Resolve Environmental Services, PLLC

410 East Franklin Street
Monroe, NC 28112
(704) 289-5881 phone
(704) 292-2910 fax
www.resolvepllc.com

September 5, 2013

Mr. Ervin Lane
Compliance Hydrogeologist
NCDENR
Division of Waste Management
Solid Waste Section
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Re: ***Second Semi-Annual 2013 Ground Water Monitoring Event***
Warren County Closed Sanitary Landfill
Warrenton, North Carolina
Facility Permit# 93-01
Resolve Project No 765.19

Dear Mr. Lane:

Please find the attached Second Semi-Annual 2013 Ground Water Monitoring Report conducted at the Warren County Closed Sanitary Landfill in August 2013. Also included in this package is a copy of the *"Water Supply Well Sampling Results"* letter based on the August 2013 sampling of the water supply well located at 539 Baltimore Road. Please note that the original Environmental Monitoring Reporting Form associated with the August 2013 sampling event will be mailed to you separately. You should receive it in the following week. Please call if you have any questions or require any additional information at (704) 289-5881.

Sincerely,
Resolve Environmental Services, PLLC

Laura Minor
Project Manager

Enclosures

Resolve Environmental Services, PLLC
410 East Franklin Street
Monroe, North Carolina 28112
(704) 289-5881 phone
(704) 292-2910 fax
www.resolvepllc.com

September 5, 2013

Ms. Jacqueline Smith
539 Baltimore Road
Warrenton, NC 27589

Re: Water Supply Well Sampling Results
539 Baltimore Road, Warrenton, NC

Dear Ms. Smith:

This letter is to inform you of the recent water supply well (WSW-1) sampling results conducted on August 13, 2013. Resolve Environmental Services, PLLC (Resolve) has been contracted by the Warren County Solid Waste Department to conduct semi-annual ground water sampling activities at their facility. The water supply well connected to your residence was included in the sampling schedule.

A concentration of zinc (36.5 µg/L) was reported in the ground water sample. **The concentration of zinc does not exceed the North Carolina Ground Water Quality Standards (NCGWQS)** (2,100 µg/L). No other detectable concentrations of requested method constituents were reported in the ground water sample. A copy of the applicable analytical report has been included as an attachment. This information has been submitted to the NCDENR Solid Waste Section and will be maintained in their files.

As part of the ongoing sampling schedule at Warren County Landfill, WSW-1 is scheduled to be sampled again in February 2014. The analytical results will be forwarded to you following the receipt of the analytical report. If you have any questions, please call me at (704) 289-5881.

Sincerely,
Resolve Environmental Services, PLLC

Laura Minor

cc: Mr. Ervin Lane, NCDENR-Division of Waste Management/Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646
Mr. Marshall Brothers, Warren County Solid Waste Department, 559 Baltimore Road, Warrenton, North Carolina 27589

attachment

Report of Analysis

Client Sample ID:	WSW-1		
Lab Sample ID:	FA7234-3	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18191.D	1	08/16/13	EG	n/a	n/a	VP694
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.26	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.49	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.71	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.3	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.79	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.25	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.34	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WSW-1		
Lab Sample ID:	FA7234-3	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
78-93-3	Methyl ethyl ketone	ND	5.0	3.1	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.56	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.0	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.1	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	10	3.1	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		83-118%
17060-07-0	1,2-Dichloroethane-D4	104%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	106%		83-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

3.3

Client Sample ID:	WSW-1		
Lab Sample ID:	FA7234-3	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
		Percent Solids:	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Arsenic	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Barium	< 200	200	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Beryllium	< 4.0	4.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cadmium	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cobalt	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Copper	< 25	25	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Lead	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Nickel	< 40	40	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Selenium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Silver	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 1.0	1.0	ug/l	2	08/19/13	08/19/13	ANJ	SW846 6020A [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Zinc	36.5	20	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA10974
(2) Instrument QC Batch: N:MA31924
(3) Prep QC Batch: MP25674
(4) Prep QC Batch: N:MP73943

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Resolve Environmental Services, PLLC

410 East Franklin Street
Monroe, NC 28112
(704) 289-5881 phone
(704) 292-2910 fax
www.resolvepllc.com

September 5, 2013

Mr. Marshall Brothers
Warren County Solid Waste Department
559 Baltimore Road
Warrenton, North Carolina 27589

Re: Second Semi-Annual 2013 Ground Water Monitoring Event
Warren County Closed Sanitary Landfill
Warrenton, North Carolina
Resolve Project No 765.19

Dear Mr. Brothers:

Resolve Environmental Services, PLLC (Resolve) respectfully presents results of the second semi-annual 2013 ground water monitoring event conducted at the Warren County Closed Sanitary Landfill (CSL) located in Warrenton, North Carolina (**Figure 1**). The ground water monitoring activities were conducted in general accordance with North Carolina Department of Environment and Natural Resources' (NCDENR), Division of Solid Waste Management guidelines.

Gauging and Sampling

On August 13, 2013, Resolve personnel collected ground water samples from on-site monitoring wells MW-1A, MW-2, MW-3, and MW-4. In addition, three surface water samples (SW-1, SW-2 and SW-3) were collected along the tributary of Possumquarter Creek during the August 2013 sampling event. A water quality sample was also collected from the nearby water supply well (WSW-1) located on the adjacent residential property to the northwest (539 Baltimore Avenue). A site map is provided as **Figure 2**.

Prior to collecting ground water samples from the monitoring wells, water levels were measured in each well from the top of the well casing. Based on the depth to water gauging data, Resolve personnel calculated the volume of standing water in each monitoring well. For quality control purposes, one equipment blank was collected prior to the initiation of ground water sampling activities by passing distilled water provided by the laboratory through a clean, Teflon™ bailer. Each well was purged of at least three well volumes or until bailed dry using a new, disposable Teflon™ bailer. As generated, the purge water was discharged to the ground surface at the respective wellheads. Prior to sample collection, field parameters for temperature, pH, and specific conductance were measured using calibrated field instrumentation. Well gauging data and measured field parameters are summarized in **Table 1**. The surface water samples were collected using grab sample techniques. All collected samples were placed

directly into laboratory supplied glassware and placed on ice for transport to a North Carolina certified laboratory for analyses.

The collected ground water samples and equipment blank were analyzed for the presence of Appendix I volatile organic compounds (VOCs) including tetrahydrofuran by EPA Method 8260B and Appendix I metals by EPA Method 6010, as required by the NCDENR. The samples were analyzed by Accutest Laboratories, LLC (Accutest) of Orlando, Florida. Accutest is a North Carolina certified laboratory. A trip blank was also submitted to the laboratory for analysis of Appendix I VOCs by Method 8260B.

Results

Based upon the laboratory analytical report, detectable concentrations of Appendix I VOCs and/or metals were reported in each of the collected samples as summarized below.

MW-1A:

Detectable concentrations of benzene, p-dichlorobenzene, cis-1,2-dichloroethylene, trichloroethylene and zinc were reported in the ground water sample collected from MW-1A. None of the reported concentrations exceeded the North Carolina ground water quality standards (NCGWQS) established in T15A NCAC 2L.0202.

MW-2:

Detectable concentrations of benzene, toleuene, ethylbenzene, chlorobenzene, chloroethane, 1,1-dichloroethane, p-dichlorobenzene, cis-1,2-dichloroethylene, trichloroethylene, barium cobalt, lead and zinc were reported in the ground water sample collected from MW-2. **The concentrations of benzene, p-dichlorobenzene and lead exceeded the NCGWQS.** None of the other detectable concentrations exceeded the NCGWQS, if established. Currently, there is no NCGWQS established for chloroethane or cobalt; therefore, the concentrations are reportable.

MW-3:

Detectable concentrations of benzene, chlorobenzene, chloroethane, 1,1-dichloroethane, p-dichlorobenzene, cis-1,2-dichloroethylene and tetrahydrofuran were reported in the ground water sample collected from MW-3. None of the reported concentrations exceeded the established NCGWQS, if established. Currently, there are no NCGWQS established for chloroethane or tetrahydrofuran; therefore, the concentrations are reportable.

MW-4:

Detectable concentrations of benzene, 1,1-dichloroethane, p-dichlorobenzene and cis-1,2-dichloroethylene were reported in the ground water sample from MW-4. None of the reported concentrations exceeded the NCGWQS.

WSW-1:

A detectable concentration of zinc below the NCGWQS was reported in the ground water sample collected from water supply well WSW-1.

SW-1:

Detectable concentrations of p-dichlorobenzene and cis-1,2-dichloroethylene were reported in the surface water sample collected from SW-1. None of the reported concentrations exceeded the established NCGWQS.

SW-2:

No detectable concentrations of requested method constituents were reported in the surface water sample collected from SW-2.

SW-3:
No detectable concentrations of requested method constituents were reported in the surface water sample collected from SW-3.

Equipment Blank:
No detectable concentrations of requested method constituents were reported in the equipment blank.

The current laboratory analytical results are summarized in **Table 2**. Historical laboratory data is summarized in **Table 3**. A water quality map based upon results of the August 13, 2013 sampling event presented as **Figure 3**. A copy of the laboratory analytical report is attached as **Appendix A**.

Based upon the current sampling data, a ground water quality violation (benzene and p-dichlorobenzene) exists at the site. However, the concentrations of detectable contaminants appear to be consistent with historical levels. Continued monitoring is recommended. An environmental monitoring NCDENR report form is enclosed as **Appendix B**.

The next semi-annual sampling event will be conducted in February 2014. Please call if you have any questions or require any additional information at (704) 289-5881.

