CASWELL COUNTY LANDFILL
Yanceyville, North Carolina
Semi-Annual Water Quality Monitoring Report
July 2009 Sampling Event

S&ME Project No. 1584-07-034

Prepared For:

Caswell County
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Prepared By:

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November 11, 2009

I hereby certify this 11th day of November 2009, that this report was prepared by me or under my direct supervision.

Edmund Q.B. Henriques, L.G.
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Report prepared by:

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Senior Project Manager

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1.0 EXECUTIVE SUMMARY

Six monitoring wells at the Caswell County Landfill were sampled on July 30, 2009. These six wells (MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6) comprise the groundwater monitoring system for the closed Caswell County Landfill. This sampling event was conducted according to North Carolina Solid Waste Management Guidelines. Samples were analyzed by PACE Analytical Services, Inc. of Huntersville, North Carolina, a North Carolina certified laboratory. The six samples collected from the on-site monitoring wells were submitted for analysis of the North Carolina Landfill Appendix I volatile organic constituents and eight RCRA Metals.

Analytical results of the six water samples indicate that none of the 8-RCRA metals were detected at concentrations exceeding the corresponding 15A NCAC 2L groundwater quality standards (NCAC 2L) during this event. Metals arsenic, barium, and chromium were detected in the samples collected from one or more groundwater monitoring wells during the July 30, 2009 monitoring event; however, at concentrations less than the corresponding NCAC 2L groundwater quality standards. There were no other metals detected above the method detection limit from any other groundwater monitoring wells during the July 30, 2009 monitoring event.

The volatile organic constituent benzene was detected in monitoring wells MW-2, MW-4, and MW-5 at reported concentrations above the corresponding NCAC 2L standard of 1 μg/L. The organic constituent 1,4-dichlorobenzene was detected in the groundwater samples collected from wells MW-2, MW-3, MW-4, and MW-5 at reported concentrations above the corresponding NCAC 2L groundwater quality standard of 1.4 μg/L. Chlorobenzene, chloroethane, 1,2-dichlorobenzene, 1,1-dichloroethane, and xylene (total) were detected in one or more groundwater samples during this monitoring event; however, each of the reported concentrations of these constituents were less than their respective NCAC 2L groundwater quality standard. No other volatile organic compounds were detected in the monitoring wells sampled during this event.

During this monitoring event, no volatile organic constituents were detected above the method detection limit in either of the two stream sample locations. Barium was detected in up-gradient background surface water sample SW-1 and down-gradient sample location SW-2, at similar concentrations. The reported concentrations are below their respective 15A NCAC 2B Surface Water Standard for Class C surface waters. There were no other metals detected above the method detection limit in the surface water samples collected during this sampling event.

It is believed that the cause of the NCAC 2L exceedances within the hydrogeologic regime at the Caswell County Landfill is caused from percolation of landfill constituents from the waste management units into the uppermost groundwater aquifer. Due to the detection of these exceedances above the NCAC 2L groundwater quality standards in the compliance wells, S&ME recommends that a water supply well receptor survey be completed for the Caswell County Landfill and the development of plans to address the NCAC 2L exceedances in accordance with regulatory requirements.

2.0 INTRODUCTION

S&ME Inc. (S&ME) has completed the July 2009 semi-annual monitoring event at the closed Caswell County Landfill site. The monitoring activities were authorized by Caswell County Manager, Mr. Kevin Howard and were completed in general accordance with S&ME proposal 1584-09-P075 dated May 20, 2009. This report summarizes our understanding of the project, our field services, and the results of laboratory analyses performed on the samples collected.

The Caswell County Landfill is a closed facility that currently monitors groundwater under a Post Closure Care Plan on a semi-annual basis. The facility uses a network of six (6) groundwater monitoring wells to monitor groundwater quality at the Facility. The groundwater monitoring network is made up of one upgradient monitoring well (MW-1) and five downgradient compliance monitoring wells (MW-2, MW-3, MW-4, MW-5, and MW-6). The collected groundwater samples are analyzed in accordance with 15A NCAC 13B.1632 for the North Carolina Landfill Appendix I volatile organic constituent suite plus the 8 RCRA metals. Groundwater monitoring wells were purged and groundwater samples were collected using new, disposable, Teflon bailers, or a sterile peristaltic pump with new Teflon tubing.

The facility also typically monitors surface water quality at the stream that crosses the downgradient region of the Facility. As conditions allow, during each semi-annual monitoring event, two surface water samples are collected from this stream at designated sampling points. Stream sampling location SW-1 is the upstream sampling location to the south of the waste management unit. Stream sampling location SW-2 is the downstream sampling location. During the July 30, 2009 sampling event, stream samples were collected from both surface water monitoring points SW-1 and SW-2.

This report discusses the field procedures, summarizes the field measurements and analytical results for the July 30, 2009 water quality monitoring event.

3.0 SCOPE OF WORK

S&ME has performed the first semi-annual groundwater sampling of the six (6) network groundwater monitoring wells for the 2009 groundwater monitoring year. The groundwater monitoring wells were purged, sampled, and the collected groundwater samples analyzed (in accordance with 15A NCAC 13B.1632) for the North Carolina Appendix I volatile organic constituents and the eight RCRA metals. This semi-annual groundwater monitoring report has been prepared to summarize the July 2009 groundwater monitoring event and includes:

- Summary Tables of the laboratory analytical data from each sampling event,
- Development of a potentiometric map incorporating the latest groundwater elevation data, and
- A discussion of findings and results.
- An electronic copy of this report will be sent to the North Carolina Department of Environment and Natural Resources (NC DENR)

4.0 METHODS EMPLOYED

4.1 Monitoring Well Sampling

Groundwater monitoring well sampling took place on July 30, 2009. The monitoring well locations with respect to the Facility layout are shown on **Figure 1**. A representative from S&ME opened each well and measured the static water level from the top edge of the PVC casing in wells. The total well depth was used to determine the volume of water in the wells at the time of the sampling event. These data are summarized in **Table 1**.

Monitor wells MW-1, MW-2, and MW-4 were manually purged using a new, sterile Teflon bailer prior to collecting the water samples. Each well was purged of three times the well volume or purged until the well went dry prior to the collection of the groundwater sample. The bailer was lowered, by hand, using a nylon rope into the well in such a manner as to minimize agitation of the groundwater. The purge water from each of these wells was monitored for pH, conductivity, temperature, and turbidity.

Monitor wells MW-3, MW-5, and MW-6 were purged and sampled using a peristaltic pump. New Teflon tubing was used at each well. Each well was purged of three times the well volume or purged until the well was dry prior to the collection of the groundwater sample. The purge water from each of these wells was monitored for pH, conductivity, temperature, and turbidity (qualitative).

The field data collected during sampling was recorded on the groundwater sampling field data sheets included in **Appendix A** and summarized in **Table 2** of this report.

Immediately upon collection, each groundwater sample was placed in laboratory supplied containers, packed on ice, and placed under chain-of custody. The sampling technician wore nitrile gloves that were changed between wells to reduce the possibility of cross contamination.

All monitoring well samples were then sent to PACE Analytical Services, Inc. (PACE) in Huntersville, North Carolina to be analyzed for Appendix I volatile organic constituents and the eight RCRA metals.

4.2 Surface Water Sampling

Surface water sampling took place on July 30, 2009. Two stream samples (SW-1 and SW-2) were collected from an unnamed tributary of Moon Creek, which flows along the eastern portion of the Facility and flows easterly away from the Landfill. Surface water sample (SW-1) was collected from an upstream position with respect to the waste management unit and SW-2 was collected downstream of the waste management unit. The surface water samples were collected by immersing laboratory supplied containers directly into the stream at the locations to be sampled. After collection, the surface water samples were packed on ice and placed under chain-of-custody. All stream samples were analyzed for the North Carolina Appendix I volatile organic constituents as well as the 8 RCRA metals by PACE Analytical Services, Inc.; a North Carolina certified laboratory.

5.0 RESULTS

5.1 Groundwater Analytical Results

The results of the laboratory analyses for the groundwater monitoring well samples are summarized in **Tables 3 & 4**. The complete laboratory report is included in **Appendix B**. The following summarizes the groundwater sample analyses for the six wells (MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6) sampled on July 30, 2009.

Metals:

Analytical results of the six water samples indicate that none of the 8-RCRA metals were detected at concentrations exceeding the corresponding 15A NCAC 2L groundwater quality standards (NCAC 2L groundwater quality standard) during this event. Metals arsenic, barium, and chromium were detected in the samples collected from one or more groundwater monitoring wells during the July 30, 2009 monitoring event; however, at concentrations less than the corresponding NCAC 2L groundwater quality standards. There were no other metals detected above the method detection limit from any other groundwater monitoring wells during the July 30, 2009 monitoring event.

Volatile Organic Compounds:

As summarized in Table 3, volatile organic constituent benzene was detected in monitoring wells MW-2, MW-4, and MW-5 at reported concentrations above the NCAC 2L standard of 1 μg/L. Volatile organic constituent 1,4-dichlorobenzene was detected in the groundwater samples collected from wells MW-2, MW-3, MW-4, and MW-5 at reported concentrations above the NCAC 2L groundwater quality standard of 1.4 μg/L.

Chlorobenzene, chloroethane, 1,2-dichlorobenzene, 1,1-dichloroethane, and xylene (total) were detected in one or more groundwater samples during this monitoring event; however, each of the reported concentrations of these constituents were less than their respective NCAC 2L groundwater quality standard. No other volatile organic compounds were detected in the monitoring wells sampled during this event.

5.2 Surface Water Analytical Results

There were no volatile organic constituents detected above the method detection limit in either of the stream sampling locations. During the July 30, 2009 groundwater monitoring event barium was detected in the up-gradient background surface water sample SW-1 and the down-gradient sample location SW-2, at similar concentrations. The reported concentrations are below there respective 15A NCAC 2B Surface Water Standard for Class C surface waters. There were no other metals detected above the method detection limit in the surface water samples during this sampling event.

