SITE INSPECTION REPORT

FOR

OCTOBER 22, 2015
(YEAR - 19)

LOCKPORT CITY LANDFILL
NYSDEC SITE NO. 9-32-010

Prepared For:

CITY OF LOCKPORT, NEW YORK
DEPARTMENT OF PUBLIC WORKS

Prepared By:

GHD CONSULTING SERVICES, INC.
285 DELAWARE AVENUE
BUFFALO, NEW YORK 14202

DECEMBER 2015

PROJECT NO. 8612191

SECTION 1 - INTRODUCTION

The Lockport City Landfill site is located on Oakhurst Street in the City of Lockport, Niagara County, New York. The landfill, assigned the site registry number 9-32-010, is the subject of this report.

The Remedial Action Design for the site included a Long-Term Monitoring Plan and Operation and Maintenance Plan that were approved by the New York State Department of Environmental Conservation (NYSDEC) in March 1994. 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 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 on Figure 1. The purpose of this report is to present the findings of the 19th site inspection conducted at the Lockport City Landfill on October 22, 2015. This is the 4th monitoring event of the 2nd contract between GHD Consulting Services, Inc. and the City of Lockport. The present contract includes 5 years of service with the last year of service scheduled for 2016.

SECTION 2 - SITE INSPECTION

The following personnel attended a site inspection on October 22, 2015 of the Lockport City Landfill:

- Rolando Moreno, City of Lockport (City)
- Brian Sadowski, New York State Department of Environmental Conservation
- Brian Doyle, GHD Consulting Services, Inc.

The completed Inspection Log Sheets for the October 2015 site inspection is presented in Attachment A. The following is a summary of items that were observed during the site inspection:

- **Landfill Cap** - Overall, the cap was in good condition with vegetation well established. The landfill was mowed approximately 1 month prior to the October 2015 inspection.

- **Perimeter Ditch "A"** - Vegetation is well established and no erosion had occurred during the October 2015 site inspection.

- **Perimeter Ditch "B"** - Vegetation is well established and no erosion had occurred during the October 2015 site inspection.

- **Drainage Swale "A"**- As discussed in previous inspection reports, there is a portion of Drainage Swale "A" berm running along the western edge of the landfill cap that had slumped down the west face of the landfill. As reported in 2008, the City of Lockport placed an additional 1 to 2 tons of stone to stabilize the berm in the area of the slump. The stone has remained in place, thus stabilizing the bank and preventing further slumping. The City will continue monitor the area for any further slumping. The City has cut and cleared overgrowth vegetation leaving larger trees intact. The City cleared weeds by extending mowing to provide cut back. Tree trimming was completed by saw to make a clean cut to prevent possible tree disease. In the future, the City will trim trees and vegetation to the top of the slope or berm. Evidence of heavy ATV use was found near the fence and down chute. Stone placed by down chute to fill ATV ruts. The City will cut back lower branches that overhang for convenience when mowing the area. The City will remove a tree located in the center of Drainage Swale "A".

- **Drainage Swale "B"** - Vegetation is well established and no erosion noted during the October 2015 site inspection.

- **Perimeter Drainage Ditch "C"** - A "No Trespassing" sign is intact along the northeast corner of Drainage Ditch "C" to prevent wear from unauthorized vehicles entering the site. North end vegetation cut and removed. Further cutting to redefine the existing ditch is required to allow for drainage to the north end. The City may use a herbicide such as Roundup to treat the overgrown area.

- **Down chute** - Normal growth was present in the downchute and apron areas. The City will monitor the vegetation growth and if required will cut back growth further. Install stone in rutted area where runoff is causing erosion. ATVs tracks present and extensive to include deep rutting into the cap. Stone placed to fill rutting. Police enforcement needs to continue.

- **Vegetative Cover** - General cover is well established. Landfill was mowed approximately 1 month prior to inspection. Future mowing needs to be completed after mid-August.

- **Final Cover Layers (Settlement, etc)** - No standing water or settlement was observed on final cover layers.

- **Steep Slope Areas (West of final cover)** - Trees and grasses present on slope areas.
- **Landfill Gas Vents** - Gas vents were intact and in good condition.
- **Fence** - Fence and vehicle gates in good condition during the October 2015 site inspection.
- **Monitoring Wells** - Historically with the exception of the past three years, monitoring well MW-6D has not been sampled in past reporting years due to lack of available groundwater present at the time of sampling. During the 2015 sampling, an insufficient amount of groundwater was available to obtain groundwater parameters. Sampling of groundwater from monitoring well MW-6D was completed in 2015.
- **Railroad Crossing** - Railroad crossing is accessible and in good condition. Stone was recently added by the railroad crossing. The City will remove the geofabric on the east side of the railroad crossing.

ATTACHMENT A

LOCKPORT CITY LANDFILL - POST CLOSURE
NYSDEC SITE NO. 932010

ANNUAL INSPECTION LOG SHEET

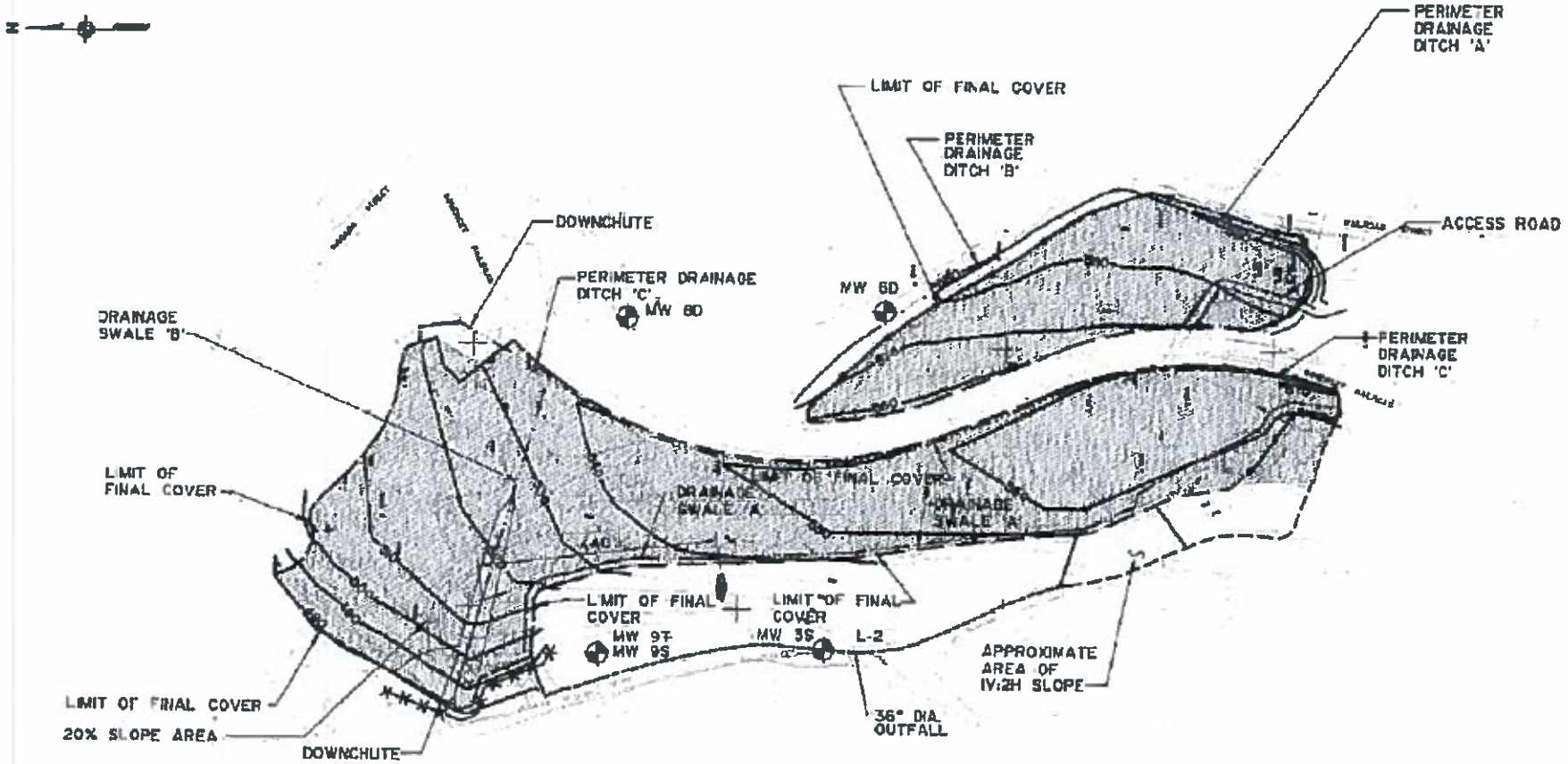
Date: 10/22/2015 Inspector: Brian P. Doyle

Weather: Overcast Signature: 

60° F Company: GHD Consulting Services, Inc.

Item Inspected	Maintenance Needed (Y/N)	Comments	Inspector's Initials
Perimeter Ditch A	N	Vegetation is well established and no erosion noted.	BPD
Perimeter Ditch B	N	Vegetation is well established and no erosion noted.	BPD
Perimeter Ditch C	N	North end vegetation cut and removed. Requires cutting from south side to allow for drainage to north end. This would redefine existing ditch/channel. A "No Trespassing" sign intact at the northeast corner to prevent access from All Terrain Vehicles.	BPD
Drainage Swale A	N	The stone has remained in place, thus stabilizing the bank and preventing further slumping from taking place. Mowing was extended to provide cut back. Evidence of heavy ATV use near fence and downchute. Stone placed by downchute to fill ATV ruts.	BPD
Drainage Swale B	N	Vegetation is well established and no erosion noted.	BPD
Downchute & Apron	N	Normal growth/woody vegetation present in the downchute. ATVs tracks present, extensive to include deep rutting into cap. Stone placed to fill rutting. Police enforcement to continue.	BPD
Vegetative Cover	N	Landfill was mowed approximately 1 month prior to inspection. Future mowing needs to be completed after mid August.	BPD
Final Cover Layers (Settlement, etc.)	N	No standing water was observed on final cover layers.	BPD
Steep Slope Areas (West of final cover)	N	Trees and grasses present on slope areas.	BPD
Gas Vents	N	All gas vents were intact and in good condition.	BPD
Landfill Cap	Y	Cap in good condition with vegetation well established. A road was being constructed for access to the Gulf to repair a sewer. Prior to road construction, rutting was created by sewer repair vehicles. Rutting will require repair.	BPD
Fence	Y	Fence and vehicle gates in good condition.	BPD
Other Items: Railroad Vehicle Crossing	Y	Railroad vehicle crossing is accessible and in good condition. Stone added by RR crossing and geotextile fabric was removed.	BPD
Other Items: Monitoring Wells	N	A camera was placed down Monitoring Well 3S in 2012 and found the well to be broken between the riser and screen at approximately 8 feet below the top of casing. DEC informed City to continue sampling at this well location.	BPD

Other Items: Monitoring Wells: Note 2	N	Monitoring well MW-6D was sampled in 2015, however, has not been sampled in the past due to lack of available groundwater present at the time of sampling. During the 2013 sampling, a sufficient amount of groundwater was available and recovered from monitoring well MW-6D to provide sample volume. If the well was purged, an insufficient sample volume would result. Since this monitoring well has not been sampled for a number of years, the recovered groundwater was adequate for sample volume. Maintain access road.	BPD
General Notes:	Y	>Signs of ATVs through the Site >ATV tracks at north and south of fence along Drainage Swale A	BPD



GHD CLIENTS PEOPLE PERFORMANCE

AMHERST, NEW YORK

JOB No.:8612191

LOCKPORT CITY LANDFILL
LOCKPORT, NEW YORK
CITY OF LOCKPORT

FIGURE 1
SITE PLAN

Sampling and Analysis Report

Lockport City Landfill
Site No. 932010

City of Lockport
Lockport, New York

December 2015

SAMPLING AND ANALYSIS REPORT

LOCKPORT CITY LANDFILL

FOR

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

SECTION 1 - INTRODUCTION

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

The Remedial Action Design as approved by the New York State Department of Environmental Conservation (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 on Figure 1.

The Long Term Monitoring Program started in 1997; six (6) events were conducted in the first five (5) years (two events in 1997 and one event per year afterwards). This is the 4th monitoring event of the Long Term Monitoring contract dated July 25, 2012 between GHD Consulting Services, Inc. and the City of Lockport. The purpose of this report is to present the findings of the 19th sampling event conducted at the Lockport City Landfill on October 22, 2015. The present contract includes 5 years of service with the last year of service scheduled for 2016.

SECTION 2 - LONG TERM MONITORING

In accordance with the NYSDEC approved Long Term Monitoring Plan, and included in the Operation and Maintenance Plan, five (5) groundwater wells, and one (1) outfall were sampled by GHD Consulting Services, Inc. on October 22, 2015. During sampling of groundwater at Monitoring Well MW-6D, physical water quality parameters were unable to be tested for due to a negligible amount of water in the well, but there was enough volume to sample for the required volatile organic compounds (VOC's). Historically, monitoring well MW-6D could not be sampled due to lack of available groundwater present at the time of sampling.

The samples were delivered to ESC Lab Sciences, 12065 Lebanon Road, Mt. Juliet, Tennessee 37122, and analyzed for Target Compound List (TCL) VOCs by United States Environmental Protection Agency (USEPA) CLP Statement of Work (SOW) OLM04.2.

Analytical data sheets are provided in Appendix A and Groundwater Field Sampling Records are presented in Appendix B. Table 1 summarizes analytical testing data from groundwater samples collected from monitoring wells and the outfall for past 19 years.

Groundwater sampling and analytical testing is presented for the monitoring years of 1997 through 2015. The established action levels for Monitoring Wells MW-8D, MW-9S and MW-9I, and Outfall L2 are noted on Table 1. Analytical test results presented on Table 1 indicate that there were no exceedances detected above the reported action levels. Since exceedances did not occur, contingent sampling and analysis are not required. The next sampling event will be scheduled for October 2016 representing year 20 of the Long Term Monitoring Program.

