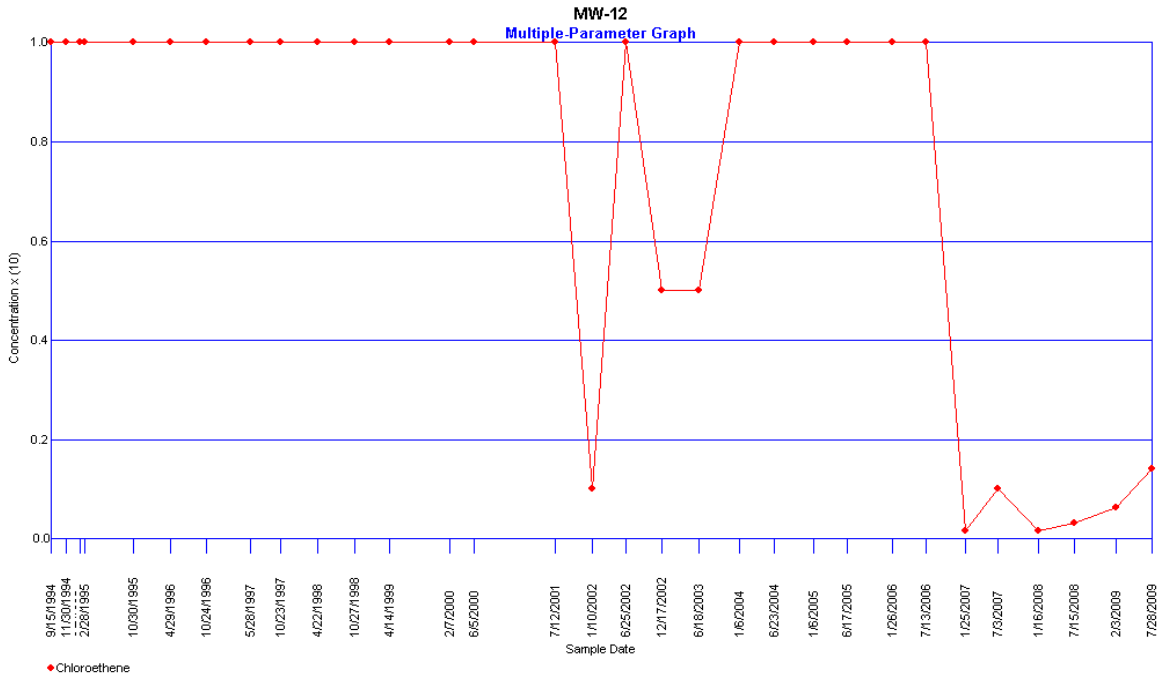


Time Series Plot for Select Constituents
City of Albemarle Closed MSWLF and Active C&D Landfill
ND Represented with Detection Limit

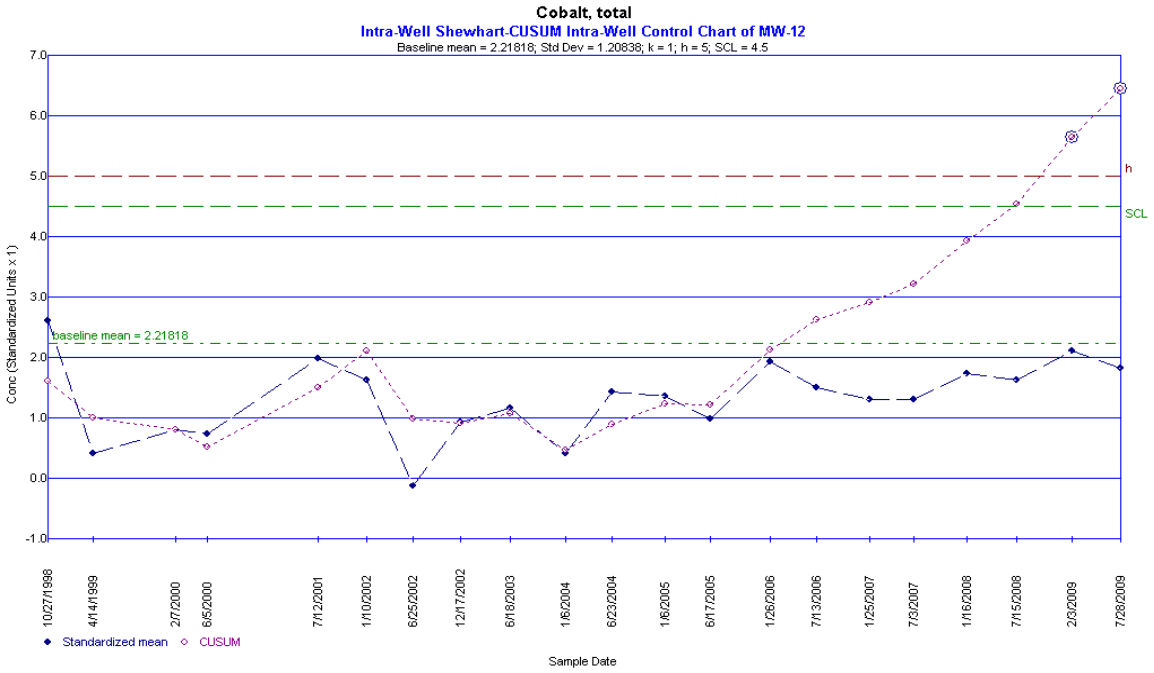




Time Series Plot for Select Constituents
City of Albemarle Closed MSWLF and Active C&D Landfill
ND Represented with Detection Limit



Shewhart-CUSUM Charts for Selected Constituents
City of Albemarle Closed MSWLF and Active C&D Landfill



Basic Statistics

Basic Statistics

Parameter: Arsenic, total

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

	Total Observations
397	
Total Non-Detects	285
Pooled Mean	7.48035
Pooled Std Dev	9.99086
Background Mean	5.08833
Background Std Dev	4.62996

Background Wells

There is 1 background well

Well	Samples	Non-Detects	% ND	Total
MW-1	30	25	83.3333	152.65

Well	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-1	5.08833	4.62996	0	5212	173.733

Compliance Wells

There are 20 compliance wells

Well	Samples	Non-Detects	% ND	Total
MW-2	34	22	64.7059	245.75
MW-12	31	21	67.7419	226.25
MW-3	33	12	36.3636	412.5
MW-8D	5	4	80	21.75
MW-9	32	15	46.875	500.85
MW-5R	21	6	28.5714	320.4
MW-11	32	31	96.875	111.1
MW-27	1	1	100	1.35
MW-24	6	5	83.3333	25.2
SHOP	6	6	100	18.4
MW-25	6	6	100	8.7
MW-22	1	1	100	1.35
SW-3	13	13	100	47.5
SW-4	13	13	100	47.5
SW-7	2	2	100	2.7
MW-26	1	1	100	1.35
MW-7	33	19	57.5758	371.5
MW-10	32	23	71.875	174.1
MW-4R	32	28	87.5	165.1
MW-6	33	31	93.9394	113.7

Well	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-2	7.22794	7.29315	2.13961	2.32056	7112	209.176
MW-12	7.29839	8.27303	2.21005	2.37261	6320	203.871
MW-3	12.5	9.22818	7.41167	2.33699	9016	273.212
MW-8D	4.35	5.10319	-0.738333	4.47499	910	182
MW-9	15.6516	20.8415	10.5632	2.35431	8026	250.813
MW-5R	15.2571	12.1055	10.1688	2.63584	6156	293.143
MW-11	3.47187	1.8784	-1.61646	2.35431	4748	148.375
MW-27	1.35	0	-3.73833	9.41724	143	143
MW-24	4.2	6.51913	-0.888333	4.14303	1071	178.5
SHOP	3.06667	2.12289	-2.02167	4.14303	858	143
MW-25	1.45	0.306594	-3.63833	4.14303	858	143
MW-22	1.35	0	-3.73833	9.41724	143	143
SW-3	3.65385	1.29719	-1.43449	3.07613	1859	143
SW-4	3.65385	1.29719	-1.43449	3.07613	1859	143
SW-7	1.35	0	-3.73833	6.76555	286	143
MW-26	1.35	0	-3.73833	9.41724	143	143
MW-7	11.2576	14.3234	6.16924	2.33699	7685	232.879
MW-10	5.44062	4.71481	0.352292	2.35431	6183	193.219
MW-4R	5.15937	5.38304	0.0710417	2.35431	5403	168.844
MW-6	3.44545	1.5433	-1.64288	2.33699	5012	151.879

Analysis of Variance Statistics

SS Wells	7257.99
SS Total	39527.7

Kruskal-Wallis Statistics

Non-Detect Rank	143
Background Rank Sum	5212
Background Rank Mean	173.733
H Statistic	63.7439
H Adjusted for Ties	101.175

Basic Statistics

Parameter: Arsenic, total

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

	Total Observations
397	
Total Non-Detects	285
Pooled Mean	7.48035
Pooled Std Dev	9.99086
Background Mean	5.08833
Background Std Dev	4.62996

Background Wells

There is 1 background well

Well	Samples	Non-Detects	% ND	Total
MW-1	30	25	83.3333	152.65

Well	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-1	5.08833	4.62996	0	5212	173.733

Compliance Wells

There are 20 compliance wells

Well	Samples	Non-Detects	% ND	Total
MW-9	32	15	46.875	500.85
MW-7	33	19	57.5758	371.5
MW-10	32	23	71.875	174.1
MW-2	34	22	64.7059	245.75
MW-5R	21	6	28.5714	320.4
MW-4R	32	28	87.5	165.1
MW-6	33	31	93.9394	113.7
MW-11	32	31	96.875	111.1
MW-12	31	21	67.7419	226.25
MW-3	33	12	36.3636	412.5
MW-27	1	1	100	1.35
MW-24	6	5	83.3333	25.2
MW-8D	5	4	80	21.75
SHOP	6	6	100	18.4
MW-25	6	6	100	8.7
MW-22	1	1	100	1.35
SW-3	13	13	100	47.5
SW-4	13	13	100	47.5
SW-7	2	2	100	2.7
MW-26	1	1	100	1.35

Well	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-9	15.6516	20.8415	10.5632	2.35431	8015	250.469
MW-7	11.2576	14.3234	6.16924	2.33699	7666	232.303
MW-10	5.44062	4.71481	0.352292	2.35431	6172	192.875
MW-2	7.22794	7.29315	2.13961	2.32056	7120	209.412
MW-5R	15.2571	12.1055	10.1688	2.63584	6158	293.238
MW-4R	5.15937	5.38304	0.0710417	2.35431	5399	168.719
MW-6	3.44545	1.5433	-1.64288	2.33699	5011	151.848
MW-11	3.47187	1.8784	-1.61646	2.35431	4746	148.313
MW-12	7.29839	8.27303	2.21005	2.37261	6331	204.226
MW-3	12.5	9.22818	7.41167	2.33699	9040	273.939
MW-27	1.35	0	-3.73833	9.41724	143	143
MW-24	4.2	6.51913	-0.888333	4.14303	1071	178.5
MW-8D	4.35	5.10319	-0.738333	4.47499	913	182.6
SHOP	3.06667	2.12289	-2.02167	4.14303	858	143
MW-25	1.45	0.306594	-3.63833	4.14303	858	143
MW-22	1.35	0	-3.73833	9.41724	143	143
SW-3	3.65385	1.29719	-1.43449	3.07613	1859	143
SW-4	3.65385	1.29719	-1.43449	3.07613	1859	143
SW-7	1.35	0	-3.73833	6.76555	286	143
MW-26	1.35	0	-3.73833	9.41724	143	143

Analysis of Variance Statistics

SS Wells	7257.99
SS Total	39527.7

Kruskal-Wallis Statistics

Non-Detect Rank	143
Background Rank Sum	5212
Background Rank Mean	173.733
H Statistic	63.9254
H Adjusted for Ties	101.463

Basic Statistics

Parameter: Cadmium, total

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

	Total Observations
397	
Total Non-Detects	367
Pooled Mean	0.649874
Pooled Std Dev	1.26663
Background Mean	0.521667
Background Std Dev	0.235505

Background Wells

There is 1 background well

Well	Samples	Non-Detects	% ND	Total
MW-1	30	27	90	15.65

Well	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-1	0.521667	0.235505	0	6084	202.8

Compliance Wells

There are 20 compliance wells

Well	Samples	Non-Detects	% ND	Total
MW-12	31	24	77.4194	53.88
MW-2	34	32	94.1176	23.18
MW-3	33	33	100	14.93
MW-8D	5	4	80	2.13
MW-11	32	31	96.875	24.18
MW-9	32	29	90.625	17.93
MW-5R	21	21	100	9.18
MW-27	1	1	100	0.25
MW-24	6	6	100	1.31
SHOP	6	6	100	2.18
MW-25	6	6	100	1.31
SW-3	13	13	100	6.5
SW-7	2	1	50	2.05
MW-26	1	1	100	0.25
SW-4	13	13	100	6.5
MW-22	1	0	0	1.3
MW-7	33	30	90.9091	18.35
MW-6	33	32	96.9697	16.78
MW-10	32	29	90.625	20.38
MW-4R	32	28	87.5	19.78

Well	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-12	1.73806	3.71874	1.2164	0.320725	7148	230.581
MW-2	0.681765	1.30098	0.160098	0.313689	6652	195.647
MW-3	0.452424	0.103109	-0.0692424	0.315909	6072	184
MW-8D	0.426	0.43374	-0.0956667	0.60492	1112	222.4
MW-11	0.755625	1.68974	0.233958	0.318251	6099	190.594
MW-9	0.560312	0.403553	0.0386458	0.318251	6470	202.188
MW-5R	0.437143	0.116066	-0.0845238	0.356307	3864	184
MW-27	0.25	0	-0.271667	1.273	184	184
MW-24	0.218333	0.0348807	-0.303333	0.560047	1104	184
SHOP	0.363333	0.151877	-0.158333	0.560047	1104	184
MW-25	0.218333	0.0348807	-0.303333	0.560047	1104	184
SW-3	0.5	0	-0.0216667	0.415826	2392	184
SW-7	1.025	1.09602	0.503333	0.914552	564	282
MW-26	0.25	0	-0.271667	1.273	184	184
SW-4	0.5	0	-0.0216667	0.415826	2392	184
MW-22	1.3	0	0.778333	1.273	378	378
MW-7	0.556061	0.303304	0.0343939	0.315909	6649	201.485
MW-6	0.508485	0.30156	-0.0131818	0.315909	6274	190.121
MW-10	0.636875	0.534243	0.115208	0.318251	6497	203.031
MW-4R	0.618125	0.453691	0.0964583	0.318251	6676	208.625

Analysis of Variance Statistics

SS Wells	45.6617
SS Total	635.328

Kruskal-Wallis Statistics

Non-Detect Rank	184
Background Rank Sum	6084
Background Rank Mean	202.8
H Statistic	8.48063
H Adjusted for Ties	40.3836

Basic Statistics

Parameter: Cadmium, total

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

	Total Observations
397	
Total Non-Detects	367
Pooled Mean	0.649874
Pooled Std Dev	1.26663
Background Mean	0.521667
Background Std Dev	0.235505

Background Wells

There is 1 background well

Well	Samples	Non-Detects	% ND	Total
MW-1	30	27	90	15.65

Well	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-1	0.521667	0.235505	0	6084	202.8

Compliance Wells

There are 20 compliance wells

Well	Samples	Non-Detects	% ND	Total
MW-11	32	31	96.875	24.18
MW-9	32	29	90.625	17.93
MW-12	31	24	77.4194	53.88
MW-7	33	30	90.9091	18.35
MW-3	33	33	100	14.93
MW-6	33	32	96.9697	16.78
MW-2	34	32	94.1176	23.18
MW-5R	21	21	100	9.18
MW-10	32	29	90.625	20.38
MW-4R	32	28	87.5	19.78
MW-27	1	1	100	0.25
MW-8D	5	4	80	2.13
MW-24	6	6	100	1.31
SHOP	6	6	100	2.18
MW-25	6	6	100	1.31
SW-3	13	13	100	6.5
SW-7	2	1	50	2.05
MW-26	1	1	100	0.25
SW-4	13	13	100	6.5
MW-22	1	0	0	1.3

Well	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-11	0.755625	1.68974	0.233958	0.318251	6099	190.594
MW-9	0.560312	0.403553	0.0386458	0.318251	6469	202.156
MW-12	1.73806	3.71874	1.2164	0.320725	7148	230.581
MW-7	0.556061	0.303304	0.0343939	0.315909	6648	201.455
MW-3	0.452424	0.103109	-0.0692424	0.315909	6072	184
MW-6	0.508485	0.30156	-0.0131818	0.315909	6274	190.121
MW-2	0.681765	1.30098	0.160098	0.313689	6654	195.706
MW-5R	0.437143	0.116066	-0.0845238	0.356307	3864	184
MW-10	0.636875	0.534243	0.115208	0.318251	6497	203.031
MW-4R	0.618125	0.453691	0.0964583	0.318251	6675	208.594
MW-27	0.25	0	-0.271667	1.273	184	184
MW-8D	0.426	0.43374	-0.0956667	0.60492	1113	222.6
MW-24	0.218333	0.0348807	-0.303333	0.560047	1104	184
SHOP	0.363333	0.151877	-0.158333	0.560047	1104	184
MW-25	0.218333	0.0348807	-0.303333	0.560047	1104	184
SW-3	0.5	0	-0.0216667	0.415826	2392	184
SW-7	1.025	1.09602	0.503333	0.914552	564	282
MW-26	0.25	0	-0.271667	1.273	184	184
SW-4	0.5	0	-0.0216667	0.415826	2392	184
MW-22	1.3	0	0.778333	1.273	378	378

Analysis of Variance Statistics

SS Wells	45.6617
SS Total	635.328

Kruskal-Wallis Statistics

Non-Detect Rank	184
Background Rank Sum	6084
Background Rank Mean	202.8
H Statistic	8.48087
H Adjusted for Ties	40.3848

Basic Statistics

Parameter: Cobalt, total

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

	Total Observations
397	
Total Non-Detects	214
Pooled Mean	22.2019
Pooled Std Dev	73.4568
Background Mean	16.2533
Background Std Dev	14.1145

Background Wells

There is 1 background well

Well	Samples	Non-Detects	% ND	Total
MW-1	30	5	16.6667	487.6

Well	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-1	16.2533	14.1145	0	7818.5	260.617

Compliance Wells

There are 20 compliance wells

Well	Samples	Non-Detects	% ND	Total
MW-12	31	4	12.9032	1425.1
MW-2	34	1	2.94118	3751
MW-3	33	20	60.6061	238.85
MW-8D	5	5	100	7.15
MW-9	32	21	65.625	284.85
MW-11	32	16	50	412.95
MW-5R	21	3	14.2857	991.4
SHOP	6	6	100	17.55
MW-24	6	5	83.3333	16.05
MW-25	6	4	66.6667	26.75
MW-27	1	1	100	0.3
SW-7	2	2	100	0.6
SW-4	13	12	92.3077	87
MW-22	1	1	100	0.3
SW-3	13	13	100	86
MW-26	1	1	100	0.3
MW-6	33	27	81.8182	254.05
MW-4R	32	24	75	232.95
MW-10	32	14	43.75	313.75
MW-7	33	29	87.8788	179.65