Sincerely,
Resolve Environmental Services, PLLC

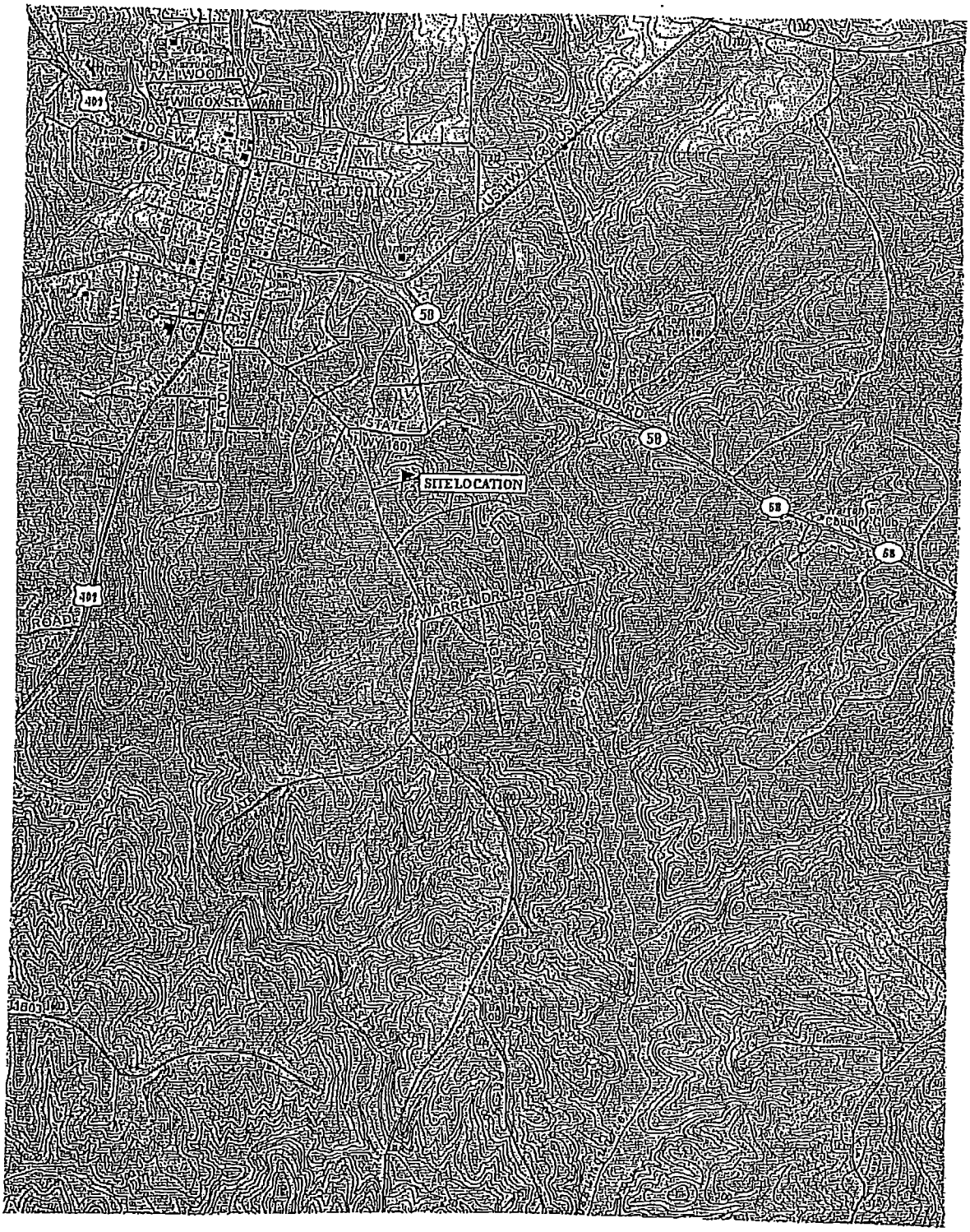
W. Scott Ball /efm

W. Scott Ball
Project Manager

Terry D. Kennedy, P.G.
License No. 1435

NORTH CAROLINA LICENSED SEAL 1435 GEOLOGIST TERRY D. KENNEDY

FIGURES



Warren County Landfill (Closed) 559 Baltimore Road Warrenton, North Carolina	**Figure 1** Site Location Map	RESOLVE ENVIRONMENTAL SERVICES, PLLC 410 East Franklin Street Monroe, North Carolina 28112

TABLES

TABLE 1
MONITORING WELL GAUGING AND FIELD PARAMETER DATA
WARREN COUNTY CLOSED SANITARY LANDFILL

Date: 8/13/13

Sample Location	Total Well Depth (feet)	Depth to Water (feet)	Temperature (in C)	pH	Specific Conductance (µS/cm)	Volume Purged (gals)
MW-1A	40.90	35.36	18.24	5.96	80	2.75
MW-2	15.79	7.71	16.80	6.07	541	4.00
MW-3	29.04	5.58	15.50	5.96	145	11.50
MW-4	22.81	4.23	16.30	5.83	296	9.25

Notes:
- Gauging and field parameters collected on August 13, 2013 by Resolve personnel.
- All measurements relative to the top of well casing.

TABLE 2
SUMMARY OF LABORATORY ANALYSES-GROUND WATER SAMPLES
WARREN COUNTY CLOSED SANITARY LANDFILL

Date : 8/13/13

Analytical Method →		**Appendix I - 8260**								**Appendix I - 6010**				
Contaminant of Concern →														
Well ID	**Date Collected (mm/dd/yy)**	**Benzene**	**Chlorobenzene**	**Chloroethane**	**1,1-Dichloroethane**	**p-Dichlorobenzene**	**cis-1,2-Dichloroethylene**	**Tetrahydrofuran**	**Trichloroethylene**	**Chromium**	**Cobalt**	**Copper**	**Lead**	**Zinc**
NCGWQS (υg/L)		**1**	**50**	**NS**	**6**	**6**	**70**	**NS**	**3**	**10**	**NS**	**1,000**	**15**	**2,100**
MW-1A	08/13/13	0.90 J	<0.20	<0.50	<0.21	2.5	2.4	<1.0	0.34 J	<10	<50	<25	<5.0	53.5
MW-2	08/13/13	**2.6**	2.9	10.0	1.3	**6.6**	15.2	<1.0	0.57 J	<10	184	<25	**22.3**	41.3
MW-3	08/13/13	0.41 J	0.67 J	0.58 J	0.78 J	0.79 J	2.5	8.0	<0.31	<10	<50	<25	<5.0	<20
MW-4	08/13/13	0.31 J	<0.20	<0.50	0.34 J	0.31 J	1.4	<1.0	<0.31	<10	<50	<25	<5.0	<20
SW-1	08/13/13	<0.21	<0.20	<0.50	<0.21	0.25 J	0.53 J	<2.0	<0.31	<10	<50	<25	<5.0	<20
SW-2	08/13/13	<0.21	<0.20	<0.50	<0.21	<0.20	<0.24	<1.0	<0.31	<10	<50	<25	<5.0	<20
SW-3	08/13/13	<0.21	<0.20	<0.50	<0.21	<0.20	<0.24	<1.0	<0.31	<10	<50	<25	<5.0	<20
WSW-1	08/13/13	<0.21	<0.20	<0.50	<0.21	<0.20	<0.24	<1.0	<0.31	<10	<50	<25	<5.0	36.5
Equipment Blank	08/13/13	<0.21	<0.20	<0.50	<0.21	<0.20	<0.24	<1.0	<0.31	<10	<50	<25	<5.0	<20
Trip Blank	08/13/13	<0.21	<0.20	<0.50	<0.21	<0.20	<0.24	<1.0	<0.31	NR	NR	NR	NR	NR

Notes:
- Results reported in µg/L (micrograms per Liter)
- NCGWQS: North Carolina Ground Water Quality Standard as specified in T15A NCAC 2L. 0202.
- < : Less than the method detection limit specified in the laboratory report.
- NS: Not specified.
- Concentrations in bold face type exceeded the 2L standard.
- J: Estimated concentration.
- NR: Analysis not requested.
- Concentrations of ethylbenzene (0.37J µg/L), toluene (0.23J µg/L) and barium (230 µg/L) repoted in the sample collected from MW-2 on 8/13/13.

TABLE 3
HISTORICAL SUMMARY OF LABORATORY ANALYSES-GROUND WATER SAMPLES
WARREN COUNTY CLOSED SANITARY LANDFILL

Date : 8/13/13

Analytical Method →		Appendix I - 8260							Appendix I - 6010/200.7		7470
Contaminant of Concern →											
Well ID	Date Collected (mm/dd/yy)	Benzene	Chlorobenzene	Chloroethane	1,4-Dichlorobenzene/ p-Dichlorobenzene	1,1-Dichloroethane	cis-1,2-Dichloroethene	Tetrahydrofuran	Chromium	Lead	Mercury
NCGWQS (µg/L)		1	50	NS	6	6	70	NS	10	15	1
MW-1A	8/10/2006	**1.3**	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<10	15	NR
	2/22/2007	**1.4**	<1.0	<1.0	<1.0	<1.0	2.5	NR	**33**	**61**	NR
	8/27/2007	**1.3**	<1.0	<1.0	1.4	<1.0	2.6	<10.0	<5.0	<5.0	<0.20
	2/27/2008	**1.7**	<1.0	<1.0	1.9	<1.0	3.0	<10.0	<5.0	<5.0	<0.20
	8/26/2008	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	**15.2**	**25.5**	<0.20
	2/25/2009	**1.2**	<1.0	<1.0	2.2	<1.0	2.5	<10.0	8.1	14.8	**0.21**
	8/19/2009	**1.52**	<1.00	<1.00	1.91	<1.00	2.27	<20.0	<5.00	<5.00	<0.200
	2/8/2010	**1.41**	<0.210	<0.270	2.22	<0.240	2.77	NR	3.72	4.66	0.101
	8/12/2010	**1.29**	<0.210	<0.270	2.23	<0.240	2.56	<1.00	5.10	10.5	<0.0800
	2/16/2011	0.839 J	<0.210	<0.270	1.45	<0.240	1.62	<1.00	31.3	57.1	0.383
	8/23/2011	0.88 J	<0.20	<0.50	1.1	<0.25	2.1	<2.0	<10	5.3	NR
	2/17/2012	**1.2**	<0.20	<0.50	1.9	<0.25	2.3	<2.0	**20.3**	**38.6**	NR
	8/27/2012	**1.4**	<0.20	<0.50	2.4	<0.25	2.6	<2.0	**10.3**	**17.8**	NR
	2/14/2013	**1.3**	<0.20	<0.50	<0.20	<0.21	2.6	<1.0	<10	12.8	NR
	8/13/2013	0.90 J	<0.20	<0.50	2.5	<0.21	2.4	<1.0	<10	<5.0	NR
MW-2	8/10/2006	**1.5**	<1.0	**9.2**	4.3	<1.0	10	NR	<10	<10	NR
	2/22/2007	**1.3**	1.1	**7.8**	3.8	<1.0	8.1	NR	<5.0	<5.0	NR
	8/27/2007	**1.1**	1.6	**6.9**	2.9	<1.0	8.2	<10.0	<5.0	<5.0	<0.20
	2/27/2008	**1.6**	1.9	**7.3**	4.7	<1.0	9.9	<10.0	<5.0	<5.0	<0.20
	8/26/2008	<1.0	<1.0	**4.6**	2.8	<1.0	5.5	**19.1**	<5.0	<5.0	<0.20
	2/25/2009	**1.5**	1.7	**9.7**	5.4	<1.0	10.2	<10.0	<5.0	<5.0	<0.20
	8/19/2009	**1.21**	1.48	**7.50**	3.15	<1.00	6.27	<20.0	<5.00	<5.00	<0.200
	2/8/2010	0.837	1.07	**5.62**	2.70	0.372	5.76	NR	<2.00	<3.00	<0.0800
	8/12/2010	**1.49**	2.01	**8.34**	4.22	0.797	9.49	<1.00	<2.00	1.92	<0.0800
	2/16/2011	**1.25**	2.00	**6.22**	3.72	0.670 J	7.14	<1.00	<2.00	<1.50	<0.0800
	8/23/2011	0.65 J	1.3	3.9	2.1	0.33 J	4.5	<2.0	<10	8.7	NR
	2/17/2012	**1.6**	2.0	7.2	4.3	0.97 J	9.5	<2.0	<10	<5.0	NR
	8/27/2012	0.66 J	1.0	1.8 J	2.0	0.33 J	3.3	<2.0	<10	6.1	NR
	2/14/2013	**1.5**	2.0	9.0	4.8	0.96 J	9.1	<1.0	<10	<5.0	NR
	8/13/2013	**2.6**	2.9	10.0	**6.6**	1.3	15.2	<1.0	<10	**22.3**	NR