In past reporting, 1,2-Dichloroethene (total) was reported in years (1997-2006) as the sum of the detected concentrations of cis-1,2-Dichloroethene and trans-1,2-Dichloroethene. Reporting in 2007 was the first year GHD conducted sampling and reporting. For purposes of presenting the analytical test results in a more definitive manner, analytical test results for reporting years of 2007 through 2015 as presented on Table 1 has been presented in the 2015 report to include detected concentrations of cis-1,2-Dichloroethene and not reported as concentrations of 1,2-Dichloroethene (total).

The volatile organic analytical test results detected concentrations of cis-1,2-Dichloroethene in groundwater sampled from Monitoring Wells MW-8D and MW-9I.

The volatile organic analytical test results detected concentrations of Carbon Disulfide and 1,1-Dichloroethane in groundwater sampled from Monitoring Well MW-3S. Detected concentrations of Carbon Disulfide continued in 2015 from being first detected in groundwater sampled in 2014 from Monitoring Well MW-3S.

Non detectable test results were received from groundwater sampled from Monitoring Wells MW-6D and MW-9S and Outfall L-2.

TABLES

TABLE 1
MONITORING WELL 3S
GROUNDWATER ANALYTICAL TEST RESULTS
LOCKPORT CITY LANDFILL

Volatile Compounds	Units	Action Level	Jun-97	Nov-97	Sep-98	Sep-99	Sep-00	Sep-01	Oct-02	Dec-03	Oct-04	Oct-05	Oct-06	Oct-07	Oct-08	Oct-09	Oct-10	Oct-11	Oct-12	Oct-13	Oct-14	Oct-15
Chloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Vinyl chloride	µg/L	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Chloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Acetone	µg/L	NS	U	U	U	U	U	U	U	U	U	U	6 J	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Carbon disulfide	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Methylene chloride	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	1.2	1.1
1,2-Dichloroethene (total)	µg/L	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
trans-1, 2-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	µg/L	NS	U	U	U	U	U	U	U	U	U	1 J	U	U	3J	2J	3J	2.8 J	U	1.8	1.4	1.6
2-Butanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	4 J	3J	2J	4J	3.2 J	U	U	U	U
Chloroform	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Carbon tetrachloride	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Benzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Trichloroethene	µg/L	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Bromodichloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
4-Methyl-2-pentanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Toluene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
trans-1,3-Dichloropropene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
2-Hexanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Tetrachloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Dibromochloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Chlorobenzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Ethylbenzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
m,p-Xylene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
o-Xylene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Styrene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Bromoform	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U

Notes:

VOC analysis by USEPA CLP SOW OLM04.2

U = not detected above the quantitation limit

J = estimated concentration

NS = no standard

- = not sampled for

1,2-Dichloroethene (Total) is reported in years (1997-2006) as the sum of the detected concentrations of cis-1,2-Dichloroethene and trans-1,2-Dichloroethene

TABLE 1 (Cont'd)
MONITORING WELL 6D
GROUNDWATER ANALYTICAL RESULTS
LOCKPORT CITY LANDFILL

Volatile Compounds	Units	Action Level	Jun-97	Nov-97	Sep-98	Sep-99	Sep-00	Sep-01	Oct-02	Dec-03	Oct-04	Oct-05	Oct-06	Oct-07	Oct-08	Oct-09	Oct-10	Oct-11	Oct-12	Oct-13	Oct-14	Oct-15
Chloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Vinyl chloride	µg/L	NS	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-	U	U	U
Bromomethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Chloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Acetone	µg/L	NS	U	U	U	U	U	U	U	U	U	2 J	16	-	-	-	-	-	-	U	U	U
1,1-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Carbon disulfide	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Methylene chloride	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
1,2-Dichloroethene (total)	µg/L	NS	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-	U	U	U
trans-1, 2-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
1,1-Dichloroethane	µg/L	NS	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-	U	U	U
2-Butanone	µg/L	NS	U	U	U	U	U	U	U	U	U	U	1 J	-	-	-	-	-	-	U	U	U
cis-1,2-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Chloroform	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
1,1,1-Trichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Carbon tetrachloride	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Benzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
1,2-Dichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Trichloroethene	µg/L	NS	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-	U	U	U
1,2-Dichloropropane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Bromodichloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
4-Methyl-2-pentanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
cis-1,3-Dichloropropene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Toluene	µg/L	NS	U	U	U	U	U	U	U	U	U	2 J	2 J	-	-	-	-	-	-	U	U	U
trans-1,3-Dichloropropene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
1,1,2-Trichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
2-Hexanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Tetrachloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Dibromochloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Chlorobenzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Ethylbenzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Xylene (Total)	µg/L	NS	U	U	U	U	U	U	U	U	U	U	U	-	-	-	-	-	-	U	U	U
Styrene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
Bromoform	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U
1,1,2,2-Tetrachloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	U	U	U

Notes:

VOC analysis by USEPA CLP SOW OLM04.2

U = not detected above the quantitation limit

J = estimated concentration

- = not sampled

NS = no standard

2007, 2008, 2009, 2010, 2011, 2012 : MW-6D not sampled due to dry conditions, no groundwater available

TABLE 1 (Cont'd)
MONITORING WELL 8D
GROUNDWATER ANALYTICAL TEST RESULTS
LOCKPORT CITY LANDFILL

Volatile Compounds	Units	Action Level	Jun-97	Nov-97	Sep-98	Sep-99	Sep-00	Sep-01	Oct-02	Dec-03	Oct-04	Oct-05	Oct-06	Oct-07	Oct-08	Oct-09	Oct-10	Oct-11	Oct-12	Oct-13	Oct-14	Oct-15
Chloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Vinyl chloride	µg/L	162	U	U	U	U	U	7	33	6	4 J	U	U	U	U	U	U	U	11	11	2.1	U
Bromomethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Chloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Acetone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Carbon disulfide	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Methylene chloride	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	µg/L	1,580	100	90	110	18	25	41	120	7	28	27 J	40	U	U	U	U	U	U	U	U	U
trans-1, 2-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
2-Butanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	32	34	26	23	24	65	26	21	22
Chloroform	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Carbon tetrachloride	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Benzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Trichloroethene	µg/L	260	2	4	5	2	2	2	U	U	U	U	1 J	U	U	U	U	3.2 J	U	U	U	U
1,2-Dichloropropane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Bromodichloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
4-Methyl-2-pentanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Toluene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
trans-1,3-Dichloropropene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
2-Hexanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Tetrachloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Dibromochloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Chlorobenzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Ethylbenzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
m,p-Xylene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
o-Xylene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Styrene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Bromoform	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U

Notes:

VOC analysis by USEPA CLP SOW OLM04.2

U = not detected above the quantitation limit

J = estimated concentration

NS = no standard

- = not sampled for

1,2-Dichloroethene (Total) is reported in years (1997-2006) as the sum of the detected concentrations of cis-1,2-Dichloroethene and trans-1,2-Dichloroethene

TABLE 1 (Cont'd)
MONITORING WELL 9S
GROUNDWATER ANALYTICAL TEST RESULTS
LOCKPORT CITY LANDFILL

Volatile Compounds	Units	Action Level	Jun-97	Nov-97	Sep-98	Sep-99	Sep-00	Sep-01	Oct-02	Dec-03	Oct-04	Oct-05	Oct-06	Oct-07	Oct-08	Oct-09	Oct-10	Oct-11	Oct-12	Oct-13	Oct-14	Oct-15
Chloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Vinyl chloride	µg/L	162	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Chloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Acetone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Carbon disulfide	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Methylene chloride	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	µg/L	1,580	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
trans-1, 2-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
2-Butanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	2	U
Chloroform	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Carbon tetrachloride	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Benzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Trichloroethene	µg/L	260	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Bromodichloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
4-Methyl-2-pentanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Toluene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
trans-1,3-Dichloropropene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
2-Hexanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Tetrachloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Dibromochloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Chlorobenzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Ethylbenzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
m,p-Xylene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
o-Xylene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Styrene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Bromoform	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U

Notes:

VOC analysis by USEPA CLP SOW OLM04.2

U = not detected above the quantitation limit

J = estimated concentration

NS = no standard

- = not sampled for

1,2-Dichloroethene (Total) is reported in years (1997-2006) as the sum of the detected concentrations of cis-1,2-Dichloroethene and trans-1,2-Dichloroethene

TABLE 1 (Cont'd)
MONITORING WELL 9I
GROUNDWATER ANALYTICAL TEST RESULTS
LOCKPORT CITY LANDFILL

Volatile Compounds	Units	Action Level	Jun-97	Nov-97	Sep-98	Sep-99	Sep-00	Sep-01	Oct-02	Dec-03	Oct-04	Oct-05	Oct-06	Oct-07	Oct-08	Oct-09	Oct-10	Oct-11	Oct-12	Oct-13	Oct-14	Oct-15
Chloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Vinyl chloride	µg/L	24	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Chloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Acetone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Carbon disulfide	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Methylene chloride	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	µg/L	42	8.4	6	6	5	4 J	4 J	4 J	4 J	3 J	3 J	2 J	U	U	U	U	U	U	U	U	U
trans-1, 2-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
2-Butanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	3 J	2J	U	2J	U	U	1.3	U	1.8
Chloroform	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Carbon tetrachloride	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Benzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Trichloroethene	µg/L	NS	1.6	2	2	1 J	1 J	1 J	1 J	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Bromodichloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
4-Methyl-2-pentanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Toluene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
trans-1,3-Dichloropropene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
2-Hexanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Tetrachloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Dibromochloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Chlorobenzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Ethylbenzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
m,p-Xylene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
o-Xylene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Styrene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Bromoform	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U

Notes:

VOC analysis by USEPA CLP SOW OLM04.2

U = not detected above the quantitation limit

J = estimated concentration

NS = no standard

- = not sampled for

1,2-Dichloroethene (Total) is reported in years (1997-2006) as the sum of the detected concentrations of cis-1,2-Dichloroethene and trans-1,2-Dichloroethene

TABLE 1 (Cont'd)
OUTFALL L-2
GROUNDWATER ANALYTICAL TEST RESULTS
LOCKPORT CITY LANDFILL

Volatile Compounds	Units	Action Level	Jun-97	Nov-97	Sep-98	Sep-99	Sep-00	Sep-01	Oct-02	Dec-03	Oct-04	Oct-05	Oct-06	Oct-07	Oct-08	Oct-09	Oct-10	Oct-11	Oct-12	Oct-13	Oct-14	Oct-15
Chloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Vinyl chloride	µg/L	94	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromomethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Chloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Acetone	µg/L	NS	U	U	U	U	U	U	U	U	U	2J	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Carbon disulfide	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Methylene chloride	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	µg/L	280	U	2	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
trans-1, 2-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
2-Butanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
cis-1,2-Dichloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Chloroform	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Carbon tetrachloride	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Benzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,2-Dichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Trichloroethene	µg/L	NS	U	3	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloropropane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Bromodichloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
4-Methyl-2-pentanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
cis-1,3-Dichloropropene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Toluene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
trans-1,3-Dichloropropene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,2-Trichloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
2-Hexanone	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Tetrachloroethene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Dibromochloromethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Chlorobenzene	µg/L	NS	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Ethylbenzene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
m,p-Xylene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
o-Xylene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Styrene	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
Bromoform	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	µg/L	NS	-	-	-	-	-	-	-	-	-	-	-	U	U	U	U	U	U	U	U	U

Notes:

VOC analysis by USEPA CLP SOW OLM04.2

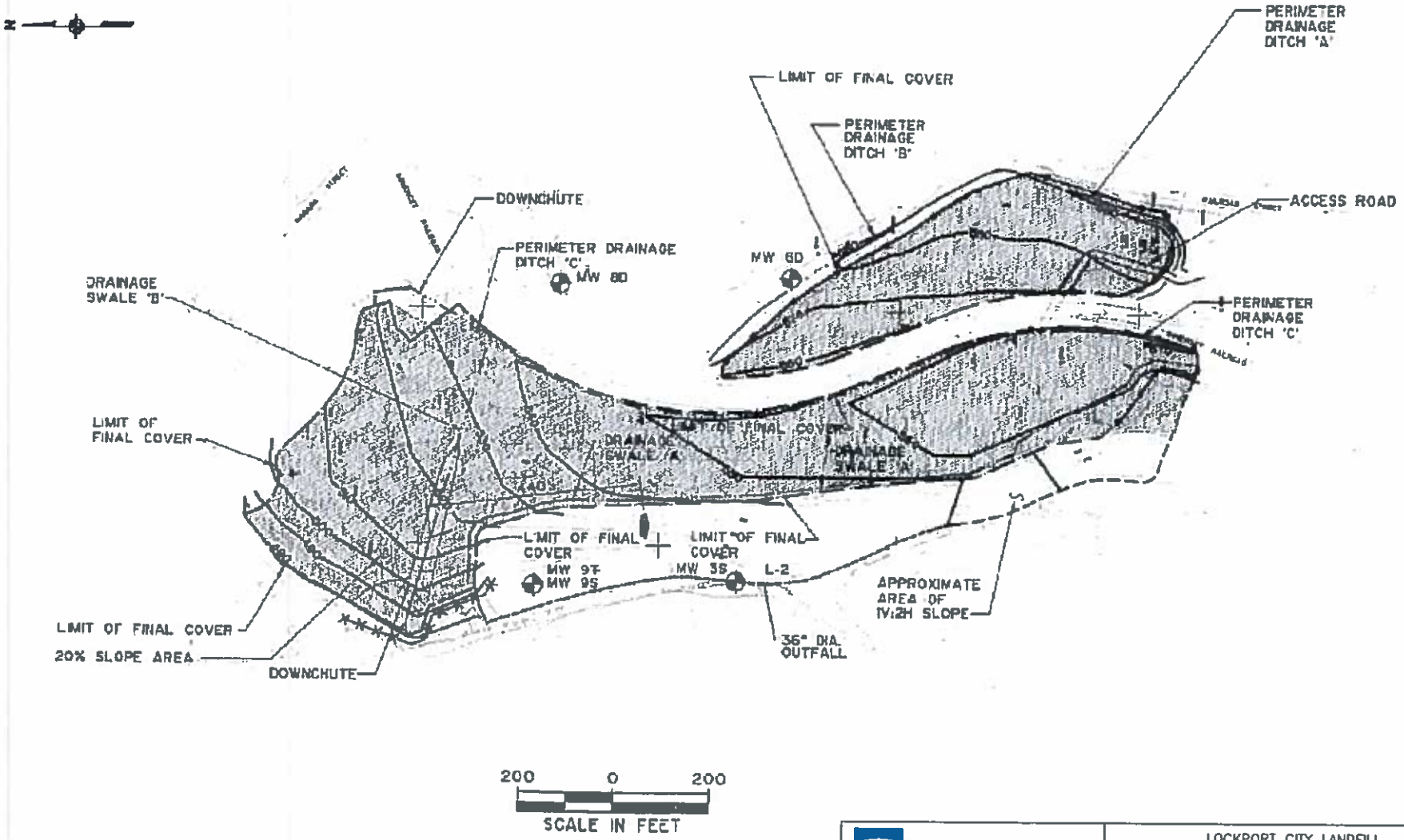
U = not detected above the quantitation limit

