Quarterly Water Quality Monitoring Report

Prepared for

Alexander County Active C&D and Closed MSWLF
Taylorsville, North Carolina

March 2012

UIC Permit Number:WI0300160
Facility Permit Number: 02-01
MESCO Project Number: G10059.0

Submitted: October 8, 2012

P.O. Box 97
Garner, NC 27529
License No. C-0281

Municipal Services Garner, NC
Engineering Company, P.A. Boone, NC

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

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License No. C-0281

CIVIL/SANITARY/ENVIRONMENTAL ENGINEERS

SOLID WASTE MANAGEMENT

Municipal Services Engineering Company, P.A.

SITE PLANNING/SUBDIVISIONS

SUBSURFACE UTILITY ENGINEERING (SUE)

October 8, 2012

Mr. Thomas Slusser, P.G.
Aquifer Protection Section-Underground Injection Control Staff
Division of Water Quality
North Carolina Department of Environment and Natural Resources
1636 Mail Service Center
Raleigh, NC 27699-1636

Re: ***Quarterly Water Quality Monitoring Report***
Alexander County Active C&D and Closed MSWLF
2500 Paynes Dairy Road
Taylorsville, NC 28681
SWS Permit No. 02-01
UIC Permit No. WI0300160
MESCO Project No. G10059.0

Dear Mr. Slusser:

Introduction

On behalf of Alexander County, Municipal Engineering Services Company, P.A. (MESCO) is pleased to present this brief *Quarterly Water Quality Monitoring Report* for the spring 2012 event performed at the Alexander County active construction and demolition (C&D) and closed municipal solid waste landfill (MSWLF). *Injection Well Permit Application* and the Well Permit requires that Alexander County provide this report to the Underground Injection Control (UIC) program on a quarterly basis. This report documents the quality of the groundwater in the MW-26 area of concern (AOC) during this monitoring event performed on March 29, 2012. Laboratory analytical results indicate that benzene continues to persist above the 2L Standard within MW-26 located at the compliance boundary downgradient of the injection point. However, total VOC and benzene concentrations have decreased in all locations within AOC MW-26 compared to the baseline average established during the four events prior to the February 2011 injection event.

Background

The Alexander County active C&D and closed MSWLF, is located at 2500 Paynes Dairy Road near Taylorsville North Carolina. The site location topographic map is depicted in the attached **Figure 1**.

Per the SWS approved *Corrective Action Plan* (*CAP*) enhanced bioremediation via substrate injection in Area of Concern (AOC) MW-26 was initiated in accordance with requirements outlined in the *Injection Well Permit Application* and Well Permit. To attempt to remediate low level (<3.2 ug/l) benzene concentrations as detected in MW-26, located at the compliance boundary, Bac-9 was injected into IW-1, located approximately 50 feet hydraulically upgradient of MW-26 on February 17, 2011. Details of the injection event were previously provided in the *Injection Event Record* dated March 11, 2011. As directed by the UIC, quarterly post injection water quality monitoring has previously been performed on June 29, 2011, September 22, 2011 and December 15, 2011.

PO Box 97, Garner, North Carolina 27529 (919) 772-5393 PO Box 349, Boone, NC 28607 (828) 262-1767

Sampling Procedure

MESCO personnel performed this sampling event following the parameters, frequency and well locations established by the UIC.

Water samples were collected and analyzed from five wells located within AOC MW-26. MW-3, MW-11 and MW-27 are located hydraulically upgradient of the injection point and MW-26 and MW-31 are downgradient. Monitoring locations are depicted on the potentiometric map (**Figure 2**).

Sampling was performed per the protocols outlined in the SWS approved Groundwater and Surface Water Sampling and Analysis Plan included as Appendix B of the *CAP-Add.* The depth to water in each well was electronically gaged prior to purging to quantify the static water level elevation. Low-flow pumping methodology or bailing was utilized to adequately purge the wells to a minimum of three times the volume of standing water in the well or until dry. During purging the field parameters were recorded. The samples were then placed into laboratory-prepared, pre-preserved containers via a new disposable polyethylene bailer. Samples were collected/separated based on likelihood of potential cross-contamination, kept on ice, and transported to a NC-certified laboratory under proper C-O-C protocols.

Field Parameter Data

Field parameters were recorded for pH, specific conductance, temperature, dissolved oxygen (DO), oxidation reduction potential (ORP), total dissolved solids (TDS) and turbidity. A summary of the field parameter data is presented in **Table 3.**

Laboratory Results

Pace Analytical Laboratories (PACE) of Huntersville and Asheville, NC, performed the laboratory analysis. Groundwater samples were analyzed for all the parameters requested by the UIC. A sampling and analysis table summarizing the locations, target parameters and laboratory methods is presented as **Table 1**. Laboratory results and C-O-Cs are presented in **Appendix A**.

Water samples were reported at the laboratory specific Method Detection Limits (MDL), which are quantifiable at or below the current Solid Waste Section Limits (SWSL). **Table 2** summarizes Appendix I constituents detected in the water samples in concentrations above the current SWSL or North Carolina Groundwater Standards (2L). **Table 3** summarizes indicator parameters quantified in the field and laboratory.

The only Appendix I metal detected in excess if the 2L Standard was total chromium in MW-11. The Appendix I VOCs detected in AOC MW-26 in concentrations above the SWSL and in exceedance of their respective 2L Standard during this event were aromatics benzene (MW-3, MW-11, MW-26) and paradichlorobenzene (MW-11).

A site map depicting the spatial distribution of VOC concentrations detected above the 2L Standard in AOC MW-26 during this event is presented on **Figure 2.**

Groundwater Characterization

A potentiometric map of the uppermost aquifer in AOC MW-26 created from static groundwater elevations recorded during this event is included as **Figure 2**. Groundwater flow rates and directions were calculated via modified Darcy's equation and are included in **Table 4**. Groundwater in AOC MW-26 flows in the unconfined and upper bedrock water-bearing zones in a general southwesterly direction away from the waste limits. Groundwater velocities calculated for wells located in AOC MW-26 during this event ranged from 5 ft/yr (MW-3) to 52 ft/yr (MW-26). Based solely upon the average linear velocity rates calculated over the last four events from MW-26 the injectant was predicted to reach MW-26 on March 20, 2012.

Findings

The quarterly laboratory results indicate that low level dissolved phase VOCs, consisting primarily of the lone contaminant of concern benzene, continues to be detected in groundwater samples collected within 250 feet of the waste boundary. VOC concentrations continue to exhibit a decreasing concentration trend over time and distance. As presented in **Figure 3** total cumulative VOCs and benzene concentrations have decreased in all locations within AOC MW-26 compared to their own respective baselines established during the four events prior to injection. During this event the wells downgradient of the injection point exhibited a higher reduction in total VOCs and benzene concentrations compared to the wells upgradient of the injection.

Closing

Water quality monitoring is expected to continue to evaluate the effectiveness of enhanced bioremediation via substrate injection in AOC MW-26. Quarterly water quality monitoring of AOC-26 was performed again on June 12, 2012 and the report will be submitted to both the Raleigh and Mooresville UIC offices upon completion. If you have any questions or comments regarding this report, please contact us at (919) 772-5393 or by email at jpfohl@mesco.com.

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

Jonathan Pfohl
Environmental Specialist

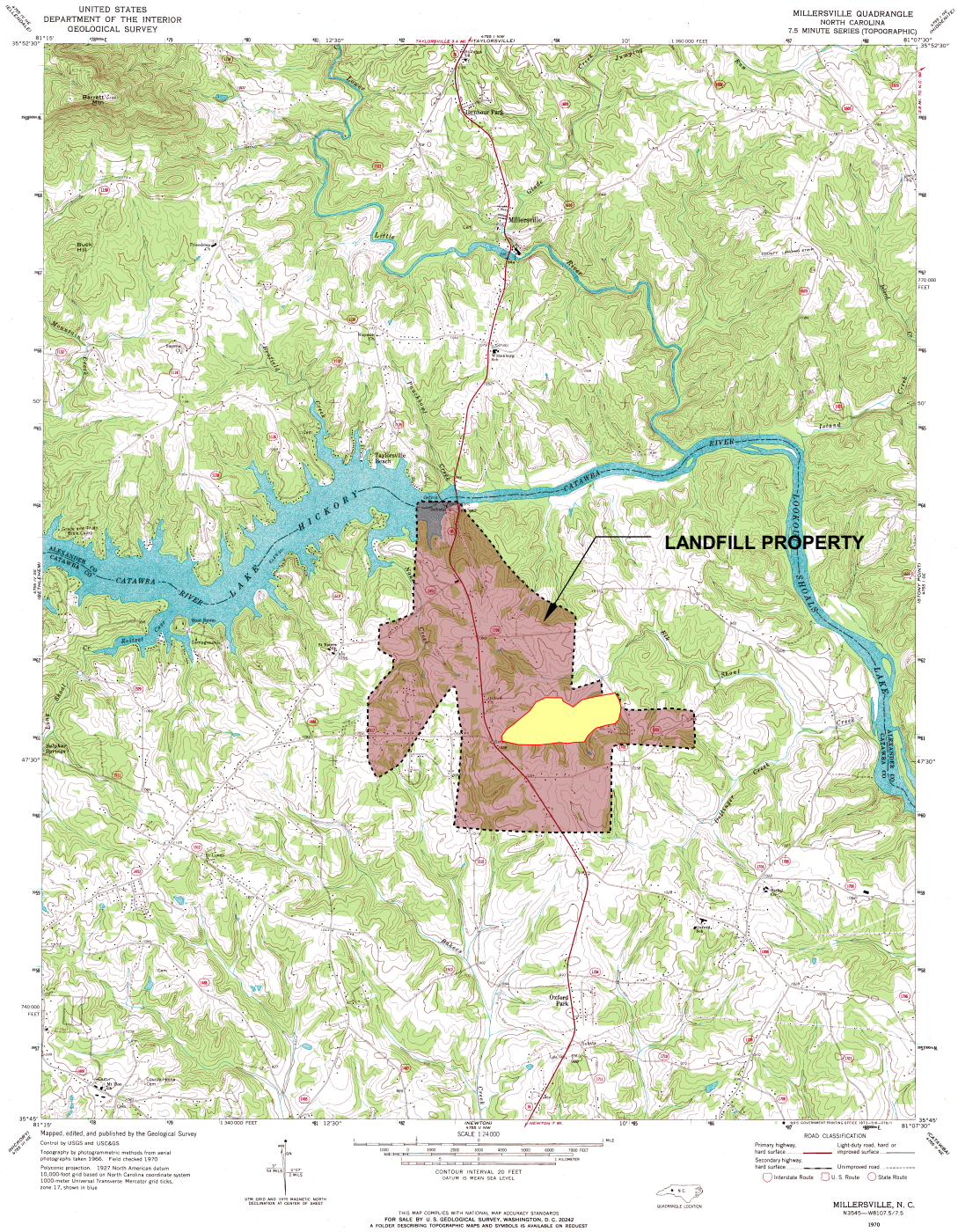
Enclosures

cc: Mr. Josh Mitchell
Alexander County

Ms. Jaclynne Drummond
SWS-Compliance Branch

Figures

Topographic Map with Site Location
Alexander County Active C&D and Closed MSWLF



2500 Paynes Dairy Road
Taylorsville, NC 28681
Lat:35-15-18.7246
Long:-81-08-51.51.32
Northing:767009.09
Easting:1363506.43

