

**WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
PHASE I POST CLOSURE MONITORING
APRIL 2010 SAMPLING EVENT**
S&ME Project No. 1584-98-081

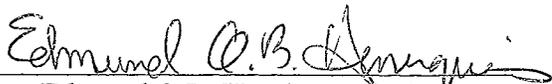
Prepared For:
The City of Greensboro

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July 15, 2010



I hereby certify this 15th day of July 2010 that this report was prepared by me or under my direct supervision.


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1. EXECUTIVE SUMMARY

Five monitoring wells and four stream locations at the White Street Landfill were sampled on April 28, 2010. Five wells (I-1, I-2, I-3, I-4 and MW-13) comprise the groundwater monitoring system for the closed Phase I portion of the White Street Landfill. Monitoring well MW-13 serves as a background well for both the Phase I and the Phase II areas. The sampling was conducted according to North Carolina Solid Waste Management Guidelines and samples were analyzed by a North Carolina certified laboratory. The samples collected from the Phase I area wells were submitted for analysis using the North Carolina Appendix I organic constituents and eight RCRA Metals for detection monitoring. Samples for well MW-13, shared by Phase I and Phase II, were submitted for analysis of the North Carolina Appendix I parameter suite. Samples from surface water locations SW-2, SW-3, SW-4 and SW-5 were analyzed for federal Appendix I monitoring constituents.

Analytical results from the five Phase I monitoring wells indicate that the following NCAC 2L groundwater quality standards were exceeded.

- Vinyl chloride was reported at an estimated “J” flagged value in wells I-1, I-2 and I-3. Based on our understanding, each of the reported estimated concentrations represent an exceedance of the NCAC 2L groundwater quality standard for vinyl chloride currently set at 0.03 µg/L.
- Benzene was detected at a concentration of 1.7 µg/L at well I-1 which exceeds the NCAC 2L groundwater standard of 1 µg/L.
- Inorganic constituent vanadium was detected in groundwater at background well MW-13, at a reported concentration exceeding the corresponding North Carolina Public Health Goal of 3.5 µg/L. This detection should reflect natural background water quality; as such, it would not represent an exceedance of the standard.

With regards to surface water sampling, no volatile organic constituents were detected at concentrations above their corresponding NCAC 2B standards. Inorganic constituent silver was estimated at a “J” flagged value of 2.22 µg/L in surface water sample SW-2, which exceeds the corresponding NCAC 2B standard of 0.06 µg/L. Surface water sample SW-2 is collected upgradient of the facility; therefore, it reflects background surface water quality. Zinc was detected at each location; however, only the concentrations detected at SW-5 exceeds the corresponding NCAC 2B standard of 50 µg/L. Due to the detection of similar zinc concentrations at sample locations upstream of the facility, Phase I of the landfill is not thought to be the source of the zinc detected in sample SW-5.

It is believed that the cause of the 2L exceedances within the hydrogeologic regime at Phase I of the White Street Landfill is from percolation of landfill constituents from the waste management units into the uppermost groundwater aquifer. The wells reported to contain 2L exceedances are located between the limits of waste and the compliance boundary. The City of Greensboro believes that Phase I of the White Street Landfill, was closed prior to January 1, 1983, and as such, assessment and cleanup of this landfill unit should fall under jurisdiction of the NCDENR Inactive Hazardous Sites program Pre-Regulatory Landfill Unit, for “old landfills.”

2. INTRODUCTION

White Street Landfill is a Solid Waste Management Facility (SWMF) located at the north end of White Street in northeastern Greensboro. S&ME, Inc. (S&ME) was contracted by the City of Greensboro to complete this Phase I water quality monitoring event. Phase I of the landfill is covered by Solid Waste Permit #41-03. **Figure 1** is a map showing the monitor well locations. One upgradient and four down-gradient monitoring wells located along the perimeter of the closed Phase I disposal area were sampled. Four surface water samples were collected from North Buffalo Creek and one of its tributaries in the vicinity of the White Street facility. Phase I shares the surface water sampling locations with adjacent Phase II and Phase III.

The samples collected from Phase I wells I-1, I-2, I-3, and I-4 were analyzed for Appendix I volatile organic constituents and the eight RCRA metals. Since well MW-13 is shared by Phase I and Phase II, the samples collected from MW-13 were analyzed using the federal Appendix I assessment monitoring list. This report discusses the field procedures, summarizes the field measurements and analytical results for the April 2010 water quality monitoring event.

3. SCOPE OF WORK

To complete the scope of work, S&ME completed the following tasks:

- Sampled five monitoring wells and four surface water locations at the White Street landfill SWMF.
- Obtained field values for pH, temperature, dissolved oxygen (DO), turbidity, oxidation-reduction potential (ORP), and conductivity at each sample location.
- Depth to water measurements were collected during well purging to monitor drawdown.
- Samples I-1, I-2, I-3, and I-4 were analyzed for Appendix I organic constituents and 8-RCRA metals by a North Carolina certified laboratory, using State approved methods.
- Sample MW-13 was analyzed for Appendix I constituents by a North Carolina certified laboratory, using State approved methods (e.g., MW-13 is also part of Phase II, which has different analytical requirements).
- Samples SW-2, SW-3, SW-4 and SW-5 were analyzed for Appendix I constituents by a North Carolina certified laboratory, using State approved methods.
- Calculated groundwater flow directions for the Phase I area.
- Prepared and submitted this Groundwater Monitoring Report to the City of Greensboro and the State.

4. METHODS EMPLOYED

4.1 Monitoring Well Sampling

Phase I groundwater monitoring well sampling took place on April 28, 2010. The monitoring well locations 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 sounding data reported for the sampling events completed during September 1997 and May 1998 were used to determine the volume of water in wells I-1, I-2, I-3, I-4 and MW-13, where dedicated MicroPurge™ pumps had been previously installed. These data are summarized in **Table 1**.

In accordance with the facility's approved Water Quality Monitoring Plan, each well was purged using the dedicated MicroPurge™ pumps using compressed air. At each well, the purge rate and the drawdown of the water table were monitored as an indicator of how much stress the purging placed on the aquifer. The purge rates were calculated by recording the time required to fill a graduated cylinder. The purging flow rate varied but was approximately 100 milliliters/minute (ml/min.). During purging, the depth to water was periodically monitored and recorded on the groundwater sampling field data sheets. The field data sheets are included in **Appendix A**.

It is our opinion that the observed drawdowns were generally minor during purging; therefore, the stresses placed on the aquifer should have been minor. The observed drawdown data also suggests that the purging rates should have been low enough such that recharge water should not have been overly agitated, reducing the potential for colloids to be drawn into the well bore.

The purge water from each of these wells was monitored for pH, temperature, DO, turbidity, ORP and conductivity. A sample was collected when the changes in those readings fluctuated no more than 10 percent. The field data collected during sampling was recorded on the groundwater sampling field data sheets. **Table 2** summarizes the results of the field data.

Groundwater samples were collected from dedicated Teflon tubing at each of the pumped wells. Immediately upon collection, each 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. After collection, the groundwater samples were packed on ice and placed under chain-of custody.

All Phase I monitoring well samples (I-1, I-2, I-3 and I-4) were analyzed for Appendix I volatile organic constituents and the eight RCRA metals. Monitor well MW-13 was analyzed for Appendix I constituents since it is shared with Phase II as a background groundwater quality monitoring well for both Phase I and Phase II. Analyses were conducted by Environmental Conservation Laboratories, a North Carolina certified laboratory. Laboratory analytical data is attached in **Appendix B**. The NCDENR Environmental Monitoring Reporting Form is attached as **Appendix C**.

4.2 Stream Sampling

Surface water sampling took place on April 30, 2010. Three stream samples (SW-3, SW-4, and SW-5) were collected from North Buffalo Creek, which flows along the northwestern side of the White Street Landfill. Surface water sample SW-2 was collected from a tributary of North Buffalo Creek. The locations are shown in **Figure 2**. SW-2 was collected from a southern tributary of North Buffalo Creek just before it joins the main creek west of the landfill entrance. SW-3 was collected downstream of the North Buffalo Wastewater Treatment Plant outfall and upstream of the landfill. SW-4 was collected downstream of the landfill at a USGS gauging station located on North Buffalo Creek about three-quarters of a mile north of the landfill. SW-5 was collected from North Buffalo Creek immediately downstream of the Phase I and II landfill disposal areas.

The surface water samples were collected by immersing laboratory supplied containers in the water 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 Appendix I inorganic and volatile organic constituents by Environmental Conservation Laboratories; a North Carolina certified laboratory.

5. RESULTS

5.1 Groundwater Analytical Results

The results of the laboratory analyses for Appendix I volatile organic constituents and the eight RCRA metals in the closed Phase I area groundwater monitoring well samples are summarized in **Table 3** and **Table 4**, and the complete laboratory report is included in **Appendix B**. Wells I-1, I-2, I-3, I-4 and MW-13 monitor the closed Phase I area. The following summarizes the groundwater sample analyses.