J = estimated concentration

NS = no standard

- = not sampled for

1,2-Dichloroethene (Total) is reported in years (1997-2006) as the sum of the detected concentrations of cis-1,2-Dichloroethene and trans-1,2-Dichloroethene



GHD CLIENTS PEOPLE PERFORMANCE

AMHERST, NEW YORK

JOB No.:8612191

LOCKPORT CITY LANDFILL
LOCKPORT, NEW YORK
CITY OF LOCKPORT

FIGURE 1
SITE PLAN

APPENDICES

APPENDIX A

GHD INC.
GROUNDWATER FIELD SAMPLING RECORD

SITE: Lockport City Landfill
DATE: 10/22/15

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).... 71.9 ft

Evacuation Method:

Submersible		Centrifugal			
Airlift		Pos. Displ.			
Bailer	X	>>> No. of bails			

Well Volume Calculation

2in. casing:	4.77 ft. of water x .16 =	0.76	gallons
3in. casing:	ft. of water x .36 =		gallons
4in. casing:	ft. of water x .65 =		gallons

Volume of water removed: 1.00 gals.

> 3 volumes: yes [no]

dry: [yes] no

Field Tests:

Temp:	13.6	C
pH	7.94	
Conductivity	2.51	mS/cm
DO	5.78	mg/l
Turbidity	105	NTUs
Salinity	0.13	%

Sampling: Time: 11:00 AM

Sampling Method:

Stainless Steel Bailer	
Disposable Bailer	X
Disposable Pump	
Other	

Observations:

Weather/Temperature: Overcast, 60°

Physical Appearance and Odor of Sample: Clear, then light brown

Comments: Well purged dry after 1.0 gallons.
Well pad is intact and the stickup protective cover is in good condition.

GHD INC.
GROUNDWATER FIELD SAMPLING RECORD

SITE: Lockport City Landfill — DATE: 10/22/15

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).... 76.9 ft

Evacuation Method:

Submersible		Centrifugal			
Airlift		Pos. Displ.			
Bailer	X	>>> No. of bails			

Well Volume Calculation

2in. casing:	0.22 ft. of water x .16 =	0.04	gallons
3in. casing:	ft. of water x .36 =		gallons
4in. casing:	ft. of water x .65 =		gallons

Volume of water removed: 0.00 gals.

> 3 volumes: yes [no]

dry: [yes] no

Field Tests:

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

Sampling: Time: 12:00 noon

Sampling Method:

Stainless Steel Bailer	
Disposable Bailer	X
Disposable Pump	
Other	

Observations:

Weather/Temperature: Overcast, 60°

Physical Appearance and Odor of Sample:

Comments: unable to test for physical water quality parameters due to a negligible amount of water in the well, but there was enough volume to sample for the required VOCs. Well pad is intact and the stickup protective cover is in good condition.

GHD INC.
GROUNDWATER FIELD SAMPLING RECORD

SITE: Lockport City Landfill — DATE: 10/22/15

Sampler: Brian Doyle — SAMPLE ID: MW-9S

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

Evacuation Method:

Submersible		Centrifugal		2in. casing:	5.36	ft. of water x .16 =	0.86 gallons
Airlift		Pos. Displ.		3in. casing:		ft. of water x .36 =	gallons
Bailer	X	>>> No. of bails		4in. casing:		ft. of water x .65 =	gallons

Well Volume Calculation

Volume of water removed: 2.57 gals.

> 3 volumes: [yes] no

dry: yes [no]

Field Tests:

Temp:	14.3	C
pH	7.27	
Conductivity	1.55	mS/cm
DO	4.93	mg/l
Turbidity	555	NTUs
Salinity	0.08	%

Sampling: Time: 1:30 PM

Sampling Method:

Stainless Steel Bailer	
Disposable Bailer	X
Disposable Pump	
Other	

Observations:

Weather/Temperature: Overcast, 60°

Physical Appearance and Odor of Sample: Light brown, then very turbid, brown, no odor.

Comments: Well pad is intact and the stickup protective cover is in good condition.

GHD INC.
GROUNDWATER FIELD SAMPLING RECORD

SITE: Lockport City Landfill

DATE: 10/22/15

Sampler: Brian Doyle

SAMPLE ID: MW-91

Depth of well (from top of casing)..... 19.99 ft

Initial static water level (from top of casing).... 6.0 ft

Evacuation Method:

Submersible		Centrifugal		2in. casing:	13.99	ft. of water x .16 =	2.24 gallons
Airlift		Pos. Displ.		3in. casing:		ft. of water x .36 =	gallons
Bailer	X	>>> No. of bails		4in. casing:		ft. of water x .65 =	gallons

Well Volume Calculation

Volume of water removed: 6.72 gals.

> 3 volumes: yes / no

dry: yes / no

Field Tests:

Temp:	13.8 C
pH	7.12
Conductivity	1.35 mS/cm
DO	4.3 mg/l
Turbidity	35 NTUs
Salinity	0.09 %

Sampling: Time: 2:00 PM

Sampling Method:

Stainless Steel Bailer	
Disposable Bailer	X
Disposable Pump	
Other	

Observations:

Weather/Temperature: Overcast, 60°

Physical Appearance and Odor of Sample: Initially reddish brown, no odor, then clear

Comments: Well pad is intact and the stickup protective cover is in good condition. Lock was cut for well access. Lock needs replacement

GHD INC.
GROUNDWATER FIELD SAMPLING RECORD

SITE: Lockport City Landfill — DATE: 10/22/15

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).... 3.8 ft

Evacuation Method:

Submersible		Centrifugal		2in. casing:	9.49	ft. of water x .16 =	1.52 gallons
Airlift		Pos. Displ.		3in. casing:		ft. of water x .36 =	gallons
Bailer	X	>>> No. of bails		4in. casing:		ft. of water x .65 =	gallons

Well Volume Calculation

Volume of water removed: 1.75 gals.

> 3 volumes: yes [no]

dry: [yes] no

Field Tests:

Temp:	14.27 C
pH	6.8
Conductivity	3.89 mS/cm
DO	3.76 mg/l
Turbidity	576 NTUs
Salinity	0.15 %

Sampling: Time: 1:00 PM

Sampling Method:

Stainless Steel Bailer	
Disposable Bailer	X
Disposable Pump	
Other	

Observations:

Weather/Temperature: Partly sunny, 60°

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

Comments: Debris around monitoring well.
Unable to fully purge well due to obstruction in well between the riser and the screen.
Well pad is intact and the stickup protective cover is in good condition.

GHD INC.
SURFACE WATER FIELD SAMPLING RECORD

SITE Lockport City Landfill DATE 10/22/15

Samplers: Brian Doyle SAMPLE ID Outfall L-2

Sampling Method:

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

Field Tests:

Temp:	13.91	C
pH	7.69	
Conductivity	1.5	mS/cm
DO	9.87	mg/l
Turbidity	227	NTUs
Salinity	0.1	%

Sampling: Time: 12:30 PM

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

Observations:

Weather/Temperature: Partly sunny, 60°

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

Comments: Iron bacteria was present on outfall and rocks.

APPENDIX B

ESC LAB SCIENCES
YOUR LAB OF CHOICE

ANALYTICAL REPORT

October 30, 2015

myESC
REAL TIME DATA ACCESS

GHD

Sample Delivery Group:	L796378
Samples Received:	10/23/2015
Project Number:	8612191-01-
Description:	Groundwater Sampling Lockport Landfill

Report To:

Mr. Dave Rowlinson
285 Delaware Ave.
Suite 500
Buffalo, NY 14202

Entire Report Reviewed By:

T. Alan Harvill
Technical Service Representative

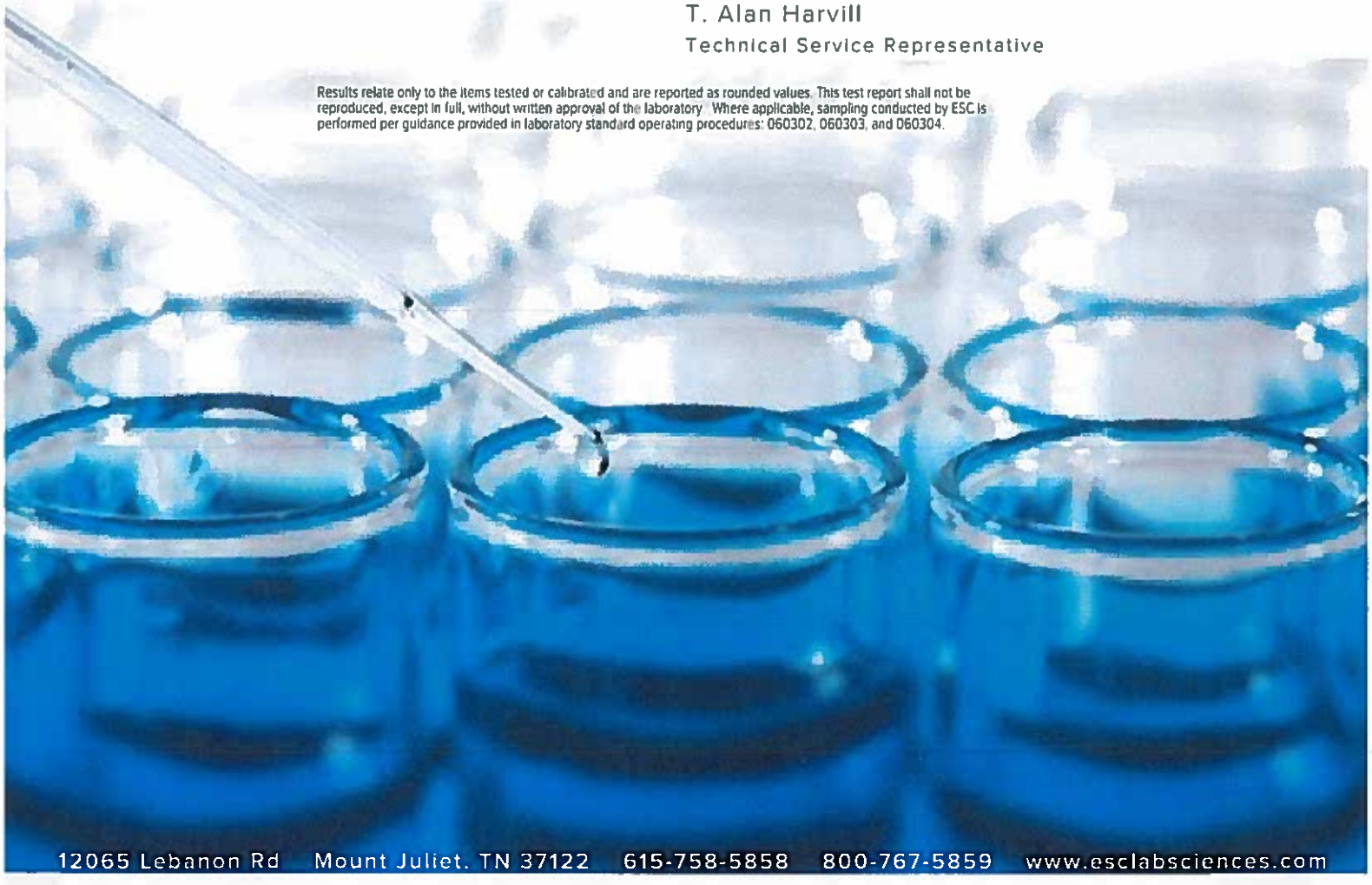


TABLE OF CONTENTS

ONE LAB. NATIONWIDE.