QUADRANGLE LEGEND

ROAD CLASSIFICATION

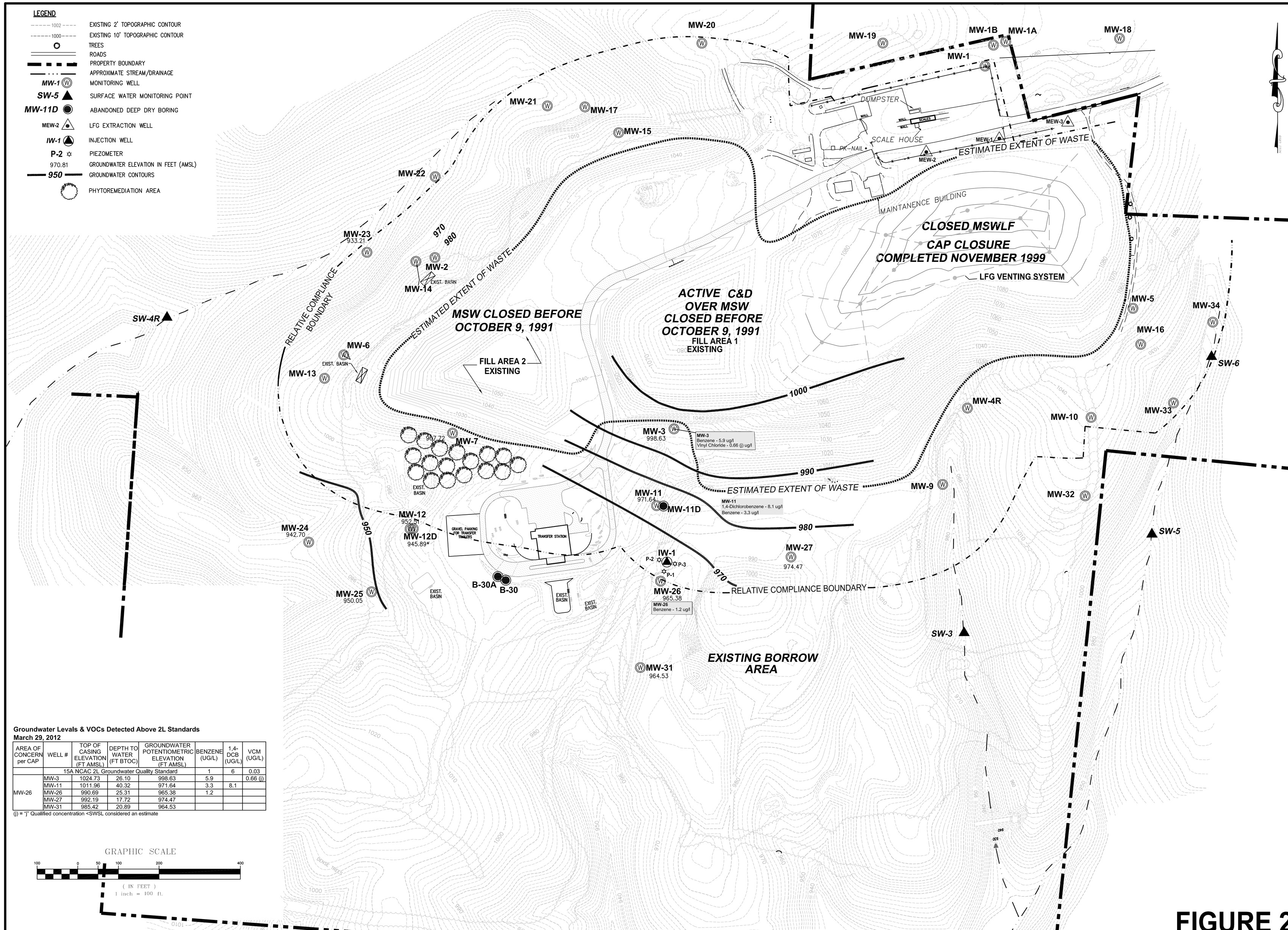
Primary highway, hard surface — Light-duty road, hard or improved surface

Secondary highway, hard surface — Unimproved road

Interstate Route — U. S. Route — State Route

0 — 1/2 — 1 MILE

FIGURE 1



Groundwater Levels & VOCs Detected Above 2L Standards
March 29, 2012

AREA OF CONCERN per CAP	WELL #	TOP OF CASING ELEVATION (FT AMSL)	DEPTH TO WATER (FT BTOC)	GROUNDWATER POTENTIOMETRIC ELEVATION (FT AMSL)	BENZENE (UG/L)	1,4-DCB (UG/L)	VCM (UG/L)
	15A NCAC 2L Groundwater Quality Standard				1	6	0.03
MW-26	MW-3	1024.73	26.10	998.63	5.9		0.66 (j)
	MW-11	1011.96	40.32	971.64	3.3	8.1	
	MW-26	990.69	25.31	965.38	1.2		
	MW-27	992.19	17.72	974.47			
	MW-31	985.42	20.89	964.53			

(j) = "j" Qualified concentration <SWSL considered an estimate

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

ACTIVE CONSTRUCTION and DEMOLITION
CLOSED UNLINED MSW LANDFILL FACILITY
ALEXANDER COUNTY
NORTH CAROLINA

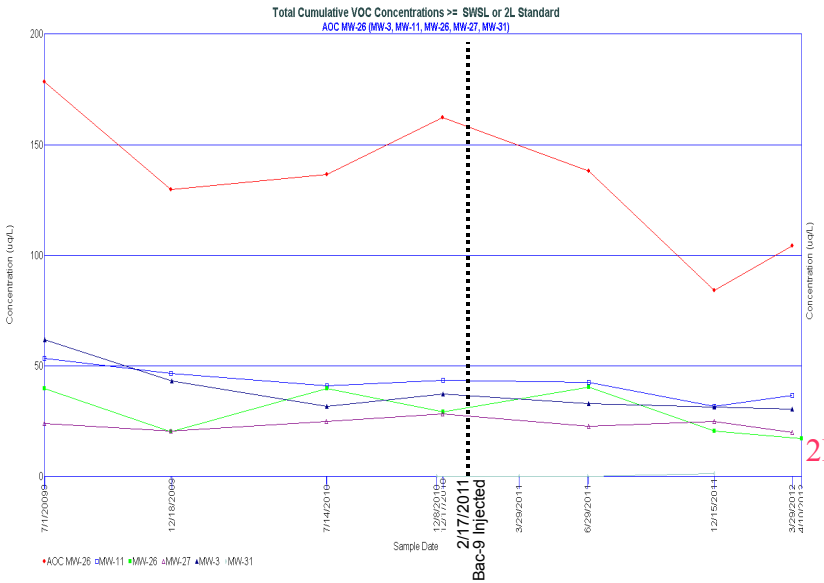
DATE	BY	REV.	DESCRIPTION

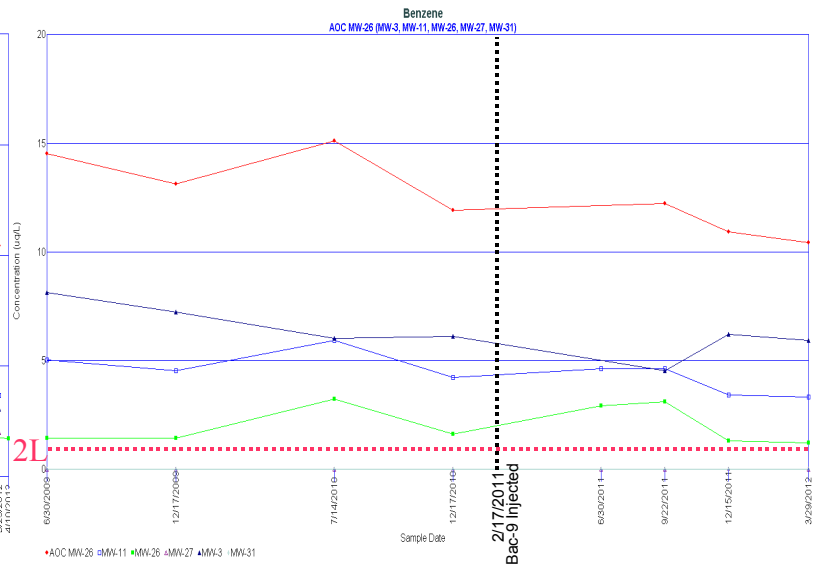
POTENTIOMETRIC MAP OF UPPERMOST AQUIFER w/ VOCs
IN AOC MW-26 DETECTED ABOVE 2L STANDARDS

SCALE:	1" = 100'
DATE:	9/23/12
DRWN. BY:	J. PFOHL
CHKD. BY:	M. DURWAY
PROJECT NUMBER	G10059.0
DRAWING NO.	FIGURE 2
SHEET NO.	1 OF 1

FIGURE 2

Figure 3
Histograms of Total VOCs and Benzene Concentrations Pre/Post Injection Comparison
June 30, 2009 – March 29, 2012