- Vinyl chloride was reported at an estimated “J” flagged value in wells I-1, I-2 and I-3. Based on our understanding, each of the reported estimated concentrations represent an exceedance of the NCAC 2L groundwater quality standard for vinyl chloride currently set at 0.03µg/L.
- Benzene was detected at a concentration of 1.7 µg/L at well I-1 which exceeds the NCAC 2L groundwater standard of 1 µg/L.
- Volatile organic compounds 1,1-dichloroethane, cis 1,2-dichloroethene, chlorobenzene, 1,2-dichlorobenzene, and 1,4-dichlorobenzene were detected at quantified or estimated concentrations in one or more of the wells. However the reported concentrations of these compounds were below their corresponding NCAC 2L groundwater quality standard.
- Inorganic constituents barium, cadmium, chromium, lead, silver, and zinc were detected or estimated at “J” flagged values in one or more of the groundwater monitoring wells during this water quality monitoring event; however, the detected concentrations were less than the corresponding NCAC 2L groundwater quality standards.

- Currently, there is no established North Carolina Groundwater Quality Standard for vanadium. However, North Carolina has published a Public Health Goal (NCPHG) for vanadium, which is set at 3.5 µg/L. The NCPHG values have been established by toxicologists and are considered safe levels for the constituent of concern in private drinking water wells over a lifetime of consumption. During this event, vanadium was only detected in the groundwater sample collected from monitoring well MW-13 at a reported estimated concentration of 3.65 µg/L. This concentration is above the NCPHG for vanadium. Monitoring well MW-13 is a background monitoring well for Phase I of the Facility, and therefore, vanadium in MW-13 is thought to represent background water quality.

5.2 Groundwater Flow Direction

The static water levels in the Phase I monitoring wells were measured on April 28, 2010. The depth to the water table ranged from 2.14 to 19.14 feet below the top of well casing on this date. Groundwater and well casing elevation data are presented in **Table 1**. A groundwater contour map constructed using the data collected during this monitoring event is presented as **Figure 1**. The groundwater elevation data collected during this monitoring event indicates that the groundwater beneath Phase I generally flows toward the northwest, toward Buffalo Creek.

5.3 Surface Water

The results of the laboratory analyses for the Appendix I constituents in the surface water samples are summarized in **Table 5** and **Table 6**. The complete laboratory reports are included in **Appendix B**. The following summarizes the surface water sample analyses.

- Volatile organic compounds acetone, bromodichloromethane, and chloroform were detected at estimated (“J” flagged) concentrations from the surface water samples collected from SW-2, SW-3, SW-4, and SW-5. These constituents do not have a corresponding NCAC 2B standard. Bromodichloromethane was detected up-stream of the facility in surface water sample SW-3. Acetone and chloroform were detected in sample SW-5 at concentrations similar to those detected up-stream at background location SW-3.
- Toluene was detected in sample SW-3, up-stream of the facility. The detected concentration is less than the corresponding NCAC 2B standard.
- At sample location SW-2, inorganic constituent silver was estimated at a “J” flagged value of 2.22 µg/L which exceeds the corresponding NCAC 2B standard concentration of 0.06 µg/L. Sample SW-2 is collected upstream from the facility.
- Inorganic constituent zinc was detected in samples SW-2, SW-3, SW-4 and SW-5, only the concentrations detected in SW-5 exceeds the corresponding NCAC 2B standard of 50 µg/L. Due to the detection of similar zinc concentrations at surface water sample locations located upstream of the facility, Phase I of the landfill is not thought to be the source of the zinc detected at surface water sample SW-5.
- Inorganic constituent’s barium, chromium, copper, lead, nickel and selenium were reported at estimated “J” flagged values at one or more sampled locations; however, the reported concentrations are below the corresponding NCAC 2B standards.

- Inorganic constituent's antimony, cobalt, and vanadium were reported at estimated "J" flagged values at one or more sampled surface water sample locations. Currently, there are no corresponding NCAC 2B surface water quality standards for these constituents.

5.4 Quality Assurance

The monitoring wells in Phase I were sampled using dedicated micro-purge pumps. Therefore, no equipment rinse samples were collected for analysis for data quality control. Trip blank samples accompanied the sample bottles from the time they left the laboratory until they returned. The trip blank samples were analyzed for Appendix I volatile organic constituents. No volatile organic constituents were present in the trip blank samples at detectable levels. Laboratory QC samples were analyzed for all constituents included in this sampling event. The results of the trip blank and laboratory QC sample analyses are included in **Appendix B**.

6. 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
PHASE I - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081**

Well No.	Elevation TOC (feet)	Depth of Well (feet)	Static Water Levels			
			April 28, 2010		October 2009	
			DTGW (feet)	Elevation (feet)	DTGW (feet)	Elevation (feet)
I-1	776.11	23.36	8.39	767.72	10.18	765.93
I-2	768.58	23.13	4.77	763.81	5.28	763.30
I-3	764.65	24.22	13.02	751.63	14.50	750.15
I-4	759.83	14.57	2.14	757.69	5.13	754.70
MW-13	741.30	33.78	19.14	722.16	21.25	720.05

TOC = Top of Casing. Elevations determined by survey: HDR Engineering, Inc.

Depth of well data as reported by BPA Environmental & Engineering, Inc.

DTGW = Depth to Groundwater

Elevation = calculated groundwater elevation

TABLE 2
GROUNDWATER & SURFACE WATER FIELD DATA SUMMARY
PHASE I - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081

Location: I-1

Time	Date	Temp-C	pH	SpC-mS/cm	ORP-mV	DO-mg/L	Turbidity-NTU	Depth to Water-feet
925	4/28/10	13.73	5.89	2.180	304	6.12	14.77	8.59
930	4/28/10	14.01	5.67	2.200	285	5.01	43.60	8.53
935	4/28/10	14.26	5.65	2.180	284	4.86	41.70	8.51
940	4/28/10	14.32	5.65	2.200	283	4.63	38.30	8.54
945	4/28/10	14.78	5.67	2.220	282	4.97	35.90	8.51
950	4/28/10	14.70	5.67	2.220	281	4.89	35.20	

Location: I-2

Time	Date	Temp-C	pH	SpC-mS/cm	ORP-mV	DO-mg/L	Turbidity-NTU	Depth to Water-feet
1025	4/28/10	16.05	6.28	2.170	115	2.54	31.80	5.74
1030	4/28/10	16.01	6.10	2.260	116	1.42	33.00	5.90
1035	4/28/10	15.82	6.05	2.300	110	1.33	53.30	5.99
1040	4/28/10	15.65	6.05	2.300	104	2.23	54.60	6.01
1045	4/28/10	16.24	6.06	2.290	94	3.68	40.30	6.00
1050	4/28/10	16.44	6.07	2.270	91	4.19	39.10	
1055	4/28/10	16.60	6.08	2.270	87	4.11	36.40	5.99
1100	4/28/10	16.97	6.08	2.270	84	4.32	33.80	

Location: I-3

Time	Date	Temp-C	pH	SpC-mS/cm	ORP-mV	DO-mg/L	Turbidity-NTU	Depth to Water-feet
1145	4/28/10	14.82	6.50	2.650	109	3.93	21.90	13.16
1150	4/28/10	14.02	6.33	2.650	100	1.89	7.76	13.13
1155	4/28/10	13.92	6.32	2.650	108	1.68	9.61	13.14
1200	4/28/10	13.96	6.31	2.260	108	1.49	6.88	13.15
1205	4/28/10	13.99	6.30	2.640	108	1.27	8.54	

Location: I-4

Time	Date	Temp-C	pH	SpC-mS/cm	ORP-mV	DO-mg/L	Turbidity-NTU	Depth to Water-feet
1235	4/28/10	14.10	6.91	1.850	104	1.50	34.20	2.74
1240	4/28/10	14.15	6.80	1.900	98	0.56	118.00	2.79
1245	4/28/10	14.61	6.79	1.860	95	0.30	137.00	2.81
1250	4/28/10	15.30	6.78	1.830	87	0.20	222.00	2.81
1255	4/28/10	15.58	6.78	1.820	82	0.16	267.00	
1300	4/28/10	13.26	6.81	1.780	63	0.07	289.00	
1305	4/28/10	13.29	6.79	1.800	60	0.12	322.00	4.51
1310	4/28/10	13.68	6.79	1.800	58	0.08	203.00	4.08
1315	4/28/10	13.73	6.78	1.830	53	0.08	212.00	3.71
1320	4/28/10	13.88	6.78	1.840	51	0.08	199.00	

Location: MW-13

Time	Date	Temp-C	pH	SpC-mS/cm	ORP-mV	DO-mg/L	Turbidity-NTU	Depth to Water-feet
1405	4/28/10	14.66	6.68	0.437	252	7.49	11.16	19.44
1410	4/28/10	14.49	6.64	0.439	266	7.28	9.74	19.43
1415	4/28/10	14.41	6.63	0.437	277	7.05	7.24	19.47
1420	4/28/10	14.42	6.62	0.438	284	6.95	6.87	19.51
1425	4/28/10	14.56	6.60	0.439	288	6.94	6.98	19.54

TABLE 3
GROUNDWATER ANALYTICAL RESULTS SUMMARY
APPENDIX I - VOLATILE ORGANIC COMPOUNDS
PHASE I - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081

Compound	Sample Locations					NC SWSL (ug/L)	NCAC 2L stds. (ug/L)
	I-1 (ug/L)	I-2 (ug/L)	I-3 (ug/L)	I-4 (ug/L)	MW-13 (ug/L)		
Vinyl Chloride	0.52 J	0.62 J	0.44 J	ND	ND	1	0.03
Benzene	1.7	ND	ND	ND	ND	1	1
1,1-Dichloroethane	1.2 J	ND	2.0 J	ND	ND	5	6
cis 1,2-dichloroethene	1.9 J	0.61 J	0.87 J	ND	ND	5	70
Chlorobenzene	3.9	6.2	12	5.5	ND	3	50
1,4-Dichlorobenzene	4.2	1.6	4.1	3.8	ND	1	6
1,2-Dichlorobenzene	ND	1.4 J	0.73 J	ND	ND	5	20

