

January 30, 2008

Mr. Norman Allen
City of Lockport
Municipal Building
Engineering Department
One Locks Plaza
Lockport, New York 14094

Re: Lockport Landfill
Sampling and Analysis Report
S&W No. 71136.0

Dear Mr. Allen:

Stearns & Wheler, LLC is pleased to submit two (2) copies of the revised Sampling and Analysis Report for the Long Term Monitoring at the Lockport Landfill. Presented in the report are the results of the annual monitoring and sampling, which was conducted on October 10, 2007. All work was completed in accordance with the NYSDEC approved Long Term Monitoring Plan.

There were no exceedances above the specified action levels and contingent sampling is not warranted. The next sampling event will be scheduled for October 2008.

A copy of this revised report has been forwarded to the NYSDEC. If you have any questions, please feel free to call.

Sincerely,

STEARNS & WHEELER, LLC



David Rowlinson
Project Manager

DR/tld

Enclosure

cc: Mr. Brian Sadowski - NYSDEC

Report

Lockport City Landfill Sampling and Analysis Report

City of Lockport

February 2008

Amherst, New York

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LOCKPORT CITY LANDFILL
SAMPLING AND ANALYSIS REPORT

Prepared for
CITY OF LOCKPORT, NEW YORK

Prepared by
STEARNS & WHELER, LLC
ENVIRONMENTAL ENGINEERS AND SCIENTISTS
UNIVERSITY CENTRE, SUITE 100
415 NORTH FRENCH ROAD
AMHERST, NEW YORK 14228

February 2008

Project No. 71136

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SECTION 1 – INTRODUCTION

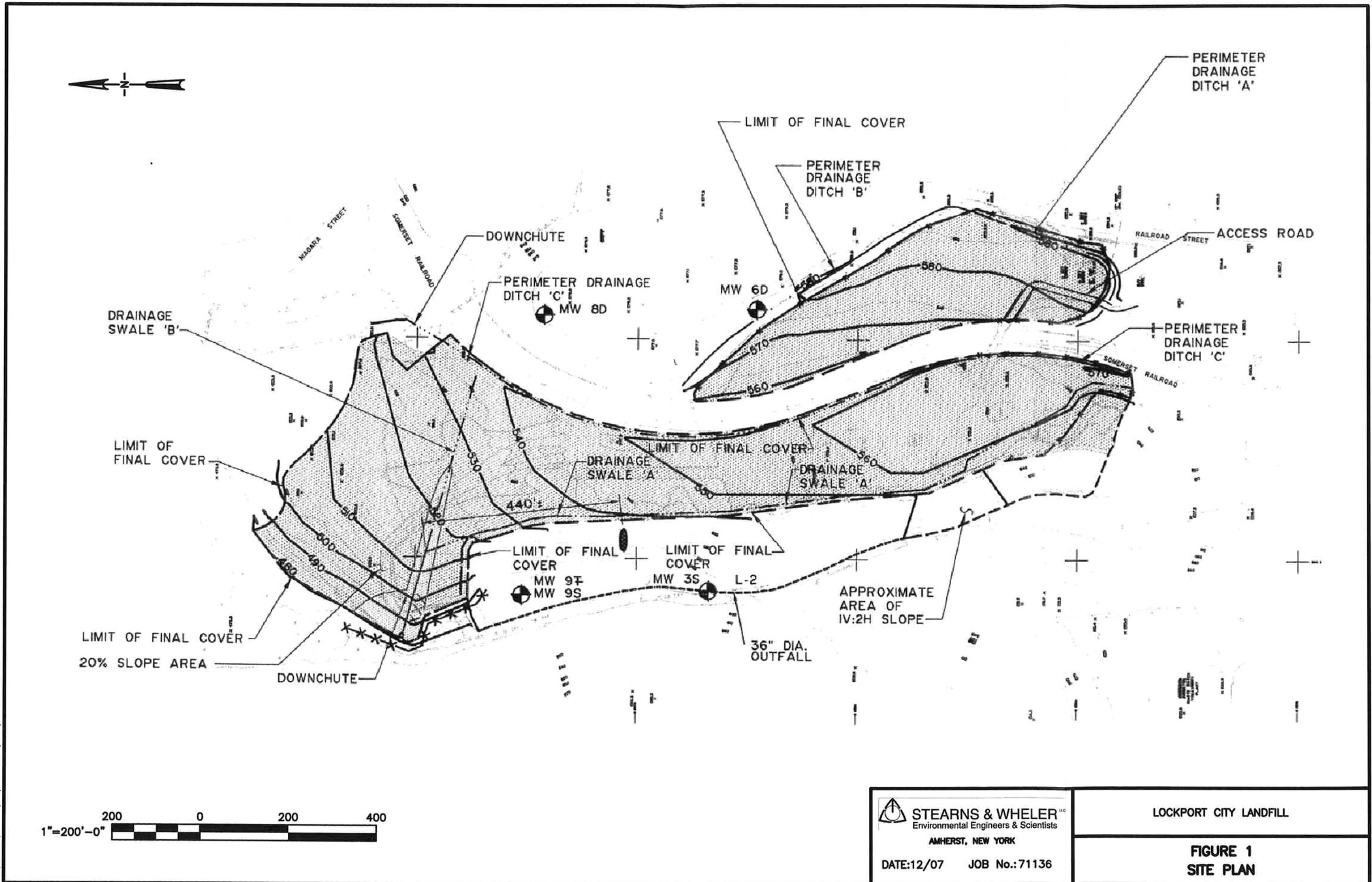
The Lockport City Landfill site is located on Oakhurst Street in the City of Lockport, Niagara County, New York. The landfill has been assigned the Site Registry Number 9-32-010 and is the subject of this report.