Total Cumulative VOCs & Benzene Concentrations Pre/Post Injection Comparison

Hydraulic Gradient In Relation to Injection Well (IW-1)	Well ID	June 2009 (ug/L)		Dec 2009 (ug/L)		July 2010 (ug/L)		Dec. 2010 (ug/L)		Average of Four Events Preceding Injection (ug/L)		March 2012 (ug/L)		Difference (ug/L)		Difference (%)	
		All VOCs	Benzene	All VOCs	Benzene	All VOCs	Benzene	All VOCs	Benzene	All VOCs	Benzene	All VOCs	Benzene	All VOCs	Benzene	All VOCs	Benzene
Up	MW-3	61.66	8.10	43.03	7.20	31.50	6.00	37.04	6.10	43.31	6.85	30.26	5.90	-13.05	-0.95	-30	-14
Up	MW-11	53.28	5.00	46.25	4.50	40.81	5.90	43.20	4.20	45.89	4.90	36.50	3.30	-9.39	-1.60	-20	-33
Up	MW-27	23.70	23.70	20.20	0.00	24.60	0.00	28.00	0.00	24.13	5.93	19.60	0.00	-4.53	-5.93	-19	0
Subtotal Upgradient		138.64	36.80	109.48	11.70	96.91	11.90	108.24	10.30	113.32	17.68	86.36	9.20	-26.96	-8.48	-15	-22
Down	MW-26	39.40	1.40	20.00	1.40	39.50	3.20	29.00	1.60	31.98	1.90	17.00	1.20	-14.98	-0.70	-47	-37
Down	MW-31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0
Subtotal Downgradient		39.40	1.40	20.00	1.40	39.50	3.20	29.00	1.60	31.98	1.90	17.00	1.20	-14.98	-0.70	-47	-37
Up&Down Gradient Total		178.04	38.20	129.48	13.10	136.41	15.10	137.24	11.90	145.29	19.58	103.36	10.40	-41.93	-9.18	-29	-24

Tables

Table 1
Sampling and Analysis Summary
March 29, 2012

		App. I		Indicator Parameters				
	Reason Not Sampled	VOCs	Total Metals	Alkalinity	Sulfate	Chloride	TOC	BOD
		Lab EPA 8260B	Lab EPA 6000/7000	Lab SM 2320B	EPA 300.0	Lab SM 4500-Cl-E	SM 5310B	SM5210B
MW-3		x	x	x	x	x	x	x
MW-11		x	x	x	x	x	x	x
MW-26		x	x	x	x	x	x	x
MW-27		x	x	x	x	x	x	x
MW-31		x	x	x	x	x	x	x

App I = Appendix I List from current 40 CFR 258

Table 2
Detections that Attain or are Above SWSL or 2L Standard (Appendix I)
March 29, 2012

Sample ID	Parameter Name [1]	Sample Date	Result	Unit	MDL [2]	SWSL [3]	2L [4]	Exceedance Amount
MW-3	**Vinyl chloride**	**3/29/12**	**0.66 j**	**ug/L**	**0.62**	**1**	**0.03**	**0.63**
MW-3	**Benzene**	**3/29/12**	**5.9**	**ug/L**	**0.25**	**1**	**1**	**4.9**
MW-3	Zinc	3/29/12	15.2	ug/L	10	10	1050	
MW-3	Xylene (Total)	3/29/12	6.5	ug/L	0.66	5	530	
MW-3	Cobalt	3/29/12	14.3	ug/L	5	10	NE	
MW-3	cis-1,2-Dichloroethene	3/29/12	8.3	ug/L	0.19	5	70	
MW-3	1,4-Dichlorobenzene	3/29/12	5.7	ug/L	0.33	1	6	
MW-3	Toluene	3/29/12	1.4	ug/L	0.26	1	600	
MW-3	Ethylbenzene	3/29/12	1.8	ug/L	0.3	1	550	
MW-11	**1,4-Dichlorobenzene**	**3/29/12**	**8.1**	**ug/L**	**0.33**	**1**	**6**	**2.1**
MW-11	**Benzene**	**3/29/12**	**3.3**	**ug/L**	**0.25**	**1**	**1**	**2.3**
MW-11	**Chromium**	**3/29/12**	**16.7**	**ug/L**	**5**	**10**	**10**	**6.7**
MW-11	Barium	3/29/12	102	ug/L	5	100	700	
MW-11	Zinc	3/29/12	87.9	ug/L	10	10	1050	
MW-11	cis-1,2-Dichloroethene	3/29/12	25.1	ug/L	0.19	5	70	
MW-11	Cobalt	3/29/12	56	ug/L	5	10	NE	
MW-26	**Benzene**	**4/10/12**	**1.2**	**ug/L**	**0.25**	**1**	**1**	**0.2**
MW-26	Zinc	3/29/12	34.5	ug/L	10	10	1050	
MW-26	Cobalt	3/29/12	111	ug/L	5	10	NE	
MW-26	1,4-Dichlorobenzene	4/10/12	2.5	ug/L	0.33	1	6	
MW-26	cis-1,2-Dichloroethene	4/10/12	13.3	ug/L	0.19	5	70	
MW-27	cis-1,2-Dichloroethene	3/29/12	19.6	ug/L	0.19	5	70	
MW-27	Thallium	3/29/12	6.6	ug/L	5.4	5.5	NE	

[1] Table contains Appendix I constituents detected at or above SWSL or 2L

[2] MDL = Method Detection Limit

[3] SWSL = Solid Waste Section Reporting Limit

[4] 2L = North Carolina 15A NCAC 2L Groundwater Quality Standard

BOLD = Concentration > 2L Standard

NE = Not Established

Table 3
Indicator Parameter Data Summary
March 29, 2012

Parameters	Method	MDL*	Units	MW-3	MW-11	MW-26	MW-27	MW-31
				3/29/12	3/29/12	3/29/12	3/29/12	3/29/12
Alkalinity	SM 2320B	5000	ug/L	132000	175000	159000	39700	<5000
Sulfate	EPA 300.0	1000	ug/L	<1000	10800	<1000	<1000	<1000
Chloride	SM 4500-Cl-E	5000	ug/L	21300	26900	15700	20300	5320
TOC	SM 5310B	1000	ug/L	10700	10800	6290	2220	2760
COD	SM 5220D	25000	ug/L	<25000	63000	49000	<25000	<25000
BOD	SM5210B	2000	ug/L	6750	5000	2850.0	<2000	<2000
Temperature	Field Instrument	0	C	17.3	17.4	16.6	16.5	16.1
ORP	Field Instrument	-900	mV	115	27	98	362	371
DO	Field Instrument	0	mg/L	0.4	0.9	0.2	3.3	0.9
pH	Field Instrument	0	SU	7.25	6.91	5.69	7.02	6.76
Sp. Conductance	Field Instrument	0	us/cm	390	460	340	140	110
Depth to Water	Field Instrument	0	ftbtoc	26.1	40.32	25.31	17.72	20.89
Water Elevation	Calculation	0	Ftamsl	998.63	971.64	965.38	974.47	964.53

Notes:

MDL* = Lab Method Detection Limit or lowest field measurement possible. Constituents detected below quantifiable limits are shown as < MDL value.

Table 4
Hydrologic Properties at Monitoring Wells Located within AOC MW-26
March 29, 2012

Monitoring Well	Hydraulic Conductivity (cm/sec)	Effective Porosity (%)	Hydraulic Gradient (ft/ft)	Flow Rate (ft/yr)	Flow Direction	Depth to Groundwater (ft btoc)	Groundwater Potentiometric Elevation (ft amsl)	Screened Interval Lithology
MW-31	n/a	28	0.017	n/a	S28W	20.89	964.53	UC
Minimum	n/a	28	0.017	n/a	-	20.89	964.53	-
Average	n/a	28	0.017	n/a	-	20.89	964.53	-
Maximum	n/a	28	0.017	n/a	-	20.89	964.53	-
MW-3	3.90E-06	10	0.130	5	S20W	26.10	998.63	UC/UBR
Minimum	3.90E-06	10	0.130	5	-	26.1	998.63	-
Average	3.90E-06	10	0.130	5	-	26.1	998.63	-
Maximum	3.90E-06	10	0.130	5	-	26.1	998.63	-
MW-11	n/a	10	0.151	n/a	S19W	40.32	971.64	UBR
MW-26	1.16E-04	10	0.043	52	S31W	25.31	965.38	UBR
MW-27	2.83E-05	10	0.077	23	S05E	17.72	974.47	UBR
Minimum	2.83E-05	10	0.043	23	-	17.72	965.38	-
Average	7.22E-05	10	0.091	37	-	27.78	970.50	-
Maximum	1.16E-04	10	0.151	52	-	40.32	974.47	-

NOTE: Values for hydraulic conductivity obtained from GAI Consultants Sampling Report (April, 1995) & MESCO ACM Report (2008).

Average Linear Groundwater Velocities calculated only for UC & UBR wells with hydraulic conductivity values.

UC = Unconfined/saprolite; UBR = Upper Bedrock fracture system; LBR = Lower Bedrock fracture system.

Wells screened in LBR not utilized for flow directions/gradients.

Hydrologic Gradient taken from water elevations recorded on March 29, 2012.

Flow rate (Q) calculated via modified Darcy's equation:

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

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

Appendix A
Laboratory Analysis Reports
Chains of Custody

Pace Analytical Services, Inc.
205 East Meadow Road - Suite A
Eden, NC 27288
(336)623-8921

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

April 13, 2012

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

RE: Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory on March 30, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

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

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Virginia Drinking Water Certification #: 00213
Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DHH Drinking Water # LA 100031
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460144

Asheville Certification IDs

2225 Riverside Dr., Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia Certification #: 00072
West Virginia Certification #: 356
Virgina/VELAP Certification #: 460147

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Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92115451001	**MW-3**	Water	03/29/12 16:00	03/30/12 13:25
92115451002	**MW-11**	Water	03/29/12 15:05	03/30/12 13:25
92115451003	**MW-27**	Water	03/29/12 13:15	03/30/12 13:25
92115451004	**MW-31**	Water	03/29/12 12:30	03/30/12 13:25
92115451005	**MW-26**	Water	03/29/12 14:10	03/30/12 13:25

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Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92115451001	**MW-3**	EPA 6010	JMW	15	PASI-A
		EPA 8260	MCK	52	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 5210B	SAE	1	PASI-A
		EPA 300.0	SAE	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 5310B	SAE	1	PASI-A
92115451002	**MW-11**	EPA 6010	JMW	15	PASI-A
		EPA 8260	MCK	52	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 5210B	SAE	1	PASI-A
		EPA 300.0	SAE	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 5310B	SAE	1	PASI-A
92115451003	**MW-27**	EPA 6010	JMW	15	PASI-A
		EPA 8260	MCK	52	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 5210B	SAE	1	PASI-A
		EPA 300.0	SAE	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 5310B	SAE	1	PASI-A
92115451004	**MW-31**	EPA 6010	JMW	15	PASI-A
		EPA 8260	MCK	52	PASI-C
		SM 2320B	AES	1	PASI-A
		SM 5210B	SAE	1	PASI-A
		EPA 300.0	SAE	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A
		SM 5310B	SAE	1	PASI-A
92115451005	**MW-26**	EPA 6010	JMW	15	PASI-A
		SM 2320B	AES	1	PASI-A
		SM 5210B	SAE	1	PASI-A
		EPA 300.0	SAE	1	PASI-A
		SM 4500-Cl-E	JDA	1	PASI-A