ND = compound not detected

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

ns = no corresponding NCAC 2L groundwater quality standard

NC SWSL= North Carolina Solid Waste Section Limit

15A North Carolina Administrative Code 2L .0200, Groundwater Quality Standards for Class
 NCAC 2L std. = GA groundwater

If a NCAC 2L is not established the Groundwater Protection Standard is used

Quantities highlighted in yellow were detected above the NC SWSL

Quantities highlighted in orange were detected above the 2L standards

TABLE 4
GROUNDWATER ANALYTICAL RESULTS SUMMARY
8-RCRA METALS
PHASE I - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081

Constituent	Sample Locations					NC SWSL (ug/L)	NCAC 2L stds. (ug/L)	NCPHG stds. (ug/L)
	I-1 (ug/L)	I-2 (ug/L)	I-3 (ug/L)	I-4 (ug/L)	MW-13 (ug/L)			
Barium	304	489	112	508	112	100	700	
Cadmium	ND	ND	ND	0.649 J	ND	1	2	
Chromium	1.52 J	6.17 J	4.75 J	37.4	ND	10	10	
Lead	ND	ND	ND	7.98 J	ND	10	15	
Silver	5.16 J	6.91 J	5.57 J	2.93 J	ND	10	20	
Vanadium	NA	NA	NA	NA	3.65 J	25	ns	3.5
Zinc	NA	NA	NA	NA	7.2 J	10	1000	

ND = Analyte not detected

NA = Constituent not analyzed for (not on 8-RCRA metal list)

NC SWSL = North Carolina Solid Waste Section Limit

NCAC 2L stds. = 15A NCAC 2L .0200, Groundwater Standards for Class GA groundwater

ns = no standard listed according to NCAC 2L

J = Estimated value 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 2L standards.

Blue highlights indicate a measurement higher than the North Carolina Groundwater Protection Standard

TABLE 5
SURFACE WATER ANALYTICAL RESULTS SUMMARY
APPENDIX I - VOLATILE ORGANIC COMPOUNDS
PHASE I - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081

Compound	Sample Locations				15A NCAC 2B Standards* (ug/L)	NC SWSL (ug/L)
	SW-2 (ug/L)	SW-3 (ug/L)	SW-4 (ug/L)	SW-5 (ug/L)		
Acetone	3.0 J	3.5 J	4.6 J	4.1 J	ns	100
Bromodichloromethane	ND	0.83 J	ND	ND	ns	1
Chloroform	ND	1.8 J	ND	ND	ns	5
Toluene	ND	0.43 J	ND	ND	11	1

NC SWSL = North Carolina Solid Waste Section Limit

ND = Analyte not detected

* = Title 15A NCAC 2B Standards for Class C, WS-V surface water

J = Estimated value between the detection limit and the NC SWSL

ns = Title 15A NCAC 2B provides no established standard for these constituents

Yellow highlights indicate a measurement higher than the NC SWSL.

Orange highlights indicate a measurement higher than 2B standards.

TABLE 6
SURFACE WATER ANALYTICAL RESULTS SUMMARY
APPENDIX I - METALS
PHASE I - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081

Compound	Sample Locations				15A NCAC 2B	NC SWSL
	SW-2 (ug/L)	SW-3 (ug/L)	SW-4 (ug/L)	SW-5 (ug/L)	Standards* (ug/L)	(µg/l) (ug/L)
Antimony	ND	0.272 J	0.225 J	0.258 J	ns	6
Barium	48.5 J	30.9 J	37.1 J	44.2 J	1000	100
Chromium	ND	1.14 J	ND	1.95 J	50	10
Cobalt	ND	ND	ND	1.98 J	ns	10
Copper	ND	5.90 J	3.30 J	6.33 J	7	10
Lead	ND	ND	ND	2.04 J	25	10
Nickel	ND	ND	ND	2.14 J	25	50
Selenium	1.72 J	0.900 J	0.974 J	1.23 J	5	10
Silver	2.22 J	ND	ND	ND	0.06	10
Vanadium	ND	ND	ND	3.45 J	ns	25
Zinc	6.74 J	48.1	34.0	54.2	50	10

NC SWSL = North Carolina Solid Waste Section Limit

ND = Analyte not detected

* = Title 15A NCAC 2B Standards for Class C, WS-V surface water

J = Estimated value between the detection limit and the NC SWSL.

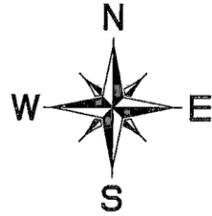
B = The analyte was detected in the associated method blank.

ns = Title 15A NCAC 2B provides no established standard for these constituents

Yellow highlights indicate a measurement higher than the NC SWSL.

Orange highlights indicate a measurement higher than 2B standards.

FIGURES

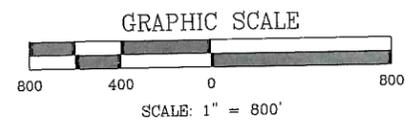
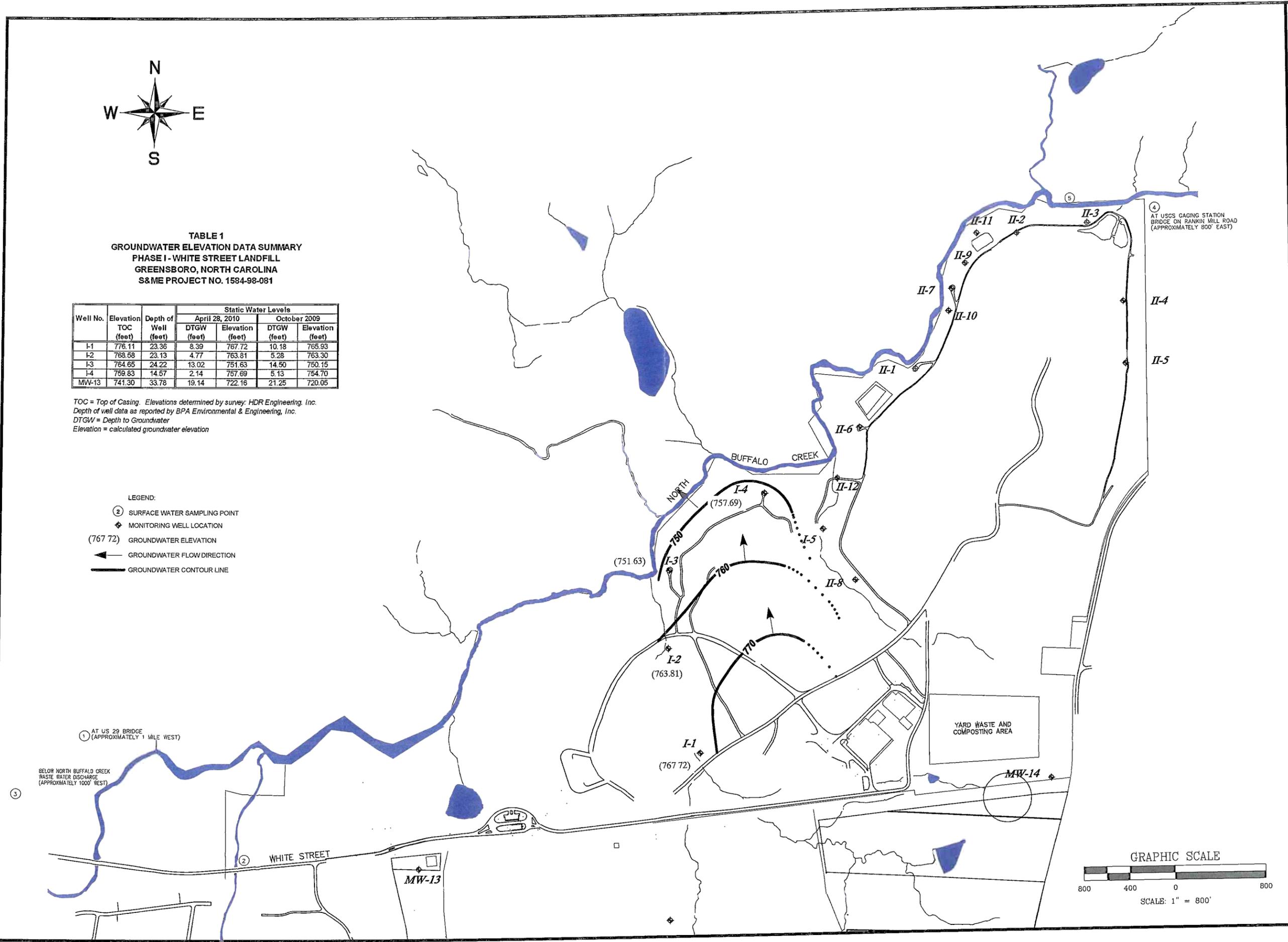


**TABLE 1
GROUNDWATER ELEVATION DATA SUMMARY
PHASE I - WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA
S&ME PROJECT NO. 1584-98-081**