TABLE 3
HISTORICAL SUMMARY OF LABORATORY ANALYSES-GROUND WATER SAMPLES
WARREN COUNTY CLOSED SANITARY LANDFILL

Date : 8/13/13

Analytical Method →		**Appendix I - 8260**							**Appendix I - 6010/200.7**		**7470**
Contaminant of Concern →											
Well ID	**Date Collected (mm/dd/yy)**	**Benzene**	**Chlorobenzene**	**Chloroethane**	**1,4-Dichlorobenzene/ p-Dichlorobenzene**	**1,1-Dichloroethane**	**cis-1,2-Dichloroethene**	**Tetrahydrofuran**	**Chromium**	**Lead**	**Mercury**
NCGWQS (ug/L)		**1**	**50**	**NS**	**6**	**6**	**70**	**NS**	**10**	**15**	**1**
MW-3	8/10/2006	<1.0	<1.0	<1.0	<1.0	2.4	2.8	NR	<10	<10	NR
	2/22/2007	<1.0	<1.0	<1.0	<1.0	2.6	3.9	NR	<5.0	<5.0	NR
	8/27/2007	<1.0	<1.0	**2.3**	<1.0	2.3	4.4	**17.2**	<5.0	<5.0	0.23
	2/27/2008	<1.0	<1.0	**1.20**	1.10	2.4	5.5	**27.0**	<5.0	<5.0	<0.20
	8/26/2008	<1.0	<1.0	<1.0	<1.0	1.7	2.6	**19.1**	<5.0	<5.0	<0.20
	2/25/2009	<1.0	<1.0	<1.0	<1.0	1.9	3.8	**20.9**	<5.0	<5.0	<0.20
	8/19/2009	<1.00	<1.00	**1.29**	<1.00	1.67	3.46	**26.3**	<5.00	<5.00	<0.200
	2/8/2010	0.514	0.817	**1.05**	0.996	1.61	3.96	NR	3.12	<1.50	<0.0800
	8/12/2010	0.413	0.544	<0.270	0.853	1.65	3.08	**15.2**	2.83	2.08	<0.0800
	2/16/2011	0.369 J	0.642 J	0.764 J	0.800 J	1.30	2.87	**15.6**	2.26 J	<1.50	<0.0800
	8/23/2011	0.30 J	0.64 J	<0.50	0.63 J	0.92	2.4	**15.4**	<10	<5.0	NR
	2/17/2012	0.35 J	0.62 J	0.68 J	0.71 J	0.80 J	2.5	**14.0**	<10	<5.0	NR
	8/27/2012	0.32 J	0.66 J	<0.50	0.66 J	0.67 J	2.0	**10.2**	<10	<5.0	NR
	2/14/2013	0.41 J	0.60 J	1.6 J	0.75 J	0.92 J	2.3	**8.8**	<10	<5.0	NR
	8/13/2013	0.41 J	0.67 J	0.58 J	0.79 J	0.78 J	2.5	8.0	<10	<5.0	NR
MW-4	8/10/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<10	<10	NR
	2/22/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<5.0	<5.0	NR
	8/27/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	13.0	<5.0	<0.20
	2/27/2008	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	**22.5**	<5.0	<0.20
	8/26/2008	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	**63.3**	**15.6**	<0.20
	2/25/2009	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	7.9	<5.0	<0.20
	8/19/2009	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<20.0	**12.2**	<5.00	<0.200
	2/8/2010	0.250	<0.210	<0.270	<0.250	0.401	0.599	NR	**14.4**	<1.50	<0.0800
	8/12/2010	0.295	<0.210	<0.270	<0.250	<0.240	0.715	<1.00	**10.4**	3.27	<0.0800
	2/16/2011	0.250 J	<0.210	<0.270	<0.250	0.346 J	0.607 J	<1.00	**6.65 J**	<1.50	<0.0800
	8/23/2011	0.22 J	<0.20	<0.50	<0.23	0.25 J	0.47 J	<2.0	**180**	**30.3**	NR
	2/17/2012	0.27 J	<0.20	<0.50	<0.23	0.28 J	0.81 J	<2.0	**109**	**15.1**	NR
	8/27/2012	0.33 J	<0.20	<0.50	<0.23	0.32 J	0.96 J	<2.0	**23.5**	<5.0	NR
	2/14/2013	0.38 J	<0.20	<0.50	0.31 J	0.40 J	1.4	<1.0	**30.2**	<5.0	NR
	8/13/2013	0.31 J	<0.20	<0.50	0.31 J	0.34 J	1.4	<1.0	<10	<5.0	NR

TABLE 3
HISTORICAL SUMMARY OF LABORATORY ANALYSES-GROUND WATER SAMPLES
WARREN COUNTY CLOSED SANITARY LANDFILL

Date : 8/13/13

Analytical Method →		Appendix I - 8260							Appendix I - 6010/200.7		7470
Contaminant of Concern →											
Well ID	Date Collected (mm/dd/yy)	Benzene	Chlorobenzene	Chloroethane	1,4-Dichlorobenzene/ p-Dichlorobenzene	1,1-Dichloroethane	cis-1,2-Dichloroethene	Tetrahydrofuran	Chromium	Lead	Mercury
NCGWQS (ug/L)		1	50	NS	6	6	70	NS	10	15	1
SW-1	8/10/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<10	**94**	NR
	2/22/2007	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	NR	<5.0	<5.0	NR
	8/27/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	<5.0	<5.0	<0.20
	2/27/2008	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	<5.0	<5.0	<0.20
	8/26/2008	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	**248**	**106**	<0.20
	2/25/2009	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	<5.0	<5.0	<0.20
	8/19/2009	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	2/8/2010	<0.140	<0.210	<0.270	<0.250	<0.240	<0.450	NR	<2.00	<1.50	<0.0800
	8/12/2010	<0.140	<0.210	<0.270	<0.250	<0.240	<0.450	<1.00	<2.00	<1.50	<0.0800
	2/16/2011	<0.140	<0.210	<0.270	<0.250	<0.240	<0.450	<1.00	6.91 J	3.79	<0.0800
	8/23/2011	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	2/17/2012	<0.20	<0.20	<0.50	<0.23	<0.25	<0.26	<2.0	<10	<5.0	NR
	8/27/2012	<0.20	<0.20	<0.50	<0.23	<0.25	<0.26	<2.0	<10	**18.1**	NR
	2/14/2013	<0.21	<0.20	<0.50	0.27 J	<0.21	0.55 J	<1.0	<10	<5.0	NR
	8/13/2013	<0.21	<0.20	<0.50	0.25 J	<0.21	0.53 J	<2.0	<10	<5.0	NR
SW-2	8/10/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<10	<10	NR
	2/22/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<5.0	<5.0	NR
	8/27/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	<5.0	<5.0	<0.20
	2/27/2008	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	<5.0	<5.0	<0.20
	8/26/2008	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	2/25/2009	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	<5.0	<5.0	<0.20
	8/19/2009	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<20.0	**49.4**	**79.4**	0.314
	2/8/2010	<0.140	<0.210	<0.270	<0.250	<0.240	<0.450	NR	3.04	1.87	<0.0800
	8/12/2010	0.143	0.240	<0.270	0.393	<0.240	1.14	**7.77**	<2.00	1.67	<0.0800
	2/16/2011	<0.140	<0.210	<0.270	<0.250	<0.240	0.646 J	**3.06**	<2.00	<1.50	<0.0800
	8/23/2011	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	2/17/2012	<0.20	<0.20	<0.50	<0.23	<0.25	<0.26	<2.0	<10	5.1	NR
	8/27/2012	<0.20	<0.20	<0.50	<0.23	<0.25	<0.26	<2.0	<10	<5.0	NR
	2/14/2013	<0.21	<0.20	<0.50	<0.20	<0.21	<0.24	<1.0	<10	<5.0	NR
	8/13/2013	<0.21	<0.20	<0.50	<0.20	<0.21	<0.24	<1.0	<10	<5.0	NR

TABLE 3
HISTORICAL SUMMARY OF LABORATORY ANALYSES-GROUND WATER SAMPLES
WARREN COUNTY CLOSED SANITARY LANDFILL

Date : 8/13/13

Analytical Method →		Appendix I - 8260							Appendix I - 6010/200.7		7470
Contaminant of Concern →											
Well ID	Date Collected (mm/dd/yy)	Benzene	Chlorobenzene	Chloroethane	1,4-Dichlorobenzene/ p-Dichlorobenzene	1,1-Dichloroethane	cis-1,2-Dichloroethene	Tetrahydrofuran	Chromium	Lead	Mercury
NCGWQS (ug/L)		1	50	NS	6	6	70	NS	10	15	1
SW-3	8/10/2006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<10	<10	NR
	2/22/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<5.0	<5.0	NR
	8/27/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	<5.0	<5.0	<0.20
	2/27/2008	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	<5.0	<5.0	<0.20
	8/26/2008	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	<5.0	<5.0	<0.20
	2/25/2009	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0	<5.0	<5.0	<0.20
	8/19/2009	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<20.0	<5.00	<5.00	<0.200
	2/8/2010	<0.140	<0.210	<0.270	<0.250	<0.240	<0.450	NR	<2.00	<1.50	<0.0800
	8/12/2010	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	2/16/2011	<0.140	<0.210	<0.270	<0.250	<0.240	<0.450	<1.00	<2.00	<1.50	<0.0800
	8/23/2011	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	2/17/2012	<0.20	<0.20	<0.50	<0.23	<0.25	<0.26	<2.0	<10	<5.0	NR
	8/27/2012	<0.20	<0.20	<0.50	<0.23	<0.25	0.35 J	<2.0	<10	<5.0	NR
	2/14/2013	<0.21	<0.20	<0.50	<0.20	<0.21	<0.24	<1.0	<10	<5.0	NR
	8/13/2013	<0.21	<0.20	<0.50	<0.20	<0.21	<0.24	<1.0	<10	<5.0	NR