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ANALYTICAL RESULTS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Sample: MW-3 **Lab ID: 92115451001** Collected: 03/29/12 16:00 Received: 03/30/12 13:25 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	5.0	1	04/10/12 12:20	04/11/12 20:44	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:44	7440-38-2	
Barium	**40.9J**	ug/L	100	5.0	1	04/10/12 12:20	04/11/12 20:44	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	04/10/12 12:20	04/11/12 20:44	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	04/10/12 12:20	04/11/12 20:44	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:44	7440-47-3	
Cobalt	**14.3**	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:44	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:44	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:44	7439-92-1	
Nickel	**15.0J**	ug/L	50.0	5.0	1	04/10/12 12:20	04/11/12 20:44	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	04/10/12 12:20	04/11/12 20:44	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:44	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	04/10/12 12:20	04/11/12 20:44	7440-28-0	
Vanadium	ND	ug/L	25.0	5.0	1	04/10/12 12:20	04/11/12 20:44	7440-62-2	
Zinc	**15.2**	ug/L	10.0	10.0	1	04/10/12 12:20	04/11/12 20:44	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		04/12/12 09:09	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		04/12/12 09:09	107-13-1	
Benzene	**5.9**	ug/L	1.0	0.25	1		04/12/12 09:09	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		04/12/12 09:09	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/12/12 09:09	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		04/12/12 09:09	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		04/12/12 09:09	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		04/12/12 09:09	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		04/12/12 09:09	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/12/12 09:09	56-23-5	
Chlorobenzene	**0.98J**	ug/L	3.0	0.23	1		04/12/12 09:09	108-90-7	
Chloroethane	**1.5J**	ug/L	10.0	0.54	1		04/12/12 09:09	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		04/12/12 09:09	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/12/12 09:09	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		04/12/12 09:09	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		04/12/12 09:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/12/12 09:09	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		04/12/12 09:09	74-95-3	
1,2-Dichlorobenzene	**0.43J**	ug/L	5.0	0.30	1		04/12/12 09:09	95-50-1	
1,4-Dichlorobenzene	**5.7**	ug/L	1.0	0.33	1		04/12/12 09:09	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		04/12/12 09:09	110-57-6	
1,1-Dichloroethane	**1.4J**	ug/L	5.0	0.32	1		04/12/12 09:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/12/12 09:09	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		04/12/12 09:09	75-35-4	
cis-1,2-Dichloroethene	**8.3**	ug/L	5.0	0.19	1		04/12/12 09:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		04/12/12 09:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/12/12 09:09	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		04/12/12 09:09	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/12/12 09:09	10061-01-5	

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ANALYTICAL RESULTS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Sample: MW-3 **Lab ID: 92115451001** Collected: 03/29/12 16:00 Received: 03/30/12 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/12/12 09:09	10061-02-6	
Ethylbenzene	**1.8**	ug/L	1.0	0.30	1		04/12/12 09:09	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		04/12/12 09:09	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		04/12/12 09:09	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/12/12 09:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		04/12/12 09:09	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/12/12 09:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		04/12/12 09:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		04/12/12 09:09	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/12/12 09:09	127-18-4	
Toluene	**1.4**	ug/L	1.0	0.26	1		04/12/12 09:09	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/12/12 09:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/12/12 09:09	79-00-5	
Trichloroethene	**0.97J**	ug/L	1.0	0.47	1		04/12/12 09:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/12/12 09:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/12/12 09:09	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		04/12/12 09:09	108-05-4	
Vinyl chloride	**0.66J**	ug/L	1.0	0.62	1		04/12/12 09:09	75-01-4	
Xylene (Total)	**6.5**	ug/L	5.0	0.66	1		04/12/12 09:09	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		04/12/12 09:09	460-00-4	
Dibromofluoromethane (S)	113	%	70-130		1		04/12/12 09:09	1868-53-7	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		04/12/12 09:09	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		04/12/12 09:09	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**132000**	ug/L	5000	5000	1		04/11/12 10:00		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**6750**	ug/L	2000	2000	1	03/31/12 12:20	04/05/12 14:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	ND	ug/L	250000	5000	1		04/10/12 18:09	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**21300**	ug/L	5000	5000	1		04/09/12 12:37	16887-00-6	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**10700**	ug/L	1000	1000	1		04/10/12 15:11	7440-44-0	

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ANALYTICAL RESULTS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Sample: MW-11 **Lab ID: 92115451002** Collected: 03/29/12 15:05 Received: 03/30/12 13:25 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	5.0	1	04/10/12 12:20	04/11/12 20:23	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:23	7440-38-2	
Barium	**102**	ug/L	100	5.0	1	04/10/12 12:20	04/11/12 20:23	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	04/10/12 12:20	04/11/12 20:23	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	04/10/12 12:20	04/11/12 20:23	7440-43-9	
Chromium	**16.7**	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:23	7440-47-3	
Cobalt	**56.0**	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:23	7440-48-4	
Copper	**8.5J**	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:23	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:23	7439-92-1	
Nickel	**15.3J**	ug/L	50.0	5.0	1	04/10/12 12:20	04/11/12 20:23	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	04/10/12 12:20	04/11/12 20:23	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:23	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	04/10/12 12:20	04/11/12 20:23	7440-28-0	
Vanadium	**9.0J**	ug/L	25.0	5.0	1	04/10/12 12:20	04/11/12 20:23	7440-62-2	
Zinc	**87.9**	ug/L	10.0	10.0	1	04/10/12 12:20	04/11/12 20:23	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		04/12/12 09:26	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		04/12/12 09:26	107-13-1	
Benzene	**3.3**	ug/L	1.0	0.25	1		04/12/12 09:26	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		04/12/12 09:26	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/12/12 09:26	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		04/12/12 09:26	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		04/12/12 09:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		04/12/12 09:26	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		04/12/12 09:26	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/12/12 09:26	56-23-5	
Chlorobenzene	**2.0J**	ug/L	3.0	0.23	1		04/12/12 09:26	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		04/12/12 09:26	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		04/12/12 09:26	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/12/12 09:26	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		04/12/12 09:26	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		04/12/12 09:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/12/12 09:26	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		04/12/12 09:26	74-95-3	
1,2-Dichlorobenzene	**0.46J**	ug/L	5.0	0.30	1		04/12/12 09:26	95-50-1	
1,4-Dichlorobenzene	**8.1**	ug/L	1.0	0.33	1		04/12/12 09:26	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		04/12/12 09:26	110-57-6	
1,1-Dichloroethane	**0.82J**	ug/L	5.0	0.32	1		04/12/12 09:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/12/12 09:26	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		04/12/12 09:26	75-35-4	
cis-1,2-Dichloroethene	**25.1**	ug/L	5.0	0.19	1		04/12/12 09:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		04/12/12 09:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/12/12 09:26	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		04/12/12 09:26	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/12/12 09:26	10061-01-5	

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ANALYTICAL RESULTS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Sample: MW-11 **Lab ID: 92115451002** Collected: 03/29/12 15:05 Received: 03/30/12 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/12/12 09:26	10061-02-6	
Ethylbenzene	**0.34J**	ug/L	1.0	0.30	1		04/12/12 09:26	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		04/12/12 09:26	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		04/12/12 09:26	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/12/12 09:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		04/12/12 09:26	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/12/12 09:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		04/12/12 09:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		04/12/12 09:26	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/12/12 09:26	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/12/12 09:26	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/12/12 09:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/12/12 09:26	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/12/12 09:26	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/12/12 09:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/12/12 09:26	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		04/12/12 09:26	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/12/12 09:26	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		04/12/12 09:26	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		04/12/12 09:26	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		04/12/12 09:26	1868-53-7	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		04/12/12 09:26	17060-07-0	
Toluene-d8 (S)	102	%	70-130		1		04/12/12 09:26	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**175000**	ug/L	5000	5000	1		04/11/12 10:00		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**5000**	ug/L	2000	2000	1	03/31/12 12:20	04/05/12 14:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	**10800J**	ug/L	500000	10000	2		04/10/12 18:22	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**26900**	ug/L	5000	5000	1		04/09/12 12:37	16887-00-6	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**10800**	ug/L	1000	1000	1		04/10/12 15:31	7440-44-0	

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ANALYTICAL RESULTS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Sample: MW-27 **Lab ID: 92115451003** Collected: 03/29/12 13:15 Received: 03/30/12 13:25 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	5.0	1	04/10/12 12:20	04/11/12 20:33	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:33	7440-38-2	
Barium	**45.7J**	ug/L	100	5.0	1	04/10/12 12:20	04/11/12 20:33	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	04/10/12 12:20	04/11/12 20:33	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	04/10/12 12:20	04/11/12 20:33	7440-43-9	
Chromium	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:33	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:33	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:33	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:33	7439-92-1	
Nickel	ND	ug/L	50.0	5.0	1	04/10/12 12:20	04/11/12 20:33	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	04/10/12 12:20	04/11/12 20:33	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:33	7440-22-4	
Thallium	**6.6**	ug/L	5.5	5.4	1	04/10/12 12:20	04/11/12 20:33	7440-28-0	
Vanadium	ND	ug/L	25.0	5.0	1	04/10/12 12:20	04/11/12 20:33	7440-62-2	
Zinc	ND	ug/L	10.0	10.0	1	04/10/12 12:20	04/11/12 20:33	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		04/12/12 09:43	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		04/12/12 09:43	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		04/12/12 09:43	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		04/12/12 09:43	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/12/12 09:43	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		04/12/12 09:43	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		04/12/12 09:43	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		04/12/12 09:43	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		04/12/12 09:43	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/12/12 09:43	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		04/12/12 09:43	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		04/12/12 09:43	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		04/12/12 09:43	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/12/12 09:43	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		04/12/12 09:43	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		04/12/12 09:43	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/12/12 09:43	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		04/12/12 09:43	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		04/12/12 09:43	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		04/12/12 09:43	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		04/12/12 09:43	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		04/12/12 09:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/12/12 09:43	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		04/12/12 09:43	75-35-4	
cis-1,2-Dichloroethene	**19.6**	ug/L	5.0	0.19	1		04/12/12 09:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		04/12/12 09:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/12/12 09:43	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		04/12/12 09:43	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/12/12 09:43	10061-01-5	