MW-8D L796378-01 GW

Collected by: Brian Doyle | Collected date/time: 10/22/15 11:00 | Received date/time: 10/23/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG824424	1	10/28/15 18:09	10/28/15 18:09	DAH

MW-6D L796378-02 GW

Collected by: Brian Doyle | Collected date/time: 10/22/15 12:00 | Received date/time: 10/23/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG824424	1	10/28/15 18:30	10/28/15 18:30	DAH

MW-9I L796378-03 GW

Collected by: Brian Doyle | Collected date/time: 10/22/15 14:00 | Received date/time: 10/23/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG824424	1	10/28/15 18:52	10/28/15 18:52	DAH

MW-9S L796378-04 GW

Collected by: Brian Doyle | Collected date/time: 10/22/15 13:30 | Received date/time: 10/23/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG824424	1	10/28/15 19:13	10/28/15 19:13	DAH

MW-3S L796378-05 GW

Collected by: Brian Doyle | Collected date/time: 10/22/15 13:00 | Received date/time: 10/23/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG824591	1	10/29/15 16:41	10/29/15 16:41	DWR

OUTFALL L-2 L796378-06 GW

Collected by: Brian Doyle | Collected date/time: 10/22/15 12:30 | Received date/time: 10/23/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG824591	1	10/29/15 16:59	10/29/15 16:59	DWR

TRIP BLANK L796378-07 GW

Collected by: Brian Doyle | Collected date/time: 10/22/15 00:00 | Received date/time: 10/23/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analysis Analyst
Volatile Organic Compounds (GC/MS) by Method 8260C	WG824591	1	10/29/15 13:24	10/29/15 13:24	JHH

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

T. Alan Harvill
Technical Service Representative

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	10/28/2015 18:09	WG824424
Benzene	ND		1.00	1	10/28/2015 18:09	WG824424
Bromochloromethane	ND		1.00	1	10/28/2015 18:09	WG824424
Bromodichloromethane	ND		1.00	1	10/28/2015 18:09	WG824424
Bromoform	ND		1.00	1	10/28/2015 18:09	WG824424
Bromomethane	ND		5.00	1	10/28/2015 18:09	WG824424
Carbon disulfide	ND		1.00	1	10/28/2015 18:09	WG824424
Carbon tetrachloride	ND		1.00	1	10/28/2015 18:09	WG824424
Chlorobenzene	ND		1.00	1	10/28/2015 18:09	WG824424
Chlorodibromomethane	ND		1.00	1	10/28/2015 18:09	WG824424
Chloroethane	ND		5.00	1	10/28/2015 18:09	WG824424
Chloroform	ND		5.00	1	10/28/2015 18:09	WG824424
Chloromethane	ND		2.50	1	10/28/2015 18:09	WG824424
Cyclohexane	ND		1.00	1	10/28/2015 18:09	WG824424
1,2-Dibromo-3-Chloropropane	ND		5.00	1	10/28/2015 18:09	WG824424
1,2-Dibromoethane	ND		1.00	1	10/28/2015 18:09	WG824424
1,2-Dichlorobenzene	ND		1.00	1	10/28/2015 18:09	WG824424
1,3-Dichlorobenzene	ND		1.00	1	10/28/2015 18:09	WG824424
1,4-Dichlorobenzene	ND		1.00	1	10/28/2015 18:09	WG824424
Dichlorodifluoromethane	ND		5.00	1	10/28/2015 18:09	WG824424
1,1-Dichloroethane	ND		1.00	1	10/28/2015 18:09	WG824424
1,2-Dichloroethane	ND		1.00	1	10/28/2015 18:09	WG824424
1,1-Dichloroethene	ND		1.00	1	10/28/2015 18:09	WG824424
cis-1,2-Dichloroethene	22.0		1.00	1	10/28/2015 18:09	WG824424
trans-1,2-Dichloroethene	ND		1.00	1	10/28/2015 18:09	WG824424
1,2-Dichloropropane	ND		1.00	1	10/28/2015 18:09	WG824424
cis-1,3-Dichloropropene	ND		1.00	1	10/28/2015 18:09	WG824424
trans-1,3-Dichloropropene	ND		1.00	1	10/28/2015 18:09	WG824424
Ethylbenzene	ND		1.00	1	10/28/2015 18:09	WG824424
2-Hexanone	ND		10.0	1	10/28/2015 18:09	WG824424
Isopropylbenzene	ND		1.00	1	10/28/2015 18:09	WG824424
2-Butanone (MEK)	ND		10.0	1	10/28/2015 18:09	WG824424
Methyl Acetate	ND		20.0	1	10/28/2015 18:09	WG824424
Methyl Cyclohexane	ND		1.00	1	10/28/2015 18:09	WG824424
Methylene Chloride	ND		5.00	1	10/28/2015 18:09	WG824424
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	10/28/2015 18:09	WG824424
Methyl tert-butyl ether	ND		1.00	1	10/28/2015 18:09	WG824424
Styrene	ND		1.00	1	10/28/2015 18:09	WG824424
1,1,2,2-Tetrachloroethane	ND		1.00	1	10/28/2015 18:09	WG824424
Tetrachloroethene	ND		1.00	1	10/28/2015 18:09	WG824424
Toluene	ND		5.00	1	10/28/2015 18:09	WG824424
1,2,3-Trichlorobenzene	ND		1.00	1	10/28/2015 18:09	WG824424
1,2,4-Trichlorobenzene	ND		1.00	1	10/28/2015 18:09	WG824424
1,1,1-Trichloroethane	ND		1.00	1	10/28/2015 18:09	WG824424
1,1,2-Trichloroethane	ND		1.00	1	10/28/2015 18:09	WG824424
Trichloroethene	ND		1.00	1	10/28/2015 18:09	WG824424
Trichlorofluoromethane	ND		5.00	1	10/28/2015 18:09	WG824424
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	10/28/2015 18:09	WG824424
Vinyl chloride	ND		1.00	1	10/28/2015 18:09	WG824424
Xylenes, Total	ND		3.00	1	10/28/2015 18:09	WG824424
(S) Toluene-d8	*103*		*90.0-115*		*10/28/2015 18:09*	WG824424
(S) Dibromofluoromethane	*99.4*		*79.0-121*		*10/28/2015 18:09*	WG824424
(S) a,a,a-Trifluorotoluene	*99.1*		*90.4-116*		*10/28/2015 18:09*	WG824424
(S) 4-Bromofluorobenzene	*91.6*		*80.1-120*		*10/28/2015 18:09*	WG824424

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	10/28/2015 18:30	WG824424
Benzene	ND		1.00	1	10/28/2015 18:30	WG824424
Bromochloromethane	ND		1.00	1	10/28/2015 18:30	WG824424
Bromodichloromethane	ND		1.00	1	10/28/2015 18:30	WG824424
Bromoform	ND		1.00	1	10/28/2015 18:30	WG824424
Bromomethane	ND		5.00	1	10/28/2015 18:30	WG824424
Carbon disulfide	ND		1.00	1	10/28/2015 18:30	WG824424
Carbon tetrachloride	ND		1.00	1	10/28/2015 18:30	WG824424
Chlorobenzene	ND		1.00	1	10/28/2015 18:30	WG824424
Chlorodibromomethane	ND		1.00	1	10/28/2015 18:30	WG824424
Chloroethane	ND		5.00	1	10/28/2015 18:30	WG824424
Chloroform	ND		5.00	1	10/28/2015 18:30	WG824424
Chloromethane	ND		2.50	1	10/28/2015 18:30	WG824424
Cyclohexane	ND		1.00	1	10/28/2015 18:30	WG824424
1,2-Dibromo-3-Chloropropane	ND		5.00	1	10/28/2015 18:30	WG824424
1,2-Dibromoethane	ND		1.00	1	10/28/2015 18:30	WG824424
1,2-Dichlorobenzene	ND		1.00	1	10/28/2015 18:30	WG824424
1,3-Dichlorobenzene	ND		1.00	1	10/28/2015 18:30	WG824424
1,4-Dichlorobenzene	ND		1.00	1	10/28/2015 18:30	WG824424
Dichlorodifluoromethane	ND		5.00	1	10/28/2015 18:30	WG824424
1,1-Dichloroethane	ND		1.00	1	10/28/2015 18:30	WG824424
1,2-Dichloroethane	ND		1.00	1	10/28/2015 18:30	WG824424
1,1-Dichloroethene	ND		1.00	1	10/28/2015 18:30	WG824424
cis-1,2-Dichloroethene	ND		1.00	1	10/28/2015 18:30	WG824424
trans-1,2-Dichloroethene	ND		1.00	1	10/28/2015 18:30	WG824424
1,2-Dichloropropane	ND		1.00	1	10/28/2015 18:30	WG824424
cis-1,3-Dichloropropene	ND		1.00	1	10/28/2015 18:30	WG824424
trans-1,3-Dichloropropene	ND		1.00	1	10/28/2015 18:30	WG824424
Ethylbenzene	ND		1.00	1	10/28/2015 18:30	WG824424
2-Hexanone	ND		10.0	1	10/28/2015 18:30	WG824424
Isopropylbenzene	ND		1.00	1	10/28/2015 18:30	WG824424
2-Butanone (MEK)	ND		10.0	1	10/28/2015 18:30	WG824424
Methyl Acetate	ND		20.0	1	10/28/2015 18:30	WG824424
Methyl Cyclohexane	ND		1.00	1	10/28/2015 18:30	WG824424
Methylene Chloride	ND		5.00	1	10/28/2015 18:30	WG824424
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	10/28/2015 18:30	WG824424
Methyl tert-butyl ether	ND		1.00	1	10/28/2015 18:30	WG824424
Styrene	ND		1.00	1	10/28/2015 18:30	WG824424
1,1,2,2-Tetrachloroethane	ND		1.00	1	10/28/2015 18:30	WG824424
Tetrachloroethene	ND		1.00	1	10/28/2015 18:30	WG824424
Toluene	ND		5.00	1	10/28/2015 18:30	WG824424
1,2,3-Trichlorobenzene	ND		1.00	1	10/28/2015 18:30	WG824424
1,2,4-Trichlorobenzene	ND		1.00	1	10/28/2015 18:30	WG824424
1,1,1-Trichloroethane	ND		1.00	1	10/28/2015 18:30	WG824424
1,1,2-Trichloroethane	ND		1.00	1	10/28/2015 18:30	WG824424
Trichloroethene	ND		1.00	1	10/28/2015 18:30	WG824424
Trichlorofluoromethane	ND		5.00	1	10/28/2015 18:30	WG824424
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	10/28/2015 18:30	WG824424
Vinyl chloride	ND		1.00	1	10/28/2015 18:30	WG824424
Xylenes, Total	ND		3.00	1	10/28/2015 18:30	WG824424
(S) Toluene-d8	*102*		*90.0-115*		*10/28/2015 18:30*	WG824424
(S) Dibromofluoromethane	*95.0*		*79.0-121*		*10/28/2015 18:30*	WG824424
(S) a,a,a-Trifluorotoluene	*98.9*		*90.4-116*		*10/28/2015 18:30*	WG824424
(S) 4-Bromofluorobenzene	*92.3*		*80.1-120*		*10/28/2015 18:30*	WG824424

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	10/28/2015 18:52	WG824424
Benzene	ND		1.00	1	10/28/2015 18:52	WG824424
Bromochloromethane	ND		1.00	1	10/28/2015 18:52	WG824424
Bromodichloromethane	ND		1.00	1	10/28/2015 18:52	WG824424
Bromoform	ND		1.00	1	10/28/2015 18:52	WG824424
Bromomethane	ND		5.00	1	10/28/2015 18:52	WG824424
Carbon disulfide	ND		1.00	1	10/28/2015 18:52	WG824424
Carbon tetrachloride	ND		1.00	1	10/28/2015 18:52	WG824424
Chlorobenzene	ND		1.00	1	10/28/2015 18:52	WG824424
Chlorodibromomethane	ND		1.00	1	10/28/2015 18:52	WG824424
Chloroethane	ND		5.00	1	10/28/2015 18:52	WG824424
Chloroform	ND		5.00	1	10/28/2015 18:52	WG824424
Chloromethane	ND		2.50	1	10/28/2015 18:52	WG824424
Cyclohexane	ND		1.00	1	10/28/2015 18:52	WG824424
1,2-Dibromo-3-Chloropropane	ND		5.00	1	10/28/2015 18:52	WG824424
1,2-Dibromoethane	ND		1.00	1	10/28/2015 18:52	WG824424
1,2-Dichlorobenzene	ND		1.00	1	10/28/2015 18:52	WG824424
1,3-Dichlorobenzene	ND		1.00	1	10/28/2015 18:52	WG824424
1,4-Dichlorobenzene	ND		1.00	1	10/28/2015 18:52	WG824424
Dichlorodifluoromethane	ND		5.00	1	10/28/2015 18:52	WG824424
1,1-Dichloroethane	ND		1.00	1	10/28/2015 18:52	WG824424
1,2-Dichloroethane	ND		1.00	1	10/28/2015 18:52	WG824424
1,1-Dichloroethene	ND		1.00	1	10/28/2015 18:52	WG824424
cis-1,2-Dichloroethene	1.77		1.00	1	10/28/2015 18:52	WG824424
trans-1,2-Dichloroethene	ND		1.00	1	10/28/2015 18:52	WG824424
1,2-Dichloropropane	ND		1.00	1	10/28/2015 18:52	WG824424
cis-1,3-Dichloropropene	ND		1.00	1	10/28/2015 18:52	WG824424
trans-1,3-Dichloropropene	ND		1.00	1	10/28/2015 18:52	WG824424
Ethylbenzene	ND		1.00	1	10/28/2015 18:52	WG824424
2-Hexanone	ND		10.0	1	10/28/2015 18:52	WG824424
Isopropylbenzene	ND		1.00	1	10/28/2015 18:52	WG824424
2-Butanone (MEK)	ND		10.0	1	10/28/2015 18:52	WG824424
Methyl Acetate	ND		20.0	1	10/28/2015 18:52	WG824424
Methyl Cyclohexane	ND		1.00	1	10/28/2015 18:52	WG824424
Methylene Chloride	ND		5.00	1	10/28/2015 18:52	WG824424
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	10/28/2015 18:52	WG824424
Methyl tert-butyl ether	ND		1.00	1	10/28/2015 18:52	WG824424
Styrene	ND		1.00	1	10/28/2015 18:52	WG824424
1,1,2,2-Tetrachloroethane	ND		1.00	1	10/28/2015 18:52	WG824424
Tetrachloroethene	ND		1.00	1	10/28/2015 18:52	WG824424
Toluene	ND		5.00	1	10/28/2015 18:52	WG824424
1,2,3-Trichlorobenzene	ND		1.00	1	10/28/2015 18:52	WG824424
1,2,4-Trichlorobenzene	ND		1.00	1	10/28/2015 18:52	WG824424
1,1,1-Trichloroethane	ND		1.00	1	10/28/2015 18:52	WG824424
1,1,2-Trichloroethane	ND		1.00	1	10/28/2015 18:52	WG824424
Trichloroethene	ND		1.00	1	10/28/2015 18:52	WG824424
Trichlorofluoromethane	ND		5.00	1	10/28/2015 18:52	WG824424
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	10/28/2015 18:52	WG824424
Vinyl chloride	ND		1.00	1	10/28/2015 18:52	WG824424
Xylenes, Total	ND		3.00	1	10/28/2015 18:52	WG824424
(S) Toluene-d8	*102*		*90.0-115*		*10/28/2015 18:52*	WG824424
(S) Dibromofluoromethane	*97.1*		*79.0-121*		*10/28/2015 18:52*	WG824424
(S) a,a,a-Trifluorotoluene	*98.9*		*90.4-116*		*10/28/2015 18:52*	WG824424
(S) 4-Bromofluorobenzene	*92.0*		*80.1-120*		*10/28/2015 18:52*	WG824424