TABLE 3
HISTORICAL SUMMARY OF LABORATORY ANALYSES-GROUND WATER SAMPLES
WARREN COUNTY CLOSED SANITARY LANDFILL

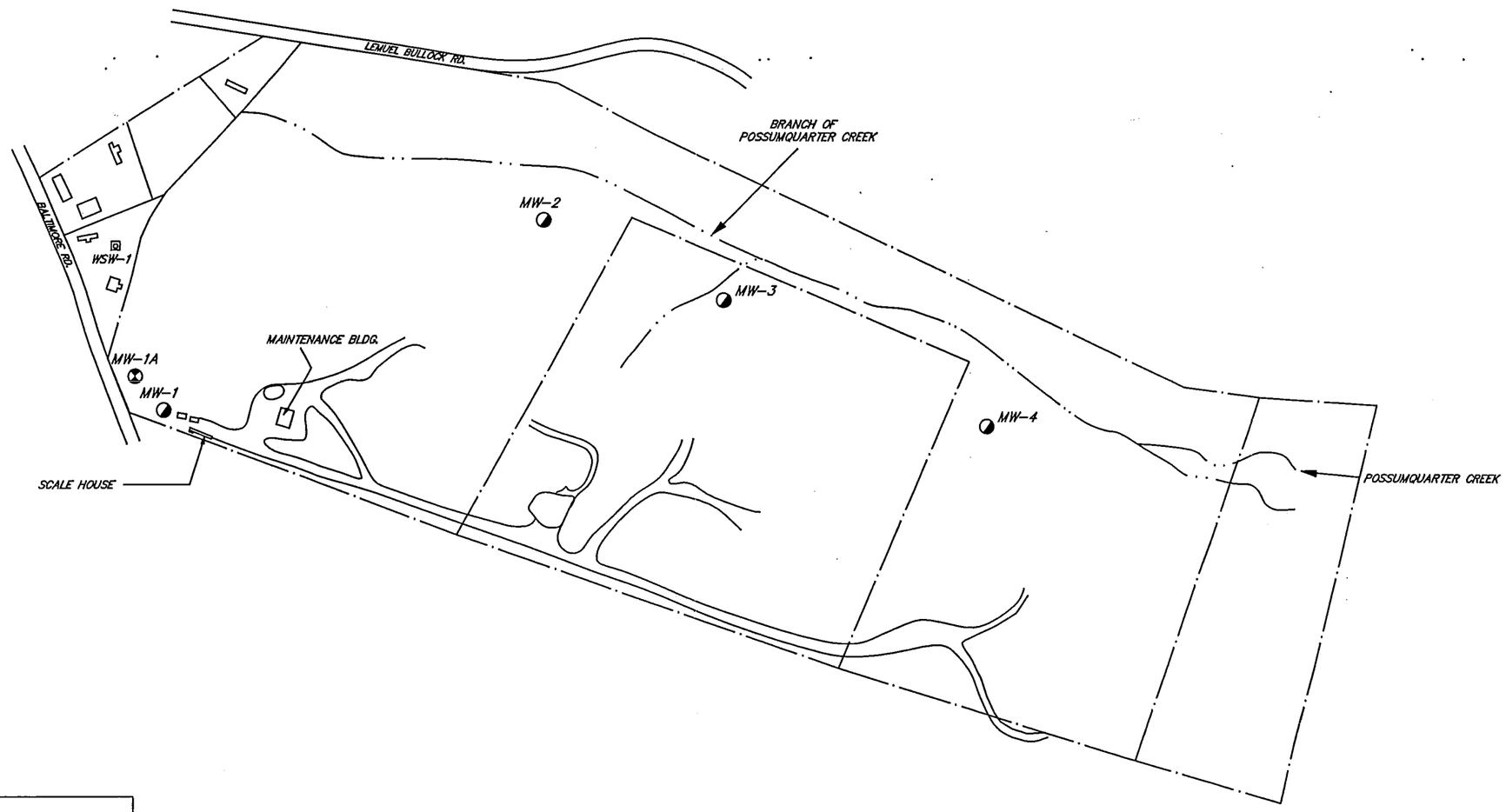
Date : 8/13/13

Analytical Method →		Appendix I - 8260							Appendix I - 6010/200.7		7470
Contaminant of Concern →											
Well ID	Date Collected (mm/dd/yy)	Benzene	Chlorobenzene	Chloroethane	1,4-Dichlorobenzene/ p-Dichlorobenzene	1,1-Dichloroethane	cis-1,2-Dichloroethene	Tetrahydrofuran	Chromium	Lead	Mercury
NCGWQS (µg/L)		1	50	NS	6	6	70	NS	10	15	1
WSW-1/WS/WSW	8/10/2006	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	2/22/2007	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NR	<5.0	<5.0	NR
	8/27/2007	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	2/27/2008	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	8/26/2008	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	2/25/2009	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	8/19/2009	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	2/8/2010	<0.140	<0.210	<0.270	<0.250	<0.240	<0.450	NR	<2.00	4.29	0.272
	2/25/2010	<0.140	<0.210	<0.270	<0.250	<0.240	<0.450	NR	<2.00	<1.50	0.338
	8/12/2010	<0.140	<0.210	<0.270	<0.250	<0.240	<0.450	<1.00	<2.00	2.19	0.225
	2/16/2011	<0.140	<0.210	<0.270	<0.250	<0.240	<0.450	0.186	<2.00	<1.50	0.242
	8/23/2011	<0.20	<0.20	<0.50	<0.25	<0.25	<0.26	<2.0	<10	<5.0	NR
	2/17/2012	<0.20	<0.20	<0.50	<0.23	<0.25	<0.26	<2.0	<10	<5.0	NR
	8/27/2012	<0.20	<0.20	<0.50	<0.23	<0.25	<0.26	<2.0	<10	<5.0	NR
	2/14/2013	<0.21	<0.20	<0.50	<0.20	<0.21	<0.24	<1.0	**10.1**	<5.0	NR
	8/13/2013	<0.21	<0.20	<0.50	<0.20	<0.21	<0.24	<1.0	<10	<5.0	NR

Notes:
- Results reported in µg/L (micrograms per Liter) .
- NCGWQS: North Carolina Ground Water Quality Standard as specified in T15A NCAC 2L. 0202.
- < : Less than the method detection limit specified in the laboratory report.
- NR: Analysis not requested or sample was not collected.
- NS: Not specified.
- Concentrations in bold face type exceeded the 2L standard.
- Concentrations of tetrachloroethene (0.254 µg/L and 0.357 µg/L, respectively) were reported in MW-3 and WSW-1 on 2/8/2010; a concentration of tetrachloroethene (0.189 J ug/L) was reported in MW-3 on 2/16/11; concentrations of trichloroethylene (0.37 J ug/L and 0.40 J ug/L, respectively) were reported in MW-1A and MW-2 on 2/17/12; a concentration of beryllium (6.5 ug/L) was reported in MW-1A on 2/17/12; a concentration of toluene (0.22 J µg/L) was reported in surface water sample SW-3 on 8/27/12; concentrations of ethylbenzene (0.37 J µg/L), toluene (0.23 J µg/L) and barium (230 µg/L) repoted in the sample collected from MW-2 on 8/13/13.
- J: Estimated concentration.

LEGEND

- NC TYPE II MONITORING WELL
- NC TYPE III MONITORING WELL
- APPROXIMATE PROPERTY BOUNDARY LINE
- CREEK
- WATER SUPPLY WELL



NOTE: Site Map based on Resolve Environmental Services, P.A. "Sampling Location Map" (date unknown).

0 150 300

(IN FEET)
1 inch = 300 ft.

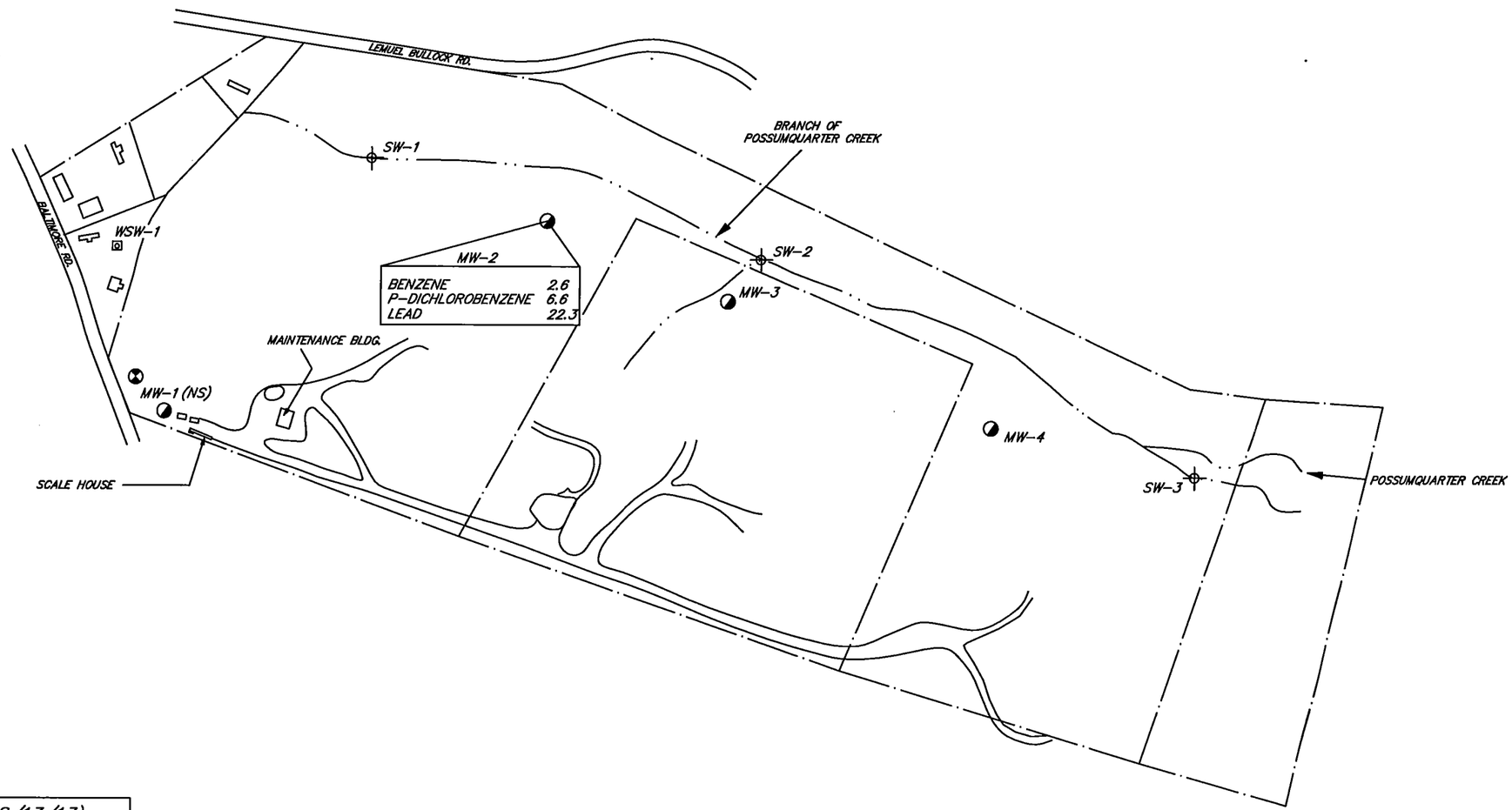
SITE MAP			
WARREN COUNTY LANDFILL 559 BALTIMORE ROAD, WARRENTON, WARREN COUNTY, NC PERMIT # 93-01			
Date: 09/13/11	Drawn by: LJM	Figure: 2	
RESOLVE ENVIRONMENTAL SERVICES, PLLC			

LEGEND

- NC TYPE II MONITORING WELL
- NC TYPE III MONITORING WELL
- APPROXIMATE PROPERTY BOUNDARY LINE
- CREEK
- WATER SUPPLY WELL
- (NS) NOT SAMPLED

RESULTS REPORTED IN ug/L

ONLY THOSE COMPOUNDS DETECTED AT OR ABOVE THE NCGWQS HAVE BEEN INCLUDED ON THE MAP



NOTE: Site Map based on Resolve Environmental Services, P.A. "Sampling Location Map" (date unknown).

0 150 300

(IN FEET)
1 inch = 300 ft.