Well	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-12	45.971	44.8178	29.7176	17.62	9384	302.71
MW-2	110.324	222.586	94.0702	17.2335	11756.5	345.779
MW-3	7.23788	9.56528	-9.01545	17.3554	5490	166.364
MW-8D	1.43	2.01606	-14.8233	33.2331	537.5	107.5
MW-9	8.90156	11.6925	-7.35177	17.4841	5342.5	166.953
MW-11	12.9047	14.3521	-3.34865	17.4841	6366	198.938
MW-5R	47.2095	48.7147	30.9562	19.5748	6398.5	304.69
SHOP	2.925	2.27898	-13.3283	30.7679	645	107.5
MW-24	2.675	4.78401	-13.5783	30.7679	813.5	135.583
MW-25	4.45833	6.07951	-11.795	30.7679	979	163.167
MW-27	0.3	0	-15.9533	69.9364	107.5	107.5
SW-7	0.3	0	-15.9533	50.2438	215	107.5
SW-4	6.69231	13.1205	-9.56103	22.8447	1506	115.846
MW-22	0.3	0	-15.9533	69.9364	107.5	107.5
SW-3	6.61538	13.1532	-9.63795	22.8447	1397.5	107.5
MW-26	0.3	0	-15.9533	69.9364	107.5	107.5
MW-6	7.69848	12.7316	-8.55485	17.3554	4605.5	139.561
MW-4R	7.27969	9.54787	-8.97365	17.4841	4822	150.688
MW-10	9.80469	9.57847	-6.44865	17.4841	6437	201.156
MW-7	5.44394	8.60365	-10.8094	17.3554	4166.5	126.258

Analysis of Variance Statistics

SS Wells	357049
SS Total	2.13678e+006

Kruskal-Wallis Statistics

Non-Detect Rank	107.5
Background Rank Sum	7818.5
Background Rank Mean	260.617
H Statistic	168.069
H Adjusted for Ties	199.281

Non-Parametric Tolerance Interval

Parameter: Arsenic, total

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

Total Percent Non-Detects = 71.7884%
Background Samples (n) = 359
Maximum Background Concentration = 81
Minimum Coverage = 0%
Average Coverage = 99.7222%

Well	Sample	Result	Impacted
MW-3	9/16/1994	18	FALSE
MW-3	11/29/1994	ND<5	FALSE
MW-3	2/7/1995	ND<5	FALSE
MW-3	2/27/1995	ND<5	FALSE
MW-3	10/31/1995	ND<5	FALSE
MW-3	4/30/1996	ND<5	FALSE
MW-3	10/24/1996	ND<2.5	FALSE
MW-3	5/28/1997	5	FALSE
MW-3	10/23/1997	ND<2.5	FALSE
MW-3	4/22/1998	ND<2.5	FALSE
MW-3	10/27/1998	15	FALSE
MW-3	4/14/1999	12	FALSE
MW-3	2/8/2000	ND<2.5	FALSE
MW-3	6/5/2000	13	FALSE
MW-3	12/5/2000	26	FALSE
MW-3	7/12/2001	17	FALSE
MW-3	1/9/2002	15	FALSE
MW-3	6/25/2002	33	FALSE
MW-3	12/16/2002	7.6	FALSE
MW-3	6/18/2003	30	FALSE
MW-3	1/6/2004	12	FALSE
MW-3	6/23/2004	26	FALSE
MW-3	1/6/2005	28	FALSE
MW-3	6/17/2005	20	FALSE
MW-3	1/26/2006	11.7	FALSE
MW-3	7/13/2006	23.6	FALSE
MW-3	1/25/2007	12.6	FALSE
MW-3	7/3/2007	ND<5	FALSE
MW-3	8/22/2007	ND<2	FALSE
MW-3	1/16/2008	ND<1	FALSE
MW-3	7/16/2008	21.7	FALSE
MW-3	2/4/2009	10.3	FALSE
MW-3	7/28/2009	12	FALSE
MW-8D	7/3/2007	ND<5	FALSE
MW-8D	1/16/2008	ND<1	FALSE
MW-8D	7/16/2008	ND<1.4	FALSE
MW-8D	2/3/2009	ND<1.35	FALSE
MW-8D	7/29/2009	13	FALSE

Poisson Tolerance Limit

Parameter: Cadmium, total

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

Poisson Count of 30 background Samples = 27.9
Degrees of Freedom = 57

95% Confidence Values

Chi-Squared Value (95% Confidence) = 75.6237
Lambda (from Zack's formula) = 1.2604
Smallest Degrees of Freedom = 8
Upper Tolerance Limit (95%) = 3

99% Confidence Values

Chi-Squared Value (99% Confidence) = 84.7327
Lambda (from Zack's formula) = 1.41221
Smallest Degrees of Freedom = 11
Upper Tolerance Limit (99%) = 4.5

	Date	Result	Impacted 95%	Impacted 99%
MW-7	9/15/1994	ND<1	FALSE	FALSE
	11/29/1994	ND<1	FALSE	FALSE
	2/7/1995	ND<1	FALSE	FALSE
	2/27/1995	ND<1	FALSE	FALSE
	10/30/1995	ND<1	FALSE	FALSE
	4/29/1996	ND<1	FALSE	FALSE
	10/24/1996	ND<1	FALSE	FALSE
	5/28/1997	ND<1	FALSE	FALSE
	10/23/1997	ND<1	FALSE	FALSE
	4/22/1998	ND<1	FALSE	FALSE
	10/27/1998	ND<1	FALSE	FALSE
	4/14/1999	ND<1	FALSE	FALSE
	2/7/2000	ND<1	FALSE	FALSE
	6/2/2000	ND<1	FALSE	FALSE
	12/5/2000	ND<1	FALSE	FALSE
	7/11/2001	ND<1	FALSE	FALSE
	1/9/2002	ND<1	FALSE	FALSE
	6/25/2002	ND<1	FALSE	FALSE
	12/16/2002	ND<1	FALSE	FALSE
	6/18/2003	ND<1	FALSE	FALSE
	1/6/2004	ND<1	FALSE	FALSE
	6/23/2004	ND<1	FALSE	FALSE
	1/6/2005	ND<1	FALSE	FALSE
	6/16/2005	ND<1	FALSE	FALSE
	1/26/2006	ND<1	FALSE	FALSE
	7/13/2006	ND<1	FALSE	FALSE
	1/25/2007	ND<0.5	FALSE	FALSE
	7/3/2007	ND<1	FALSE	FALSE
	8/22/2007	ND<0.5	FALSE	FALSE
	1/16/2008	1	FALSE	FALSE
	7/16/2008	2	FALSE	FALSE
	2/4/2009	ND<0.5	FALSE	FALSE
	7/29/2009	1.1	FALSE	FALSE
MW-6	9/15/1994	ND<1	FALSE	FALSE
	11/29/1994	ND<1	FALSE	FALSE
	2/7/1995	ND<1	FALSE	FALSE
	2/27/1995	ND<1	FALSE	FALSE
	10/30/1995	ND<1	FALSE	FALSE
	4/29/1996	ND<1	FALSE	FALSE
	10/24/1996	ND<1	FALSE	FALSE
	5/28/1997	ND<1	FALSE	FALSE
	10/23/1997	ND<1	FALSE	FALSE
	4/22/1998	ND<1	FALSE	FALSE
	10/27/1998	ND<1	FALSE	FALSE
	4/14/1999	ND<1	FALSE	FALSE
	2/7/2000	ND<1	FALSE	FALSE

	6/2/2000	ND<1	FALSE	FALSE
	12/5/2000	ND<1	FALSE	FALSE
	7/11/2001	ND<1	FALSE	FALSE
	1/9/2002	ND<1	FALSE	FALSE
	6/25/2002	ND<1	FALSE	FALSE
	12/16/2002	ND<1	FALSE	FALSE
	6/18/2003	ND<1	FALSE	FALSE
	1/6/2004	ND<1	FALSE	FALSE
	6/23/2004	ND<1	FALSE	FALSE
	1/6/2005	ND<1	FALSE	FALSE
	6/16/2005	ND<1	FALSE	FALSE
	1/26/2006	ND<1	FALSE	FALSE
	7/13/2006	ND<1	FALSE	FALSE
	1/25/2007	ND<0.5	FALSE	FALSE
	7/3/2007	ND<1	FALSE	FALSE
	8/22/2007	ND<0.5	FALSE	FALSE
	1/16/2008	ND<0.5	FALSE	FALSE
	7/16/2008	ND<0.36	FALSE	FALSE
	2/4/2009	ND<0.5	FALSE	FALSE
	7/29/2009	2.1	FALSE	FALSE
MW-10	9/16/1994	ND<1	FALSE	FALSE
	11/29/1994	ND<1	FALSE	FALSE
	2/7/1995	ND<1	FALSE	FALSE
	2/28/1995	ND<1	FALSE	FALSE
	10/31/1995	ND<1	FALSE	FALSE
	4/30/1996	ND<1	FALSE	FALSE
	10/24/1996	2	FALSE	FALSE
	5/28/1997	ND<1	FALSE	FALSE
	10/23/1997	ND<1	FALSE	FALSE
	4/22/1998	ND<1	FALSE	FALSE
	10/27/1998	ND<1	FALSE	FALSE
	4/14/1999	ND<1	FALSE	FALSE
	2/8/2000	ND<1	FALSE	FALSE
	6/2/2000	ND<1	FALSE	FALSE
	12/5/2000	ND<1	FALSE	FALSE
	7/12/2001	ND<1	FALSE	FALSE
	1/9/2002	ND<1	FALSE	FALSE
	6/25/2002	ND<1	FALSE	FALSE
	12/16/2002	ND<1	FALSE	FALSE
	6/18/2003	ND<1	FALSE	FALSE
	1/6/2004	ND<1	FALSE	FALSE
	6/23/2004	ND<1	FALSE	FALSE
	1/6/2005	ND<1	FALSE	FALSE
	6/17/2005	ND<1	FALSE	FALSE
	1/26/2006	ND<1	FALSE	FALSE
	7/13/2006	ND<1	FALSE	FALSE
	1/25/2007	ND<0.5	FALSE	FALSE
	7/3/2007	ND<1	FALSE	FALSE
	1/16/2008	ND<0.5	FALSE	FALSE
	7/16/2008	ND<0.36	FALSE	FALSE
	2/3/2009	2.6	FALSE	FALSE
	7/28/2009	2.1	FALSE	FALSE
MW-4R	9/15/1994	ND<1	FALSE	FALSE
	11/29/1994	ND<1	FALSE	FALSE
	2/7/1995	ND<1	FALSE	FALSE
	2/27/1995	ND<1	FALSE	FALSE
	10/30/1995	ND<1	FALSE	FALSE
	4/29/1996	ND<1	FALSE	FALSE
	10/24/1996	ND<1	FALSE	FALSE
	5/28/1997	ND<1	FALSE	FALSE
	10/23/1997	ND<1	FALSE	FALSE
	4/22/1998	ND<1	FALSE	FALSE
	10/27/1998	ND<1	FALSE	FALSE
	4/14/1999	ND<1	FALSE	FALSE
	2/7/2000	ND<1	FALSE	FALSE
	6/2/2000	ND<1	FALSE	FALSE
	12/5/2000	ND<1	FALSE	FALSE
	7/12/2001	ND<1	FALSE	FALSE

1/9/2002	ND<1	FALSE	FALSE
6/25/2002	ND<1	FALSE	FALSE
12/16/2002	ND<1	FALSE	FALSE
6/18/2003	ND<1	FALSE	FALSE
1/6/2004	ND<1	FALSE	FALSE
6/23/2004	ND<1	FALSE	FALSE
1/6/2005	2	FALSE	FALSE
6/16/2005	1.2	FALSE	FALSE
1/26/2006	ND<1	FALSE	FALSE
7/13/2006	ND<1	FALSE	FALSE
1/25/2007	ND<0.5	FALSE	FALSE
7/3/2007	ND<1	FALSE	FALSE
1/16/2008	1	FALSE	FALSE
7/15/2008	ND<0.36	FALSE	FALSE
2/3/2009	ND<0.5	FALSE	FALSE
7/29/2009	2.4	FALSE	FALSE

Basic Statistics

Parameter: Cobalt, total

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

	Total Observations
397	
Total Non-Detects	214
Pooled Mean	22.2019
Pooled Std Dev	73.4568
Background Mean	16.2533
Background Std Dev	14.1145

Background Wells

There is 1 background well

Well	Samples	Non-Detects	% ND	Total
MW-1	30	5	16.6667	487.6

Well	Mean	Std Dev	Std Err	Rank Sum	Rank Mean
MW-1	16.2533	14.1145	0	7818.5	260.617

Compliance Wells

There are 20 compliance wells

Well	Samples	Non-Detects	% ND	Total
MW-3	33	20	60.6061	238.85
MW-6	33	27	81.8182	254.05
MW-4R	32	24	75	232.95
MW-10	32	14	43.75	313.75
MW-9	32	21	65.625	284.85
MW-11	32	16	50	412.95
MW-7	33	29	87.8788	179.65
MW-12	31	4	12.9032	1425.1
MW-5R	21	3	14.2857	991.4
MW-2	34	1	2.94118	3751
SHOP	6	6	100	17.55
MW-24	6	5	83.3333	16.05
MW-25	6	4	66.6667	26.75
MW-8D	5	5	100	7.15
MW-27	1	1	100	0.3
SW-7	2	2	100	0.6
SW-4	13	12	92.3077	87
MW-22	1	1	100	0.3
SW-3	13	13	100	86
MW-26	1	1	100	0.3

Well	Mean	Std Dev	Dif From Bkg	Std Err	Rank Sum	Rank Mean
MW-3	7.23788	9.56528	-9.01545	17.3554	5481	166.091
MW-6	7.69848	12.7316	-8.55485	17.3554	4602.5	139.47
MW-4R	7.27969	9.54787	-8.97365	17.4841	4810	150.313
MW-10	9.80469	9.57847	-6.44865	17.4841	6410	200.313
MW-9	8.90156	11.6925	-7.35177	17.4841	5339.5	166.859
MW-11	12.9047	14.3521	-3.34865	17.4841	6371	199.094
MW-7	5.44394	8.60365	-10.8094	17.3554	4161.5	126.106
MW-12	45.971	44.8178	29.7176	17.62	9414	303.677
MW-5R	47.2095	48.7147	30.9562	19.5748	6402.5	304.881
MW-2	110.324	222.586	94.0702	17.2335	11776.5	346.368
SHOP	2.925	2.27898	-13.3283	30.7679	645	107.5
MW-24	2.675	4.78401	-13.5783	30.7679	813.5	135.583
MW-25	4.45833	6.07951	-11.795	30.7679	979	163.167
MW-8D	1.43	2.01606	-14.8233	33.2331	537.5	107.5
MW-27	0.3	0	-15.9533	69.9364	107.5	107.5
SW-7	0.3	0	-15.9533	50.2438	215	107.5
SW-4	6.69231	13.1205	-9.56103	22.8447	1506	115.846
MW-22	0.3	0	-15.9533	69.9364	107.5	107.5
SW-3	6.61538	13.1532	-9.63795	22.8447	1397.5	107.5
MW-26	0.3	0	-15.9533	69.9364	107.5	107.5

Analysis of Variance Statistics

SS Wells	357049
SS Total	2.13678e+006

Kruskal-Wallis Statistics

Non-Detect Rank	107.5
Background Rank Sum	7818.5
Background Rank Mean	260.617
H Statistic	169.278
H Adjusted for Ties	200.715

Shapiro-Wilks Test of Normality

Parameter: Cobalt, total

Background Wells

Normality Test of Parameter Concentrations

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL
K = 15; Samples = 30

i	x(i)	x(n-i+1)	x(n-1+1)-x(i)	a(n-i+1)	b(i)
1	0	4.2017	4.2017	0.4254	1.7874
2	0.916291	3.91202	2.99573	0.3944	1.18152
3	0.916291	3.73767	2.82138	0.2487	0.701677
4	1.60944	3.18221	1.57277	0.2148	0.337832
5	1.60944	3.16548	1.55604	0.187	0.290979
6	1.60944	2.89037	1.28093	0.163	0.208792
7	2.07944	2.89037	0.81093	0.1415	0.114747
8	2.26176	2.89037	0.628609	0.1219	0.0766274
9	2.30259	2.83321	0.530628	0.1036	0.0549731
10	2.30259	2.83321	0.530628	0.0862	0.0457402
11	2.37024	2.77882	0.408576	0.0697	0.0284777
12	2.37024	2.71469	0.344451	0.0537	0.018497
13	2.48491	2.70805	0.223144	0.0381	0.00850177
14	2.54945	2.70805	0.158605	0.0227	0.00360033
15	2.56495	2.63906	0.074108	0.0076	0.000563221
16	2.63906	2.56495	-0.074108		
17	2.70805	2.54945	-0.158605		
18	2.70805	2.48491	-0.223144		
19	2.71469	2.37024	-0.344451		
20	2.77882	2.37024	-0.408576		
21	2.83321	2.30259	-0.530628		
22	2.83321	2.30259	-0.530628		
23	2.89037	2.26176	-0.628609		
24	2.89037	2.07944	-0.81093		
25	2.89037	1.60944	-1.28093		
26	3.16548	1.60944	-1.55604		
27	3.18221	1.60944	-1.57277		
28	3.73767	0.916291	-2.82138		
29	3.91202	0.916291	-2.99573		
30	4.2017	0	-4.2017		

Sum of b values = 4.85993
Sample Standard Deviation = 0.87504
W Statistic = 1.06367
5% Critical value of 0.927 is less than 1.06367
Data is normally distributed at 95% level of significance
1% Critical value of 0.9 is less than 1.06367
Data is normally distributed at 99% level of significance

Parametric Tolerance Interval Analysis

Parameter: Cobalt, total

Natural Logarithm Transformation
Non-Detects Replaced with 1/2 DL

Background mean = 2.46775
Background standard deviation = 0.87504
One-sided normal tolerance factor at 95% confidence = 1.72721
Tolerance factor calculation follows USEPA 1992 Guidance
Upper tolerance limit = 3.97913

Well	Date	Result	Impacted
MW-12	9/15/1994	ND<3.91202	FALSE
	11/30/1994	ND<1.60944	FALSE
	2/7/1995	2.70805	FALSE
	2/28/1995	2.56495	FALSE
	10/30/1995	ND<1.60944	FALSE
	4/29/1996	ND<1.60944	FALSE
	10/24/1996	1.09861	FALSE
	5/28/1997	1.09861	FALSE
	10/23/1997	1.38629	FALSE
	4/22/1998	4.58497	TRUE
	10/27/1998	5.34711	TRUE
	4/14/1999	2.70805	FALSE
	2/7/2000	3.17805	FALSE
	6/5/2000	3.09104	FALSE
	7/12/2001	4.60517	TRUE
	1/10/2002	4.17439	TRUE
	6/25/2002	2.06686	FALSE
	12/17/2002	3.3322	FALSE
	6/18/2003	3.61092	FALSE
	1/6/2004	2.70805	FALSE
	6/23/2004	3.93183	FALSE
	1/6/2005	3.85015	FALSE
	6/17/2005	3.4012	FALSE
	1/26/2006	4.53367	TRUE
	7/13/2006	4.01638	TRUE
	1/25/2007	3.78191	FALSE
	7/3/2007	3.77963	FALSE
	1/16/2008	4.29592	TRUE
	7/15/2008	4.16044	TRUE
	2/3/2009	4.76217	TRUE
	7/28/2009	4.39938	TRUE
MW-2	9/16/1994	6.8773	TRUE
	11/30/1994	2.83321	FALSE
	2/7/1995	4.12713	TRUE
	2/27/1995	4.00733	TRUE
	10/30/1995	ND<1.60944	FALSE
	4/29/1996	2.99573	FALSE
	10/24/1996	2.89037	FALSE
	5/28/1997	3.04452	FALSE
	10/23/1997	3.98898	TRUE
	4/22/1998	3.3322	FALSE
	10/27/1998	4.86753	TRUE
	4/14/1999	3.46574	FALSE
	2/7/2000	2.48491	FALSE
	6/2/2000	3.46574	FALSE
	12/5/2000	4.78749	TRUE
	7/11/2001	4.60517	TRUE
	1/9/2002	5.94017	TRUE
	6/25/2002	4.46591	TRUE
	12/16/2002	3.13549	FALSE
	6/18/2003	3.61092	FALSE
	1/6/2004	4.26268	TRUE
	6/23/2004	4.11087	TRUE
	1/6/2005	4.38203	TRUE
	6/16/2005	3.3322	FALSE
	1/26/2006	4.08261	TRUE

