RCD3657

OPERATION/CONSTRUCTION QA/QC

CIVIL/SANITARY ENGINEERS

Municipal Services

Engineering Company, P.A.

Fac/Perm/Co ID# 96-01 | Date 7/24/12 | Doc ID# | DIN

October 26, 2007

Received OCT 2007 Solid Waste Section

Mrs. Jaclynne Drummond
Solid Waste Section
Division of Waste Management
North Carolina Department of Environmental and Natural Resources
401 Oberlin Road, Suite 150
Raleigh, NC 27605

Re: Storm Water Breakout Summary Report
Wayne County #96-01

Dear Mrs. Drummond:

Enclosed you will find the Storm Water Breakout Summary Report for Wayne County permit #96-01. Included is one hard copy. An electronic copy (PDF) will be e-mailed. The assessment did not identify any soil or groundwater contamination associated with the berm breakout. As such, no remediation action was required.

Fill free to contact us by phone at (919) 772-5393, should you have any questions or comments regarding this report.

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

Ethan J. Caldwell, P.G.
Professional Geologist

Enclosures

CC: Tim Rodgers (Wayne County)

PO Box 97, Garner, North Carolina 27529 (919) 772-5393
PO Box 828, Morehead City, NC 28557 (252) 726-9481
PO Box 349, Boone, NC 28607 (828) 262-1767

STORM WATER BREAKOUT SUMMARY REPORT
WAYNE COUNTY CLOSED LANDFILL
460 B SOUTH LANDFILL ROAD
DUDLEY, NORTH CAROLINA, 28333
PERMIT No. 96-01

MUNICIPAL ENGINEERING SERVICES COMPANY, PA.

PROJECT # G07058.0

October 26, 2007

Property Information:

Land Use:	Closed Landfill – Closed Prior to October 1991
Current Property Owner:	Wayne County c/o Mr. Tim Rodgers, Solid Waste Director 460 B South Landfill Road Dudley, North Carolina, 28333
Primary Consultant:	Municipal Engineering Services P.O. Box 97 Garner, NC 27539 (919) 772-5393
Laboratory Consultant:	Environmental Conservation Laboratories Inc. 102-A Woodwinds Industrial Court Cary, North Carolina 27511 (919) 467-3090

Breakout Information:

Date Discovered:	January 10, 2007
Latitude/Longitude:	N 35° 17' 19.4"/ W 78° 04' 27.0"
Estimated Quantity of Release:	Unknown
Cause of Release:	Heavy Rain
Source of Release:	Berm Breakout

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1 INTRODUCTION

In response to the Compliance Order with Administrative Penalty issued by the North Carolina Department of Environment and Natural Resources - Division of Waste Management (NCDENR) on May 15, 2007, Municipal Engineering Services Company, PA (MESCO) has prepared this Summary Report in association with the storm water breakout that was observed on January 10, 2007.

This report and all field activities were performed in accordance with Guidelines for Assessment and Corrective Action State of North Carolina, Department of Environment and Natural Resources Division of Waste Management.

1.1 Breakout Location and Description

As part of a facility audit performed by NCDENR on January 10, 2007, a breakout from a diversion berm was observed, allowing "storm water and leachate mix" to flow in the vicinity of MW-7 and into the wetland area. Heavy rains resulted in the breakout. The breakout occurred from the berm located near the south slope of the closed sanitary landfill, approximately 100 feet east of MW-7. A distressed grass area was observed 75 feet east of MW-7 on February 6, 2007. A topographical map with site location is included as Plate 1. A site map is included as Plate 2.

As part of the Compliance Order with Administrative Penalty an assessment plan was prepared and submitted to NCDENR on May 28, 2007 with a subsequent addendum on June 14, 2007. In accordance to the assessment plan soil samples were collected from the site on June 26, 2007. This report summarizes the results and actions taken as part of the assessment plan.

1.2 Site History

The site initially operated as a Municipal Solid Waste (MSW) Sanitary Landfill. The MSW landfill was closed by December 31, 1998. A Construction and Demolition (C&D) Landfill has subsequently been constructed and is operating on top of the Closed Sanitary Landfill. Groundwater samples are collected semi-annually from monitoring wells. Samples are analyzed for the Appendix I list of constituents and Appendix II constituents on select wells. An Assessment of Corrective Measures was performed and submitted to NCDENR on August 31, 2007.

2 SITE GEOLOGY AND HYDROLOGY

2.1 Topography and Drainage Features

The site lies within the Coastal Plain physiographic province that is characterized by flat or gently undulating topography dissected by drainage features with narrow to moderately sloped sides. Generally, the site is bound by an intermittent drainage to the north and east, SR 1129 to the south, and another intermittent drainage to the west. The drainage features have been reported as dry during the semi-annual sampling events. The northern drainage separates the site from the existing Subtitle D MSW landfill, and converges with the western drainage feature approximately 375 feet northwest of MW-5. Both drainage features eventually converge with Edward Branch approximately 600 feet west of the existing Subtitle D Leachate Lagoon. Edward Branch appears to be a perennial feature based on surface water sampling from the existing Subtitle D MSW Landfill.

2.2 Geology

The geology of the site has unnamed surficial sediments overlying the Cretaceous Black Creek Formation. The sediments are made up of white to gray sand that overlies red to orange silty sand with layers of clay. An estimated 10 feet of clay create a confining layer at the top of the Black Creek formation separating the surficial aquifer from the underlying Black Creek aquifer. The Black Creek formation consists of thinly laminated gray to black clay interbedded with gray to tan fine to medium grained sand.

2.3 Hydrology

The first aquifer occurs in the unconsolidated soils that overlie several regional confined aquifers. Discharge of the underlying Black Creek aquifer is into streams where channels cut into it or through upward leakage. Locally, groundwater exhibits flow dynamics that are primarily controlled by drainage features and ultimately Edwards Branch. Groundwater flow is generally west/northwest. Groundwater is shallow and was encountered at a depth of 6.5 feet below the distressed grass.

3 ASSESSMENT PLAN

3.1 Identification of Impacted Soil

Identification of impacted soil was determined using a Flame-Ionization Detector (FID). Samples were collected in accordance to the sample procedures outlined in the Assessment Plan with

Addendum. An initial background boring, from an upgradient location, was collected to establish baseline FID reading and background analytical results. Soil samples were collected and field screened at 1 foot intervals until groundwater was encountered. FID results are shown on Table 1. A background soil sample for laboratory analysis was collected at a depth of 4 feet below ground surface (BGS), and is associated with the highest observed background FID reading. The sample was analyzed for Appendix I VOC's and Appendix I metals. The background boring, HA-1, was located approximately 440 feet east of MW-7. A sample location map is included as Plate 3.

Eleven (11) hand auger borings were used to investigate the impact of the release. Boring HA-2 was hand augured in the middle area of observed distressed grass. Hand auger borings HA-4, HA-6, and HA-8 were collected at the edge of the observed distressed grass. Hand auger boring HA-3 was collected adjacent to Monitoring Well MW-7. Hand auger borings HA-5 and HA-7 were collected between the distressed grass area and MW-7. Hand auger borings HA-9, HA-10, HA-11, and HA-12 were collected from the wetland in the direction surface water would have flowed. Locations of the hand auger borings are shown on Plate 3.

Three (3) samples were selected for laboratory analysis from borings with the highest observed FID readings: HA-2 from a depth of 5 feet, HA-3 from a depth of 5 feet, and HA-12 from a depth of 3 feet. The samples collected for laboratory analysis were analyzed by EPA Method 8260 for Appendix I Organics and by EPA 6010 for Appendix I Metals.

3.2 Identification of Impacted Groundwater

Water samples were collected from monitoring wells MW-2 and MW-7, and surface water sampling point SW-1 on June 26, 2007. Surface water sampling point SW-2 was dry and has routinely been reported dry during sampling events. Samples were analyzed for Appendix I Organics and Appendix I Metals. Semi-annual sampling was performed on August 8, 2007, which included sampling MW-2 and MW-7.

4 RESULTS

4.1 Soil Results

Field results obtained a high FID reading of 12.4 ppm for the background well (HA-1). The highest FID reading obtained in the field was from the middle of the distressed grass area (HA-2),

recorded as 14.2 ppm. This is also the only boring that recorded any FID readings higher than the background sample. Recorded FID readings for hand auger locations are shown on Table 1.

A summary of soil laboratory results is provided on Table 2. Several inorganic metals were detected with J qualifiers. J qualifiers are "(d)etected but below the Reporting Limits." Only Chromium and Vanadium were detected in soil samples as non J qualifiers. Chromium and Vanadium were identified as natural occurring in the Assessment of Corrective Measures. Organics were not detected in soil samples

4.2 Groundwater Results

A summary of water laboratory results is provided on Table 3. Several constituents were detected during the June 26, 2007 sampling event with J qualifiers. J qualifiers are "(d)etected but below the Reporting Limits." Only Benzene and Lead were detected in MW-2 as non J qualifiers. Benzene was not detected in MW-2 during the August 13, 2007 semi-annual sampling and Lead was detected as a J qualifier.

Groundwater samples from MW-2 collected on August 13, 2007 detected p-Dichlorbenzene. p-Dichlorbenzene has routinely been detected in MW-2 prior to the berm breakout and was addressed in the Assessment of Corrective Measures.

5 CONCLUSIONS/ACTION TAKEN

The following conclusions were made based on the study:

- The breakout occurred due to heavy rain.
- FID readings exceeded background in one boring. The exceedence was low and can be attributed to the natural conditions of the site.
- Soil samples detected Chromium and Vanadium at low concentrations, both of which can be attributed to natural occurrence.
- Benzene was detected in MW-2 on June 26, 2007 but was not detected on August 13, 2007. Detected Benzene can be attributed to a false positive reading.
- Lead was detected in MW-2 on June 26, 2007 and was detected as a J qualifier on August 13, 2007. Low levels of Lead were attributed to natural occurrence in the Assessment of Corrective Measures.
- The distressed grass is identified as the result of sediment deposits from standing water in a low area.

Based on these observations it is concluded that there is not soil or groundwater contamination associated with the berm breakout. No action was required. The site will continue to have groundwater and surface water monitoring on a semi-annual basis, in accordance with the terms of the Wayne County Sampling and Analysis Plan.

This report summary concludes the requirements for the Compliance Order from the Division of Waste Management. All data, information and conclusions contained herein indicate no hindrance to the current operations and procedures of the landfill.

Respectfully submitted
MUNICIPAL ENGINEERING SERVICES COMPANY, P.A.

Madeline Clement
Geoscientist

Ethan J. Caldwell, P.G.
Professional Geologist

TABLES

Table 3: Summary of Ground and Surface Water Laboratory Results

Sample ID	Parameter Name[1]	Sample Date	Result	Unit	PQL[2]	Qual Code	NCGW2L[3]	Exceedance
MW-7	Arsenic	06/26/2007	0.003	mg/L	0.0020	J	0.05	
MW-7	Barium	06/26/2007	0.0388	mg/L	0.0010	J	2	
MW-7	Lead	06/26/2007	2.4	ug/L	2.0	J	15	
MW-7	Nickel	06/26/2007	0.002	mg/L	0.0020	J	0.1	
MW-7	Thallium	06/26/2007	0.0001	mg/L	0.000044	J		
MW-7	Vanadium	06/26/2007	0.0062	mg/L	0.0017	J		
MW-7	Zinc	06/26/2007	0.0038	mg/L	0.0010	J	1.05	
MW-2	Acetone	06/26/2007	7	ug/L	0.90	J	700	
MW-2	Arsenic	06/26/2007	0.0107	mg/L	0.0020	J	0.05	
MW-2	Barium	06/26/2007	0.199	mg/L	0.0010	J	2	
MW-2	**Benzene**	**06/26/2007**	**1.7**	**ug/L**	**0.12**		**1**	**0.7**
MW-2	**Lead**	**06/26/2007**	**19.2**	**ug/L**	**2.0**		**15**	**4.2**
MW-2	Thallium	06/26/2007	0.0001	mg/L	0.000044	J		
MW-2	Vanadium	06/26/2007	0.0103	mg/L	0.0017	J		
MW-2	Zinc	06/26/2007	0.0154	mg/L	0.0010	J	1.05	
SW-1	Acetone	06/26/2007	6.9	ug/L	0.90	J	700	
SW-1	Barium	06/26/2007	0.124	mg/L	0.0010	J	2	
SW-1	Nickel	06/26/2007	0.0024	mg/L	0.0020	J	0.1	
SW-1	Zinc	06/26/2007	0.005	mg/L	0.0010	J	1.05	
MW-2	1,1-Dichloroethane	08/13/2007	0.4	ug/l	0.16	J	70	
MW-2	1,3-Dichlorobenzene	08/13/2007	0.2	ug/l	0.13	J	170	
MW-2	Acetone	08/13/2007	1.6	ug/l	1.21	J	700	
MW-7	Acetone	08/13/2007	2.2	ug/l	1.21	J	700	
MW-2	Antimony	08/13/2007	0.2	ug/l	0.05	J		
MW-7	Antimony	08/13/2007	0.1	ug/l	0.05	J		
MW-2	Arsenic	08/13/2007	17	ug/l	0.47	J	50	
MW-7	Arsenic	08/13/2007	12	ug/l	0.47	J	50	
MW-2	Barium, total	08/13/2007	192	ug/l	0.04	J	2000	
MW-7	Barium, total	08/13/2007	94.4	ug/l	0.04	J	2000	
MW-7	Beryllium, total	08/13/2007	0.3	ug/l	0.08	J		
MW-2	Cadmium, total	08/13/2007	0.1	ug/l	0.06	J	1.75	
MW-7	Cadmium, total	08/13/2007	0.2	ug/l	0.06	J	1.75	
MW-2	Chlorobenzene	08/13/2007	10.9	ug/l	0.13	J	50	
MW-2	Chromium, total	08/13/2007	1.8	ug/l	0.24	J	50	

Table 3: Summary of Ground and Surface Water Laboratory Results

Sample ID	Parameter Name[1]	Sample Date	Result	Unit	PQL[2]	Qual Code	NCGW2L[3]	Exceedance
MW-7	Chromium, total	08/13/2007	16	ug/l	0.24	J	50	
MW-2	cis-1,2-Dichloroethylene	08/13/2007	0.2	ug/l	0.14	J	70	
MW-2	Cobalt, total	08/13/2007	0.6	ug/l	0.41	J		
MW-7	Cobalt, total	08/13/2007	0.6	ug/l	0.41	J		
MW-2	Copper	08/13/2007	0.6	ug/l	0.2	J	1000	
MW-7	Copper	08/13/2007	1.6	ug/l	0.2	J	1000	
MW-2	Dichlorodifluoromethane	08/13/2007	0.2	ug/l	0.16	J	1400	
MW-2	Lead, total	08/13/2007	3.6	ug/l	0.07	J	15	
MW-7	Lead, total	08/13/2007	13	ug/l	0.07	J	15	
MW-2	Methyl ethyl ketone	08/13/2007	1.6	ug/l	0.85	J	4200	
MW-7	Methyl ethyl ketone	08/13/2007	1.8	ug/l	0.85	J	4200	
MW-2	Methylbenzene	08/13/2007	0.2	ug/l	0.13	J	1000	
MW-7	Methylbenzene	08/13/2007	0.2	ug/l	0.13	J	1000	
MW-2	Nickel, total	08/13/2007	2.4	ug/l	0.66	J	100	
MW-7	Nickel, total	08/13/2007	0.7	ug/l	0.66	J	100	
MW-2	o-Dichlorobenzene	08/13/2007	0.4	ug/l	0.13	J	620	
MW-2	**p-Dichlorobenzene**	**08/13/2007**	**2.5**	**ug/l**	**0.21**		**1.4**	**1.1**
MW-2	Selenium, total	08/13/2007	1.7	ug/l	0.35	J	50	
MW-7	Selenium, total	08/13/2007	2.3	ug/l	0.35	J	50	
MW-2	Thallium	08/13/2007	0.1	ug/l	0.07	J		
MW-7	Thallium	08/13/2007	0.2	ug/l	0.07	J		
MW-2	Vanadium	08/13/2007	6.9	ug/l	0.42	J		
MW-7	Vanadium	08/13/2007	66	ug/l	0.42	J		
MW-2	Zinc	08/13/2007	0.2	ug/l	0.2	J	1050	
MW-7	Zinc	08/13/2007	3.3	ug/l	0.2	J	1050	

[1] Table only contains detected constituents.
[2] PQL = Practical Quantitation Limit
[3] NCGW2L = North Carolina Ground Water 2L Standard
J = Detected but below the Reporting Limit

Table 1: Soil FID Measurement

Sample ID	FID Reading by Sampling Depth (PPM)						Depth Water Encountered (ft)
	1 ft	2 ft	3 ft	4 ft	5 ft	6 ft	
HA-1	12.3	11.9	11.8	12.4*	11.3	11.5	6.5
HA-2	10.2	10.9	12.1	14.1	14.2*	13.1	6.5
HA-3	7.2	7.8	8.8	9.0	9.1*	8.7	6
HA-4	7.4	7.5	8.2	8.1	8.1	8.4	6
HA-5	7.4	7.8	7.9	9.2	9.3	9.3	6
HA-6	7.5	7.9	8.0	8.3	8.4	8.4	6
HA-7	8.8	9.0	9.9	10.1	9.9	9.8	6
HA-8	8.9	8.8	10.2	10.3	10.4	10.1	6
HA-9	8.7	8.3	na	na	na	na	2.5
HA-10	8.4	8.4	na	na	na	na	2.5
HA-11	8.3	8.4	na	na	na	na	2.5
HA-12	8.4	8.3	8.5*	na	na	na	3

wetland sample

Table of FID readings

NOTES:
1. Photovac FID calibrated at 100ppm Ch4
2. * indicate samples sent for lab analysis
3. Sampling Depth recorded in feet

Table 2: Summary of Soil Laboratory Results

Sample (depth)	Parameter Name[1]	Sample Date	Result	Unit	PQL[2]	Qual Code	NCREG[3]	Exceedance
HA-2(5')	Antimony	06/26/2007	0.21	mg/kg dry	0.12	J	-	-
HA-1(4')	Arsenic	06/26/2007	0.19	mg/kg dry	0.12	J	-	-
HA-12(3')	Arsenic	06/26/2007	0.13	mg/kg dry	0.12	J	-	-
HA-3(5')	Arsenic	06/26/2007	0.79	mg/kg dry	0.13	J	-	-
HA-1(4')	Barium	06/26/2007	8.54	mg/kg dry	0.012	J	848	-
HA-12(3')	Barium	06/26/2007	2.14	mg/kg dry	0.012	J	848	-
HA-2(5')	Barium	06/26/2007	5.25	mg/kg dry	0.012	J	848	-
HA-3(5')	Barium	06/26/2007	9.66	mg/kg dry	0.013	J	848	-
HA-12(3')	Beryllium	06/26/2007	0.053	mg/kg dry	0.041	J	-	-
HA-1(4')	Chromium	06/26/2007	4.65	mg/kg dry	0.12	J	27	-
HA-12(3')	Chromium	06/26/2007	1.14	mg/kg dry	0.12	J	27	-
HA-2(5')	Chromium	06/26/2007	12.1	mg/kg dry	0.12		27	-
HA-3(5')	Chromium	06/26/2007	16.9	mg/kg dry	0.13		27	-
HA-1(4')	Lead	06/26/2007	2.39	mg/kg dry	0.12	J	270	-
HA-12(3')	Lead	06/26/2007	4.72	mg/kg dry	0.12	J	270	-
HA-2(5')	Lead	06/26/2007	3.9	mg/kg dry	0.12	J	270	-
HA-3(5')	Lead	06/26/2007	4.05	mg/kg dry	0.13	J	270	-
HA-1(4')	Nickel	06/26/2007	0.89	mg/kg dry	0.12	J	-	-
HA-12(3')	Nickel	06/26/2007	0.2	mg/kg dry	0.12	J	-	-
HA-2(5')	Nickel	06/26/2007	0.86	mg/kg dry	0.12	J	-	-
HA-3(5')	Nickel	06/26/2007	0.7	mg/kg dry	0.13	J	-	-
HA-12(3')	Selenium	06/26/2007	0.25	mg/kg dry	0.12	J	-	-
HA-1(4')	Vanadium	06/26/2007	9.4	mg/kg dry	0.059	J	-	-
HA-12(3')	Vanadium	06/26/2007	1.84	mg/kg dry	0.059	J	-	-
HA-2(5')	Vanadium	06/26/2007	15.4	mg/kg dry	0.061	J	-	-
HA-3(5')	Vanadium	06/26/2007	41.6	mg/kg dry	0.063		-	-
HA-1(4')	Zinc	06/26/2007	1.87	mg/kg dry	0.059	B,J	-	-
HA-12(3')	Zinc	06/26/2007	1.22	mg/kg dry	0.059	B,J	-	-
HA-2(5')	Zinc	06/26/2007	2.5	mg/kg dry	0.061	B,J	-	-
HA-3(5')	Zinc	06/26/2007	4.09	mg/kg dry	0.063	B,J	-	-

[1] Table only contains detected constituents.