5.3 Groundwater Flow Direction

The static water levels in the monitoring wells were measured on July 30, 2009. The depth to the water table ranged from 8.61 to 24.04 feet below the top of well casing on this date. Groundwater elevation data are presented in **Table 1**. Ground surface elevations were taken from surface topography illustrated on Plan Sheet No. 3 of the Caswell County Landfill Closure Plans prepared by Dewberry and Davis in March 1994. The groundwater elevation at each monitoring well was approximated by taking the

difference of the ground surface elevation (topography) and the depth to static water in each monitoring well. A groundwater contour map was constructed using the calculated groundwater elevation data from the July 30, 2009 sampling event and is presented as **Figure 2**. The groundwater elevation data collected during this monitoring event indicates that the groundwater beneath the landfill generally flows easterly toward the unnamed tributary of Moon Creek.

5.4 Quality Assurance

The monitoring wells were sampled using new, sterile Teflon disposable bailers or new Teflon and silicon tubing. For Quality Assurance a Duplicate sample was collected from monitoring well MW-3. The results of the detected constituents from the duplicate sample were similar in concentration to the results of the detected constituents reported in MW-3. A Laboratory QC Method Blank was also analyzed for the Appendix I Volatile Organic Compounds as well as the RCRA 8 metals. No monitored constituents were detected in the method blank during the July 2009 monitoring event. The results of the method blank and laboratory QC sample analyses are included in **Appendix B**.

5.5 Preliminary Analysis of Cause and Significance of 2L Exceedances

It is believed that the cause of the 2L exceedances within the hydrogeologic regime at the Caswell County Landfill is caused from percolation of landfill constituents from the waste management units into the uppermost groundwater aquifer.

Previously, S&ME reviewed the 2000 aerial photograph of the Caswell County Landfill and surrounding vicinity as a preliminary analysis of the proximity of potential receptor water well users to the compliance monitoring wells in which 2L exceedances occurred during the July 2009 groundwater monitoring event. Based on the aerial photograph for the year 2000, the nearest suspect residential home is located approximately 900 feet northeast of compliance monitoring well MW-5, which is the furthest downgradient monitoring well on the landfill side of the unnamed tributary of Moon Creek. The observed suspect homes are topographically up-gradient and on the other side of the unnamed tributary of Moon Creek from the Caswell County Landfill. At this time, S&ME has no information regarding the current use of groundwater as a potable water source for these homes, in the surrounding area.

Analytical results for stream sampling location SW-2 detected no target constituents other than naturally occurring barium, which was found at a similar concentration in the surface water sample collected up-gradient of the landfill (e.g. SW-1). It is on this basis that the current data set provides no evidence of the groundwater quality impacts stemming from a release from the landfill, impacting adjacent surface water.

Due to the detection of exceedances of the NCAC 2L groundwater quality standards in the compliance wells, S&ME recommends that a detailed water supply well receptor survey be completed for the Caswell County Landfill and the development of plans to address the NCAC 2L exceedances.

6.0 REFERENCES

Fetter, C. W., 1988, Applied Hydrogeology, New York; Macmillian Publishing Company, 1988, 592 pp.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2L, Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina, Sections .0100, .0200, and .0300 (November 8, 1993); from the Environmental Management Commission Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2B, Classifications and Water Quality Standards Applicable to the Surface Waters of North Carolina, Section .0200 (April 1, 1991); from the Environmental Management Commission, Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Solid Waste Management, subchapter 13B, Solid Waste Management, Section .1600 (January 1, 1997).

TABLES

Table 1

Groundwater Elevation Data Summary (7/30/09)
Caswell County Landfill
Yanceyville, North Carolina
S&ME Project No. 1584-07-034

Static Water Levels				
Well No.	**Ground Surface Elevation (topographic)**	**Depth of Well (feet)**	**July 30, 2009**	
			DTGW (feet)	**Elevation (feet)**
MW-1	572	24.5	18.51	553.49
MW-2	526	22.3	20.30	505.70
MW-3	511	17.8	11.38	499.62
MW-4	526	36.0	24.04	501.96
MW-5	498	24.7	9.35	488.65
MW-6	489	16.2	8.61	480.39

Topographic = ground elevation estimated from topographic map w/2 foot contour interval, not a surveyed elevation
Depth of well data as measured by S&ME Inc. personnel on date of sampling
DTGW = Depth to Groundwater
Elevation = calculated groundwater elevation

Table 2
Groundwater & Surface Water Field Data Summary (7-30-09)
Caswell County Landfill
Yanceyville, North Carolina
S&ME Project No. 1584-07-034

Location:	MW-1						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity	Depth to Water-feet
1415	30-Jul-09	19.4	66.9	5.81	107.9	1	18.51

Location:	MW-2						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity	Depth to Water-feet
0945	30-Jul-09	15.4	59.7	6.51	125.4	2	20.30

Location:	MW-3						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity	Depth to Water-feet
1115	30-Jul-09	18.6	65.5	6.21	69.8	1	11.38
1125	30-Jul-09	17.7	63.9	6.22	68.8	1	
1135	30-Jul-09	18.0	64.4	6.28	70.2	1	

Location:	MW-4						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity	Depth to Water-feet
1040	30-Jul-09	16.2	61.2	6.46	114.0	1	24.04
1042	30-Jul-09	15.5	59.9	6.60	117.9	1	
1045	30-Jul-09	15.6	60.1	6.60	121.1	1	

Location:	MW-5						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity	Depth to Water-feet
1210	30-Jul-09	17.4	63.3	6.45	93.9	1	9.35
1220	30-Jul-09	16.8	62.2	6.44	94.0	1	
1230	30-Jul-09	16.9	62.4	6.43	94.8	1	
1240	30-Jul-09	17.4	63.3	6.51	94.7	1	

Location:	MW-6						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity	Depth to Water-feet
1305	30-Jul-09	17.9	64.22	6.92	17.78	1	8.61
1315	30-Jul-09	17.6	63.68	6.83	17.51	1	
1325	30-Jul-09	17.2	63.0	6.81	17.73	1	

Location:	SW-1						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity	Depth to Water-feet
1355	30-Jul-09	21.6	70.9	6.18	9.57	1	N/A

Location:	SW-2						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity	Depth to Water-feet
1340	30-Jul-09	21.6	70.9	7.19	12.75	1	N/A

N/A = Not Applicable
NM = Not Measured/recorded
Qualitative Turbidity; 1 = clear, 2 = slight, 3 = moderate, 4 = high

TABLE 3
GROUNDWATER ANALYTICAL RESULTS SUMMARY (7/30/09)
APPENDIX I - VOLATILE ORGANIC COMPOUNDS
CASWELL COUNTY LANDFILL
YANCEYVILLE, NORTH CAROLINA
S&ME PROJECT NO. 1584-07-034

Compound	Sample Locations						NC SWSL	NCAC 2L stds.
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6		
Benzene	ND	2.4	ND	1.7	1.5	ND	1	1
Chlorobenzene	ND	28.0	5.6	17.2	6.5	ND	3	50
Chloroethane	ND	2.2 J	2.0 J	ND	3.0 J	ND	10	2,800
1,4-Dichlorobenzene	ND	17.2	3.5	15.5	16.1	ND	1	1.4
1,2-Dichlorobenzene	ND	2.9 J	ND	2.1 J	2.3 J	ND	5	24
1,1-Dichloroethane	ND	ND	ND	ND	1.2 J	ND	5	70
Xylene(total)	ND	ND	5.1	ND	ND	ND	5	530

reported concentrations = micrograms per liter (ug/L)
NC SWSL = North Carolina Solid Waste Section Limit
ND = Analyte not detected
NE = No established 2L Standard for this constituent
NCAC 2L stds. = 15A North Carolina Administrative Code 2L .0200, GW Quality Standards for Class GA groundwater.
Yellow highlights indicate a measurement higher than the NC SWSL
Orange highlights indicate a measurement higher than 2L standards.
J = Parameters are estimated values between the detection limit and the NC SWSL.

TABLE 4
GROUNDWATER ANALYTICAL RESULTS SUMMARY (7/30/09)
8-RCRA METALS
CASWELL COUNTY LANDFILL
YANCEYVILLE, NORTH CAROLINA
S&ME PROJECT NO. 1584-07-034

Constituent	Sample Locations						NC SWSL	NCAC 2L stds.
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6		
Arsenic	20.8	17.0	ND	ND	ND	ND	10	50
Barium	18.5 J	138	78.1 J	51.6 J	57.5 J	15.9 J	100	2000
Chromium	ND	ND	ND	ND	ND	41.6	10	50

all concentrations reported in micrograms per liter (ug/L)
NC SWSL = North Carolina Solid Waste Section Limit
ND = Analyate not detected
NCAC 2L stds. = 15A North Carolina Administrative Code 2L .0200, Groundwater Quality Standards for Class GA groundwater.
ns = no standard listed according to NCAC 2L
Yellow highlights indicate a measurement higher than the NC SWSL
Orange highlights indicate a measurement higher than 2L standards.
J = Parameters are estimated values between the detection limit and the NC SWSL.

TABLE 5
SURFACE WATER ANALYTICAL RESULTS SUMMARY (7/30/09)
APPENDIX I - VOLATILE ORGANIC COMPOUNDS
CASWELL COUNTY LANDFILL
YANCEYVILLE, NORTH CAROLINA
S&ME PROJECT NO. 1584-07-034

Compound	Sample Locations		NC SWSL	15A NCAC 2B Standards*
	SW-1	SW-2		
All Target Compounds	ND	ND	--	--

NC SWSL= North Carolina Solid Waste Section Limit
ND = compound not detected in sample
** = Title 15A NCAC 2B Standards for Class B, C surface water*

TABLE 6
SURFACE WATER ANALYTICAL RESULTS SUMMARY (7/30/09)
8-RCRA METALS
CASWELL COUNTY LANDFILL
YANCEYVILLE, NORTH CAROLINA
S&ME PROJECT NO. 1584-07-034