7/13/2006	3.84802	FALSE
1/25/2007	3.97406	FALSE
7/3/2007	3.60821	FALSE
8/22/2007	3.98527	TRUE
1/16/2008	6.83518	TRUE
7/16/2008	3.74005	FALSE
2/4/2009	3.88773	FALSE
7/29/2009	2.91777	FALSE
7/29/2009	2.91777	FALSE

Laboratory Results

Sampling Data Sheet

Municipal Services Engineering Company — Garner, NC — Boone, NC

Project: Albemarle Closed MSWLF & Active C&D LF

Samplers: J. Pfohl Page 1 of 1

Monitoring Point	Sample Date	Sample Time	Sampling Parameters: Depth to Water (BTOP) Static	Lab Parameters to be analyzed for	Volume Purged (Gal)	Sample Type	Goes Dry During Purge	Notes	Total Depth	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-1	7/28/09	11:00	15.51	MNA	3	P&DB	Y		18	30	0.8	156	5.88	20.1	570	270	7.19c	Ø
MW-2	7/29/09	12:05	7.58	MNA	3	P&DB	Y		17.5	>100	1.3	61	6.21	19.3	1000	590	11.7c	Ø
MW-3	7/28/09	12:00	12.85	MNA	6	P&DB	N		22.5	>100	2.4	113	6.08	20.4	1100	540	5.39c	Ø
MW-6	7/29/09	5:00	24.18	MNA	3	P&DB	Y		37	~~30~~ 90	1.3	224	~~5.81~~ 5.81	~~18.2~~ 18.8	200	90	14.9c	Ø
MW-7	7/29/09	3:30	12.74	MNA	5	P&DB	Y		28.5	>100	0.8	38	6.31	17.2	1000	490	7.9c	Ø
MW-9	7/28/09	2:05	7.80	MNA	3	P&DB	Y	only 5ml Hydrogen	17.68	>100	1.8	98	6.40	18.4	700	340	69.6c	Ø
MW-10	7/28/09	3:00	6.45	MNA	4	P&DB	N		18	30	0.9	106	6.79	18.6	370	180	18.1c	Ø
MW-24	7/29/09	2:15	12.63	MNA	2	P&DB	N		21.25	30	1.9	105	6.66	18.2	480	230	7.81c	Ø
MW-25	7/29/09	11:00	7.84	MNA	5	P&DB	Y		18.2	70	1.3	42	6.01	17.2	330	150	9.82c	Ø
MW-4R	7/29/09	8:05	22.69	DM	2	P&DB	Y		25	NR	0.9	31	6.11	19.1	350	170	12.7c	Ø
MW-5R	7/29/09	7:30	8.74	DM	3.5	P&DB	Y		25		0.5	43	6.43	17.9	700	340	11.3c	Ø
MW-8D	7/29/09	9:00	53.65	DM	8	P&DB	Y		75.9		0.8	46	6.63	19.6	1000	590	3.41c	Ø
MW-11	7/29/09	9:10	6.62	DM	4	DB	N		18		1.0	10	6.21	12.3	100	50	9.91c	Ø
MW-12	7/28/09	4:40	8.12	App II DM	2	P&DB		Remove VOCs & Metals	Hold of this 22		0.9	36	5.81	20.8	630	310	28.3c	Ø
SHOP	NS	NS	—	VOCs	-	NS	-	Disconnected use Rain Water Now										-
SW-5	NS	NS	DRY	DM	-	—	-	—	-	—	—	—	—	—	—	—	—	-
SW-7	7/28/09	3:20	—	DM	-	Lip	-		-	NR	6.9	135	7.32	22.8				-
MW-4	NS	NS	11.25	WLR	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-8	NS	NS	DRY 49.60 BTOP	WLR	-	-	-	-	49.60 BTOP	-	-	-	-	-	-	-	-	-

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

Pace Analytical Services, Inc.
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Pace Analytical Services, Inc.
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(704)875-9092

November 03, 2009

Mr. Jonathan Pfohl
Municipal Engineering Services
PO Box 97
Garner, NC 27529

RE: Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory between July 29, 2009 and July 30, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bonnie McKee

Bonnie McKee

bonnie.mckee@pacelabs.com
Project Manager

Enclosures

cc: Ms. Maggie German, Municipal Engineering Services

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without the written consent of Pace Analytical Services, Inc..

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(704)875-9092

CERTIFICATIONS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Charlotte Certification IDs

West Virginia Certification #: 357
Virginia Certification #: 00213
Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana/LELAP Certification #: 04034
New Jersey Certification #: NC012
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
Pennsylvania Certification #: 68-00784
South Carolina Certification #: 990060001
South Carolina Drinking Water Cert. #: 990060003
Tennessee Certification #: 04010

Asheville Certification IDs

West Virginia Certification #: 356
Florida/NELAP Certification #: E87648
Louisiana/LELAP Certification #: 03095
Massachusetts Certification #: M-NC030
New Jersey Certification #: NC011
North Carolina Bioassay Certification #: 9
Connecticut Certification #: PH-0106
North Carolina Wastewater Certification #: 40
Pennsylvania Certification #: 68-03578
South Carolina Bioassay Certification #: 99030002
South Carolina Certification #: 99030001
Tennessee Certification #: 2980
Virginia Certification #: 00072
North Carolina Drinking Water Certification #: 37712

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SAMPLE SUMMARY

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9249725001	**MW-1**	Water	07/28/09 11:00	07/29/09 15:50
9249725002	**MW-2**	Water	07/29/09 12:05	07/29/09 15:50
9249725003	**MW-3**	Water	07/28/09 12:00	07/29/09 15:50
9249725004	**MW-9**	Water	07/28/09 14:05	07/29/09 15:50
9249725005	**MW-10**	Water	07/28/09 15:00	07/29/09 15:50
9249725006	**MW-25**	Water	07/29/09 11:00	07/29/09 15:50
9249725007	**MW-4R**	Water	07/29/09 08:05	07/29/09 15:50
9249725008	**MW-5R**	Water	07/29/09 07:30	07/29/09 15:50
9249725009	**MW-8D**	Water	07/29/09 09:00	07/29/09 15:50
9249725010	**MW-11**	Water	07/29/09 09:40	07/29/09 15:50
9249725011	**SW-7**	Water	07/28/09 15:20	07/29/09 15:50
9249725012	**MW-6**	Water	07/29/09 17:00	07/30/09 13:35
9249725013	**MW-7**	Water	07/29/09 15:30	07/30/09 13:35
9249725014	**MW-24**	Water	07/29/09 14:15	07/30/09 13:35
9249725015	**MW-25**	Water	07/29/09 11:00	07/30/09 13:35

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SAMPLE ANALYTE COUNT

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
9249725001	**MW-1**	ASTM D516-90	LEP	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
		SM 2320B	LEP	1	PASI-A
		SM 4500-Cl-E	LEP	1	PASI-A
		SM 4500-S2D	JDA	1	PASI-A
		SM 5210B	RAB	1	PASI-A
		SM 5220D	DMN	1	PASI-A
		SM 5310B	EWS	1	PASI-A
9249725002	**MW-2**	ASTM D516-90	LEP	1	PASI-A
		EPA 353.2	RAB	1	PASI-A
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
		SM 2320B	LEP	1	PASI-A
		SM 4500-Cl-E	LEP	1	PASI-A
		SM 4500-S2D	JDA	1	PASI-A
		SM 5210B	RAB	1	PASI-A
		SM 5220D	DMN	1	PASI-A
		SM 5310B	EWS	1	PASI-A
9249725003	**MW-3**	ASTM D516-90	LEP	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
		SM 2320B	LEP	1	PASI-A
		SM 4500-Cl-E	LEP	1	PASI-A
		SM 4500-S2D	JDA	1	PASI-A
		SM 5210B	RAB	1	PASI-A
		SM 5220D	DMN	1	PASI-A
		SM 5310B	EWS	1	PASI-A
9249725004	**MW-9**	ASTM D516-90	LEP	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
		SM 2320B	LEP	1	PASI-A
		SM 4500-Cl-E	LEP	1	PASI-A
		SM 4500-S2D	JDA	1	PASI-A

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SAMPLE ANALYTE COUNT

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 5210B	RAB	1	PASI-A
		SM 5220D	DMN	1	PASI-A
		SM 5310B	EWS	1	PASI-A
9249725005	**MW-10**	ASTM D516-90	LEP	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
		SM 2320B	LEP	1	PASI-A
		SM 4500-Cl-E	LEP	1	PASI-A
		SM 4500-S2D	JDA	1	PASI-A
		SM 5210B	RAB	1	PASI-A
		SM 5220D	DMN	1	PASI-A
		SM 5310B	EWS	1	PASI-A
9249725006	**MW-25**	ASTM D516-90	LEP	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
		SM 2320B	LEP	1	PASI-A
		SM 4500-Cl-E	LEP	1	PASI-A
		SM 4500-S2D	JDA	1	PASI-A
		SM 5210B	RAB	1	PASI-A
		SM 5220D	DMN	1	PASI-A
		SM 5310B	EWS	1	PASI-A
9249725007	**MW-4R**	EPA 6010	SHB	15	PASI-A
		EPA 8260	MCK	54	PASI-C
9249725008	**MW-5R**	EPA 6010	SHB	15	PASI-A
		EPA 8260	MCK	54	PASI-C
9249725009	**MW-8D**	EPA 6010	SHB	15	PASI-A
		EPA 8260	MCK	54	PASI-C
9249725010	**MW-11**	EPA 6010	SHB	15	PASI-A
		EPA 8260	MCK	54	PASI-C
9249725011	**SW-7**	EPA 6010	SHB	15	PASI-A
		EPA 8260	MCK	54	PASI-C
9249725012	**MW-6**	ASTM D516-90	DMN	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C

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SAMPLE ANALYTE COUNT

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2320B	LEP	1	PASI-A
		SM 4500-Cl-E	LEP	1	PASI-A
		SM 4500-S2D	JDA	1	PASI-A
		SM 5210B	JMW	1	PASI-A
		SM 5220D	DMN	1	PASI-A
		SM 5310B	EWS	1	PASI-A
9249725013	**MW-7**	ASTM D516-90	DMN	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
		SM 2320B	LEP	1	PASI-A
		SM 4500-Cl-E	LEP	1	PASI-A
		SM 4500-S2D	JDA	1	PASI-A
		SM 5210B	JMW	1	PASI-A
		SM 5220D	DMN	1	PASI-A
		SM 5310B	EWS	1	PASI-A
9249725014	**MW-24**	ASTM D516-90	DMN	1	PASI-A
		EPA 353.2	DMN	1	PASI-A
		EPA 6010	SHB	16	PASI-A
		EPA 8260	MCK	54	PASI-C
		SM 2320B	LEP	1	PASI-A
		SM 4500-Cl-E	LEP	1	PASI-A
		SM 4500-S2D	JDA	1	PASI-A
		SM 5210B	JMW	1	PASI-A
		SM 5220D	DMN	1	PASI-A
		SM 5310B	EWS	1	PASI-A

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-1 **Lab ID: 9249725001** Collected: 07/28/09 11:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	**5.8J**	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 17:20	7440-36-0	
Arsenic	**10.4**	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 17:20	7440-38-2	
Barium	**178**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 17:20	7440-39-3	
Beryllium	**1.2**	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 17:20	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 17:20	7440-43-9	
Chromium	**35.5**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 17:20	7440-47-3	
Cobalt	**10.7**	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 17:20	7440-48-4	
Copper	**59.7**	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 17:20	7440-50-8	
Iron	**39100**	ug/L	300	14.0	1	08/03/09 11:05	08/04/09 17:20	7439-89-6	M0
Lead	**43.9**	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 17:20	7439-92-1	
Nickel	**60.9**	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 17:20	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 17:20	7782-49-2	
Silver	**0.14J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 17:20	7440-22-4	
Thallium	**5.1J**	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 17:20	7440-28-0	
Vanadium	**37.6**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 17:20	7440-62-2	Z2
Zinc	**164**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 17:20	7440-66-6	Z2
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/01/09 13:18	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/01/09 13:18	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/01/09 13:18	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/01/09 13:18	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/01/09 13:18	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/01/09 13:18	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/01/09 13:18	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/01/09 13:18	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/01/09 13:18	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/01/09 13:18	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/01/09 13:18	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/01/09 13:18	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/01/09 13:18	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/01/09 13:18	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/01/09 13:18	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/01/09 13:18	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/01/09 13:18	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/01/09 13:18	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/01/09 13:18	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/01/09 13:18	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/01/09 13:18	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/01/09 13:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/01/09 13:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/01/09 13:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/01/09 13:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/01/09 13:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/01/09 13:18	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/01/09 13:18	142-28-9	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-1 **Lab ID: 9249725001** Collected: 07/28/09 11:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/01/09 13:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/01/09 13:18	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/01/09 13:18	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/01/09 13:18	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/01/09 13:18	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/01/09 13:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/01/09 13:18	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/01/09 13:18	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/01/09 13:18	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/01/09 13:18	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/01/09 13:18	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/01/09 13:18	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/01/09 13:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/01/09 13:18	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/01/09 13:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/01/09 13:18	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/01/09 13:18	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/01/09 13:18	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/01/09 13:18	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/01/09 13:18	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/01/09 13:18	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/01/09 13:18	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109		1		08/01/09 13:18	460-00-4	
Dibromofluoromethane (S)	102	%	85-115		1		08/01/09 13:18	1868-53-7	
1,2-Dichloroethane-d4 (S)	111	%	79-120		1		08/01/09 13:18	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		08/01/09 13:18	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**17.7**	mg/L	5.0	5.0	1		08/04/09 16:53		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		08/04/09 15:28		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**2.7**	mg/L	2.0	2.0	1	07/30/09 10:29	08/04/09 08:15		B2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**201**	ug/L	100	100	1		07/29/09 23:05		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**17.4**	mg/L	10.0	10.0	2		07/31/09 10:16	16887-00-6	M0
5220D COD	Analytical Method: SM 5220D								
Chemical Oxygen Demand	**56300**	ug/L	25000	25000	1		08/04/09 19:55		

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-1 **Lab ID: 9249725001** Collected: 07/28/09 11:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**12.5**	mg/L	1.0	1.0	1		08/02/09 21:55	7440-44-0	
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90								
Sulfate	**10600**	ug/L	5000	5000	1		08/04/09 12:23	14808-79-8	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-2 **Lab ID: 9249725002** Collected: 07/29/09 12:05 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 17:29	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 17:29	7440-38-2	
Barium	**14.3J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 17:29	7440-39-3	
Beryllium	**0.12J**	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 17:29	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 17:29	7440-43-9	
Chromium	**3.0J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 17:29	7440-47-3	
Cobalt	**18.5**	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 17:29	7440-48-4	
Copper	**10.9**	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 17:29	7440-50-8	
Iron	**2680**	ug/L	300	14.0	1	08/03/09 11:05	08/04/09 17:29	7439-89-6	
Lead	**4.2J**	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 17:29	7439-92-1	
Nickel	**16.2J**	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 17:29	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 17:29	7782-49-2	
Silver	**0.24J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 17:29	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 17:29	7440-28-0	
Vanadium	**3.2J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 17:29	7440-62-2	Z2
Zinc	**21.3**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 17:29	7440-66-6	Z2
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	**74.3J**	ug/L	100	2.2	1		08/01/09 13:37	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/01/09 13:37	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/01/09 13:37	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/01/09 13:37	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/01/09 13:37	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/01/09 13:37	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/01/09 13:37	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/01/09 13:37	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/01/09 13:37	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/01/09 13:37	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/01/09 13:37	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/01/09 13:37	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/01/09 13:37	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/01/09 13:37	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/01/09 13:37	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/01/09 13:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/01/09 13:37	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/01/09 13:37	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/01/09 13:37	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/01/09 13:37	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/01/09 13:37	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/01/09 13:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/01/09 13:37	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/01/09 13:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/01/09 13:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/01/09 13:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/01/09 13:37	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/01/09 13:37	142-28-9	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-2 **Lab ID: 9249725002** Collected: 07/29/09 12:05 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/01/09 13:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/01/09 13:37	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/01/09 13:37	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/01/09 13:37	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/01/09 13:37	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/01/09 13:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/01/09 13:37	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/01/09 13:37	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/01/09 13:37	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/01/09 13:37	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/01/09 13:37	127-18-4	
Toluene	**0.72J**	ug/L	1.0	0.26	1		08/01/09 13:37	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/01/09 13:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/01/09 13:37	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/01/09 13:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/01/09 13:37	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/01/09 13:37	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/01/09 13:37	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/01/09 13:37	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/01/09 13:37	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/01/09 13:37	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/01/09 13:37	95-47-6	
4-Bromofluorobenzene (S)	97	%	87-109		1		08/01/09 13:37	460-00-4	
Dibromofluoromethane (S)	104	%	85-115		1		08/01/09 13:37	1868-53-7	
1,2-Dichloroethane-d4 (S)	112	%	79-120		1		08/01/09 13:37	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		08/01/09 13:37	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**29.9**	mg/L	5.0	5.0	1		08/04/09 16:53		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		08/04/09 15:28		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**56.7**	mg/L	2.0	2.0	1	07/30/09 10:29	08/04/09 08:15		
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**3200**	ug/L	100	100	1		07/30/09 11:00		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	ND	mg/L	10.0	10.0	2		07/31/09 11:21	16887-00-6	
5220D COD	Analytical Method: SM 5220D								
Chemical Oxygen Demand	**84400**	ug/L	25000	25000	1		08/04/09 19:55		

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-2 **Lab ID: 9249725002** Collected: 07/29/09 12:05 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**37.6**	mg/L	1.0	1.0	1		08/02/09 21:55	7440-44-0	
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90								
Sulfate	**80500**	ug/L	25000	25000	5		08/04/09 12:55	14808-79-8	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-3 **Lab ID: 9249725003** Collected: 07/28/09 12:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 17:47	7440-36-0	
Arsenic	**12.0**	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 17:47	7440-38-2	
Barium	**48.2J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 17:47	7440-39-3	
Beryllium	**0.24J**	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 17:47	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 17:47	7440-43-9	
Chromium	**1.3J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 17:47	7440-47-3	
Cobalt	**2.5J**	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 17:47	7440-48-4	
Copper	**1.9J**	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 17:47	7440-50-8	
Iron	**207J**	ug/L	300	14.0	1	08/03/09 11:05	08/04/09 17:47	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 17:47	7439-92-1	
Nickel	**2.8J**	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 17:47	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 17:47	7782-49-2	
Silver	ND	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 17:47	7440-22-4	
Thallium	**3.6J**	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 17:47	7440-28-0	
Vanadium	**2.7J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 17:47	7440-62-2	Z2
Zinc	ND	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 17:47	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/01/09 13:56	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/01/09 13:56	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/01/09 13:56	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/01/09 13:56	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/01/09 13:56	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/01/09 13:56	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/01/09 13:56	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/01/09 13:56	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/01/09 13:56	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/01/09 13:56	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/01/09 13:56	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/01/09 13:56	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/01/09 13:56	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/01/09 13:56	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/01/09 13:56	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/01/09 13:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/01/09 13:56	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/01/09 13:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/01/09 13:56	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/01/09 13:56	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/01/09 13:56	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/01/09 13:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/01/09 13:56	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/01/09 13:56	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/01/09 13:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/01/09 13:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/01/09 13:56	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/01/09 13:56	142-28-9	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-3 **Lab ID: 9249725003** Collected: 07/28/09 12:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/01/09 13:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/01/09 13:56	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/01/09 13:56	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/01/09 13:56	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/01/09 13:56	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/01/09 13:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/01/09 13:56	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/01/09 13:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/01/09 13:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/01/09 13:56	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/01/09 13:56	127-18-4	
Toluene	**0.31J**	ug/L	1.0	0.26	1		08/01/09 13:56	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/01/09 13:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/01/09 13:56	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/01/09 13:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/01/09 13:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/01/09 13:56	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/01/09 13:56	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/01/09 13:56	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/01/09 13:56	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/01/09 13:56	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/01/09 13:56	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109		1		08/01/09 13:56	460-00-4	
Dibromofluoromethane (S)	103	%	85-115		1		08/01/09 13:56	1868-53-7	
1,2-Dichloroethane-d4 (S)	111	%	79-120		1		08/01/09 13:56	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		08/01/09 13:56	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**119**	mg/L	5.0	5.0	1		08/04/09 16:54		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		08/04/09 15:28		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**2.7**	mg/L	2.0	2.0	1	07/30/09 10:29	08/04/09 08:15		B2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**23000**	ug/L	100	100	1		07/29/09 23:05		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**35.3**	mg/L	10.0	10.0	2		07/31/09 11:21	16887-00-6	
5220D COD	Analytical Method: SM 5220D								
Chemical Oxygen Demand	**46800**	ug/L	25000	25000	1		08/04/09 19:55		