[2] PQL = Practical Quantitation Limit

3 NCREG = North Carolina Soil-to-Water Maximum Contamination Concentration

J = Detected but below the Reporting Limit

B = Analyte is found in the associated blank as well as in the sample

PLATES

PLATE 1

Topographic Map with Site Location

Storm Water Breakout Summary Report

Date Completed	10/25/2007
Created By	M. Clement
Project Name	Storm Water Breakout Summary Report
Site Name	Wayne County Dudley
Project Number	G07058.0

Municipal Engineering Services Company, PA

Wayne County Dudley

ROAD CLASSIFICATION

Primary highway, hard surface

Light-duty road, hard or improved surface

Secondary highway, hard surface

Unimproved road

Interstate Route

U. S. Route

State Route

QUADRANGLE LEGEND

1 0 1 MILE

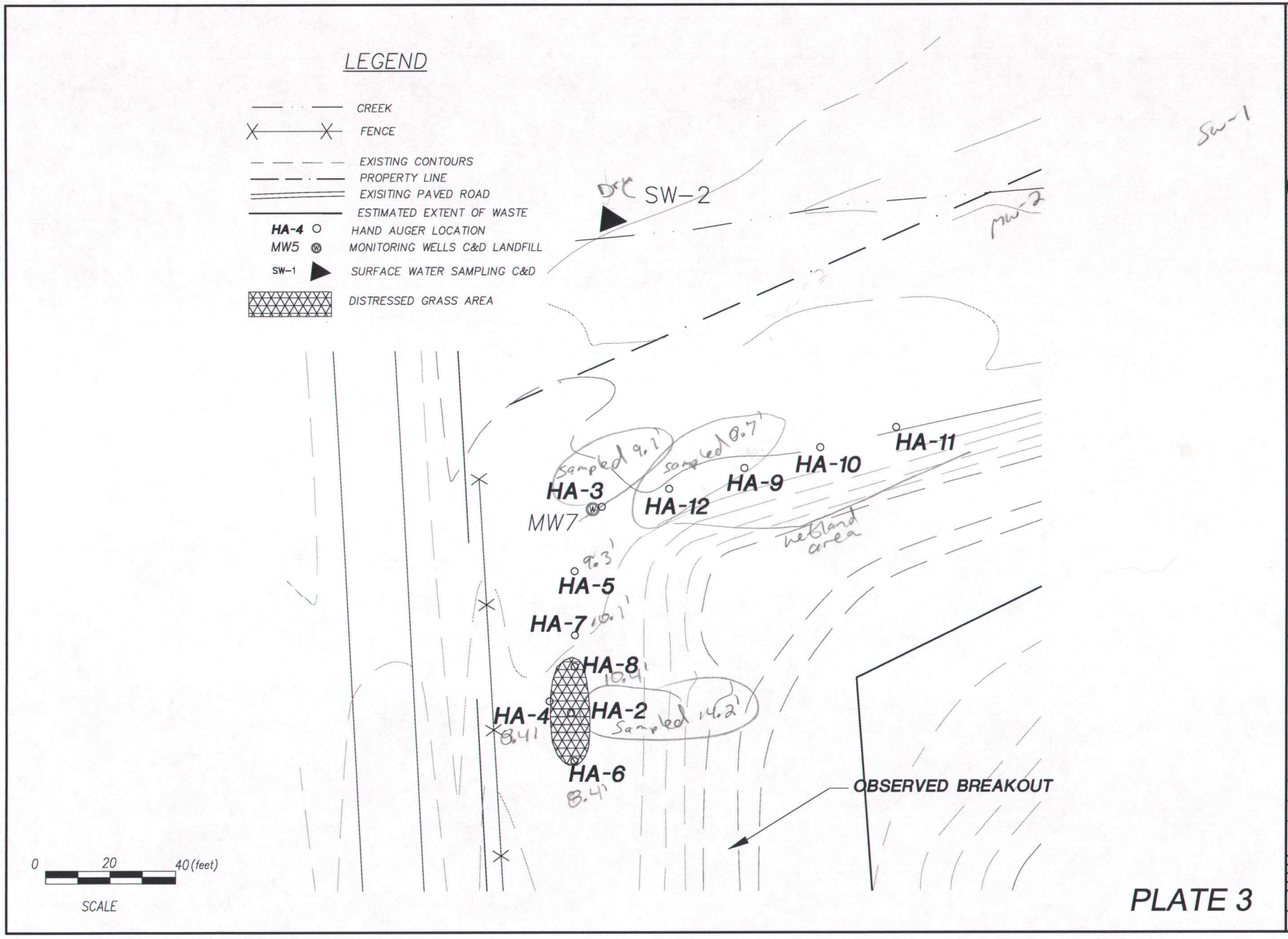

PLATE 3

Municipal Services Engineering Company, P.A.

P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393

P.O. BOX 349 BOONE, N.C. 28607 (828) 262-1767

P.O. BOX 828 MOREHEAD CITY, N.C. 28557 (252) 726-9481

MUNICIPAL SOLID WASTE LANDFILL FACILITY
WAYNE COUNTY
NORTH CAROLINA

SAMPLE LOCATION MAP

DATE	BY	REV.	DESCRIPTION

SCALE: 1" = 40'
DATE: 10/25/2007
DRWN. BY: M. CLEMENT
CHKD. BY: E. CALDWELL
PROJECT NUMBER G07058.0
DRAWING NO. PLATE 3
SHEET NO. 1 OF 1

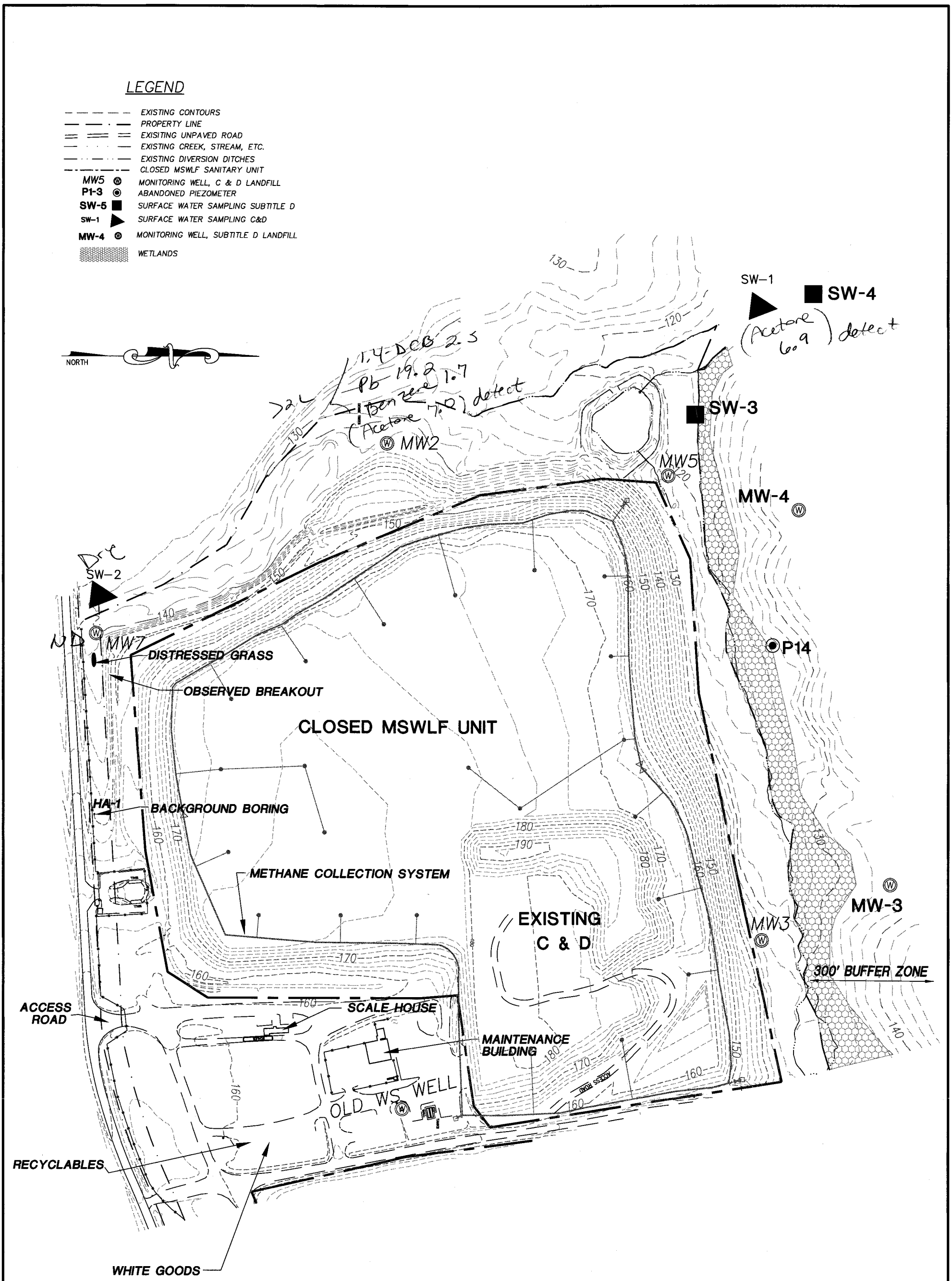

PLATE 2

DRAWING NO.	SHEET NO.	PROJECT NUMBER	CHKD. BY:	DRWN. BY:	DATE:	SCALE:
PLATE 2	1 OF 1	G07059.0	E. CALDWELL	M. CLEMENT	10/25/2007	1" = 200'

DATE	BY	REV.	DESCRIPTION

SITE MAP

MUNICIPAL SOLID WASTE LANDFILL FACILITY
WAYNE COUNTY NORTH CAROLINA

Municipal Services Engineering Company, P.A.
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393
P.O. BOX 349 BOONE, N.C. 28607 (828) 262-1767
P.O. BOX 626 MOREHEAD CITY, N.C. 28557 (252) 726-9481

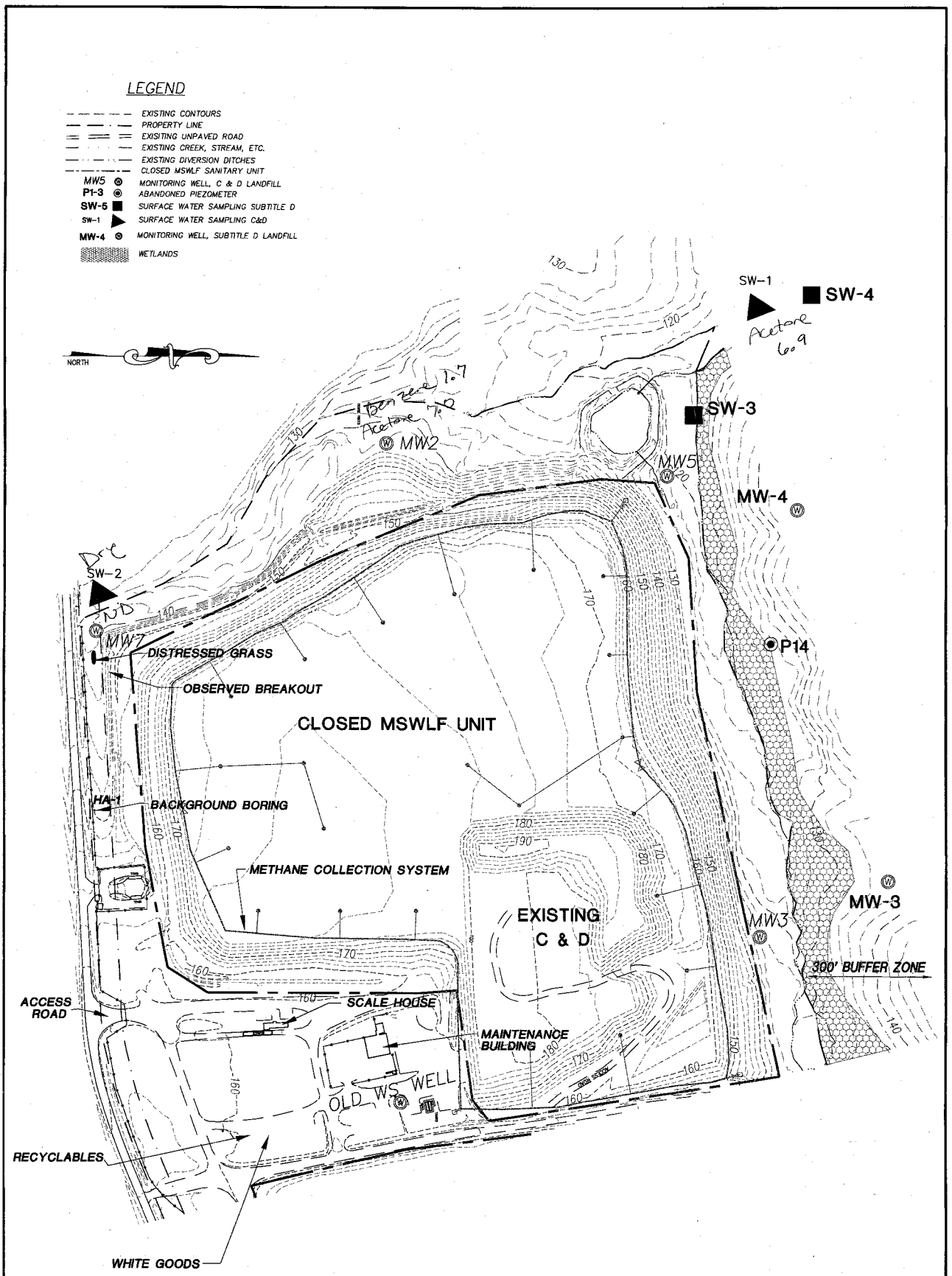

PLATE 2

SCALE: 1" = 200'	DATE	BY	REV.	DESCRIPTION
DATE: 10/25/2007				
DRWN. BY: M. CLEMENT				
CHKD. BY: E. CALDWELL				
PROJECT NUMBER: G07059.0				
DRAWING NO. PLATE 2	SHEET NO. 1 OF 1			

SITE MAP

MUNICIPAL SOLID WASTE LANDFILL FACILITY
WAYNE COUNTY
NORTH CAROLINA

Municipal Services Engineering Company, P.A.
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393
P.O. BOX 349 BOONE, N.C. 28607 (828) 262-1787
P.O. BOX 828 MOREHEAD CITY, N.C. 28557 (252) 726-9481

APPENDIX A

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515

www.encolabs.com

Thursday, July 12, 2007

Municipal Engineering Services (MU001)

Attn: Jonathan Pfohl

P.O. Box 97

Garner, NC 27529

RE: Project Number: G07058.0 (Closed), Project Name/Desc: Wayne Co LF
ENCO Workorder: C709176

Dear Jonathan Pfohl,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Wednesday, June 27, 2007.

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.

This data has been produced in accordance with NELAC standards (June, 2003). 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. 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,

Chuck Smith

Chuck Smith
Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 39.