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	10/28/2015 19:13	WG824424
Benzene	ND		1.00	1	10/28/2015 19:13	WG824424
Bromochloromethane	ND		1.00	1	10/28/2015 19:13	WG824424
Bromodichloromethane	ND		1.00	1	10/28/2015 19:13	WG824424
Bromoform	ND		1.00	1	10/28/2015 19:13	WG824424
Bromomethane	ND		5.00	1	10/28/2015 19:13	WG824424
Carbon disulfide	ND		1.00	1	10/28/2015 19:13	WG824424
Carbon tetrachloride	ND		1.00	1	10/28/2015 19:13	WG824424
Chlorobenzene	ND		1.00	1	10/28/2015 19:13	WG824424
Chlorodibromomethane	ND		1.00	1	10/28/2015 19:13	WG824424
Chloroethane	ND		5.00	1	10/28/2015 19:13	WG824424
Chloroform	ND		5.00	1	10/28/2015 19:13	WG824424
Chloromethane	ND		2.50	1	10/28/2015 19:13	WG824424
Cyclohexane	ND		1.00	1	10/28/2015 19:13	WG824424
1,2-Dibromo-3-Chloropropane	ND		5.00	1	10/28/2015 19:13	WG824424
1,2-Dibromoethane	ND		1.00	1	10/28/2015 19:13	WG824424
1,2-Dichlorobenzene	ND		1.00	1	10/28/2015 19:13	WG824424
1,3-Dichlorobenzene	ND		1.00	1	10/28/2015 19:13	WG824424
1,4-Dichlorobenzene	ND		1.00	1	10/28/2015 19:13	WG824424
Dichlorodifluoromethane	ND		5.00	1	10/28/2015 19:13	WG824424
1,1-Dichloroethane	ND		1.00	1	10/28/2015 19:13	WG824424
1,2-Dichloroethane	ND		1.00	1	10/28/2015 19:13	WG824424
1,1-Dichloroethene	ND		1.00	1	10/28/2015 19:13	WG824424
cis-1,2-Dichloroethene	ND		1.00	1	10/28/2015 19:13	WG824424
trans-1,2-Dichloroethene	ND		1.00	1	10/28/2015 19:13	WG824424
1,2-Dichloropropane	ND		1.00	1	10/28/2015 19:13	WG824424
cis-1,3-Dichloropropene	ND		1.00	1	10/28/2015 19:13	WG824424
trans-1,3-Dichloropropene	ND		1.00	1	10/28/2015 19:13	WG824424
Ethylbenzene	ND		1.00	1	10/28/2015 19:13	WG824424
2-Hexanone	ND		10.0	1	10/28/2015 19:13	WG824424
Isopropylbenzene	ND		1.00	1	10/28/2015 19:13	WG824424
2-Butanone (MEK)	ND		10.0	1	10/28/2015 19:13	WG824424
Methyl Acetate	ND		20.0	1	10/28/2015 19:13	WG824424
Methyl Cyclohexane	ND		1.00	1	10/28/2015 19:13	WG824424
Methylene Chloride	ND		5.00	1	10/28/2015 19:13	WG824424
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	10/28/2015 19:13	WG824424
Methyl tert-butyl ether	ND		1.00	1	10/28/2015 19:13	WG824424
Styrene	ND		1.00	1	10/28/2015 19:13	WG824424
1,1,2,2-Tetrachloroethane	ND		1.00	1	10/28/2015 19:13	WG824424
Tetrachloroethene	ND		1.00	1	10/28/2015 19:13	WG824424
Toluene	ND		5.00	1	10/28/2015 19:13	WG824424
1,2,3-Trichlorobenzene	ND		1.00	1	10/28/2015 19:13	WG824424
1,2,4-Trichlorobenzene	ND		1.00	1	10/28/2015 19:13	WG824424
1,1,1-Trichloroethane	ND		1.00	1	10/28/2015 19:13	WG824424
1,1,2-Trichloroethane	ND		1.00	1	10/28/2015 19:13	WG824424
Trichloroethene	ND		1.00	1	10/28/2015 19:13	WG824424
Trichlorofluoromethane	ND		5.00	1	10/28/2015 19:13	WG824424
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	10/28/2015 19:13	WG824424
Vinyl chloride	ND		1.00	1	10/28/2015 19:13	WG824424
Xylenes, Total	ND		3.00	1	10/28/2015 19:13	WG824424
(S) Toluene-d8	*103*		*90.0-115*		*10/28/2015 19:13*	WG824424
(S) Dibromofluoromethane	*97.9*		*79.0-121*		*10/28/2015 19:13*	WG824424
(S) a,a,a-Trifluorotoluene	*99.3*		*90.4-116*		*10/28/2015 19:13*	WG824424
(S) 4-Bromofluorobenzene	*94.0*		*80.1-120*		*10/28/2015 19:13*	WG824424

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	10/29/2015 16:41	WG824591
Benzene	ND		1.00	1	10/29/2015 16:41	WG824591
Bromochloromethane	ND		1.00	1	10/29/2015 16:41	WG824591
Bromodichloromethane	ND		1.00	1	10/29/2015 16:41	WG824591
Bromoform	ND		1.00	1	10/29/2015 16:41	WG824591
Bromomethane	ND		5.00	1	10/29/2015 16:41	WG824591
Carbon disulfide	1.05		1.00	1	10/29/2015 16:41	WG824591
Carbon tetrachloride	ND		1.00	1	10/29/2015 16:41	WG824591
Chlorobenzene	ND		1.00	1	10/29/2015 16:41	WG824591
Chlorodibromomethane	ND		1.00	1	10/29/2015 16:41	WG824591
Chloroethane	ND		5.00	1	10/29/2015 16:41	WG824591
Chloroform	ND		5.00	1	10/29/2015 16:41	WG824591
Chloromethane	ND		2.50	1	10/29/2015 16:41	WG824591
Cyclohexane	ND		1.00	1	10/29/2015 16:41	WG824591
1,2-Dibromo-3-Chloropropane	ND		5.00	1	10/29/2015 16:41	WG824591
1,2-Dibromoethane	ND		1.00	1	10/29/2015 16:41	WG824591
1,2-Dichlorobenzene	ND		1.00	1	10/29/2015 16:41	WG824591
1,3-Dichlorobenzene	ND		1.00	1	10/29/2015 16:41	WG824591
1,4-Dichlorobenzene	ND		1.00	1	10/29/2015 16:41	WG824591
Dichlorodifluoromethane	ND		5.00	1	10/29/2015 16:41	WG824591
1,1-Dichloroethane	1.56		1.00	1	10/29/2015 16:41	WG824591
1,2-Dichloroethane	ND		1.00	1	10/29/2015 16:41	WG824591
1,1-Dichloroethene	ND		1.00	1	10/29/2015 16:41	WG824591
cis-1,2-Dichloroethene	ND		1.00	1	10/29/2015 16:41	WG824591
trans-1,2-Dichloroethene	ND		1.00	1	10/29/2015 16:41	WG824591
1,2-Dichloropropane	ND		1.00	1	10/29/2015 16:41	WG824591
cis-1,3-Dichloropropene	ND		1.00	1	10/29/2015 16:41	WG824591
trans-1,3-Dichloropropene	ND		1.00	1	10/29/2015 16:41	WG824591
Ethylbenzene	ND		1.00	1	10/29/2015 16:41	WG824591
2-Hexanone	ND		10.0	1	10/29/2015 16:41	WG824591
Isopropylbenzene	ND		1.00	1	10/29/2015 16:41	WG824591
2-Butanone (MEK)	ND		10.0	1	10/29/2015 16:41	WG824591
Methyl Acetate	ND		20.0	1	10/29/2015 16:41	WG824591
Methyl Cyclohexane	ND		1.00	1	10/29/2015 16:41	WG824591
Methylene Chloride	ND		5.00	1	10/29/2015 16:41	WG824591
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	10/29/2015 16:41	WG824591
Methyl tert-butyl ether	ND		1.00	1	10/29/2015 16:41	WG824591
Styrene	ND		1.00	1	10/29/2015 16:41	WG824591
1,1,2,2-Tetrachloroethane	ND		1.00	1	10/29/2015 16:41	WG824591
Tetrachloroethene	ND		1.00	1	10/29/2015 16:41	WG824591
Toluene	ND		5.00	1	10/29/2015 16:41	WG824591
1,2,3-Trichlorobenzene	ND		1.00	1	10/29/2015 16:41	WG824591
1,2,4-Trichlorobenzene	ND		1.00	1	10/29/2015 16:41	WG824591
1,1,1-Trichloroethane	ND		1.00	1	10/29/2015 16:41	WG824591
1,1,2-Trichloroethane	ND		1.00	1	10/29/2015 16:41	WG824591
Trichloroethene	ND		1.00	1	10/29/2015 16:41	WG824591
Trichlorofluoromethane	ND		5.00	1	10/29/2015 16:41	WG824591
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	10/29/2015 16:41	WG824591
Vinyl chloride	ND		1.00	1	10/29/2015 16:41	WG824591
Xylenes, Total	ND		3.00	1	10/29/2015 16:41	WG824591
(S) Toluene-d8	*105*		*90.0-115*		*10/29/2015 16:41*	WG824591
(S) Dibromofluoromethane	*98.5*		*79.0-121*		*10/29/2015 16:41*	WG824591
(S) a,a,a-Trifluorotoluene	*108*		*90.4-116*		*10/29/2015 16:41*	WG824591
(S) 4-Bromofluorobenzene	*109*		*80.1-120*		*10/29/2015 16:41*	WG824591

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	10/29/2015 16:59	WG824591
Benzene	ND		1.00	1	10/29/2015 16:59	WG824591
Bromochloromethane	ND		1.00	1	10/29/2015 16:59	WG824591
Bromodichloromethane	ND		1.00	1	10/29/2015 16:59	WG824591
Bromoform	ND		1.00	1	10/29/2015 16:59	WG824591
Bromomethane	ND		5.00	1	10/29/2015 16:59	WG824591
Carbon disulfide	ND		1.00	1	10/29/2015 16:59	WG824591
Carbon tetrachloride	ND		1.00	1	10/29/2015 16:59	WG824591
Chlorobenzene	ND		1.00	1	10/29/2015 16:59	WG824591
Chlorodibromomethane	ND		1.00	1	10/29/2015 16:59	WG824591
Chloroethane	ND		5.00	1	10/29/2015 16:59	WG824591
Chloroform	ND		5.00	1	10/29/2015 16:59	WG824591
Chloromethane	ND		2.50	1	10/29/2015 16:59	WG824591
Cyclohexane	ND		1.00	1	10/29/2015 16:59	WG824591
1,2-Dibromo-3-Chloropropane	ND		5.00	1	10/29/2015 16:59	WG824591
1,2-Dibromoethane	ND		1.00	1	10/29/2015 16:59	WG824591
1,2-Dichlorobenzene	ND		1.00	1	10/29/2015 16:59	WG824591
1,3-Dichlorobenzene	ND		1.00	1	10/29/2015 16:59	WG824591
1,4-Dichlorobenzene	ND		1.00	1	10/29/2015 16:59	WG824591
Dichlorodifluoromethane	ND		5.00	1	10/29/2015 16:59	WG824591
1,1-Dichloroethane	ND		1.00	1	10/29/2015 16:59	WG824591
1,2-Dichloroethane	ND		1.00	1	10/29/2015 16:59	WG824591
1,1-Dichloroethene	ND		1.00	1	10/29/2015 16:59	WG824591
cis-1,2-Dichloroethene	ND		1.00	1	10/29/2015 16:59	WG824591
trans-1,2-Dichloroethene	ND		1.00	1	10/29/2015 16:59	WG824591
1,2-Dichloropropane	ND		1.00	1	10/29/2015 16:59	WG824591
cis-1,3-Dichloropropene	ND		1.00	1	10/29/2015 16:59	WG824591
trans-1,3-Dichloropropene	ND		1.00	1	10/29/2015 16:59	WG824591
Ethylbenzene	ND		1.00	1	10/29/2015 16:59	WG824591
2-Hexanone	ND		10.0	1	10/29/2015 16:59	WG824591
Isopropylbenzene	ND		1.00	1	10/29/2015 16:59	WG824591
2-Butanone (MEK)	ND		10.0	1	10/29/2015 16:59	WG824591
Methyl Acetate	ND		20.0	1	10/29/2015 16:59	WG824591
Methyl Cyclohexane	ND		1.00	1	10/29/2015 16:59	WG824591
Methylene Chloride	ND		5.00	1	10/29/2015 16:59	WG824591
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	10/29/2015 16:59	WG824591
Methyl tert-butyl ether	ND		1.00	1	10/29/2015 16:59	WG824591
Styrene	ND		1.00	1	10/29/2015 16:59	WG824591
1,1,2,2-Tetrachloroethane	ND		1.00	1	10/29/2015 16:59	WG824591
Tetrachloroethene	ND		1.00	1	10/29/2015 16:59	WG824591
Toluene	ND		5.00	1	10/29/2015 16:59	WG824591
1,2,3-Trichlorobenzene	ND		1.00	1	10/29/2015 16:59	WG824591
1,2,4-Trichlorobenzene	ND		1.00	1	10/29/2015 16:59	WG824591
1,1,1-Trichloroethane	ND		1.00	1	10/29/2015 16:59	WG824591
1,1,2-Trichloroethane	ND		1.00	1	10/29/2015 16:59	WG824591
Trichloroethene	ND		1.00	1	10/29/2015 16:59	WG824591
Trichlorofluoromethane	ND		5.00	1	10/29/2015 16:59	WG824591
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	10/29/2015 16:59	WG824591
Vinyl chloride	ND		1.00	1	10/29/2015 16:59	WG824591
Xylenes, Total	ND		3.00	1	10/29/2015 16:59	WG824591
(S) Toluene-d8	*104*		*90.0-115*		*10/29/2015 16:59*	WG824591
(S) Dibromofluoromethane	*94.5*		*79.0-121*		*10/29/2015 16:59*	WG824591
(S) a,a,a-Trifluorotoluene	*108*		*90.4-116*		*10/29/2015 16:59*	WG824591
(S) 4-Bromofluorobenzene	*109*		*80.1-120*		*10/29/2015 16:59*	WG824591