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-3 **Lab ID: 9249725003** Collected: 07/28/09 12:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**19.9**	mg/L	1.0	1.0	1		08/02/09 21:55	7440-44-0	
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90								
Sulfate	**189000**	ug/L	50000	50000	10		08/04/09 12:52	14808-79-8	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-9 **Lab ID: 9249725004** Collected: 07/28/09 14:05 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 17:52	7440-36-0	
Arsenic	**3.1J**	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 17:52	7440-38-2	
Barium	**9.9J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 17:52	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 17:52	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 17:52	7440-43-9	
Chromium	**8.5J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 17:52	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 17:52	7440-48-4	
Copper	**4.1J**	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 17:52	7440-50-8	
Iron	**3010**	ug/L	300	14.0	1	08/03/09 11:05	08/04/09 17:52	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 17:52	7439-92-1	
Nickel	**6.2J**	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 17:52	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 17:52	7782-49-2	
Silver	**0.19J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 17:52	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 17:52	7440-28-0	
Vanadium	**8.8J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 17:52	7440-62-2	Z2
Zinc	**6.6J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 17:52	7440-66-6	Z2
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/01/09 14:15	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/01/09 14:15	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/01/09 14:15	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/01/09 14:15	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/01/09 14:15	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/01/09 14:15	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/01/09 14:15	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/01/09 14:15	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/01/09 14:15	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/01/09 14:15	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/01/09 14:15	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/01/09 14:15	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/01/09 14:15	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/01/09 14:15	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/01/09 14:15	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/01/09 14:15	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/01/09 14:15	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/01/09 14:15	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/01/09 14:15	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/01/09 14:15	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/01/09 14:15	110-57-6	
1,1-Dichloroethane	**0.74J**	ug/L	5.0	0.32	1		08/01/09 14:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/01/09 14:15	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/01/09 14:15	75-35-4	
cis-1,2-Dichloroethene	**0.69J**	ug/L	5.0	0.19	1		08/01/09 14:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/01/09 14:15	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/01/09 14:15	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/01/09 14:15	142-28-9	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-9 **Lab ID: 9249725004** Collected: 07/28/09 14:05 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/01/09 14:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/01/09 14:15	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/01/09 14:15	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/01/09 14:15	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/01/09 14:15	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/01/09 14:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/01/09 14:15	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/01/09 14:15	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/01/09 14:15	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/01/09 14:15	79-34-5	
Tetrachloroethene	**0.83J**	ug/L	1.0	0.46	1		08/01/09 14:15	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/01/09 14:15	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/01/09 14:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/01/09 14:15	79-00-5	
Trichloroethene	**0.70J**	ug/L	1.0	0.47	1		08/01/09 14:15	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/01/09 14:15	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/01/09 14:15	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/01/09 14:15	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/01/09 14:15	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/01/09 14:15	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/01/09 14:15	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/01/09 14:15	95-47-6	
4-Bromofluorobenzene (S)	100	%	87-109		1		08/01/09 14:15	460-00-4	
Dibromofluoromethane (S)	102	%	85-115		1		08/01/09 14:15	1868-53-7	
1,2-Dichloroethane-d4 (S)	109	%	79-120		1		08/01/09 14:15	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		08/01/09 14:15	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**58.6**	mg/L	5.0	5.0	1		08/04/09 16:54		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		08/04/09 15:28		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**2.7**	mg/L	2.0	2.0	1	07/30/09 10:29	08/04/09 08:15		B2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**283**	ug/L	100	100	1		07/29/09 23:05		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**53.8**	mg/L	10.0	10.0	2		07/31/09 11:21	16887-00-6	
5220D COD	Analytical Method: SM 5220D								
Chemical Oxygen Demand	**25200**	ug/L	25000	25000	1		08/04/09 19:55		

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-9 **Lab ID: 9249725004** Collected: 07/28/09 14:05 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**6.4**	mg/L	1.0	1.0	1		08/02/09 21:55	7440-44-0	
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90								
Sulfate	**15200**	ug/L	5000	5000	1		08/04/09 12:25	14808-79-8	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-10 **Lab ID: 9249725005** Collected: 07/28/09 15:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 17:55	7440-36-0	
Arsenic	**3.2J**	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 17:55	7440-38-2	
Barium	**26.2J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 17:55	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 17:55	7440-41-7	
Cadmium	**2.1**	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 17:55	7440-43-9	
Chromium	**1.6J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 17:55	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 17:55	7440-48-4	
Copper	**3.4J**	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 17:55	7440-50-8	
Iron	**1770**	ug/L	300	14.0	1	08/03/09 11:05	08/04/09 17:55	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 17:55	7439-92-1	
Nickel	**14.4J**	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 17:55	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 17:55	7782-49-2	
Silver	**0.17J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 17:55	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 17:55	7440-28-0	
Vanadium	**2.1J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 17:55	7440-62-2	Z2
Zinc	**13.9**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 17:55	7440-66-6	Z2
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/01/09 14:34	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/01/09 14:34	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/01/09 14:34	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/01/09 14:34	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/01/09 14:34	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/01/09 14:34	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/01/09 14:34	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/01/09 14:34	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/01/09 14:34	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/01/09 14:34	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/01/09 14:34	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/01/09 14:34	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/01/09 14:34	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/01/09 14:34	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/01/09 14:34	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/01/09 14:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/01/09 14:34	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/01/09 14:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/01/09 14:34	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/01/09 14:34	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/01/09 14:34	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/01/09 14:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/01/09 14:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/01/09 14:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/01/09 14:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/01/09 14:34	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/01/09 14:34	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/01/09 14:34	142-28-9	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-10 **Lab ID: 9249725005** Collected: 07/28/09 15:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/01/09 14:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/01/09 14:34	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/01/09 14:34	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/01/09 14:34	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/01/09 14:34	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/01/09 14:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/01/09 14:34	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/01/09 14:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/01/09 14:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/01/09 14:34	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/01/09 14:34	127-18-4	
Toluene	**115**	ug/L	1.0	0.26	1		08/01/09 14:34	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/01/09 14:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/01/09 14:34	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/01/09 14:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/01/09 14:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/01/09 14:34	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/01/09 14:34	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/01/09 14:34	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/01/09 14:34	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/01/09 14:34	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/01/09 14:34	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109		1		08/01/09 14:34	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		1		08/01/09 14:34	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	79-120		1		08/01/09 14:34	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		08/01/09 14:34	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**673**	mg/L	5.0	5.0	1		08/04/09 16:54		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		08/04/09 15:28		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**11.7**	mg/L	2.0	2.0	1	07/30/09 10:29	08/04/09 08:15		B2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**2700**	ug/L	100	100	1		07/29/09 23:05		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**265**	mg/L	50.0	50.0	10		07/31/09 11:51	16887-00-6	
5220D COD	Analytical Method: SM 5220D								
Chemical Oxygen Demand	**113000**	ug/L	25000	25000	1		08/04/09 19:55		

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-10 **Lab ID: 9249725005** Collected: 07/28/09 15:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**39.3**	mg/L	1.0	1.0	1		08/02/09 21:55	7440-44-0	
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90								
Sulfate	**10700**	ug/L	5000	5000	1		08/04/09 12:25	14808-79-8	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-25 **Lab ID: 9249725006** Collected: 07/29/09 11:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 18:03	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 18:03	7440-38-2	
Barium	**6.2J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 18:03	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 18:03	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 18:03	7440-43-9	
Chromium	**5.6J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:03	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 18:03	7440-48-4	
Copper	**12.6**	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 18:03	7440-50-8	
Iron	**3770**	ug/L	300	14.0	1	08/03/09 11:05	08/04/09 18:03	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 18:03	7439-92-1	
Nickel	**6.6J**	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 18:03	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 18:03	7782-49-2	
Silver	**0.17J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 18:03	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 18:03	7440-28-0	
Vanadium	**6.5J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 18:03	7440-62-2	Z2
Zinc	**8.8J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:03	7440-66-6	Z2
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/01/09 22:23	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/01/09 22:23	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/01/09 22:23	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/01/09 22:23	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/01/09 22:23	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/01/09 22:23	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/01/09 22:23	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/01/09 22:23	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/01/09 22:23	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/01/09 22:23	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/01/09 22:23	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/01/09 22:23	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/01/09 22:23	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/01/09 22:23	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/01/09 22:23	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/01/09 22:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/01/09 22:23	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/01/09 22:23	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/01/09 22:23	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/01/09 22:23	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/01/09 22:23	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/01/09 22:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/01/09 22:23	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/01/09 22:23	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/01/09 22:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/01/09 22:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/01/09 22:23	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/01/09 22:23	142-28-9	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-25 **Lab ID: 9249725006** Collected: 07/29/09 11:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/01/09 22:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/01/09 22:23	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/01/09 22:23	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/01/09 22:23	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/01/09 22:23	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/01/09 22:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/01/09 22:23	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/01/09 22:23	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/01/09 22:23	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/01/09 22:23	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/01/09 22:23	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/01/09 22:23	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/01/09 22:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/01/09 22:23	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/01/09 22:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/01/09 22:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/01/09 22:23	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/01/09 22:23	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/01/09 22:23	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/01/09 22:23	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/01/09 22:23	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/01/09 22:23	95-47-6	
4-Bromofluorobenzene (S)	96	%	87-109		1		08/01/09 22:23	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		1		08/01/09 22:23	1868-53-7	
1,2-Dichloroethane-d4 (S)	109	%	79-120		1		08/01/09 22:23	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		08/01/09 22:23	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**47.6**	mg/L	5.0	5.0	1		08/04/09 16:54		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		08/04/09 15:28		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**5.7**	mg/L	2.0	2.0	1	07/30/09 10:29	08/04/09 08:15		B2,R1
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**1680**	ug/L	100	100	1		07/29/09 23:05		M0
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**34.2**	mg/L	5.0	5.0	1		07/31/09 10:17	16887-00-6	
5220D COD	Analytical Method: SM 5220D								
Chemical Oxygen Demand	**71500**	ug/L	25000	25000	1		08/04/09 19:55		

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-25 **Lab ID: 9249725006** Collected: 07/29/09 11:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**18.4**	mg/L	1.0	1.0	1		08/02/09 21:55	7440-44-0	
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90								
Sulfate	**32100**	ug/L	5000	5000	1		08/04/09 12:28	14808-79-8	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-4R **Lab ID: 9249725007** Collected: 07/29/09 08:05 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 18:07	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 18:07	7440-38-2	
Barium	**1.4J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 18:07	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 18:07	7440-41-7	
Cadmium	**2.4**	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 18:07	7440-43-9	
Chromium	ND	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:07	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 18:07	7440-48-4	
Copper	**0.44J**	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 18:07	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 18:07	7439-92-1	
Nickel	**13.8J**	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 18:07	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 18:07	7782-49-2	
Silver	**0.30J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 18:07	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 18:07	7440-28-0	
Vanadium	**0.97J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 18:07	7440-62-2	Z2
Zinc	**2.5J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:07	7440-66-6	Z2
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/01/09 22:42	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/01/09 22:42	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/01/09 22:42	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/01/09 22:42	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/01/09 22:42	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/01/09 22:42	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/01/09 22:42	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/01/09 22:42	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/01/09 22:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/01/09 22:42	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/01/09 22:42	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/01/09 22:42	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/01/09 22:42	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/01/09 22:42	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/01/09 22:42	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/01/09 22:42	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/01/09 22:42	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/01/09 22:42	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/01/09 22:42	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/01/09 22:42	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/01/09 22:42	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/01/09 22:42	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/01/09 22:42	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/01/09 22:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/01/09 22:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/01/09 22:42	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/01/09 22:42	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/01/09 22:42	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/01/09 22:42	10061-01-5	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-4R **Lab ID: 9249725007** Collected: 07/29/09 08:05 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/01/09 22:42	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/01/09 22:42	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/01/09 22:42	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/01/09 22:42	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/01/09 22:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/01/09 22:42	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/01/09 22:42	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/01/09 22:42	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/01/09 22:42	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/01/09 22:42	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/01/09 22:42	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/01/09 22:42	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/01/09 22:42	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/01/09 22:42	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/01/09 22:42	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/01/09 22:42	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/01/09 22:42	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/01/09 22:42	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/01/09 22:42	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/01/09 22:42	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/01/09 22:42	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109		1		08/01/09 22:42	460-00-4	
Dibromofluoromethane (S)	103	%	85-115		1		08/01/09 22:42	1868-53-7	
1,2-Dichloroethane-d4 (S)	111	%	79-120		1		08/01/09 22:42	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		08/01/09 22:42	2037-26-5	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-5R **Lab ID: 9249725008** Collected: 07/29/09 07:30 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 18:11	7440-36-0	
Arsenic	**8.4J**	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 18:11	7440-38-2	
Barium	**7.0J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 18:11	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 18:11	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 18:11	7440-43-9	
Chromium	**0.53J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:11	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 18:11	7440-48-4	
Copper	ND	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 18:11	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 18:11	7439-92-1	
Nickel	ND	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 18:11	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 18:11	7782-49-2	
Silver	**0.30J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 18:11	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 18:11	7440-28-0	
Vanadium	**1.6J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 18:11	7440-62-2	Z2
Zinc	ND	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:11	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/01/09 23:01	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/01/09 23:01	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/01/09 23:01	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/01/09 23:01	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/01/09 23:01	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/01/09 23:01	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/01/09 23:01	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/01/09 23:01	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/01/09 23:01	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/01/09 23:01	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/01/09 23:01	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/01/09 23:01	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/01/09 23:01	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/01/09 23:01	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/01/09 23:01	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/01/09 23:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/01/09 23:01	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/01/09 23:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/01/09 23:01	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/01/09 23:01	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/01/09 23:01	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/01/09 23:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/01/09 23:01	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/01/09 23:01	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/01/09 23:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/01/09 23:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/01/09 23:01	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/01/09 23:01	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/01/09 23:01	10061-01-5	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-5R **Lab ID: 9249725008** Collected: 07/29/09 07:30 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/01/09 23:01	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/01/09 23:01	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/01/09 23:01	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/01/09 23:01	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/01/09 23:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/01/09 23:01	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/01/09 23:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/01/09 23:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/01/09 23:01	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/01/09 23:01	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/01/09 23:01	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/01/09 23:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/01/09 23:01	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/01/09 23:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/01/09 23:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/01/09 23:01	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/01/09 23:01	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/01/09 23:01	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/01/09 23:01	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/01/09 23:01	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/01/09 23:01	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		1		08/01/09 23:01	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		1		08/01/09 23:01	1868-53-7	
1,2-Dichloroethane-d4 (S)	110	%	79-120		1		08/01/09 23:01	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		08/01/09 23:01	2037-26-5	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-8D **Lab ID: 9249725009** Collected: 07/29/09 09:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 18:15	7440-36-0	
Arsenic	**13.0**	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 18:15	7440-38-2	
Barium	**14.9J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 18:15	7440-39-3	
Beryllium	**0.25J**	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 18:15	7440-41-7	
Cadmium	**0.92J**	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 18:15	7440-43-9	
Chromium	ND	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:15	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 18:15	7440-48-4	
Copper	ND	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 18:15	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 18:15	7439-92-1	
Nickel	ND	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 18:15	7440-02-0	
Selenium	**7.4J**	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 18:15	7782-49-2	
Silver	**1.1J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 18:15	7440-22-4	
Thallium	**3.1J**	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 18:15	7440-28-0	
Vanadium	**2.4J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 18:15	7440-62-2	Z2
Zinc	**5.2J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:15	7440-66-6	Z2
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/01/09 23:20	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/01/09 23:20	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/01/09 23:20	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/01/09 23:20	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/01/09 23:20	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/01/09 23:20	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/01/09 23:20	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/01/09 23:20	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/01/09 23:20	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/01/09 23:20	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/01/09 23:20	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/01/09 23:20	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/01/09 23:20	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/01/09 23:20	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/01/09 23:20	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/01/09 23:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/01/09 23:20	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/01/09 23:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/01/09 23:20	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/01/09 23:20	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/01/09 23:20	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/01/09 23:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/01/09 23:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/01/09 23:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/01/09 23:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/01/09 23:20	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/01/09 23:20	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/01/09 23:20	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/01/09 23:20	10061-01-5	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-8D **Lab ID: 9249725009** Collected: 07/29/09 09:00 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/01/09 23:20	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/01/09 23:20	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/01/09 23:20	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/01/09 23:20	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/01/09 23:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/01/09 23:20	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/01/09 23:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/01/09 23:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/01/09 23:20	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/01/09 23:20	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/01/09 23:20	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/01/09 23:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/01/09 23:20	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/01/09 23:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/01/09 23:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/01/09 23:20	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/01/09 23:20	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/01/09 23:20	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/01/09 23:20	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/01/09 23:20	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/01/09 23:20	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109		1		08/01/09 23:20	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		1		08/01/09 23:20	1868-53-7	
1,2-Dichloroethane-d4 (S)	112	%	79-120		1		08/01/09 23:20	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		08/01/09 23:20	2037-26-5	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-11 **Lab ID: 9249725010** Collected: 07/29/09 09:40 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 18:19	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 18:19	7440-38-2	
Barium	**29.0J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 18:19	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 18:19	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 18:19	7440-43-9	
Chromium	**6.4J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:19	7440-47-3	
Cobalt	**1.8J**	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 18:19	7440-48-4	
Copper	**1.5J**	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 18:19	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 18:19	7439-92-1	
Nickel	**11.6J**	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 18:19	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 18:19	7782-49-2	
Silver	**0.15J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 18:19	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 18:19	7440-28-0	
Vanadium	**3.4J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 18:19	7440-62-2	Z2
Zinc	**2.4J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:19	7440-66-6	Z2
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/01/09 23:39	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/01/09 23:39	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/01/09 23:39	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/01/09 23:39	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/01/09 23:39	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/01/09 23:39	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/01/09 23:39	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/01/09 23:39	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/01/09 23:39	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/01/09 23:39	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/01/09 23:39	108-90-7	
Chloroethane	**3.4J**	ug/L	10.0	0.54	1		08/01/09 23:39	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/01/09 23:39	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/01/09 23:39	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/01/09 23:39	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/01/09 23:39	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/01/09 23:39	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/01/09 23:39	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/01/09 23:39	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/01/09 23:39	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/01/09 23:39	110-57-6	
1,1-Dichloroethane	**7.7**	ug/L	5.0	0.32	1		08/01/09 23:39	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/01/09 23:39	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/01/09 23:39	75-35-4	
cis-1,2-Dichloroethene	**2.6J**	ug/L	5.0	0.19	1		08/01/09 23:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/01/09 23:39	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/01/09 23:39	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/01/09 23:39	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/01/09 23:39	10061-01-5	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-11 **Lab ID: 9249725010** Collected: 07/29/09 09:40 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/01/09 23:39	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/01/09 23:39	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/01/09 23:39	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/01/09 23:39	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/01/09 23:39	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/01/09 23:39	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/01/09 23:39	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/01/09 23:39	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/01/09 23:39	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/01/09 23:39	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/01/09 23:39	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/01/09 23:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/01/09 23:39	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/01/09 23:39	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/01/09 23:39	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/01/09 23:39	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/01/09 23:39	108-05-4	
Vinyl chloride	**0.65J**	ug/L	1.0	0.62	1		08/01/09 23:39	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/01/09 23:39	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/01/09 23:39	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/01/09 23:39	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		1		08/01/09 23:39	460-00-4	
Dibromofluoromethane (S)	104	%	85-115		1		08/01/09 23:39	1868-53-7	
1,2-Dichloroethane-d4 (S)	111	%	79-120		1		08/01/09 23:39	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		08/01/09 23:39	2037-26-5	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: SW-7 **Lab ID: 9249725011** Collected: 07/28/09 15:20 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 18:22	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 18:22	7440-38-2	
Barium	**6.8J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 18:22	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 18:22	7440-41-7	
Cadmium	**1.8**	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 18:22	7440-43-9	
Chromium	**0.88J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:22	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 18:22	7440-48-4	
Copper	**1.6J**	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 18:22	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 18:22	7439-92-1	
Nickel	**1.8J**	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 18:22	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 18:22	7782-49-2	
Silver	**0.14J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 18:22	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 18:22	7440-28-0	
Vanadium	**1.8J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 18:22	7440-62-2	Z2
Zinc	**6.2J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:22	7440-66-6	Z2
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/01/09 23:58	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/01/09 23:58	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/01/09 23:58	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/01/09 23:58	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/01/09 23:58	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/01/09 23:58	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/01/09 23:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/01/09 23:58	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/01/09 23:58	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/01/09 23:58	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/01/09 23:58	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/01/09 23:58	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/01/09 23:58	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/01/09 23:58	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/01/09 23:58	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/01/09 23:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/01/09 23:58	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/01/09 23:58	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/01/09 23:58	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/01/09 23:58	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/01/09 23:58	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/01/09 23:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/01/09 23:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/01/09 23:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/01/09 23:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/01/09 23:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/01/09 23:58	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/01/09 23:58	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/01/09 23:58	10061-01-5	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: SW-7 **Lab ID: 9249725011** Collected: 07/28/09 15:20 Received: 07/29/09 15:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/01/09 23:58	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/01/09 23:58	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/01/09 23:58	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/01/09 23:58	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/01/09 23:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/01/09 23:58	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/01/09 23:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/01/09 23:58	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/01/09 23:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/01/09 23:58	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/01/09 23:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/01/09 23:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/01/09 23:58	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/01/09 23:58	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/01/09 23:58	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/01/09 23:58	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/01/09 23:58	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/01/09 23:58	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/01/09 23:58	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/01/09 23:58	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/01/09 23:58	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		1		08/01/09 23:58	460-00-4	
Dibromofluoromethane (S)	103	%	85-115		1		08/01/09 23:58	1868-53-7	
1,2-Dichloroethane-d4 (S)	111	%	79-120		1		08/01/09 23:58	17060-07-0	
Toluene-d8 (S)	101	%	70-120		1		08/01/09 23:58	2037-26-5	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-6 **Lab ID: 9249725012** Collected: 07/29/09 17:00 Received: 07/30/09 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 18:26	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 18:26	7440-38-2	
Barium	**1.6J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 18:26	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 18:26	7440-41-7	
Cadmium	**2.1**	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 18:26	7440-43-9	
Chromium	**2.4J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:26	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 18:26	7440-48-4	
Copper	**16.8**	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 18:26	7440-50-8	
Iron	**1090**	ug/L	300	14.0	1	08/03/09 11:05	08/04/09 18:26	7439-89-6	
Lead	**4.8J**	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 18:26	7439-92-1	
Nickel	**6.4J**	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 18:26	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 18:26	7782-49-2	
Silver	**0.32J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 18:26	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 18:26	7440-28-0	
Vanadium	**2.0J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 18:26	7440-62-2	Z2
Zinc	**28.0**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:26	7440-66-6	Z2
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/02/09 02:10	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/02/09 02:10	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/02/09 02:10	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/02/09 02:10	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/02/09 02:10	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/02/09 02:10	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/02/09 02:10	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/02/09 02:10	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/02/09 02:10	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/02/09 02:10	56-23-5	
Chlorobenzene	**0.38J**	ug/L	3.0	0.23	1		08/02/09 02:10	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/02/09 02:10	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/02/09 02:10	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/02/09 02:10	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/02/09 02:10	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/02/09 02:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/02/09 02:10	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/02/09 02:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/02/09 02:10	95-50-1	
1,4-Dichlorobenzene	**0.34J**	ug/L	1.0	0.33	1		08/02/09 02:10	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/02/09 02:10	110-57-6	
1,1-Dichloroethane	**2.4J**	ug/L	5.0	0.32	1		08/02/09 02:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/02/09 02:10	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/02/09 02:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/02/09 02:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/02/09 02:10	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/02/09 02:10	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/02/09 02:10	142-28-9	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-6 **Lab ID: 9249725012** Collected: 07/29/09 17:00 Received: 07/30/09 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/02/09 02:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/02/09 02:10	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/02/09 02:10	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/02/09 02:10	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/02/09 02:10	74-88-4	
Methylene Chloride	**4.1**	ug/L	2.0	0.97	1		08/02/09 02:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/02/09 02:10	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/02/09 02:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/02/09 02:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/02/09 02:10	79-34-5	
Tetrachloroethene	**1.0**	ug/L	1.0	0.46	1		08/02/09 02:10	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/02/09 02:10	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/02/09 02:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/02/09 02:10	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/02/09 02:10	79-01-6	
Trichlorofluoromethane	**5.1**	ug/L	1.0	0.20	1		08/02/09 02:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/02/09 02:10	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/02/09 02:10	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/02/09 02:10	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/02/09 02:10	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/02/09 02:10	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/02/09 02:10	95-47-6	
4-Bromofluorobenzene (S)	96	%	87-109		1		08/02/09 02:10	460-00-4	
Dibromofluoromethane (S)	101	%	85-115		1		08/02/09 02:10	1868-53-7	
1,2-Dichloroethane-d4 (S)	109	%	79-120		1		08/02/09 02:10	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		08/02/09 02:10	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**37.6**	mg/L	5.0	5.0	1		08/04/09 16:58		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		08/04/09 15:28		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	ND	mg/L	2.0	2.0	1	07/31/09 14:00	08/05/09 12:36		B2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	**10000**	ug/L	100	100	1		07/30/09 22:02		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**15.1**	mg/L	5.0	5.0	1		07/31/09 12:33	16887-00-6	
5220D COD	Analytical Method: SM 5220D								
Chemical Oxygen Demand	**26700**	ug/L	25000	25000	1		08/04/09 19:55		