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SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: MW-2 **Lab ID:** C709176-01

Sampled: 06/26/07 16:30 **Received:** 06/27/07 08:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	12/23/07	06/28/07 09:18	6/29/2007 09:58
EPA 6020	12/23/07	06/29/07 08:47	6/29/2007 14:21
EPA 8260B	07/10/07	07/03/07 15:00	7/3/2007 23:21

Client ID: MW-7 **Lab ID:** C709176-02

Sampled: 06/26/07 15:00 **Received:** 06/27/07 08:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	12/23/07	06/28/07 09:18	6/29/2007 10:05
EPA 6020	12/23/07	06/29/07 08:47	6/29/2007 14:24
EPA 8260B	07/10/07	07/03/07 15:00	7/3/2007 23:48

Client ID: HA-1(4') **Lab ID:** C709176-03

Sampled: 06/26/07 12:30 **Received:** 06/27/07 08:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	12/23/07	06/28/07 09:55	7/2/2007 09:57
EPA 6010B	12/23/07	06/28/07 09:55	7/2/2007 09:57
EPA 8260B	07/10/07	06/27/07 12:36	6/27/2007 20:45

Client ID: HA-2(5') **Lab ID:** C709176-04

Sampled: 06/26/07 13:00 **Received:** 06/27/07 08:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	12/23/07	06/28/07 09:55	7/2/2007 09:57
EPA 6010B	12/23/07	06/28/07 09:55	7/2/2007 09:57
EPA 8260B	07/10/07	06/27/07 12:36	6/27/2007 21:11

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Client ID: HA-3(5') **Lab ID:** C709176-05

Sampled: 06/26/07 14:35 **Received:** 06/27/07 08:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	12/23/07	06/28/07 09:55	7/2/2007 09:57
EPA 6010B	12/23/07	06/28/07 09:55	7/2/2007 09:57
EPA 8260B	07/10/07	06/27/07 12:36	6/27/2007 21:38

Client ID: HA-12(3') **Lab ID:** C709176-06

Sampled: 06/26/07 18:00 **Received:** 06/27/07 08:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	12/23/07	06/28/07 09:55	7/2/2007 09:57
EPA 6010B	12/23/07	06/28/07 09:55	7/2/2007 09:57
EPA 8260B	07/10/07	06/27/07 12:36	6/27/2007 22:04

Client ID: SW-1 **Lab ID:** C709176-07

Sampled: 06/26/07 17:00 **Received:** 06/27/07 08:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010B	12/23/07	06/28/07 09:18	6/29/2007 10:12
EPA 6020	12/23/07	06/29/07 08:47	6/29/2007 14:26
EPA 8260B	07/10/07	07/09/07 11:41	7/10/2007 14:02

Client ID: TRIP **Lab ID:** C709176-08

Sampled: 06/26/07 00:00 **Received:** 06/27/07 08:30

Parameter	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 8260B	07/10/07	07/03/07 15:00	7/3/2007 22:55

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NORTH CAROLINA SWS SAMPLE DETECTION SUMMARY

Client ID: MW-2 **Lab ID:** C709176-01

Analyte	Results/Qual		DF	MDL	MRL	NC SWSL	Units	Method
Acetone	7.0	J	1	0.90	5.0	100	ug/L	EPA 8260B
Arsenic	0.0107	J	1	0.0020	0.0100	10	mg/L	EPA 6010B
Barium	0.199	J	1	0.0010	0.0100	100	mg/L	EPA 6010B
Benzene	1.7		1	0.12	1.0	1	ug/L	EPA 8260B
Lead	19.2		1	2.0	10.0	10	ug/L	EPA 6010B
Thallium	0.000052	J	1	0.000044	0.00005	5.5	mg/L	EPA 6020
Vanadium	0.0103	J	1	0.0017	0.0100	25	mg/L	EPA 6010B
Zinc	0.0154	J	1	0.0010	0.0100	10	mg/L	EPA 6010B

Client ID: MW-7 **Lab ID:** C709176-02

Analyte	Results/Qual		DF	MDL	MRL	NC SWSL	Units	Method
Arsenic	0.0030	J	1	0.0020	0.0100	10	mg/L	EPA 6010B
Barium	0.0388	J	1	0.0010	0.0100	100	mg/L	EPA 6010B
Lead	2.4	J	1	2.0	10.0	10	ug/L	EPA 6010B
Nickel	0.0020	J	1	0.0020	0.0100	50	mg/L	EPA 6010B
Thallium	0.000069	J	1	0.000044	0.00005	5.5	mg/L	EPA 6020
Vanadium	0.0062	J	1	0.0017	0.0100	25	mg/L	EPA 6010B
Zinc	0.0038	J	1	0.0010	0.0100	10	mg/L	EPA 6010B

Client ID: HA-1(4') **Lab ID:** C709176-03

Analyte	Results/Qual		DF	MDL	MRL	NC SWSL	Units	Method
Arsenic	0.19	J	1	0.12	0.59	10	mg/kg dry	EPA 6010B
Barium	8.54	J	1	0.012	0.591	100	mg/kg dry	EPA 6010B
Chromium	4.65	J	1	0.12	0.59	10	mg/kg dry	EPA 6010B
Lead	2.39	J	1	0.12	0.59	10	mg/kg dry	EPA 6010B
Nickel	0.89	J	1	0.12	0.59	50	mg/kg dry	EPA 6010B
Vanadium	9.40	J	1	0.059	0.591	25	mg/kg dry	EPA 6010B
Zinc	1.87	J	1	0.059	0.591	10	mg/kg dry	EPA 6010B

Client ID: HA-2(5') **Lab ID:** C709176-04

Analyte	Results/Qual		DF	MDL	MRL	NC SWSL	Units	Method
Antimony	0.21	J	1	0.12	0.61	6	mg/kg dry	EPA 6010B
Barium	5.25	J	1	0.012	0.609	100	mg/kg dry	EPA 6010B
Chromium	12.1		1	0.12	0.61	10	mg/kg dry	EPA 6010B
Lead	3.90	J	1	0.12	0.61	10	mg/kg dry	EPA 6010B
Nickel	0.86	J	1	0.12	0.61	50	mg/kg dry	EPA 6010B
Vanadium	15.4	J	1	0.061	0.609	25	mg/kg dry	EPA 6010B

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Client ID:	HA-2(5')		Lab ID:	C709176-04				
Analyte	Results/Qual		DF	MDL	MRL	NC SWSL	Units	Method
Zinc	2.50	J	1	0.061	0.609	10	mg/kg dry	EPA 6010B

Client ID:	HA-3(5')		Lab ID:	C709176-05				
Analyte	Results/Qual		DF	MDL	MRL	NC SWSL	Units	Method
Arsenic	0.79	J	1	0.13	0.63	10	mg/kg dry	EPA 6010B
Barium	9.66	J	1	0.013	0.634	100	mg/kg dry	EPA 6010B
Chromium	16.9		1	0.13	0.63	10	mg/kg dry	EPA 6010B
Lead	4.05	J	1	0.13	0.63	10	mg/kg dry	EPA 6010B
Nickel	0.70	J	1	0.13	0.63	50	mg/kg dry	EPA 6010B
Vanadium	41.6		1	0.063	0.634	25	mg/kg dry	EPA 6010B
Zinc	4.09	J	1	0.063	0.634	10	mg/kg dry	EPA 6010B

Client ID:	HA-12(3')		Lab ID:	C709176-06				
Analyte	Results/Qual		DF	MDL	MRL	NC SWSL	Units	Method
Arsenic	0.13	J	1	0.12	0.59	10	mg/kg dry	EPA 6010B
Barium	2.14	J	1	0.012	0.590	100	mg/kg dry	EPA 6010B
Beryllium	0.053	J	1	0.041	0.059	1	mg/kg dry	EPA 6010B
Chromium	1.14	J	1	0.12	0.59	10	mg/kg dry	EPA 6010B
Lead	4.72	J	1	0.12	0.59	10	mg/kg dry	EPA 6010B
Nickel	0.20	J	1	0.12	0.59	50	mg/kg dry	EPA 6010B
Selenium	0.25	J	1	0.12	0.59	10	mg/kg dry	EPA 6010B
Vanadium	1.84	J	1	0.059	0.590	25	mg/kg dry	EPA 6010B
Zinc	1.22	J	1	0.059	0.590	10	mg/kg dry	EPA 6010B

Client ID:	SW-1		Lab ID:	C709176-07				
Analyte	Results/Qual		DF	MDL	MRL	NC SWSL	Units	Method
Acetone	6.9	J	1	0.90	5.0	100	ug/L	EPA 8260B
Barium	0.124	J	1	0.0010	0.0100	100	mg/L	EPA 6010B
Nickel	0.0024	J	1	0.0020	0.0100	50	mg/L	EPA 6010B
Zinc	0.0050	J	1	0.0010	0.0100	10	mg/L	EPA 6010B

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ANALYTICAL REPORT

Sample ID:	MW-2	Project:	Wayne Co LF
Lab #:	C709176-01	Work Order #:	C709176
Prep. Method:	EPA 5030B_MS	Matrix:	Ground Water
Analyzed:	07/03/07 By: jkg	Unit:	ug/L
Anal. Method:	EPA 8260B	Dilution Factor:	1
Anal. Batch:			
QC Batch:	7G03022		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.16 U	0.16	1.0	5	ug/L
1,1,1-Trichloroethane	71-55-6	0.24 U	0.24	1.0	1	ug/L
1,1,2,2-Tetrachloroethane	79-34-5	0.27 U	0.27	1.0	1	ug/L
1,1,2-Trichloroethane	79-00-5	0.24 U	0.24	1.0	5	ug/L
1,1-Dichloroethane	75-34-3	0.090 U	0.090	1.0	5	ug/L
1,1-Dichloroethene	75-35-4	0.14 U	0.14	1.0	5	ug/L
1,2,3-Trichloropropane	96-18-4	0.32 U	0.32	1.0	1	ug/L
1,2-Dibromo-3-chloropropane	96-12-8	0.19 U	0.19	1.0	1	ug/L
1,2-Dibromoethane	106-93-4	0.19 U	0.19	1.0	1	ug/L
1,2-Dichlorobenzene	95-50-1	0.17 U	0.17	1.0	5	ug/L
1,2-Dichloroethane	107-06-2	0.36 U	0.36	1.0	1	ug/L
1,2-Dichloropropane	78-87-5	0.18 U	0.18	1.0	1	ug/L
1,4-Dichlorobenzene	106-46-7	0.15 U	0.15	1.0	1	ug/L
2-Butanone	78-93-3	0.56 U	0.56	5.0	100	ug/L
2-Hexanone	591-78-6	0.24 U	0.24	5.0	50	ug/L
4-Methyl-2-pentanone	108-10-1	0.36 U	0.36	5.0	100	ug/L
Acetone	67-64-1	**7.0 J**	0.90	5.0	100	ug/L
Acrylonitrile	107-13-1	2.0 U	2.0	5.0	200	ug/L
Benzene	71-43-2	**1.7**	0.12	1.0	1	ug/L
Bromochloromethane	74-97-5	0.19 U	0.19	1.0	3	ug/L
Bromodichloromethane	75-27-4	0.19 U	0.19	0.40	1	ug/L
Bromoform	75-25-2	0.36 U	0.36	1.0	3	ug/L
Bromomethane	74-83-9	0.21 U	0.21	1.0	10	ug/L
Carbon disulfide	75-15-0	0.12 U	0.12	5.0	100	ug/L
Carbon tetrachloride	56-23-5	0.38 U	0.38	1.0	1	ug/L
Chlorobenzene	108-90-7	0.16 U	0.16	1.0	3	ug/L
Chloroethane	75-00-3	0.40 U	0.40	1.0	10	ug/L
Chloroform	67-66-3	0.16 U	0.16	1.0	5	ug/L
Chloromethane	74-87-3	0.18 U	0.18	1.0	1	ug/L
cis-1,2-Dichloroethene	156-59-2	0.14 U	0.14	1.0	5	ug/L
cis-1,3-Dichloropropene	10061-01-5	0.16 U	0.16	0.20	1	ug/L
Dibromochloromethane	124-48-1	0.18 U	0.18	1.0	1	ug/L
Dibromomethane	74-95-3	0.14 U	0.14	1.0	10	ug/L
Ethylbenzene	100-41-4	0.17 U	0.17	1.0	1	ug/L
Iodomethane	74-88-4	0.23 U	0.23	2.0	10	ug/L
Methylene chloride	75-09-2	0.088 U	0.088	2.0	1	ug/L
Styrene	100-42-5	0.12 U	0.12	1.0	1	ug/L

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ANALYTICAL REPORT

Sample ID:	MW-2	Project:	Wayne Co LF
Lab #:	C709176-01	Work Order #:	C709176
Prep. Method:	EPA 5030B_MS	Matrix:	Ground Water
Analyzed:	07/03/07 By: jkg	Unit:	ug/L
Anal. Method:	EPA 8260B	Dilution Factor:	1
Anal. Batch:			
QC Batch:	7G03022		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
Tetrachloroethene	127-18-4	0.25 U	0.25	1.0	1	ug/L
Toluene	108-88-3	0.15 U	0.15	1.0	1	ug/L
trans-1,2-Dichloroethene	156-60-5	0.10 U	0.10	1.0	5	ug/L
trans-1,3-Dichloropropene	10061-02-6	0.18 U	0.18	0.20	1	ug/L
trans-1,4-Dichloro-2-butene	110-57-6	0.60 U	0.60	1.0	100	ug/L
Trichloroethene	79-01-6	0.23 U	0.23	1.0	1	ug/L
Trichlorofluoromethane	75-69-4	0.16 U	0.16	1.0	1	ug/L
Vinyl acetate	108-05-4	0.19 U	0.19	2.0	50	ug/L
Vinyl chloride	75-01-4	0.15 U	0.15	1.0	1	ug/L
Xylenes (Total)	1330-20-7	0.21 U	0.21	1.0	4	ug/L

Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	460-00-4	75 S-GC	50.0	150 %	67-125
Dibromofluoromethane	1868-53-7	47	50.0	94 %	69-111
Toluene-d8	2037-26-5	47	50.0	93 %	85-120

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ANALYTICAL REPORT

Sample ID: MW-2
Lab #: C709176-01

Project: Wayne Co LF
Work Order #: C709176
Matrix: Ground Water

Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	DF	MDL	MRL	NC SWSL	Units	Analysis Method	Prep Method	Analytical Batch
Antimony	7440-36-0	0.00068 U	1	0.00068	0.00200	6	mg/L	EPA 6020	EPA 3005A	7F29008
Arsenic	7440-38-2	**0.0107** J	1	0.0020	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Barium	7440-39-3	**0.199** J	1	0.0010	0.0100	100	mg/L	EPA 6010B	EPA 3005A	7F28006
Beryllium	7440-41-7	0.00019 U	1	0.00019	0.00100	1	mg/L	EPA 6010B	EPA 3005A	7F28006
Cadmium	7440-43-9	0.00050 U	1	0.00050	0.00100	1	mg/L	EPA 6010B	EPA 3005A	7F28006
Chromium	7440-47-3	0.0020 U	1	0.0020	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Cobalt	7440-48-4	0.0025 U	1	0.0025	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Copper	7440-50-8	0.0018 U	1	0.0018	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Lead	7439-92-1	**19.2**	1	2.0	10.0	10	ug/L	EPA 6010B	EPA 3005A	7F28006
Nickel	7440-02-0	0.0020 U	1	0.0020	0.0100	50	mg/L	EPA 6010B	EPA 3005A	7F28006
Selenium	7782-49-2	0.0020 U	1	0.0020	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Silver	7440-22-4	0.0020 U	1	0.0020	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Thallium	7440-28-0	**0.000052** J	1	0.000044	0.00005	5.5	mg/L	EPA 6020	EPA 3005A	7F29008
Vanadium	7440-62-2	**0.0103** J	1	0.0017	0.0100	25	mg/L	EPA 6010B	EPA 3005A	7F28006
Zinc	7440-66-6	**0.0154** J	1	0.0010	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006

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ANALYTICAL REPORT

Sample ID:	MW-7	Project:	Wayne Co LF
Lab #:	C709176-02	Work Order #:	C709176
Prep. Method:	EPA 5030B_MS	Matrix:	Ground Water
Analyzed:	07/03/07 By: jkg	Unit:	ug/L
Anal. Method:	EPA 8260B	Dilution Factor:	1
Anal. Batch:			
QC Batch:	7G03022		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.16 U	0.16	1.0	5	ug/L
1,1,1-Trichloroethane	71-55-6	0.24 U	0.24	1.0	1	ug/L
1,1,2,2-Tetrachloroethane	79-34-5	0.27 U	0.27	1.0	1	ug/L
1,1,2-Trichloroethane	79-00-5	0.24 U	0.24	1.0	5	ug/L
1,1-Dichloroethane	75-34-3	0.090 U	0.090	1.0	5	ug/L
1,1-Dichloroethene	75-35-4	0.14 U	0.14	1.0	5	ug/L
1,2,3-Trichloropropane	96-18-4	0.32 U	0.32	1.0	1	ug/L
1,2-Dibromo-3-chloropropane	96-12-8	0.19 U	0.19	1.0	1	ug/L
1,2-Dibromoethane	106-93-4	0.19 U	0.19	1.0	1	ug/L
1,2-Dichlorobenzene	95-50-1	0.17 U	0.17	1.0	5	ug/L
1,2-Dichloroethane	107-06-2	0.36 U	0.36	1.0	1	ug/L
1,2-Dichloropropane	78-87-5	0.18 U	0.18	1.0	1	ug/L
1,4-Dichlorobenzene	106-46-7	0.15 U	0.15	1.0	1	ug/L
2-Butanone	78-93-3	0.56 U	0.56	5.0	100	ug/L
2-Hexanone	591-78-6	0.24 U	0.24	5.0	50	ug/L
4-Methyl-2-pentanone	108-10-1	0.36 U	0.36	5.0	100	ug/L
Acetone	67-64-1	0.90 U	0.90	5.0	100	ug/L
Acrylonitrile	107-13-1	2.0 U	2.0	5.0	200	ug/L
Benzene	71-43-2	0.12 U	0.12	1.0	1	ug/L
Bromochloromethane	74-97-5	0.19 U	0.19	1.0	3	ug/L
Bromodichloromethane	75-27-4	0.19 U	0.19	0.40	1	ug/L
Bromoform	75-25-2	0.36 U	0.36	1.0	3	ug/L
Bromomethane	74-83-9	0.21 U	0.21	1.0	10	ug/L
Carbon disulfide	75-15-0	0.12 U	0.12	5.0	100	ug/L
Carbon tetrachloride	56-23-5	0.38 U	0.38	1.0	1	ug/L
Chlorobenzene	108-90-7	0.16 U	0.16	1.0	3	ug/L
Chloroethane	75-00-3	0.40 U	0.40	1.0	10	ug/L
Chloroform	67-66-3	0.16 U	0.16	1.0	5	ug/L
Chloromethane	74-87-3	0.18 U	0.18	1.0	1	ug/L
cis-1,2-Dichloroethene	156-59-2	0.14 U	0.14	1.0	5	ug/L
cis-1,3-Dichloropropene	10061-01-5	0.16 U	0.16	0.20	1	ug/L
Dibromochloromethane	124-48-1	0.18 U	0.18	1.0	1	ug/L
Dibromomethane	74-95-3	0.14 U	0.14	1.0	10	ug/L
Ethylbenzene	100-41-4	0.17 U	0.17	1.0	1	ug/L
Iodomethane	74-88-4	0.23 U	0.23	2.0	10	ug/L
Methylene chloride	75-09-2	0.088 U	0.088	2.0	1	ug/L
Styrene	100-42-5	0.12 U	0.12	1.0	1	ug/L

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ANALYTICAL REPORT

Sample ID:	MW-7	Project:	Wayne Co LF
Lab #:	C709176-02	Work Order #:	C709176
Prep. Method:	EPA 5030B_MS	Matrix:	Ground Water
Analyzed:	07/03/07 By: jkg	Unit:	ug/L
Anal. Method:	EPA 8260B	Dilution Factor:	1
Anal. Batch:			
QC Batch:	7G03022		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
Tetrachloroethene	127-18-4	0.25 U	0.25	1.0	1	ug/L
Toluene	108-88-3	0.15 U	0.15	1.0	1	ug/L
trans-1,2-Dichloroethene	156-60-5	0.10 U	0.10	1.0	5	ug/L
trans-1,3-Dichloropropene	10061-02-6	0.18 U	0.18	0.20	1	ug/L
trans-1,4-Dichloro-2-butene	110-57-6	0.60 U	0.60	1.0	100	ug/L
Trichloroethene	79-01-6	0.23 U	0.23	1.0	1	ug/L
Trichlorofluoromethane	75-69-4	0.16 U	0.16	1.0	1	ug/L
Vinyl acetate	108-05-4	0.19 U	0.19	2.0	50	ug/L
Vinyl chloride	75-01-4	0.15 U	0.15	1.0	1	ug/L
Xylenes (Total)	1330-20-7	0.21 U	0.21	1.0	4	ug/L

Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	460-00-4	75 S-GC	50.0	149 %	67-125
Dibromofluoromethane	1868-53-7	45	50.0	91 %	69-111
Toluene-d8	2037-26-5	45	50.0	91 %	85-120