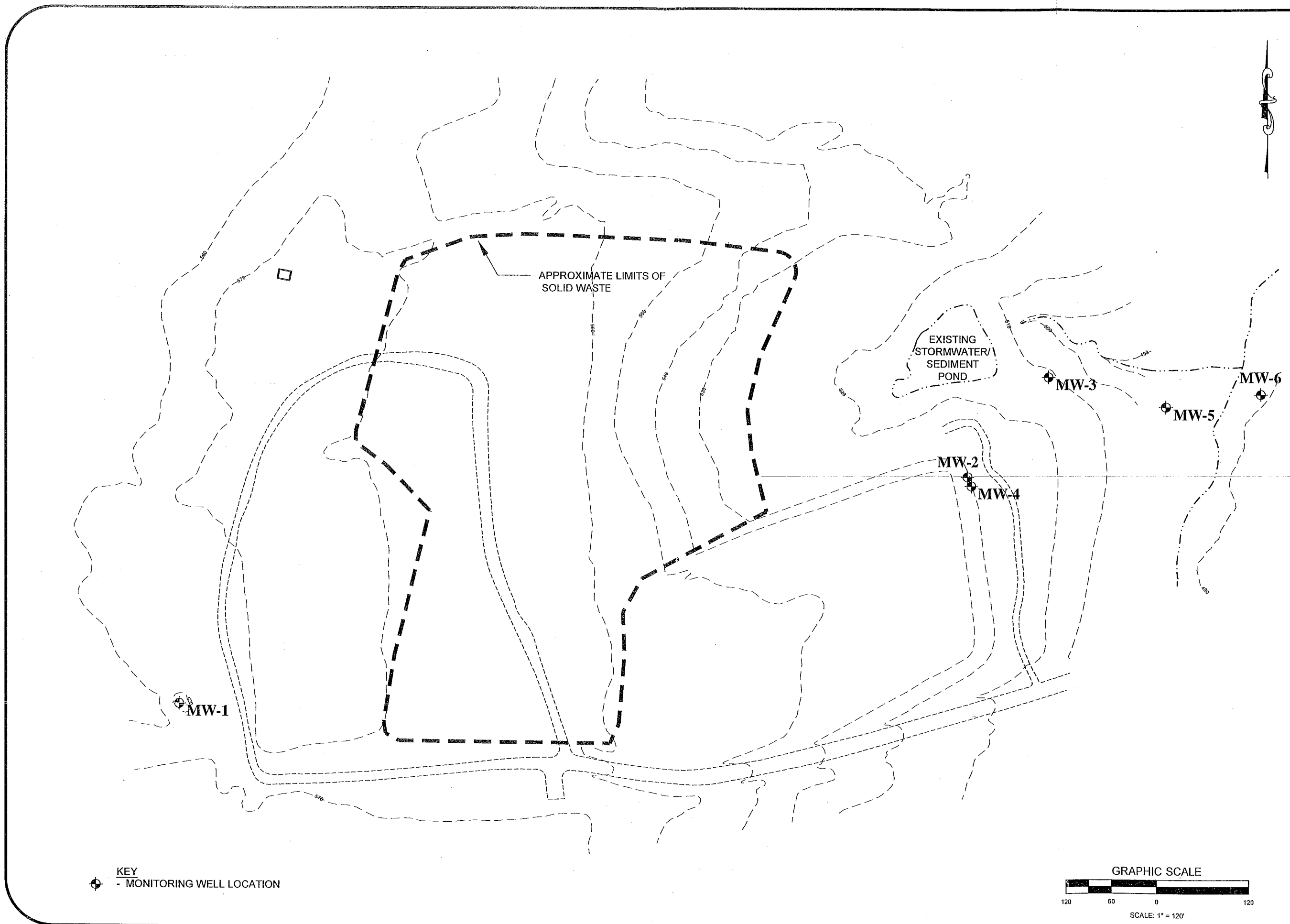
Constituent	Sample Locations		NC SWSL	15A NCAC 2B Standards*
	SW-1	SW-2		
Barium	**25.2**	**34.4**	100	1000

NC SWSL = North Carolina Solid Waste Section Limit
ND = Parameter not detected
** = Title 15A NCAC 2B Standards for Class B, C surface water*

J = Parameters are estimated values between the detection limit and the NC SWSL.

Yellow highlights indicate a measurement higher than the NC SWSL
Orange highlights indicate a measurement higher than 2B standards.

FIGURES



SITE PLAN
CASWELL COUNTY LANDFILL
YANCEYVILLE, NORTH CAROLINA

SCALE: AS SHOWN	DRAWN BY: RDM	CHECKED BY: CDW	
JOB NO. 1584-07-034	DATE: JULY 2008	FIGURE NO. 1	

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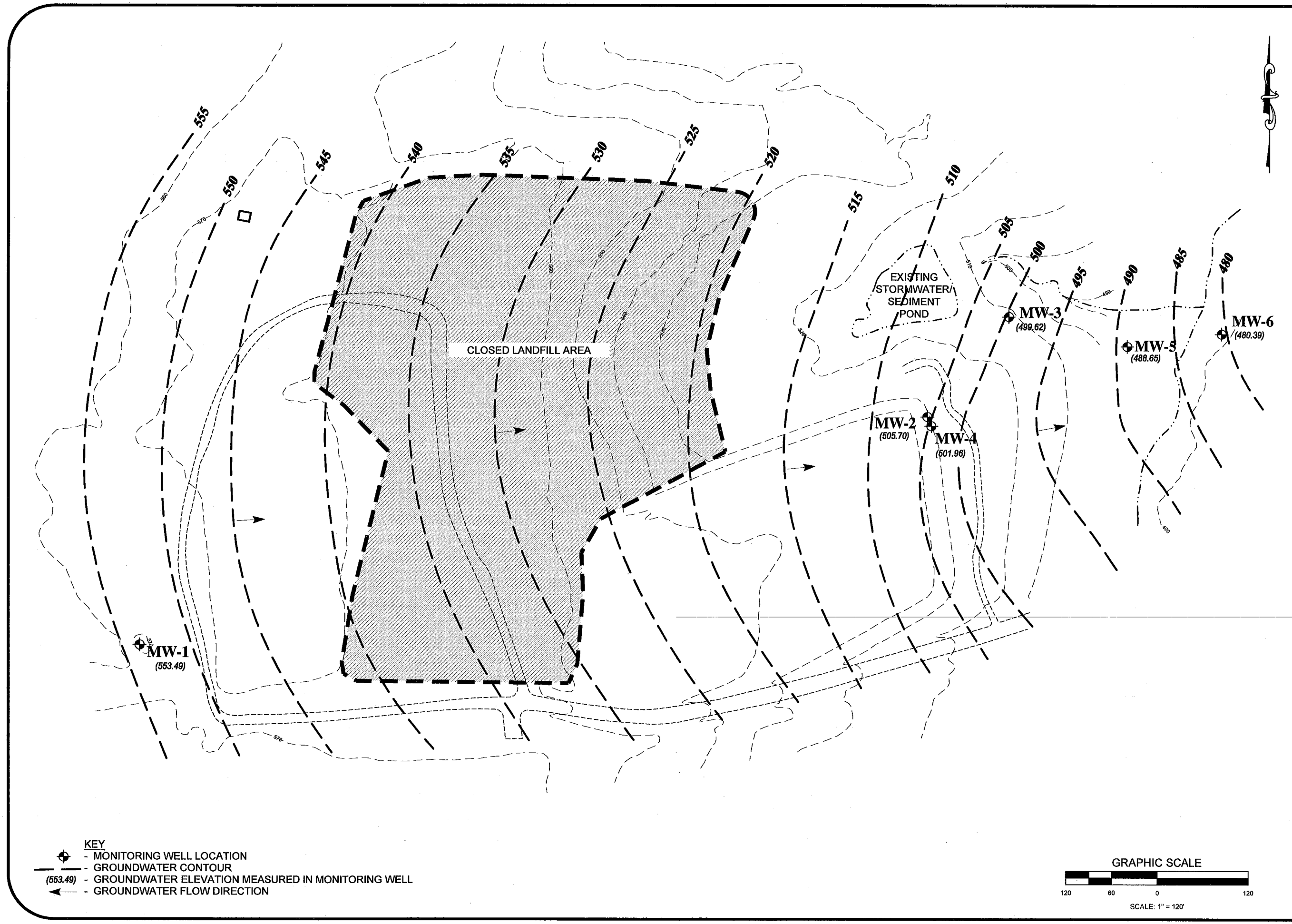

GROUNDWATER CONTOUR MAP

CASWELL COUNTY LANDFILL
YANCEYVILLE, NORTH CAROLINA

SCALE: AS SHOWN	DRAWN BY: RDM	CHECKED BY: CDW	
JOB NO. 1584-07-034	DATE: JULY 2009	FIGURE NO. 2	

S&ME
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APPENDIX A

Groundwater Sampling Field Data Sheets

S&ME FIELD DATA SHEET FOR GROUNDWATER SAMPLING

DATE 7/30/09
FIELD PERSONNEL Gary Simcox
FACILITY NAME Caswell County Landfill
EPA ID NO.
WELL ID NO. MW-1

☑ UPGRADIENT ☐ DOWNGRADIENT

WEATHER CONDITIONS RAINY/(CLEAR)/WINDY/PARTLY CLOUDY/(WARM)/HOT
AIR TEMPERATURE 85 °F
TOTAL WELL DEPTH (TWD) 24.5 1/100 ft
DEPTH TO GROUNDWATER (DGW) 18.51 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = 6.0 ft
1 CASING VOLUME (OCV) = LWC X .17 = 1.0 gal
3 CASING VOLUMES = 3.0 GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GEL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GEL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☑ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☑ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☑ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☑ NO
WELL INTEGRITY SATISFACTORY ☑ YES ☐ NO
WELL YIELD ☑ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
Gary Simcox	7/30/09	1415	4			

2" BAILER

FIELD ANALYSIS

VOLUME PURGED (GAL.)	2.0						
TIME (MILITARY)							
pH (S.U.)	5.81						
CONDUCTIVITY µS/m	107.9						
WATER TEMP (°C)	19.4						
TURBIDITY (SUBJECTIVE)*	1						
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

S&ME FIELD DATA SHEET FOR GROUNDWATER SAMPLING

DATE 7/30/09
FIELD PERSONNEL Caswell County Landfill
FACILITY NAME Gary Simcox
EPA ID NO.
WELL ID NO. MW-2

☐ UPGRADIENT ☐ DOWNGRADIENT

WEATHER CONDITIONS RAINY/(CLEAR)/WINDY/PARTLY CLOUDY/WARM/HOT
AIR TEMPERATURE 75 °F
TOTAL WELL DEPTH (TWD) 22.3 1/100 ft
DEPTH TO GROUNDWATER (DGW) 20.30 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = 2.0 ft
1 CASING VOLUME (OCV) = LWC X .17 = .34 gal
3 CASING VOLUMES = 1.0 GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GEL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GEL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☑ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☑ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☑ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☑ NO
WELL INTEGRITY SATISFACTORY ☑ YES ☐ NO
WELL YIELD ☐ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
Gary Simcox	7/30/09	0945	4			