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-6 **Lab ID: 9249725012** Collected: 07/29/09 17:00 Received: 07/30/09 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**6.7**	mg/L	1.0	1.0	1		08/07/09 00:16	7440-44-0	
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90								
Sulfate	**8730**	ug/L	5000	5000	1		08/04/09 16:14	14808-79-8	M0

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-7 **Lab ID: 9249725013** Collected: 07/29/09 15:30 Received: 07/30/09 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 18:40	7440-36-0	
Arsenic	**5.2J**	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 18:40	7440-38-2	
Barium	**21.8J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 18:40	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 18:40	7440-41-7	
Cadmium	**1.1**	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 18:40	7440-43-9	
Chromium	**0.57J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:40	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 18:40	7440-48-4	
Copper	**4.8J**	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 18:40	7440-50-8	
Iron	**94.3J**	ug/L	300	14.0	1	08/03/09 11:05	08/04/09 18:40	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 18:40	7439-92-1	
Nickel	**13.5J**	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 18:40	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 18:40	7782-49-2	
Silver	**0.40J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 18:40	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 18:40	7440-28-0	
Vanadium	**1.2J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 18:40	7440-62-2	Z2
Zinc	**1.3J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:40	7440-66-6	Z2
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/02/09 02:29	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/02/09 02:29	107-13-1	
Benzene	**1.9**	ug/L	1.0	0.25	1		08/02/09 02:29	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/02/09 02:29	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/02/09 02:29	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/02/09 02:29	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/02/09 02:29	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/02/09 02:29	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/02/09 02:29	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/02/09 02:29	56-23-5	
Chlorobenzene	**5.0**	ug/L	3.0	0.23	1		08/02/09 02:29	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/02/09 02:29	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/02/09 02:29	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/02/09 02:29	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/02/09 02:29	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/02/09 02:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/02/09 02:29	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/02/09 02:29	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/02/09 02:29	95-50-1	
1,4-Dichlorobenzene	**1.9**	ug/L	1.0	0.33	1		08/02/09 02:29	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/02/09 02:29	110-57-6	
1,1-Dichloroethane	**2.6J**	ug/L	5.0	0.32	1		08/02/09 02:29	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/02/09 02:29	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/02/09 02:29	75-35-4	
cis-1,2-Dichloroethene	**1.0J**	ug/L	5.0	0.19	1		08/02/09 02:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/02/09 02:29	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/02/09 02:29	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/02/09 02:29	142-28-9	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-7 **Lab ID: 9249725013** Collected: 07/29/09 15:30 Received: 07/30/09 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/02/09 02:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/02/09 02:29	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/02/09 02:29	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/02/09 02:29	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/02/09 02:29	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/02/09 02:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/02/09 02:29	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/02/09 02:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/02/09 02:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/02/09 02:29	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/02/09 02:29	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/02/09 02:29	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/02/09 02:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/02/09 02:29	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/02/09 02:29	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/02/09 02:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/02/09 02:29	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/02/09 02:29	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/02/09 02:29	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/02/09 02:29	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/02/09 02:29	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/02/09 02:29	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		1		08/02/09 02:29	460-00-4	
Dibromofluoromethane (S)	103	%	85-115		1		08/02/09 02:29	1868-53-7	
1,2-Dichloroethane-d4 (S)	110	%	79-120		1		08/02/09 02:29	17060-07-0	
Toluene-d8 (S)	100	%	70-120		1		08/02/09 02:29	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**176**	mg/L	5.0	5.0	1		08/04/09 16:59		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		08/04/09 15:28		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**5.1**	mg/L	2.0	2.0	1	07/31/09 14:00	08/05/09 12:36		B2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	ug/L	100	100	1		07/30/09 22:02		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**95.8**	mg/L	25.0	25.0	5		07/31/09 13:01	16887-00-6	
5220D COD	Analytical Method: SM 5220D								
Chemical Oxygen Demand	ND	ug/L	25000	25000	1		08/04/09 19:55		

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-7 **Lab ID: 9249725013** Collected: 07/29/09 15:30 Received: 07/30/09 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**17.3**	mg/L	1.0	1.0	1		08/07/09 00:16	7440-44-0	
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90								
Sulfate	ND	ug/L	5000	5000	1		08/04/09 16:14	14808-79-8	M0

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-24 **Lab ID: 9249725014** Collected: 07/29/09 14:15 Received: 07/30/09 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 18:44	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 18:44	7440-38-2	
Barium	**6.9J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 18:44	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 18:44	7440-41-7	
Cadmium	**0.69J**	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 18:44	7440-43-9	
Chromium	**3.6J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:44	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 18:44	7440-48-4	
Copper	**9.2J**	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 18:44	7440-50-8	
Iron	**2180**	ug/L	300	14.0	1	08/03/09 11:05	08/04/09 18:44	7439-89-6	
Lead	ND	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 18:44	7439-92-1	
Nickel	**4.3J**	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 18:44	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 18:44	7782-49-2	
Silver	**0.22J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 18:44	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 18:44	7440-28-0	
Vanadium	**4.6J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 18:44	7440-62-2	Z2
Zinc	**6.3J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 18:44	7440-66-6	Z2
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/02/09 02:48	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/02/09 02:48	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/02/09 02:48	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/02/09 02:48	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/02/09 02:48	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/02/09 02:48	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/02/09 02:48	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/02/09 02:48	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/02/09 02:48	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/02/09 02:48	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/02/09 02:48	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/02/09 02:48	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/02/09 02:48	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/02/09 02:48	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/02/09 02:48	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/02/09 02:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/02/09 02:48	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/02/09 02:48	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/02/09 02:48	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/02/09 02:48	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/02/09 02:48	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/02/09 02:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/02/09 02:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/02/09 02:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/02/09 02:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/02/09 02:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/02/09 02:48	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/02/09 02:48	142-28-9	

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-24 **Lab ID: 9249725014** Collected: 07/29/09 14:15 Received: 07/30/09 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/02/09 02:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/02/09 02:48	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/02/09 02:48	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/02/09 02:48	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/02/09 02:48	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		08/02/09 02:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/02/09 02:48	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/02/09 02:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/02/09 02:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/02/09 02:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/02/09 02:48	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/02/09 02:48	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/02/09 02:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/02/09 02:48	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/02/09 02:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/02/09 02:48	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/02/09 02:48	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/02/09 02:48	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/02/09 02:48	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/02/09 02:48	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/02/09 02:48	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/02/09 02:48	95-47-6	
4-Bromofluorobenzene (S)	99	%	87-109		1		08/02/09 02:48	460-00-4	
Dibromofluoromethane (S)	105	%	85-115		1		08/02/09 02:48	1868-53-7	
1,2-Dichloroethane-d4 (S)	110	%	79-120		1		08/02/09 02:48	17060-07-0	
Toluene-d8 (S)	102	%	70-120		1		08/02/09 02:48	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**97.4**	mg/L	5.0	5.0	1		08/04/09 16:59		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D								
Sulfide	ND	mg/L	0.10	0.10	1		08/04/09 15:28		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**2.1**	mg/L	2.0	2.0	1	07/31/09 14:00	08/05/09 12:36		B2
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	ug/L	100	100	1		07/30/09 22:02		
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**36.6**	mg/L	5.0	5.0	1		07/31/09 12:35	16887-00-6	
5220D COD	Analytical Method: SM 5220D								
Chemical Oxygen Demand	**99600**	ug/L	25000	25000	1		08/04/09 19:55		

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ANALYTICAL RESULTS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

Sample: MW-24 **Lab ID: 9249725014** Collected: 07/29/09 14:15 Received: 07/30/09 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**31.6**	mg/L	1.0	1.0	1		08/07/09 00:16	7440-44-0	
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90								
Sulfate	**29300**	ug/L	5000	5000	1		08/04/09 16:17	14808-79-8	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WETA/5601 Analysis Method: ASTM D516-90
QC Batch Method: ASTM D516-90 Analysis Description: ASTM D516-90 Sulfate Water
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006

METHOD BLANK: 317342 Matrix: Water
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	ug/L	ND	5000	08/04/09 12:17	

LABORATORY CONTROL SAMPLE: 317343

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	20000	19400	97	90-110	

MATRIX SPIKE SAMPLE: 317344

Parameter	Units	9248492015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	11.7 mg/L	20000	34100	112	75-125	

MATRIX SPIKE SAMPLE: 317349

Parameter	Units	9249725005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	10700	20000	31000	102	75-125	

SAMPLE DUPLICATE: 317348

Parameter	Units	9249132001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	ug/L	2610 mg/L	2570000	2	20	

SAMPLE DUPLICATE: 317350

Parameter	Units	9249725006 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	ug/L	32100	33100	3	20	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WETA/5579 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006

METHOD BLANK: 315852 Matrix: Water
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	08/02/09 21:55	

LABORATORY CONTROL SAMPLE: 315853

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	25	26.5	106	90-110	

MATRIX SPIKE SAMPLE: 315854

Parameter	Units	9249480001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	3.7	25	28.4	99	75-125	

MATRIX SPIKE SAMPLE: 315856

Parameter	Units	9249500001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	1.4	25	29.6	113	75-125	

SAMPLE DUPLICATE: 315857

Parameter	Units	9249500002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	5.2	5.2	0	20	

SAMPLE DUPLICATE: 317134

Parameter	Units	9249480002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	6.8	6.8	1	20	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WETA/5613 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC
Associated Lab Samples: 9249725012, 9249725013, 9249725014

METHOD BLANK: 318590 Matrix: Water
Associated Lab Samples: 9249725012, 9249725013, 9249725014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	08/07/09 00:16	

LABORATORY CONTROL SAMPLE: 318591

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	25	25.8	103	90-110	

MATRIX SPIKE SAMPLE: 318592

Parameter	Units	9249725012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	6.7	25	31.8	100	75-125	

MATRIX SPIKE SAMPLE: 318594

Parameter	Units	9249771001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	ND	25	25.0	99	75-125	

SAMPLE DUPLICATE: 318593

Parameter	Units	9249725013 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	17.3	17.3	0	20	

SAMPLE DUPLICATE: 318595

Parameter	Units	9249771002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	mg/L	4.1	4.0	2	20	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WET/9201 Analysis Method: SM 5210B
QC Batch Method: SM 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006

METHOD BLANK: 315356 Matrix: Water
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	ND	2.0	08/04/09 08:15	

LABORATORY CONTROL SAMPLE: 315357

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	168	85	84-115	

SAMPLE DUPLICATE: 315358

Parameter	Units	9249725006 Result	Dup Result	RPD	Max RPD	Qualifiers
BOD, 5 day	mg/L	5.7	2.7	71	20	B2,R1

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: MPRP/4850 | Analysis Method: EPA 6010
QC Batch Method: EPA 3010 | Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006, 9249725007, 9249725008, 9249725009, 9249725010, 9249725011, 9249725012, 9249725013, 9249725014

METHOD BLANK: 316942 | Matrix: Water
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006, 9249725007, 9249725008, 9249725009, 9249725010, 9249725011, 9249725012, 9249725013, 9249725014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	08/04/09 17:13	
Arsenic	ug/L	ND	10.0	08/04/09 17:13	
Barium	ug/L	ND	100	08/04/09 17:13	
Beryllium	ug/L	ND	1.0	08/04/09 17:13	
Cadmium	ug/L	ND	1.0	08/04/09 17:13	
Chromium	ug/L	ND	10.0	08/04/09 17:13	
Cobalt	ug/L	ND	10.0	08/04/09 17:13	
Copper	ug/L	ND	10.0	08/04/09 17:13	
Iron	ug/L	ND	300	08/04/09 17:13	
Lead	ug/L	ND	10.0	08/04/09 17:13	
Nickel	ug/L	ND	50.0	08/04/09 17:13	
Selenium	ug/L	ND	10.0	08/04/09 17:13	
Silver	ug/L	ND	10.0	08/04/09 17:13	
Thallium	ug/L	ND	5.5	08/04/09 17:13	
Vanadium	ug/L	0.45J	25.0	08/04/09 17:13	
Zinc	ug/L	2.3J	10.0	08/04/09 17:13	

LABORATORY CONTROL SAMPLE: 316943

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	496	99	80-120	
Arsenic	ug/L	500	471	94	80-120	
Barium	ug/L	500	468	94	80-120	
Beryllium	ug/L	500	491	98	80-120	
Cadmium	ug/L	500	480	96	80-120	
Chromium	ug/L	500	495	99	80-120	
Cobalt	ug/L	500	485	97	80-120	
Copper	ug/L	500	462	92	80-120	
Iron	ug/L	5000	4870	97	80-120	
Lead	ug/L	500	484	97	80-120	
Nickel	ug/L	500	484	97	80-120	
Selenium	ug/L	500	467	93	80-120	
Silver	ug/L	250	234	94	80-120	
Thallium	ug/L	500	449	90	80-120	
Vanadium	ug/L	500	476	95	80-120	
Zinc	ug/L	500	476	95	80-120	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