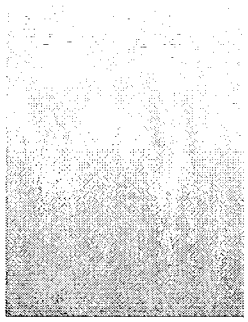
GROUND WATER QUALITY MAP (8/13/13)			
WARREN COUNTY LANDFILL 559 BALTIMORE ROAD, WARRENTON, WARREN COUNTY, NC PERMIT # 93-01			
Date: 9/5/13	Drawn by: LJM	Figure: 3	
RESOLVE ENVIRONMENTAL SERVICES, PLLC			

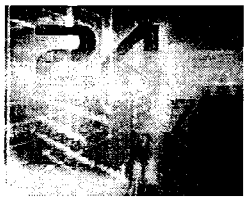
APPENDICES

APPENDIX A
Laboratory Analytical Report – Ground Water Samples

Southeast
ACCUTEST
LABORATORIES

08/21/13





Technical Report for

Resolve Environmental

Warren County Landfill; Baltimore Rd, Warrenton, NC

Accutest Job Number: FA7234

Sampling Date: 08/13/13

Report to:

Resolve Environmental
410 E Franklin St
Monroe, NC 28112
resolve@carolina.rr.com

ATTN: Laura Minor

Total number of pages in report: **62**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Muna Mohammed 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

Sections: 1 2 3 4 5 6 7 8

Table of Contents

-1-

Section 1: Sample Summary **3**
Section 2: Summary of Hits **4**
Section 3: Sample Results 6
3.1: FA7234-1: EQUIPMENT BLANK 7
3.2: FA7234-2: MW-1A 10
3.3: FA7234-3: WSW-1 13
3.4: FA7234-4: SW-1 16
3.5: FA7234-5: MW-2 19
3.6: FA7234-6: SW-2 22
3.7: FA7234-7: MW-3 25
3.8: FA7234-8: SW-3 28
3.9: FA7234-9: MW-4 31
3.10: FA7234-10: TRIP BLANK 34
Section 4: Misc. Forms **36**
4.1: Chain of Custody 37
Section 5: GC/MS Volatiles - QC Data Summaries **40**
5.1: Method Blank Summary 41
5.2: Blank Spike Summary 43
5.3: Matrix Spike/Matrix Spike Duplicate Summary 45
Section 6: Metals Analysis - QC Data Summaries **47**
6.1: Prep QC MP25674: Sb,As,Ba,Be,Cd,Cr,Co,Cu,Pb,Ni,Se,Ag,Tl,V,Zn 48
Section 7: Misc. Forms (Accutest New Jersey) **54**
7.1: Chain of Custody 55
Section 8: Metals Analysis - QC Data (Accutest New Jersey) **57**
8.1: Prep QC MP73943: Tl 58

Sample Summary

Resolve Environmental

Job No: FA7234

Warren County Landfill; Baltimore Rd, Warrenton, NC

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FA7234-1	08/13/13	07:09 SB	08/14/13	AQ	Equipment Blank	EQUIPMENT BLANK
FA7234-2	08/13/13	07:45 SB	08/14/13	AQ	Ground Water	MW-1A
FA7234-3	08/13/13	08:02 SB	08/14/13	AQ	Ground Water	WSW-1
FA7234-4	08/13/13	08:21 SB	08/14/13	AQ	Surface Water	SW-1
FA7234-5	08/13/13	08:48 SB	08/14/13	AQ	Ground Water	MW-2
FA7234-6	08/13/13	08:56 SB	08/14/13	AQ	Surface Water	SW-2
FA7234-7	08/13/13	09:26 SB	08/14/13	AQ	Ground Water	MW-3
FA7234-8	08/13/13	09:34 SB	08/14/13	AQ	Surface Water	SW-3
FA7234-9	08/13/13	10:13 SB	08/14/13	AQ	Ground Water	MW-4
FA7234-10	08/13/13	00:00 SB	08/14/13	AQ	Trip Blank Water	TRIP BLANK

2

Summary of Hits

Job Number: FA7234
Account: Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC
Collected: 08/13/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA7234-1	**EQUIPMENT BLANK**					
No hits reported in this sample.						
FA7234-2	**MW-1A**					
Benzene		0.90 J	1.0	0.21	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		2.4	1.0	0.24	ug/l	SW846 8260B
p-Dichlorobenzene		2.5	1.0	0.20	ug/l	SW846 8260B
Trichloroethylene		0.34 J	1.0	0.31	ug/l	SW846 8260B
Zinc		53.5	20		ug/l	SW846 6010C
FA7234-3	**WSW-1**					
Zinc		36.5	20		ug/l	SW846 6010C
FA7234-4	**SW-1**					
cis-1,2-Dichloroethylene		0.53 J	1.0	0.24	ug/l	SW846 8260B
p-Dichlorobenzene		0.25 J	1.0	0.20	ug/l	SW846 8260B
FA7234-5	**MW-2**					
Benzene		2.6	1.0	0.21	ug/l	SW846 8260B
Chlorobenzene		2.9	1.0	0.20	ug/l	SW846 8260B
Chloroethane		10.0	2.0	0.50	ug/l	SW846 8260B
1,1-Dichloroethane		1.3	1.0	0.21	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		15.2	1.0	0.24	ug/l	SW846 8260B
p-Dichlorobenzene		6.6	1.0	0.20	ug/l	SW846 8260B
Ethylbenzene		0.37 J	1.0	0.29	ug/l	SW846 8260B
Toluene		0.23 J	1.0	0.20	ug/l	SW846 8260B
Trichloroethylene		0.57 J	1.0	0.31	ug/l	SW846 8260B
Barium		230	200		ug/l	SW846 6010C
Cobalt		184	50		ug/l	SW846 6010C
Lead		22.3	5.0		ug/l	SW846 6010C
Zinc		41.3	20		ug/l	SW846 6010C
FA7234-6	**SW-2**					
No hits reported in this sample.						
FA7234-7	**MW-3**					
Benzene		0.41 J	1.0	0.21	ug/l	SW846 8260B
Chlorobenzene		0.67 J	1.0	0.20	ug/l	SW846 8260B

Summary of Hits

Job Number: FA7234
Account: Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC
Collected: 08/13/13

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Chloroethane	0.58 J	2.0	0.50	ug/l	SW846 8260B
1,1-Dichloroethane	0.78 J	1.0	0.21	ug/l	SW846 8260B
cis-1,2-Dichloroethylene	2.5	1.0	0.24	ug/l	SW846 8260B
p-Dichlorobenzene	0.79 J	1.0	0.20	ug/l	SW846 8260B
Tetrahydrofuran	8.0	5.0	1.0	ug/l	SW846 8260B
FA7234-8 SW-3					
No hits reported in this sample.					
FA7234-9 MW-4					
Benzene	0.31 J	1.0	0.21	ug/l	SW846 8260B
1,1-Dichloroethane	0.34 J	1.0	0.21	ug/l	SW846 8260B
cis-1,2-Dichloroethylene	1.4	1.0	0.24	ug/l	SW846 8260B
p-Dichlorobenzene	0.31 J	1.0	0.20	ug/l	SW846 8260B
FA7234-10 TRIP BLANK					
Methylene chloride	2.9 J	5.0	2.0	ug/l	SW846 8260B
Toluene	1.0	1.0	0.20	ug/l	SW846 8260B

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EQUIPMENT BLANK		
Lab Sample ID:	FA7234-1	**Date Sampled:**	08/13/13
Matrix:	AQ - Equipment Blank	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18189.D	1	08/16/13	EG	n/a	n/a	VP694
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.26	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.49	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.71	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.3	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.79	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.25	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.34	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EQUIPMENT BLANK		
Lab Sample ID:	FA7234-1	**Date Sampled:**	08/13/13
Matrix:	AQ - Equipment Blank	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
78-93-3	Methyl ethyl ketone	ND	5.0	3.1	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.56	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.0	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.1	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	10	3.1	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		83-118%
17060-07-0	1,2-Dichloroethane-D4	103%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	108%		83-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EQUIPMENT BLANK		
Lab Sample ID:	FA7234-1	**Date Sampled:**	08/13/13
Matrix:	AQ - Equipment Blank	**Date Received:**	08/14/13
		Percent Solids:	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Arsenic	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Barium	< 200	200	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Beryllium	< 4.0	4.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cadmium	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cobalt	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Copper	< 25	25	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Lead	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Nickel	< 40	40	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Selenium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Silver	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 1.0	1.0	ug/l	2	08/19/13	08/19/13	ANJ	SW846 6020A [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Zinc	< 20	20	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA10974
(2) Instrument QC Batch: N:MA31924
(3) Prep QC Batch: MP25674
(4) Prep QC Batch: N:MP73943

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-1A		
Lab Sample ID:	FA7234-2	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18190.D	1	08/16/13	EG	n/a	n/a	VP694
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	0.90	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.26	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.49	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.71	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	2.4	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	p-Dichlorobenzene	2.5	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.3	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.79	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.25	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.34	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-1A		
Lab Sample ID:	FA7234-2	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
78-93-3	Methyl ethyl ketone	ND	5.0	3.1	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.56	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.0	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	0.34	1.0	0.31	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.1	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	10	3.1	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	107%		83-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-1A		
Lab Sample ID:	FA7234-2	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
		Percent Solids:	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Arsenic	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Barium	< 200	200	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Beryllium	< 4.0	4.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cadmium	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cobalt	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Copper	< 25	25	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Lead	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Nickel	< 40	40	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Selenium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Silver	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 1.0	1.0	ug/l	2	08/19/13	08/19/13	ANJ	SW846 6020A [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Zinc	53.5	20	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA10974
(2) Instrument QC Batch: N:MA31924
(3) Prep QC Batch: MP25674
(4) Prep QC Batch: N:MP73943

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	WSW-1		
Lab Sample ID:	FA7234-3	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18191.D	1	08/16/13	EG	n/a	n/a	VP694
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.26	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.49	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.71	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.3	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.79	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.25	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.34	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WSW-1		
Lab Sample ID:	FA7234-3	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
78-93-3	Methyl ethyl ketone	ND	5.0	3.1	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.56	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.0	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.1	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	10	3.1	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		83-118%
17060-07-0	1,2-Dichloroethane-D4	104%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	106%		83-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WSW-1		
Lab Sample ID:	FA7234-3	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
		Percent Solids:	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Arsenic	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Barium	< 200	200	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Beryllium	< 4.0	4.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cadmium	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cobalt	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Copper	< 25	25	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Lead	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Nickel	< 40	40	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Selenium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Silver	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 1.0	1.0	ug/l	2	08/19/13	08/19/13	ANJ	SW846 6020A [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Zinc	36.5	20	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA10974
(2) Instrument QC Batch: N:MA31924
(3) Prep QC Batch: MP25674
(4) Prep QC Batch: N:MP73943

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SW-1		
Lab Sample ID:	FA7234-4	**Date Sampled:**	08/13/13
Matrix:	AQ - Surface Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18192.D	1	08/16/13	EG	n/a	n/a	VP694
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.26	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.49	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.71	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.53	1.0	0.24	ug/l	J
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	p-Dichlorobenzene	0.25	1.0	0.20	ug/l	J
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.3	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.79	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.25	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.34	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW-1		
Lab Sample ID:	FA7234-4	**Date Sampled:**	08/13/13
Matrix:	AQ - Surface Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
78-93-3	Methyl ethyl ketone	ND	5.0	3.1	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.56	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	2.0	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.1	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	10	3.1	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	110%		83-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW-1		
Lab Sample ID:	FA7234-4	**Date Sampled:**	08/13/13
Matrix:	AQ - Surface Water	**Date Received:**	08/14/13
		Percent Solids:	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Arsenic	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Barium	< 200	200	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Beryllium	< 4.0	4.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cadmium	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cobalt	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Copper	< 25	25	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Lead	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Nickel	< 40	40	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Selenium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Silver	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 1.0	1.0	ug/l	2	08/19/13	08/19/13	ANJ	SW846 6020A [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Zinc	< 20	20	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA10974
(2) Instrument QC Batch: N:MA31924
(3) Prep QC Batch: MP25674
(4) Prep QC Batch: N:MP73943