The Remedial Action Design as approved by the NYSDEC for the site; included a Long Term Monitoring Plan and Operation and Maintenance Plan. The purpose of the long term monitoring plan is to provide information to evaluate and monitor the long term effectiveness of the remedial work. The Operation and Maintenance Plan includes regular site inspections and analytical testing to identify any potential problems at the landfill that are not being adequately addressed by routine maintenance, and to document the current condition of the landfill. A site plan of the Lockport City Landfill is presented in Figure 1. The Long Term Monitoring Program started in 1997; six events were conducted in the first five years (two events in 1997 and one event per year afterwards). This is the first monitoring event of the first Long Term Monitoring contract between Stearns & Wheler, LLC and the City of Lockport. The purpose of this report is to present the findings of the twelfth sampling event conducted at the Lockport City Landfill on October 25, 2006.

SECTION 2 – LONG TERM MONITORING

In accordance with the NYSDEC approved Long Term Monitoring Plan, and included in the Operation and Maintenance Plan, five groundwater wells, and one outfall were sampled by Stearns & Wheler, LLC on October 10, 2007. The samples were delivered to Upstate Laboratories Inc. of Syracuse, New York, and analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) CLP Statement of Work (SOW) OLM04.2. Analytical data sheets (i.e. laboratory report Form I VOA) are provided in Appendix A and Groundwater Field Sampling Records are presented in Appendix B. Table 1 summarizes data collected from all of the monitoring wells and the outfall for the eleven years of monitoring. The established action levels for monitoring wells MW-8D and 9I, and outfall L2 are noted on the table.

Analytical results presented on Table 1 indicate that there were no exceedances above the reported action levels. Because exceedances did not occur, contingent sampling and analysis is not required. Therefore, the next sampling event will be scheduled for October 2008 for year twelve of this Long Term Monitoring Program.



Monitoring Well 3-S was not fully purged due to an obstruction in the well between the riser and screen. The obstruction could be due to a bailer stuck at the bottom of the well. The City of Lockport needs to address this problem prior to the next sampling event.

Monitoring Well MW-6D was not sampled, due to lack of available groundwater present at the time of sampling. This is attributed to the unseasonably dry conditions that were experienced during the summer of 2007. Groundwater in most Western New York areas during 2007 were significantly lower than normal conditions.

TABLES

APPENDICES



STEARNS & WHEELER[™]
Environmental Engineers and Scientists

APPENDIX A

Upstate Laboratories, Inc.

Shipping: 6034 Corporate Dr. * E. Syracuse, NY 13057-1017 * (315) 437-0255 * Fax (315) 437-1209

Mailing: Box 169 * Syracuse, NY 13206

Albany (518) 459-3134 * Binghamton (607) 724-0478 * Buffalo (716) 649-2533

Rochester (866) 437-0255 * New Jersey (908) 892-1807

Mr. David Rowlinson
Stearns & Wheler, LLC
415 N. French Rd.
Amherst, NY 14228

October 22, 2007

RE: City of Lockport

Order No.: U0710299

Dear Mr. Rowlinson:

Upstate Laboratories, Inc. received 7 samples on 10/11/07 for the analyses presented in the following report.

All analytical results relate to the samples as received by the laboratory.