Well No.	Elevation TOC (feet)	Depth of Well (feet)	Static Water Levels			
			April 28, 2010		October 2009	
			DTGW (feet)	Elevation (feet)	DTGW (feet)	Elevation (feet)
I-1	776.11	23.36	8.39	767.72	10.18	765.93
I-2	768.58	23.13	4.77	763.81	5.28	763.30
I-3	764.65	24.22	13.02	751.63	14.50	750.15
I-4	759.83	14.57	2.14	757.69	5.13	754.70
MW-13	741.30	33.78	19.14	722.16	21.25	720.05

TOC = Top of Casing. Elevations determined by survey: HDR Engineering, Inc.
 Depth of well data as reported by BPA Environmental & Engineering, Inc.
 DTGW = Depth to Groundwater
 Elevation = calculated groundwater elevation

- LEGEND:
- ② SURFACE WATER SAMPLING POINT
 - ◆ MONITORING WELL LOCATION
 - (767.72) GROUNDWATER ELEVATION
 - ← GROUNDWATER FLOW DIRECTION
 - GROUNDWATER CONTOUR LINE



**GROUNDWATER FLOW MAP
PHASE I
WHITE STREET LANDFILL
GREENSBORO, NORTH CAROLINA**

SCALE: AS SHOWN
 DRAWN BY: RDM
 CHECKED BY: EQBH
 JOB NO.: 1584-98-081
 DATE: JUNE 2010
 FIGURE NO.: 1



APPENDIX A

Groundwater Sampling Field Data Sheets

GROUNDWATER SAMPLING FIELD DATA

Location: WhiteStreet Landfill
 Project No.: 1584-98-081
 Source Well: I-1
 Locked?: Yes: No:
 Sampled By: Gary Simcox

Purge Date: Wednesday, April 28, 2010
 Purge Time: 920
 Sample Date: Wednesday, April 28, 2010
 Sample Time: 955
 Weather: Sunny
 Air Temp: 55 *F

Water Level & Well Data

Depth to water from measuring point: 8.39 feet
 Depth to well bottom from measuring point: 25.00 feet
 Height of water column: 16.61 feet
 Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method Pump
 Sample Method Pump
 Purge Rate < 100 ml/min
 Control Settings On: 2.5 sec.
 Off: 27.5 sec.
 Pressure: 21 psi

Purge Time
 Start 920 Stop 950
Sample Collection Time
 Start 950 Stop 955

Volume of water in well

2" well:
 height: 16.61 x .163 = 2.7074

Volume of water removed 4.0 gallons x liters

Was well purged dry Yes No

Field Analyses

*Stabilization Parameters

Time	925	930	935	940	945	950					
Temp	13.73	14.01	14.26	14.32	14.78	14.70					
pH	5.89	5.67	5.65	5.65	5.67	5.67					
Conductivity	2.180	2.200	2.180	2.200	2.220	2.220					
*ORP	304	285	284	283	282	281					
*D.O.	6.12	5.01	4.86	4.63	4.97	4.89					
*Turbidity	14.77	43.60	41.70	38.30	35.90	35.20					
DTW	8.59	8.53	8.51	8.54	8.51						

GROUNDWATER SAMPLING FIELD DATA

Location: _____
 Project No.: 1584-98-081
 Source Well: I-2
 Locked?: Yes: No: _____
 Sampled By: Gary Simcox

Purge Date: Wednesday, April 28, 2010
 Purge Time: 1020
 Sample Date: Wednesday, April 28, 2010
 Sample Time: 1105
 Weather: Sunny
 Air Temp: 60 *F

Water Level & Well Data

Depth to water from measuring point: 4.77 feet
 Depth to well bottom from measuring point: 24.00 feet
 Height of water column: 19.23 feet
 Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method Pump **Purge Time**
 Sample Method Pump Start 1020 Stop 1100
 Purge Rate < 100 ml/min **Sample Collection Time**
 Control Settings On: 3 sec. Start 1100 Stop 1105
 Off: 27 sec.
 Pressure: 16 psi

Volume of water in well

2" well:
 height: 19.23 x .163 = 3.1345

Volume of water removed 5.0 gallons x liters

Was well purged dry Yes _____ No

Field Analyses

*Stabilization Parameters

Time	1025	1030	1035	1040	1045	1050	1055	1100			
Temp	16.05	16.01	15.82	15.65	16.24	16.44	16.60	16.97			
pH	6.28	6.10	6.05	6.05	6.06	6.07	6.08	6.08			
Conductivity	2.170	2.260	2.300	2.300	2.290	2.270	2.270	2.270			
*ORP	115	116	110	104	94	91	87	84			
*D.O.	2.54	1.42	1.33	2.23	3.68	4.19	4.11	4.32			
*Turbidity	31.80	33.00	53.30	54.60	40.30	39.10	36.40	33.80			
DTW	5.74	5.90	5.99	6.01	6.00		5.99				

GROUNDWATER SAMPLING FIELD DATA

Location: WhiteStreet Landfill
 Project No.: 1584-98-081
 Source Well: I-3
 Locked?: Yes: No:
 Sampled By: Gary Simcox

Purge Date: Wednesday, April 28, 2010
 Purge Time: 1140
 Sample Date: Wednesday, April 28, 2010
 Sample Time: 1210
 Weather: Sunny
 Air Temp: 65 *F

Water Level & Well Data

Depth to water from measuring point: 13.02 feet
 Depth to well bottom from measuring point: 22.00 feet
 Height of water column: 8.98 feet
 Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method Pump
 Sample Method Pump
 Purge Rate < 100 ml/min
 Control Settings On: 3 sec.
 Off: 27 sec.
 Pressure: 16 psi

Purge Time
 Start 1140 Stop 1205
Sample Collection Time
 Start 1205 Stop 1210

Volume of water in well

2" well:
 height: 8.98 x .163 = 1.4637

Volume of water removed 3.5 gallons x liters

Was well purged dry Yes No

Field Analyses

*Stabilization Parameters

	1145	1150	1155	1200	1205					
Time	1145	1150	1155	1200	1205					
Temp	14.82	14.02	13.92	13.96	13.99					
pH	6.50	6.33	6.32	6.31	6.30					
Conductivity	2.650	2.650	2.650	2.260	2.640					
*ORP	109	100	108	108	108					
*D.O.	3.93	1.89	1.68	1.49	1.27					
*Turbidity	21.90	7.76	9.61	6.88	8.54					
DTW	13.16	13.13	13.14	13.15						

GROUNDWATER SAMPLING FIELD DATA

Location: <u>WhiteStreet Landfill</u>	Purge Date: <u>Wednesday, April 28, 2010</u>
Project No.: <u>1584-98-081</u>	Purge Time: <u>1230</u>
Source Well: <u>I-4</u>	Sample Date: <u>Wednesday, April 28, 2010</u>
	Sample Time: <u>1325</u>
Locked?: Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>	Weather: <u>Sunny</u>
Sampled By: <u>Gary Simcox</u>	Air Temp: <u>65 *F</u>

Water Level & Well Data

Depth to water from measuring point: 2.14 feet

Depth to well bottom from measuring point: _____ feet

Height of water column: -2.14 feet

Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method <u>Pump</u>	Purge Time
Sample Method <u>Pump</u>	Start <u>1230</u> Stop <u>1320</u>
Purge Rate <u>< 100</u> ml/min	Sample Collection Time
Control Settings On: <u>3</u> sec.	Start <u>1320</u> Stop <u>1325</u>
Off: <u>27</u> sec.	
Pressure: <u>14</u> psi	

Volume of water in well

2" well:

height: $-2.14 \times .163 =$ -0.349

Volume of water removed 6.0 gallons _____ liters x

Was well purged dry Yes _____ No x

Note: Increased flow to clean out flow thru cell
between 1255 and 1300 readings

Field Analyses

*Stabilization Parameters

Time	1235	1240	1245	1250	1255	1300	1305	1310	1315	1320	
Temp	14.10	14.15	14.61	15.30	15.58	13.26	13.29	13.68	13.73	13.88	
pH	6.91	6.80	6.79	6.78	6.78	6.81	6.79	6.79	6.78	6.78	
Conductivity	1.850	1.900	1.860	1.830	1.820	1.780	1.800	1.800	1.830	1.840	
*ORP	104	98	95	87	82	63	60	58	53	51	
*D.O.	1.50	0.56	0.30	0.20	0.16	0.07	0.12	0.08	0.08	0.08	
*Turbidity	34.20	118.00	137.00	222.00	267.00	289.00	322.00	203.00	212.00	199.00	
DTW	2.74	2.79	2.81	2.81			4.51	4.08	3.71		

GROUNDWATER SAMPLING FIELD DATA

Location: <u>WhiteStreet Landfill</u>	Purge Date: <u>Wednesday, April 28, 2010</u>
Project No.: <u>1584-98-081</u>	Purge Time: <u>1400</u>
Source Well: <u>MW-13</u>	Sample Date: <u>Wednesday, April 28, 2010</u>
	Sample Time: <u>1430</u>
Locked?: Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>	Weather: <u>Sunny / Windy</u>
Sampled By: <u>Gary Simcox</u>	Air Temp: <u>65 *F</u>

Water Level & Well Data

Depth to water from measuring point: 19.14 feet

Depth to well bottom from measuring point: 31.00 feet

Height of water column: 11.86 feet

Measuring point: Top of Casing

Well Purging & Sample Collection

Purge Method <u>Pump</u>	Purge Time
Sample Method <u>Pump</u>	Start <u>1400</u> Stop <u>1425</u>
Purge Rate <u>< 100</u> ml/min	Sample Collection Time
Control Settings On: <u>2</u> sec.	Start <u>1425</u> Stop <u>1430</u>
Off: <u>28</u> sec.	
Pressure: <u>30</u> psi	

Volume of water in well

2" well:

height: 11.86 x .163 = 1.9332

Volume of water removed 3.5 gallons liters

Was well purged dry Yes No

Field Analyses

*Stabilization Parameters

Time	1405	1410	1415	1420	1425						
Temp	14.66	14.49	14.41	14.42	14.56						
pH	6.68	6.64	6.63	6.62	6.60						
Conductivity	0.437	0.439	0.437	0.438	0.439						
*ORP	252	266	277	284	288						
*D.O.	7.49	7.28	7.05	6.95	6.94						
*Turbidity	11.16	9.74	7.24	6.87	6.98						
DTW	19.44	19.43	19.47	19.51	19.54						

APPENDIX B

Laboratory Analytical Reports

Environmental Conservation Laboratories, Inc.