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ANALYTICAL REPORT

Sample ID: MW-7
Lab #: C709176-02

Project: Wayne Co LF
Work Order #: C709176
Matrix: Ground Water

Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	DF	MDL	MRL	NC SWSL	Units	Analysis Method	Prep Method	Analytical Batch
Antimony	7440-36-0	0.00068 U	1	0.00068	0.00200	6	mg/L	EPA 6020	EPA 3005A	7F29008
Arsenic	7440-38-2	**0.0030** J	1	0.0020	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Barium	7440-39-3	**0.0388** J	1	0.0010	0.0100	100	mg/L	EPA 6010B	EPA 3005A	7F28006
Beryllium	7440-41-7	0.00019 U	1	0.00019	0.00100	1	mg/L	EPA 6010B	EPA 3005A	7F28006
Cadmium	7440-43-9	0.00050 U	1	0.00050	0.00100	1	mg/L	EPA 6010B	EPA 3005A	7F28006
Chromium	7440-47-3	0.0020 U	1	0.0020	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Cobalt	7440-48-4	0.0025 U	1	0.0025	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Copper	7440-50-8	0.0018 U	1	0.0018	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Lead	7439-92-1	**2.4** J	1	2.0	10.0	10	ug/L	EPA 6010B	EPA 3005A	7F28006
Nickel	7440-02-0	**0.0020** J	1	0.0020	0.0100	50	mg/L	EPA 6010B	EPA 3005A	7F28006
Selenium	7782-49-2	0.0020 U	1	0.0020	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Silver	7440-22-4	0.0020 U	1	0.0020	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Thallium	7440-28-0	**0.000069** J	1	0.000044	0.00005	5.5	mg/L	EPA 6020	EPA 3005A	7F29008
Vanadium	7440-62-2	**0.0062** J	1	0.0017	0.0100	25	mg/L	EPA 6010B	EPA 3005A	7F28006
Zinc	7440-66-6	**0.0038** J	1	0.0010	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006

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ANALYTICAL REPORT

Sample ID:	HA-1(4')	Project:	Wayne Co LF
Lab #:	C709176-03	Work Order #:	C709176
Prep. Method:	EPA 5035_MS	Matrix:	Soil
Analyzed:	06/27/07 By: jkg	Unit:	mg/kg dry
Anal. Method:	EPA 8260B	Dilution Factor:	0.77
Anal. Batch:		Percent Solids:	84.65
QC Batch:	7F27020		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.00064 U, D	0.00064	0.00091	5	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.00073 U, D	0.00073	0.00091	1	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.00082 U, D	0.00082	0.91	1	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.00055 U, D	0.00055	0.00091	5	mg/kg dry
1,1-Dichloroethane	75-34-3	0.00082 U, D	0.00082	0.00091	5	mg/kg dry
1,1-Dichloroethene	75-35-4	0.00073 U, D	0.00073	0.00091	5	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.00045 U, D	0.00045	0.00091	1	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.00073 U, D	0.00073	0.00091	1	mg/kg dry
1,2-Dibromoethane	106-93-4	0.00082 U, D	0.00082	0.00091	1	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.00073 U, D	0.00073	0.00091	5	mg/kg dry
1,2-Dichloroethane	107-06-2	0.00073 U, D	0.00073	0.00091	1	mg/kg dry
1,2-Dichloropropane	78-87-5	0.00073 U, D	0.00073	0.00091	1	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.00073 U, D	0.00073	0.00091	1	mg/kg dry
2-Butanone	78-93-3	0.0014 U, D	0.0014	0.0045	100	mg/kg dry
2-Hexanone	591-78-6	0.0021 U, D	0.0021	0.0045	50	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0022 U, D	0.0022	0.0045	100	mg/kg dry
Acetone	67-64-1	0.0026 U, D	0.0026	0.0045	100	mg/kg dry
Acrylonitrile	107-13-1	0.0036 U, D	0.0036	0.0045	200	mg/kg dry
Benzene	71-43-2	0.00082 U, D	0.00082	0.00091	1	mg/kg dry
Bromochloromethane	74-97-5	0.00073 U, D	0.00073	0.00091	3	mg/kg dry
Bromodichloromethane	75-27-4	0.00073 U, D	0.00073	0.00091	1	mg/kg dry
Bromoform	75-25-2	0.00073 U, D	0.00073	0.00091	3	mg/kg dry
Bromomethane	74-83-9	0.00082 U, D	0.00082	0.00091	10	mg/kg dry
Carbon disulfide	75-15-0	0.0018 U, D	0.0018	0.0045	100	mg/kg dry
Carbon Tetrachloride	56-23-5	0.00073 U, D	0.00073	0.00091	1	mg/kg dry
Chlorobenzene	108-90-7	0.00082 U, D	0.00082	0.00091	3	mg/kg dry
Chloroethane	75-00-3	0.00045 U, D	0.00045	0.00091	10	mg/kg dry
Chloroform	67-66-3	0.00082 U, D	0.00082	0.00091	5	mg/kg dry
Chloromethane	74-87-3	0.00082 U, D	0.00082	0.00091	1	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.00073 U, D	0.00073	0.00091	5	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.00082 U, D	0.00082	0.00091	1	mg/kg dry
Dibromochloromethane	124-48-1	0.00082 U, D	0.00082	0.00091	1	mg/kg dry
Dibromomethane	74-95-3	0.00082 U, D	0.00082	0.00091	10	mg/kg dry
Ethylbenzene	100-41-4	0.00082 U, D	0.00082	0.00091	1	mg/kg dry
Iodomethane	74-88-4	0.0012 U, D	0.0012	0.0045	10	mg/kg dry
Methylene Chloride	75-09-2	0.00082 U, D	0.00082	0.00091	1	mg/kg dry
Styrene	100-42-5	0.00082 U, D	0.00082	0.00091	1	mg/kg dry

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ANALYTICAL REPORT

Sample ID:	HA-1(4')	Project:	Wayne Co LF
Lab #:	C709176-03	Work Order #:	C709176
Prep. Method:	EPA 5035_MS	Matrix:	Soil
Analyzed:	06/27/07 By: jkg	Unit:	mg/kg dry
Anal. Method:	EPA 8260B	Dilution Factor:	0.77
Anal. Batch:		Percent Solids:	84.65
QC Batch:	7F27020		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
Tetrachloroethene	127-18-4	0.00064 U, D	0.00064	0.00091	1	mg/kg dry
Toluene	108-88-3	0.00082 U, D	0.00082	0.00091	1	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.00082 U, D	0.00082	0.00091	5	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.00073 U, D	0.00073	0.00091	1	mg/kg dry
trans-1,4-Dichloro-2-butene	110-57-6	0.00082 U, D	0.00082	0.00091	100	mg/kg dry
Trichloroethene	79-01-6	0.00073 U, D	0.00073	0.00091	1	mg/kg dry
Trichlorofluoromethane	75-69-4	0.00073 U, D	0.00073	0.00091	1	mg/kg dry
Vinyl acetate	108-05-4	0.0018 U, D	0.0018	0.0045	50	mg/kg dry
Vinyl chloride	75-01-4	0.00082 U, D	0.00082	0.00091	1	mg/kg dry
Xylenes (Total)	1330-20-7	0.0016 U, D	0.0016	0.00091	4	mg/kg dry

Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	460-00-4	0.077	0.0591	131 %	53-151
Dibromofluoromethane	1868-53-7	0.049	0.0591	82 %	56-130
Toluene-d8	2037-26-5	0.057	0.0591	96 %	67-126

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ANALYTICAL REPORT

Sample ID: HA-1(4')
Lab #: C709176-03

Project: Wayne Co LF
Work Order #: C709176
Matrix: Soil
Percent Solids: 84.65

Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	DF	MDL	MRL	NC SWSL	Units	Analysis Method	Prep Method	Analytical Batch
Antimony	7440-36-0	0.12 U	1	0.12	0.59	6	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Arsenic	7440-38-2	**0.19** J	1	0.12	0.59	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Barium	7440-39-3	**8.54** J	1	0.012	0.591	100	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Beryllium	7440-41-7	0.041 U	1	0.041	0.059	1	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Cadmium	7440-43-9	0.030 U	1	0.030	0.059	1	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Chromium	7440-47-3	**4.65** J	1	0.12	0.59	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Cobalt	7440-48-4	0.12 U	1	0.12	0.59	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Copper	7440-50-8	0.035 U	1	0.035	0.591	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Lead	7439-92-1	**2.39** J	1	0.12	0.59	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Nickel	7440-02-0	**0.89** J	1	0.12	0.59	50	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Selenium	7782-49-2	0.12 U	1	0.12	0.59	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Silver	7440-22-4	0.12 U	1	0.12	0.59	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Thallium	7440-28-0	0.24 U	1	0.24	0.59	5.5	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Vanadium	7440-62-2	**9.40** J	1	0.059	0.591	25	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Zinc	7440-66-6	**1.87** J	1	0.059	0.591	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010

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ANALYTICAL REPORT

Sample ID:	HA-2(5')	Project:	Wayne Co LF
Lab #:	C709176-04	Work Order #:	C709176
Prep. Method:	EPA 5035_MS	Matrix:	Soil
Analyzed:	06/27/07 By: jkg	Unit:	mg/kg dry
Anal. Method:	EPA 8260B	Dilution Factor:	0.79
Anal. Batch:		Percent Solids:	82.13
QC Batch:	7F27020		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.00067 U, D	0.00067	0.00096	5	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.00077 U, D	0.00077	0.00096	1	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.00087 U, D	0.00087	0.96	1	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.00058 U, D	0.00058	0.00096	5	mg/kg dry
1,1-Dichloroethane	75-34-3	0.00087 U, D	0.00087	0.00096	5	mg/kg dry
1,1-Dichloroethene	75-35-4	0.00077 U, D	0.00077	0.00096	5	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.00048 U, D	0.00048	0.00096	1	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.00077 U, D	0.00077	0.00096	1	mg/kg dry
1,2-Dibromoethane	106-93-4	0.00087 U, D	0.00087	0.00096	1	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.00077 U, D	0.00077	0.00096	5	mg/kg dry
1,2-Dichloroethane	107-06-2	0.00077 U, D	0.00077	0.00096	1	mg/kg dry
1,2-Dichloropropane	78-87-5	0.00077 U, D	0.00077	0.00096	1	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.00077 U, D	0.00077	0.00096	1	mg/kg dry
2-Butanone	78-93-3	0.0014 U, D	0.0014	0.0048	100	mg/kg dry
2-Hexanone	591-78-6	0.0022 U, D	0.0022	0.0048	50	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0023 U, D	0.0023	0.0048	100	mg/kg dry
Acetone	67-64-1	0.0028 U, D	0.0028	0.0048	100	mg/kg dry
Acrylonitrile	107-13-1	0.0038 U, D	0.0038	0.0048	200	mg/kg dry
Benzene	71-43-2	0.00087 U, D	0.00087	0.00096	1	mg/kg dry
Bromochloromethane	74-97-5	0.00077 U, D	0.00077	0.00096	3	mg/kg dry
Bromodichloromethane	75-27-4	0.00077 U, D	0.00077	0.00096	1	mg/kg dry
Bromoform	75-25-2	0.00077 U, D	0.00077	0.00096	3	mg/kg dry
Bromomethane	74-83-9	0.00087 U, D	0.00087	0.00096	10	mg/kg dry
Carbon disulfide	75-15-0	0.0019 U, D	0.0019	0.0048	100	mg/kg dry
Carbon Tetrachloride	56-23-5	0.00077 U, D	0.00077	0.00096	1	mg/kg dry
Chlorobenzene	108-90-7	0.00087 U, D	0.00087	0.00096	3	mg/kg dry
Chloroethane	75-00-3	0.00048 U, D	0.00048	0.00096	10	mg/kg dry
Chloroform	67-66-3	0.00087 U, D	0.00087	0.00096	5	mg/kg dry
Chloromethane	74-87-3	0.00087 U, D	0.00087	0.00096	1	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.00077 U, D	0.00077	0.00096	5	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.00087 U, D	0.00087	0.00096	1	mg/kg dry
Dibromochloromethane	124-48-1	0.00087 U, D	0.00087	0.00096	1	mg/kg dry
Dibromomethane	74-95-3	0.00087 U, D	0.00087	0.00096	10	mg/kg dry
Ethylbenzene	100-41-4	0.00087 U, D	0.00087	0.00096	1	mg/kg dry
Iodomethane	74-88-4	0.0013 U, D	0.0013	0.0048	10	mg/kg dry
Methylene Chloride	75-09-2	0.00087 U, D	0.00087	0.00096	1	mg/kg dry
Styrene	100-42-5	0.00087 U, D	0.00087	0.00096	1	mg/kg dry

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ANALYTICAL REPORT

Sample ID:	HA-2(5')	Project:	Wayne Co LF
Lab #:	C709176-04	Work Order #:	C709176
Prep. Method:	EPA 5035_MS	Matrix:	Soil
Analyzed:	06/27/07 By: jkg	Unit:	mg/kg dry
Anal. Method:	EPA 8260B	Dilution Factor:	0.79
Anal. Batch:		Percent Solids:	82.13
QC Batch:	7F27020		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
Tetrachloroethene	127-18-4	0.00067 U, D	0.00067	0.00096	1	mg/kg dry
Toluene	108-88-3	0.00087 U, D	0.00087	0.00096	1	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.00087 U, D	0.00087	0.00096	5	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.00077 U, D	0.00077	0.00096	1	mg/kg dry
trans-1,4-Dichloro-2-butene	110-57-6	0.00087 U, D	0.00087	0.00096	100	mg/kg dry
Trichloroethene	79-01-6	0.00077 U, D	0.00077	0.00096	1	mg/kg dry
Trichlorofluoromethane	75-69-4	0.00077 U, D	0.00077	0.00096	1	mg/kg dry
Vinyl acetate	108-05-4	0.0019 U, D	0.0019	0.0048	50	mg/kg dry
Vinyl chloride	75-01-4	0.00087 U, D	0.00087	0.00096	1	mg/kg dry
Xylenes (Total)	1330-20-7	0.0017 U, D	0.0017	0.00096	4	mg/kg dry

Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	460-00-4	0.078	0.0609	129 %	53-151
Dibromofluoromethane	1868-53-7	0.051	0.0609	84 %	56-130
Toluene-d8	2037-26-5	0.057	0.0609	93 %	67-126

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ANALYTICAL REPORT

Sample ID: HA-2(5')
Lab #: C709176-04

Project: Wayne Co LF
Work Order #: C709176
Matrix: Soil
Percent Solids: 82.13

Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	DF	MDL	MRL	NC SWSL	Units	Analysis Method	Prep Method	Analytical Batch
Antimony	7440-36-0	**0.21** J	1	0.12	0.61	6	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Arsenic	7440-38-2	0.12 U	1	0.12	0.61	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Barium	7440-39-3	**5.25** J	1	0.012	0.609	100	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Beryllium	7440-41-7	0.043 U	1	0.043	0.061	1	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Cadmium	7440-43-9	0.030 U	1	0.030	0.061	1	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Chromium	7440-47-3	**12.1**	1	0.12	0.61	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Cobalt	7440-48-4	0.12 U	1	0.12	0.61	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Copper	7440-50-8	0.037 U	1	0.037	0.609	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Lead	7439-92-1	**3.90** J	1	0.12	0.61	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Nickel	7440-02-0	**0.86** J	1	0.12	0.61	50	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Selenium	7782-49-2	0.12 U	1	0.12	0.61	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Silver	7440-22-4	0.12 U	1	0.12	0.61	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Thallium	7440-28-0	0.24 U	1	0.24	0.61	5.5	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Vanadium	7440-62-2	**15.4** J	1	0.061	0.609	25	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Zinc	7440-66-6	**2.50** J	1	0.061	0.609	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010

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ANALYTICAL REPORT

Sample ID:	HA-3(5')	Project:	Wayne Co LF
Lab #:	C709176-05	Work Order #:	C709176
Prep. Method:	EPA 5035_MS	Matrix:	Soil
Analyzed:	06/27/07 By: jkg	Unit:	mg/kg dry
Anal. Method:	EPA 8260B	Dilution Factor:	0.81
Anal. Batch:		Percent Solids:	78.92
QC Batch:	7F27020		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.00072 U, D	0.00072	0.0010	5	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.00082 U, D	0.00082	0.0010	1	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.00092 U, D	0.00092	1.0	1	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.00062 U, D	0.00062	0.0010	5	mg/kg dry
1,1-Dichloroethane	75-34-3	0.00092 U, D	0.00092	0.0010	5	mg/kg dry
1,1-Dichloroethene	75-35-4	0.00082 U, D	0.00082	0.0010	5	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.00051 U, D	0.00051	0.0010	1	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.00082 U, D	0.00082	0.0010	1	mg/kg dry
1,2-Dibromoethane	106-93-4	0.00092 U, D	0.00092	0.0010	1	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.00082 U, D	0.00082	0.0010	5	mg/kg dry
1,2-Dichloroethane	107-06-2	0.00082 U, D	0.00082	0.0010	1	mg/kg dry
1,2-Dichloropropane	78-87-5	0.00082 U, D	0.00082	0.0010	1	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.00082 U, D	0.00082	0.0010	1	mg/kg dry
2-Butanone	78-93-3	0.0015 U, D	0.0015	0.0051	100	mg/kg dry
2-Hexanone	591-78-6	0.0024 U, D	0.0024	0.0051	50	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0025 U, D	0.0025	0.0051	100	mg/kg dry
Acetone	67-64-1	0.0030 U, D	0.0030	0.0051	100	mg/kg dry
Acrylonitrile	107-13-1	0.0041 U, D	0.0041	0.0051	200	mg/kg dry
Benzene	71-43-2	0.00092 U, D	0.00092	0.0010	1	mg/kg dry
Bromochloromethane	74-97-5	0.00082 U, D	0.00082	0.0010	3	mg/kg dry
Bromodichloromethane	75-27-4	0.00082 U, D	0.00082	0.0010	1	mg/kg dry
Bromoform	75-25-2	0.00082 U, D	0.00082	0.0010	3	mg/kg dry
Bromomethane	74-83-9	0.00092 U, D	0.00092	0.0010	10	mg/kg dry
Carbon disulfide	75-15-0	0.0021 U, D	0.0021	0.0051	100	mg/kg dry
Carbon Tetrachloride	56-23-5	0.00082 U, D	0.00082	0.0010	1	mg/kg dry
Chlorobenzene	108-90-7	0.00092 U, D	0.00092	0.0010	3	mg/kg dry
Chloroethane	75-00-3	0.00051 U, D	0.00051	0.0010	10	mg/kg dry
Chloroform	67-66-3	0.00092 U, D	0.00092	0.0010	5	mg/kg dry
Chloromethane	74-87-3	0.00092 U, D	0.00092	0.0010	1	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.00082 U, D	0.00082	0.0010	5	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.00092 U, D	0.00092	0.0010	1	mg/kg dry
Dibromochloromethane	124-48-1	0.00092 U, D	0.00092	0.0010	1	mg/kg dry
Dibromomethane	74-95-3	0.00092 U, D	0.00092	0.0010	10	mg/kg dry
Ethylbenzene	100-41-4	0.00092 U, D	0.00092	0.0010	1	mg/kg dry
Iodomethane	74-88-4	0.0013 U, D	0.0013	0.0051	10	mg/kg dry
Methylene Chloride	75-09-2	0.00092 U, D	0.00092	0.0010	1	mg/kg dry
Styrene	100-42-5	0.00092 U, D	0.00092	0.0010	1	mg/kg dry