Cp Tc Ss Cn Sr Qc Gl Al Sc

Volatile Organic Compounds (GC/MS) by Method 8260C

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	10/29/2015 13:24	WG824591
Benzene	ND		1.00	1	10/29/2015 13:24	WG824591
Bromochloromethane	ND		1.00	1	10/29/2015 13:24	WG824591
Bromodichloromethane	ND		1.00	1	10/29/2015 13:24	WG824591
Bromoform	ND		1.00	1	10/29/2015 13:24	WG824591
Bromomethane	ND		5.00	1	10/29/2015 13:24	WG824591
Carbon disulfide	ND		1.00	1	10/29/2015 13:24	WG824591
Carbon tetrachloride	ND		1.00	1	10/29/2015 13:24	WG824591
Chlorobenzene	ND		1.00	1	10/29/2015 13:24	WG824591
Chlorodibromomethane	ND		1.00	1	10/29/2015 13:24	WG824591
Chloroethane	ND		5.00	1	10/29/2015 13:24	WG824591
Chloroform	ND		5.00	1	10/29/2015 13:24	WG824591
Chloromethane	ND		2.50	1	10/29/2015 13:24	WG824591
Cyclohexane	ND		1.00	1	10/29/2015 13:24	WG824591
1,2-Dibromo-3-Chloropropane	ND		5.00	1	10/29/2015 13:24	WG824591
1,2-Dibromoethane	ND		1.00	1	10/29/2015 13:24	WG824591
1,2-Dichlorobenzene	ND		1.00	1	10/29/2015 13:24	WG824591
1,3-Dichlorobenzene	ND		1.00	1	10/29/2015 13:24	WG824591
1,4-Dichlorobenzene	ND		1.00	1	10/29/2015 13:24	WG824591
Dichlorodifluoromethane	ND		5.00	1	10/29/2015 13:24	WG824591
1,1-Dichloroethane	ND		1.00	1	10/29/2015 13:24	WG824591
1,2-Dichloroethane	ND		1.00	1	10/29/2015 13:24	WG824591
1,1-Dichloroethene	ND		1.00	1	10/29/2015 13:24	WG824591
cis-1,2-Dichloroethene	ND		1.00	1	10/29/2015 13:24	WG824591
trans-1,2-Dichloroethene	ND		1.00	1	10/29/2015 13:24	WG824591
1,2-Dichloropropane	ND		1.00	1	10/29/2015 13:24	WG824591
cis-1,3-Dichloropropene	ND		1.00	1	10/29/2015 13:24	WG824591
trans-1,3-Dichloropropene	ND		1.00	1	10/29/2015 13:24	WG824591
Ethylbenzene	ND		1.00	1	10/29/2015 13:24	WG824591
2-Hexanone	ND		10.0	1	10/29/2015 13:24	WG824591
Isopropylbenzene	ND		1.00	1	10/29/2015 13:24	WG824591
2-Butanone (MEK)	ND		10.0	1	10/29/2015 13:24	WG824591
Methyl Acetate	ND		20.0	1	10/29/2015 13:24	WG824591
Methyl Cyclohexane	ND		1.00	1	10/29/2015 13:24	WG824591
Methylene Chloride	ND		5.00	1	10/29/2015 13:24	WG824591
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	10/29/2015 13:24	WG824591
Methyl tert-butyl ether	ND		1.00	1	10/29/2015 13:24	WG824591
Styrene	ND		1.00	1	10/29/2015 13:24	WG824591
1,1,2,2-Tetrachloroethane	ND		1.00	1	10/29/2015 13:24	WG824591
Tetrachloroethene	ND		1.00	1	10/29/2015 13:24	WG824591
Toluene	ND		5.00	1	10/29/2015 13:24	WG824591
1,2,3-Trichlorobenzene	ND		1.00	1	10/29/2015 13:24	WG824591
1,2,4-Trichlorobenzene	ND		1.00	1	10/29/2015 13:24	WG824591
1,1,1-Trichloroethane	ND		1.00	1	10/29/2015 13:24	WG824591
1,1,2-Trichloroethane	ND		1.00	1	10/29/2015 13:24	WG824591
Trichloroethene	ND		1.00	1	10/29/2015 13:24	WG824591
Trichlorofluoromethane	ND		5.00	1	10/29/2015 13:24	WG824591
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	10/29/2015 13:24	WG824591
Vinyl chloride	ND		1.00	1	10/29/2015 13:24	WG824591
Xylenes, Total	ND		3.00	1	10/29/2015 13:24	WG824591
(S) Toluene-d8	*101*		*90.0-115*		*10/29/2015 13:24*	WG824591
(S) Dibromofluoromethane	*97.3*		*79.0-121*		*10/29/2015 13:24*	WG824591
(S) a,a,a-Trifluorotoluene	*104*		*90.4-116*		*10/29/2015 13:24*	WG824591
(S) 4-Bromofluorobenzene	*98.2*		*80.1-120*		*10/29/2015 13:24*	WG824591

Method Blank (MB)

(MB) 10/28/15 11:29

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Acetone	ND		0.0500
Benzene	ND		0.00100
Bromodichloromethane	ND		0.00100
Bromochloromethane	ND		0.00100
Bromoform	ND		0.00100
Bromomethane	ND		0.00500
Carbon disulfide	ND		0.00100
Carbon tetrachloride	ND		0.00100
Chlorobenzene	ND		0.00100
Chlorodibromomethane	ND		0.00100
Chloroethane	ND		0.00500
Chloroform	ND		0.00500
Chloromethane	ND		0.00250
Cyclohexane	ND		0.00100
1,2-Dibromo-3-Chloropropane	ND		0.00500
1,2-Dibromoethane	ND		0.00100
1,2-Dichlorobenzene	ND		0.00100
1,3-Dichlorobenzene	ND		0.00100
1,4-Dichlorobenzene	ND		0.00100
Dichlorodifluoromethane	ND		0.00500
1,1-Dichloroethane	ND		0.00100
1,2-Dichloroethane	ND		0.00100
1,1-Dichloroethene	ND		0.00100
cis-1,2-Dichloroethene	ND		0.00100
trans-1,2-Dichloroethene	ND		0.00100
1,2-Dichloropropane	ND		0.00100
cis-1,3-Dichloropropene	ND		0.00100
trans-1,3-Dichloropropene	ND		0.00100
Ethylbenzene	ND		0.00100
2-Hexanone	ND		0.0100
Isopropylbenzene	ND		0.00100
2-Butanone (MEK)	ND		0.0100
Methyl Acetate	ND		0.0200
Methyl Cyclohexane	ND		0.00100
Methylene Chloride	ND		0.00500
4-Methyl-2-pentanone (MIBK)	ND		0.0100

Method Blank (MB)

(MB) 10/28/15 11:29

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Methyl tert-butyl ether	ND		0.00100
Styrene	ND		0.00100
1,1,2,2-Tetrachloroethane	ND		0.00100
Tetrachloroethene	ND		0.00100
Toluene	ND		0.00500
1,1,2-Trichlorotrifluoroethane	ND		0.00100
1,2,3-Trichlorobenzene	ND		0.00100
1,2,4-Trichlorobenzene	ND		0.00100
1,1,1-Trichloroethane	ND		0.00100
1,1,2-Trichloroethane	ND		0.00100
Trichloroethene	ND		0.00100
Trichlorofluoromethane	ND		0.00500
Vinyl chloride	ND		0.00100
Xylenes, Total	ND		0.00300
(S) Toluene-d8	*102*		*90.0-115*
(S) Dibromofluoromethane	*96.0*		*79.0-121*
(S) a,a,a-Trifluorotoluene	*98.4*		*90.4-116*
(S) 4-Bromofluorobenzene	*93.2*		*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 10/28/15 09:21 • (LCSD) 10/28/15 09:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.117	0.112	93.8	89.8	28.7-175			4.35	20.9
Benzene	0.0250	0.0247	0.0248	98.9	99.2	73.0-122			0.350	20
Bromodichloromethane	0.0250	0.0230	0.0232	92.1	92.8	75.5-121			0.750	20
Bromochloromethane	0.0250	0.0257	0.0260	103	104	78.9-123			0.860	20
Bromoform	0.0250	0.0236	0.0231	94.5	92.4	71.5-131			2.27	20
Bromomethane	0.0250	0.0211	0.0208	84.3	83.1	22.4-187			1.46	20
Carbon disulfide	0.0250	0.0225	0.0224	90.1	89.5	53.0-134			0.700	20
Carbon tetrachloride	0.0250	0.0210	0.0211	84.0	84.4	70.9-129			0.520	20
Chlorobenzene	0.0250	0.0258	0.0257	103	103	79.7-122			0.360	20
Chlorodibromomethane	0.0250	0.0246	0.0245	98.6	98.1	78.2-124			0.490	20
Chloroethane	0.0250	0.0205	0.0207	82.1	82.8	41.2-153			0.740	20
Chloroform	0.0250	0.0235	0.0237	94.2	95.0	73.2-125			0.850	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 10/28/15 09:21 • (LCSD) 10/28/15 09:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloromethane	0.0250	0.0234	0.0235	93.4	94.1	55.8-134			0.740	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0243	0.0246	97.1	98.2	64.8-131			1.12	20
1,2-Dibromoethane	0.0250	0.0262	0.0258	105	103	79.8-122			1.30	20
1,2-Dichlorobenzene	0.0250	0.0270	0.0274	108	110	84.7-118			1.75	20
1,3-Dichlorobenzene	0.0250	0.0243	0.0241	97.2	96.3	77.6-127			0.900	20
1,4-Dichlorobenzene	0.0250	0.0257	0.0261	103	104	82.2-114			1.47	20
Dichlorodifluoromethane	0.0250	0.0212	0.0221	84.9	88.3	56.0-134			3.90	20
1,1-Dichloroethane	0.0250	0.0236	0.0237	94.5	95.0	71.7-127			0.550	20
1,2-Dichloroethane	0.0250	0.0219	0.0216	87.6	86.5	79.8-122			1.26	20
1,1-Dichloroethene	0.0250	0.0188	0.0188	75.1	75.4	59.9-137			0.440	20
cis-1,2-Dichloroethene	0.0250	0.0249	0.0248	99.8	99.1	77.3-122			0.740	20
trans-1,2-Dichloroethene	0.0250	0.0244	0.0247	97.4	98.9	72.6-125			1.53	20
1,2-Dichloropropane	0.0250	0.0254	0.0252	102	101	77.4-125			0.810	20
cis-1,3-Dichloropropene	0.0250	0.0244	0.0243	97.5	97.1	77.7-124			0.380	20
trans-1,3-Dichloropropene	0.0250	0.0234	0.0229	93.6	91.6	73.5-127			2.19	20
Ethylbenzene	0.0250	0.0250	0.0250	100	99.8	80.9-121			0.250	20
2-Hexanone	0.125	0.123	0.119	98.4	94.8	59.4-151			3.76	20
Isopropylbenzene	0.0250	0.0248	0.0247	99.3	98.9	81.6-124			0.410	20
2-Butanone (MEK)	0.125	0.119	0.112	95.0	89.7	46.4-155			5.79	20
Methylene Chloride	0.0250	0.0243	0.0240	97.4	96.1	69.5-120			1.36	20
4-Methyl-2-pentanone (MIBK)	0.125	0.108	0.106	86.6	84.5	63.3-138			2.46	20
Methyl tert-butyl ether	0.0250	0.0237	0.0235	95.0	94.0	70.1-125			1.07	20
Styrene	0.0250	0.0261	0.0257	104	103	79.9-124			1.33	20
1,1,2,2-Tetrachloroethane	0.0250	0.0254	0.0240	102	96.2	79.3-123			5.47	20
Tetrachloroethene	0.0250	0.0244	0.0252	97.7	101	73.5-130			3.02	20
Toluene	0.0250	0.0246	0.0245	98.3	98.0	77.9-116			0.340	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0209	0.0210	83.7	84.0	62.0-141			0.340	20
1,2,3-Trichlorobenzene	0.0250	0.0255	0.0265	102	106	75.7-134			3.76	20
1,2,4-Trichlorobenzene	0.0250	0.0255	0.0266	102	106	76.1-136			3.98	20
1,1,1-Trichloroethane	0.0250	0.0222	0.0224	88.9	89.5	71.1-129			0.730	20
1,1,2-Trichloroethane	0.0250	0.0276	0.0270	111	108	81.6-120			2.42	20
Trichloroethene	0.0250	0.0243	0.0253	97.1	101	79.5-121			4.01	20
Trichlorofluoromethane	0.0250	0.0181	0.0184	72.4	73.7	49.1-157			1.82	20
Vinyl chloride	0.0250	0.0221	0.0219	88.3	87.5	61.5-134			0.840	20
Xylenes, Total	0.0750	0.0759	0.0753	101	100	79.2-122			0.810	20
(S) Toluene-d8				*103*	*102*	*90.0-115*				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 10/28/15 09:21 • (LCSD) 10/28/15 09:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
(S) Dibromofluoromethane				*97.3*	*96.8*	*79.0-121*				
(S) a,a,a-Trifluorotoluene				*101*	*98.2*	*90.4-116*				
(S) 4-Bromofluorobenzene				*92.9*	*91.1*	*80.1-120*				