102-A Woodwinds Industrial Court

Cary NC, 27511

Phone: 919.467.3090 FAX: 919.467.3515



www.encolabs.com

Wednesday, May 5, 2010

S&ME, Inc. (SM004)

Attn: Edmund Henriques

3718 Old Battleground Rd.

Greensboro, NC 27410

RE: Laboratory Results for

Project Number: [none], Project Name/Desc: White Street Landfill AppI Voa/RCRA Metals

ENCO Workorder: C004714

Dear Edmund Henriques,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, April 29, 2010.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Chuck Smith'. The signature is written in a cursive, flowing style.

Chuck Smith

Project Manager

Enclosure(s)



www.encolabs.com

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID:	4103-I1	Lab ID: C004714-01	Sampled: 04/28/10 09:55	Received: 04/29/10 12:30
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)	
EPA 6010C	10/25/10	04/30/10 11:45	5/3/2010 11:06	
EPA 7470A	05/26/10	04/30/10 10:18	4/30/2010 15:50	
EPA 8260B	05/12/10	05/04/10 17:17	5/5/2010 06:04	

Client ID:	4103-I2	Lab ID: C004714-02	Sampled: 04/28/10 11:05	Received: 04/29/10 12:30
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)	
EPA 6010C	10/25/10	04/30/10 11:45	5/3/2010 11:08	
EPA 7470A	05/26/10	04/30/10 10:18	4/30/2010 15:35	
EPA 8260B	05/12/10	05/04/10 17:17	5/5/2010 06:33	

Client ID:	4103-I3	Lab ID: C004714-03	Sampled: 04/28/10 12:10	Received: 04/29/10 12:30
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)	
EPA 6010C	10/25/10	04/30/10 11:45	5/3/2010 11:11	
EPA 7470A	05/26/10	04/30/10 10:18	4/30/2010 15:53	
EPA 8260B	05/12/10	05/04/10 17:17	5/5/2010 07:01	

Client ID:	4103-I4	Lab ID: C004714-04	Sampled: 04/28/10 13:25	Received: 04/29/10 12:30
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)	
EPA 6010C	10/25/10	04/30/10 11:45	5/3/2010 11:14	
EPA 7470A	05/26/10	04/30/10 10:18	4/30/2010 15:56	
EPA 8260B	05/12/10	05/04/10 17:17	5/5/2010 07:29	

Client ID:	4103-TripBlank#1	Lab ID: C004714-05	Sampled: 04/28/10 09:55	Received: 04/29/10 12:30
Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)	
EPA 8260B	05/12/10	05/04/10 17:17	5/5/2010 07:57	



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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: 4103-11 **Lab ID: C004714-01**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	1.2	J	1	0.050	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	4.2		1	0.10	1.0	1	ug/L	EPA 8260B	
Barium - Total	304		1	1.00	10.0	100	ug/L	EPA 6010C	
Benzene	1.7		1	0.050	1.0	1	ug/L	EPA 8260B	
Chlorobenzene	3.9		1	0.069	1.0	3	ug/L	EPA 8260B	
Chromium - Total	1.52	J	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	1.9	J	1	0.075	1.0	5	ug/L	EPA 8260B	
Silver - Total	5.16	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Vinyl chloride	0.52	J	1	0.083	1.0	1	ug/L	EPA 8260B	

Client ID: 4103-12 **Lab ID: C004714-02**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,2-Dichlorobenzene	1.4	J	1	0.052	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	1.6		1	0.10	1.0	1	ug/L	EPA 8260B	
Barium - Total	489		1	1.00	10.0	100	ug/L	EPA 6010C	
Chlorobenzene	6.2		1	0.069	1.0	3	ug/L	EPA 8260B	
Chromium - Total	6.17	J	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	0.61	J	1	0.075	1.0	5	ug/L	EPA 8260B	
Silver - Total	6.91	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Vinyl chloride	0.62	J	1	0.083	1.0	1	ug/L	EPA 8260B	

Client ID: 4103-13 **Lab ID: C004714-03**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,1-Dichloroethane	2.0	J	1	0.050	1.0	5	ug/L	EPA 8260B	
1,2-Dichlorobenzene	0.73	J	1	0.052	1.0	5	ug/L	EPA 8260B	
1,4-Dichlorobenzene	4.1		1	0.10	1.0	1	ug/L	EPA 8260B	
Barium - Total	112		1	1.00	10.0	100	ug/L	EPA 6010C	
Chlorobenzene	12		1	0.069	1.0	3	ug/L	EPA 8260B	
Chromium - Total	4.75	J	1	1.00	10.0	10	ug/L	EPA 6010C	
cis-1,2-Dichloroethene	0.87	J	1	0.075	1.0	5	ug/L	EPA 8260B	
Silver - Total	5.57	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Vinyl chloride	0.44	J	1	0.083	1.0	1	ug/L	EPA 8260B	

Client ID: 4103-14 **Lab ID: C004714-04**

Analyte	Results	Flag	DF	MDL	MRL	NC SWSL	Units	Method	Notes
1,4-Dichlorobenzene	3.8		1	0.10	1.0	1	ug/L	EPA 8260B	
Barium - Total	508		1	1.00	10.0	100	ug/L	EPA 6010C	
Cadmium - Total	0.649	J	1	0.360	1.00	1	ug/L	EPA 6010C	
Chlorobenzene	5.5		1	0.069	1.0	3	ug/L	EPA 8260B	
Chromium - Total	37.4		1	1.00	10.0	10	ug/L	EPA 6010C	
Lead - Total	7.98	J	1	1.90	10.0	10	ug/L	EPA 6010C	
Silver - Total	2.93	J	1	1.90	10.0	10	ug/L	EPA 6010C	