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ANALYTICAL REPORT

Sample ID:	HA-3(5')	Project:	Wayne Co LF
Lab #:	C709176-05	Work Order #:	C709176
Prep. Method:	EPA 5035_MS	Matrix:	Soil
Analyzed:	06/27/07 By: jkg	Unit:	mg/kg dry
Anal. Method:	EPA 8260B	Dilution Factor:	0.81
Anal. Batch:		Percent Solids:	78.92
QC Batch:	7F27020		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
Tetrachloroethene	127-18-4	0.00072 U, D	0.00072	0.0010	1	mg/kg dry
Toluene	108-88-3	0.00092 U, D	0.00092	0.0010	1	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.00092 U, D	0.00092	0.0010	5	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.00082 U, D	0.00082	0.0010	1	mg/kg dry
trans-1,4-Dichloro-2-butene	110-57-6	0.00092 U, D	0.00092	0.0010	100	mg/kg dry
Trichloroethene	79-01-6	0.00082 U, D	0.00082	0.0010	1	mg/kg dry
Trichlorofluoromethane	75-69-4	0.00082 U, D	0.00082	0.0010	1	mg/kg dry
Vinyl acetate	108-05-4	0.0021 U, D	0.0021	0.0051	50	mg/kg dry
Vinyl chloride	75-01-4	0.00092 U, D	0.00092	0.0010	1	mg/kg dry
Xylenes (Total)	1330-20-7	0.0018 U, D	0.0018	0.0010	4	mg/kg dry

Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	460-00-4	0.077	0.0634	121 %	53-151
Dibromofluoromethane	1868-53-7	0.051	0.0634	81 %	56-130
Toluene-d8	2037-26-5	0.059	0.0634	93 %	67-126

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ANALYTICAL REPORT

Sample ID: HA-3(5')
Lab #: C709176-05

Project: Wayne Co LF
Work Order #: C709176
Matrix: Soil
Percent Solids: 78.92

Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	DF	MDL	MRL	NC SWSL	Units	Analysis Method	Prep Method	Analytical Batch
Antimony	7440-36-0	0.13 U	1	0.13	0.63	6	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Arsenic	7440-38-2	**0.79** J	1	0.13	0.63	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Barium	7440-39-3	**9.66** J	1	0.013	0.634	100	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Beryllium	7440-41-7	0.044 U	1	0.044	0.063	1	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Cadmium	7440-43-9	0.032 U	1	0.032	0.063	1	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Chromium	7440-47-3	**16.9**	1	0.13	0.63	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Cobalt	7440-48-4	0.13 U	1	0.13	0.63	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Copper	7440-50-8	0.038 U	1	0.038	0.634	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Lead	7439-92-1	**4.05** J	1	0.13	0.63	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Nickel	7440-02-0	**0.70** J	1	0.13	0.63	50	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Selenium	7782-49-2	0.13 U	1	0.13	0.63	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Silver	7440-22-4	0.13 U	1	0.13	0.63	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Thallium	7440-28-0	0.25 U	1	0.25	0.63	5.5	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Vanadium	7440-62-2	**41.6**	1	0.063	0.634	25	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Zinc	7440-66-6	**4.09** J	1	0.063	0.634	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010

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ANALYTICAL REPORT

Sample ID:	HA-12(3')	Project:	Wayne Co LF
Lab #:	C709176-06	Work Order #:	C709176
Prep. Method:	EPA 5035_MS	Matrix:	Soil
Analyzed:	06/27/07 By: jkg	Unit:	mg/kg dry
Anal. Method:	EPA 8260B	Dilution Factor:	0.76
Anal. Batch:		Percent Solids:	84.74
QC Batch:	7F27020		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.00063 U, D	0.00063	0.00090	5	mg/kg dry
1,1,1-Trichloroethane	71-55-6	0.00072 U, D	0.00072	0.00090	1	mg/kg dry
1,1,2,2-Tetrachloroethane	79-34-5	0.00081 U, D	0.00081	0.90	1	mg/kg dry
1,1,2-Trichloroethane	79-00-5	0.00054 U, D	0.00054	0.00090	5	mg/kg dry
1,1-Dichloroethane	75-34-3	0.00081 U, D	0.00081	0.00090	5	mg/kg dry
1,1-Dichloroethene	75-35-4	0.00072 U, D	0.00072	0.00090	5	mg/kg dry
1,2,3-Trichloropropane	96-18-4	0.00045 U, D	0.00045	0.00090	1	mg/kg dry
1,2-Dibromo-3-chloropropane	96-12-8	0.00072 U, D	0.00072	0.00090	1	mg/kg dry
1,2-Dibromoethane	106-93-4	0.00081 U, D	0.00081	0.00090	1	mg/kg dry
1,2-Dichlorobenzene	95-50-1	0.00072 U, D	0.00072	0.00090	5	mg/kg dry
1,2-Dichloroethane	107-06-2	0.00072 U, D	0.00072	0.00090	1	mg/kg dry
1,2-Dichloropropane	78-87-5	0.00072 U, D	0.00072	0.00090	1	mg/kg dry
1,4-Dichlorobenzene	106-46-7	0.00072 U, D	0.00072	0.00090	1	mg/kg dry
2-Butanone	78-93-3	0.0013 U, D	0.0013	0.0045	100	mg/kg dry
2-Hexanone	591-78-6	0.0021 U, D	0.0021	0.0045	50	mg/kg dry
4-Methyl-2-pentanone	108-10-1	0.0022 U, D	0.0022	0.0045	100	mg/kg dry
Acetone	67-64-1	0.0026 U, D	0.0026	0.0045	100	mg/kg dry
Acrylonitrile	107-13-1	0.0036 U, D	0.0036	0.0045	200	mg/kg dry
Benzene	71-43-2	0.00081 U, D	0.00081	0.00090	1	mg/kg dry
Bromochloromethane	74-97-5	0.00072 U, D	0.00072	0.00090	3	mg/kg dry
Bromodichloromethane	75-27-4	0.00072 U, D	0.00072	0.00090	1	mg/kg dry
Bromoform	75-25-2	0.00072 U, D	0.00072	0.00090	3	mg/kg dry
Bromomethane	74-83-9	0.00081 U, D	0.00081	0.00090	10	mg/kg dry
Carbon disulfide	75-15-0	0.0018 U, D	0.0018	0.0045	100	mg/kg dry
Carbon Tetrachloride	56-23-5	0.00072 U, D	0.00072	0.00090	1	mg/kg dry
Chlorobenzene	108-90-7	0.00081 U, D	0.00081	0.00090	3	mg/kg dry
Chloroethane	75-00-3	0.00045 U, D	0.00045	0.00090	10	mg/kg dry
Chloroform	67-66-3	0.00081 U, D	0.00081	0.00090	5	mg/kg dry
Chloromethane	74-87-3	0.00081 U, D	0.00081	0.00090	1	mg/kg dry
cis-1,2-Dichloroethene	156-59-2	0.00072 U, D	0.00072	0.00090	5	mg/kg dry
cis-1,3-Dichloropropene	10061-01-5	0.00081 U, D	0.00081	0.00090	1	mg/kg dry
Dibromochloromethane	124-48-1	0.00081 U, D	0.00081	0.00090	1	mg/kg dry
Dibromomethane	74-95-3	0.00081 U, D	0.00081	0.00090	10	mg/kg dry
Dichlorodifluoromethane	75-71-8	0.00054 U, D	0.00054	0.00090	5	mg/kg dry
Ethylbenzene	100-41-4	0.00081 U, D	0.00081	0.00090	1	mg/kg dry
Iodomethane	74-88-4	0.0012 U, D	0.0012	0.0045	10	mg/kg dry
Methylene Chloride	75-09-2	0.00081 U, D	0.00081	0.00090	1	mg/kg dry

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ANALYTICAL REPORT

Sample ID:	HA-12(3')	Project:	Wayne Co LF
Lab #:	C709176-06	Work Order #:	C709176
Prep. Method:	EPA 5035_MS	Matrix:	Soil
Analyzed:	06/27/07 By: jkg	Unit:	mg/kg dry
Anal. Method:	EPA 8260B	Dilution Factor:	0.76
Anal. Batch:		Percent Solids:	84.74
QC Batch:	7F27020		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
Styrene	100-42-5	0.00081 U, D	0.00081	0.00090	1	mg/kg dry
Tetrachloroethene	127-18-4	0.00063 U, D	0.00063	0.00090	1	mg/kg dry
Toluene	108-88-3	0.00081 U, D	0.00081	0.00090	1	mg/kg dry
trans-1,2-Dichloroethene	156-60-5	0.00081 U, D	0.00081	0.00090	5	mg/kg dry
trans-1,3-Dichloropropene	10061-02-6	0.00072 U, D	0.00072	0.00090	1	mg/kg dry
trans-1,4-Dichloro-2-butene	110-57-6	0.00081 U, D	0.00081	0.00090	100	mg/kg dry
Trichloroethene	79-01-6	0.00072 U, D	0.00072	0.00090	1	mg/kg dry
Trichlorofluoromethane	75-69-4	0.00072 U, D	0.00072	0.00090	1	mg/kg dry
Vinyl acetate	108-05-4	0.0018 U, D	0.0018	0.0045	50	mg/kg dry
Vinyl chloride	75-01-4	0.00081 U, D	0.00081	0.00090	1	mg/kg dry
Xylenes (Total)	1330-20-7	0.0016 U, D	0.0016	0.00090	4	mg/kg dry

Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	460-00-4	0.071	0.0590	121 %	53-151
Dibromofluoromethane	1868-53-7	0.048	0.0590	82 %	56-130
Toluene-d8	2037-26-5	0.057	0.0590	96 %	67-126

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ANALYTICAL REPORT

Sample ID: HA-12(3')
Lab #: C709176-06

Project: Wayne Co LF
Work Order #: C709176
Matrix: Soil
Percent Solids: 84.74

Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	DF	MDL	MRL	NC SWSL	Units	Analysis Method	Prep Method	Analytical Batch
Antimony	7440-36-0	0.12 U	1	0.12	0.59	6	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Arsenic	7440-38-2	**0.13** J	1	0.12	0.59	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Barium	7440-39-3	**2.14** J	1	0.012	0.590	100	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Beryllium	7440-41-7	**0.053** J	1	0.041	0.059	1	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Cadmium	7440-43-9	0.030 U	1	0.030	0.059	1	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Chromium	7440-47-3	**1.14** J	1	0.12	0.59	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Cobalt	7440-48-4	0.12 U	1	0.12	0.59	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Copper	7440-50-8	0.035 U	1	0.035	0.590	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Lead	7439-92-1	**4.72** J	1	0.12	0.59	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Nickel	7440-02-0	**0.20** J	1	0.12	0.59	50	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Selenium	7782-49-2	**0.25** J	1	0.12	0.59	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Silver	7440-22-4	0.12 U	1	0.12	0.59	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Thallium	7440-28-0	0.24 U	1	0.24	0.59	5.5	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Vanadium	7440-62-2	**1.84** J	1	0.059	0.590	25	mg/kg dry	EPA 6010B	EPA 3050B	7F28010
Zinc	7440-66-6	**1.22** J	1	0.059	0.590	10	mg/kg dry	EPA 6010B	EPA 3050B	7F28010

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ANALYTICAL REPORT

Sample ID:	SW-1	Project:	Wayne Co LF
Lab #:	C709176-07	Work Order #:	C709176
Prep. Method:	EPA 5030B_MS	Matrix:	Surface Water
Analyzed:	07/10/07 By: jkg	Unit:	ug/L
Anal. Method:	EPA 8260B	Dilution Factor:	1
Anal. Batch:			
QC Batch:	7G09003		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.16 U	0.16	1.0	5	ug/L
1,1,1-Trichloroethane	71-55-6	0.24 U	0.24	1.0	1	ug/L
1,1,2,2-Tetrachloroethane	79-34-5	0.27 U	0.27	1.0	1	ug/L
1,1,2-Trichloroethane	79-00-5	0.24 U	0.24	1.0	5	ug/L
1,1-Dichloroethane	75-34-3	0.090 U	0.090	1.0	5	ug/L
1,1-Dichloroethene	75-35-4	0.14 U	0.14	1.0	5	ug/L
1,2,3-Trichloropropane	96-18-4	0.32 U	0.32	1.0	1	ug/L
1,2-Dibromo-3-chloropropane	96-12-8	0.19 U	0.19	1.0	1	ug/L
1,2-Dibromoethane	106-93-4	0.19 U	0.19	1.0	1	ug/L
1,2-Dichlorobenzene	95-50-1	0.17 U	0.17	1.0	5	ug/L
1,2-Dichloroethane	107-06-2	0.36 U	0.36	1.0	1	ug/L
1,2-Dichloropropane	78-87-5	0.18 U	0.18	1.0	1	ug/L
1,4-Dichlorobenzene	106-46-7	0.15 U	0.15	1.0	1	ug/L
2-Butanone	78-93-3	0.56 U	0.56	5.0	100	ug/L
2-Hexanone	591-78-6	0.24 U	0.24	5.0	50	ug/L
4-Methyl-2-pentanone	108-10-1	0.36 U	0.36	5.0	100	ug/L
Acetone	67-64-1	**6.9** J	0.90	5.0	100	ug/L
Acrylonitrile	107-13-1	2.0 U	2.0	5.0	200	ug/L
Benzene	71-43-2	0.12 U	0.12	1.0	1	ug/L
Bromochloromethane	74-97-5	0.19 U	0.19	1.0	3	ug/L
Bromodichloromethane	75-27-4	0.19 U	0.19	0.40	1	ug/L
Bromoform	75-25-2	0.36 U	0.36	1.0	3	ug/L
Bromomethane	74-83-9	0.21 U	0.21	1.0	10	ug/L
Carbon disulfide	75-15-0	0.12 U	0.12	5.0	100	ug/L
Carbon tetrachloride	56-23-5	0.38 U	0.38	1.0	1	ug/L
Chlorobenzene	108-90-7	0.16 U	0.16	1.0	3	ug/L
Chloroethane	75-00-3	0.40 U	0.40	1.0	10	ug/L
Chloroform	67-66-3	0.16 U	0.16	1.0	5	ug/L
Chloromethane	74-87-3	0.18 U	0.18	1.0	1	ug/L
cis-1,2-Dichloroethene	156-59-2	0.14 U	0.14	1.0	5	ug/L
cis-1,3-Dichloropropene	10061-01-5	0.16 U	0.16	0.20	1	ug/L
Dibromochloromethane	124-48-1	0.18 U	0.18	1.0	1	ug/L
Dibromomethane	74-95-3	0.14 U	0.14	1.0	10	ug/L
Ethylbenzene	100-41-4	0.17 U	0.17	1.0	1	ug/L
Iodomethane	74-88-4	0.23 U	0.23	2.0	10	ug/L
Methylene chloride	75-09-2	0.088 U	0.088	2.0	1	ug/L
Styrene	100-42-5	0.12 U	0.12	1.0	1	ug/L

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ANALYTICAL REPORT

Sample ID:	SW-1	Project:	Wayne Co LF
Lab #:	C709176-07	Work Order #:	C709176
Prep. Method:	EPA 5030B_MS	Matrix:	Surface Water
Analyzed:	07/10/07 By: jkg	Unit:	ug/L
Anal. Method:	EPA 8260B	Dilution Factor:	1
Anal. Batch:			
QC Batch:	7G09003		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
Tetrachloroethene	127-18-4	0.25 U	0.25	1.0	1	ug/L
Toluene	108-88-3	0.15 U	0.15	1.0	1	ug/L
trans-1,2-Dichloroethene	156-60-5	0.10 U	0.10	1.0	5	ug/L
trans-1,3-Dichloropropene	10061-02-6	0.18 U	0.18	0.20	1	ug/L
trans-1,4-Dichloro-2-butene	110-57-6	0.60 U	0.60	1.0	100	ug/L
Trichloroethene	79-01-6	0.23 U	0.23	1.0	1	ug/L
Trichlorofluoromethane	75-69-4	0.16 U	0.16	1.0	1	ug/L
Vinyl acetate	108-05-4	0.19 U	0.19	2.0	50	ug/L
Vinyl chloride	75-01-4	0.15 U	0.15	1.0	1	ug/L
Xylenes (Total)	1330-20-7	0.21 U	0.21	1.0	4	ug/L

Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	460-00-4	45	50.0	90 %	67-125
Dibromofluoromethane	1868-53-7	44	50.0	88 %	69-111
Toluene-d8	2037-26-5	48	50.0	96 %	85-120

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ANALYTICAL REPORT

Sample ID: SW-1
Lab #: C709176-07

Project: Wayne Co LF
Work Order #: C709176
Matrix: Surface Water

Metals by EPA 6000/7000 Series Methods

Parameter	CAS Number	Analytical Results	DF	MDL	MRL	NC SWSL	Units	Analysis Method	Prep Method	Analytical Batch
Antimony	7440-36-0	0.00068 U	1	0.00068	0.00200	6	mg/L	EPA 6020	EPA 3005A	7F29008
Arsenic	7440-38-2	0.0020 U	1	0.0020	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Barium	7440-39-3	**0.124** J	1	0.0010	0.0100	100	mg/L	EPA 6010B	EPA 3005A	7F28006
Beryllium	7440-41-7	0.00019 U	1	0.00019	0.00100	1	mg/L	EPA 6010B	EPA 3005A	7F28006
Cadmium	7440-43-9	0.00050 U	1	0.00050	0.00100	1	mg/L	EPA 6010B	EPA 3005A	7F28006
Chromium	7440-47-3	0.0020 U	1	0.0020	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Cobalt	7440-48-4	0.0025 U	1	0.0025	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Copper	7440-50-8	0.0018 U	1	0.0018	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Lead	7439-92-1	2.0 U	1	2.0	10.0	10	ug/L	EPA 6010B	EPA 3005A	7F28006
Nickel	7440-02-0	**0.0024** J	1	0.0020	0.0100	50	mg/L	EPA 6010B	EPA 3005A	7F28006
Selenium	7782-49-2	0.0020 U	1	0.0020	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Silver	7440-22-4	0.0020 U	1	0.0020	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006
Thallium	7440-28-0	0.000044 U	1	0.000044	0.00005	5.5	mg/L	EPA 6020	EPA 3005A	7F29008
Vanadium	7440-62-2	0.0017 U	1	0.0017	0.0100	25	mg/L	EPA 6010B	EPA 3005A	7F28006
Zinc	7440-66-6	**0.0050** J	1	0.0010	0.0100	10	mg/L	EPA 6010B	EPA 3005A	7F28006

