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November 9, 2012

Reference No. 050138

Mr. Robert Corcoran, P.E.
NYSDEC-DER
Remedial Bureau A, Section C
625 Broadway, 11th floor
Albany, NY 12233-7015
(Email: rkcorcor@gw.dec.state.ny.us)

Dear Mr. Corcoran

Re: Prog

Progress Report - October 2012

HWD Site, Farmingdale, NY

Enclosed please find an electronic copy of the October 2012 Progress Report for the HWD site in Farmingdale, NY. As requested in your February 28, 2011 email to Dean Sommer, Rod Sutch and me, the monthly reports are henceforth to be transmitted to all parties via email (no hard copies).

This document is being submitted on behalf of the HWD Group in fulfillment of the requirement of Article III of Order on Consent Index # W1-0728-05-07. In accordance with the Order on Consent, as modified by your February 28, 2011 email, additional electronic copies of this monthly report have been distributed to:

Krista Anders – NYSDOH (Email: kma06@health.state.ny.us) Sharon McLelland – NYSDOH (Email: spm03@health.state.ny.us) Alali M. Tamuno, Esq – NYSDEC (Email: amtamuno@gw.dec.state.ny.us)

Should you have any questions or comments, please do not hesitate to contact us.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Jamie Puskas

JP/cs/33 Encl.

cc:

Dean Sommer John Uruskyj Rod Sutch

# HWD SITE FARMINGDALE, NY PROGRESS REPORT - OCTOBER 2012

#### I Actions Taken In Compliance with Consent Order

- Submitted progress report for September 2012 to NYSDEC
- Continued preparation of the Draft Final Engineering Report
- Demobilized SVE equipment trailer
- Submitted ASD system shut-down determination work plan to NYSDEC on October 3, 2012
- Received NYSDEC conditional approval of the ASD system shut-down determination work plan on October 11, 2012

#### II Data Received

 Validated groundwater data for post ISCO samples collected on September 17-19, 2012 are presented in Attachment A

#### III Work Plans and Reports Submitted to NYSDEC

Submitted progress report for September 2012 to NYSDEC.

#### IV Actions Scheduled for Next Month

- Perform quarterly ASD monitoring
- Continue preparation of the Draft Final Engineering Report
- Schedule disposal of drums containing monitoring well purge water
- Confirm that SVE System vapor phase carbon can be regenerated and schedule pick-up
- Schedule implementation of ASD system shut-down determination field work

### V Unresolved Delays and Corrective Actions

None

#### VI Proposed Modifications to Work Plans

No modifications to the work plans were proposed

#### VII Citizen Participation Plan

No Citizen Participation activities were undertaken or required during October 2012

#### **List of Attachments**

Attachment A - Validated September 2012 Groundwater Data

ATTACHMENT A



2055 Niagara Falls Blvd., Suite #3 Niagara Falls, New York 14304

Telephone: (716) 297-6150 Fax: (716) 297-2265

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# **MEMORANDUM**

To:

Jamie Puskas

REF. No.:

050138

FROM:

Susan Scrocchi/bjw/14

DATE:

November 6, 2012

CC:

Robert Medsger

E-Mail and Hard Copy if Requested

RE:

Analytical Results and QA/QC Review

Groundwater Sampling Event Hazardous Waste Disposal Site

Farmingdale, New York

September 2012

#### INTRODUCTION

The following details a quality assessment and validation of the analytical data resulting from the September 2012 collection of groundwater samples from the Hazardous Waste Disposal Site in Farmingdale, New York. The sample summary detailing sample identification, sample location, quality control (QC) samples and analytical parameters is presented in Table 1. Sample analysis was completed at H2M Labs, Inc. (H2M), in Melville, New York. Samples were analyzed by method SW-846 8260¹. Summaries of the analytical results are presented in Table 2.

The QC criteria used to assess the data were established by the method and with the documents "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", United States Environmental Protection Agency (USEPA) 540/R-99/008, October 1999.