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ANALYTICAL RESULTS

Description: 4103-I1

Lab Sample ID: C004714-01

Received: 04/29/10 12:30

Matrix: Ground Water

Sampled: 04/28/10 09:55

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA
Metals

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
1,1,1,2-Tetrachloroethane [630-20-6] ^	0.091	U	ug/L	1	0.091	1.0	5	EPA 8260B	05/05/10 06:04	JKG	
1,1,1-Trichloroethane [71-55-6] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
1,1,2,2-Tetrachloroethane [79-34-5] ^	0.085	U	ug/L	1	0.085	1.0	3	EPA 8260B	05/05/10 06:04	JKG	
1,1,2-Trichloroethane [79-00-5] ^	0.068	U	ug/L	1	0.068	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
1,1-Dichloroethane [75-34-3] ^	1.2	J	ug/L	1	0.050	1.0	5	EPA 8260B	05/05/10 06:04	JKG	
1,1-Dichloroethene [75-35-4] ^	0.15	U	ug/L	1	0.15	1.0	5	EPA 8260B	05/05/10 06:04	JKG	
1,2,3-Trichloropropane [96-18-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
1,2-Dibromo-3-chloropropane [96-12-8] ^	0.48	U	ug/L	1	0.48	1.0	13	EPA 8260B	05/05/10 06:04	JKG	
1,2-Dibromoethane [106-93-4] ^	0.42	U	ug/L	1	0.42	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
1,2-Dichlorobenzene [95-50-1] ^	0.052	U	ug/L	1	0.052	1.0	5	EPA 8260B	05/05/10 06:04	JKG	
1,2-Dichloroethane [107-06-2] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
1,2-Dichloropropane [78-87-5] ^	0.098	U	ug/L	1	0.098	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
1,4-Dichlorobenzene [106-46-7] ^	4.2		ug/L	1	0.10	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
2-Butanone [78-93-3] ^	1.0	U	ug/L	1	1.0	5.0	100	EPA 8260B	05/05/10 06:04	JKG	
2-Hexanone [591-78-6] ^	0.69	U	ug/L	1	0.69	5.0	50	EPA 8260B	05/05/10 06:04	JKG	
4-Methyl-2-pentanone [108-10-1] ^	1.1	U	ug/L	1	1.1	5.0	100	EPA 8260B	05/05/10 06:04	JKG	
Acetone [67-64-1] ^	1.5	U	ug/L	1	1.5	5.0	100	EPA 8260B	05/05/10 06:04	JKG	
Acrylonitrile [107-13-1] ^	2.1	U	ug/L	1	2.1	10	200	EPA 8260B	05/05/10 06:04	JKG	
Benzene [71-43-2] ^	1.7		ug/L	1	0.050	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
Bromochloromethane [74-97-5] ^	0.11	U	ug/L	1	0.11	1.0	3	EPA 8260B	05/05/10 06:04	JKG	
Bromodichloromethane [75-27-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
Bromoform [75-25-2] ^	0.20	U	ug/L	1	0.20	1.0	3	EPA 8260B	05/05/10 06:04	JKG	
Bromomethane [74-83-9] ^	0.28	U	ug/L	1	0.28	1.0	10	EPA 8260B	05/05/10 06:04	JKG	
Carbon disulfide [75-15-0] ^	0.54	U	ug/L	1	0.54	5.0	100	EPA 8260B	05/05/10 06:04	JKG	
Carbon tetrachloride [56-23-5] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
Chlorobenzene [108-90-7] ^	3.9		ug/L	1	0.069	1.0	3	EPA 8260B	05/05/10 06:04	JKG	
Chloroethane [75-00-3] ^	0.18	U	ug/L	1	0.18	1.0	10	EPA 8260B	05/05/10 06:04	JKG	
Chloroform [67-66-3] ^	0.083	U	ug/L	1	0.083	1.0	5	EPA 8260B	05/05/10 06:04	JKG	
Chloromethane [74-87-3] ^	0.050	U	ug/L	1	0.050	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
cis-1,2-Dichloroethene [156-59-2] ^	1.9	J	ug/L	1	0.075	1.0	5	EPA 8260B	05/05/10 06:04	JKG	
cis-1,3-Dichloropropene [10061-01-5] ^	0.073	U	ug/L	1	0.073	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
Dibromochloromethane [124-48-1] ^	0.067	U	ug/L	1	0.067	1.0	3	EPA 8260B	05/05/10 06:04	JKG	
Dibromomethane [74-95-3] ^	0.13	U	ug/L	1	0.13	1.0	10	EPA 8260B	05/05/10 06:04	JKG	
Ethylbenzene [100-41-4] ^	0.10	U	ug/L	1	0.10	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
Iodomethane [74-88-4] ^	0.52	U	ug/L	1	0.52	5.0	10	EPA 8260B	05/05/10 06:04	JKG	
Methylene chloride [75-09-2] ^	0.070	U	ug/L	1	0.070	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
Styrene [100-42-5] ^	0.082	U	ug/L	1	0.082	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
Tetrachloroethene [127-18-4] ^	0.099	U	ug/L	1	0.099	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
Toluene [108-88-3] ^	0.053	U	ug/L	1	0.053	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
trans-1,2-Dichloroethene [156-60-5] ^	0.11	U	ug/L	1	0.11	1.0	5	EPA 8260B	05/05/10 06:04	JKG	
trans-1,3-Dichloropropene [10061-02-6] ^	0.080	U	ug/L	1	0.080	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
trans-1,4-Dichloro-2-butene [110-57-6] ^	0.54	U	ug/L	1	0.54	1.0	100	EPA 8260B	05/05/10 06:04	JKG	
Trichloroethene [79-01-6] ^	0.13	U	ug/L	1	0.13	1.0	1	EPA 8260B	05/05/10 06:04	JKG	



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Description: 4103-I1

Lab Sample ID: C004714-01

Received: 04/29/10 12:30

Matrix: Ground Water

Sampled: 04/28/10 09:55

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA Metals

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Trichlorofluoromethane [75-69-4] ^	0.15	U	ug/L	1	0.15	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
Vinyl acetate [108-05-4] ^	0.98	U	ug/L	1	0.98	5.0	50	EPA 8260B	05/05/10 06:04	JKG	
Vinyl chloride [75-01-4] ^	0.52	J	ug/L	1	0.083	1.0	1	EPA 8260B	05/05/10 06:04	JKG	
Xylenes (Total) [1330-20-7] ^	0.22	U	ug/L	1	0.22	1.0	5	EPA 8260B	05/05/10 06:04	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	47	1	50.0	94 %	51-122	0E04033	EPA 8260B	05/05/10 06:04	JKG		
Dibromofluoromethane	43	1	50.0	86 %	68-117	0E04033	EPA 8260B	05/05/10 06:04	JKG		
Toluene-d8	47	1	50.0	93 %	69-110	0E04033	EPA 8260B	05/05/10 06:04	JKG		



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Description: 4103-I1

Lab Sample ID: C004714-01

Received: 04/29/10 12:30

Matrix: Ground Water

Sampled: 04/28/10 09:55

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA
Metals

Sampled By: Gary Simcox

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	04/30/10 15:50	NLH	



www.encolabs.com

Description: 4103-I1

Lab Sample ID: C004714-01

Received: 04/29/10 12:30

Matrix: Ground Water

Sampled: 04/28/10 09:55

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA
Metals

Sampled By: Gary Simcox

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

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/03/10 11:06	JDH	
Barium [7440-39-3] ^	304		ug/L	1	1.00	10.0	100	EPA 6010C	05/03/10 11:06	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/03/10 11:06	JDH	
Chromium [7440-47-3] ^	1.52	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/03/10 11:06	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/03/10 11:06	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	05/03/10 11:06	JDH	
Silver [7440-22-4] ^	5.16	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/03/10 11:06	JDH	

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Description: 4103-I2

Lab Sample ID: C004714-02

Received: 04/29/10 12:30

Matrix: Ground Water

Sampled: 04/28/10 11:05

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA Metals

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Table with 11 columns: Analyte [CAS Number], Results, Flag, Units, DF, MDL, MRL, NC SWSL, Method, Analyzed, By, Notes. It lists various chemical compounds and their corresponding test results.



www.encolabs.com

Description: 4103-I2

Lab Sample ID: C004714-02

Received: 04/29/10 12:30

Matrix: Ground Water

Sampled: 04/28/10 11:05

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA
Metals

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.62	J	ug/L	1	0.083	1.0	1	EPA 8260B	05/05/10 06:33	JKG	
Xylenes (Total) [1330-20-7] ^	0.22	U	ug/L	1	0.22	1.0	5	EPA 8260B	05/05/10 06:33	JKG	
Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes	
4-Bromofluorobenzene	46	1	50.0	92 %	51-122	0E04033	EPA 8260B	05/05/10 06:33	JKG		
Dibromofluoromethane	44	1	50.0	87 %	68-117	0E04033	EPA 8260B	05/05/10 06:33	JKG		
Toluene-d8	46	1	50.0	92 %	69-110	0E04033	EPA 8260B	05/05/10 06:33	JKG		



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Description: 4103-I2

Lab Sample ID: C004714-02

Received: 04/29/10 12:30

Matrix: Ground Water

Sampled: 04/28/10 11:05

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA
Metals

Sampled By: Gary Simcox

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	04/30/10 15:35	NLH	



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Description: 4103-I2

Lab Sample ID: C004714-02

Received: 04/29/10 12:30

Matrix: Ground Water

Sampled: 04/28/10 11:05

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA
Metals

Sampled By: Gary Simcox

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

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC.SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/03/10 11:08	JDH	
Barium [7440-39-3] ^	489		ug/L	1	1.00	10.0	100	EPA 6010C	05/03/10 11:08	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/03/10 11:08	JDH	
Chromium [7440-47-3] ^	6.17	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/03/10 11:08	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/03/10 11:08	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	05/03/10 11:08	JDH	
Silver [7440-22-4] ^	6.91	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/03/10 11:08	JDH	

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



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Description: 4103-I3

Lab Sample ID: C004714-03

Received: 04/29/10 12:30

Matrix: Ground Water

Sampled: 04/28/10 12:10

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA Metals

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Table with columns: Analyte [CAS Number], Results, Flag, Units, DF, MDL, MRL, NC SWSL, Method, Analyzed, By, Notes. Rows list various organic compounds like 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, etc.



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Description: 4103-13

Lab Sample ID: C004714-03

Received: 04/29/10 12:30

Matrix: Ground Water

Sampled: 04/28/10 12:10

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA
Metals

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Xylenes (Total) [1330-20-7] ^	0.22	U	ug/L	1	0.22	1.0	5	EPA 8260B	05/05/10 07:01	JKG	

Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes
4-Bromofluorobenzene	47	1	50.0	93 %	51-122	0E04033	EPA 8260B	05/05/10 07:01	JKG	
Dibromofluoromethane	44	1	50.0	87 %	68-117	0E04033	EPA 8260B	05/05/10 07:01	JKG	
Toluene-d8	46	1	50.0	93 %	69-110	0E04033	EPA 8260B	05/05/10 07:01	JKG	



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Description: 4103-I3

Matrix: Ground Water

Project: White Street Landfill AppI Voa/RCRA
Metals

Lab Sample ID: C004714-03

Sampled: 04/28/10 12:10

Sampled By: Gary Simcox

Received: 04/29/10 12:30

Work Order: C004714

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte</u> [CAS Number]	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	04/30/10 15:53	NLH	



www.encolabs.com

Description: 4103-I3

Lab Sample ID: C004714-03

Received: 04/29/10 12:30

Matrix: Ground Water

Sampled: 04/28/10 12:10

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA
Metals

Sampled By: Gary Simcox

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

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/03/10 11:11	JDH	
Barium [7440-39-3] ^	112		ug/L	1	1.00	10.0	100	EPA 6010C	05/03/10 11:11	JDH	
Cadmium [7440-43-9] ^	0.360	U	ug/L	1	0.360	1.00	1	EPA 6010C	05/03/10 11:11	JDH	
Chromium [7440-47-3] ^	4.75	J	ug/L	1	1.00	10.0	10	EPA 6010C	05/03/10 11:11	JDH	
Lead [7439-92-1] ^	1.90	U	ug/L	1	1.90	10.0	10	EPA 6010C	05/03/10 11:11	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	05/03/10 11:11	JDH	
Silver [7440-22-4] ^	5.57	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/03/10 11:11	JDH	

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Description: 4103-I4

Lab Sample ID: C004714-04

Received: 04/29/10 12:30

Matrix: Ground Water

Sampled: 04/28/10 13:25

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA Metals

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Table with columns: Analyte [CAS Number], Results, Flag, Units, DF, MDL, MRL, NC SWSL, Method, Analyzed, By, Notes. Lists various chemical compounds and their detection results.