MATRIX SPIKE SAMPLE: 316944

Parameter	Units	9249725001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	5.8J	500	395	78	75-125	
Arsenic	ug/L	10.4	500	455	89	75-125	
Barium	ug/L	178	500	609	86	75-125	
Beryllium	ug/L	1.2	500	468	93	75-125	
Cadmium	ug/L	ND	500	450	90	75-125	
Chromium	ug/L	35.5	500	501	93	75-125	
Cobalt	ug/L	10.7	500	477	93	75-125	
Copper	ug/L	59.7	500	519	92	75-125	
Iron	ug/L	39100	5000	42400	65	75-125	M0
Lead	ug/L	43.9	500	480	87	75-125	
Nickel	ug/L	60.9	500	518	91	75-125	
Selenium	ug/L	ND	500	449	90	75-125	
Silver	ug/L	0.14J	250	225	90	75-125	
Thallium	ug/L	5.1J	500	410	81	75-125	
Vanadium	ug/L	37.6	500	497	92	75-125	
Zinc	ug/L	164	500	622	92	75-125	

SAMPLE DUPLICATE: 316945

Parameter	Units	9249725002 Result	Dup Result	RPD	Max RPD	Qualifiers
Antimony	ug/L	ND	ND		25	
Arsenic	ug/L	ND	ND		25	
Barium	ug/L	14.3J	14.2J	1	25	
Beryllium	ug/L	0.12J	0.10J		25	
Cadmium	ug/L	ND	ND		25	
Chromium	ug/L	3.0J	2.7J		25	
Cobalt	ug/L	18.5	18.8	2	25	
Copper	ug/L	10.9	10.8	1	25	
Iron	ug/L	2680	2570	4	25	
Lead	ug/L	4.2J	4.1J		25	
Nickel	ug/L	16.2J	16.0J	1	25	
Selenium	ug/L	ND	ND		25	
Silver	ug/L	0.24J	0.15J		25	
Thallium	ug/L	ND	ND		25	
Vanadium	ug/L	3.2J	3.0J		25	
Zinc	ug/L	21.3	21.6	1	25	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WETA/5604 | Analysis Method: ASTM D516-90
QC Batch Method: ASTM D516-90 | Analysis Description: ASTM D516-90 Sulfate Water
Associated Lab Samples: 9249725012, 9249725013, 9249725014

METHOD BLANK: 317775 | Matrix: Water
Associated Lab Samples: 9249725012, 9249725013, 9249725014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	ug/L	ND	5000	08/04/09 16:12	

LABORATORY CONTROL SAMPLE: 317776

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	20000	19500	98	90-110	

MATRIX SPIKE SAMPLE: 317777

Parameter	Units	9249725012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	8730	20000	21300	63	75-125	M0

MATRIX SPIKE SAMPLE: 317778

Parameter	Units	9249725013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	ND	20000	10200	26	75-125	M0

SAMPLE DUPLICATE: 317779

Parameter	Units	9249725014 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	ug/L	29300	29700	1	20	

SAMPLE DUPLICATE: 317780

Parameter	Units	9249379001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	ug/L	2530 mg/L	2450000	3	20	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WETA/5582 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 9249725012, 9249725013, 9249725014

METHOD BLANK: 315977 Matrix: Water
Associated Lab Samples: 9249725012, 9249725013, 9249725014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	ug/L	ND	100	07/30/09 22:02	

LABORATORY CONTROL SAMPLE: 315978

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	ug/L	5000	5390	108	90-110	

MATRIX SPIKE SAMPLE: 315979

Parameter	Units	9249756019 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	ug/L	0.74 mg/L	5000	6540	116	90-110	M0

SAMPLE DUPLICATE: 315980

Parameter	Units	9249756020 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WETA/5571 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 9249725001, 9249725003, 9249725004, 9249725005, 9249725006

METHOD BLANK: 315316 Matrix: Water
Associated Lab Samples: 9249725001, 9249725003, 9249725004, 9249725005, 9249725006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	ug/L	ND	100	07/29/09 23:05	

LABORATORY CONTROL SAMPLE: 315317

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	ug/L	5000	5100	102	90-110	

MATRIX SPIKE SAMPLE: 315318

Parameter	Units	9249725006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	ug/L	1680	5000	7610	118	90-110	M0

MATRIX SPIKE SAMPLE: 315319

Parameter	Units	9249701009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	ug/L	ND	5000	5380	108	90-110	

SAMPLE DUPLICATE: 315320

Parameter	Units	9249725001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	ug/L	201	190	6	20	

SAMPLE DUPLICATE: 315321

Parameter	Units	9249701008 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WETA/5587 Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006

METHOD BLANK: 316038 Matrix: Water
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	5.0	07/31/09 10:10	

LABORATORY CONTROL SAMPLE: 316039

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.6	103	90-110	

MATRIX SPIKE SAMPLE: 316040

Parameter	Units	9249579002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	178	200	195	8	75-125	M0

MATRIX SPIKE SAMPLE: 316046

Parameter	Units	9249725001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	17.4	20	28.6	56	75-125	M0

SAMPLE DUPLICATE: 316045

Parameter	Units	9249583002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	6040	6060	0	20	

SAMPLE DUPLICATE: 316047

Parameter	Units	9249725002 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WET/9254 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006, 9249725012, 9249725013, 9249725014

METHOD BLANK: 317485 Matrix: Water
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006, 9249725012, 9249725013, 9249725014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	08/04/09 16:52	

LABORATORY CONTROL SAMPLE: 317486

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.8	100	90-110	

SAMPLE DUPLICATE: 317487

Parameter	Units	9249725001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	17.7	17.7	0	20	

SAMPLE DUPLICATE: 317489

Parameter	Units	9249809001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	1170	1170	0	20	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WETA/5576
QC Batch Method: EPA 353.2
Analysis Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 9249725002

METHOD BLANK: 315469
Matrix: Water
Associated Lab Samples: 9249725002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	ug/L	ND	100	07/30/09 11:00	

LABORATORY CONTROL SAMPLE: 315470

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	ug/L	5000	5110	102	90-110	

MATRIX SPIKE SAMPLE: 315471

Parameter	Units	9249686001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	ug/L	0.74 mg/L	5000	6050	106	90-110	

SAMPLE DUPLICATE: 315472

Parameter	Units	9249686003 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	ug/L	0.97 mg/L	993	2	20	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WETA/5588 Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
Associated Lab Samples: 9249725012, 9249725013, 9249725014

METHOD BLANK: 316052 Matrix: Water
Associated Lab Samples: 9249725012, 9249725013, 9249725014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	ND	5.0	07/31/09 12:33	

LABORATORY CONTROL SAMPLE: 316053

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.7	103	90-110	

MATRIX SPIKE SAMPLE: 316054

Parameter	Units	9249312005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	38.8	20	57.8	95	75-125	

MATRIX SPIKE SAMPLE: 316061

Parameter	Units	9249542001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	23.1	20	39.5	82	75-125	

SAMPLE DUPLICATE: 316060

Parameter	Units	9249809008 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	994	997	0	20	

SAMPLE DUPLICATE: 316161

Parameter	Units	9249686001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WET/9251 Analysis Method: SM 4500-S2D
QC Batch Method: SM 4500-S2D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006, 9249725012, 9249725013, 9249725014

METHOD BLANK: 317297 Matrix: Water
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006, 9249725012, 9249725013, 9249725014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfide	mg/L	ND	1.0	08/04/09 15:28	

LABORATORY CONTROL SAMPLE: 317298

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	.5	0.53J	106	90-110	

MATRIX SPIKE SAMPLE: 317299

Parameter	Units	9249725001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	ND	.5	0.54J	103	75-125	

SAMPLE DUPLICATE: 317300

Parameter	Units	9249725002 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: MSV/7823 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 9249725006, 9249725007, 9249725008, 9249725009, 9249725010, 9249725011, 9249725012, 9249725013, 9249725014

METHOD BLANK: 316778 Matrix: Water
Associated Lab Samples: 9249725006, 9249725007, 9249725008, 9249725009, 9249725010, 9249725011, 9249725012, 9249725013, 9249725014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	08/01/09 22:04	
1,1,1-Trichloroethane	ug/L	ND	1.0	08/01/09 22:04	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	08/01/09 22:04	
1,1,2-Trichloroethane	ug/L	ND	1.0	08/01/09 22:04	
1,1-Dichloroethane	ug/L	ND	5.0	08/01/09 22:04	
1,1-Dichloroethene	ug/L	ND	5.0	08/01/09 22:04	
1,2,3-Trichloropropane	ug/L	ND	1.0	08/01/09 22:04	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	08/01/09 22:04	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/01/09 22:04	
1,2-Dichlorobenzene	ug/L	ND	5.0	08/01/09 22:04	
1,2-Dichloroethane	ug/L	ND	1.0	08/01/09 22:04	
1,2-Dichloropropane	ug/L	ND	1.0	08/01/09 22:04	
1,3-Dichloropropane	ug/L	ND	1.0	08/01/09 22:04	
1,4-Dichlorobenzene	ug/L	ND	1.0	08/01/09 22:04	
2-Butanone (MEK)	ug/L	ND	100	08/01/09 22:04	
2-Hexanone	ug/L	ND	50.0	08/01/09 22:04	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	08/01/09 22:04	
Acetone	ug/L	ND	100	08/01/09 22:04	
Acrylonitrile	ug/L	ND	200	08/01/09 22:04	
Benzene	ug/L	ND	1.0	08/01/09 22:04	
Bromochloromethane	ug/L	ND	3.0	08/01/09 22:04	
Bromodichloromethane	ug/L	ND	1.0	08/01/09 22:04	
Bromoform	ug/L	ND	3.0	08/01/09 22:04	
Bromomethane	ug/L	ND	10.0	08/01/09 22:04	
Carbon disulfide	ug/L	ND	100	08/01/09 22:04	
Carbon tetrachloride	ug/L	ND	1.0	08/01/09 22:04	
Chlorobenzene	ug/L	ND	3.0	08/01/09 22:04	
Chloroethane	ug/L	ND	10.0	08/01/09 22:04	
Chloroform	ug/L	ND	5.0	08/01/09 22:04	
Chloromethane	ug/L	ND	1.0	08/01/09 22:04	
cis-1,2-Dichloroethene	ug/L	ND	5.0	08/01/09 22:04	
cis-1,3-Dichloropropene	ug/L	ND	1.0	08/01/09 22:04	
Dibromochloromethane	ug/L	ND	3.0	08/01/09 22:04	
Dibromomethane	ug/L	ND	10.0	08/01/09 22:04	
Ethylbenzene	ug/L	ND	1.0	08/01/09 22:04	
Iodomethane	ug/L	ND	10.0	08/01/09 22:04	
m&p-Xylene	ug/L	ND	2.0	08/01/09 22:04	
Methylene Chloride	ug/L	2.3	2.0	08/01/09 22:04	B
o-Xylene	ug/L	ND	1.0	08/01/09 22:04	
Styrene	ug/L	ND	1.0	08/01/09 22:04	
Tetrachloroethene	ug/L	ND	1.0	08/01/09 22:04	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

METHOD BLANK: 316778 Matrix: Water

Associated Lab Samples: 9249725006, 9249725007, 9249725008, 9249725009, 9249725010, 9249725011, 9249725012, 9249725013, 9249725014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Toluene	ug/L	ND	1.0	08/01/09 22:04	
trans-1,2-Dichloroethene	ug/L	ND	5.0	08/01/09 22:04	
trans-1,3-Dichloropropene	ug/L	ND	1.0	08/01/09 22:04	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	08/01/09 22:04	
Trichloroethene	ug/L	ND	1.0	08/01/09 22:04	
Trichlorofluoromethane	ug/L	ND	1.0	08/01/09 22:04	
Vinyl acetate	ug/L	ND	50.0	08/01/09 22:04	
Vinyl chloride	ug/L	ND	1.0	08/01/09 22:04	
Xylene (Total)	ug/L	ND	5.0	08/01/09 22:04	
1,2-Dichloroethane-d4 (S)	%	109	79-120	08/01/09 22:04	
4-Bromofluorobenzene (S)	%	98	87-109	08/01/09 22:04	
Dibromofluoromethane (S)	%	102	85-115	08/01/09 22:04	
Toluene-d8 (S)	%	102	70-120	08/01/09 22:04	

LABORATORY CONTROL SAMPLE: 316779

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	56.4	113	83-125	
1,1,1-Trichloroethane	ug/L	50	63.4	127	80-129	
1,1,2,2-Tetrachloroethane	ug/L	50	53.1	106	73-127	
1,1,2-Trichloroethane	ug/L	50	56.2	112	77-123	
1,1-Dichloroethane	ug/L	50	73.0	146	76-129	L3
1,1-Dichloroethene	ug/L	50	57.5	115	78-146	
1,2,3-Trichloropropane	ug/L	50	53.4	107	72-125	
1,2-Dibromo-3-chloropropane	ug/L	50	43.2	86	65-128	
1,2-Dibromoethane (EDB)	ug/L	50	53.9	108	81-125	
1,2-Dichlorobenzene	ug/L	50	56.4	113	82-126	
1,2-Dichloroethane	ug/L	50	59.5	119	72-126	
1,2-Dichloropropane	ug/L	50	57.1	114	80-127	
1,3-Dichloropropane	ug/L	50	53.5	107	79-124	
1,4-Dichlorobenzene	ug/L	50	56.3	113	79-125	
2-Butanone (MEK)	ug/L	100	100	100	50-134	
2-Hexanone	ug/L	100	103	103	58-138	
4-Methyl-2-pentanone (MIBK)	ug/L	100	104	104	70-131	
Acetone	ug/L	100	107	107	50-146	
Acrylonitrile	ug/L	250	241	96	66-124	
Benzene	ug/L	50	57.1	114	78-128	
Bromochloromethane	ug/L	50	50.9	102	73-124	
Bromodichloromethane	ug/L	50	53.9	108	81-125	
Bromoform	ug/L	50	45.1	90	71-125	
Bromomethane	ug/L	50	90.6	181	50-150	L3
Carbon disulfide	ug/L	50	50.6J	101	54-150	
Carbon tetrachloride	ug/L	50	63.0	126	81-137	
Chlorobenzene	ug/L	50	57.0	114	82-126	

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

LABORATORY CONTROL SAMPLE: 316779

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloroethane	ug/L	50	53.6	107	69-140	
Chloroform	ug/L	50	57.3	115	77-129	
Chloromethane	ug/L	50	49.8	100	54-139	
cis-1,2-Dichloroethene	ug/L	50	56.4	113	76-133	
cis-1,3-Dichloropropene	ug/L	50	55.4	111	76-127	
Dibromochloromethane	ug/L	50	50.7	101	77-125	
Dibromomethane	ug/L	50	60.4	121	77-125	
Ethylbenzene	ug/L	50	56.6	113	80-127	
Iodomethane	ug/L	100	96.6	97	65-172	
m&p-Xylene	ug/L	100	116	116	82-127	
Methylene Chloride	ug/L	50	64.7	129	67-133	
o-Xylene	ug/L	50	56.0	112	83-124	
Styrene	ug/L	50	56.4	113	80-130	
Tetrachloroethene	ug/L	50	57.0	114	78-128	
Toluene	ug/L	50	56.4	113	76-126	
trans-1,2-Dichloroethene	ug/L	50	53.3	107	78-134	
trans-1,3-Dichloropropene	ug/L	50	56.3	113	75-125	
trans-1,4-Dichloro-2-butene	ug/L	50	54.3J	109	51-140	
Trichloroethene	ug/L	50	60.0	120	79-127	
Trichlorofluoromethane	ug/L	50	52.2	104	76-148	
Vinyl acetate	ug/L	100	61.7	62	50-150	
Vinyl chloride	ug/L	50	59.5	119	67-143	
Xylene (Total)	ug/L	150	172	114	83-125	
1,2-Dichloroethane-d4 (S)	%			105	79-120	
4-Bromofluorobenzene (S)	%			100	87-109	
Dibromofluoromethane (S)	%			97	85-115	
Toluene-d8 (S)	%			101	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 316882 316883

Parameter	Units	9249443004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	59.1	57.0	118	114	60-150	4	30	
Benzene	ug/L	ND	50	50	55.9	54.6	112	109	74-136	2	30	
Chlorobenzene	ug/L	ND	50	50	62.8	61.8	126	124	79-135	2	30	
Toluene	ug/L	ND	50	50	56.4	55.6	113	111	73-131	1	30	
Trichloroethene	ug/L	0.57J	50	50	59.3	58.2	118	115	73-131	2	30	
1,2-Dichloroethane-d4 (S)	%						98	98	79-120			
4-Bromofluorobenzene (S)	%						106	107	87-109			
Dibromofluoromethane (S)	%						95	95	85-115			
Toluene-d8 (S)	%						97	96	70-120			

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WET/9222 Analysis Method: SM 5210B
QC Batch Method: SM 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 9249725012, 9249725013, 9249725014

METHOD BLANK: 316014 Matrix: Water
Associated Lab Samples: 9249725012, 9249725013, 9249725014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	ND	2.0	08/05/09 12:36	

LABORATORY CONTROL SAMPLE: 316015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	186	94	84-115	

SAMPLE DUPLICATE: 316016

Parameter	Units	9249725014 Result	Dup Result	RPD	Max RPD	Qualifiers
BOD, 5 day	mg/L	2.1	ND		20	B2

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: MSV/7821 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005

METHOD BLANK: 316760 Matrix: Water
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	08/01/09 09:50	
1,1,1-Trichloroethane	ug/L	ND	1.0	08/01/09 09:50	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	08/01/09 09:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	08/01/09 09:50	
1,1-Dichloroethane	ug/L	ND	5.0	08/01/09 09:50	
1,1-Dichloroethene	ug/L	ND	5.0	08/01/09 09:50	
1,2,3-Trichloropropane	ug/L	ND	1.0	08/01/09 09:50	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	08/01/09 09:50	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/01/09 09:50	
1,2-Dichlorobenzene	ug/L	ND	5.0	08/01/09 09:50	
1,2-Dichloroethane	ug/L	ND	1.0	08/01/09 09:50	
1,2-Dichloropropane	ug/L	ND	1.0	08/01/09 09:50	
1,3-Dichloropropane	ug/L	ND	1.0	08/01/09 09:50	
1,4-Dichlorobenzene	ug/L	ND	1.0	08/01/09 09:50	
2-Butanone (MEK)	ug/L	ND	100	08/01/09 09:50	
2-Hexanone	ug/L	ND	50.0	08/01/09 09:50	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	08/01/09 09:50	
Acetone	ug/L	ND	100	08/01/09 09:50	
Acrylonitrile	ug/L	ND	200	08/01/09 09:50	
Benzene	ug/L	ND	1.0	08/01/09 09:50	
Bromochloromethane	ug/L	ND	3.0	08/01/09 09:50	
Bromodichloromethane	ug/L	ND	1.0	08/01/09 09:50	
Bromoform	ug/L	ND	3.0	08/01/09 09:50	
Bromomethane	ug/L	ND	10.0	08/01/09 09:50	
Carbon disulfide	ug/L	ND	100	08/01/09 09:50	
Carbon tetrachloride	ug/L	ND	1.0	08/01/09 09:50	
Chlorobenzene	ug/L	ND	3.0	08/01/09 09:50	
Chloroethane	ug/L	ND	10.0	08/01/09 09:50	
Chloroform	ug/L	ND	5.0	08/01/09 09:50	
Chloromethane	ug/L	ND	1.0	08/01/09 09:50	
cis-1,2-Dichloroethene	ug/L	ND	5.0	08/01/09 09:50	
cis-1,3-Dichloropropene	ug/L	ND	1.0	08/01/09 09:50	
Dibromochloromethane	ug/L	ND	3.0	08/01/09 09:50	
Dibromomethane	ug/L	ND	10.0	08/01/09 09:50	
Ethylbenzene	ug/L	ND	1.0	08/01/09 09:50	
Iodomethane	ug/L	ND	10.0	08/01/09 09:50	
m&p-Xylene	ug/L	ND	2.0	08/01/09 09:50	
Methylene Chloride	ug/L	ND	2.0	08/01/09 09:50	
o-Xylene	ug/L	ND	1.0	08/01/09 09:50	
Styrene	ug/L	ND	1.0	08/01/09 09:50	
Tetrachloroethene	ug/L	ND	1.0	08/01/09 09:50	
Toluene	ug/L	ND	1.0	08/01/09 09:50	
trans-1,2-Dichloroethene	ug/L	ND	5.0	08/01/09 09:50	