2" BAILER

FIELD ANALYSIS

GRAB SAMPLE

VOLUME PURGED (GAL.)							
TIME (MILITARY)							
pH (S.U.)	6.51						
CONDUCTIVITY	125.4						
WATER TEMP (°C)	15.4						
TURBIDITY (SUBJECTIVE)*	2						
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

NOTE: DUPLICATE TAKEN @ THIS LOCATION 0800 HRS

S&ME

FIELD DATA SHEET FOR GROUNDWATER SAMPLING

DATE 7/30/09
FIELD PERSONNEL Gary Simcox
FACILITY NAME CASWELL COUNTY LANDFILL
EPA ID NO.
WELL ID NO. MW-3

☐ UPGRADIENT ☐ DOWNGRADIENT

WEATHER CONDITIONS RAINY/CLEAR/WINDY/PARTLY CLOUDY/WARM/HOT
AIR TEMPERATURE 80 °F
TOTAL WELL DEPTH (TWD) 17.8 1/100 ft
DEPTH TO GROUNDWATER (DGW) 11.38 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = 4.4 ft
1 CASING VOLUME (OCV) = LWC X .17 = .75 gal
3 CASING VOLUMES = 2.25 GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GEL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GEL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☑ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☑ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☑ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☑ NO
WELL INTEGRITY SATISFACTORY ☑ YES ☐ NO
WELL YIELD ☐ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
Gary Simcox	7/30/09	1145	4			

PERISTALTIC PUMP

FIELD ANALYSIS

VOLUME PURGED (GAL) LITRE	2	4	6				
TIME (MILITARY)	1115	1125	1135				
pH (S.U.)	6.21	6.22	6.28				
CONDUCTIVITY µm	69.8	68.8	70.2				
WATER TEMP (°C)	18.6	17.7	18.0				
TURBIDITY (SUBJECTIVE)*	1	1	1				
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

S&ME FIELD DATA SHEET FOR GROUNDWATER SAMPLING

DATE 7/30/09
FIELD PERSONNEL Gary Simcox
FACILITY NAME Caswell County Landfill
EPA ID NO.
WELL ID NO. MW-4

☐ UPGRADIENT ☐ DOWNGRADIENT

WEATHER CONDITIONS RAINY/CLEAR/WINDY/PARTLY CLOUDY/WARM/HOT
AIR TEMPERATURE 75 °F
TOTAL WELL DEPTH (TWD) 36.0 1/100 ft
DEPTH TO GROUNDWATER (DGW) 24.04 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = 12 ft
1 CASING VOLUME (OCV) = LWC X .17 = 2.0 gal
3 CASING VOLUMES = 6.0 GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GKL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GKL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☑ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☑ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☑ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☑ NO
WELL INTEGRITY SATISFACTORY ☑ YES ☐ NO
WELL YIELD ☐ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
Gary Simcox	7/30/09	1085	4			

2" BAILER

Dry @ 3.8 GALLONS

FIELD ANALYSIS

	1	2	3				
VOLUME PURGED (GAL.)							
TIME (MILITARY)							
pH (S.U.)	6.46	6.60	6.60				
CONDUCTIVITY µS/m	114.0	117.9	121.1				
WATER TEMP (°C)	16.2	15.5	15.6				
TURBIDITY (SUBJECTIVE)*	1	1	1				
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

S&ME FIELD DATA SHEET FOR GROUNDWATER SAMPLING

DATE 7/30/09
FIELD PERSONNEL GARY SIMCOX
FACILITY NAME CASWELL COUNTY LANDFILL
EPA ID NO.
WELL ID NO. MW-5

☐ UPGRADIENT ☐ DOWNGRADIENT

WEATHER CONDITIONS RAINY/(CLEAR)/WINDY/PARTLY CLOUDY/(WARM)/HOT
AIR TEMPERATURE 85 °F
TOTAL WELL DEPTH (TWD) 24.7 1/100 ft
DEPTH TO GROUNDWATER (DGW) 9.35 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = 15.3 ft
1 CASING VOLUME (OCV) = LWC X .17 = 2.6 gal
3 CASING VOLUMES = 7.8 GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GEL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GEL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☑ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☑ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☑ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☑ NO
WELL INTEGRITY SATISFACTORY ☑ YES ☐ NO
WELL YIELD ☐ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
GARY SIMCOX	7/30/09	1245	4			

PERISTALTIC PUMP

FIELD ANALYSIS

VOLUME PURGED (GAL) LITER	2	4	6	8			
TIME (MILITARY)	1210	1220	1230	1240			
pH (S.U.)	6.45	6.44	6.43	6.51			
CONDUCTIVITY µS/m	93.9	94.0	94.8	94.7			
WATER TEMP (°C)	17.4	16.8	16.9	17.4			
TURBIDITY (SUBJECTIVE)*	1	1	1	1			
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

S&ME FIELD DATA SHEET FOR GROUNDWATER SAMPLING

DATE 7/30/09
FIELD PERSONNEL Gary Simcox
FACILITY NAME Caswell County Landfill
EPA ID NO.
WELL ID NO. MW-6

☐ UPGRADIENT ☐ DOWNGRADIENT

WEATHER CONDITIONS RAINY/CLEAR/WINDY/PARTLY CLOUDY/WARM/HOT
AIR TEMPERATURE 85 °F
TOTAL WELL DEPTH (TWD) 16.2 1/100 ft
DEPTH TO GROUNDWATER (DGW) 8.61 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = 7.6 ft
1 CASING VOLUME (OCV) = LWC X .17 = 1.29 gal
3 CASING VOLUMES = 3.9 GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GKL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GKL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☑ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☑ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☑ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☑ NO
WELL INTEGRITY SATISFACTORY ☑ YES ☐ NO
WELL YIELD ☐ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
Gary Simcox	7/30/09	1330	4			

PERISTALTIC PUMP

FIELD ANALYSIS

VOLUME PURGED (GAL.)	2	4	6				
TIME (MILITARY)	1305	1315	1325				
pH (S.U.)	6.92	6.83	6.81				
CONDUCTIVITY µ/m	17.78	17.51	17.73				
WATER TEMP (°C)	17.9	17.6	17.2				
TURBIDITY (SUBJECTIVE)*	1	1	1				
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

S&ME FIELD DATA SHEET FOR GROUNDWATER SAMPLING

DATE 7/30/09
FIELD PERSONNEL Gary Simcox
FACILITY NAME Caswell County Landfill
EPA ID NO.
WELL ID NO. SW-1

☑ UPGRADIENT ☐ DOWNGRADIENT

WEATHER CONDITIONS RAINY/CLEAR/WINDY/PARTLY CLOUDY/WARM/HOT
AIR TEMPERATURE 85 °F
TOTAL WELL DEPTH (TWD) 1/100 ft
DEPTH TO GROUNDWATER (DGW) 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = ___ ft
1 CASING VOLUME (OCV) = LWC X = gal
3 CASING VOLUMES = GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GKL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GKL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☐ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☐ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☐ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☐ NO
WELL INTEGRITY SATISFACTORY ☐ YES ☐ NO
WELL YIELD ☐ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
Gary Simcox	7/30/09	1355	4			

FIELD ANALYSIS

VOLUME PURGED (GAL.)							
TIME (MILITARY)	1355						
pH (S.U.)	6.18						
CONDUCTIVITY m S/m	9.57						
WATER TEMP (°C)	21.6						
TURBIDITY (SUBJECTIVE)*							
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

S&ME FIELD DATA SHEET FOR GROUNDWATER SAMPLING

DATE 7/30/09
FIELD PERSONNEL Gary Simcox
FACILITY NAME Caswell County Landfill
EPA ID NO.
WELL ID NO. SW-2

☐ UPGRADIENT ☑ DOWNGRADIENT

WEATHER CONDITIONS RAINY/(CLEAR)/WINDY/PARTLY CLOUDY/(WARM)/HOT
AIR TEMPERATURE 85 °F
TOTAL WELL DEPTH (TWD) 1/100 ft
DEPTH TO GROUNDWATER (DGW) 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = ___ ft
1 CASING VOLUME (OCV) = LWC X ___ = ___ gal
3 CASING VOLUMES = ___ GAL = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GKL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GKL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED ___ gal

CASING DIAMETER ☐ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☐ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME) ___
pH BUFFER SOLUTION USED ___
STEEL GUARD PIPE AROUND CASING ___ ☐ YES ☐ NO
LOCKING CAP ___ ☑ YES ☐ NO
PROTECTIVE ABUTMENT ___ ☐ YES ☐ NO
WELL INTEGRITY SATISFACTORY ___ ☐ YES ☐ NO
WELL YIELD ___ ☐ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
Gary Simcox	7/30/09	1340	4			

FIELD ANALYSIS

VOLUME PURGED (GAL.)							
TIME (MILITARY)	1340						
pH (S.U.)	7.19						
CONDUCTIVITY S/m	12.75						
WATER TEMP (°C)	21.6						
TURBIDITY (SUBJECTIVE)*	1						
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

APPENDIX B

Laboratory Analytical Reports

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Huntersville, NC 28078
(704)875-9092

August 13, 2009

Mr. Connel Ware
S&ME, Inc.
3718 Old Battleground Road
Greensboro, NC 27410

RE: Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Dear Mr. Ware:
Enclosed are the analytical results for sample(s) received by the laboratory on July 31, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

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

Sincerely,

Brandon Helton

Brandon Helton for
Kevin Herring
kevin.herring@pacelabs.com
Project Manager

Enclosures

cc: Wayne Watterson, S&ME, Inc.