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ANALYTICAL RESULTS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Sample: MW-27 **Lab ID: 92115451003** Collected: 03/29/12 13:15 Received: 03/30/12 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/12/12 09:43	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/12/12 09:43	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		04/12/12 09:43	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		04/12/12 09:43	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/12/12 09:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		04/12/12 09:43	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/12/12 09:43	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		04/12/12 09:43	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		04/12/12 09:43	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/12/12 09:43	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/12/12 09:43	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/12/12 09:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/12/12 09:43	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/12/12 09:43	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/12/12 09:43	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/12/12 09:43	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		04/12/12 09:43	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/12/12 09:43	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		04/12/12 09:43	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130		1		04/12/12 09:43	460-00-4	
Dibromofluoromethane (S)	113	%	70-130		1		04/12/12 09:43	1868-53-7	
1,2-Dichloroethane-d4 (S)	112	%	70-130		1		04/12/12 09:43	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		04/12/12 09:43	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**39700**	ug/L	5000	5000	1		04/11/12 10:00		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	ND	ug/L	2000	2000	1	03/31/12 12:20	04/05/12 14:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	ND	ug/L	250000	5000	1		04/10/12 19:03	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**20300**	ug/L	5000	5000	1		04/09/12 12:39	16887-00-6	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**2220**	ug/L	1000	1000	1		04/10/12 15:48	7440-44-0	

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ANALYTICAL RESULTS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Sample: MW-31 **Lab ID: 92115451004** Collected: 03/29/12 12:30 Received: 03/30/12 13:25 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	5.0	1	04/10/12 12:20	04/11/12 20:37	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:37	7440-38-2	
Barium	**27.6J**	ug/L	100	5.0	1	04/10/12 12:20	04/11/12 20:37	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	04/10/12 12:20	04/11/12 20:37	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	04/10/12 12:20	04/11/12 20:37	7440-43-9	
Chromium	**7.8J**	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:37	7440-47-3	
Cobalt	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:37	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:37	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:37	7439-92-1	
Nickel	**5.5J**	ug/L	50.0	5.0	1	04/10/12 12:20	04/11/12 20:37	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	04/10/12 12:20	04/11/12 20:37	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:37	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	04/10/12 12:20	04/11/12 20:37	7440-28-0	
Vanadium	**8.4J**	ug/L	25.0	5.0	1	04/10/12 12:20	04/11/12 20:37	7440-62-2	
Zinc	**15.3**	ug/L	10.0	10.0	1	04/10/12 12:20	04/11/12 20:37	7440-66-6	
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		04/12/12 09:59	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		04/12/12 09:59	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		04/12/12 09:59	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		04/12/12 09:59	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/12/12 09:59	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		04/12/12 09:59	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		04/12/12 09:59	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		04/12/12 09:59	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		04/12/12 09:59	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/12/12 09:59	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		04/12/12 09:59	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		04/12/12 09:59	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		04/12/12 09:59	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/12/12 09:59	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		04/12/12 09:59	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		04/12/12 09:59	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/12/12 09:59	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		04/12/12 09:59	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		04/12/12 09:59	95-50-1	
1,4-Dichlorobenzene	**0.84J**	ug/L	1.0	0.33	1		04/12/12 09:59	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		04/12/12 09:59	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		04/12/12 09:59	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/12/12 09:59	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		04/12/12 09:59	75-35-4	
cis-1,2-Dichloroethene	**2.5J**	ug/L	5.0	0.19	1		04/12/12 09:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		04/12/12 09:59	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/12/12 09:59	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		04/12/12 09:59	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/12/12 09:59	10061-01-5	

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ANALYTICAL RESULTS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Sample: MW-31 **Lab ID: 92115451004** Collected: 03/29/12 12:30 Received: 03/30/12 13:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/12/12 09:59	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/12/12 09:59	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		04/12/12 09:59	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		04/12/12 09:59	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/12/12 09:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		04/12/12 09:59	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/12/12 09:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		04/12/12 09:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		04/12/12 09:59	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/12/12 09:59	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/12/12 09:59	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/12/12 09:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/12/12 09:59	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/12/12 09:59	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/12/12 09:59	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/12/12 09:59	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		04/12/12 09:59	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/12/12 09:59	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		04/12/12 09:59	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		04/12/12 09:59	460-00-4	
Dibromofluoromethane (S)	112	%	70-130		1		04/12/12 09:59	1868-53-7	
1,2-Dichloroethane-d4 (S)	113	%	70-130		1		04/12/12 09:59	17060-07-0	
Toluene-d8 (S)	101	%	70-130		1		04/12/12 09:59	2037-26-5	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	ND	ug/L	5000	5000	1		04/11/12 10:00		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	ND	ug/L	2000	2000	1	03/31/12 12:20	04/05/12 14:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	ND	ug/L	250000	5000	1		04/10/12 19:16	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**5320**	ug/L	5000	5000	1		04/09/12 12:40	16887-00-6	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**2760**	ug/L	1000	1000	1		04/10/12 16:02	7440-44-0	

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ANALYTICAL RESULTS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Sample: MW-26 **Lab ID: 92115451005** Collected: 03/29/12 14:10 Received: 03/30/12 13:25 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	5.0	1	04/10/12 12:20	04/11/12 20:40	7440-36-0	
Arsenic	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:40	7440-38-2	
Barium	**99.4J**	ug/L	100	5.0	1	04/10/12 12:20	04/11/12 20:40	7440-39-3	
Beryllium	ND	ug/L	1.0	1.0	1	04/10/12 12:20	04/11/12 20:40	7440-41-7	
Cadmium	ND	ug/L	1.0	1.0	1	04/10/12 12:20	04/11/12 20:40	7440-43-9	
Chromium	**8.8J**	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:40	7440-47-3	
Cobalt	**111**	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:40	7440-48-4	
Copper	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:40	7440-50-8	
Lead	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:40	7439-92-1	
Nickel	**17.6J**	ug/L	50.0	5.0	1	04/10/12 12:20	04/11/12 20:40	7440-02-0	
Selenium	ND	ug/L	10.0	10.0	1	04/10/12 12:20	04/11/12 20:40	7782-49-2	
Silver	ND	ug/L	10.0	5.0	1	04/10/12 12:20	04/11/12 20:40	7440-22-4	
Thallium	ND	ug/L	5.5	5.4	1	04/10/12 12:20	04/11/12 20:40	7440-28-0	
Vanadium	ND	ug/L	25.0	5.0	1	04/10/12 12:20	04/11/12 20:40	7440-62-2	
Zinc	**34.5**	ug/L	10.0	10.0	1	04/10/12 12:20	04/11/12 20:40	7440-66-6	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	**159000**	ug/L	5000	5000	1		04/11/12 10:00		
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**2850**	ug/L	2000	2000	1	03/31/12 12:20	04/05/12 14:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Sulfate	ND	ug/L	250000	5000	1		04/10/12 19:30	14808-79-8	
4500 Chloride	Analytical Method: SM 4500-Cl-E								
Chloride	**15700**	ug/L	5000	5000	1		04/09/12 12:40	16887-00-6	

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QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

QC Batch: MPRP/10334 — Analysis Method: EPA 6010
QC Batch Method: EPA 3010 — Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004, 92115451005

METHOD BLANK: 748002 — Matrix: Water
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004, 92115451005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	04/11/12 20:16	
Arsenic	ug/L	ND	10.0	04/11/12 20:16	
Barium	ug/L	ND	100	04/11/12 20:16	
Beryllium	ug/L	ND	1.0	04/11/12 20:16	
Cadmium	ug/L	ND	1.0	04/11/12 20:16	
Chromium	ug/L	ND	10.0	04/11/12 20:16	
Cobalt	ug/L	ND	10.0	04/11/12 20:16	
Copper	ug/L	ND	10.0	04/11/12 20:16	
Lead	ug/L	ND	10.0	04/11/12 20:16	
Nickel	ug/L	ND	50.0	04/11/12 20:16	
Selenium	ug/L	ND	10.0	04/11/12 20:16	
Silver	ug/L	ND	10.0	04/11/12 20:16	
Thallium	ug/L	ND	5.5	04/11/12 20:16	
Vanadium	ug/L	ND	25.0	04/11/12 20:16	
Zinc	ug/L	ND	10.0	04/11/12 20:16	

LABORATORY CONTROL SAMPLE: 748003

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	486	97	80-120	
Arsenic	ug/L	500	477	95	80-120	
Barium	ug/L	500	489	98	80-120	
Beryllium	ug/L	500	504	101	80-120	
Cadmium	ug/L	500	489	98	80-120	
Chromium	ug/L	500	493	99	80-120	
Cobalt	ug/L	500	481	96	80-120	
Copper	ug/L	500	483	97	80-120	
Lead	ug/L	500	485	97	80-120	
Nickel	ug/L	500	482	96	80-120	
Selenium	ug/L	500	481	96	80-120	
Silver	ug/L	250	245	98	80-120	
Thallium	ug/L	500	464	93	80-120	
Vanadium	ug/L	500	489	98	80-120	
Zinc	ug/L	500	473	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 748004 748005

Parameter	Units	92115451002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	500	500	482	479	96	95	75-125	1	25	

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QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 748004 748005

Parameter	Units	92115451002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	500	500	485	478	97	95	75-125	1	25	
Barium	ug/L	102	500	500	583	581	96	96	75-125	0	25	
Beryllium	ug/L	ND	500	500	499	497	100	99	75-125	0	25	
Cadmium	ug/L	ND	500	500	481	476	96	95	75-125	1	25	
Chromium	ug/L	16.7	500	500	508	504	98	97	75-125	1	25	
Cobalt	ug/L	56.0	500	500	528	524	94	94	75-125	1	25	
Copper	ug/L	8.5J	500	500	495	492	97	97	75-125	1	25	
Lead	ug/L	ND	500	500	470	466	93	92	75-125	1	25	
Nickel	ug/L	15.3J	500	500	489	487	95	94	75-125	0	25	
Selenium	ug/L	ND	500	500	475	468	95	93	75-125	1	25	
Silver	ug/L	ND	250	250	245	243	98	97	75-125	1	25	
Thallium	ug/L	ND	500	500	449	452	89	89	75-125	1	25	
Vanadium	ug/L	9.0J	500	500	496	493	97	97	75-125	1	25	
Zinc	ug/L	87.9	500	500	556	552	94	93	75-125	1	25	

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QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