All analytical data conforms with standard approved methodologies and quality control. Our quality control narrative will be included should any anomalies occur.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your samples. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,
UPSTATE LABORATORIES, INC.

Anthony J. Scala
Anthony J. Scala
President/CEO

Enclosure: ASP-A Narrative, report, invoice

Confidentiality Statement: This report is meant for the use of the intended recipient. It may contain confidential information, which is legally privileged or otherwise protected by law. If you have received this report in error, you are strictly prohibited from reviewing, using, disseminating, distributing or copying the information.

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November 19, 2007

Mr. David Rowlinson
Stearns & Wheeler, LLC
415 N. French Rd.
Amherst, NY 14228

RE: The Lockport City Landfill, Samples collected October 10, 2007
Case Narrative for ULI SDG Number S&W12, Workorder #U0710299

The following is a New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP) Category A case narrative for the above referenced project. The test results were subject to an internal validation as described below:

Internal Validation

For each test, the chemist sorted the samples into batches of twenty samples or less and added quality control (QC) samples. The batches were analyzed by USEPA and NYSDEC approved test procedures (Table 1). During the course of the analyses the chemist compared the quality control test results to performance criteria and (if necessary) took corrective actions. At the end of the analysis, the data was assembled into data packages and submitted to the section supervisor for review and approval. On the cover of each data package the analyst described any anomaly that may have occurred and, if it did occur, why the data was still found acceptable. A summary of the comments on the cover sheet of each test from each laboratory follows:

Volatiles

<u>Test</u>	<u>Batch</u>	<u>Anomaly</u>
8260	R28978	Criteria were satisfied.
	R29039	Criteria were satisfied.
	R29050	Criteria were satisfied.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and/or in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Sincerely,
UPSTATE LABORATORIES, INC.

Anthony J. Scala
Director

File: S+W12 Lockport

The total number of pages in this Data Package is : 2.

Table 1
Methodologies

Methodology

The analyses were performed using test methods developed by the USEPA and reorganized by the NYSDEC in the Analytical Services Protocol (ASP). The specific method numbers are:

Parameter	Method	Reference
Volatiles	8260	(1)

Reference:

(1) New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP), 7/05 Revision

Upstate Laboratories, Inc.

6034 Corporate Drive • E. Syracuse, NY 13057-1017
 (315) 437-0255 Stearns + Wheeler Fax 437-1209

Chain Of Custody Record

Client Contact:	Phone #	Site Location (city/state)	ULI Computer Input Form	Special Turnaround Time (Lab Notification required)															
Sample Location:	Date	Time	Matrix	Grab or Comp.	ULI Internal Use Only	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Remarks			
MW-8D	10/10/07	11:30am	Aqueous Water	Comp	-1	2	X										ASP-CAT A		
MW-9S (MS/MSD)	10/10/07	1:00 pm	Aqueous Comp	Comp	-2	X	X	X									ASP-CAT A		
MW-9T	10/10/07	1:30 pm	Aqueous Comp	Comp	-3	2	X	X									ASP-CAT A		
MW (Taken at MW-9S)	10/10/07	1:00pm	Aqueous Comp	Comp	..	2	X	X									ASP-CAT A		
MSD/Taken at MW-9S	10/10/07	1:00pm	Aqueous Comp	Comp	..	2	X	X									ASP-CAT A		
MW-3S	10/10/07	2:20 pm	Aqueous Comp	Comp	-4	2	X	X									ASP-CAT A		
Outfall L-2	10/10/07	2:40 pm	Aqueous Comp	Comp	-5	2	X	X									ASP-CAT A		
Trip Blank	10/10/07	1:40 pm	Aqueous Comp	Comp	-4	1	X	X									ASP-CAT A		
(Holding Blank)	(10/12/07)	(16:37)	(water)	(water)	-7	(1)	(X)												
parameter and method			sample bottle:	type	size	pres.	Sampled by: (Please Print)												
1) TCL: 8260-VOAs							Brian P. Doyle												
2)							Company: Stearns + Wheeler												
3)							Relinquished by: (Signature)	Date	Time	Received by: (Signature)									
4)							Brian P. Doyle	10/10/07	18:15										
5)							Relinquished by: (Signature)	Date	Time	Received by: (Signature)									
6)																			
7)							Relinquished by: (Signature)	Date	Time	Received by: (Signature)									
8)																			
9)							Relinquished by: (Signature)	Date	Time	Rec'd for Lab by: (Signature)									
10)							Natalie Spaulding	10/11/07	0:45										
Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.																			