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	FA7234-5	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18193.D	1	08/16/13	EG	n/a	n/a	VP694
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	2.6	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	2.9	1.0	0.20	ug/l	
75-00-3	Chloroethane	10.0	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.26	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.49	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	1.3	1.0	0.21	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.71	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	15.2	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	p-Dichlorobenzene	6.6	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.37	1.0	0.29	ug/l	J
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.3	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.79	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.25	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.34	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	FA7234-5	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
78-93-3	Methyl ethyl ketone	ND	5.0	3.1	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.56	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.0	ug/l	
108-88-3	Toluene	0.23	1.0	0.20	ug/l	J
79-01-6	Trichloroethylene	0.57	1.0	0.31	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.1	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	10	3.1	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		83-118%
17060-07-0	1,2-Dichloroethane-D4	108%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	108%		83-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-2		
Lab Sample ID:	FA7234-5	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
		Percent Solids:	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Arsenic	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Barium	230	200	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Beryllium	< 4.0	4.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cadmium	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cobalt	184	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Copper	< 25	25	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Lead	22.3	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Nickel	< 40	40	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Selenium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Silver	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 1.0	1.0	ug/l	2	08/19/13	08/19/13	ANJ	SW846 6020A [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Zinc	41.3	20	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA10974
(2) Instrument QC Batch: N:MA31924
(3) Prep QC Batch: MP25674
(4) Prep QC Batch: N:MP73943

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SW-2		
Lab Sample ID:	FA7234-6	**Date Sampled:**	08/13/13
Matrix:	AQ - Surface Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18194.D	1	08/16/13	EG	n/a	n/a	VP694
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.26	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.49	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.71	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.3	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.79	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.25	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.34	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW-2		
Lab Sample ID:	FA7234-6	**Date Sampled:**	08/13/13
Matrix:	AQ - Surface Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
78-93-3	Methyl ethyl ketone	ND	5.0	3.1	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.56	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.0	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.1	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	10	3.1	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		83-118%
17060-07-0	1,2-Dichloroethane-D4	108%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	106%		83-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW-2		
Lab Sample ID:	FA7234-6	**Date Sampled:**	08/13/13
Matrix:	AQ - Surface Water	**Date Received:**	08/14/13
		Percent Solids:	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Arsenic	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Barium	< 200	200	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Beryllium	< 4.0	4.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cadmium	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cobalt	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Copper	< 25	25	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Lead	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Nickel	< 40	40	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Selenium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Silver	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 1.0	1.0	ug/l	2	08/19/13	08/19/13	ANJ	SW846 6020A [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Zinc	< 20	20	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA10974
(2) Instrument QC Batch: N:MA31924
(3) Prep QC Batch: MP25674
(4) Prep QC Batch: N:MP73943

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	FA7234-7	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18195.D	1	08/16/13	EG	n/a	n/a	VP694
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	0.41	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	0.67	1.0	0.20	ug/l	J
75-00-3	Chloroethane	0.58	2.0	0.50	ug/l	J
67-66-3	Chloroform	ND	1.0	0.26	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.49	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	0.78	1.0	0.21	ug/l	J
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.71	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	2.5	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	p-Dichlorobenzene	0.79	1.0	0.20	ug/l	J
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.3	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.79	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.25	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.34	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	FA7234-7	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
78-93-3	Methyl ethyl ketone	ND	5.0	3.1	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.56	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
109-99-9	Tetrahydrofuran	8.0	5.0	1.0	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.1	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	10	3.1	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		83-118%
17060-07-0	1,2-Dichloroethane-D4	109%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	110%		83-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-3		
Lab Sample ID:	FA7234-7	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
		Percent Solids:	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Arsenic	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Barium	< 200	200	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Beryllium	< 4.0	4.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cadmium	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cobalt	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Copper	< 25	25	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Lead	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Nickel	< 40	40	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Selenium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Silver	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 1.0	1.0	ug/l	2	08/19/13	08/19/13	ANJ	SW846 6020A [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Zinc	< 20	20	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA10974
(2) Instrument QC Batch: N:MA31924
(3) Prep QC Batch: MP25674
(4) Prep QC Batch: N:MP73943

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SW-3		
Lab Sample ID:	FA7234-8	**Date Sampled:**	08/13/13
Matrix:	AQ - Surface Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18196.D	1	08/16/13	EG	n/a	n/a	VP694
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.26	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.49	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.71	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.3	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.79	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.25	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.34	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW-3		
Lab Sample ID:	FA7234-8	**Date Sampled:**	08/13/13
Matrix:	AQ - Surface Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
78-93-3	Methyl ethyl ketone	ND	5.0	3.1	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.56	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.0	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.1	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	10	3.1	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	107%		83-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW-3		
Lab Sample ID:	FA7234-8	**Date Sampled:**	08/13/13
Matrix:	AQ - Surface Water	**Date Received:**	08/14/13
		Percent Solids:	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Arsenic	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Barium	< 200	200	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Beryllium	< 4.0	4.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cadmium	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Cobalt	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Copper	< 25	25	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Lead	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Nickel	< 40	40	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Selenium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Silver	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Thallium [a]	< 1.0	1.0	ug/l	2	08/19/13	08/19/13	ANJ	SW846 6020A [2]	SW846 3010A [4]
Vanadium	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]
Zinc	< 20	20	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA10974
(2) Instrument QC Batch: N:MA31924
(3) Prep QC Batch: MP25674
(4) Prep QC Batch: N:MP73943

(a) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	FA7234-9	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18197.D	1	08/16/13	EG	n/a	n/a	VP694
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	0.31	1.0	0.21	ug/l	J
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.26	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.49	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	0.34	1.0	0.21	ug/l	J
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.71	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.4	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	p-Dichlorobenzene	0.31	1.0	0.20	ug/l	J
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.3	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.79	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.25	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.34	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	FA7234-9	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
78-93-3	Methyl ethyl ketone	ND	5.0	3.1	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.56	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.0	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.1	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	10	3.1	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		83-118%
17060-07-0	1,2-Dichloroethane-D4	108%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	107%		83-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-4		
Lab Sample ID:	FA7234-9	**Date Sampled:**	08/13/13
Matrix:	AQ - Ground Water	**Date Received:**	08/14/13
		Percent Solids:	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Arsenic	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Barium	< 200	200	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Beryllium	< 4.0	4.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Cadmium	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Chromium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Cobalt	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Copper	< 25	25	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Lead	< 5.0	5.0	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Nickel	< 40	40	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Selenium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Silver	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Thallium	< 10	10	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Vanadium	< 50	50	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]
Zinc	< 20	20	ug/l	1	08/16/13	08/16/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10974
(2) Prep QC Batch: MP25674

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA7234-10	**Date Sampled:**	08/13/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18198.D	1	08/16/13	EG	n/a	n/a	VP694
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.26	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.49	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.71	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.3	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.79	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.25	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.34	ug/l	
75-09-2	Methylene chloride	2.9	5.0	2.0	ug/l	J

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA7234-10	**Date Sampled:**	08/13/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	08/14/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Warren County Landfill; Baltimore Rd, Warrenton, NC		

VOA Appendix I 40 CFR Part 258

CAS No.	Compound	Result	RL	MDL	Units	Q
78-93-3	Methyl ethyl ketone	ND	5.0	3.1	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.56	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.0	ug/l	
108-88-3	Toluene	1.0	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.1	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	10	3.1	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		83-118%
17060-07-0	1,2-Dichloroethane-D4	108%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	105%		83-118%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA7234 PAGE 1 OF 1

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: RESOLVE ENVIRONMENTAL, PLLC
Address: 410 E. FRANKLIN ST.
City: MONROE State: NC Zip: 28112
Project Contact: LAURA MINOR E-mail: RESOLVE@WAMELINK.NET.COM
Phone#: (704) 289-5881
Sampler(s) Name(s) (Printed): W. SCOTT RAU

Project Information

Project Name: WARREN COUNTY LANDFILL
Street: BALTIMORE ROAD
City: WARRENTON State: NC
Project #:
Fax #: (704) 919-5616
Client Purchase Order #:

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Accutest Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH-ZnAc	DI Water	MeOH	Appendix I VOCs + Tetraethylenepyrene	Appendix I Metals
1	EQUIPMENT BLANK	8/13/13	0909	SB	WW	4			3		1					X	X
2	MW-1A	8/13/13	0945	SB	GW	4			3		1					X	X
3	WSW-1	8/13/13	0802	SB	GW	4			3		1					X	X
4	SW-1	8/13/13	0821	SB	SW	4			3		1					X	X
5	MW-2	8/13/13	0848	SB	GW	4			3		1					X	X
6	SW-2	8/13/13	0856	SB	SW	4			3		1					X	X
7	MW-3	8/13/13	0926	SB	GW	4			3		1					X	X
8	SW-3	8/13/13	0934	SB	SW	4			3		1					X	X
9	MW-4	8/13/13	1013	SB	GW	4			3		1					X	X
10	TRIP BLANK	–	–	–	WW	3			3							X	

TURNAROUND TIME (Business Days) — Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [x] EDD'S

ACCUTEST 2828-C QUEEN CITY DR CLT NC 28208

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 W. Scott Rau	8/13 15:40	2	3	8/13 17:40	4 FX
Relinquished by: 5 FX	Date Time: 8-14-13	Received By: 6 J. Conner (ALSE)	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal In Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3.4

4.1 4

FA7234: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA 7234 CLIENT: RESOLVE PROJECT: WARREN

DATE/TIME RECEIVED: 8-14-13 09:15 (MM/DD/YY 24:00) NIMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8006 0609 8808

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [X] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [X] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [X] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.4
- [ ] OBSERVED TEMPS: 3.0
- [ ] CORRECTED TEMPS: 3.4

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

(APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE 8-14-13 REVIEWER SIGNATURE/DATE 08/14/13

NF 12/10 receipt confirmation 122910.xls

4.1 4

FA7234: Chain of Custody
Page 2 of 3

Job Change Order: FA7234_8/12/2013

Requested	8/12/2013	**Received Date:**	8/14/2013
Account	Resolve Environmental	**Due Date:**	8/21/2013
Project	Warren County Landfill; Baltimore Rd, Warrenton,	**Deliverable:**	COMMB
CSR:	MMO	**TAT (Days):**	7

Sample
FA7234-9

Change: No sample left for Thallium by 6020 analysis. Per client request report Thallium by 6010.