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CERTIFICATIONS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Charlotte Certification IDs

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

Asheville Certification IDs

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

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: MW-1 **Lab ID: 9249914001** Collected: 07/30/09 09:45 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	**20.8**	ug/L	5.0	1	08/03/09 11:05	08/04/09 19:03	7440-38-2	
Barium	**18.5**	ug/L	5.0	1	08/03/09 11:05	08/04/09 19:03	7440-39-3	
Cadmium	ND	ug/L	1.0	1	08/03/09 11:05	08/04/09 19:03	7440-43-9	
Chromium	ND	ug/L	5.0	1	08/03/09 11:05	08/04/09 19:03	7440-47-3	
Lead	ND	ug/L	5.0	1	08/03/09 11:05	08/04/09 19:03	7439-92-1	
Selenium	ND	ug/L	10.0	1	08/03/09 11:05	08/04/09 19:03	7782-49-2	
Silver	ND	ug/L	5.0	1	08/03/09 11:05	08/04/09 19:03	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	08/07/09 10:43	08/07/09 14:33	7439-97-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		08/05/09 23:52	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		08/05/09 23:52	107-13-1	
Benzene	ND	ug/L	1.0	1		08/05/09 23:52	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		08/05/09 23:52	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/05/09 23:52	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/05/09 23:52	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/05/09 23:52	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/05/09 23:52	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		08/05/09 23:52	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		08/05/09 23:52	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		08/05/09 23:52	108-90-7	
Chloroethane	ND	ug/L	1.0	1		08/05/09 23:52	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/05/09 23:52	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/05/09 23:52	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	3.0	1		08/05/09 23:52	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/05/09 23:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/05/09 23:52	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/05/09 23:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/05/09 23:52	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		08/05/09 23:52	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		08/05/09 23:52	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/05/09 23:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/05/09 23:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/05/09 23:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/05/09 23:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/05/09 23:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/05/09 23:52	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/05/09 23:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/05/09 23:52	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		08/05/09 23:52	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		08/05/09 23:52	591-78-6	
Iodomethane	ND	ug/L	5.0	1		08/05/09 23:52	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		08/05/09 23:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/05/09 23:52	108-10-1	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: MW-1 **Lab ID: 9249914001** Collected: 07/30/09 09:45 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Styrene	ND	ug/L	1.0	1		08/05/09 23:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/05/09 23:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/05/09 23:52	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/05/09 23:52	127-18-4	
Toluene	ND	ug/L	1.0	1		08/05/09 23:52	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/05/09 23:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/05/09 23:52	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/05/09 23:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/05/09 23:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/05/09 23:52	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/05/09 23:52	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/05/09 23:52	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		08/05/09 23:52	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/05/09 23:52	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		08/05/09 23:52	95-47-6	
4-Bromofluorobenzene (S)	96	%	87-109	1		08/05/09 23:52	460-00-4	
Dibromofluoromethane (S)	106	%	85-115	1		08/05/09 23:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	105	%	79-120	1		08/05/09 23:52	17060-07-0	
Toluene-d8 (S)	101	%	70-120	1		08/05/09 23:52	2037-26-5	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: MW-2 **Lab ID: 9249914002** Collected: 07/30/09 09:45 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	**17.0**	ug/L	5.0	1	08/03/09 11:05	08/04/09 19:07	7440-38-2	
Barium	**138**	ug/L	5.0	1	08/03/09 11:05	08/04/09 19:07	7440-39-3	
Cadmium	ND	ug/L	1.0	1	08/03/09 11:05	08/04/09 19:07	7440-43-9	
Chromium	ND	ug/L	5.0	1	08/03/09 11:05	08/04/09 19:07	7440-47-3	
Lead	ND	ug/L	5.0	1	08/03/09 11:05	08/04/09 19:07	7439-92-1	
Selenium	ND	ug/L	10.0	1	08/03/09 11:05	08/04/09 19:07	7782-49-2	
Silver	ND	ug/L	5.0	1	08/03/09 11:05	08/04/09 19:07	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	08/07/09 10:43	08/07/09 14:41	7439-97-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		08/06/09 00:11	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		08/06/09 00:11	107-13-1	
Benzene	**2.4**	ug/L	1.0	1		08/06/09 00:11	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		08/06/09 00:11	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/06/09 00:11	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/06/09 00:11	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/06/09 00:11	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/06/09 00:11	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		08/06/09 00:11	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		08/06/09 00:11	56-23-5	
Chlorobenzene	**28.0**	ug/L	1.0	1		08/06/09 00:11	108-90-7	
Chloroethane	**2.2**	ug/L	1.0	1		08/06/09 00:11	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/06/09 00:11	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/06/09 00:11	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	3.0	1		08/06/09 00:11	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/06/09 00:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/06/09 00:11	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/06/09 00:11	74-95-3	
1,2-Dichlorobenzene	**2.9**	ug/L	1.0	1		08/06/09 00:11	95-50-1	
1,4-Dichlorobenzene	**17.2**	ug/L	1.0	1		08/06/09 00:11	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		08/06/09 00:11	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/06/09 00:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/06/09 00:11	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/06/09 00:11	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 00:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 00:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/06/09 00:11	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 00:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 00:11	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		08/06/09 00:11	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		08/06/09 00:11	591-78-6	
Iodomethane	ND	ug/L	5.0	1		08/06/09 00:11	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		08/06/09 00:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/06/09 00:11	108-10-1	