L796083-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 10/28/15 13:33 • (MS) 10/28/15 12:08 • (MSD) 10/28/15 12:29

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.00174	0.0910	0.114	71.4	90.1	1	25.0-156		J3	22.8	21.5
Benzene	0.0250	ND	0.0281	0.0299	112	120	1	58.6-133			6.16	20
Bromodichloromethane	0.0250	ND	0.0181	0.0217	72.2	86.7	1	69.2-127			18.2	20
Bromochloromethane	0.0250	ND	0.0176	0.0212	70.6	84.6	1	74.4-128	J6		18.2	20
Bromoform	0.0250	ND	0.0185	0.0233	74.0	93.1	1	66.3-140		J3	22.9	20
Bromomethane	0.0250	ND	0.0107	0.0121	42.7	48.3	1	16.6-183			12.3	20.5
Carbon disulfide	0.0250	ND	0.00692	0.00785	27.7	31.4	1	34.9-138	J6	J6	12.6	20
Carbon tetrachloride	0.0250	ND	0.0161	0.0190	64.2	76.0	1	60.6-139			16.8	20
Chlorobenzene	0.0250	ND	0.0198	0.0231	79.2	92.5	1	70.1-130			15.5	20
Chlorodibromomethane	0.0250	ND	0.0194	0.0236	77.5	94.6	1	71.6-132			19.8	20
Chloroethane	0.0250	ND	0.0117	0.0136	46.9	54.4	1	33.3-155			14.8	20
Chloroform	0.0250	ND	0.0185	0.0217	74.1	86.7	1	66.1-133			15.6	20
Chloromethane	0.0250	ND	0.0105	0.0126	42.1	50.4	1	40.7-139			17.9	20
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.0208	0.0262	83.3	105	1	63.9-142		J3	22.9	20.2
1,2-Dibromoethane	0.0250	ND	0.0195	0.0236	78.0	94.6	1	73.8-131			19.2	20
1,2-Dichlorobenzene	0.0250	ND	0.0228	0.0268	91.1	107	1	77.4-127			16.1	20
1,3-Dichlorobenzene	0.0250	ND	0.0198	0.0234	79.0	93.5	1	67.9-136			16.8	20
1,4-Dichlorobenzene	0.0250	ND	0.0213	0.0251	85.2	100	1	74.4-123			16.3	20
Dichlorodifluoromethane	0.0250	ND	0.0126	0.0150	50.3	60.1	1	42.2-146			17.7	20
1,1-Dichloroethane	0.0250	0.000408	0.0180	0.0212	70.6	83.0	1	64.0-134			15.8	20
1,2-Dichloroethane	0.0250	0.000848	0.0165	0.0195	62.8	74.5	1	60.7-132			16.3	20
1,1-Dichloroethene	0.0250	ND	0.0124	0.0143	49.4	57.2	1	48.8-144			14.6	20
cis-1,2-Dichloroethene	0.0250	0.0225	0.0317	0.0327	36.7	40.8	1	60.6-138	J6	J6	3.16	20
trans-1,2-Dichloroethene	0.0250	0.00194	0.0157	0.0181	55.0	64.7	1	61.0-132	J6		14.3	20
1,2-Dichloropropane	0.0250	ND	0.0192	0.0225	76.7	89.9	1	69.7-130			15.8	20
cis-1,3-Dichloropropene	0.0250	ND	0.0179	0.0214	71.4	85.8	1	71.1-129			18.2	20
trans-1,3-Dichloropropene	0.0250	ND	0.0173	0.0212	69.3	84.7	1	66.3-136			20.0	20

L796083-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 10/28/15 13:33 • (MS) 10/28/15 12:08 • (MSD) 10/28/15 12:29

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.0250	ND	0.0303	0.0326	121	130	1	62.7-136			7.36	20
2-Hexanone	0.125	ND	0.0945	0.119	75.6	95.5	1	59.4-154		J3	23.3	20.1
Isopropylbenzene	0.0250	ND	0.0205	0.0240	81.9	95.8	1	67.4-136			15.6	20
2-Butanone (MEK)	0.125	ND	0.0939	0.118	75.1	94.7	1	45.0-156		J3	23.0	20.8
Methylene Chloride	0.0250	ND	0.0165	0.0192	66.1	76.9	1	61.5-125			15.1	20
4-Methyl-2-pentanone (MIBK)	0.125	ND	0.0872	0.109	69.8	87.5	1	60.7-150		J3	22.6	20
Methyl tert-butyl ether	0.0250	ND	0.0363	0.0400	145	160	1	61.4-136	J5	J5	9.74	20
Styrene	0.0250	ND	0.0207	0.0241	82.9	96.3	1	68.2-133			15.0	20
1,1,2,2-Tetrachloroethane	0.0250	ND	0.0217	0.0262	86.7	105	1	64.9-145			18.9	20
Tetrachloroethene	0.0250	ND	0.0177	0.0210	70.6	83.9	1	57.4-141			17.1	20
Toluene	0.0250	ND	0.0282	0.0303	113	121	1	67.8-124			7.10	20
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.0170	0.0195	67.9	77.9	1	53.7-150			13.8	20
1,2,3-Trichlorobenzene	0.0250	ND	0.0219	0.0270	87.5	108	1	65.7-143		J3	20.9	20
1,2,4-Trichlorobenzene	0.0250	ND	0.0224	0.0265	89.7	106	1	67.0-146			16.9	20
1,1,1-Trichloroethane	0.0250	ND	0.0177	0.0207	70.7	82.6	1	62.8-138			15.6	20
1,1,2-Trichloroethane	0.0250	ND	0.0217	0.0261	86.7	104	1	74.1-130			18.4	20
Trichloroethene	0.0250	0.000324	0.0172	0.0198	67.4	78.1	1	48.9-148			14.4	20
Trichlorofluoromethane	0.0250	ND	0.0128	0.0148	51.3	59.0	1	39.9-165			14.0	20
Vinyl chloride	0.0250	0.000399	0.0117	0.0135	45.1	52.2	1	44.3-143			14.2	20
Xylenes, Total	0.0750	ND	0.0931	0.0995	124	133	1	65.6-133		J5	6.71	20
(S) Toluene-d8					*102*	*102*		*90.0-115*				
(S) Dibromofluoromethane					*97.1*	*96.5*		*79.0-121*				
(S) a,a,a-Trifluorotoluene					*99.5*	*99.8*		*90.4-116*				
(S) 4-Bromofluorobenzene					*92.3*	*92.1*		*80.1-120*				

Method Blank (MB)

(MB) 10/29/15 11:50

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Acetone	ND		0.0500
Benzene	ND		0.00100
Bromodichloromethane	ND		0.00100
Bromochloromethane	ND		0.00100
Bromoform	ND		0.00100
Bromomethane	ND		0.00500
Carbon disulfide	ND		0.00100
Carbon tetrachloride	ND		0.00100
Chlorobenzene	ND		0.00100
Chlorodibromomethane	ND		0.00100
Chloroethane	ND		0.00500
Chloroform	ND		0.00500
Chloromethane	ND		0.00250
Cyclohexane	ND		0.00100
1,2-Dibromo-3-Chloropropane	ND		0.00500
1,2-Dibromoethane	ND		0.00100
1,2-Dichlorobenzene	ND		0.00100
1,3-Dichlorobenzene	ND		0.00100
1,4-Dichlorobenzene	ND		0.00100
Dichlorodifluoromethane	ND		0.00500
1,1-Dichloroethane	ND		0.00100
1,2-Dichloroethane	ND		0.00100
1,1-Dichloroethene	ND		0.00100
cis-1,2-Dichloroethene	ND		0.00100
trans-1,2-Dichloroethene	ND		0.00100
1,2-Dichloropropane	ND		0.00100
cis-1,3-Dichloropropene	ND		0.00100
trans-1,3-Dichloropropene	ND		0.00100
Ethylbenzene	ND		0.00100
2-Hexanone	ND		0.0100
Isopropylbenzene	ND		0.00100
2-Butanone (MEK)	ND		0.0100
Methyl Acetate	ND		0.0200
Methyl Cyclohexane	ND		0.00100
Methylene Chloride	ND		0.00500
4-Methyl-2-pentanone (MIBK)	ND		0.0100

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Method Blank (MB)

(MB) 10/29/15 11:50

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Methyl tert-butyl ether	ND		0.00100
Styrene	ND		0.00100
1,1,2,2-Tetrachloroethane	ND		0.00100
Tetrachloroethene	ND		0.00100
Toluene	ND		0.00500
1,1,2-Trichlorotrifluoroethane	ND		0.00100
1,2,3-Trichlorobenzene	ND		0.00100
1,2,4-Trichlorobenzene	ND		0.00100
1,1,1-Trichloroethane	ND		0.00100
1,1,2-Trichloroethane	ND		0.00100
Trichloroethene	ND		0.00100
Trichlorofluoromethane	ND		0.00500
Vinyl chloride	ND		0.00100
Xylenes, Total	ND		0.00300
(S) Toluene-d8	*104*		*90.0-115*
(S) Dibromofluoromethane	*97.8*		*79.0-121*
(S) a,a,a-Trifluorotoluene	*107*		*90.4-116*
(S) 4-Bromofluorobenzene	*101*		*80.1-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 10/29/15 10:18 • (LCSD) 10/29/15 10:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.0795	0.0827	63.6	66.2	28.7-175			3.93	20.9
Benzene	0.0250	0.0216	0.0214	86.5	85.6	73.0-122			0.970	20
Bromodichloromethane	0.0250	0.0281	0.0286	113	114	75.5-121			1.71	20
Bromochloromethane	0.0250	0.0237	0.0239	94.8	95.8	78.9-123			1.03	20
Bromoform	0.0250	0.0283	0.0278	113	111	71.5-131			1.81	20
Bromomethane	0.0250	0.0221	0.0227	88.4	91.0	22.4-187			2.84	20
Carbon disulfide	0.0250	0.0229	0.0232	91.6	92.6	53.0-134			1.13	20
Carbon tetrachloride	0.0250	0.0268	0.0261	107	105	70.9-129			2.38	20
Chlorobenzene	0.0250	0.0251	0.0247	100	98.8	79.7-122			1.64	20
Chlorodibromomethane	0.0250	0.0275	0.0275	110	110	78.2-124			0.180	20
Chloroethane	0.0250	0.0223	0.0238	89.3	95.1	41.2-153			6.26	20
Chloroform	0.0250	0.0251	0.0247	100	98.7	73.2-125			1.57	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 10/29/15 10:18 • (LCSD) 10/29/15 10:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloromethane	0.0250	0.0186	0.0190	74.2	75.9	55.8-134			2.21	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0281	0.0279	113	112	64.8-131			0.920	20
1,2-Dibromoethane	0.0250	0.0242	0.0253	96.8	101	79.8-122			4.28	20
1,2-Dichlorobenzene	0.0250	0.0243	0.0247	97.0	98.7	84.7-118			1.67	20
1,3-Dichlorobenzene	0.0250	0.0266	0.0266	107	106	77.6-127			0.190	20
1,4-Dichlorobenzene	0.0250	0.0233	0.0238	93.4	95.2	82.2-114			1.99	20
Dichlorodifluoromethane	0.0250	0.0235	0.0239	94.1	95.5	56.0-134			1.48	20
1,1-Dichloroethane	0.0250	0.0227	0.0226	90.9	90.6	71.7-127			0.390	20
1,2-Dichloroethane	0.0250	0.0272	0.0263	109	105	79.8-122			3.40	20
1,1-Dichloroethene	0.0250	0.0264	0.0268	106	107	59.9-137			1.42	20
cis-1,2-Dichloroethene	0.0250	0.0230	0.0226	92.2	90.2	77.3-122			2.14	20
trans-1,2-Dichloroethene	0.0250	0.0225	0.0224	89.8	89.7	72.6-125			0.180	20
1,2-Dichloropropane	0.0250	0.0237	0.0249	94.6	99.7	77.4-125			5.22	20
cis-1,3-Dichloropropene	0.0250	0.0260	0.0269	104	108	77.7-124			3.53	20
trans-1,3-Dichloropropene	0.0250	0.0267	0.0286	107	114	73.5-127			6.91	20
Ethylbenzene	0.0250	0.0261	0.0245	104	97.8	80.9-121			6.38	20
2-Hexanone	0.125	0.113	0.122	90.2	98.0	59.4-151			8.28	20
Isopropylbenzene	0.0250	0.0255	0.0263	102	105	81.6-124			2.80	20
2-Butanone (MEK)	0.125	0.0894	0.0937	71.5	75.0	46.4-155			4.73	20
Methylene Chloride	0.0250	0.0215	0.0218	85.9	87.2	69.5-120			1.50	20
4-Methyl-2-pentanone (MIBK)	0.125	0.117	0.125	94.0	99.9	63.3-138			6.10	20
Methyl tert-butyl ether	0.0250	0.0235	0.0231	93.9	92.5	70.1-125			1.46	20
Styrene	0.0250	0.0249	0.0256	99.6	102	79.9-124			2.77	20
1,1,2,2-Tetrachloroethane	0.0250	0.0246	0.0254	98.4	102	79.3-123			3.26	20
Tetrachloroethene	0.0250	0.0264	0.0271	106	108	73.5-130			2.45	20
Toluene	0.0250	0.0232	0.0253	92.6	101	77.9-116			8.94	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0266	0.0266	107	107	62.0-141			0.0800	20
1,2,3-Trichlorobenzene	0.0250	0.0266	0.0270	106	108	75.7-134			1.43	20
1,2,4-Trichlorobenzene	0.0250	0.0270	0.0268	108	107	76.1-136			0.660	20
1,1,1-Trichloroethane	0.0250	0.0257	0.0260	103	104	71.1-129			1.18	20
1,1,2-Trichloroethane	0.0250	0.0248	0.0254	99.1	102	81.6-120			2.52	20
Trichloroethene	0.0250	0.0254	0.0255	102	102	79.5-121			0.440	20
Trichlorofluoromethane	0.0250	0.0269	0.0278	108	111	49.1-157			3.13	20
Vinyl chloride	0.0250	0.0232	0.0233	92.8	93.3	61.5-134			0.600	20
Xylenes, Total	0.0750	0.0716	0.0740	95.5	98.7	79.2-122			3.26	20
(S) Toluene-d8				*105*	*110*	*90.0-115*				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 10/29/15 10:18 • (LCSD) 10/29/15 10:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
(S) Dibromofluoromethane				*96.6*	*95.8*	*79.0-121*				
(S) a,a,a-Trifluorotoluene				*104*	*111*	*90.4-116*				
(S) 4-Bromofluorobenzene				*101*	*103*	*80.1-120*				