MW-4

Above Changes Per: Laura Minor **Date:** 8/12/2013

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA7234
Account: RENCM Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP694-MB	P18178.D	1	08/16/13	EG	n/a	n/a	VP694

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8, FA7234-9, FA7234-10

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.21	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.26	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.49	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.31	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.71	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.30	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.23	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.29	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.3	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.79	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.50	ug/l	
74-88-4	Methyl iodide	ND	1.0	0.25	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.34	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	3.1	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	

Method Blank Summary

Job Number: FA7234
Account: RENCM Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP694-MB	P18178.D	1	08/16/13	EG	n/a	n/a	VP694

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8, FA7234-9, FA7234-10

CAS No.	Compound	Result	RL	MDL	Units	Q
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.56	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.0	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	10	2.1	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	
108-05-4	Vinyl Acetate	ND	10	3.1	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	106%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	107%	83-118%

Blank Spike Summary

Job Number: FA7234
Account: RENCM Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP694-BS	P18177.D	1	08/16/13	EG	n/a	n/a	VP694

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8, FA7234-9, FA7234-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	85.3	68	50-147
107-13-1	Acrylonitrile	125	119	95	58-126
71-43-2	Benzene	25	25.5	102	81-122
74-97-5	Bromochloromethane	25	24.0	96	76-123
75-27-4	Bromodichloromethane	25	26.0	104	79-123
75-25-2	Bromoform	25	24.8	99	66-123
108-90-7	Chlorobenzene	25	26.8	107	82-124
75-00-3	Chloroethane	25	24.8	99	62-144
67-66-3	Chloroform	25	25.8	103	80-124
75-15-0	Carbon disulfide	25	25.7	103	66-148
56-23-5	Carbon tetrachloride	25	28.9	116	76-136
75-34-3	1,1-Dichloroethane	25	26.6	106	81-122
75-35-4	1,1-Dichloroethylene	25	25.4	102	78-137
96-12-8	1,2-Dibromo-3-chloropropane	25	24.8	99	64-123
106-93-4	1,2-Dibromoethane	25	24.1	96	75-120
107-06-2	1,2-Dichloroethane	25	26.2	105	75-125
78-87-5	1,2-Dichloropropane	25	25.7	103	76-124
124-48-1	Dibromochloromethane	25	26.3	105	78-122
156-59-2	cis-1,2-Dichloroethylene	25	25.7	103	78-120
10061-01-5	cis-1,3-Dichloropropene	25	24.3	97	75-118
95-50-1	o-Dichlorobenzene	25	27.9	112	82-124
106-46-7	p-Dichlorobenzene	25	25.6	102	78-120
156-60-5	trans-1,2-Dichloroethylene	25	25.7	103	76-127
10061-02-6	trans-1,3-Dichloropropene	25	27.0	108	80-120
100-41-4	Ethylbenzene	25	25.2	101	81-121
591-78-6	2-Hexanone	125	112	90	61-129
108-10-1	4-Methyl-2-pentanone	125	128	102	66-122
74-83-9	Methyl bromide	25	24.7	99	59-143
74-87-3	Methyl chloride	25	25.1	100	50-159
74-88-4	Methyl iodide	25	25.1	100	73-123
74-95-3	Methylene bromide	25	25.9	104	78-119
75-09-2	Methylene chloride	25	24.3	97	69-135
78-93-3	Methyl ethyl ketone	125	102	82	56-143
100-42-5	Styrene	25	25.5	102	78-119
630-20-6	1,1,1,2-Tetrachloroethane	25	25.2	101	77-122
71-55-6	1,1,1-Trichloroethane	25	26.3	105	75-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA7234
Account: RENCM Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP694-BS	P18177.D	1	08/16/13	EG	n/a	n/a	VP694

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8, FA7234-9, FA7234-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
79-34-5	1,1,2,2-Tetrachloroethane	25	24.6	98	72-120
79-00-5	1,1,2-Trichloroethane	25	24.0	96	76-119
96-18-4	1,2,3-Trichloropropane	25	24.5	98	77-120
127-18-4	Tetrachloroethylene	25	25.8	103	76-135
109-99-9	Tetrahydrofuran	25	23.8	95	56-122
108-88-3	Toluene	25	24.3	97	80-120
79-01-6	Trichloroethylene	25	26.5	106	81-126
75-69-4	Trichlorofluoromethane	25	26.7	107	71-156
110-57-6	Trans-1,4-Dichloro-2-Butene	25	27.2	109	43-145
75-01-4	Vinyl chloride	25	25.8	103	69-159
108-05-4	Vinyl Acetate	125	131	105	43-154
1330-20-7	Xylene (total)	75	80.9	108	80-126

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	97%	85-112%
460-00-4	4-Bromofluorobenzene	103%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA7234
Account: RENCM Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA7106-1MS	P18199.D	1	08/16/13	EG	n/a	n/a	VP694
FA7106-1MSD	P18200.D	1	08/16/13	EG	n/a	n/a	VP694
FA7106-1	P18180.D	1	08/16/13	EG	n/a	n/a	VP694

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8, FA7234-9, FA7234-10

CAS No.	Compound	FA7106-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	25 U		125	68.8	55	71.1	57	3	50-147/21
107-13-1	Acrylonitrile	10 U		125	116	93	119	95	3	58-126/16
71-43-2	Benzene	1.0 U		25	25.2	101	24.9	100	1	81-122/14
74-97-5	Bromochloromethane	1.0 U		25	25.8	103	25.7	103	0	76-123/14
75-27-4	Bromodichloromethane	1.0 U		25	24.0	96	22.7	91	6	79-123/19
75-25-2	Bromoform	1.0 U		25	19.3	77	19.4	78	1	66-123/21
108-90-7	Chlorobenzene	0.94	I	25	26.9	104	26.7	103	1	82-124/14
75-00-3	Chloroethane	2.0 U		25	23.0	92	23.2	93	1	62-144/20
67-66-3	Chloroform	1.0 U		25	26.2	105	25.2	101	4	80-124/15
75-15-0	Carbon disulfide	2.0 U		25	19.7	79	18.1	72	8	66-148/23
56-23-5	Carbon tetrachloride	1.0 U		25	26.6	106	24.8	99	7	76-136/23
75-34-3	1,1-Dichloroethane	16.6		25	40.6	96	41.1	98	1	81-122/15
75-35-4	1,1-Dichloroethylene	61.2		25	80.6	78	80.5	77* [a]	0	78-137/18
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U		25	25.4	102	23.7	95	7	64-123/18
106-93-4	1,2-Dibromoethane	1.0 U		25	24.3	97	24.8	99	2	75-120/13
107-06-2	1,2-Dichloroethane	1.0 U		25	26.3	105	26.1	104	1	75-125/14
78-87-5	1,2-Dichloropropane	1.0 U		25	25.1	100	23.5	94	7	76-124/14
124-48-1	Dibromochloromethane	1.0 U		25	21.0	84	21.2	85	1	78-122/19
156-59-2	cis-1,2-Dichloroethylene	2.8		25	28.6	103	28.3	102	1	78-120/15
10061-01-5	cis-1,3-Dichloropropene	1.0 U		25	21.7	87	19.7	79	10	75-118/23
95-50-1	o-Dichlorobenzene	1.0 U		25	26.1	104	26.2	105	0	82-124/14
106-46-7	p-Dichlorobenzene	0.25	I	25	24.5	97	24.2	96	1	78-120/15
156-60-5	trans-1,2-Dichloroethylene	1.0 U		25	25.4	102	23.8	95	7	76-127/17
10061-02-6	trans-1,3-Dichloropropene	1.0 U		25	24.1	96	21.8	87	10	80-120/22
100-41-4	Ethylbenzene	1.0 U		25	24.6	98	24.2	97	2	81-121/14
591-78-6	2-Hexanone	10 U		125	112	90	118	94	5	61-129/18
108-10-1	4-Methyl-2-pentanone	5.0 U		125	133	106	139	111	4	66-122/16
74-83-9	Methyl bromide	2.0 U		25	19.5	78	20.8	83	6	59-143/19
74-87-3	Methyl chloride	2.0 U		25	20.3	81	21.9	88	8	50-159/19
74-88-4	Methyl iodide	1.0 U		25	24.1	96	22.7	91	6	73-123/16
74-95-3	Methylene bromide	2.0 U		25	25.2	101	25.4	102	1	78-119/14
75-09-2	Methylene chloride	5.0 U		25	23.6	94	24.1	96	2	69-135/16
78-93-3	Methyl ethyl ketone	5.0 U		125	96.5	77	103	82	7	56-143/18
100-42-5	Styrene	1.0 U		25	22.7	91	20.1	80	12	78-119/23
630-20-6	1,1,1,2-Tetrachloroethane	1.0 U		25	24.9	100	23.7	95	5	77-122/19
71-55-6	1,1,1-Trichloroethane	1.0 U		25	25.6	102	25.8	103	1	75-130/16

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA7234
Account: RENCM Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA7106-1MS	P18199.D	1	08/16/13	EG	n/a	n/a	VP694
FA7106-1MSD	P18200.D	1	08/16/13	EG	n/a	n/a	VP694
FA7106-1	P18180.D	1	08/16/13	EG	n/a	n/a	VP694

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8, FA7234-9, FA7234-10

CAS No.	Compound	FA7106-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		25	23.9	96	24.3	97	2	72-120/14
79-00-5	1,1,2-Trichloroethane	1.0 U		25	24.9	100	24.7	99	1	76-119/14
96-18-4	1,2,3-Trichloropropane	2.0 U		25	23.4	94	24.3	97	4	77-120/16
127-18-4	Tetrachloroethylene	0.69	I	25	25.1	98	24.3	94	3	76-135/16
109-99-9	Tetrahydrofuran	5.0 U		25	23.1	92	28.0	112	19	56-122/21
108-88-3	Toluene	1.0 U		25	23.9	96	24.4	98	2	80-120/14
79-01-6	Trichloroethylene	0.46	I	25	27.5	108	28.7	113	4	81-126/15
75-69-4	Trichlorofluoromethane	2.0 U		25	23.1	92	23.1	92	0	71-156/21
110-57-6	Trans-1,4-Dichloro-2-Butene	10 U		25	16.0	64	13.4	54	18	43-145/34
75-01-4	Vinyl chloride	1.0 U		25	21.9	88	22.6	90	3	69-159/18
108-05-4	Vinyl Acetate	10 U		125	121	97	120	96	1	43-154/14
1330-20-7	Xylene (total)	3.0 U		75	78.0	104	74.8	100	4	80-126/15

CAS No.	Surrogate Recoveries	MS	MSD	FA7106-1	Limits
1868-53-7	Dibromofluoromethane	104%	102%	106%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	103%	100%	79-125%
2037-26-5	Toluene-D8	98%	99%	101%	85-112%
460-00-4	4-Bromofluorobenzene	100%	101%	109%	83-118%

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA7234
Account: RENCM - Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC

QC Batch ID: MP25674
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:				08/16/13		08/16/13	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	15	15				
Antimony	6.0	1.3	1.3	1.1	<6.0	-2.2	<6.0
Arsenic	10	1.6	2.5	-0.80	<10	-0.80	<10
Barium	200	1	1	0.0	<200	-0.20	<200
Beryllium	4.0	.5	.5	0.0	<4.0	-0.10	<4.0
Cadmium	5.0	.5	.5	-0.10	<5.0	-0.10	<5.0
Calcium	1000	50	50				
Chromium	10	1.8	2	0.0	<10	-0.10	<10
Cobalt	50	.5	.5	-0.10	<50	-0.10	<50
Copper	25	1	1	0.50	<25	0.60	<25
Iron	300	29	29				
Lead	5.0	1.1	1.1	0.60	<5.0	0.60	<5.0
Magnesium	5000	74	74				
Manganese	15	.7	.7				
Molybdenum	50	.6	1				
Nickel	40	.5	.5	0.10	<40	0.10	<40
Potassium	10000	200	200				
Selenium	10	2	2	0.70	<10	0.50	<10
Silver	10	.5	.5	-0.20	<10	0.10	<10
Sodium	10000	500	500				
Strontium	10	.5	.5				
Thallium	10	1.3	1.3	-1.3	<10	-1.9	<10
Tin	50	.7	1.8				
Titanium	10	.9	1				
Vanadium	50	.5	1	-0.10	<50	-0.20	<50
Zinc	20	3	5	0.10	<20	5.8	<20

Associated samples MP25674: FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8, FA7234-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA7234
Account: RENCM - Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC

QC Batch ID: MP25674
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			08/16/13					08/16/13	
Metal	FA7234-1 Original	DUP	RPD	QC Limits	FA7234-1 Original	MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum	anr								
Antimony	0.0	0.0	NC	0-20	0.0	501	500	100.2	80-120
Arsenic	0.0	0.0	NC	0-20	0.0	2000	2000	100.0	80-120
Barium	0.0	0.0	NC	0-20	0.0	2130	2000	106.5	80-120
Beryllium	0.0	0.0	NC	0-20	0.0	51.0	50	102.0	80-120
Cadmium	0.0	0.0	NC	0-20	0.0	52.3	50	104.6	80-120
Calcium	anr								
Chromium	0.0	0.0	NC	0-20	0.0	217	200	108.5	80-120
Cobalt	0.0	0.0	NC	0-20	0.0	528	500	105.6	80-120
Copper	1.0	1.0	0.0	0-20	1.0	259	250	103.2	80-120
Iron	anr								
Lead	0.0	0.0	NC	0-20	0.0	513	500	102.6	80-120
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	0.0	0.0	NC	0-20	0.0	507	500	101.4	80-120
Potassium	anr								
Selenium	0.0	0.0	NC	0-20	0.0	2000	2000	100.0	80-120
Silver	0.0	0.0	NC	0-20	0.0	48.7	50	97.4	80-120
Sodium	anr								
Strontium	anr								
Thallium	0.0	0.0	NC	0-20	0.0	1960	2000	98.0	80-120
Tin	anr								
Titanium	anr								
Vanadium	0.0	0.0	NC	0-20	0.0	506	500	101.2	80-120
Zinc	6.8	6.9	1.5	0-20	6.8	538	500	106.2	80-120

Associated samples MP25674: FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8, FA7234-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA7234
Account: RENCM - Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC

QC Batch ID: MP25674
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/16/13

Metal	FA7234-1 Original	MSD	Spikelot MPFLICP2	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	0.0	496	500	99.2	1.0	20
Arsenic	0.0	1970	2000	98.5	1.5	20
Barium	0.0	2140	2000	107.0	0.5	20
Beryllium	0.0	51.0	50	102.0	0.0	20
Cadmium	0.0	52.0	50	104.0	0.6	20
Calcium	anr					
Chromium	0.0	218	200	109.0	0.5	20
Cobalt	0.0	528	500	105.6	0.0	20
Copper	1.0	261	250	104.0	0.8	20
Iron	anr					
Lead	0.0	511	500	102.2	0.4	20
Magnesium	anr					
Manganese	anr					
Molybdenum	anr					
Nickel	0.0	508	500	101.6	0.2	20
Potassium	anr					
Selenium	0.0	1960	2000	98.0	2.0	20
Silver	0.0	48.1	50	96.2	1.2	20
Sodium	anr					
Strontium	anr					
Thallium	0.0	1940	2000	97.0	1.0	20
Tin	anr					
Titanium	anr					
Vanadium	0.0	510	500	102.0	0.8	20
Zinc	6.8	535	500	105.6	0.6	20

Associated samples MP25674: FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8, FA7234-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA7234
Account: RENCM - Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC

QC Batch ID: MP25674
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/16/13

Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum	anr			
Antimony	507	500	101.4	80-120
Arsenic	2000	2000	100.0	80-120
Barium	2130	2000	106.5	80-120
Beryllium	51.4	50	102.8	80-120
Cadmium	51.7	50	103.4	80-120
Calcium	anr			
Chromium	216	200	108.0	80-120
Cobalt	528	500	105.6	80-120
Copper	262	250	104.8	80-120
Iron	anr			
Lead	502	500	100.4	80-120
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	515	500	103.0	80-120
Potassium	anr			
Selenium	2000	2000	100.0	80-120
Silver	48.4	50	96.8	80-120
Sodium	anr			
Strontium	anr			
Thallium	1960	2000	98.0	80-120
Tin	anr			
Titanium	anr			
Vanadium	508	500	101.6	80-120
Zinc	525	500	105.0	80-120

Associated samples MP25674: FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8, FA7234-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA7234
Account: RENCM - Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC

QC Batch ID: MP25674
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/16/13

Metal	FA7234-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	0.00	0.00	NC	0-10
Arsenic	0.00	0.00	NC	0-10
Barium	0.00	0.00	NC	0-10
Beryllium	0.00	0.00	NC	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium	anr			
Chromium	0.00	0.00	NC	0-10
Cobalt	0.00	0.00	NC	0-10
Copper	1.00	0.00	100.0(a)	0-10
Iron	anr			
Lead	0.00	0.00	NC	0-10
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	0.00	0.00	NC	0-10
Potassium	anr			
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium	anr			
Strontium	anr			
Thallium	0.00	0.00	NC	0-10
Tin	anr			
Titanium	anr			
Vanadium	0.00	0.00	NC	0-10
Zinc	6.80	0.00	100.0(a)	0-10

Associated samples MP25674: FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8, FA7234-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FA7234
Account: RENCM - Resolve Environmental
Project: Warren County Landfill; Baltimore Rd, Warrenton, NC

QC Batch ID: MP25674
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 08/16/13

Metal	Sample ml	Final ml	FA7234-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony	9.8	10			98.8	0.2	5	100	98.8	80-120
Arsenic	9.8	10			98.9	0.2	5	100	98.9	80-120
Barium	9.8	10			264.8	0.2	12.5	250	105.9	80-120
Beryllium	9.8	10			50.4	0.2	2.5	50	100.8	80-120
Cadmium	9.8	10			53	0.2	2.5	50	106.0	80-120
Calcium										
Chromium	9.8	10			54.1	0.2	2.5	50	108.2	80-120
Cobalt	9.8	10			53.6	0.2	2.5	50	107.2	80-120
Copper	9.8	10	1	.98	103.6	0.2	5	100	102.6	80-120
Iron										
Lead	9.8	10			49.8	0.2	2.5	50	99.6	80-120
Magnesium										
Manganese										
Molybdenum										
Nickel	9.8	10			103.8	0.2	5	100	103.8	80-120
Potassium										
Selenium	9.8	10			94.6	0.2	5	100	94.6	80-120
Silver	9.8	10			46.5	0.2	2.5	50	93.0	80-120
Sodium										
Strontium										
Thallium	9.8	10			94.7	0.2	5	100	94.7	80-120
Tin										
Titanium										
Vanadium	9.8	10			50.4	0.2	2.5	50	100.8	80-120
Zinc	9.8	10	6.8	6.664	271.8	0.2	12.5	250	106.1	80-120

Associated samples MP25674: FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8, FA7234-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

(Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody

~~5B45120~~

PAGE 1 OF 1

Accutest Laboratories Southeast
Subcontract Chain of Custody

ACCUTEST Laboratories

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX 407-425-0707
www.accutest.com

SW GW

fedex # 7964 8347 5388 FA7234

Client / Reporting Information

Company Name: Accutest Laboratories
Address: 4405 Vineland Rd.
City: Orlando State: FL Zip: 32811
Phone #: (407) 425-6700 Fax#: (407) 425-0707

Project Information

Project Name: FA7234
Please send report to dawnd@accutest.com
For any other issues contact munam@accutest.com

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Lab ID #	Sample ID	Collection DATE	Collection TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZNAC	DI WATER	MEOH	TLMS, BY 6020	LAB USE ONLY
	FA7234-1	08/14/13	7:09		WEB	1					X					X	
	FA7234-2	08/14/13	7:45		GW	1					X					X	
	FA7234-3	08/14/13	8:02		GW	1					X					X	
	FA7234-4	08/14/13	8:21		SW	1					X					X	C58
	FA7234-5	08/14/13	8:48		GW	1					X					X	
	FA7234-6	08/14/13	8:56		SW	1					X					X	
	FA7234-7	08/14/13	9:26		GW	1					X					X	
	FA7234-8	08/14/13	9:34		SW	1					X					X	
NO Sample	FA7234-9	08/14/13	10:13		GW												

ALL SAMPLES RECEIVED PRESERVED AS APPLICABLE

Turnaround Time (Business days)

Std. 10 Business Days
7 Day *RUSH*
5 Day *RUSH* 8-21-13
3 Day *EMERGENCY*
2 Day *EMERGENCY*
1 Day *EMERGENCY*
Other

Approved By: / Date/Rush Code:

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Ship to Laboratory - ALNJ
Approved by -

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 K Willer HCSE	08/14/13 1700	2 FX	3 FX	8/15/13 1000	4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved Where Applicable (Y) N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 2.1°C

JK

7.1

7

FA7234: Chain of Custody
Page 1 of 2
Accutest New Jersey

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: FA7234 Client: Project:

Date / Time Received: 8/17/2013 Delivery Method: Airbill #'s:

Cooler Temps (Initial/Adjusted): #1: (2.1/2.1); 0

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:		
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

Quality Control Preservatio	Y	or N	N/A
1. Trip Blank present / cooler:	☐	☑	☐
2. Trip Blank listed on COC:	☐	☑	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	or N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

7.1

7

FA7234: Chain of Custody
Page 2 of 2

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

(Accutest New Jersey)

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA7234
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: RENCM: Warren County Landfill; Baltimore Rd, Warrenton, NC

QC Batch ID: MP73943
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 08/19/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.25	2.3		
Antimony	1.0	.14	.29		
Arsenic	1.0	.074	.083		
Barium	2.0	.088	.15		
Beryllium	1.0	.006	.059		
Boron	10	1.5	1.8		
Cadmium	1.0	.014	.11		
Calcium	500	3.1	3.5		
Chromium	2.0	.028	.06		
Cobalt	1.0	.023	.066		
Copper	2.0	.12	.33		
Iron	50	1.3	2.4		
Lead	1.0	.0076	.033		
Magnesium	500	.33	3.6		
Manganese	2.0	.037	.19		
Molybdenum	2.0	.38	.68		
Nickel	2.0	.042	.2		
Potassium	500	13	5.3		
Selenium	1.0	.071	.35		
Silver	1.0	.01	.057		
Sodium	500	7.3	36		
Strontium	10	.015	.057		
Thallium	1.0	.067	.11	0.47	<1.0
Tin	10	.12	.73		
Titanium	2.0	.12	.4		
Vanadium	2.0	.08	.13		
Zinc	4.0	.32	.8		

Associated samples MP73943: FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA7234
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: RENCM: Warren County Landfill; Baltimore Rd, Warrenton, NC

QC Batch ID: MP73943
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 08/19/13

Metal	JB44657-1 Original MS	Spikelot MPIRW1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	anr			
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium	0.28	1990	2000	99.5	75-125
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP73943: FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA7234
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: RENCM: Warren County Landfill; Baltimore Rd, Warrenton, NC

QC Batch ID: MP73943
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 08/19/13

Metal	JB44657-1 Original	MSD	Spikelot MPIRW1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead	anr					
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium	0.28	1930	2000	96.5	3.1	20
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP73943: FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA7234
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: RENCM: Warren County Landfill; Baltimore Rd, Warrenton, NC

QC Batch ID: MP73943
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 08/19/13

Metal	LCS Result	Spikelot MPLCW3	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	anr			
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium	501	500	100.2	80-120
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP73943: FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA7234
Account: ALSE - Accutest Laboratories Southeast, Inc.
Project: RENCM: Warren County Landfill; Baltimore Rd, Warrenton, NC

QC Batch ID: MP73943
Matrix Type: AQUEOUS

Methods: SW846 6020A
Units: ug/l

Prep Date: 08/19/13

Metal	JB44657-1 Original SDL 2:10	%DIF	QC Limits
Aluminum			
Antimony			
Arsenic			
Barium			
Beryllium			
Boron			
Cadmium			
Calcium			
Chromium			
Cobalt			
Copper			
Iron			
Lead	anr		
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium			
Silver			
Sodium			
Strontium			
Thallium	0.278	0.614	121.3(a) 0-10
Tin			
Titanium			
Vanadium			
Zinc			

Associated samples MP73943: FA7234-1, FA7234-2, FA7234-3, FA7234-4, FA7234-5, FA7234-6, FA7234-7, FA7234-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

APPENDIX B
Environmental Monitoring NCDENR Report Form