QC Batch: MSV/18780 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004

METHOD BLANK: 748996 Matrix: Water
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	04/12/12 08:19	
1,1,1-Trichloroethane	ug/L	ND	1.0	04/12/12 08:19	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	04/12/12 08:19	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/12/12 08:19	
1,1-Dichloroethane	ug/L	ND	5.0	04/12/12 08:19	
1,1-Dichloroethene	ug/L	ND	5.0	04/12/12 08:19	
1,2,3-Trichloropropane	ug/L	ND	1.0	04/12/12 08:19	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	04/12/12 08:19	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	04/12/12 08:19	
1,2-Dichlorobenzene	ug/L	ND	5.0	04/12/12 08:19	
1,2-Dichloroethane	ug/L	ND	1.0	04/12/12 08:19	
1,2-Dichloropropane	ug/L	ND	1.0	04/12/12 08:19	
1,3-Dichloropropane	ug/L	ND	1.0	04/12/12 08:19	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/12/12 08:19	
2-Butanone (MEK)	ug/L	ND	100	04/12/12 08:19	
2-Hexanone	ug/L	ND	50.0	04/12/12 08:19	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	04/12/12 08:19	
Acetone	ug/L	ND	100	04/12/12 08:19	
Acrylonitrile	ug/L	ND	200	04/12/12 08:19	
Benzene	ug/L	ND	1.0	04/12/12 08:19	
Bromochloromethane	ug/L	ND	3.0	04/12/12 08:19	
Bromodichloromethane	ug/L	ND	1.0	04/12/12 08:19	
Bromoform	ug/L	ND	3.0	04/12/12 08:19	
Bromomethane	ug/L	ND	10.0	04/12/12 08:19	
Carbon disulfide	ug/L	ND	100	04/12/12 08:19	
Carbon tetrachloride	ug/L	ND	1.0	04/12/12 08:19	
Chlorobenzene	ug/L	0.23J	3.0	04/12/12 08:19	
Chloroethane	ug/L	ND	10.0	04/12/12 08:19	
Chloroform	ug/L	ND	5.0	04/12/12 08:19	
Chloromethane	ug/L	ND	1.0	04/12/12 08:19	
cis-1,2-Dichloroethene	ug/L	ND	5.0	04/12/12 08:19	
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/12/12 08:19	
Dibromochloromethane	ug/L	ND	3.0	04/12/12 08:19	
Dibromomethane	ug/L	ND	10.0	04/12/12 08:19	
Ethylbenzene	ug/L	ND	1.0	04/12/12 08:19	
Iodomethane	ug/L	ND	10.0	04/12/12 08:19	
Methylene Chloride	ug/L	ND	1.0	04/12/12 08:19	
Styrene	ug/L	ND	1.0	04/12/12 08:19	
Tetrachloroethene	ug/L	ND	1.0	04/12/12 08:19	
Toluene	ug/L	ND	1.0	04/12/12 08:19	
trans-1,2-Dichloroethene	ug/L	ND	5.0	04/12/12 08:19	
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/12/12 08:19	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	04/12/12 08:19	

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QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

METHOD BLANK: 748996 Matrix: Water

Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Trichloroethene	ug/L	ND	1.0	04/12/12 08:19	
Trichlorofluoromethane	ug/L	ND	1.0	04/12/12 08:19	
Vinyl acetate	ug/L	ND	50.0	04/12/12 08:19	
Vinyl chloride	ug/L	ND	1.0	04/12/12 08:19	
Xylene (Total)	ug/L	ND	5.0	04/12/12 08:19	
1,2-Dichloroethane-d4 (S)	%	111	70-130	04/12/12 08:19	
4-Bromofluorobenzene (S)	%	102	70-130	04/12/12 08:19	
Dibromofluoromethane (S)	%	110	70-130	04/12/12 08:19	
Toluene-d8 (S)	%	100	70-130	04/12/12 08:19	

LABORATORY CONTROL SAMPLE: 748997

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.1	96	70-130	
1,1,1-Trichloroethane	ug/L	50	47.8	96	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	48.9	98	70-130	
1,1,2-Trichloroethane	ug/L	50	48.1	96	70-130	
1,1-Dichloroethane	ug/L	50	47.8	96	70-130	
1,1-Dichloroethene	ug/L	50	54.3	109	70-132	
1,2,3-Trichloropropane	ug/L	50	48.5	97	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	49.6	99	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	49.7	99	70-130	
1,2-Dichlorobenzene	ug/L	50	46.9	94	70-130	
1,2-Dichloroethane	ug/L	50	50.6	101	70-130	
1,2-Dichloropropane	ug/L	50	49.8	100	70-130	
1,3-Dichloropropane	ug/L	50	49.6	99	70-130	
1,4-Dichlorobenzene	ug/L	50	47.4	95	70-130	
2-Butanone (MEK)	ug/L	100	93.2J	93	70-145	
2-Hexanone	ug/L	100	92.3	92	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	90.0J	90	70-140	
Acetone	ug/L	100	97.1J	97	50-175	
Acrylonitrile	ug/L	250	246	98	70-143	
Benzene	ug/L	50	46.5	93	70-130	
Bromochloromethane	ug/L	50	48.2	96	70-130	
Bromodichloromethane	ug/L	50	47.1	94	70-130	
Bromoform	ug/L	50	46.1	92	70-130	
Bromomethane	ug/L	50	68.1	136	54-130	L3
Carbon disulfide	ug/L	50	55.8J	112	70-131	
Carbon tetrachloride	ug/L	50	47.0	94	70-132	
Chlorobenzene	ug/L	50	47.0	94	70-130	
Chloroethane	ug/L	50	69.3	139	64-134	L3
Chloroform	ug/L	50	49.9	100	70-130	
Chloromethane	ug/L	50	33.7	67	64-130	
cis-1,2-Dichloroethene	ug/L	50	48.2	96	70-131	
cis-1,3-Dichloropropene	ug/L	50	45.4	91	70-130	

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QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

LABORATORY CONTROL SAMPLE: 748997

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromochloromethane	ug/L	50	48.6	97	70-130	
Dibromomethane	ug/L	50	48.1	96	70-131	
Ethylbenzene	ug/L	50	45.7	91	70-130	
Iodomethane	ug/L	100	78.2	78	49-180	
Methylene Chloride	ug/L	50	55.8	112	63-130	
Styrene	ug/L	50	46.1	92	70-130	
Tetrachloroethene	ug/L	50	46.6	93	70-130	
Toluene	ug/L	50	45.0	90	70-130	
trans-1,2-Dichloroethene	ug/L	50	46.3	93	70-130	
trans-1,3-Dichloropropene	ug/L	50	46.6	93	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	37.0J	74	70-141	
Trichloroethene	ug/L	50	48.3	97	70-130	
Trichlorofluoromethane	ug/L	50	61.3	123	62-133	
Vinyl chloride	ug/L	50	50.6	101	69-130	
Xylene (Total)	ug/L	150	137	91	70-130	
1,2-Dichloroethane-d4 (S)	%			107	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Dibromofluoromethane (S)	%			108	70-130	
Toluene-d8 (S)	%			98	70-130	

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QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

QC Batch: WET/20405 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004, 92115451005

METHOD BLANK: 748637 Matrix: Water
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004, 92115451005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	ug/L	ND	5000	04/11/12 10:00	

LABORATORY CONTROL SAMPLE: 748638

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	ug/L	50000	49900	100	90-110	

SAMPLE DUPLICATE: 748639

Parameter	Units	92115210004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	ug/L	5.4 mg/L	5360	0	20	

SAMPLE DUPLICATE: 748640

Parameter	Units	92114869018 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	ug/L	63.3 mg/L	61200	3	20	

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QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

QC Batch: WET/20289 Analysis Method: SM 5210B
QC Batch Method: SM 5210B Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004, 92115451005

METHOD BLANK: 743971 Matrix: Water
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004, 92115451005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	ug/L	ND	2000	04/05/12 14:00	

LABORATORY CONTROL SAMPLE: 743972

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	ug/L	198000	207000	105	84-115	

SAMPLE DUPLICATE: 743973

Parameter	Units	92115451004 Result	Dup Result	RPD	Max RPD	Qualifiers
BOD, 5 day	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

QC Batch: WETA/11888 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004, 92115451005

METHOD BLANK: 747390 Matrix: Water
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004, 92115451005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	ug/L	ND	250000	04/10/12 13:37	

LABORATORY CONTROL SAMPLE: 747391

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	20000	19300J	96	90-110	

MATRIX SPIKE SAMPLE: 747392

Parameter	Units	92115903001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	55.6 mg/L	20000	93300J	188	90-110	M1

MATRIX SPIKE SAMPLE: 747394

Parameter	Units	92115435004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	ND	20000	21100J	89	90-110	M1

SAMPLE DUPLICATE: 747393

Parameter	Units	92115903001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	ug/L	55.6 mg/L	57500J	3	20	

SAMPLE DUPLICATE: 747395

Parameter	Units	92115435004 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

QC Batch: WETA/11899 Analysis Method: SM 4500-Cl-E
QC Batch Method: SM 4500-Cl-E Analysis Description: 4500 Chloride
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004, 92115451005

METHOD BLANK: 747778 Matrix: Water
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004, 92115451005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	ug/L	ND	5000	04/09/12 12:27	

LABORATORY CONTROL SAMPLE: 747779

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	20000	20500	102	90-110	

MATRIX SPIKE SAMPLE: 747780

Parameter	Units	92115308003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	ug/L	ND	20000	23600	103	75-125	

SAMPLE DUPLICATE: 747781

Parameter	Units	92115225005 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	ug/L	15.7 mg/L	15800	1	20	

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9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

QC Batch: WETA/11882 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B TOC
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004

METHOD BLANK: 746980 Matrix: Water
Associated Lab Samples: 92115451001, 92115451002, 92115451003, 92115451004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	ug/L	ND	1000	04/10/12 12:22	

LABORATORY CONTROL SAMPLE: 746981

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	25000	25500	102	90-110	

MATRIX SPIKE SAMPLE: 746982

Parameter	Units	92115347007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	3.1 mg/L	25000	32900	119	75-125	

MATRIX SPIKE SAMPLE: 746984

Parameter	Units	92115796001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	ND	25000	26400	106	75-125	

SAMPLE DUPLICATE: 746983

Parameter	Units	92115347008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	ug/L	7.7 mg/L	7590	1	20	

SAMPLE DUPLICATE: 746985

Parameter	Units	92115796002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	ug/L	ND	ND		20	

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QUALIFIERS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

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.