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2225 Riverside Dr.
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(828)254-7176

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

QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

METHOD BLANK: 316760 Matrix: Water

Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,3-Dichloropropene	ug/L	ND	1.0	08/01/09 09:50	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	08/01/09 09:50	
Trichloroethene	ug/L	ND	1.0	08/01/09 09:50	
Trichlorofluoromethane	ug/L	ND	1.0	08/01/09 09:50	
Vinyl acetate	ug/L	ND	50.0	08/01/09 09:50	
Vinyl chloride	ug/L	ND	1.0	08/01/09 09:50	
Xylene (Total)	ug/L	ND	5.0	08/01/09 09:50	
1,2-Dichloroethane-d4 (S)	%	109	79-120	08/01/09 09:50	
4-Bromofluorobenzene (S)	%	100	87-109	08/01/09 09:50	
Dibromofluoromethane (S)	%	103	85-115	08/01/09 09:50	
Toluene-d8 (S)	%	102	70-120	08/01/09 09:50	

LABORATORY CONTROL SAMPLE: 316761

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	56.3	113	83-125	
1,1,1-Trichloroethane	ug/L	50	61.2	122	80-129	
1,1,2,2-Tetrachloroethane	ug/L	50	54.3	109	73-127	
1,1,2-Trichloroethane	ug/L	50	54.1	108	77-123	
1,1-Dichloroethane	ug/L	50	68.5	137	76-129	L0
1,1-Dichloroethene	ug/L	50	55.1	110	78-146	
1,2,3-Trichloropropane	ug/L	50	53.1	106	72-125	
1,2-Dibromo-3-chloropropane	ug/L	50	44.2	88	65-128	
1,2-Dibromoethane (EDB)	ug/L	50	52.8	106	81-125	
1,2-Dichlorobenzene	ug/L	50	57.3	115	82-126	
1,2-Dichloroethane	ug/L	50	55.4	111	72-126	
1,2-Dichloropropane	ug/L	50	55.8	112	80-127	
1,3-Dichloropropane	ug/L	50	52.5	105	79-124	
1,4-Dichlorobenzene	ug/L	50	56.6	113	79-125	
2-Butanone (MEK)	ug/L	100	98.6J	99	50-134	
2-Hexanone	ug/L	100	99.4	99	58-138	
4-Methyl-2-pentanone (MIBK)	ug/L	100	98.8J	99	70-131	
Acetone	ug/L	100	99.9J	100	50-146	
Acrylonitrile	ug/L	250	243	97	66-124	
Benzene	ug/L	50	56.2	112	78-128	
Bromochloromethane	ug/L	50	54.2	108	73-124	
Bromodichloromethane	ug/L	50	52.6	105	81-125	
Bromoform	ug/L	50	46.1	92	71-125	
Bromomethane	ug/L	50	79.7	159	50-150	L3
Carbon disulfide	ug/L	50	50.3J	101	54-150	
Carbon tetrachloride	ug/L	50	62.0	124	81-137	
Chlorobenzene	ug/L	50	57.1	114	82-126	
Chloroethane	ug/L	50	51.7	103	69-140	
Chloroform	ug/L	50	55.3	111	77-129	
Chloromethane	ug/L	50	47.3	95	54-139	

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(704)875-9092

QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

LABORATORY CONTROL SAMPLE: 316761

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	53.6	107	76-133	
cis-1,3-Dichloropropene	ug/L	50	55.6	111	76-127	
Dibromochloromethane	ug/L	50	51.5	103	77-125	
Dibromomethane	ug/L	50	60.4	121	77-125	
Ethylbenzene	ug/L	50	56.4	113	80-127	
Iodomethane	ug/L	100	94.3	94	65-172	
m&p-Xylene	ug/L	100	113	113	82-127	
Methylene Chloride	ug/L	50	62.9	126	67-133	
o-Xylene	ug/L	50	55.4	111	83-124	
Styrene	ug/L	50	56.9	114	80-130	
Tetrachloroethene	ug/L	50	56.9	114	78-128	
Toluene	ug/L	50	55.5	111	76-126	
trans-1,2-Dichloroethene	ug/L	50	51.4	103	78-134	
trans-1,3-Dichloropropene	ug/L	50	56.3	113	75-125	
trans-1,4-Dichloro-2-butene	ug/L	50	56.7J	113	51-140	
Trichloroethene	ug/L	50	57.1	114	79-127	
Trichlorofluoromethane	ug/L	50	51.1	102	76-148	
Vinyl acetate	ug/L	100	76.5	77	50-150	
Vinyl chloride	ug/L	50	53.0	106	67-143	
Xylene (Total)	ug/L	150	169	113	83-125	
1,2-Dichloroethane-d4 (S)	%			99	79-120	
4-Bromofluorobenzene (S)	%			103	87-109	
Dibromofluoromethane (S)	%			97	85-115	
Toluene-d8 (S)	%			101	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 316762 316763

Parameter	Units	9248992007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	63.4	58.4	127	117	60-150	8	30	
Benzene	ug/L	ND	50	50	59.9	59.3	120	119	74-136	1	30	
Chlorobenzene	ug/L	ND	50	50	60.5	58.5	121	117	79-135	3	30	
Toluene	ug/L	ND	50	50	59.7	59.3	119	119	73-131	1	30	
Trichloroethene	ug/L	ND	50	50	57.9	57.7	116	115	73-131	0	30	
1,2-Dichloroethane-d4 (S)	%						109	107	79-120			
4-Bromofluorobenzene (S)	%						96	96	87-109			
Dibromofluoromethane (S)	%						100	98	85-115			
Toluene-d8 (S)	%						100	100	70-120			

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ACCREDITED IN ACCORDANCE WITH nelac

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QUALITY CONTROL DATA

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

QC Batch: WETA/5603 Analysis Method: SM 5220D
QC Batch Method: SM 5220D Analysis Description: 5220D COD
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006, 9249725012, 9249725013, 9249725014

METHOD BLANK: 317697 Matrix: Water
Associated Lab Samples: 9249725001, 9249725002, 9249725003, 9249725004, 9249725005, 9249725006, 9249725012, 9249725013, 9249725014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	ug/L	ND	25000	08/04/09 19:55	

LABORATORY CONTROL SAMPLE: 317698

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	ug/L	750000	725000	97	90-110	

MATRIX SPIKE SAMPLE: 317882

Parameter	Units	9249725001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	ug/L	56300	750000	766000	95	75-125	

MATRIX SPIKE SAMPLE: 317883

Parameter	Units	9249725002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	ug/L	84400	750000	865000	104	75-125	

SAMPLE DUPLICATE: 317884

Parameter	Units	9249725003 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	ug/L	46800	50300	7	20	

SAMPLE DUPLICATE: 317885

Parameter	Units	9249725004 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	ug/L	25200	ND		20	

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9800 Kincey Ave. Suite 100
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(704)875-9092

QUALIFIERS

Project: ALBEMARLE CLOSED MSWLF
Pace Project No.: 9249725

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

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

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

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
B2	Oxygen usage is less than 2.0 for all dilutions set. The reported value is an estimated less than value and is calculated for the dilution using the most amount of sample.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
R1	RPD value was outside control limits.
Z2	Analyte present in the associated method blank above the detection limit.

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Combine w/ other samples to be submitted later

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

1325252

Section A Required Client Information:

Company: Municipal Engineering Services (MESCO)
Address: PO Box 97
Garner NC 27529
Email To: jpfow
Phone: (919) 772-5393 Fax: (919) 772-1176
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Jonathan Pfow
Copy To:
Purchase Order No.:
Project Name: Albemarle Closed MSWLF
Project Number:

Section C Invoice Information:

Attention: See Section A
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Bonnie
Pace Profile #: 2103-7

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☑ OTHER

Site Location STATE: NC

Section D Required Client Information

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

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

Requested Analysis Filtered (Y/N): N N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	VOCs - App I	Metals - App I	VFA	Hydrogen - Microbiology	Methane/Ethane/Ethene - Microbiology	Alkalinity	Sulfate	Sulfide	Chloride	TOC	BOD	Iron - Ferrous	Residual Chlorine (Y/N)	Nitrate	COD	Pace Project No./ Lab I.D.
1	MW-1	WT	G			7/28/09	11:00											✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N	✓	✓	9249725 001
2	MW-2					7/29/09	12:05											✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	002
3	MW-3					7/28/09	12:00											✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	003
4	MW-4R					7/29/09	8:05		4			1	3					✓	✓													007
5	~~MW-5R~~ MW-5R					7/29/09	7:30		4			1	3					✓	✓													008
6	MW-6 Will Be submitted Later																	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
7	MW-7 Will Be Submitted Later																	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
8	MW-8D					7/29/09	9:00		4			1	3					✓	✓													009
9	MW-9					7/28/09	2:05											✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	004
10	MW-10					7/28/09	3:00											✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	005
11	MW-11					7/29/09	9:40		4			1	3					✓	✓													010
12	SW-7					7/28/09	3:20		4			1	3					✓	✓													011

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
SW-5 Dry	MESCO	7/29/09	14:02	Pace	7/29/09	14:02				
Shop - Disconnected - No Sample	Pace	7/29/09	15:50	Jamell Cloud Pace	7/29/09	1550	5.2	4	N	4

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jonathan Pfow

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 7/29/09

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

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

Combine w/ C-O-C 1325252 Already submitted

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

1325253

Section A Required Client Information:

Company: Municipal Engineering Services (MESCO)
Address: PO Box 97
Garner NC 27529
Email To: jpfohl@mesco.com
Phone: (919)772-5393 Fax: (919)772-1176
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Jonathan Pfohl
Copy To:
Purchase Order No.:
Project Name: Albemarle Closed MSWLF
Project Number:

Section C Invoice Information:

Attention: See Section A
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager: Bennie
Pace Profile #: 2103-7

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☑ OTHER

Site Location STATE: NC

Section D Required Client Information

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

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

Requested Analysis Filtered (Y/N): VOCs - App I; Metals - App I; VFA; Hydrogen - Microscopes; Methane/Ethane/Ethene - Microscopes; Alkalinity; Sulfate; Sulfide; Chloride; TOC; BOD; Iron - Ferrous; Residual Chlorine (Y/N); Nitrate; PCBD

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start Date	Composite Start Time	Composite End/Grab Date	Composite End/Grab Time	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH & Zn Acetate	$Na_2S_2O_3$	Methanol	Other	VOCs - App I	Metals - App I	VFA	Hydrogen - Microscopes	Methane/Ethane/Ethene - Microscopes	Alkalinity	Sulfate	Sulfide	Chloride	TOC	BOD	Iron - Ferrous	Residual Chlorine (Y/N)	Nitrate	PCBD	Pace Project No./ Lab I.D.
1	MW-6	WT	G			7/29/09	5:00					1	3	1				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N	✓	✓	012
2	MW-7	↓	↓			↓	3:30					↓	↓	↓				↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	013
3	MW-24						2:15																										014
4	MW-25	↓	↓			↓	11:00					↓	↓	↓				↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	015
5																																	
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

9249725

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	MESCO	7/30/09	9:39		7/30/09	9:39				
		7/30/09	13:35	Jmaro Pace	7/30	1335	4.0	4	N	4
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Jonathan Pfohl
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 7/29/09

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

Sample Condition Upon Receipt

Pace Analytical

Client Name: MESCO Project # 9249725

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other ____

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

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other ____

Thermometer Used T060 Type of Ice: (Wet) Blue None ☑ Samples on ice, cooling process has begun

Cooler Temperature 4.0 Biological Tissue is Frozen: Yes No N/A

Temp should be above freezing to 6°C

Optional	
Proj. Due Date:	N/A
Proj. Name:	N/A

Date and Initials of person examining contents: TM 7/30

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix:		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	Initial when completed
Samples checked for dechlorination:	☑Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): N/A		

TM 7/30

(1) mw25 ~~Only received methane~~ Did not receive (rec'd only hydrogen)

(2) mw6, 7, 24 Did not receive methane

(3) received H_2 CH_4 Ethane Ethene for mw1 7/28 mw3 7/28 not on COC

rec'd CO_2 For mw6, 7, 24 not on COC

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

Person Contacted: ____ Date/Time: ____

Comments/ Resolution: ____

Project Manager Review: BKM Date: 7/30/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Sample Condition Upon Receipt

Pace Analytical

Client Name: Municipal Engineering Serv Project # 9249725

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other ____

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

Optional	
Proj. Due Date:	N/A
Proj. Name:	N/A

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other ____

Thermometer Used T060 Type of Ice: (Wet) Blue None ☑ Samples on ice, cooling process has begun

Cooler Temperature 3.0 Biological Tissue is Frozen: Yes No N/A

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 7/29/09

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4. MW 1, 2, 3, 6, 7, 9, 10 recv'd
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5. CO_2 vials not on COC.
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume: 7/29/09	☑Yes ☑No ☐N/A	8. Missing Methane Vials for MW-2 + MW-9 +
Correct Containers Used:	☑Yes ☐No ☐N/A	9. MW-10 (methane vials arrived 7/30/09)
-Pace Containers Used:	☑Yes ☑No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC: 7/29/09	☑Yes ☑No ☐N/A	12. Received MW-25 that's not on COC
-Includes date/time/ID/Analysis Matrix: WT		See The Back →
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13. MW-8D + MW-10 + MW-11
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	SW-7 All have No Time No Date
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	Initial when completed
Samples checked for dechlorination:	☑Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): N/A		

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

Person Contacted: Jon Pfohl Date/Time: 7/29/09

Comments/ Resolution: Client has MW-2, MW-9 & MW-10 that are missing.

Emailed J.P. about MW-25

Project Manager Review: BMH Date: 07-30-09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, Inc.
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(704)875-9092

November 03, 2009

Mr. Jonathan Pfohl
Municipal Engineering Services
PO Box 97
Garner, NC 27529

RE: Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory on July 30, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bonnie McKee

Bonnie McKee

bonnie.mckee@pacelabs.com
Project Manager

Enclosures

cc: Ms. Maggie German, Municipal Engineering Services

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CERTIFICATIONS

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

Charlotte Certification IDs

West Virginia Certification #: 357
Virginia Certification #: 00213
Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana/LELAP Certification #: 04034
New Jersey Certification #: NC012
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
Pennsylvania Certification #: 68-00784
South Carolina Certification #: 990060001
South Carolina Drinking Water Cert. #: 990060003
Tennessee Certification #: 04010

Asheville Certification IDs

West Virginia Certification #: 356
Florida/NELAP Certification #: E87648
Louisiana/LELAP Certification #: 03095
Massachusetts Certification #: M-NC030
New Jersey Certification #: NC011
North Carolina Bioassay Certification #: 9
Connecticut Certification #: PH-0106
North Carolina Wastewater Certification #: 40
Pennsylvania Certification #: 68-03578
South Carolina Bioassay Certification #: 99030002
South Carolina Certification #: 99030001
Tennessee Certification #: 2980
Virginia Certification #: 00072
North Carolina Drinking Water Certification #: 37712

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SAMPLE SUMMARY

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9249821001	**EB**	Water	07/29/09 17:20	07/30/09 13:35
9249821002	**FB**	Water	07/29/09 17:25	07/30/09 13:35

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SAMPLE ANALYTE COUNT

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
9249821001	**EB**	EPA 6010	SHB	16	PASI-A
		EPA 7470	SAJ	1	PASI-A
		EPA 8260	MCK	68	PASI-C
9249821002	**FB**	EPA 8260	MCK	54	PASI-C

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ANALYTICAL RESULTS

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

Sample: EB **Lab ID: 9249821001** Collected: 07/29/09 17:20 Received: 07/30/09 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	08/03/09 11:05	08/04/09 23:45	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	08/03/09 11:05	08/04/09 23:45	7440-38-2	
Barium	**18.6J**	ug/L	100	0.20	1	08/03/09 11:05	08/04/09 23:45	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	08/03/09 11:05	08/04/09 23:45	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	08/03/09 11:05	08/04/09 23:45	7440-43-9	
Chromium	ND	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 23:45	7440-47-3	
Cobalt	ND	ug/L	10.0	0.60	1	08/03/09 11:05	08/04/09 23:45	7440-48-4	
Copper	ND	ug/L	10.0	0.30	1	08/03/09 11:05	08/04/09 23:45	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	08/03/09 11:05	08/04/09 23:45	7439-92-1	
Nickel	ND	ug/L	50.0	1.7	1	08/03/09 11:05	08/04/09 23:45	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	08/03/09 11:05	08/04/09 23:45	7782-49-2	
Silver	**0.10J**	ug/L	10.0	0.10	1	08/03/09 11:05	08/04/09 23:45	7440-22-4	
Thallium	ND	ug/L	5.5	3.0	1	08/03/09 11:05	08/04/09 23:45	7440-28-0	
Tin	**2.5J**	ug/L	100	1.8	1	08/03/09 11:05	08/04/09 23:45	7440-31-5	
Vanadium	**0.88J**	ug/L	25.0	0.20	1	08/03/09 11:05	08/04/09 23:45	7440-62-2	Z2
Zinc	**2.3J**	ug/L	10.0	0.40	1	08/03/09 11:05	08/04/09 23:45	7440-66-6	Z2
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
Mercury	ND	ug/L	0.20	0.070	1	08/07/09 10:43	08/07/09 14:31	7439-97-6	
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/02/09 18:31	67-64-1	
Acetonitrile	ND	ug/L	50.0	2.2	1		08/02/09 18:31	75-05-8	
Acrolein	ND	ug/L	10.0	1.6	1		08/02/09 18:31	107-02-8	
Acrylonitrile	ND	ug/L	200	1.9	1		08/02/09 18:31	107-13-1	
Allyl chloride	ND	ug/L	2.0	1.5	1		08/02/09 18:31	107-05-1	
Benzene	ND	ug/L	1.0	0.25	1		08/02/09 18:31	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/02/09 18:31	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/02/09 18:31	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/02/09 18:31	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/02/09 18:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/02/09 18:31	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/02/09 18:31	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/02/09 18:31	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/02/09 18:31	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/02/09 18:31	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/02/09 18:31	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/02/09 18:31	74-87-3	
Chloroprene	ND	ug/L	5.0	0.27	1		08/02/09 18:31	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/02/09 18:31	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/02/09 18:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/02/09 18:31	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/02/09 18:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/02/09 18:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.24	1		08/02/09 18:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/02/09 18:31	106-46-7	

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ACCREDITED IN ACCORDANCE WITH nelac