L796458-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 10/29/15 15:09 • (MS) 10/29/15 15:28 • (MSD) 10/29/15 15:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.00225	0.0535	0.0523	41.0	40.1	1	25.0-156			2.25	21.5
Benzene	0.0250	ND	0.0131	0.0141	52.5	56.2	1	58.6-133	J6	J6	6.90	20
Bromodichloromethane	0.0250	ND	0.0221	0.0228	88.4	91.2	1	69.2-127			3.19	20
Bromochloromethane	0.0250	ND	0.0153	0.0160	61.1	64.2	1	74.4-128	J6	J6	4.87	20
Bromoform	0.0250	ND	0.0239	0.0257	95.7	103	1	66.3-140			6.98	20
Bromomethane	0.0250	ND	0.00967	0.0100	38.7	40.1	1	16.6-183			3.62	20.5
Carbon disulfide	0.0250	ND	0.00448	0.00474	17.9	19.0	1	34.9-138	J6	J6	5.66	20
Carbon tetrachloride	0.0250	ND	0.0178	0.0185	71.2	74.0	1	60.6-139			3.82	20
Chlorobenzene	0.0250	ND	0.0187	0.0201	74.7	80.2	1	70.1-130			7.10	20
Chlorodibromomethane	0.0250	ND	0.0224	0.0242	89.5	96.9	1	71.6-132			7.95	20
Chloroethane	0.0250	ND	0.0110	0.0131	44.0	52.4	1	33.3-155			17.4	20
Chloroform	0.0250	0.00199	0.0208	0.0215	75.4	78.1	1	66.1-133			3.25	20
Chloromethane	0.0250	ND	0.00706	0.00747	28.2	29.9	1	40.7-139	J6	J6	5.63	20
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.0252	0.0264	101	105	1	63.9-142			4.47	20.2
1,2-Dibromoethane	0.0250	ND	0.0186	0.0194	74.6	77.8	1	73.8-131			4.22	20
1,2-Dichlorobenzene	0.0250	ND	0.0191	0.0204	76.4	81.6	1	77.4-127	J6		6.50	20
1,3-Dichlorobenzene	0.0250	ND	0.0205	0.0226	82.0	90.5	1	67.9-136			9.88	20
1,4-Dichlorobenzene	0.0250	ND	0.0187	0.0188	74.8	75.0	1	74.4-123			0.300	20
Dichlorodifluoromethane	0.0250	ND	0.0118	0.0125	47.2	49.9	1	42.2-146			5.74	20
1,1-Dichloroethane	0.0250	ND	0.0155	0.0166	62.2	66.4	1	64.0-134	J6		6.48	20
1,2-Dichloroethane	0.0250	ND	0.0197	0.0198	78.9	79.3	1	60.7-132			0.580	20
1,1-Dichloroethene	0.0250	ND	0.0137	0.0141	54.8	56.4	1	48.8-144			2.95	20
cis-1,2-Dichloroethene	0.0250	ND	0.0154	0.0155	61.8	61.9	1	60.6-136			0.230	20
trans-1,2-Dichloroethene	0.0250	ND	0.0114	0.0120	45.4	48.1	1	61.0-132	J6	J6	5.78	20
1,2-Dichloropropane	0.0250	ND	0.0170	0.0183	68.2	73.3	1	69.7-130	J6		7.33	20
cis-1,3-Dichloropropene	0.0250	ND	0.0175	0.0184	70.2	73.7	1	71.1-129	J6		4.89	20
trans-1,3-Dichloropropene	0.0250	ND	0.0204	0.0216	81.6	86.4	1	66.3-136			5.67	20

L796458-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 10/29/15 15:09 • (MS) 10/29/15 15:28 • (MSD) 10/29/15 15:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.0250	ND	0.0176	0.0195	70.4	77.8	1	62.7-136			9.94	20
2-Hexanone	0.125	ND	0.0956	0.103	76.5	82.6	1	59.4-154			7.67	20.1
Isopropylbenzene	0.0250	ND	0.0190	0.0213	76.2	85.0	1	67.4-136			11.0	20
2-Butanone (MEK)	0.125	ND	0.0672	0.0711	53.8	56.9	1	45.0-156			5.65	20.8
Methylene Chloride	0.0250	ND	0.0135	0.0143	53.9	57.2	1	61.5-125	J6	J6	6.04	20
4-Methyl-2-pentanone (MIBK)	0.125	ND	0.102	0.107	81.7	85.6	1	60.7-150			4.71	20
Methyl tert-butyl ether	0.0250	ND	0.0175	0.0187	70.0	75.0	1	61.4-136			6.91	20
Styrene	0.0250	ND	0.0190	0.0197	75.9	79.0	1	68.2-133			4.02	20
1,1,2,2-Tetrachloroethane	0.0250	ND	0.0223	0.0235	89.2	94.1	1	64.9-145			5.40	20
Tetrachloroethene	0.0250	ND	0.0157	0.0169	62.9	67.7	1	57.4-141			7.24	20
Toluene	0.0250	ND	0.0158	0.0161	63.2	64.5	1	67.8-124	J6	J6	2.02	20
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.0178	0.0184	71.1	73.5	1	53.7-150			3.30	20
1,2,3-Trichlorobenzene	0.0250	ND	0.0220	0.0225	87.9	89.9	1	65.7-143			2.26	20
1,2,4-Trichlorobenzene	0.0250	ND	0.0212	0.0224	84.7	89.6	1	67.0-146			5.57	20
1,1,1-Trichloroethane	0.0250	ND	0.0190	0.0195	76.2	78.1	1	62.8-138			2.55	20
1,1,2-Trichloroethane	0.0250	ND	0.0210	0.0217	83.9	87.0	1	74.1-130			3.57	20
Trichloroethene	0.0250	ND	0.0164	0.0169	65.5	67.6	1	48.9-148			3.17	20
Trichlorofluoromethane	0.0250	ND	0.0154	0.0172	61.6	68.7	1	39.9-165			10.8	20
Vinyl chloride	0.0250	ND	0.00937	0.0106	37.5	42.5	1	44.3-143	J6	J6	12.5	20
Xylenes, Total	0.0750	ND	0.0525	0.0564	70.0	75.2	1	65.6-133			7.15	20
(S) Toluene-d8					*104*	*103*		*90.0-115*				
(S) Dibromofluoromethane					*97.5*	*96.4*		*79.0-121*				
(S) a,a,a-Trifluorotoluene					*109*	*110*		*90.4-116*				
(S) 4-Bromofluorobenzene					*109*	*108*		*80.1-120*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [14]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [**] Accreditation not applicable

Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
Canada	1461.01	DOD	1461.01
EPA–Crypto	TN00003	USDA	S-67674

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**

GHD 285 Delaware Ave. Suite 500 Buffalo, NY 14202	Billing Information: Mr. Dave Rowlinson 285 Delaware Ave. Suite 500 Buffalo, NY 14202
Report to: Mr. Dave Rowlinson	Email To: dave.rowlinson@ghd.com; brian.doyle@ghd.com
Project Description: Groundwater Sampling Lockport Landfill	City/State Collected: Lockport, NY
Phone: ~~716-748-6624~~ (716) 242-[illegible] Fax:	Client Project # 8612191-01-
Lab Project # STEARNSANY-LOCKPORT	
Collected by (print): Brian Doyle	Site/Facility ID #
P.O. #	
Collected by (signature): [signature] Immediately Packed on Ice N___ Y X	Rush? (Lab MUST Be Notified) ___ Same Day ...200% ___ Next Day ...100% ___ Two Day ...50% ___ Three Day ...25%
Date Results Needed	Email? ___No X Yes FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L796370
D070
Acctnum: STEARNSANY
Template: T89880
Prelogin: P526460
TSR: 364 - T. Alan Harvill
PB: 10.2 MS
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260TCLC 40mlAmb-HCl	V8260TCLC 40mlAmb-HCl-Blk	Rem./Contaminant	Sample # (lab only)
MW-8D		GW		10/22/15	11:00	2	X			-01
MW-6D		GW		10/22/15	12:00	2	X			02
MW-9T		GW		10/22/15	14:00	2	X			03
MW-9S		GW		10/22/15	13:30	2	X			04
MW-3S		GW		10/22/15	13:00	2	X			05
Outfall L-2		GW		10/22/15	12:30	2	X			06
TRIP BLANK		GW				1		X		07

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other ________

Remarks:

pH ______ Temp ______
Flow ______ Other ______

6529 1896 0467

Hold #

Relinquished by: (Signature) [signature]	Date: 10/22/15	Time: 16:00	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]

Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____
Temp: 3.1 °C Bottles Received: 13 VP
Date: 10/23/15 Time: 0900

Condition: (lab use only) 7F OK
COC Seal Intact: ✓ Y ___ N ___ NA
pH Checked: NCF:

New York State Department of Environmental Conservation
Division of Environmental Remediation, 11th Floor
625 Broadway, Albany, New York 12233
Phone: (518) 402-9553 Fax: (518) 402-9577
Website: www.dec.ny.gov

Basil Seggos
Acting Commissioner

1/5/2016

Mr. Rolando Moreno
Asst. Director of Engineering
City of Lockport
Lockport Municipal Building
One Locks Plaza
Lockport, NY 14094

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Lockport City Landfill
Site No.: 932010
Site Address: Oakhurst Road
Lockport, NY 14094

Dear Mr. Moreno:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **February 15, 2016.** Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Qualified Environmental Professional (QEP). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at:
http://www.dec.ny.gov/regulations/2586.html

The signed certification forms should be sent to Brian Sadowski, Project Manager, at the following address:

New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo, NY 14203-2915

Phone number: 716-851-7220. E-mail: brian.sadowski@dec.ny.gov

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

cc: w/ enclosures
Brian Sadowski, Project Manager
Chad Staniszewski, Hazardous Waste Remediation Engineer, Region 9
David Rowlinson, GHD

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the Certification cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this Certification form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7):

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 932010

Site Name Lockport City Landfill

Site Address: Oakhurst Road Zip Code: 14094
City/Town: Lockport
County: Niagara
Site Acreage: 23.4

Reporting Period: January 15, 2015 to January 15, 2016

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Closed Landfill	X	☐
7. Are all ICs/ECs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

SITE NO. 932010 Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
108.00-1-14	City of Lockport	Monitoring Plan O&M Plan Landuse Restriction

Record of Decision (ROD), December 1992.
The remedial components of the ROD have been implemented and are maintained for the protection of human health and the environment.

Declaration of Covenants and Restrictions, Niagara County, February 3, 2010.
Deed restrictions have been implemented to prevent activities that could cause potential exposure of waste material and compromise the integrity of the cap.

Operation and Maintenance Plan, Contingency Plan, March 1994.
Regular inspections and repair of the landfill cap are conducted to insure that the integrity of the cap is maintained.

Long Term Monitoring Program, March 1994.
The monitoring program is in place and used to evaluate the effectiveness of the remedial program.

108.15-1-1	City of Lockport	Landuse Restriction Monitoring Plan O&M Plan

Record of Decision (ROD), December 1992.
The remedial components of the ROD have been implemented and are maintained for the protection of human health and the environment.

Declaration of Covenants and Restrictions, Niagara County, February 3, 2010.
Deed restrictions have been implemented to prevent activities that could cause potential exposure of waste material and compromise the integrity of the cap.

Operation and Maintenance Plan, Contingency Plan, March 1994.
Regular inspections and repair of the landfill cap are conducted to insure that the integrity of the cap is maintained.

Long Term Monitoring Program, March 1994.
The monitoring program is in place and used to evaluate the effectiveness of the remedial program.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
108.00-1-14	Cover System Fencing/Access Control

Landfill Cap:

A Part 360 type clay cap has been installed over the landfill to eliminate direct contact as well as greatly reduce the amount of leachate being generated.

Excavation of steep embankment:

The waste material along the steep embankment (western boundary of the landfill) has been excavated from the embankment and placed under the landfill cap.

108.15-1-1	Cover System Fencing/Access Control

Parcel	Engineering Control
	A Part 360 type clay cap has been installed over the landfill to eliminate direct contact as well as greatly reduce the amount of leachate being generated. Excavation of steep embankment: The waste material along the steep embankment (western boundary of the landfill) has been excavated from the embankment and placed under the landfill cap.

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted

YES	NO
X	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) If a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 932010

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I ROLANDO MORENO at ONE LOCKS PLAZA, LOCKPORT NY 14094
print name print business address

am certifying as OWNER (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

1/6/16
Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Paul McGarvey at GHD, 285 Delaware Ave, Buffalo, NY 14202
print name print business address

am certifying as a Qualified Environmental Professional for the Owner.
(Owner or Remedial Party)

Paul J. McGarvey

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification

STATE OF NEW YORK
PAUL JAMES McGARVEY
073641
LICENSED PROFESSIONAL ENGINEER

Stamp (Required for PE)

1/6/16

Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
   C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as

designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
   1. whether all requirements of each plan were met during the reporting period
   2. any requirements not met
   3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals
   1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
   2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.