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(704)875-9092

ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: MW-2 **Lab ID: 9249914002** Collected: 07/30/09 09:45 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Styrene	ND	ug/L	1.0	1		08/06/09 00:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 00:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 00:11	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/06/09 00:11	127-18-4	
Toluene	ND	ug/L	1.0	1		08/06/09 00:11	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/06/09 00:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/06/09 00:11	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/06/09 00:11	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/06/09 00:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/06/09 00:11	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/06/09 00:11	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/06/09 00:11	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		08/06/09 00:11	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/06/09 00:11	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		08/06/09 00:11	95-47-6	
4-Bromofluorobenzene (S)	97	%	87-109	1		08/06/09 00:11	460-00-4	
Dibromofluoromethane (S)	102	%	85-115	1		08/06/09 00:11	1868-53-7	
1,2-Dichloroethane-d4 (S)	101	%	79-120	1		08/06/09 00:11	17060-07-0	
Toluene-d8 (S)	101	%	70-120	1		08/06/09 00:11	2037-26-5	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: MW-3 **Lab ID: 9249914003** Collected: 07/30/09 11:45 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 01:52	7440-38-2	
Barium	**78.1**	ug/L	5.0	1	08/07/09 11:10	08/13/09 01:52	7440-39-3	
Cadmium	ND	ug/L	1.0	1	08/07/09 11:10	08/13/09 01:52	7440-43-9	
Chromium	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 01:52	7440-47-3	
Lead	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 01:52	7439-92-1	
Selenium	ND	ug/L	10.0	1	08/07/09 11:10	08/13/09 01:52	7782-49-2	
Silver	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 01:52	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	08/07/09 10:43	08/07/09 14:43	7439-97-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		08/06/09 00:30	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		08/06/09 00:30	107-13-1	
Benzene	ND	ug/L	1.0	1		08/06/09 00:30	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		08/06/09 00:30	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/06/09 00:30	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/06/09 00:30	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/06/09 00:30	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/06/09 00:30	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		08/06/09 00:30	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		08/06/09 00:30	56-23-5	
Chlorobenzene	**5.6**	ug/L	1.0	1		08/06/09 00:30	108-90-7	
Chloroethane	**2.0**	ug/L	1.0	1		08/06/09 00:30	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/06/09 00:30	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/06/09 00:30	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	3.0	1		08/06/09 00:30	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/06/09 00:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/06/09 00:30	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/06/09 00:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/06/09 00:30	95-50-1	
1,4-Dichlorobenzene	**3.5**	ug/L	1.0	1		08/06/09 00:30	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		08/06/09 00:30	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/06/09 00:30	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/06/09 00:30	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/06/09 00:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 00:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 00:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/06/09 00:30	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 00:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 00:30	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		08/06/09 00:30	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		08/06/09 00:30	591-78-6	
Iodomethane	ND	ug/L	5.0	1		08/06/09 00:30	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		08/06/09 00:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/06/09 00:30	108-10-1	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: MW-3 **Lab ID: 9249914003** Collected: 07/30/09 11:45 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Styrene	ND	ug/L	1.0	1		08/06/09 00:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 00:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 00:30	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/06/09 00:30	127-18-4	
Toluene	ND	ug/L	1.0	1		08/06/09 00:30	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/06/09 00:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/06/09 00:30	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/06/09 00:30	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/06/09 00:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/06/09 00:30	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/06/09 00:30	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/06/09 00:30	75-01-4	
Xylene (Total)	**5.1**	ug/L	2.0	1		08/06/09 00:30	1330-20-7	
m&p-Xylene	**5.1**	ug/L	2.0	1		08/06/09 00:30	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		08/06/09 00:30	95-47-6	
4-Bromofluorobenzene (S)	97	%	87-109	1		08/06/09 00:30	460-00-4	
Dibromofluoromethane (S)	105	%	85-115	1		08/06/09 00:30	1868-53-7	
1,2-Dichloroethane-d4 (S)	102	%	79-120	1		08/06/09 00:30	17060-07-0	
Toluene-d8 (S)	102	%	70-120	1		08/06/09 00:30	2037-26-5	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: MW-4 **Lab ID: 9249914004** Collected: 07/30/09 10:45 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:04	7440-38-2	
Barium	**51.6**	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:04	7440-39-3	
Cadmium	ND	ug/L	1.0	1	08/07/09 11:10	08/13/09 02:04	7440-43-9	
Chromium	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:04	7440-47-3	
Lead	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:04	7439-92-1	
Selenium	ND	ug/L	10.0	1	08/07/09 11:10	08/13/09 02:04	7782-49-2	
Silver	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:04	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	08/07/09 10:43	08/07/09 14:46	7439-97-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		08/06/09 00:48	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		08/06/09 00:48	107-13-1	
Benzene	**1.7**	ug/L	1.0	1		08/06/09 00:48	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		08/06/09 00:48	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/06/09 00:48	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/06/09 00:48	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/06/09 00:48	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/06/09 00:48	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		08/06/09 00:48	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		08/06/09 00:48	56-23-5	
Chlorobenzene	**17.2**	ug/L	1.0	1		08/06/09 00:48	108-90-7	
Chloroethane	ND	ug/L	1.0	1		08/06/09 00:48	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/06/09 00:48	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/06/09 00:48	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	3.0	1		08/06/09 00:48	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/06/09 00:48	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/06/09 00:48	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/06/09 00:48	74-95-3	
1,2-Dichlorobenzene	**2.1**	ug/L	1.0	1		08/06/09 00:48	95-50-1	
1,4-Dichlorobenzene	**15.5**	ug/L	1.0	1		08/06/09 00:48	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		08/06/09 00:48	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/06/09 00:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/06/09 00:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/06/09 00:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 00:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 00:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/06/09 00:48	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 00:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 00:48	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		08/06/09 00:48	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		08/06/09 00:48	591-78-6	
Iodomethane	ND	ug/L	5.0	1		08/06/09 00:48	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		08/06/09 00:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/06/09 00:48	108-10-1	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: MW-4 **Lab ID: 9249914004** Collected: 07/30/09 10:45 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Styrene	ND	ug/L	1.0	1		08/06/09 00:48	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 00:48	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 00:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/06/09 00:48	127-18-4	
Toluene	ND	ug/L	1.0	1		08/06/09 00:48	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/06/09 00:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/06/09 00:48	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/06/09 00:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/06/09 00:48	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/06/09 00:48	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/06/09 00:48	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/06/09 00:48	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		08/06/09 00:48	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/06/09 00:48	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		08/06/09 00:48	95-47-6	
4-Bromofluorobenzene (S)	95	%	87-109	1		08/06/09 00:48	460-00-4	
Dibromofluoromethane (S)	106	%	85-115	1		08/06/09 00:48	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	79-120	1		08/06/09 00:48	17060-07-0	
Toluene-d8 (S)	100	%	70-120	1		08/06/09 00:48	2037-26-5	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: MW-5 **Lab ID: 9249914005** Collected: 07/30/09 12:45 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	ND	ug/L	50.0	10	08/07/09 11:10	08/13/09 13:15	7440-38-2	
Barium	**57.5**	ug/L	50.0	10	08/07/09 11:10	08/13/09 13:15	7440-39-3	
Cadmium	ND	ug/L	10.0	10	08/07/09 11:10	08/13/09 13:15	7440-43-9	
Chromium	ND	ug/L	50.0	10	08/07/09 11:10	08/13/09 13:15	7440-47-3	
Lead	ND	ug/L	50.0	10	08/07/09 11:10	08/13/09 13:15	7439-92-1	
Selenium	ND	ug/L	100	10	08/07/09 11:10	08/13/09 13:15	7782-49-2	
Silver	ND	ug/L	50.0	10	08/07/09 11:10	08/13/09 13:15	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	08/07/09 10:43	08/07/09 14:48	7439-97-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		08/06/09 01:07	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		08/06/09 01:07	107-13-1	
Benzene	**1.5**	ug/L	1.0	1		08/06/09 01:07	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		08/06/09 01:07	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/06/09 01:07	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/06/09 01:07	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/06/09 01:07	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/06/09 01:07	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		08/06/09 01:07	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		08/06/09 01:07	56-23-5	
Chlorobenzene	**6.5**	ug/L	1.0	1		08/06/09 01:07	108-90-7	
Chloroethane	**3.0**	ug/L	1.0	1		08/06/09 01:07	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/06/09 01:07	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/06/09 01:07	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	3.0	1		08/06/09 01:07	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/06/09 01:07	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/06/09 01:07	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/06/09 01:07	74-95-3	
1,2-Dichlorobenzene	**2.3**	ug/L	1.0	1		08/06/09 01:07	95-50-1	
1,4-Dichlorobenzene	**16.1**	ug/L	1.0	1		08/06/09 01:07	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		08/06/09 01:07	110-57-6	
1,1-Dichloroethane	**1.2**	ug/L	1.0	1		08/06/09 01:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/06/09 01:07	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/06/09 01:07	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 01:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 01:07	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/06/09 01:07	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 01:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 01:07	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		08/06/09 01:07	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		08/06/09 01:07	591-78-6	
Iodomethane	ND	ug/L	5.0	1		08/06/09 01:07	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		08/06/09 01:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/06/09 01:07	108-10-1	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: MW-5 **Lab ID: 9249914005** Collected: 07/30/09 12:45 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Styrene	ND	ug/L	1.0	1		08/06/09 01:07	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 01:07	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 01:07	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/06/09 01:07	127-18-4	
Toluene	ND	ug/L	1.0	1		08/06/09 01:07	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/06/09 01:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/06/09 01:07	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/06/09 01:07	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/06/09 01:07	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/06/09 01:07	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/06/09 01:07	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/06/09 01:07	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		08/06/09 01:07	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/06/09 01:07	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		08/06/09 01:07	95-47-6	
4-Bromofluorobenzene (S)	96	%	87-109	1		08/06/09 01:07	460-00-4	
Dibromofluoromethane (S)	106	%	85-115	1		08/06/09 01:07	1868-53-7	
1,2-Dichloroethane-d4 (S)	106	%	79-120	1		08/06/09 01:07	17060-07-0	
Toluene-d8 (S)	102	%	70-120	1		08/06/09 01:07	2037-26-5	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: MW-6 **Lab ID: 9249914006** Collected: 07/30/09 13:30 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:30	7440-38-2	
Barium	**15.9**	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:30	7440-39-3	
Cadmium	ND	ug/L	1.0	1	08/07/09 11:10	08/13/09 02:30	7440-43-9	
Chromium	**41.6**	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:30	7440-47-3	
Lead	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:30	7439-92-1	
Selenium	ND	ug/L	10.0	1	08/07/09 11:10	08/13/09 02:30	7782-49-2	
Silver	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:30	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	08/07/09 10:43	08/07/09 14:50	7439-97-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		08/06/09 01:26	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		08/06/09 01:26	107-13-1	
Benzene	ND	ug/L	1.0	1		08/06/09 01:26	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		08/06/09 01:26	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/06/09 01:26	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/06/09 01:26	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/06/09 01:26	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/06/09 01:26	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		08/06/09 01:26	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		08/06/09 01:26	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		08/06/09 01:26	108-90-7	
Chloroethane	ND	ug/L	1.0	1		08/06/09 01:26	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/06/09 01:26	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/06/09 01:26	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	3.0	1		08/06/09 01:26	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/06/09 01:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/06/09 01:26	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/06/09 01:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/06/09 01:26	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		08/06/09 01:26	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		08/06/09 01:26	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/06/09 01:26	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/06/09 01:26	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/06/09 01:26	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 01:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 01:26	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/06/09 01:26	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 01:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 01:26	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		08/06/09 01:26	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		08/06/09 01:26	591-78-6	
Iodomethane	ND	ug/L	5.0	1		08/06/09 01:26	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		08/06/09 01:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/06/09 01:26	108-10-1	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: MW-6 **Lab ID: 9249914006** Collected: 07/30/09 13:30 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Styrene	ND	ug/L	1.0	1		08/06/09 01:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 01:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 01:26	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/06/09 01:26	127-18-4	
Toluene	ND	ug/L	1.0	1		08/06/09 01:26	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/06/09 01:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/06/09 01:26	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/06/09 01:26	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/06/09 01:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/06/09 01:26	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/06/09 01:26	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/06/09 01:26	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		08/06/09 01:26	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/06/09 01:26	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		08/06/09 01:26	95-47-6	
4-Bromofluorobenzene (S)	97	%	87-109	1		08/06/09 01:26	460-00-4	
Dibromofluoromethane (S)	108	%	85-115	1		08/06/09 01:26	1868-53-7	
1,2-Dichloroethane-d4 (S)	107	%	79-120	1		08/06/09 01:26	17060-07-0	
Toluene-d8 (S)	101	%	70-120	1		08/06/09 01:26	2037-26-5	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: SW-1 **Lab ID: 9249914007** Collected: 07/30/09 13:55 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:34	7440-38-2	
Barium	**25.2**	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:34	7440-39-3	
Cadmium	ND	ug/L	1.0	1	08/07/09 11:10	08/13/09 02:34	7440-43-9	
Chromium	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:34	7440-47-3	
Lead	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:34	7439-92-1	
Selenium	ND	ug/L	10.0	1	08/07/09 11:10	08/13/09 02:34	7782-49-2	
Silver	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:34	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	08/07/09 10:43	08/07/09 14:53	7439-97-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		08/06/09 01:45	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		08/06/09 01:45	107-13-1	
Benzene	ND	ug/L	1.0	1		08/06/09 01:45	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		08/06/09 01:45	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/06/09 01:45	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/06/09 01:45	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/06/09 01:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/06/09 01:45	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		08/06/09 01:45	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		08/06/09 01:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		08/06/09 01:45	108-90-7	
Chloroethane	ND	ug/L	1.0	1		08/06/09 01:45	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/06/09 01:45	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/06/09 01:45	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	3.0	1		08/06/09 01:45	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/06/09 01:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/06/09 01:45	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/06/09 01:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/06/09 01:45	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		08/06/09 01:45	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		08/06/09 01:45	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/06/09 01:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/06/09 01:45	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/06/09 01:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 01:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 01:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/06/09 01:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 01:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 01:45	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		08/06/09 01:45	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		08/06/09 01:45	591-78-6	
Iodomethane	ND	ug/L	5.0	1		08/06/09 01:45	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		08/06/09 01:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/06/09 01:45	108-10-1	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: SW-1 **Lab ID: 9249914007** Collected: 07/30/09 13:55 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Styrene	ND	ug/L	1.0	1		08/06/09 01:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 01:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 01:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/06/09 01:45	127-18-4	
Toluene	ND	ug/L	1.0	1		08/06/09 01:45	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/06/09 01:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/06/09 01:45	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/06/09 01:45	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/06/09 01:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/06/09 01:45	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/06/09 01:45	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/06/09 01:45	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		08/06/09 01:45	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/06/09 01:45	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		08/06/09 01:45	95-47-6	
4-Bromofluorobenzene (S)	96	%	87-109	1		08/06/09 01:45	460-00-4	
Dibromofluoromethane (S)	104	%	85-115	1		08/06/09 01:45	1868-53-7	
1,2-Dichloroethane-d4 (S)	102	%	79-120	1		08/06/09 01:45	17060-07-0	
Toluene-d8 (S)	101	%	70-120	1		08/06/09 01:45	2037-26-5	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: SW-2 **Lab ID: 9249914008** Collected: 07/30/09 13:40 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:38	7440-38-2	
Barium	**34.4**	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:38	7440-39-3	
Cadmium	ND	ug/L	1.0	1	08/07/09 11:10	08/13/09 02:38	7440-43-9	
Chromium	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:38	7440-47-3	
Lead	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:38	7439-92-1	
Selenium	ND	ug/L	10.0	1	08/07/09 11:10	08/13/09 02:38	7782-49-2	
Silver	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:38	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	08/07/09 10:43	08/07/09 14:55	7439-97-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		08/06/09 02:04	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		08/06/09 02:04	107-13-1	
Benzene	ND	ug/L	1.0	1		08/06/09 02:04	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		08/06/09 02:04	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/06/09 02:04	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/06/09 02:04	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/06/09 02:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/06/09 02:04	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		08/06/09 02:04	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		08/06/09 02:04	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		08/06/09 02:04	108-90-7	
Chloroethane	ND	ug/L	1.0	1		08/06/09 02:04	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/06/09 02:04	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/06/09 02:04	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	3.0	1		08/06/09 02:04	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/06/09 02:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/06/09 02:04	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/06/09 02:04	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/06/09 02:04	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		08/06/09 02:04	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		08/06/09 02:04	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/06/09 02:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/06/09 02:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/06/09 02:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 02:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 02:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/06/09 02:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 02:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 02:04	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		08/06/09 02:04	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		08/06/09 02:04	591-78-6	
Iodomethane	ND	ug/L	5.0	1		08/06/09 02:04	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		08/06/09 02:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/06/09 02:04	108-10-1	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: SW-2 **Lab ID: 9249914008** Collected: 07/30/09 13:40 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Styrene	ND	ug/L	1.0	1		08/06/09 02:04	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 02:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 02:04	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/06/09 02:04	127-18-4	
Toluene	ND	ug/L	1.0	1		08/06/09 02:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/06/09 02:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/06/09 02:04	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/06/09 02:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/06/09 02:04	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/06/09 02:04	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/06/09 02:04	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/06/09 02:04	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		08/06/09 02:04	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/06/09 02:04	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		08/06/09 02:04	95-47-6	
4-Bromofluorobenzene (S)	98	%	87-109	1		08/06/09 02:04	460-00-4	
Dibromofluoromethane (S)	105	%	85-115	1		08/06/09 02:04	1868-53-7	
1,2-Dichloroethane-d4 (S)	105	%	79-120	1		08/06/09 02:04	17060-07-0	
Toluene-d8 (S)	102	%	70-120	1		08/06/09 02:04	2037-26-5	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: DUPLICATE **Lab ID: 9249914009** Collected: 07/30/09 08:00 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Arsenic	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:41	7440-38-2	
Barium	**75.2**	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:41	7440-39-3	
Cadmium	ND	ug/L	1.0	1	08/07/09 11:10	08/13/09 02:41	7440-43-9	
Chromium	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:41	7440-47-3	
Lead	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:41	7439-92-1	
Selenium	ND	ug/L	10.0	1	08/07/09 11:10	08/13/09 02:41	7782-49-2	
Silver	ND	ug/L	5.0	1	08/07/09 11:10	08/13/09 02:41	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470 Preparation Method: EPA 7470							
Mercury	ND	ug/L	0.20	1	08/07/09 10:43	08/07/09 14:58	7439-97-6	
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		08/06/09 02:23	67-64-1	
Acrylonitrile	ND	ug/L	10.0	1		08/06/09 02:23	107-13-1	
Benzene	ND	ug/L	1.0	1		08/06/09 02:23	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		08/06/09 02:23	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		08/06/09 02:23	75-27-4	
Bromoform	ND	ug/L	1.0	1		08/06/09 02:23	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/06/09 02:23	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		08/06/09 02:23	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		08/06/09 02:23	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		08/06/09 02:23	56-23-5	
Chlorobenzene	**5.8**	ug/L	1.0	1		08/06/09 02:23	108-90-7	
Chloroethane	**2.1**	ug/L	1.0	1		08/06/09 02:23	75-00-3	
Chloroform	ND	ug/L	1.0	1		08/06/09 02:23	67-66-3	
Chloromethane	ND	ug/L	1.0	1		08/06/09 02:23	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	3.0	1		08/06/09 02:23	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		08/06/09 02:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		08/06/09 02:23	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		08/06/09 02:23	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		08/06/09 02:23	95-50-1	
1,4-Dichlorobenzene	**3.5**	ug/L	1.0	1		08/06/09 02:23	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		08/06/09 02:23	110-57-6	
1,1-Dichloroethane	ND	ug/L	1.0	1		08/06/09 02:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		08/06/09 02:23	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		08/06/09 02:23	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 02:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		08/06/09 02:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		08/06/09 02:23	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 02:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		08/06/09 02:23	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		08/06/09 02:23	100-41-4	
2-Hexanone	ND	ug/L	5.0	1		08/06/09 02:23	591-78-6	
Iodomethane	ND	ug/L	5.0	1		08/06/09 02:23	74-88-4	
Methylene Chloride	ND	ug/L	2.0	1		08/06/09 02:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		08/06/09 02:23	108-10-1	