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Description: 4103-14

Lab Sample ID: C004714-04

Received: 04/29/10 12:30

Matrix: Ground Water

Sampled: 04/28/10 13:25

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA
Metals

Sampled By: Gary Simcox

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.083	U	ug/L	1	0.083	1.0	1	EPA 8260B	05/05/10 07:29	JKG	
Xylenes (Total) [1330-20-7] ^	0.22	U	ug/L	1	0.22	1.0	5	EPA 8260B	05/05/10 07:29	JKG	

Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes
4-Bromofluorobenzene	46	1	50.0	91 %	51-122	0E04033	EPA 8260B	05/05/10 07:29	JKG	
Dibromofluoromethane	44	1	50.0	87 %	68-117	0E04033	EPA 8260B	05/05/10 07:29	JKG	
Toluene-d8	46	1	50.0	92 %	69-110	0E04033	EPA 8260B	05/05/10 07:29	JKG	



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Description: 4103-14

Matrix: Ground Water

Project: White Street Landfill AppI Voa/RCRA
Metals

Lab Sample ID: C004714-04

Sampled: 04/28/10 13:25

Sampled By: Gary Simcox

Received: 04/29/10 12:30

Work Order: C004714

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Mercury [7439-97-6] ^	0.170	U	ug/L	1	0.170	0.200	0.2	EPA 7470A	04/30/10 15:56	NLH	



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Description: 4103-14

Matrix: Ground Water

Project: White Street Landfill AppI Voa/RCRA
Metals

Lab Sample ID: C004714-04

Sampled: 04/28/10 13:25

Sampled By: Gary Simcox

Received: 04/29/10 12:30

Work Order: C004714

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

^ - ENCO Cary certified analyte [NC 591]

<u>Analyte [CAS Number]</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	<u>DF</u>	<u>MDL</u>	<u>MRL</u>	<u>NC SWSL</u>	<u>Method</u>	<u>Analyzed</u>	<u>By</u>	<u>Notes</u>
Arsenic [7440-38-2] ^	2.80	U	ug/L	1	2.80	10.0	10	EPA 6010C	05/03/10 11:14	JDH	
Barium [7440-39-3] ^	508		ug/L	1	1.00	10.0	100	EPA 6010C	05/03/10 11:14	JDH	
Cadmium [7440-43-9] ^	0.649	J	ug/L	1	0.360	1.00	1	EPA 6010C	05/03/10 11:14	JDH	
Chromium [7440-47-3] ^	37.4		ug/L	1	1.00	10.0	10	EPA 6010C	05/03/10 11:14	JDH	
Lead [7439-92-1] ^	7.98	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/03/10 11:14	JDH	
Selenium [7782-49-2] ^	2.70	U	ug/L	1	2.70	10.0	10	EPA 6010C	05/03/10 11:14	JDH	
Silver [7440-22-4] ^	2.93	J	ug/L	1	1.90	10.0	10	EPA 6010C	05/03/10 11:14	JDH	

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Description: 4103-TripBlank#1

Lab Sample ID: C004714-05

Received: 04/29/10 12:30

Matrix: Water

Sampled: 04/28/10 09:55

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA Metals

Sampled By: ENCO

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Table with 11 columns: Analyte [CAS Number], Results, Flag, Units, DF, MDL, MRL, NC SWSL, Method, Analyzed, By, Notes. It lists various chemical compounds such as 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, etc., along with their respective results and flags.



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Description: 4103-TripBlank#1

Lab Sample ID: C004714-05

Received: 04/29/10 12:30

Matrix: Water

Sampled: 04/28/10 09:55

Work Order: C004714

Project: White Street Landfill AppI Voa/RCRA
Metals

Sampled By: ENCO

Volatile Organic Compounds by GCMS

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	MRL	NC SWSL	Method	Analyzed	By	Notes
Vinyl chloride [75-01-4] ^	0.083	U	ug/L	1	0.083	1.0	1	EPA 8260B	05/05/10 07:57	JKG	
Xylenes (Total) [1330-20-7] ^	0.22	U	ug/L	1	0.22	1.0	5	EPA 8260B	05/05/10 07:57	JKG	

Surrogates	Results	DF	Spike Lvl	% Rec	% Rec Limits	Batch	Method	Analyzed	By	Notes
4-Bromofluorobenzene	46	1	50.0	91 %	51-122	0E04033	EPA 8260B	05/05/10 07:57	JKG	
Dibromofluoromethane	44	1	50.0	88 %	68-117	0E04033	EPA 8260B	05/05/10 07:57	JKG	
Toluene-d8	47	1	50.0	93 %	69-110	0E04033	EPA 8260B	05/05/10 07:57	JKG	

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



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QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 0E04033 - EPA 5030B_MS

Blank (0E04033-BLK1)

Prepared: 05/04/2010 17:17 Analyzed: 05/05/2010 00:24

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1,1,2-Tetrachloroethane	0.091	U	1.0	ug/L							
1,1,1-Trichloroethane	0.15	U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.085	U	1.0	ug/L							
1,1,2-Trichloroethane	0.068	U	1.0	ug/L							
1,1-Dichloroethane	0.050	U	1.0	ug/L							
1,1-Dichloroethene	0.15	U	1.0	ug/L							
1,2,3-Trichloropropane	0.15	U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.48	U	1.0	ug/L							
1,2-Dibromoethane	0.42	U	1.0	ug/L							
1,2-Dichlorobenzene	0.052	U	1.0	ug/L							
1,2-Dichloroethane	0.082	U	1.0	ug/L							
1,2-Dichloropropane	0.098	U	1.0	ug/L							
1,4-Dichlorobenzene	0.10	U	1.0	ug/L							
2-Butanone	1.0	U	5.0	ug/L							
2-Hexanone	0.69	U	5.0	ug/L							
4-Methyl-2-pentanone	1.1	U	5.0	ug/L							
Acetone	1.5	U	5.0	ug/L							
Acrylonitrile	2.1	U	10	ug/L							
Benzene	0.050	U	1.0	ug/L							
Bromochloromethane	0.11	U	1.0	ug/L							
Bromodichloromethane	0.10	U	1.0	ug/L							
Bromoform	0.20	U	1.0	ug/L							
Bromomethane	0.28	U	1.0	ug/L							
Carbon disulfide	0.54	U	5.0	ug/L							
Carbon tetrachloride	0.082	U	1.0	ug/L							
Chlorobenzene	0.069	U	1.0	ug/L							
Chloroethane	0.18	U	1.0	ug/L							
Chloroform	0.083	U	1.0	ug/L							
Chloromethane	0.050	U	1.0	ug/L							
cis-1,2-Dichloroethene	0.075	U	1.0	ug/L							
cis-1,3-Dichloropropene	0.073	U	1.0	ug/L							
Dibromochloromethane	0.067	U	1.0	ug/L							
Dibromomethane	0.13	U	1.0	ug/L							
Ethylbenzene	0.10	U	1.0	ug/L							
Iodomethane	0.52	U	5.0	ug/L							
Methylene chloride	0.070	U	1.0	ug/L							
Styrene	0.082	U	1.0	ug/L							
Tetrachloroethene	0.099	U	1.0	ug/L							
Toluene	0.053	U	1.0	ug/L							
trans-1,2-Dichloroethene	0.11	U	1.0	ug/L							
trans-1,3-Dichloropropene	0.080	U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.54	U	1.0	ug/L							
Trichloroethene	0.13	U	1.0	ug/L							
Trichlorofluoromethane	0.15	U	1.0	ug/L							
Vinyl acetate	0.98	U	5.0	ug/L							
Vinyl chloride	0.083	U	1.0	ug/L							
Xylenes (Total)	0.22	U	1.0	ug/L							
Surrogate: 4-Bromofluorobenzene	47			ug/L	50.0		94	51-122			



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QUALITY CONTROL

Volatile Organic Compounds by GCMS - Quality Control

Batch 0E04033 - EPA 5030B_MS

Blank (0E04033-BLK1) Continued

Prepared: 05/04/2010 17:17 Analyzed: 05/05/2010 00:24

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	43			ug/L	50.0		86	68-117			
Surrogate: Toluene-d8	46			ug/L	50.0		93	69-110			

LCS (0E04033-BS1)

Prepared: 05/04/2010 17:17 Analyzed: 05/05/2010 10:20

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	18		1.0	ug/L	20.0		91	75-133			
Benzene	20		1.0	ug/L	20.0		102	81-134			
Chlorobenzene	20		1.0	ug/L	20.0		100	83-117			
Toluene	21		1.0	ug/L	20.0		104	71-118			
Trichloroethene	19		1.0	ug/L	20.0		94	75-115			