These guidelines are collectively referred to as "Guidelines" in this memorandum.

#### SAMPLE QUANTITATION

The laboratory reported detected concentrations of volatile organic compound (VOCs) below the laboratory's practical quantitation limit (PQL)/report limit (RL) but above the laboratory's method detection limit (MDL). The laboratory flagged these sample concentrations with a "J". These concentrations should be qualified as estimated (J) values unless qualified otherwise in this memorandum.

Test Methods for Solid Waste Physical/Chemical Methods", SW-846, 3rd Edition, September 1986 (with all subsequent revisions).



#### SAMPLE PRESERVATION AND HOLDING TIMES

Sample holding time periods and preservation requirements are summarized in the analytical methods. All sample extractions and/or analyses were performed within the specified holding times.

All samples were properly preserved and cooled to <6°C after collection.

# GAS CHROMATOGRAPHY/MASS SPECTROMETER (GC/MS) - TUNING AND MASS CALIBRATION (INSTRUMENT PERFORMANCE CHECK) - VOLATILE ORGANIC COMPOUNDS (VOCS)

To ensure adequate mass resolution, identification, and to some degree, sensitivity; the performance of each GC/MS instrument was checked at the beginning of each 12-hour period using bromofluorobenzene (BFB). The resulting spectra must meet the criteria cited in the "Guidelines" before initiating an analysis sequence.

Instrument performance check data were reviewed. These tuning compounds were analyzed at the required frequency throughout the VOC analyses. The results of all instrument performance checks were within the acceptance criteria, indicating acceptable instrument performance.

#### GC/MS INITIAL CALIBRATION - VOCS

Initial calibration data are used to demonstrate that each instrument is capable of generating acceptable quantitative data. A five point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each over a specific concentration range.

Initial calibration criteria for organic analyses are evaluated against the following criteria:

- i) Must meet a minimum mean relative response factor (RRF) of 0.05.
- ii) The percent relative standard deviation (%RSD) values must not exceed 30.0 percent or a minimum coefficient of determination (R²) of 0.99 if quadratic equation calibration curves are used.

Calibration standards were analyzed at the required frequency and the results met the above criteria for sensitivity and linearity.

### GC/MS CONTINUING CALIBRATION - VOCS

To ensure that each instrument was capable of producing acceptable quantitative data over the analysis period, continuing calibration standards must be analyzed every 12 hours (24 hrs for TO-15). The following criteria are employed to evaluate the continuing calibration data:

- Must meet a minimum mean RRF of 0.05.
- ii) The percent difference (%D) between the mean initial calibration RRF and the continuing calibration RRF must not exceed 25 percent.
- iii) The percent drift between the true value and the continuing calibration value must not exceed 25 percent.

Calibration standards were analyzed at the required frequency and all the results met the above criteria for instrument sensitivity. All analytes met the linearity criteria with the exception of dichlorodifluoromethane and methyl acetate. A summary of qualified data can be found in Table 3.

#### METHOD BLANK SAMPLES

Method blank samples are prepared from a purified sample matrix and are processed concurrently with investigative samples to assess the presence and the magnitude of sample contamination introduced during sample analysis. Method blank samples are analyzed at a minimum frequency of one per analytical batch and target analytes should be non-detect.

Method blanks were analyzed at the recommended frequency and the results were non-detect for all analytes indicating that laboratory contamination was not an issue.

#### SURROGATE COMPOUNDS

Individual sample performance for organic analyses was monitored by assessing the results of surrogate compound percent recoveries. Surrogate percent recoveries are reviewed against the laboratory developed control limits provided in the analytical report.

All surrogate recoveries met the method criteria, demonstrating acceptable analytical efficiency for these analyses.

#### INTERNAL STANDARD (IS) SUMMARIES

To correct for variability in the GC/MS response and sensitivity, IS compounds are added to all samples. All results are calculated as a ratio of the compound and associated IS response. Overall instrument stability and performance for VOC analyses were monitored using IS peak area and retention time (RT) data. The IS peak areas and RTs of the samples are required to meet the following criteria:

- i) IS area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated continuing calibration standard IS area counts.
- ii) The RT of the IS must not vary by more than plus or minus 30 seconds from the associated continuing calibration standard.