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ANALYTICAL RESULTS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

Sample: DUPLICATE **Lab ID: 9249914009** Collected: 07/30/09 08:00 Received: 07/31/09 15:20 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Styrene	ND	ug/L	1.0	1		08/06/09 02:23	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 02:23	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		08/06/09 02:23	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		08/06/09 02:23	127-18-4	
Toluene	ND	ug/L	1.0	1		08/06/09 02:23	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		08/06/09 02:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		08/06/09 02:23	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		08/06/09 02:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		08/06/09 02:23	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		08/06/09 02:23	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		08/06/09 02:23	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		08/06/09 02:23	75-01-4	
Xylene (Total)	ND	ug/L	2.0	1		08/06/09 02:23	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		08/06/09 02:23	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		08/06/09 02:23	95-47-6	
4-Bromofluorobenzene (S)	95	%	87-109	1		08/06/09 02:23	460-00-4	
Dibromofluoromethane (S)	108	%	85-115	1		08/06/09 02:23	1868-53-7	
1,2-Dichloroethane-d4 (S)	108	%	79-120	1		08/06/09 02:23	17060-07-0	
Toluene-d8 (S)	102	%	70-120	1		08/06/09 02:23	2037-26-5	

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QUALITY CONTROL DATA

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

QC Batch: MPRP/4850
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 9249914001, 9249914002

METHOD BLANK: 316942
Matrix: Water
Associated Lab Samples: 9249914001, 9249914002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	5.0	08/04/09 17:13	
Barium	ug/L	ND	5.0	08/04/09 17:13	
Cadmium	ug/L	ND	1.0	08/04/09 17:13	
Chromium	ug/L	ND	5.0	08/04/09 17:13	
Lead	ug/L	ND	5.0	08/04/09 17:13	
Selenium	ug/L	ND	10.0	08/04/09 17:13	
Silver	ug/L	ND	5.0	08/04/09 17:13	

LABORATORY CONTROL SAMPLE: 316943

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	500	471	94	80-120	
Barium	ug/L	500	468	94	80-120	
Cadmium	ug/L	500	480	96	80-120	
Chromium	ug/L	500	495	99	80-120	
Lead	ug/L	500	484	97	80-120	
Selenium	ug/L	500	467	93	80-120	
Silver	ug/L	250	234	94	80-120	

MATRIX SPIKE SAMPLE: 316944

Parameter	Units	9249725001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	10.4	500	455	89	75-125	
Barium	ug/L	178	500	609	86	75-125	
Cadmium	ug/L	ND	500	450	90	75-125	
Chromium	ug/L	35.5	500	501	93	75-125	
Lead	ug/L	43.9	500	480	87	75-125	
Selenium	ug/L	ND	500	449	90	75-125	
Silver	ug/L	0.14J	250	225	90	75-125	

SAMPLE DUPLICATE: 316945

Parameter	Units	9249725002 Result	Dup Result	RPD	Qualifiers
Arsenic	ug/L	ND	ND		
Barium	ug/L	14.3J	14.2	.7	
Cadmium	ug/L	ND	ND		
Chromium	ug/L	3.0J	2.7J		
Lead	ug/L	4.2J	4.1J		

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

QUALITY CONTROL DATA

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

SAMPLE DUPLICATE: 316945

Parameter	Units	9249725002 Result	Dup Result	RPD	Qualifiers
Selenium	ug/L	ND	ND		
Silver	ug/L	0.24J	.15J		

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QUALITY CONTROL DATA

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

QC Batch: MERP/2311 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury
Associated Lab Samples: 9249914001, 9249914002, 9249914003, 9249914004, 9249914005, 9249914006, 9249914007, 9249914008, 9249914009

METHOD BLANK: 318684 Matrix: Water
Associated Lab Samples: 9249914001, 9249914002, 9249914003, 9249914004, 9249914005, 9249914006, 9249914007, 9249914008, 9249914009

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

LABORATORY CONTROL SAMPLE: 318685

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

MATRIX SPIKE SAMPLE: 318686

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

SAMPLE DUPLICATE: 318687

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

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QUALITY CONTROL DATA

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

QC Batch: MPRP/4880 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 9249914003, 9249914004, 9249914005, 9249914006, 9249914007, 9249914008, 9249914009

METHOD BLANK: 319302 Matrix: Water
Associated Lab Samples: 9249914003, 9249914004, 9249914005, 9249914006, 9249914007, 9249914008, 9249914009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	5.0	08/13/09 01:45	
Barium	ug/L	ND	5.0	08/13/09 01:45	
Cadmium	ug/L	ND	1.0	08/13/09 01:45	
Chromium	ug/L	ND	5.0	08/13/09 01:45	
Lead	ug/L	ND	5.0	08/13/09 01:45	
Selenium	ug/L	ND	10.0	08/13/09 01:45	
Silver	ug/L	ND	5.0	08/13/09 01:45	

LABORATORY CONTROL SAMPLE: 319303

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	500	523	105	80-120	
Barium	ug/L	500	493	99	80-120	
Cadmium	ug/L	500	531	106	80-120	
Chromium	ug/L	500	541	108	80-120	
Lead	ug/L	500	517	103	80-120	
Selenium	ug/L	500	508	102	80-120	
Silver	ug/L	250	260	104	80-120	

MATRIX SPIKE SAMPLE: 319304

Parameter	Units	9249914003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	ND	500	540	108	75-125	
Barium	ug/L	78.1	500	546	94	75-125	
Cadmium	ug/L	ND	500	513	103	75-125	
Chromium	ug/L	ND	500	526	105	75-125	
Lead	ug/L	ND	500	487	97	75-125	
Selenium	ug/L	ND	500	526	105	75-125	
Silver	ug/L	ND	250	261	104	75-125	