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ANALYTICAL REPORT

Sample ID:	TRIP	Project:	Wayne Co LF
Lab #:	C709176-08	Work Order #:	C709176
Prep. Method:	EPA 5030B_MS	Matrix:	Water
Analyzed:	07/03/07 By: jkg	Unit:	ug/L
Anal. Method:	EPA 8260B	Dilution Factor:	1
Anal. Batch:			
QC Batch:	7G03022		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
1,1,1,2-Tetrachloroethane	630-20-6	0.16 U	0.16	1.0	5	ug/L
1,1,1-Trichloroethane	71-55-6	0.24 U	0.24	1.0	1	ug/L
1,1,2,2-Tetrachloroethane	79-34-5	0.27 U	0.27	1.0	1	ug/L
1,1,2-Trichloroethane	79-00-5	0.24 U	0.24	1.0	5	ug/L
1,1-Dichloroethane	75-34-3	0.090 U	0.090	1.0	5	ug/L
1,1-Dichloroethene	75-35-4	0.14 U	0.14	1.0	5	ug/L
1,2,3-Trichloropropane	96-18-4	0.32 U	0.32	1.0	1	ug/L
1,2-Dibromo-3-chloropropane	96-12-8	0.19 U	0.19	1.0	1	ug/L
1,2-Dibromoethane	106-93-4	0.19 U	0.19	1.0	1	ug/L
1,2-Dichlorobenzene	95-50-1	0.17 U	0.17	1.0	5	ug/L
1,2-Dichloroethane	107-06-2	0.36 U	0.36	1.0	1	ug/L
1,2-Dichloropropane	78-87-5	0.18 U	0.18	1.0	1	ug/L
1,4-Dichlorobenzene	106-46-7	0.15 U	0.15	1.0	1	ug/L
2-Butanone	78-93-3	0.56 U	0.56	5.0	100	ug/L
2-Hexanone	591-78-6	0.24 U	0.24	5.0	50	ug/L
4-Methyl-2-pentanone	108-10-1	0.36 U	0.36	5.0	100	ug/L
Acetone	67-64-1	0.90 U	0.90	5.0	100	ug/L
Acrylonitrile	107-13-1	2.0 U	2.0	5.0	200	ug/L
Benzene	71-43-2	0.12 U	0.12	1.0	1	ug/L
Bromochloromethane	74-97-5	0.19 U	0.19	1.0	3	ug/L
Bromodichloromethane	75-27-4	0.19 U	0.19	0.40	1	ug/L
Bromoform	75-25-2	0.36 U	0.36	1.0	3	ug/L
Bromomethane	74-83-9	0.21 U	0.21	1.0	10	ug/L
Carbon disulfide	75-15-0	0.12 U	0.12	5.0	100	ug/L
Carbon tetrachloride	56-23-5	0.38 U	0.38	1.0	1	ug/L
Chlorobenzene	108-90-7	0.16 U	0.16	1.0	3	ug/L
Chloroethane	75-00-3	0.40 U	0.40	1.0	10	ug/L
Chloroform	67-66-3	0.16 U	0.16	1.0	5	ug/L
Chloromethane	74-87-3	0.18 U	0.18	1.0	1	ug/L
cis-1,2-Dichloroethene	156-59-2	0.14 U	0.14	1.0	5	ug/L
cis-1,3-Dichloropropene	10061-01-5	0.16 U	0.16	0.20	1	ug/L
Dibromochloromethane	124-48-1	0.18 U	0.18	1.0	1	ug/L
Dibromomethane	74-95-3	0.14 U	0.14	1.0	10	ug/L
Ethylbenzene	100-41-4	0.17 U	0.17	1.0	1	ug/L
Iodomethane	74-88-4	0.23 U	0.23	2.0	10	ug/L
Methylene chloride	75-09-2	0.088 U	0.088	2.0	1	ug/L
Styrene	100-42-5	0.12 U	0.12	1.0	1	ug/L

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ANALYTICAL REPORT

Sample ID:	TRIP	Project:	Wayne Co LF
Lab #:	C709176-08	Work Order #:	C709176
Prep. Method:	EPA 5030B_MS	Matrix:	Water
Analyzed:	07/03/07 By: jkg	Unit:	ug/L
Anal. Method:	EPA 8260B	Dilution Factor:	1
Anal. Batch:			
QC Batch:	7G03022		

Volatile Organic Compounds by GCMS

Parameter	CAS Number	Analytical Results	MDL	MRL	NC SWSL	Units
Tetrachloroethene	127-18-4	0.25 U	0.25	1.0	1	ug/L
Toluene	108-88-3	0.15 U	0.15	1.0	1	ug/L
trans-1,2-Dichloroethene	156-60-5	0.10 U	0.10	1.0	5	ug/L
trans-1,3-Dichloropropene	10061-02-6	0.18 U	0.18	0.20	1	ug/L
trans-1,4-Dichloro-2-butene	110-57-6	0.60 U	0.60	1.0	100	ug/L
Trichloroethene	79-01-6	0.23 U	0.23	1.0	1	ug/L
Trichlorofluoromethane	75-69-4	0.16 U	0.16	1.0	1	ug/L
Vinyl acetate	108-05-4	0.19 U	0.19	2.0	50	ug/L
Vinyl chloride	75-01-4	0.15 U	0.15	1.0	1	ug/L
Xylenes (Total)	1330-20-7	0.21 U	0.21	1.0	4	ug/L

Surrogate Recovery		Result	Spike Level	% Recovery	% Recovery Limits
4-Bromofluorobenzene	460-00-4	73 S-GC	50.0	145 %	67-125
Dibromofluoromethane	1868-53-7	47	50.0	93 %	69-111
Toluene-d8	2037-26-5	46	50.0	92 %	85-120

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QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sanple Notes
Volatile Organic Compounds by GCMS - Quality Control										
Batch 7F27020 - EPA 5035_MS										
Blank (7F27020-BLK1)				Prepared: 06/27/2007 12:36 Analyzed: 06/27/2007 15:27						
Chloromethane	0.00090 U	0.0010	mg/kg wet							
Vinyl chloride	0.00090 U	0.0010	mg/kg wet							
Bromomethane	0.00090 U	0.0010	mg/kg wet							
Chloroethane	0.00050 U	0.0010	mg/kg wet							
Trichlorofluoromethane	0.00080 U	0.0010	mg/kg wet							
1,1-Dichloroethene	0.00080 U	0.0010	mg/kg wet							
Acetone	0.0029 U	0.0050	mg/kg wet							
Iodomethane	0.0013 U	0.0050	mg/kg wet							
Carbon disulfide	0.0020 U	0.0050	mg/kg wet							
Methylene Chloride	0.00090 U	0.0010	mg/kg wet							
Acrylonitrile	0.0040 U	0.0050	mg/kg wet							
trans-1,2-Dichloroethene	0.00090 U	0.0010	mg/kg wet							
1,1-Dichloroethane	0.00090 U	0.0010	mg/kg wet							
Vinyl acetate	0.0020 U	0.0050	mg/kg wet							
2-Butanone	0.0015 U	0.0050	mg/kg wet							
cis-1,2-Dichloroethene	0.00080 U	0.0010	mg/kg wet							
Bromochloromethane	0.00080 U	0.0010	mg/kg wet							
Chloroform	0.00090 U	0.0010	mg/kg wet							
1,1,1-Trichloroethane	0.00080 U	0.0010	mg/kg wet							
1,1-Dichloropropene	0.00070 U	0.0010	mg/kg wet							
Carbon Tetrachloride	0.00080 U	0.0010	mg/kg wet							
1,2-Dichloroethane	0.00080 U	0.0010	mg/kg wet							
Benzene	0.00090 U	0.0010	mg/kg wet							
Trichloroethene	0.00080 U	0.0010	mg/kg wet							
1,2-Dichloropropane	0.00080 U	0.0010	mg/kg wet							
Dibromomethane	0.00090 U	0.0010	mg/kg wet							
Bromodichloromethane	0.00080 U	0.0010	mg/kg wet							
cis-1,3-Dichloropropene	0.00090 U	0.0010	mg/kg wet							
4-Methyl-2-pentanone	0.0024 U	0.0050	mg/kg wet							
Toluene	0.00090 U	0.0010	mg/kg wet							
trans-1,3-Dichloropropene	0.00080 U	0.0010	mg/kg wet							
1,1,2-Trichloroethane	0.00060 U	0.0010	mg/kg wet							
Tetrachloroethene	0.00070 U	0.0010	mg/kg wet							
2-Hexanone	0.0023 U	0.0050	mg/kg wet							
Dibromochloromethane	0.00090 U	0.0010	mg/kg wet							
1,2-Dibromoethane	0.00090 U	0.0010	mg/kg wet							
Chlorobenzene	0.00090 U	0.0010	mg/kg wet							
1,1,1,2-Tetrachloroethane	0.00070 U	0.0010	mg/kg wet							
Ethylbenzene	0.00090 U	0.0010	mg/kg wet							
Styrene	0.00090 U	0.0010	mg/kg wet							
Bromoform	0.00080 U	0.0010	mg/kg wet							
1,1,2,2-Tetrachloroethane	0.00090 U	1.0	mg/kg wet							
1,2,3-Trichloropropane	0.00050 U	0.0010	mg/kg wet							
trans-1,4-Dichloro-2-butene	0.00090 U	0.0010	mg/kg wet							
1,4-Dichlorobenzene	0.00080 U	0.0010	mg/kg wet							

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QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sanple Notes
Volatile Organic Compounds by GCMS - Quality Control										
Batch 7F27020 - EPA 5035_MS										
Blank (7F27020-BLK1) Continued				Prepared: 06/27/2007 12:36 Analyzed: 06/27/2007 15:27						
1,2-Dichlorobenzene	0.00080 U	0.0010	mg/kg wet							
1,2-Dibromo-3-chloropropane	0.00080 U	0.0010	mg/kg wet							
Xylenes (Total)	0.0018 U	0.0010	mg/kg wet							
LCS (7F27020-BS1)				Prepared: 06/27/2007 12:36 Analyzed: 06/27/2007 15:54						
1,1-Dichloroethene	0.023	0.0010	mg/kg wet	0.0200		114	22-179			
Benzene	0.022	0.0010	mg/kg wet	0.0200		108	58-130			
Trichloroethene	0.023	0.0010	mg/kg wet	0.0200		116	61-144			
Toluene	0.021	0.0010	mg/kg wet	0.0200		105	58-140			
Chlorobenzene	0.020	0.0010	mg/kg wet	0.0200		101	70-135			
Matrix Spike (7F27020-MS1)		**Source: C709074-08**		Prepared: 06/27/2007 12:36 Analyzed: 06/27/2007 16:20						
1,1-Dichloroethene	0.011	0.0010	mg/kg dry	0.0200	0.00080 U	54	35-172			
Benzene	0.011	0.0010	mg/kg dry	0.0200	0.00090 U	54	54-133			
Trichloroethene	0.011	0.0010	mg/kg dry	0.0200	0.00080 U	57	27-192			
Toluene	0.011 QM-07	0.0010	mg/kg dry	0.0200	0.0015	48	59-141			QM-07
Chlorobenzene	0.0095 QM-07	0.0010	mg/kg dry	0.0200	0.00090 U	48	63-143			QM-07
Matrix Spike Dup (7F27020-MSD1)		**Source: C709074-08**		Prepared: 06/27/2007 12:36 Analyzed: 06/27/2007 16:47						
1,1-Dichloroethene	0.037 QM-07	0.0010	mg/kg dry	0.0200	0.00080 U	183	35-172	108	19	QM-07
Benzene	0.034 QM-07	0.0010	mg/kg dry	0.0200	0.00090 U	168	54-133	103	23	QM-07
Trichloroethene	0.038 QM-07	0.0010	mg/kg dry	0.0200	0.00080 U	190	27-192	108	17	QM-07
Toluene	0.034 QM-07	0.0010	mg/kg dry	0.0200	0.0015	164	59-141	103	22	QM-07
Chlorobenzene	0.034 QM-07	0.0010	mg/kg dry	0.0200	0.00090 U	168	63-143	112	24	QM-07
Batch 7G03022 - EPA 5030B_MS										
Blank (7G03022-BLK1)				Prepared: 07/03/2007 15:00 Analyzed: 07/03/2007 15:28						
Chloromethane	0.18 U	1.0	ug/L							
Vinyl chloride	0.15 U	1.0	ug/L							
Bromomethane	0.21 U	1.0	ug/L							
Chloroethane	0.40 U	1.0	ug/L							
Trichlorofluoromethane	0.16 U	1.0	ug/L							
1,1-Dichloroethene	0.14 U	1.0	ug/L							
Acetone	0.90 U	5.0	ug/L							
Iodomethane	0.23 U	2.0	ug/L							
Carbon disulfide	0.12 U	5.0	ug/L							
Methylene chloride	0.088 U	2.0	ug/L							
Acrylonitrile	2.0 U	5.0	ug/L							
trans-1,2-Dichloroethene	0.10 U	1.0	ug/L							
1,1-Dichloroethane	0.090 U	1.0	ug/L							
Vinyl acetate	0.19 U	2.0	ug/L							
2-Butanone	0.56 U	5.0	ug/L							
cis-1,2-Dichloroethene	0.14 U	1.0	ug/L							
Bromochloromethane	0.19 U	1.0	ug/L							
Chloroform	0.16 U	1.0	ug/L							
1,1,1-Trichloroethane	0.24 U	1.0	ug/L							
Carbon tetrachloride	0.38 U	1.0	ug/L							
1,2-Dichloroethane	0.36 U	1.0	ug/L							

QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sanple Notes
Volatile Organic Compounds by GCMS - Quality Control										
Batch 7G03022 - EPA 5030B_MS										
Blank (7G03022-BLK1) Continued				Prepared: 07/03/2007 15:00 Analyzed: 07/03/2007 15:28						
Benzene	0.12 U	1.0	ug/L							
Trichloroethene	0.23 U	1.0	ug/L							
1,2-Dichloropropane	0.18 U	1.0	ug/L							
Dibromomethane	0.14 U	1.0	ug/L							
Bromodichloromethane	0.19 U	0.40	ug/L							
cis-1,3-Dichloropropene	0.16 U	0.20	ug/L							
4-Methyl-2-pentanone	0.36 U	5.0	ug/L							
Toluene	0.15 U	1.0	ug/L							
trans-1,3-Dichloropropene	0.18 U	0.20	ug/L							
1,1,2-Trichloroethane	0.24 U	1.0	ug/L							
Tetrachloroethene	0.25 U	1.0	ug/L							
2-Hexanone	0.24 U	5.0	ug/L							
Dibromochloromethane	0.18 U	1.0	ug/L							
1,2-Dibromoethane	0.19 U	1.0	ug/L							
Chlorobenzene	0.16 U	1.0	ug/L							
1,1,1,2-Tetrachloroethane	0.16 U	1.0	ug/L							
Ethylbenzene	0.17 U	1.0	ug/L							
Styrene	0.12 U	1.0	ug/L							
Bromoform	0.36 U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.27 U	1.0	ug/L							
1,2,3-Trichloropropane	0.32 U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.60 U	1.0	ug/L							
1,4-Dichlorobenzene	0.15 U	1.0	ug/L							
1,2-Dichlorobenzene	0.17 U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.19 U	1.0	ug/L							
Xylenes (Total)	0.21 U	1.0	ug/L							
Surrogate: Dibromofluoromethane	*40*		*ug/L*	*50.0*		*80*	*69-111*			
Surrogate: Toluene-d8	*43*		*ug/L*	*50.0*		*86*	*85-120*			
Surrogate: 4-Bromofluorobenzene	*67*		*ug/L*	*50.0*		*134*	*67-125*			S-GC
LCS (7G03022-BS1)				Prepared: 07/03/2007 15:00 Analyzed: 07/03/2007 16:19						
1,1-Dichloroethene	20	1.0	ug/L	20.0		99	57-141			
Benzene	19	1.0	ug/L	20.0		93	76-116			
Trichloroethene	20	1.0	ug/L	20.0		99	81-118			
Toluene	19	1.0	ug/L	20.0		96	77-120			
Chlorobenzene	18	1.0	ug/L	20.0		92	75-115			
Matrix Spike (7G03022-MS1)		**Source: C707626-01**		Prepared: 07/03/2007 15:00 Analyzed: 07/03/2007 16:48						
1,1-Dichloroethene	34	1.0	ug/L	20.0	16	91	57-141			
Benzene	19	1.0	ug/L	20.0	0.12 U	97	76-116			
Trichloroethene	20	1.0	ug/L	20.0	0.23 U	101	81-118			
Toluene	19	1.0	ug/L	20.0	0.15 U	97	77-120			
Chlorobenzene	19	1.0	ug/L	20.0	0.16 U	93	75-115			
Matrix Spike Dup (7G03022-MSD1)		**Source: C707626-01**		Prepared: 07/03/2007 15:00 Analyzed: 07/03/2007 17:14						
1,1-Dichloroethene	33	1.0	ug/L	20.0	16	85	57-141	4	12	
Benzene	18	1.0	ug/L	20.0	0.12 U	92	76-116	6	14	

QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sanple Notes
Volatile Organic Compounds by GCMS - Quality Control										
Batch 7G03022 - EPA 5030B_MS										
Matrix Spike Dup (7G03022-MSD1) Continued		**Source: C707626-01**		Prepared: 07/03/2007 15:00 Analyzed: 07/03/2007 17:14						
Trichloroethene	20	1.0	ug/L	20.0	0.23 U	98	81-118	3	11	
Toluene	19	1.0	ug/L	20.0	0.15 U	97	77-120	0.1	17	
Chlorobenzene	18	1.0	ug/L	20.0	0.16 U	92	75-115	1	12	
Batch 7G09003 - EPA 5030B_MS										
Blank (7G09003-BLK1)				Prepared: 07/09/2007 08:02 Analyzed: 07/10/2007 10:25						
Chloromethane	0.18 U	1.0	ug/L							
Vinyl chloride	0.15 U	1.0	ug/L							
Bromomethane	0.21 U	1.0	ug/L							
Chloroethane	0.40 U	1.0	ug/L							
Trichlorofluoromethane	0.16 U	1.0	ug/L							
1,1-Dichloroethene	0.14 U	1.0	ug/L							
Acetone	0.90 U	5.0	ug/L							
Iodomethane	0.23 U	2.0	ug/L							
Carbon disulfide	0.12 U	5.0	ug/L							
Methylene chloride	0.088 U	2.0	ug/L							
Acrylonitrile	2.0 U	5.0	ug/L							
trans-1,2-Dichloroethene	0.10 U	1.0	ug/L							
1,1-Dichloroethane	0.090 U	1.0	ug/L							
Vinyl acetate	0.19 U	2.0	ug/L							
2-Butanone	0.56 U	5.0	ug/L							
cis-1,2-Dichloroethene	0.14 U	1.0	ug/L							
Bromochloromethane	0.19 U	1.0	ug/L							
Chloroform	0.16 U	1.0	ug/L							
1,1,1-Trichloroethane	0.24 U	1.0	ug/L							
Carbon tetrachloride	0.38 U	1.0	ug/L							
1,2-Dichloroethane	0.36 U	1.0	ug/L							
Benzene	0.12 U	1.0	ug/L							
Trichloroethene	0.23 U	1.0	ug/L							
1,2-Dichloropropane	0.18 U	1.0	ug/L							
Dibromomethane	0.14 U	1.0	ug/L							
Bromodichloromethane	0.19 U	0.40	ug/L							
cis-1,3-Dichloropropene	0.16 U	0.20	ug/L							
4-Methyl-2-pentanone	0.36 U	5.0	ug/L							
Toluene	0.15 U	1.0	ug/L							
trans-1,3-Dichloropropene	0.18 U	0.20	ug/L							
1,1,2-Trichloroethane	0.24 U	1.0	ug/L							
Tetrachloroethene	0.25 U	1.0	ug/L							
2-Hexanone	0.24 U	5.0	ug/L							
Dibromochloromethane	0.18 U	1.0	ug/L							
1,2-Dibromoethane	0.19 U	1.0	ug/L							
Chlorobenzene	0.16 U	1.0	ug/L							
1,1,1,2-Tetrachloroethane	0.16 U	1.0	ug/L							
Ethylbenzene	0.17 U	1.0	ug/L							
Styrene	0.12 U	1.0	ug/L							

QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sanple Notes
Volatile Organic Compounds by GCMS - Quality Control										
Batch 7G09003 - EPA 5030B_MS										
Blank (7G09003-BLK1) Continued				Prepared: 07/09/2007 08:02 Analyzed: 07/10/2007 10:25						
Bromoform	0.36 U	1.0	ug/L							
1,1,2,2-Tetrachloroethane	0.27 U	1.0	ug/L							
1,2,3-Trichloropropane	0.32 U	1.0	ug/L							
trans-1,4-Dichloro-2-butene	0.60 U	1.0	ug/L							
1,4-Dichlorobenzene	0.15 U	1.0	ug/L							
1,2-Dichlorobenzene	0.17 U	1.0	ug/L							
1,2-Dibromo-3-chloropropane	0.19 U	1.0	ug/L							
Xylenes (Total)	0.21 U	1.0	ug/L							
Surrogate: Dibromofluoromethane	*43*		*ug/L*	*50.0*		*85*	*69-111*			
Surrogate: Toluene-d8	*47*		*ug/L*	*50.0*		*94*	*85-120*			
Surrogate: 4-Bromofluorobenzene	*44*		*ug/L*	*50.0*		*88*	*67-125*			
LCS (7G09003-BS1)				Prepared: 07/09/2007 08:02 Analyzed: 07/10/2007 10:52						
1,1-Dichloroethene	18	1.0	ug/L	20.0		89	57-141			
Benzene	21	1.0	ug/L	20.0		103	76-116			
Trichloroethene	19	1.0	ug/L	20.0		97	81-118			
Toluene	20	1.0	ug/L	20.0		98	77-120			
Chlorobenzene	19	1.0	ug/L	20.0		97	75-115			
Matrix Spike (7G09003-MS1)		**Source: C709789-03**		Prepared: 07/09/2007 08:02 Analyzed: 07/10/2007 11:47						
1,1-Dichloroethene	17	1.0	ug/L	20.0	0.14 U	83	57-141			
Benzene	21	1.0	ug/L	20.0	0.12 U	103	76-116			
Trichloroethene	19	1.0	ug/L	20.0	0.23 U	94	81-118			
Toluene	19	1.0	ug/L	20.0	0.15 U	94	77-120			
Chlorobenzene	18	1.0	ug/L	20.0	0.16 U	92	75-115			
Matrix Spike Dup (7G09003-MSD1)		**Source: C709789-03**		Prepared: 07/09/2007 08:02 Analyzed: 07/10/2007 12:13						
1,1-Dichloroethene	18	1.0	ug/L	20.0	0.14 U	89	57-141	7	12	
Benzene	20	1.0	ug/L	20.0	0.12 U	102	76-116	1	14	
Trichloroethene	20	1.0	ug/L	20.0	0.23 U	99	81-118	5	11	
Toluene	19	1.0	ug/L	20.0	0.15 U	93	77-120	0.5	17	
Chlorobenzene	19	1.0	ug/L	20.0	0.16 U	95	75-115	4	12	
Metals by EPA 6000/7000 Series Methods - Quality Control										
Batch 7F28006 - EPA 3005A										
Blank (7F28006-BLK1)				Prepared: 06/28/2007 09:18 Analyzed: 06/29/2007 09:13						
Arsenic	0.002 U	0.01	mg/L							
Barium	0.001 U	0.01	mg/L							
Beryllium	0.0002 U	0.001	mg/L							
Cadmium	0.0005 U	0.001	mg/L							
Chromium	0.002 U	0.01	mg/L							
Cobalt	0.002 U	0.01	mg/L							
Copper	0.002 U	0.01	mg/L							
Lead	2.0 U	10.0	ug/L							
Nickel	0.002 U	0.01	mg/L							
Selenium	0.002 U	0.01	mg/L							
Silver	0.002 U	0.01	mg/L							

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QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sanple Notes
Metals by EPA 6000/7000 Series Methods - Quality Control										
Batch 7F28006 - EPA 3005A										
Blank (7F28006-BLK1) Continued				Prepared: 06/28/2007 09:18 Analyzed: 06/29/2007 09:13						
Vanadium	0.002 U	0.01	mg/L							
Zinc	0.001 U	0.01	mg/L							
LCS (7F28006-BS1)				Prepared: 06/28/2007 09:18 Analyzed: 06/29/2007 09:20						
Arsenic	1.1	0.01	mg/L	1.00		107	82-117			
Barium	1.2	0.01	mg/L	1.00		116	72-125			
Beryllium	0.54	0.001	mg/L	0.500		109	75-121			
Cadmium	0.54	0.001	mg/L	0.500		107	72-120			
Chromium	1.0	0.01	mg/L	1.00		105	78-119			
Cobalt	1.1	0.01	mg/L	1.00		105	76-117			
Copper	0.5	0.01	mg/L	0.500		105	80-117			
Lead	1070	10.0	ug/L	1000		107	72-121			
Nickel	1.1	0.01	mg/L	1.00		108	78-116			
Selenium	1.1	0.01	mg/L	1.00		110	82-127			
Silver	0.1	0.01	mg/L	0.100		108	80-128			
Vanadium	0.5	0.01	mg/L	0.500		103	78-117			
Zinc	1.1	0.01	mg/L	1.00		112	80-120			
Matrix Spike (7F28006-MS1)		**Source: C707626-01**		Prepared: 06/28/2007 09:18 Analyzed: 06/29/2007 09:36						
Arsenic	1.1	0.01	mg/L	1.00	0.002	109	64-126			
Barium	1.2	0.01	mg/L	1.00	0.03	118	74-119			
Beryllium	0.56	0.001	mg/L	0.500	0.0002 U	111	70-131			
Cadmium	0.54	0.001	mg/L	0.500	0.0005 U	109	68-121			
Chromium	1.1	0.01	mg/L	1.00	0.002 U	107	73-120			
Cobalt	1.1	0.01	mg/L	1.00	0.002 U	106	76-120			
Copper	0.5	0.01	mg/L	0.500	0.002	106	75-123			
Lead	1080	10.0	ug/L	1000	2.0 U	108	68-126			
Nickel	1.1	0.01	mg/L	1.00	0.004	108	64-126			
Selenium	1.1	0.01	mg/L	1.00	0.002 U	111	65-129			
Silver	0.1	0.01	mg/L	0.100	0.002 U	110	69-121			
Vanadium	0.5	0.01	mg/L	0.500	0.007	105	71-130			
Zinc	1.1	0.01	mg/L	1.00	0.009	109	63-131			
Matrix Spike Dup (7F28006-MSD1)		**Source: C707626-01**		Prepared: 06/28/2007 09:18 Analyzed: 06/29/2007 09:43						
Arsenic	1.1	0.01	mg/L	1.00	0.002	112	64-126	3	12	
Barium	1.2 QM-07	0.01	mg/L	1.00	0.03	121	74-119	3	11	QM-07
Beryllium	0.57	0.001	mg/L	0.500	0.0002 U	115	70-131	3	21	
Cadmium	0.56	0.001	mg/L	0.500	0.0005 U	112	68-121	4	12	
Chromium	1.1	0.01	mg/L	1.00	0.002 U	110	73-120	3	10	
Cobalt	1.1	0.01	mg/L	1.00	0.002 U	110	76-120	4	17	
Copper	0.5	0.01	mg/L	0.500	0.002	109	75-123	3	16	
Lead	1110	10.0	ug/L	1000	2.0 U	111	68-126	3	19	
Nickel	1.1	0.01	mg/L	1.00	0.004	112	64-126	4	12	
Selenium	1.1	0.01	mg/L	1.00	0.002 U	114	65-129	2	10	
Silver	0.1	0.01	mg/L	0.100	0.002 U	112	69-121	3	12	
Vanadium	0.5	0.01	mg/L	0.500	0.007	109	71-130	3	16	
Zinc	1.1	0.01	mg/L	1.00	0.009	112	63-131	3	24	

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QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sanple Notes
Metals by EPA 6000/7000 Series Methods - Quality Control										
Batch 7F28010 - EPA 3050B										
Blank (7F28010-BLK1)				Prepared: 06/28/2007 09:55 Analyzed: 07/02/2007 09:57						
Antimony	0.10 U	0.50	mg/kg wet							
Arsenic	0.10 U	0.50	mg/kg wet							
Barium	**0.075** J	0.500	mg/kg wet							
Beryllium	0.035 U	0.050	mg/kg wet							
Cadmium	0.025 U	0.050	mg/kg wet							
Chromium	**0.10** J	0.50	mg/kg wet							
Cobalt	0.10 U	0.50	mg/kg wet							
Copper	**0.090** J	0.500	mg/kg wet							
Lead	0.10 U	0.50	mg/kg wet							
Nickel	0.10 U	0.50	mg/kg wet							
Selenium	0.10 U	0.50	mg/kg wet							
Silver	**0.14** J	0.50	mg/kg wet							
Thallium	0.20 U	0.50	mg/kg wet							
Vanadium	**0.065** J	0.500	mg/kg wet							
Zinc	**0.515**	0.500	mg/kg wet							
LCS (7F28010-BS1)				Prepared: 06/28/2007 09:55 Analyzed: 07/02/2007 09:57						
Antimony	26.7	0.50	mg/kg wet	25.0		107	85-116			
Arsenic	52.2	0.50	mg/kg wet	50.0		104	77-125			
Barium	59.1	0.500	mg/kg wet	50.0		118	76-124			
Beryllium	27.1	0.050	mg/kg wet	25.0		108	83-121			
Cadmium	26.4	0.050	mg/kg wet	25.0		106	76-123			
Chromium	52.7	0.50	mg/kg wet	50.0		105	81-121			
Cobalt	52.0	0.50	mg/kg wet	50.0		104	86-115			
Copper	26.9	0.500	mg/kg wet	25.0		108	81-119			
Lead	52.2	0.50	mg/kg wet	50.0		104	79-127			
Nickel	53.2	0.50	mg/kg wet	50.0		106	80-118			
Selenium	52.4	0.50	mg/kg wet	50.0		105	71-118			
Silver	5.42	0.50	mg/kg wet	5.00		108	78-128			
Thallium	26.1	0.50	mg/kg wet	25.0		104	86-111			
Vanadium	26.1	0.500	mg/kg wet	25.0		105	89-112			
Zinc	52.0 B	0.500	mg/kg wet	50.0		104	76-128			B
Matrix Spike (7F28010-MS1)		**Source: C708979-04**		Prepared: 06/28/2007 09:55 Analyzed: 07/02/2007 09:57						
Antimony	14.0 QM-05	0.66	mg/kg dry	32.9	0.18	42	52-147			QM-05
Arsenic	62.0	0.66	mg/kg dry	65.7	0.13 U	94	53-153			
Barium	153 QM-05	0.657	mg/kg dry	65.7	62.6	138	46-120			QM-05
Beryllium	35.7	0.066	mg/kg dry	32.9	0.046 U	109	41-133			
Cadmium	30.6	0.066	mg/kg dry	32.9	0.033 U	93	49-115			
Chromium	77.8	0.66	mg/kg dry	65.7	9.78	104	19-142			
Cobalt	67.0	0.66	mg/kg dry	65.7	0.15	102	30-143			
Copper	34.5	0.657	mg/kg dry	32.9	0.039 U	105	35-137			
Lead	77.6	0.66	mg/kg dry	65.7	9.95	103	48-121			
Nickel	69.1	0.66	mg/kg dry	65.7	1.26	103	43-121			
Selenium	59.7	0.66	mg/kg dry	65.7	0.13 U	91	43-126			
Silver	5.80	0.66	mg/kg dry	6.57	0.13 U	88	36-133			

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QUALITY CONTROL

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Sanple Notes
Metals by EPA 6000/7000 Series Methods - Quality Control										
Batch 7F28010 - EPA 3050B										
Matrix Spike (7F28010-MS1) Continued		**Source: C708979-04**		Prepared: 06/28/2007 09:55 Analyzed: 07/02/2007 09:57						
Thallium	30.3	0.66	mg/kg dry	32.9	0.26 U	92	58-118			
Vanadium	69.7	0.657	mg/kg dry	32.9	37.0	99	31-142			
Zinc	84.2 B	0.657	mg/kg dry	65.7	17.2	102	37-138			B
Matrix Spike Dup (7F28010-MSD1)		**Source: C708979-04**		Prepared: 06/28/2007 09:55 Analyzed: 07/02/2007 09:57						
Antimony	14.6 QM-05	0.66	mg/kg dry	32.9	0.18	44	52-147	5	28	QM-05
Arsenic	62.7	0.66	mg/kg dry	65.7	0.13 U	95	53-153	1	22	
Barium	155 QM-05	0.657	mg/kg dry	65.7	62.6	141	46-120	1	16	QM-05
Beryllium	36.3	0.066	mg/kg dry	32.9	0.046 U	110	41-133	2	26	
Cadmium	31.1	0.066	mg/kg dry	32.9	0.033 U	95	49-115	2	24	
Chromium	79.2	0.66	mg/kg dry	65.7	9.78	106	19-142	2	24	
Cobalt	67.7	0.66	mg/kg dry	65.7	0.15	103	30-143	1	17	
Copper	35.2	0.657	mg/kg dry	32.9	0.039 U	107	35-137	2	12	
Lead	78.7	0.66	mg/kg dry	65.7	9.95	105	48-121	1	26	
Nickel	70.6	0.66	mg/kg dry	65.7	1.26	105	43-121	2	14	
Selenium	60.6	0.66	mg/kg dry	65.7	0.13 U	92	43-126	1	14	
Silver	5.80	0.66	mg/kg dry	6.57	0.13 U	88	36-133	0.1	20	
Thallium	30.4	0.66	mg/kg dry	32.9	0.26 U	92	58-118	0.3	14	
Vanadium	71.0	0.657	mg/kg dry	32.9	37.0	103	31-142	2	16	
Zinc	86.1 B	0.657	mg/kg dry	65.7	17.2	105	37-138	2	19	B
Batch 7F29008 - EPA 3005A										
Blank (7F29008-BLK1)				Prepared: 06/29/2007 08:47 Analyzed: 06/29/2007 13:55						
Antimony	0.0007 U	0.002	mg/L							
Thallium	0.00004 U	0.00005	mg/L							
LCS (7F29008-BS1)				Prepared: 06/29/2007 08:47 Analyzed: 06/29/2007 14:08						
Antimony	0.03	0.002	mg/L	0.0250		110	85-115			
Thallium	0.029	0.00005	mg/L	0.0250		115	85-115			
Matrix Spike (7F29008-MS1)		**Source: C708851-02**		Prepared: 06/29/2007 08:47 Analyzed: 06/29/2007 14:14						
Antimony	0.03	0.002	mg/L	0.0250	0.0007 U	112	85-115			
Thallium	0.034 QM-05	0.00005	mg/L	0.0250	0.00005	134	85-115			QM-05
Matrix Spike Dup (7F29008-MSD1)		**Source: C708851-02**		Prepared: 06/29/2007 08:47 Analyzed: 06/29/2007 14:16						
Antimony	0.03	0.002	mg/L	0.0250	0.0007 U	102	85-115	9	20	
Thallium	0.029 QM-05	0.00005	mg/L	0.0250	0.00005	117	85-115	14	20	QM-05

NOTES AND DEFINITIONS

B	Analyte is found in the associated blank as well as in the sample (CLP B-flag).
D	Data reported from a dilution
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
U	Analyte included in the analysis, but not detected

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LABORATORY CERTIFICATION SUMMARY

Analysis	Matrix	Cert ID	Cert Number
8260B Appendix 1	Water	NC	591
8260B Extended	Soil	NC	591
Antimony Total EPA 6010B	Soil	NC	591
Antimony Total EPA 6020	Water	NC	591
Arsenic Total EPA 6010B	Soil	NC	591
Arsenic Total EPA 6010B	Water	NC	591
Barium Total EPA 6010B	Soil	NC	591
Barium Total EPA 6010B	Water	NC	591
Beryllium Total EPA 6010B	Soil	NC	591
Beryllium Total EPA 6010B	Water	NC	591
Cadmium Total EPA 6010B	Soil	NC	591
Cadmium Total EPA 6010B	Water	NC	591
Chromium Total EPA 6010B	Soil	NC	591
Chromium Total EPA 6010B	Water	NC	591
Cobalt Total EPA 6010B	Soil	NC	591
Cobalt Total EPA 6010B	Water	NC	591
Copper Total EPA 6010B	Soil	NC	591
Copper Total EPA 6010B	Water	NC	591
Lead Total EPA 6010B	Soil	NC	591
Lead Total EPA 6010B	Water	NC	591
Nickel Total EPA 6010B	Soil	NC	591
Nickel Total EPA 6010B	Water	NC	591
Selenium Total EPA 6010B	Soil	NC	591
Selenium Total EPA 6010B	Water	NC	591
Silver Total EPA 6010B	Soil	NC	591
Silver Total EPA 6010B	Water	NC	591
Thallium Total EPA 6010B	Soil	NC	591
Thallium Total EPA 6020	Water	NC	591
Vanadium Total EPA 6010B	Soil	NC	591
Vanadium Total EPA 6010B	Water	NC	591
Zinc Total EPA 6010B	Soil	NC	591
Zinc Total EPA 6010B	Water	NC	591

QSARF #_____

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4810 Executive Park Court, Suite 211
Jacksonville, Florida 32216-6069
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1015 Passport Way
Cary, North Carolina 27513
Ph. (919) 677-1669 • Fax (919) 677-9846

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE: Wayne Co. Closed LF
PROJECT NO.: G07058.0
P.O. NUMBER:
PAGE 1 OF 1
PROJECT LOC. (State): NC
SAMPLER(s) NAME: J. Pfohl
PHONE: (919) 772-5343
FAX: (919) 772-1176
CLIENT NAME: Municipal Engineering Services (MESCO)
CLIENT PROJECT MANAGER: Ethan Caldwell
CLIENT ADDRESS (CITY, STATE, ZIP): 1140 Benson Hwy Ste. 220

☑ STANDARD REPORT DELIVERY
☐ EXPEDITED REPORT DELIVERY (surcharge)
Date Due: C909176

MATRIX TYPE: SURFACE WATER, GROUND WATER, WASTEWATER, DRINKING WATER, SOIL/SOLID/SEDIMENT, NONAQUEOUS LIQUID, AIR, SLUDGE, OTHER
REQUIRED ANALYSIS: 8260B Volts, All I Metals, 6010
PRESERVATIVE
NUMBER OF CONTAINERS SUBMITTED

STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID	AIR	SLUDGE	OTHER	8260B Volts	All I Metals 6010	REMARKS
1	6/26/07	4:30	✓		MW-2		✓								X	X	
2	↓	3:00	✓		MW-7		✓								↓	↓	
3	↓	12:30	✓		HA-1(4')					✓					↓	↓	
4	↓	1:00	✓		HA-2(5')					✓					↓	↓	
5	↓	2:35	✓		HA-3(5')					✓					↓	↓	
6	↓	6:00	✓		HA-12(3')					✓					↓	↓	
7	↓	5:00	✓		SW-1	✓									↓	↓	
8																	
9																	
10																	
11																	
12																	
13																	
14																	

SAMPLE KIT PREPARED BY: ☐ JACKSONVILLE ☐ ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
			[signature]	6/27	8:30	[signature]	6/27/07	8:30
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE) ☐ Jacksonville ☐ Orlando	DATE	TIME	CUSTODY INTACT ☐ YES ☐ NO	ENCO LOG NO.	REMARKS
					SW-1 DRY Email Results to ecaldwell@mesco.com 3.0°C