SG - Silica Gel - Clean-Up

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

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

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

TNI - The NELAC Institute.

LABORATORIES

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

ANALYTE QUALIFIERS

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.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ALEXANDER LF (UIC)
Pace Project No.: 92115451

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92115451001	**MW-3**	EPA 3010	MPRP/10334	EPA 6010	ICP/9522
92115451002	**MW-11**	EPA 3010	MPRP/10334	EPA 6010	ICP/9522
92115451003	**MW-27**	EPA 3010	MPRP/10334	EPA 6010	ICP/9522
92115451004	**MW-31**	EPA 3010	MPRP/10334	EPA 6010	ICP/9522
92115451005	**MW-26**	EPA 3010	MPRP/10334	EPA 6010	ICP/9522
92115451001	**MW-3**	EPA 8260	MSV/18780		
92115451002	**MW-11**	EPA 8260	MSV/18780		
92115451003	**MW-27**	EPA 8260	MSV/18780		
92115451004	**MW-31**	EPA 8260	MSV/18780		
92115451001	**MW-3**	SM 2320B	WET/20405		
92115451002	**MW-11**	SM 2320B	WET/20405		
92115451003	**MW-27**	SM 2320B	WET/20405		
92115451004	**MW-31**	SM 2320B	WET/20405		
92115451005	**MW-26**	SM 2320B	WET/20405		
92115451001	**MW-3**	SM 5210B	WET/20289	SM 5210B	WET/20290
92115451002	**MW-11**	SM 5210B	WET/20289	SM 5210B	WET/20290
92115451003	**MW-27**	SM 5210B	WET/20289	SM 5210B	WET/20290
92115451004	**MW-31**	SM 5210B	WET/20289	SM 5210B	WET/20290
92115451005	**MW-26**	SM 5210B	WET/20289	SM 5210B	WET/20290
92115451001	**MW-3**	EPA 300.0	WETA/11888		
92115451002	**MW-11**	EPA 300.0	WETA/11888		
92115451003	**MW-27**	EPA 300.0	WETA/11888		
92115451004	**MW-31**	EPA 300.0	WETA/11888		
92115451005	**MW-26**	EPA 300.0	WETA/11888		
92115451001	**MW-3**	SM 4500-Cl-E	WETA/11899		
92115451002	**MW-11**	SM 4500-Cl-E	WETA/11899		
92115451003	**MW-27**	SM 4500-Cl-E	WETA/11899		
92115451004	**MW-31**	SM 4500-Cl-E	WETA/11899		
92115451005	**MW-26**	SM 4500-Cl-E	WETA/11899		
92115451001	**MW-3**	SM 5310B	WETA/11882		
92115451002	**MW-11**	SM 5310B	WETA/11882		
92115451003	**MW-27**	SM 5310B	WETA/11882		
92115451004	**MW-31**	SM 5310B	WETA/11882		

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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.

Section A — Required Client Information:

Company:	Municipal Engineering Services
Address:	P.O. Box 97
	Garner, NC 27529
Email To:	jpfohl@mesco.com
Phone:	919-772-5393 Fax:
Requested Due Date/TAT:	10 Day (Default)

Section B — Required Project Information:

Report To:	Jonathan Pfohl
Copy To:	
Purchase Order No.	
Client Project ID:	Alexander LF (UIC)
Container Order Number:	

Section C — Invoice Information:

Attention:	Municipal Engineering Services
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Godwin
Pace Profile #:	

Regulatory Agency
State / Location
North Carolina

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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

Requested Analysis Filtered (Y/N)

ITEM#	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOCs- App I	Metals-App I		Alkalinity	Chloride	Sulfate		TOC		BOD				92115451
1	MW-3	WT	G	3/29/12		3/29/12	4:00			3		1	5						X	X		X	X	X		X		X				001
2	MW-11	WT	G				3:05			3		1	5						X	X		X	X	X		X		X				002
3	MW-26	WT	G				2:10			3		1	5						X	X		X	X	X		X		X				005
4	MW-27	WT	G				1:15			3		1	5						X	X		X	X	X		X		X				003
5	MW-31	WT	G				12:30			3		1	5						X	X		X	X	X		X		X				004
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
UIC Quarterly Event #4 (Iw-1 Injected 2/11)	MESCO	3/30/12	12:00	Pace	3-30-12	12:00				
	Pace	3-30-12	13:25	Pace	3-30	1325	2.4	Y	N	Y

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Jonathan Pfohl				
SIGNATURE of SAMPLER:	DATE Signed: 3/30/12				

Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: January 30, 2012 Page 1 of 2
	Document Number: **F-CHR-CS-03-rev.06**	Issuing Authority: Pace Huntersville Quality Office

Client Name: Mun. Project # 9246451

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden

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:
Proj. Name:

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other_____

Thermometer Used: IR Gun T1101 T1102 **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor **T1101**: No Correction **T1102**: Subtract 1.2°C

Corrected Cooler Temp: 24 C **Biological Tissue is Frozen:** Yes No N/A

Date and Initials of person examining contents: TM 3/30

Temp should be above freezing to 6°C

		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: -Includes date/time/ID/Analysis Matrix:_____	☐Yes ☑No ☐N/A	12. MW26 no 8260/TOC received no time/date on bottles
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):_____		

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

Person Contacted: Jonathan Pfohl Date/Time: 3/30/12

Comments/ Resolution: PM informed of missing sample.

SCURF Review: JG **Date:** 3/30/12 **SRF Review:** RS **Date:** 4/3/12

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)

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April 24, 2012

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

RE: Project: ALEXANDER LF (UIC)
Pace Project No.: 92116312

Dear Mr. Pfohl:
Enclosed are the analytical results for sample(s) received by the laboratory on April 12, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Analyses were performed at the Pace Analytical Services location indicated on the sample analyte page for analysis unless otherwise footnoted.

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

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92116312

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Virginia Drinking Water Certification #: 00213
Connecticut Certification #: PH-0104
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DHH Drinking Water # LA 100031
West Virginia Certification #: 357
Virginia/VELAP Certification #: 460144

Asheville Certification IDs

2225 Riverside Dr., Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia Certification #: 00072
West Virginia Certification #: 356
Virgina/VELAP Certification #: 460147

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SAMPLE SUMMARY

Project: ALEXANDER LF (UIC)
Pace Project No.: 92116312

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92116312001	**MW-26**	Water	04/10/12 08:00	04/12/12 14:10

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SAMPLE ANALYTE COUNT

Project: ALEXANDER LF (UIC)
Pace Project No.: 92116312

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92116312001	**MW-26**	EPA 8260	MCK	52	PASI-C
		SM 5310B	SAE	1	PASI-A

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ANALYTICAL RESULTS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92116312

Sample: MW-26 **Lab ID: 92116312001** Collected: 04/10/12 08:00 Received: 04/12/12 14:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Acetone	**4.0J**	ug/L	100	2.2	1		04/23/12 04:41	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		04/23/12 04:41	107-13-1	
Benzene	**1.2**	ug/L	1.0	0.25	1		04/23/12 04:41	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		04/23/12 04:41	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		04/23/12 04:41	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		04/23/12 04:41	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		04/23/12 04:41	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		04/23/12 04:41	78-93-3	
Carbon disulfide	**2.1J**	ug/L	100	1.2	1		04/23/12 04:41	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		04/23/12 04:41	56-23-5	
Chlorobenzene	**0.71J**	ug/L	3.0	0.23	1		04/23/12 04:41	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		04/23/12 04:41	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		04/23/12 04:41	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		04/23/12 04:41	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		04/23/12 04:41	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		04/23/12 04:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		04/23/12 04:41	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		04/23/12 04:41	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		04/23/12 04:41	95-50-1	
1,4-Dichlorobenzene	**2.5**	ug/L	1.0	0.33	1		04/23/12 04:41	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		04/23/12 04:41	110-57-6	
1,1-Dichloroethane	**0.41J**	ug/L	5.0	0.32	1		04/23/12 04:41	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		04/23/12 04:41	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		04/23/12 04:41	75-35-4	
cis-1,2-Dichloroethene	**13.3**	ug/L	5.0	0.19	1		04/23/12 04:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		04/23/12 04:41	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		04/23/12 04:41	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.28	1		04/23/12 04:41	142-28-9	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		04/23/12 04:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		04/23/12 04:41	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		04/23/12 04:41	100-41-4	
2-Hexanone	ND	ug/L	50.0	0.46	1		04/23/12 04:41	591-78-6	
Iodomethane	ND	ug/L	10.0	0.32	1		04/23/12 04:41	74-88-4	
Methylene Chloride	ND	ug/L	1.0	0.97	1		04/23/12 04:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		04/23/12 04:41	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		04/23/12 04:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		04/23/12 04:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		04/23/12 04:41	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		04/23/12 04:41	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		04/23/12 04:41	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		04/23/12 04:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		04/23/12 04:41	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		04/23/12 04:41	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		04/23/12 04:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		04/23/12 04:41	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		04/23/12 04:41	108-05-4	

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ANALYTICAL RESULTS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92116312

Sample: MW-26 **Lab ID: 92116312001** Collected: 04/10/12 08:00 Received: 04/12/12 14:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level Landfill	Analytical Method: EPA 8260								
Vinyl chloride	ND	ug/L	1.0	0.62	1		04/23/12 04:41	75-01-4	
Xylene (Total)	ND	ug/L	5.0	0.66	1		04/23/12 04:41	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		04/23/12 04:41	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		04/23/12 04:41	1868-53-7	
1,2-Dichloroethane-d4 (S)	106	%	70-130		1		04/23/12 04:41	17060-07-0	
Toluene-d8 (S)	96	%	70-130		1		04/23/12 04:41	2037-26-5	
5310B TOC	Analytical Method: SM 5310B								
Total Organic Carbon	**6290**	ug/L	1000	1000	1		04/23/12 10:28	7440-44-0	

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QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92116312

QC Batch: MSV/18878
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV Low Level Landfill
Associated Lab Samples: 92116312001