SAMPLE DUPLICATE: 319305

Parameter	Units	9249914004 Result	Dup Result	RPD	Qualifiers
Arsenic	ug/L	ND	ND		
Barium	ug/L	51.6	52.7	2	
Cadmium	ug/L	ND	ND		
Chromium	ug/L	ND	19.9		
Lead	ug/L	ND	ND		

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QUALITY CONTROL DATA

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

SAMPLE DUPLICATE: 319305

Parameter	Units	9249914004 Result	Dup Result	RPD	Qualifiers
Selenium	ug/L	ND	ND		
Silver	ug/L	ND	1J		

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QUALITY CONTROL DATA

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

QC Batch: MSV/7876 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 9249914001, 9249914002, 9249914003, 9249914004, 9249914005, 9249914006, 9249914007, 9249914008, 9249914009

METHOD BLANK: 318112 Matrix: Water
Associated Lab Samples: 9249914001, 9249914002, 9249914003, 9249914004, 9249914005, 9249914006, 9249914007, 9249914008, 9249914009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	08/05/09 22:55	
1,1,1-Trichloroethane	ug/L	ND	1.0	08/05/09 22:55	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	08/05/09 22:55	
1,1,2-Trichloroethane	ug/L	ND	1.0	08/05/09 22:55	
1,1-Dichloroethane	ug/L	ND	1.0	08/05/09 22:55	
1,1-Dichloroethene	ug/L	ND	1.0	08/05/09 22:55	
1,2,3-Trichloropropane	ug/L	ND	1.0	08/05/09 22:55	
1,2-Dibromo-3-chloropropane	ug/L	ND	3.0	08/05/09 22:55	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	08/05/09 22:55	
1,2-Dichlorobenzene	ug/L	ND	1.0	08/05/09 22:55	
1,2-Dichloroethane	ug/L	ND	1.0	08/05/09 22:55	
1,2-Dichloropropane	ug/L	ND	1.0	08/05/09 22:55	
1,4-Dichlorobenzene	ug/L	ND	1.0	08/05/09 22:55	
2-Butanone (MEK)	ug/L	ND	5.0	08/05/09 22:55	
2-Hexanone	ug/L	ND	5.0	08/05/09 22:55	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	08/05/09 22:55	
Acetone	ug/L	ND	25.0	08/05/09 22:55	
Acrylonitrile	ug/L	ND	10.0	08/05/09 22:55	
Benzene	ug/L	ND	1.0	08/05/09 22:55	
Bromochloromethane	ug/L	ND	1.0	08/05/09 22:55	
Bromodichloromethane	ug/L	ND	1.0	08/05/09 22:55	
Bromoform	ug/L	ND	1.0	08/05/09 22:55	
Bromomethane	ug/L	ND	5.0	08/05/09 22:55	
Carbon disulfide	ug/L	ND	2.0	08/05/09 22:55	
Carbon tetrachloride	ug/L	ND	1.0	08/05/09 22:55	
Chlorobenzene	ug/L	ND	1.0	08/05/09 22:55	
Chloroethane	ug/L	ND	1.0	08/05/09 22:55	
Chloroform	ug/L	ND	1.0	08/05/09 22:55	
Chloromethane	ug/L	ND	1.0	08/05/09 22:55	
cis-1,2-Dichloroethene	ug/L	ND	1.0	08/05/09 22:55	
cis-1,3-Dichloropropene	ug/L	ND	1.0	08/05/09 22:55	
Dibromochloromethane	ug/L	ND	1.0	08/05/09 22:55	
Dibromomethane	ug/L	ND	1.0	08/05/09 22:55	
Ethylbenzene	ug/L	ND	1.0	08/05/09 22:55	
Iodomethane	ug/L	ND	5.0	08/05/09 22:55	
m&p-Xylene	ug/L	ND	2.0	08/05/09 22:55	
Methylene Chloride	ug/L	2.8	2.0	08/05/09 22:55	C9
o-Xylene	ug/L	ND	1.0	08/05/09 22:55	
Styrene	ug/L	ND	1.0	08/05/09 22:55	
Tetrachloroethene	ug/L	ND	1.0	08/05/09 22:55	
Toluene	ug/L	ND	1.0	08/05/09 22:55	

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QUALITY CONTROL DATA

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

METHOD BLANK: 318112 Matrix: Water

Associated Lab Samples: 9249914001, 9249914002, 9249914003, 9249914004, 9249914005, 9249914006, 9249914007, 9249914008, 9249914009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,2-Dichloroethene	ug/L	ND	1.0	08/05/09 22:55	
trans-1,3-Dichloropropene	ug/L	ND	1.0	08/05/09 22:55	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	08/05/09 22:55	
Trichloroethene	ug/L	ND	1.0	08/05/09 22:55	
Trichlorofluoromethane	ug/L	ND	1.0	08/05/09 22:55	
Vinyl acetate	ug/L	ND	2.0	08/05/09 22:55	
Vinyl chloride	ug/L	ND	1.0	08/05/09 22:55	
Xylene (Total)	ug/L	ND	2.0	08/05/09 22:55	
1,2-Dichloroethane-d4 (S)	%	104	79-120	08/05/09 22:55	
4-Bromofluorobenzene (S)	%	98	87-109	08/05/09 22:55	
Dibromofluoromethane (S)	%	102	85-115	08/05/09 22:55	
Toluene-d8 (S)	%	101	70-120	08/05/09 22:55	

LABORATORY CONTROL SAMPLE: 318113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.3	109	83-125	
1,1,1-Trichloroethane	ug/L	50	54.4	109	80-129	
1,1,2,2-Tetrachloroethane	ug/L	50	59.3	119	73-127	
1,1,2-Trichloroethane	ug/L	50	53.6	107	77-123	
1,1-Dichloroethane	ug/L	50	53.7	107	76-129	
1,1-Dichloroethene	ug/L	50	56.9	114	78-146	
1,2,3-Trichloropropane	ug/L	50	53.4	107	72-125	
1,2-Dibromo-3-chloropropane	ug/L	50	50.1	100	65-128	
1,2-Dibromoethane (EDB)	ug/L	50	55.3	111	81-125	
1,2-Dichlorobenzene	ug/L	50	52.9	106	82-126	
1,2-Dichloroethane	ug/L	50	54.8	110	72-126	
1,2-Dichloropropane	ug/L	50	57.0	114	80-127	
1,4-Dichlorobenzene	ug/L	50	51.8	104	79-125	
2-Butanone (MEK)	ug/L	100	102	102	50-134	
2-Hexanone	ug/L	100	109	109	58-138	
4-Methyl-2-pentanone (MIBK)	ug/L	100	110	110	70-131	
Acetone	ug/L	100	99.8	100	50-146	
Acrylonitrile	ug/L	250	254	102	66-124	
Benzene	ug/L	50	53.7	107	78-128	
Bromochloromethane	ug/L	50	44.1	88	73-124	
Bromodichloromethane	ug/L	50	46.0	92	81-125	
Bromoform	ug/L	50	44.4	89	71-125	
Bromomethane	ug/L	50	59.6	119	50-150	
Carbon disulfide	ug/L	50	54.7	109	54-150	
Carbon tetrachloride	ug/L	50	48.8	98	81-137	
Chlorobenzene	ug/L	50	50.9	102	82-126	
Chloroethane	ug/L	50	46.6	93	69-140	
Chloroform	ug/L	50	53.0	106	77-129	

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QUALITY CONTROL DATA

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

LABORATORY CONTROL SAMPLE: 318113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloromethane	ug/L	50	51.9	104	54-139	
cis-1,2-Dichloroethene	ug/L	50	56.3	113	76-133	
cis-1,3-Dichloropropene	ug/L	50	50.6	101	76-127	
Dibromochloromethane	ug/L	50	45.6	91	77-125	
Dibromomethane	ug/L	50	52.6	105	77-125	
Ethylbenzene	ug/L	50	53.9	108	80-127	
Iodomethane	ug/L	100	101	101	65-172	
m&p-Xylene	ug/L	100	97.1	97	82-127	
Methylene Chloride	ug/L	50	57.6	115	67-133	
o-Xylene	ug/L	50	55.9	112	83-124	
Styrene	ug/L	50	48.2	96	80-130	
Tetrachloroethene	ug/L	50	52.3	105	78-128	
Toluene	ug/L	50	51.6	103	76-126	
trans-1,2-Dichloroethene	ug/L	50	53.4	107	78-134	
trans-1,3-Dichloropropene	ug/L	50	49.2	98	75-125	
trans-1,4-Dichloro-2-butene	ug/L	50	52.0	104	51-140	
Trichloroethene	ug/L	50	50.8	102	79-127	
Trichlorofluoromethane	ug/L	50	50.1	100	76-148	
Vinyl acetate	ug/L	100	102	102	50-150	
Vinyl chloride	ug/L	50	50.5	101	67-143	
Xylene (Total)	ug/L	150	153	102	83-125	
1,2-Dichloroethane-d4 (S)	%			97	79-120	
4-Bromofluorobenzene (S)	%			99	87-109	
Dibromofluoromethane (S)	%			99	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 318114 318115

Parameter	Units	9249914001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	78.0	77.6	156	155	60-150	.5	M0
Benzene	ug/L	ND	50	50	64.4	64.6	129	129	74-136	.3	
Chlorobenzene	ug/L	ND	50	50	60.5	61.4	121	123	79-135	2	
Toluene	ug/L	ND	50	50	62.7	63.6	125	127	73-131	2	
Trichloroethene	ug/L	ND	50	50	59.8	60.3	120	121	73-131	.8	
1,2-Dichloroethane-d4 (S)	%						103	103	79-120		
4-Bromofluorobenzene (S)	%						92	93	87-109		
Dibromofluoromethane (S)	%						101	101	85-115		
Toluene-d8 (S)	%						100	102	70-120		

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QUALIFIERS

Project: CASWELL COUNTY LANDFILL
Pace Project No.: 9249914

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

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

ANALYTE QUALIFIERS

C9	Common Laboratory Contaminant.
M0	Matrix spike recovery was outside laboratory control limits.

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APPENDIX C

NC DENR Environmental Monitoring Reporting Form
And Electronic Data