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ANALYTICAL RESULTS

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

Sample: EB **Lab ID: 9249821001** Collected: 07/29/09 17:20 Received: 07/30/09 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/02/09 18:31	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	0.21	1		08/02/09 18:31	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/02/09 18:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/02/09 18:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/02/09 18:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/02/09 18:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/02/09 18:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/02/09 18:31	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/02/09 18:31	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.13	1		08/02/09 18:31	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.49	1		08/02/09 18:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/02/09 18:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/02/09 18:31	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/02/09 18:31	100-41-4	
Ethyl methacrylate	ND	ug/L	1.0	0.20	1		08/02/09 18:31	97-63-2	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/02/09 18:31	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/02/09 18:31	74-88-4	
Isobutanol	ND	ug/L	100	35.0	1		08/02/09 18:31	78-83-1	
Methacrylonitrile	ND	ug/L	10.0	0.93	1		08/02/09 18:31	126-98-7	
Methylene Chloride	**1.0J**	ug/L	2.0	0.97	1		08/02/09 18:31	75-09-2	
Methyl methacrylate	ND	ug/L	2.0	2.0	1		08/02/09 18:31	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/02/09 18:31	108-10-1	
Naphthalene	ND	ug/L	1.0	0.24	1		08/02/09 18:31	91-20-3	
Propionitrile	ND	ug/L	20.0	3.6	1		08/02/09 18:31	107-12-0	
Styrene	ND	ug/L	1.0	0.26	1		08/02/09 18:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/02/09 18:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/02/09 18:31	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/02/09 18:31	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/02/09 18:31	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.35	1		08/02/09 18:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/02/09 18:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/02/09 18:31	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/02/09 18:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/02/09 18:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/02/09 18:31	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/02/09 18:31	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/02/09 18:31	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/02/09 18:31	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/02/09 18:31	95-47-6	
4-Bromofluorobenzene (S)	107	%	87-109		1		08/02/09 18:31	460-00-4	
Dibromofluoromethane (S)	103	%	85-115		1		08/02/09 18:31	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120		1		08/02/09 18:31	17060-07-0	
Toluene-d8 (S)	98	%	70-120		1		08/02/09 18:31	2037-26-5	

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ANALYTICAL RESULTS

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

Sample: FB **Lab ID: 9249821002** Collected: 07/29/09 17:25 Received: 07/30/09 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		08/02/09 13:09	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		08/02/09 13:09	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		08/02/09 13:09	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		08/02/09 13:09	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		08/02/09 13:09	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		08/02/09 13:09	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		08/02/09 13:09	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		08/02/09 13:09	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		08/02/09 13:09	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		08/02/09 13:09	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		08/02/09 13:09	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		08/02/09 13:09	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		08/02/09 13:09	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		08/02/09 13:09	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		08/02/09 13:09	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		08/02/09 13:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		08/02/09 13:09	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		08/02/09 13:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		08/02/09 13:09	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		08/02/09 13:09	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		08/02/09 13:09	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		08/02/09 13:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		08/02/09 13:09	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		08/02/09 13:09	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		08/02/09 13:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		08/02/09 13:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		08/02/09 13:09	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		08/02/09 13:09	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		08/02/09 13:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		08/02/09 13:09	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		08/02/09 13:09	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		08/02/09 13:09	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		08/02/09 13:09	74-88-4	
Methylene Chloride	**1.3J**	ug/L	2.0	0.97	1		08/02/09 13:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		08/02/09 13:09	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		08/02/09 13:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		08/02/09 13:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		08/02/09 13:09	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		08/02/09 13:09	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		08/02/09 13:09	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		08/02/09 13:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		08/02/09 13:09	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		08/02/09 13:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		08/02/09 13:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		08/02/09 13:09	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		08/02/09 13:09	108-05-4	

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ANALYTICAL RESULTS

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

Sample: FB **Lab ID: 9249821002** Collected: 07/29/09 17:25 Received: 07/30/09 13:35 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Vinyl chloride	ND	ug/L	1.0	0.62	1		08/02/09 13:09	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		08/02/09 13:09	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	0.66	1		08/02/09 13:09	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		08/02/09 13:09	95-47-6	
4-Bromofluorobenzene (S)	108	%	87-109		1		08/02/09 13:09	460-00-4	
Dibromofluoromethane (S)	98	%	85-115		1		08/02/09 13:09	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120		1		08/02/09 13:09	17060-07-0	
Toluene-d8 (S)	98	%	70-120		1		08/02/09 13:09	2037-26-5	

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QUALITY CONTROL DATA

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

QC Batch: MERP/2311
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury
Associated Lab Samples: 9249821001

METHOD BLANK: 318684
Matrix: Water
Associated Lab Samples: 9249821001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	08/07/09 14:13	

LABORATORY CONTROL SAMPLE: 318685

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.2	90	80-120	

MATRIX SPIKE SAMPLE: 318686

Parameter	Units	9249730001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.2	89	75-125	

SAMPLE DUPLICATE: 318687

Parameter	Units	9249535013 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		25	

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QUALITY CONTROL DATA

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

QC Batch: MSV/7829 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 9249821001, 9249821002

METHOD BLANK: 316866 | Matrix: Water
Associated Lab Samples: 9249821001, 9249821002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	08/02/09 12:50	
1,1,1-Trichloroethane	ug/L	ND	1.0	08/02/09 12:50	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	08/02/09 12:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	08/02/09 12:50	
1,1-Dichloroethane	ug/L	ND	5.0	08/02/09 12:50	
1,1-Dichloroethene	ug/L	ND	5.0	08/02/09 12:50	
1,1-Dichloropropene	ug/L	ND	5.0	08/02/09 12:50	
1,2,3-Trichloropropane	ug/L	ND	1.0	08/02/09 12:50	
1,2,4-Trichlorobenzene	ug/L	ND	10.0	08/02/09 12:50	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	08/02/09 12:50	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/02/09 12:50	
1,2-Dichlorobenzene	ug/L	ND	5.0	08/02/09 12:50	
1,2-Dichloroethane	ug/L	ND	1.0	08/02/09 12:50	
1,2-Dichloropropane	ug/L	ND	1.0	08/02/09 12:50	
1,3-Dichlorobenzene	ug/L	ND	5.0	08/02/09 12:50	
1,3-Dichloropropane	ug/L	ND	1.0	08/02/09 12:50	
1,4-Dichlorobenzene	ug/L	ND	1.0	08/02/09 12:50	
2,2-Dichloropropane	ug/L	ND	15.0	08/02/09 12:50	
2-Butanone (MEK)	ug/L	ND	100	08/02/09 12:50	
2-Hexanone	ug/L	ND	50.0	08/02/09 12:50	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	08/02/09 12:50	
Acetone	ug/L	ND	100	08/02/09 12:50	
Acetonitrile	ug/L	ND	55.0	08/02/09 12:50	
Acrolein	ug/L	ND	53.0	08/02/09 12:50	
Acrylonitrile	ug/L	ND	200	08/02/09 12:50	
Allyl chloride	ug/L	ND	10.0	08/02/09 12:50	
Benzene	ug/L	ND	1.0	08/02/09 12:50	
Bromochloromethane	ug/L	ND	3.0	08/02/09 12:50	
Bromodichloromethane	ug/L	ND	1.0	08/02/09 12:50	
Bromoform	ug/L	ND	3.0	08/02/09 12:50	
Bromomethane	ug/L	ND	10.0	08/02/09 12:50	
Carbon disulfide	ug/L	ND	100	08/02/09 12:50	
Carbon tetrachloride	ug/L	ND	1.0	08/02/09 12:50	
Chlorobenzene	ug/L	ND	3.0	08/02/09 12:50	
Chloroethane	ug/L	ND	10.0	08/02/09 12:50	
Chloroform	ug/L	ND	5.0	08/02/09 12:50	
Chloromethane	ug/L	ND	1.0	08/02/09 12:50	
Chloroprene	ug/L	ND	20.0	08/02/09 12:50	
cis-1,2-Dichloroethene	ug/L	ND	5.0	08/02/09 12:50	
cis-1,3-Dichloropropene	ug/L	ND	1.0	08/02/09 12:50	
Dibromochloromethane	ug/L	ND	3.0	08/02/09 12:50	
Dibromomethane	ug/L	ND	10.0	08/02/09 12:50	
Dichlorodifluoromethane	ug/L	ND	5.0	08/02/09 12:50	

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QUALITY CONTROL DATA

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

METHOD BLANK: 316866 Matrix: Water

Associated Lab Samples: 9249821001, 9249821002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethyl methacrylate	ug/L	ND	10.0	08/02/09 12:50	
Ethylbenzene	ug/L	ND	1.0	08/02/09 12:50	
Iodomethane	ug/L	ND	10.0	08/02/09 12:50	
Isobutanol	ug/L	ND	100	08/02/09 12:50	
m&p-Xylene	ug/L	ND	2.0	08/02/09 12:50	
Methacrylonitrile	ug/L	ND	100	08/02/09 12:50	
Methyl methacrylate	ug/L	ND	30.0	08/02/09 12:50	
Methylene Chloride	ug/L	1.2J	2.0	08/02/09 12:50	
Naphthalene	ug/L	ND	10.0	08/02/09 12:50	
o-Xylene	ug/L	ND	1.0	08/02/09 12:50	
Propionitrile	ug/L	ND	150	08/02/09 12:50	
Styrene	ug/L	ND	1.0	08/02/09 12:50	
Tetrachloroethene	ug/L	ND	1.0	08/02/09 12:50	
Toluene	ug/L	ND	1.0	08/02/09 12:50	
trans-1,2-Dichloroethene	ug/L	ND	5.0	08/02/09 12:50	
trans-1,3-Dichloropropene	ug/L	ND	1.0	08/02/09 12:50	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	08/02/09 12:50	
Trichloroethene	ug/L	ND	1.0	08/02/09 12:50	
Trichlorofluoromethane	ug/L	ND	1.0	08/02/09 12:50	
Vinyl acetate	ug/L	ND	50.0	08/02/09 12:50	
Vinyl chloride	ug/L	ND	1.0	08/02/09 12:50	
Xylene (Total)	ug/L	ND	5.0	08/02/09 12:50	
1,2-Dichloroethane-d4 (S)	%	99	79-120	08/02/09 12:50	
4-Bromofluorobenzene (S)	%	107	87-109	08/02/09 12:50	
Dibromofluoromethane (S)	%	98	85-115	08/02/09 12:50	
Toluene-d8 (S)	%	98	70-120	08/02/09 12:50	

LABORATORY CONTROL SAMPLE: 316867

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	58.1	116	83-125	
1,1,1-Trichloroethane	ug/L	50	56.6	113	80-129	
1,1,2,2-Tetrachloroethane	ug/L	50	48.4	97	73-127	
1,1,2-Trichloroethane	ug/L	50	56.6	113	77-123	
1,1-Dichloroethane	ug/L	50	60.3	121	76-129	
1,1-Dichloroethene	ug/L	50	50.5	101	78-146	
1,1-Dichloropropene	ug/L	50	47.6	95	79-134	
1,2,3-Trichloropropane	ug/L	50	54.3	109	72-125	
1,2,4-Trichlorobenzene	ug/L	50	52.8	106	68-127	
1,2-Dibromo-3-chloropropane	ug/L	50	41.9	84	65-128	
1,2-Dibromoethane (EDB)	ug/L	50	54.8	110	81-125	
1,2-Dichlorobenzene	ug/L	50	55.7	111	82-126	
1,2-Dichloroethane	ug/L	50	51.8	104	72-126	
1,2-Dichloropropane	ug/L	50	51.4	103	80-127	
1,3-Dichlorobenzene	ug/L	50	53.8	108	82-124	

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QUALITY CONTROL DATA

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

LABORATORY CONTROL SAMPLE: 316867

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,3-Dichloropropane	ug/L	50	52.1	104	79-124	
1,4-Dichlorobenzene	ug/L	50	55.0	110	79-125	
2,2-Dichloropropane	ug/L	50	38.6	77	58-140	
2-Butanone (MEK)	ug/L	100	86.8J	87	50-134	
2-Hexanone	ug/L	100	95.3	95	58-138	
4-Methyl-2-pentanone (MIBK)	ug/L	100	89.5J	89	70-131	
Acetone	ug/L	100	88.5J	88	50-146	
Acetonitrile	ug/L	500	433	87	66-124	
Acrolein	ug/L	250	154	62	55-143	
Acrylonitrile	ug/L	250	245	98	66-124	
Allyl chloride	ug/L	50	37.8	76	73-141	
Benzene	ug/L	50	50.7	101	78-128	
Bromochloromethane	ug/L	50	53.5	107	73-124	
Bromodichloromethane	ug/L	50	50.2	100	81-125	
Bromoform	ug/L	50	51.4	103	71-125	
Bromomethane	ug/L	50	94.1	188	50-150	L3
Carbon disulfide	ug/L	50	44.1J	88	54-150	
Carbon tetrachloride	ug/L	50	57.7	115	81-137	
Chlorobenzene	ug/L	50	59.1	118	82-126	
Chloroethane	ug/L	50	49.2	98	69-140	
Chloroform	ug/L	50	51.9	104	77-129	
Chloromethane	ug/L	50	41.5	83	54-139	
Chloroprene	ug/L	50	39.8	80	71-142	
cis-1,2-Dichloroethene	ug/L	50	49.4	99	76-133	
cis-1,3-Dichloropropene	ug/L	50	48.3	97	76-127	
Dibromochloromethane	ug/L	50	53.8	108	77-125	
Dibromomethane	ug/L	50	61.8	124	77-125	
Dichlorodifluoromethane	ug/L	50	40.9	82	50-150	
Ethyl methacrylate	ug/L	50	47.7	95	73-129	
Ethylbenzene	ug/L	50	56.7	113	80-127	
Iodomethane	ug/L	100	99.2	99	65-172	
Isobutanol	ug/L	1000	883	88	50-150	
m&p-Xylene	ug/L	100	114	114	82-127	
Methacrylonitrile	ug/L	500	456	91	70-128	
Methyl methacrylate	ug/L	50	46.1	92	79-122	
Methylene Chloride	ug/L	50	54.5	109	67-133	
Naphthalene	ug/L	50	52.4	105	52-136	
o-Xylene	ug/L	50	55.6	111	83-124	
Propionitrile	ug/L	500	518	104	65-129	
Styrene	ug/L	50	56.8	114	80-130	
Tetrachloroethene	ug/L	50	57.2	114	78-128	
Toluene	ug/L	50	52.8	106	76-126	
trans-1,2-Dichloroethene	ug/L	50	46.2	92	78-134	
trans-1,3-Dichloropropene	ug/L	50	50.5	101	75-125	
trans-1,4-Dichloro-2-butene	ug/L	50	49.2J	98	51-140	
Trichloroethene	ug/L	50	62.0	124	79-127	
Trichlorofluoromethane	ug/L	50	47.8	96	76-148	
Vinyl acetate	ug/L	100	37.9J	38	50-150	L0

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QUALITY CONTROL DATA

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

LABORATORY CONTROL SAMPLE: 316867

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vinyl chloride	ug/L	50	57.8	116	67-143	
Xylene (Total)	ug/L	150	170	113	83-125	
1,2-Dichloroethane-d4 (S)	%			91	79-120	
4-Bromofluorobenzene (S)	%			109	87-109	
Dibromofluoromethane (S)	%			95	85-115	
Toluene-d8 (S)	%			97	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 316868 316869

Parameter	Units	9249819001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	60.9	57.2	122	114	60-150	6	30	
Benzene	ug/L	ND	50	50	58.0	54.4	116	109	74-136	6	30	
Chlorobenzene	ug/L	ND	50	50	64.7	62.5	129	125	79-135	3	30	
Toluene	ug/L	ND	50	50	59.9	56.0	120	112	73-131	7	30	
Trichloroethene	ug/L	ND	50	50	61.8	57.8	124	116	73-131	7	30	
1,2-Dichloroethane-d4 (S)	%						99	99	79-120			
4-Bromofluorobenzene (S)	%						103	104	87-109			
Dibromofluoromethane (S)	%						98	97	85-115			
Toluene-d8 (S)	%						97	96	70-120			

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QUALITY CONTROL DATA

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

QC Batch: MPRP/4853
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 9249821001

METHOD BLANK: 316960
Matrix: Water
Associated Lab Samples: 9249821001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	08/04/09 21:31	
Arsenic	ug/L	ND	10.0	08/04/09 21:31	
Barium	ug/L	ND	100	08/04/09 21:31	
Beryllium	ug/L	ND	1.0	08/04/09 21:31	
Cadmium	ug/L	ND	1.0	08/04/09 21:31	
Chromium	ug/L	ND	10.0	08/04/09 21:31	
Cobalt	ug/L	ND	10.0	08/04/09 21:31	
Copper	ug/L	ND	10.0	08/04/09 21:31	
Lead	ug/L	ND	10.0	08/04/09 21:31	
Nickel	ug/L	ND	50.0	08/04/09 21:31	
Selenium	ug/L	ND	10.0	08/04/09 21:31	
Silver	ug/L	ND	10.0	08/04/09 21:31	
Thallium	ug/L	ND	5.5	08/04/09 21:31	
Tin	ug/L	ND	100	08/04/09 21:31	
Vanadium	ug/L	0.36J	25.0	08/04/09 21:31	
Zinc	ug/L	1.9J	10.0	08/04/09 21:31	

LABORATORY CONTROL SAMPLE: 316961

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	483	97	80-120	
Arsenic	ug/L	500	454	91	80-120	
Barium	ug/L	500	466	93	80-120	
Beryllium	ug/L	500	474	95	80-120	
Cadmium	ug/L	500	459	92	80-120	
Chromium	ug/L	500	477	95	80-120	
Cobalt	ug/L	500	470	94	80-120	
Copper	ug/L	500	460	92	80-120	
Lead	ug/L	500	464	93	80-120	
Nickel	ug/L	500	465	93	80-120	
Selenium	ug/L	500	446	89	80-120	
Silver	ug/L	250	231	92	80-120	
Thallium	ug/L	500	436	87	80-120	
Tin	ug/L	500	462	92	80-120	
Vanadium	ug/L	500	467	93	80-120	
Zinc	ug/L	500	459	92	80-120	

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QUALITY CONTROL DATA

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

MATRIX SPIKE SAMPLE: 316962

Parameter	Units	9249918010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	ND	500	477	95	75-125	
Arsenic	ug/L	ND	500	449	90	75-125	
Barium	ug/L	6.2	500	465	92	75-125	
Beryllium	ug/L	ND	500	474	95	75-125	
Cadmium	ug/L	ND	500	455	91	75-125	
Chromium	ug/L	0.72J	500	476	95	75-125	
Cobalt	ug/L	ND	500	466	93	75-125	
Copper	ug/L	0.58J	500	457	91	75-125	
Lead	ug/L	ND	500	461	92	75-125	
Nickel	ug/L	ND	500	463	92	75-125	
Selenium	ug/L	ND	500	449	90	75-125	
Silver	ug/L	ND	250	228	91	75-125	
Thallium	ug/L	ND	500	431	86	75-125	
Tin	ug/L	4.5J	500	467	93	75-125	
Vanadium	ug/L	2.4J	500	466	93	75-125	
Zinc	ug/L	11.8	500	466	91	75-125	

SAMPLE DUPLICATE: 316963

Parameter	Units	9249918011 Result	Dup Result	RPD	Max RPD	Qualifiers
Antimony	ug/L	ND	ND		20	
Arsenic	ug/L	ND	ND		20	
Barium	ug/L	27.0	26.8J	1	20	
Beryllium	ug/L	ND	ND		20	
Cadmium	ug/L	ND	ND		20	
Chromium	ug/L	1.6J	1.4J		20	
Cobalt	ug/L	ND	ND		20	
Copper	ug/L	1.0J	0.97J		20	
Lead	ug/L	ND	ND		20	
Nickel	ug/L	ND	ND		20	
Selenium	ug/L	ND	ND		20	
Silver	ug/L	ND	0.12J		20	
Thallium	ug/L	ND	ND		20	
Tin	ug/L	3.7J	2.8J		20	
Vanadium	ug/L	1.7J	1.7J		20	
Zinc	ug/L	2620	2620	0	20	

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QUALIFIERS

Project: Albemarle Landfills-Blanks
Pace Project No.: 9249821

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

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

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

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-C	Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
Z2	Analyte present in the associated method blank above the detection limit.

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