Matrix Spike (0E04033-MS1)

Prepared: 05/04/2010 17:17 Analyzed: 05/05/2010 01:21

Source: C005078-09

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	19		1.0	ug/L	20.0	0.15 U	93	75-133			
Benzene	20		1.0	ug/L	20.0	0.050 U	99	81-134			
Chlorobenzene	19		1.0	ug/L	20.0	0.069 U	95	83-117			
Toluene	20		1.0	ug/L	20.0	0.053 U	102	71-118			
Trichloroethene	19		1.0	ug/L	20.0	0.13 U	93	75-115			

Matrix Spike Dup (0E04033-MSD1)

Prepared: 05/04/2010 17:17 Analyzed: 05/05/2010 01:49

Source: C005078-09

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
1,1-Dichloroethene	18		1.0	ug/L	20.0	0.15 U	90	75-133	4	20	
Benzene	19		1.0	ug/L	20.0	0.050 U	95	81-134	4	17	
Chlorobenzene	19		1.0	ug/L	20.0	0.069 U	95	83-117	0.3	16	
Toluene	20		1.0	ug/L	20.0	0.053 U	100	71-118	2	17	
Trichloroethene	18		1.0	ug/L	20.0	0.13 U	88	75-115	6	18	

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 0D30013 - EPA 245.1

Blank (0D30013-BLK1)

Prepared: 04/30/2010 10:18 Analyzed: 04/30/2010 15:19

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

LCS (0D30013-BS1)

Prepared: 04/30/2010 10:18 Analyzed: 04/30/2010 15:32

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.66		0.200	ug/L	5.00		93	85-115			

Matrix Spike (0D30013-MS1)

Prepared: 04/30/2010 10:18 Analyzed: 04/30/2010 15:38



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QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 0D30013 - EPA 245.1

Matrix Spike (0D30013-MS1) Continued

Prepared: 04/30/2010 10:18 Analyzed: 04/30/2010 15:38

Source: C004714-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	3.73		0.200	ug/L	5.00	0.170 U	75	85-115			QM-07

Matrix Spike Dup (0D30013-MSD1)

Prepared: 04/30/2010 10:18 Analyzed: 04/30/2010 15:41

Source: C004714-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	3.71		0.200	ug/L	5.00	0.170 U	74	85-115	0.7	15	QM-07

Post Spike (0D30013-PS1)

Prepared: 04/30/2010 10:18 Analyzed: 04/30/2010 15:44

Source: C004714-02

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	3.40		0.200	ug/L	5.00	-0.0592	69	75-125			QM-08

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

Batch 0D30009 - EPA 3005A

Blank (0D30009-BLK1)

Prepared: 04/30/2010 11:45 Analyzed: 05/03/2010 09:56

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	2.80	U	10.0	ug/L							
Barium	1.00	U	10.0	ug/L							
Cadmium	0.360	U	1.00	ug/L							
Chromium	1.00	U	10.0	ug/L							
Lead	1.90	U	10.0	ug/L							
Selenium	2.70	U	10.0	ug/L							
Silver	1.90	U	10.0	ug/L							

LCS (0D30009-BS1)

Prepared: 04/30/2010 11:45 Analyzed: 05/03/2010 09:59

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1100		10.0	ug/L	1000		110	80-120			
Barium	1050		10.0	ug/L	1000		105	80-120			
Cadmium	534		1.00	ug/L	500		107	80-120			
Chromium	1060		10.0	ug/L	1000		106	80-120			
Lead	1100		10.0	ug/L	1000		110	80-120			
Selenium	1150		10.0	ug/L	1000		115	80-120			
Silver	103		10.0	ug/L	100		103	80-120			

Matrix Spike (0D30009-MS1)

Prepared: 04/30/2010 11:45 Analyzed: 05/03/2010 10:06

Source: C004713-14

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1090		10.0	ug/L	1000	2.80 U	109	75-125			
Barium	1090		10.0	ug/L	1000	13.8	107	75-125			



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QUALITY CONTROL

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

Batch 0D30009 - EPA 3005A

Matrix Spike (0D30009-MS1) Continued

Prepared: 04/30/2010 11:45 Analyzed: 05/03/2010 10:06

Source: C004713-14

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Cadmium	543		1.00	ug/L	500	0.360 U	109	75-125			
Chromium	1090		10.0	ug/L	1000	2.50	108	75-125			
Lead	1080		10.0	ug/L	1000	1.90 U	108	75-125			
Selenium	1140		10.0	ug/L	1000	2.70 U	114	75-125			
Silver	105		10.0	ug/L	100	1.90 U	105	75-125			

Matrix Spike Dup (0D30009-MSD1)

Prepared: 04/30/2010 11:45 Analyzed: 05/03/2010 10:08

Source: C004713-14

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1090		10.0	ug/L	1000	2.80 U	109	75-125	0.05	20	
Barium	1090		10.0	ug/L	1000	13.8	108	75-125	0.5	20	
Cadmium	543		1.00	ug/L	500	0.360 U	109	75-125	0.1	20	
Chromium	1090		10.0	ug/L	1000	2.50	109	75-125	0.2	20	
Lead	1080		10.0	ug/L	1000	1.90 U	108	75-125	0.3	20	
Selenium	1140		10.0	ug/L	1000	2.70 U	114	75-125	0.2	20	
Silver	105		10.0	ug/L	100	1.90 U	105	75-125	0.005	20	

Post Spike (0D30009-PS1)

Prepared: 04/30/2010 11:45 Analyzed: 05/03/2010 10:11

Source: C004713-14

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	1.09		0.0100	mg/L	1.00	-0.000899	109	80-120			
Barium	1.08		0.0100	mg/L	1.00	0.0138	107	80-120			
Cadmium	0.538		0.00100	mg/L	0.500	0.000240	108	80-120			
Chromium	1.08		0.0100	mg/L	1.00	0.00250	108	80-120			
Lead	1.08		0.0100	mg/L	1.00	0.000572	108	80-120			
Selenium	1.13		0.0100	mg/L	1.00	-0.00396	113	80-120			
Silver	0.101		0.0100	mg/L	0.100	-5.85E-5	101	80-120			



FLAGS/NOTES AND DEFINITIONS

- B The analyte was detected in the associated method blank.
- D The sample was analyzed at dilution.
- J The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
- U The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
- MRL Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QM-08 Post-digestion spike did not meet method requirements due to confirmed matrix effects (dilution test).



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ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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 Jacksonville, FL 32211-2844
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Page of

Client Name S&ME, Inc. (SM004)	Project Number [none]	Requested Analysis Ag, As, Ba, Cd, Cr, Pb, Fe	Requested Turnaround Times Standard
Address 3718 Old Battleground Rd. Greensboro, NC 27410	Project Name/Desc White Street Landfill Appl. VOA/RCCA Metals	8260B Appendix 1	Note: Rush requests subject to availability by the State
City/State/Zip Greensboro, NC 27410	PC # / Billing no.	Ag, As, Ba, Cd, Cr, Pb, Fe	Due <u> </u> / <u> </u> / <u> </u>
Tel (336) 288-7180	Projecting Contact Edmund Henriques	Prescription (See Lab's Chain of Custody)	Lab Workorder C004714
Sample(s) Name, Abbreviation GARY SIMOX / S&ME	Billing Contact Accounts Payable		
Sampler(s) Signature <i>[Signature]</i>	Facility # / Response		

Item #	Sample ID (Per Identification)	Collection Date	Collection Time	Depth / Grab	Matrix (See notes)	Total # of Containers	Ag	As	Ba	Cd	Cr	Pb	Fe	Sample Comments
	4103-11	4/28	0955	G	GW	4	X	X						
	4103-12	4/28	1105	G	GW	4	X	X						
	4103-13	4/28	1210	G	GW	4	X	X						
	4103-14	4/28	1323	G	GW	4	X	X						
	4103-TripBlank#1				WA	2	X							

Sample Transported By <i>[Signature]</i>	Received By <i>[Signature]</i>	Received Date 4/28/06	Received Time 12:30
Condition of Sample Receipt Red 3.9°C	Condition of Sample Receipt X Acceptable	Condition of Sample Receipt Unacceptable	

Matrix: GW-Groundwater SO-Soil SE-Settlement SW-Surface Water WW-Water A-M Air O-Other Media in container
 (S/N) All samples submitted to ENCO Labs are in accordance with the form and will be labeled as the recipient of this form. All data are within parameters noted.

APPENDIX C

NCDENR Environmental Monitoring Reporting Form

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

Instructions:

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

Solid Waste Monitoring Data Submittal Information

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

S&ME, Inc.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Edmund Henriques Phone: 336-288-7180

E-mail: ehenriques@smeinc.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
White Street Landfill - Phase I	North end of White Street, Greensboro, NC	41-03	Not Applicable	April 28, 2010

Environmental Status: (Check all that apply)

- Initial/Background Monitoring Detection Monitoring Assessment Monitoring Corrective Action

Type of data submitted: (Check all that apply)

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

Notification attached?

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

Certification

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

Edmund Q.B. Henriques Environmental Department Manager 336-288-7180

Facility Representative Name (Print) Edmund Q.B. Henriques Title Environmental Department Manager (Area Code) Telephone Number 336-288-7180
 Signature Edmund Q.B. Henriques Date 7-13-10 Affix NC Licensed Professional Geologist Seal

3718 Old Battleground Road, Greensboro, NC 27410

Facility Representative Address

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