METHOD BLANK: 753551
Matrix: Water
Associated Lab Samples: 92116312001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	04/23/12 00:30	
1,1,1-Trichloroethane	ug/L	ND	1.0	04/23/12 00:30	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	04/23/12 00:30	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/23/12 00:30	
1,1-Dichloroethane	ug/L	ND	5.0	04/23/12 00:30	
1,1-Dichloroethene	ug/L	ND	5.0	04/23/12 00:30	
1,2,3-Trichloropropane	ug/L	ND	1.0	04/23/12 00:30	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	04/23/12 00:30	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	04/23/12 00:30	
1,2-Dichlorobenzene	ug/L	ND	5.0	04/23/12 00:30	
1,2-Dichloroethane	ug/L	ND	1.0	04/23/12 00:30	
1,2-Dichloropropane	ug/L	ND	1.0	04/23/12 00:30	
1,3-Dichloropropane	ug/L	ND	1.0	04/23/12 00:30	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/23/12 00:30	
2-Butanone (MEK)	ug/L	ND	100	04/23/12 00:30	
2-Hexanone	ug/L	ND	50.0	04/23/12 00:30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	04/23/12 00:30	
Acetone	ug/L	ND	100	04/23/12 00:30	
Acrylonitrile	ug/L	ND	200	04/23/12 00:30	
Benzene	ug/L	ND	1.0	04/23/12 00:30	
Bromochloromethane	ug/L	ND	3.0	04/23/12 00:30	
Bromodichloromethane	ug/L	ND	1.0	04/23/12 00:30	
Bromoform	ug/L	ND	3.0	04/23/12 00:30	
Bromomethane	ug/L	ND	10.0	04/23/12 00:30	
Carbon disulfide	ug/L	ND	100	04/23/12 00:30	
Carbon tetrachloride	ug/L	ND	1.0	04/23/12 00:30	
Chlorobenzene	ug/L	ND	3.0	04/23/12 00:30	
Chloroethane	ug/L	ND	10.0	04/23/12 00:30	
Chloroform	ug/L	ND	5.0	04/23/12 00:30	
Chloromethane	ug/L	ND	1.0	04/23/12 00:30	
cis-1,2-Dichloroethene	ug/L	ND	5.0	04/23/12 00:30	
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/23/12 00:30	
Dibromochloromethane	ug/L	ND	3.0	04/23/12 00:30	
Dibromomethane	ug/L	ND	10.0	04/23/12 00:30	
Ethylbenzene	ug/L	ND	1.0	04/23/12 00:30	
Iodomethane	ug/L	ND	10.0	04/23/12 00:30	
Methylene Chloride	ug/L	ND	1.0	04/23/12 00:30	
Styrene	ug/L	ND	1.0	04/23/12 00:30	
Tetrachloroethene	ug/L	ND	1.0	04/23/12 00:30	
Toluene	ug/L	ND	1.0	04/23/12 00:30	
trans-1,2-Dichloroethene	ug/L	ND	5.0	04/23/12 00:30	
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/23/12 00:30	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	04/23/12 00:30	

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QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92116312

METHOD BLANK: 753551 Matrix: Water

Associated Lab Samples: 92116312001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Trichloroethene	ug/L	ND	1.0	04/23/12 00:30	
Trichlorofluoromethane	ug/L	ND	1.0	04/23/12 00:30	
Vinyl acetate	ug/L	ND	50.0	04/23/12 00:30	
Vinyl chloride	ug/L	ND	1.0	04/23/12 00:30	
Xylene (Total)	ug/L	ND	5.0	04/23/12 00:30	
1,2-Dichloroethane-d4 (S)	%	102	70-130	04/23/12 00:30	
4-Bromofluorobenzene (S)	%	106	70-130	04/23/12 00:30	
Dibromofluoromethane (S)	%	101	70-130	04/23/12 00:30	
Toluene-d8 (S)	%	97	70-130	04/23/12 00:30	

LABORATORY CONTROL SAMPLE: 753552

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	52.1	104	70-130	
1,1,1-Trichloroethane	ug/L	50	45.8	92	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	51.3	103	70-130	
1,1,2-Trichloroethane	ug/L	50	55.2	110	70-130	
1,1-Dichloroethane	ug/L	50	44.8	90	70-130	
1,1-Dichloroethene	ug/L	50	49.6	99	70-132	
1,2,3-Trichloropropane	ug/L	50	51.1	102	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	49.7	99	70-130	
1,2-Dibromoethane (EDB)	ug/L	50	50.4	101	70-130	
1,2-Dichlorobenzene	ug/L	50	49.7	99	70-130	
1,2-Dichloroethane	ug/L	50	51.6	103	70-130	
1,2-Dichloropropane	ug/L	50	53.1	106	70-130	
1,3-Dichloropropane	ug/L	50	52.9	106	70-130	
1,4-Dichlorobenzene	ug/L	50	49.5	99	70-130	
2-Butanone (MEK)	ug/L	100	104	104	70-145	
2-Hexanone	ug/L	100	110	110	70-144	
4-Methyl-2-pentanone (MIBK)	ug/L	100	106	106	70-140	
Acetone	ug/L	100	108	108	50-175	
Acrylonitrile	ug/L	250	259	104	70-143	
Benzene	ug/L	50	54.1	108	70-130	
Bromochloromethane	ug/L	50	49.9	100	70-130	
Bromodichloromethane	ug/L	50	50.9	102	70-130	
Bromoform	ug/L	50	56.6	113	70-130	
Bromomethane	ug/L	50	55.2	110	54-130	
Carbon disulfide	ug/L	50	52.9J	106	70-131	
Carbon tetrachloride	ug/L	50	52.7	105	70-132	
Chlorobenzene	ug/L	50	48.7	97	70-130	
Chloroethane	ug/L	50	56.8	114	64-134	
Chloroform	ug/L	50	48.0	96	70-130	
Chloromethane	ug/L	50	44.8	90	64-130	
cis-1,2-Dichloroethene	ug/L	50	48.2	96	70-131	
cis-1,3-Dichloropropene	ug/L	50	53.2	106	70-130	

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QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92116312

LABORATORY CONTROL SAMPLE: 753552

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromochloromethane	ug/L	50	52.5	105	70-130	
Dibromomethane	ug/L	50	55.6	111	70-131	
Ethylbenzene	ug/L	50	50.3	101	70-130	
Iodomethane	ug/L	100	108	108	49-180	
Methylene Chloride	ug/L	50	49.9	100	63-130	
Styrene	ug/L	50	51.0	102	70-130	
Tetrachloroethene	ug/L	50	50.7	101	70-130	
Toluene	ug/L	50	50.9	102	70-130	
trans-1,2-Dichloroethene	ug/L	50	46.1	92	70-130	
trans-1,3-Dichloropropene	ug/L	50	54.4	109	70-132	
trans-1,4-Dichloro-2-butene	ug/L	50	51.9J	104	70-141	
Trichloroethene	ug/L	50	52.2	104	70-130	
Trichlorofluoromethane	ug/L	50	57.5	115	62-133	
Vinyl acetate	ug/L	100	93.0	93	66-157	
Vinyl chloride	ug/L	50	53.0	106	69-130	
Xylene (Total)	ug/L	150	146	97	70-130	
1,2-Dichloroethane-d4 (S)	%			101	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Dibromofluoromethane (S)	%			95	70-130	
Toluene-d8 (S)	%			98	70-130	

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QUALITY CONTROL DATA

Project: ALEXANDER LF (UIC)
Pace Project No.: 92116312

QC Batch: WETA/11975
QC Batch Method: SM 5310B
Analysis Method: SM 5310B
Analysis Description: 5310B TOC
Associated Lab Samples: 92116312001

METHOD BLANK: 751808
Matrix: Water
Associated Lab Samples: 92116312001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	ug/L	ND	1000	04/20/12 13:14	

LABORATORY CONTROL SAMPLE: 751809

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	25000	23600	94	90-110	

MATRIX SPIKE SAMPLE: 751810

Parameter	Units	92116121006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	231 mg/L	25000	254000	90	75-125	

MATRIX SPIKE SAMPLE: 751812

Parameter	Units	92116121016 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	ug/L	814 mg/L	25000	806000	-30	75-125	M6

SAMPLE DUPLICATE: 751811

Parameter	Units	92116121007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	ug/L	1520 mg/L	1540000	2	20	

SAMPLE DUPLICATE: 751813

Parameter	Units	92116400001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Organic Carbon	ug/L	4.7 mg/L	3840	20	20	

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QUALIFIERS

Project: ALEXANDER LF (UIC)
Pace Project No.: 92116312

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.

SG - Silica Gel - Clean-Up

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

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Acid preservation may not be appropriate for 2-Chloroethylvinyl ether, Styrene, and Vinyl chloride.

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

TNI - The NELAC Institute.

LABORATORIES

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

ANALYTE QUALIFIERS

M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ALEXANDER LF (UIC)
Pace Project No.: 92116312

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92116312001	**MW-26**	EPA 8260	MSV/18878		
92116312001	**MW-26**	SM 5310B	WETA/11975		

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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.

Section A
Required Client Information:

Company:	Municipal Engineering Services
Address:	P.O. Box 97
	Garner, NC 27529
Email To:	jpfohl@mesco.com
Phone:	919-772-5393 Fax:
Requested Due Date/TAT:	10 Day (Default)

Section B
Required Project Information:

Report To:	Jonathan Pfohl
Copy To:	
Purchase Order No.	
Client Project ID:	Alexander LF (UIC)
Container Order Number:	

Section C
Invoice Information:

Attention:	Municipal Engineering Services
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Kevin Godwin
Pace Profile #:	2103

Regulatory Agency
State / Location
North Carolina

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

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

Requested Analysis Filtered (Y/N)

ITEM#	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOCs- App I	TOC	92116312
1	MW-26	WT	G			4/10/2012	8:00 AM		5				5						X	X	001
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Mitchell	4/12/2012	1040	[signature] / Pace	4/12/12	1040				
	[signature] / Pace	4/12/12	1410	[signature]	4/12/12	14:10	5.3	yes	no	yes

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: Jonathan Pfohl					
SIGNATURE of SAMPLER:	DATE Signed: 4/12/2012				

Pace Analytical	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: January 30, 2012 Page 1 of 2
	Document Number: **F-CHR-CS-03-rev.06**	Issuing Authority: Pace Huntersville Quality Office

Client Name: Municipal Project # 92116312

Where Received: ☑ Huntersville ☐ Asheville ☐ Eden

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: IR Gun T1101 T1102 **Type of Ice:** Wet Blue None ☑ Samples on ice, cooling process has begun

Temp Correction Factor T1101: No Correction T1102: Subtract 1.2°C

Corrected Cooler Temp.: 5.3 C **Biological Tissue is Frozen:** Yes No N/A

Temp should be above freezing to 6°C

Optional
Proj. Due Date:
Proj. Name:

Date and Initials of person examining contents: 4/12/12

		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):_____		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

SCURF Review: [illegible] **Date:** 4/12/12 **SRF Review:** [illegible] **Date:** 4/12/12

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)