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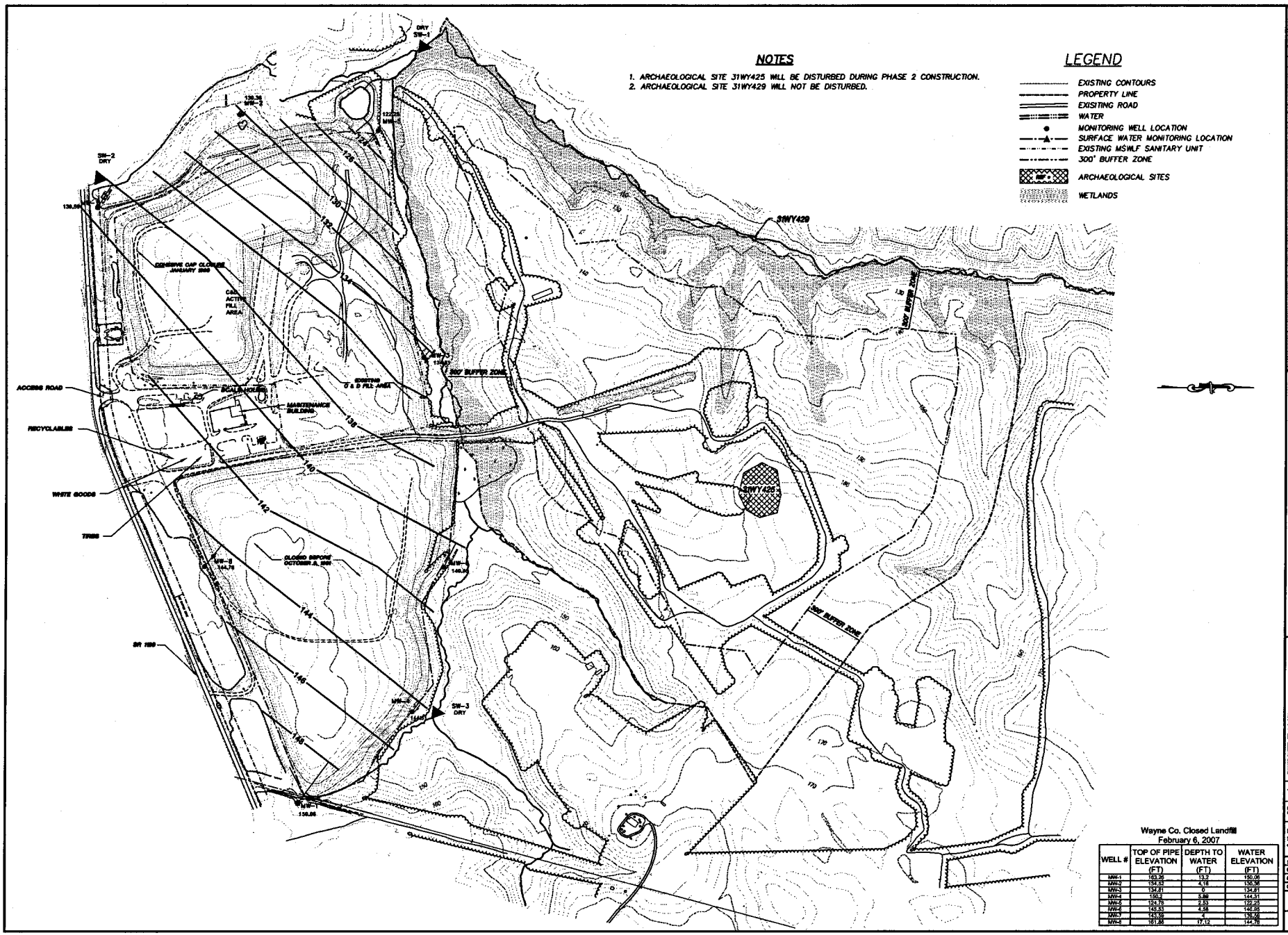
Detection Scan All Detections above SWSL and NCGW2L
Wayne County Closed Landfill (Dudley)

Well ID	Parameter Name[1]	Sample Date	Result	Unit	SWSL [2]	NCGW2L[3]	Exceedance
EB	Iron	02/06/2007	76	ug/l		300	
MW-1	Zinc	02/06/2007	11	ug/l	10	1050	
MW-1	**Iron**	**02/06/2007**	**7828**	**ug/l**		**300**	**7528**
MW-1	Chloride	02/06/2007	43	ug/l			
MW-1	Manganese	02/06/2007	21	ug/l	10	50	
MW-2	**Manganese**	**02/06/2007**	**196**	**ug/l**	**10**	**50**	**146**
MW-2	Total Alkalinity	02/06/2007	629	ug/l	1		
MW-2	Chloride	02/06/2007	60	ug/l			
MW-2	Barium	02/06/2007	147	ug/l	100	2000	
MW-2	Arsenic	02/06/2007	11	ug/l	10	50	
MW-2	**Iron**	**02/06/2007**	**56850**	**ug/l**		**300**	**56550**
MW-2	Chlorobenzene	02/06/2007	11.4	ug/l	3	50	
MW-2	Sulfate	02/06/2007	7.5	ug/l	5		
MW-3	Sulfate	02/06/2007	5.9	ug/l	5		
MW-3	Zinc	02/06/2007	14	ug/l	10	1050	
MW-3	Manganese	02/06/2007	28	ug/l	10	50	
MW-3	Vanadium	02/06/2007	31	ug/l	25		
MW-3	**Iron**	**02/06/2007**	**10140**	**ug/l**		**300**	**9840**
MW-3	Chloride	02/06/2007	2	ug/l			
MW-4	Chromium	02/06/2007	11	ug/l	10	50	
MW-5	Cadmium	02/06/2007	1	ug/l	1	1.75	
MW-5	Total Alkalinity	02/06/2007	1	ug/l	1		
MW-5	Zinc	02/06/2007	19	ug/l	10	1050	
MW-5	Chloride	02/06/2007	30	ug/l			
MW-5	**Iron**	**02/06/2007**	**13740**	**ug/l**		**300**	**13440**
MW-5	**Manganese**	**02/06/2007**	**63**	**ug/l**	**10**	**50**	**13**
MW-5	Sulfate	02/06/2007	10.7	ug/l	5		
MW-6	Zinc	02/06/2007	14	ug/l	10	1050	
MW-6	Barium	02/06/2007	334	ug/l	100	2000	
MW-6	Cadmium	02/06/2007	1	ug/l	1	1.75	
MW-7	Chloride	02/06/2007	119	ug/l			
MW-7	**Manganese**	**02/06/2007**	**115**	**ug/l**	**10**	**50**	**65**
MW-7	Zinc	02/06/2007	16	ug/l	10	1050	
MW-7	**Iron**	**02/06/2007**	**30525**	**ug/l**		**300**	**30225**
MW-7	Lead	02/06/2007	14	ug/l	10	15	
MW-7	**Cadmium**	**02/06/2007**	**7**	**ug/l**	**1**	**1.75**	**5.25**
MW-7	Vanadium	02/06/2007	56	ug/l	25		
MW-7	Barium	02/06/2007	143	ug/l	100	2000	
MW-7	Chromium	02/06/2007	16	ug/l	10	50	
MW-7	Sulfate	02/06/2007	85	ug/l	5		
MW-7	Arsenic	02/06/2007	16	ug/l	10	50	
MW-8	**1,4-Dichlorobenzene**	**02/06/2007**	**9.2**	**ug/l**	**3**	**1.4**	**7.8**
MW-8	Chromium	02/06/2007	11	ug/l	10	50	
MW-8	Barium	02/06/2007	129	ug/l	100	2000	
MW-8	Chlorobenzene	02/06/2007	3.2	ug/l	3	50	

[1] Table only contains detected constituents.
[2] SWSL = Solid Waste Section Limit (Current as of Sampling Event)
[3] NCGW2L = North Carolina Ground Water 2L Standard



NOTES

1. ARCHAEOLOGICAL SITE 31WY425 WILL BE DISTURBED DURING PHASE 2 CONSTRUCTION.
2. ARCHAEOLOGICAL SITE 31WY429 WILL NOT BE DISTURBED.

LEGEND

- EXISTING CONTOURS
- PROPERTY LINE
- EXISITING ROAD
- WATER
- MONITORING WELL LOCATION
- SURFACE WATER MONITORING LOCATION
- EXISTING MSWLF SANITARY UNIT
- 300' BUFFER ZONE
- ARCHAEOLOGICAL SITES
- WETLANDS

Wayne Co. Closed Landfill
February 6, 2007

WELL #	TOP OF PIPE ELEVATION (FT)	DEPTH TO WATER (FT)	WATER ELEVATION (FT)
MW-1	163.26	13.2	150.06
MW-2	154.52	4.18	130.36
MW-3	134.81	0	134.81
MW-4	150.2	5.89	144.31
MW-5	124.78	2.53	122.25
MW-6	145.53	4.58	140.95
MW-7	143.59	4	139.59
MW-8	161.86	17.12	144.76

Municipal Engineering Services Company, P.A.
P.O. BOX 97 GARNER, N.C. 27529 (919) 772-5393
P.O. BOX 349 BOONE, N.C. 28607 (704) 262-0767

MUNICIPAL SOLID WASTE LANDFILL FACILITY
WAYNE COUNTY NORTH CAROLINA

DATE	BY	REV.	DESCRIPTION
8-15-98	CIS	1	CHANGE BUFFER SEMINOLOGY
2-16-97	CIS	2	MODIFY PER PHASE 1 CHANGES

POTENTIOMETRIC MAP WITH FLOW DIRECTIONS

SCALE: 1"=200'
DATE: 9/7/2001
DRWN. BY: C. SEYMOUR
CHKD. BY: K. Yoshida
PROJECT NUMBER G01016.0
DRAWING NO.
SHEET NO.

AREAS OF CONCERN AND COMMENTS:

1. The trees growing on top of the foot-print of the landfill must be removed and areas of thick brush growing on top of the foot-print must be mowed. After the completion of the project, all of the disturbed areas will need to be provided with an adequate ground cover. **Corrective actions need to be underway.**
2. The areas of erosion, sparsely vegetated areas, previous graded slopes and adjacent disturbed areas need to be provided with a ground cover sufficient to restrain erosion. As a minimum, these areas need to be seeded and mulched **within 30 days receipt of this Audit Report.**
3. The storm water diversion ditches do not appear to be capable of handling the volume of water produced, as evidenced by recent soil additions to the ditch walls where the erosion broke their integrity. In addition, the sediment basin for the active CDLF must be free of trees and of sufficient capacity to support the volume of surface drainage.
4. The buffer area sediment basins and gravel slope drains for the closed MSWLF and open CDLF shall be kept free of trees and brush and debris in order to prevent storm water surges due to improper drainage. **The trees and thick vegetation need to be removed and low growing vegetation established.**
5. The letter dated May 28, 2007 from Ethan J. Caldwell of MUNICIPAL ENGINEERING SERVICES CO., P.A. indicated that the pump and connecting pipe network had been removed and decommissioned. 15A NCAC 02C .0107 (a) (2) (J) states "The minimum horizontal separation between a well…" and a "Sanitary landfill" is 500 ft. The well at the shop is less than 100 ft to the closed MSWLF. **This well needs to be properly abandoned in accordance with 15A NCAC 02C .0113.** If another well is to be drilled, it must be at least 500 feet from the edge of any waste, in accordance with 15A NCAC 2 C. The **request for a variance** for having a well on the landfill as indicated by the 27 April 2007 e-mail from Lloyd Cook **requires specific procedures** as indicated in 15ANCAC2Lbooklet which is available at http://h2o.enr.state.nc.us/admin/rules/documents/15ANCAC2Lbooklet.pdf.

6. As directed in the memorandum dated November 13, 1996 and referenced in the letter dated March 19, 2007 from NCDENR Bobby Lufty, Hydrogeologist, semi-annual leachate sampling must be performed in accordance with the approved monitoring plan.
7. Service area is Wayne County and averages 200 tons per day.
8. **Corrective actions are needed as a result of this Audit.**

Please contact me if you have any questions or concerns regarding this audit report.

Phone: 919-508-8523

Bradley W. Bailey
Environmental Senior Specialist
Solid Waste Section
Regional Representative

Delivered on 18 July 2007 by:		hand delivery	X	US Mail	X	Certified No. 70041350000340732023

Cc: Mark Poindexter, Field Operations Branch Head
Dennis E. Shackelford, Eastern District Supervisor
Amy Kadrie, Compliance Officer
Jaclynne Drummond, Hydrogeologist

Field screening of soil samples will then be assessed with hand auger borings every 10 feet between the distressed grass area and MW-7. If elevated PID readings are encountered, the soil sample with the highest PID reading will be collected for laboratory analysis. In the event that elevated PID readings are not observed, one soil sample will be collected adjacent to MW-7.

Hand auger borings will be continued into the wetland area, every 25 feet, in the direction which the water would have traveled. Borings will extend to the point at which elevated PID readings are no longer observed. A soil sample from the boring with the highest elevated PID reading will be collected for laboratory analysis. If elevated PID readings ~~are not observed, no soil~~ sample will be collected for laboratory analysis.

The extent of soil impact will be identified with elevated PID readings by hand auger borings every 10 feet from the observed elevated PID readings until elevated PID readings are no longer encountered.

Soil samples collected for laboratory analysis will be analyzed for the following parameters:

- EPA Method 8260 Appendix I Organics
- EPA 6010 Appendix I Metals

The above analytical methods assume that the water mixture has the potential of containing similar constituents as identified in leachate samples.

Decontamination of field equipment between each boring will be performed according to the procedure as prescribed in the EPA RCRA Ground-Water Monitoring Draft Technical Guidance.

Task 2 – Identify Potentially Impacted Groundwater-Surface Water

Groundwater samples will be collected from monitoring wells MW-2 and MW-7. Surface water samples will be collected from SW-1 and SW-2. Sampling of groundwater and surface water will be performed in accordance to the procedures outlined in the Sampling and Analysis Plan.

Water samples collected for laboratory analysis will be analyzed for the following parameters:

- EPA Method 8260 Appendix I Organics
- EPA 6010 Appendix I Metals

Task 3 – Excavate Impated Soil (if necessary)

In the event that impacted soil is identified, based on laboratory results, soil excavation will be performed to the extent of impact, as identified with elevated PID readings. Excavation will be continued to the point on which groundwater is encountered or PID readings are below background levels. Confirmation soil samples will be collected from the excavation and submitted for laboratory analysis as prescribed above.

Task 4 – Remediate Impacted Groundwater (if necessary)

If impacted groundwater is detected, groundwater will be remediated as prescribed in the pending Assessment of Corrective Measures, to be completed by MESCO by September 1, 2007.

Task 5 – Summary Report

A summary report will be completed upon the outcome of sampling results and actions taken.

OPERATION/CONSTRUCTION MANAGERS

Municipal Services

CIVIL/SANITARY ENGINEERS

Engineering Company, P.A.

June 14, 2007

Mrs. Jaclynne Drummond
Solid Waste Section - Compliance
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road, Suite 150
Raleigh, NC 27605

Re: Addendum Assessment of Potentially Impacted Soil and Groundwater
Wayne County C&D Landfill on top of Closed MSW
Permit No. 96-01

Mrs. Drummond:

In response to our phone conversation on June 6, 2007, Municipal Engineering Services Co., P.A. (MESCO) has provided an addendum to the Wayne County Landfill – Storm Water Release Sampling Plan. The addendum addresses the sample containers, decontamination procedures, depth of borings, wetland soil sample, site map showing boring locations, depth vs. PID chart, and field screening procedures.

A summary of report will be completed upon the outcome of sampling results and any actions taken. If you have any questions, please feel free to contact me at (919) 772-5393.

Sincerely,

MUNICIPAL ENGINEERING SERVICES CO., P.A.

Ethan J. Caldwell, PG

Received
JUN 2007
Solid Waste Section

Enclosures

cc: Tim Rogers, Wayne County
Wayne Sullivan, MESCO

PO Box 97, Garner, North Carolina 27529 (919) 772-5393
PO Box 1197, Morehead City, NC 28557 (252) 726-9481 PO Box 349, Boone, North Carolina 28607 (828) 262-1767

FID Detectible

Methane, Ethane, Propane,
n-Hexane, Benzene,
Toluene, Naphthalene,
Acetylene, Ethylene,
1,3-Butadiene, VC,
Chloroform, TCE,
Methylene Chloride,
Acetone, MEK,
Methyl Isobutyl ketone,
Methanol, Ethanol,
Isopropanal, n-Butanol

Why chose FID instead of PID designated in approved plan?

Used prior FID

OPERATION/CONSTRUCTION MANAGERS

Municipal Services

CIVIL/SANITARY ENGINEERS

Engineering Company, P.A.

May 28, 2007

Mrs. Jaclynne Drummond
Solid Waste Section - Compliance
Division of Waste Management
North Carolina Department of Environment and Natural Resources
401 Oberlin Road, Suite 150
Raleigh, NC 27605

Received
MAY 2007

Re: Assessment of Potentially Impacted Soil and Groundwater
Wayne County C&D Landfill on top of Closed MSW
Permit No. 96-01

Mrs. Drummond:

In response to the Compliance Order issued by Paul Crissman, of NCDENR, dated May 15, 2007 and based on our May 22, 2007 meeting, Municipal Engineering Services Co., P.A. (MESCO) has prepared a plan for assessment of potentially impacted soil and groundwater.

Assessment will include field screening soil samples with a Photo-Ionization Detector (PID), collecting a minimum of three soil samples, two groundwater samples, and two surface water samples for laboratory analysis.

A summary of report will be completed upon the outcome of sampling results and any actions taken. If you have any questions, please feel free to contact me at (919) 772-5393.

Sincerely,

MUNICIPAL ENGINEERING SERVICES CO., P.A.

Ethan J. Caldwell, PG

Enclosures

cc: Tim Rogers, Wayne County
Wayne Sullivan, MESCO

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OVERVIEW OF PROPOSED PROJECT APPROACH

BACKGROUND AND OBJECTIVE

On January 10, 2007 as part of a comprehensive field audit performed by the North Carolina Department of Environment and Natural Resources (NCDENR), a "steady stream of leachate" and surface water was observed to have broken through a diversion berm allowing for the mix to flow in the vicinity of MW-7 and the wetland area. The break out of the diversion berm was the result of heavy rain.

Semi annual groundwater sampling was performed on February 6, 2007. Organics were not detected in MW-7. Inorganics detected in MW-7 were determined not to be statistically significant.

Distressed grass was observed in a low area 75 feet due east of MW-7, adjacent to the berm break during a site visit by Ethan J. Caldwell, PG (MESCO) on April 10, 2007.

The following tasks are designed to address the identified concerns:

- **Task 1 – Identify Potential Impacted Soil**
- **Task 2 – Identify Potentially Impacted Groundwater – Surface Water**
- **Task 3 – Excavate Impacted Soil (if necessary)**
- **Task 4 – Remediate Impacted Groundwater (if necessary)**
- **Task 5 – Summary Report**

SCOPE OF WORK

Task 1 – Identify Potential Impacted Soil

An initial background hand auger boring soil sample will be collected to establish baseline PID readings. The background soil sample will be collected from an upgradient location. The upgradient location will be determined in the field. A soil sample will be collected for laboratory analysis from this background location.

Identifying impacted soils will consist of hand auger borings in the observed distressed grass area. Soil samples will be field screened with a Photo-Ionization Detector (PID). Multiple borings will be investigated. The total number of borings will be determined in the field, dependent upon the size of the observed distressed area and upon encountered groundwater elevation. A soil sample for laboratory analysis will be collected from the boring with the highest elevated PID reading. In the event that elevated PID readings are not observed, one soil sample will be collected for laboratory analysis in the middle of the distressed grass area at an elevation of just above groundwater.