Syracuse

Rochester

Binghamton

Fair Lawn (NJ)

Albany

Buffalo

APPENDIX B

STEARNS & WHEELER, LLC
GROUNDWATER FIELD SAMPLING RECORD

SITE Lockport City Landfill DATE 10/10/07
 Sampler: Brian Doyle SAMPLE ID MW-3S

Depth of well (from top of casing)..... 13.24 ft
 Initial static water level (from top of casing).... 3.5 ft

Evacuation Method: Well Volume Calculation

Submersible	<u> </u>	Centrifugal	<u> </u>	2in. casing: <u> </u> ft. of water x .16 = <u> </u> gallons	<u> </u> 1.56 gallons
Airlift	<u> </u>	Pos. Displ.	<u> </u>	3in. casing: <u> </u> ft. of water x .36 = <u> </u> gallons	<u> </u> gallons
Bailer	<u>X</u>	>>> No. of bails	<u> </u>	4in. casing: <u> </u> ft. of water x .65 = <u> </u> gallons	<u> </u> gallons

Volume of water removed 2.50 gals.
 > 3 volumes: yes no
 dry: yes no

Field Tests: Temp: 15.1 C
 pH 6.77
 Conductivity 3.08 mS/cm
 DO 2.45 mg/l
 Turbidity 274 NTUs
 Salinity 0.15 %

Sampling: Time: 2:20 PM

Sampling Method: Stainless Steel Bailer
 Disposable Bailer X
 Disposable Pump
 Other

Observations:

Weather/Temperature: Overcast, 65°

Physical Appearance and Odor of Sample: No odor, reddish-brown color

Comments: Debris around monitoring well. Cut tree limbs and cleared the area around the well.
 Unable to fully purge well due to obstruction in well between the riser and the screen. The obstruction could be due to a bailer stuck at the bottom of the well. The City of Lockport needs to address this problem.
 Well pad is intact and the stickup protective cover is in good condition. Lock has corrosion and should be changed.

STEARNS & WHEELER, LLC
GROUNDWATER FIELD SAMPLING RECORD

SITE Lockport City Landfill DATE 10/10/07
 Sampler: Brian Doyle SAMPLE ID MW-6D

Depth of well (from top of casing).....77.12 ft
 Initial static water level (from top of casing)....77.0 ft

Evacuation Method: Well Volume Calculation

Submersible	<u> </u>	Centrifugal	<u> </u>	2in. casing: <u> </u> 0.1 ft. of water x .16 = <u> </u> 0.02 gallons
Airlift	<u> </u>	Pos. Displ.	<u> </u>	3in. casing: <u> </u> ft. of water x .36 = <u> </u> gallons
Bailer	<u>X</u>	>>> No. of bails	<u> </u>	4in. casing: <u> </u> ft. of water x .65 = <u> </u> gallons

Volume of water removed 0 gals.
 > 3 volumes: yes no
 dry: yes no

Field Tests: Temp: C
 pH
 Conductivity mS/cm
 DO% %
 DO mg/l
 Turbidity NTUs
 Oxidation Reduction Potential(ORP) mV
 Salinity %

Sampling: Time: 11:45 AM

Sampling Method: Stainless Steel Bailer X
 Disposable Bailer
 Disposable Pump
 Other

Observations:

Weather/Temperature: Overcast, 70°

Physical Appearance and Odor of Sample: _____

Comments: Unable to test for water quality parameters and take samples due to a neglible amount of water in well.
Well pad is intact and the stickup protective cover is in good condition.

STEARNS & WHEELER, LLC
GROUNDWATER FIELD SAMPLING RECORD

SITE Lockport City Landfill

DATE 10/10/07

Sampler: Brian Doyle

SAMPLE ID MW-8D

Depth of well (from top of casing).....76.67 ft
 Initial static water level (from top of casing)....72.2 ft

Evacuation Method:

Well Volume Calculation

Submersible	<u> </u>	Centrifugal	<u> </u>	2in. casing: <u> 4.5</u> ft. of water x .16 = <u> 0.72</u> gallons
Airlift	<u> </u>	Pos. Displ.	<u> </u>	3in. casing: <u> </u> ft. of water x .36 = <u> </u> gallons
Bailer	<u>X</u>	>>> No. of bails	<u> </u>	4in. casing: <u> </u> ft. of water x .65 = <u> </u> gallons

Volume of water removed 1.50 gals.
 > 3 volumes: yes no
 dry: yes no

Field Tests: Temp: 12.6 C
 pH 7.81
 Conductivity 3.20 mS/cm
 DO 4.50 mg/l
 Turbidity 255 NTUs
 Salinity 0.15 %

Sampling:

Time: 11:30 AM

Sampling Method: Stainless Steel Bailer
 Disposable Bailer X
 Disposable Pump
 Other

Observations:

Weather/Temperature: Clear, 70°

Physical Appearance and Odor of Sample: No odor, slight yellow color

Comments: Well purged dry after 1.5 gallons.
Well pad is intact and the stickup protective cover is in good condition.

STEARNS & WHEELER, LLC
GROUNDWATER FIELD SAMPLING RECORD

SITE Lockport City Landfill DATE 10/10/07
 Sampler: Brian Doyle SAMPLE ID MW-9S, MS, MSD

Depth of well (from top of casing)..... 12.36 ft
 Initial static water level (from top of casing).... 7.0 ft

Evacuation Method: Well Volume Calculation

Submersible	<u> </u>	Centrifugal	<u> </u>	2in. casing: <u> </u> ft. of water x .16 = <u> </u> 0.86 gallons
Airlift	<u> </u>	Pos. Displ.	<u> </u>	3in. casing: <u> </u> ft. of water x .36 = <u> </u> gallons
Bailer	<u>X</u>	>>> No. of bails	<u> </u>	4in. casing: <u> </u> ft. of water x .65 = <u> </u> gallons

Volume of water removed 2.57 gals.

> 3 volumes:

yes
no

 dry:

yes
no

Field Tests: Temp: 15.7 C
 pH 7.49
 Conductivity 2.4 mS/cm
 DO 2.57 mg/l
 Turbidity 770 NTUs
 Salinity 0.11 %

Sampling: Time: 1:00 PM

Sampling Method: Stainless Steel Bailer
 Disposable Bailer X
 Disposable Pump
 Other

Observations:

Weather/Temperature: Overcast, 65°

Physical Appearance and Odor of Sample: Very turbid, brownish color, no odor.

Comments: Well pad is intact and the stickup protective cover is in good condition. Lock has corrosion and should be changed.

STEARNS & WHEELER, LLC
GROUNDWATER FIELD SAMPLING RECORD

SITE Lockport City Landfill DATE 10/10/07
Sampler: Brian Doyle SAMPLE ID MW-9I

Depth of well (from top of casing)..... 19.99 ft
Initial static water level (from top of casing).... 4.8 ft

Evacuation Method: Well Volume Calculation

Submersible	<u> </u>	Centrifugal	<u> </u>	2in. casing: <u> </u> ft. of water x .16 = <u> </u> 2.43 gallons
Airlift	<u> </u>	Pos. Displ.	<u> </u>	3in. casing: <u> </u> ft. of water x .36 = <u> </u> gallons
Bailer	<u>X</u>	>> No. of bails	<u> </u>	4in. casing: <u> </u> ft. of water x .65 = <u> </u> gallons

Volume of water removed 7.29 gals.
> 3 volumes: yes no
dry: yes no

Field Tests: Temp: 12.9 C
pH 7.21
Conductivity 1.92 mS/cm
DO 3.01 mg/l
Turbidity 107 NTUs
Salinity 0.09 %

Sampling: Time: 1:30 PM

Sampling Method: Stainless Steel Bailer
Disposable Bailer X
Disposable Pump
Other

Observations:

Weather/Temperature: Overcast, 65°

Physical Appearance and Odor of Sample: Slightly turbid, light brown, no odor.

Comments: Debris around monitoring well. Cut tree limbs and cleared the area around the well.
Well pad is intact and the stickup protective cover is in good condition. Lock has corrosion and should be changed.

STEARNS & WHEELER, LLC
SURFACE WATER FIELD SAMPLING RECORD

SITE Lockport City Landfill

DATE 10/10/07

Samplers: Brian Doyle

SAMPLE ID Outfall L-2

Sampling Method:

Submersible GRAB Centrifugal _____
Airlift _____ Pos. Displ. _____
Bailer _____ >>> No. of bails _____

Field Tests: Temp: 13.1 C
pH 7.45
Conductivity 1.7 mS/cm
DO 6.83 mg/l
Turbidity 50 NTUs
Salinity 0.07 %

Sampling:

Time: 2:45 PM

Sampling Method: Stainless Steel Bailer _____
Teflon Bailer _____
Disposable Pump _____
Other Grab

Observations:

Weather/Temperature: Overcast, 65°

Physical Appearance and Odor of Sample: No odor, light brown color, slightly turbid.

Comments: Iron bacteria was present on outfall and rocks.