A review of the internal standard data showed that the IS area counts and RT data were within the acceptance criteria for all samples.

# MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) ANALYSES

To assess the long term accuracy and precision of the analytical methods on various matrices, MS/MSD percent recoveries and relative percent differences (RPD) of the concentrations were determined. The organic MS/MSD percent recovery and RPD control limits are established by the laboratory.

A matrix spike/matrix spike duplicate was performed on sample GW-50138-091912-RR-017. All results were acceptable indicating good analytical accuracy and precision.

# LABORATORY CONTROL SAMPLE (LCS)

The LCS analysis serves as a monitor of the overall performance in all steps of the sample analysis and is analyzed with each sample batch. The LCS percent recoveries were evaluated against method and laboratory established control limits. Some LCS analyses were performed in duplicate to monitor laboratory precision.

All LCS percent recoveries were within the laboratory control limits indicating good analytical accuracy.

### FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

The field QA/QC consisted of one trip blank, one equipment blank and one field duplicate set.

#### Trip Blanks

To monitor potential cross-contamination during sampling, transportation and/or storage, a trip blank was submitted to the laboratory for VOC analysis.

Trip blanks were collected at the proper frequency, and all results were non-detect for the compounds of interest.

#### Equipment Blanks

To monitor potential cross-contamination during sampling, transportation and/or storage, an equipment blank was submitted to the laboratory for VOC analysis.

Field blank results were non-detect for the compounds of interest.

# Field Duplicates

One set of field duplicates were submitted with this sample batch. All the results showed good precision outside of the estimated regions of detection indicating acceptable analytical and sampling precision.

#### TARGET COMPOUND IDENTIFICATION

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound RT and mass spectra (if applicable) were evaluated according to identification criteria established by the methods. The organic compounds reported adhered to the specified identification criteria.

### TARGET COMPOUND QUANTITATION

The reported quantitation results and detection limits were checked to ensure results reported were accurate. No discrepancies were found between the raw data and the sample results reported by the laboratory.

#### SYSTEM PERFORMANCE

System performance between various quality control checks was evaluated to monitor for changes that may have caused the degradation of data quality. No technical problems or chromatographic anomalies were observed which would require qualification of the data.

#### OVERALL ASSESSMENT

The data were found to exhibit acceptable levels of accuracy and precision, based on the provided information, and may be used with the qualifications noted herein.

TABLE 1

# SAMPLE COLLECTION AND ANALYSIS SUMMARY GROUNDWATER SAMPLING EVENT HAZARDOUS WASTE DISPOSAL SITE FARMINGDALE, NEW YORK SEPTEMBER 2012

					Analysis/Parameters	
Sample I.D.	Location I.D.	Matrix	Collection Date (mm/dd/yy)	Collection Time (hr:min)	TCL VOCs	Comments
GW-50138-091712-RR-001	MW-2D	water	09/17/12	14:50	x	
GW-50138-091712-RR-002	MW-2	water	09/17/12	15:30	Χ	
GW-50138-091712-RR-003	MW-7	water	09/17/12	16:10	X	
GW-50138-091712-RR-004	MW-8	water	09/17/12	17:40	X	
GW-50138-091812-RR-005	MW-9	water	09/18/12	10:35	X	•
GW-50138-091812-RR-006	MW-6	water	09/18/12	11:40	X	
GW-50138-091812-RR-007	MW-12S	water	09/18/12	13:00	X	
GW-50138-091812-RR-008	MW-12S	water	09/18/12	13:15	Χ	Field duplicate of GW-50138-091812-RR-007
GW-50138-091812-RR-009	MW-12D	water	09/18/12	14:25	Χ	
GW-50138-091812-RR-010	MW-10	water	09/18/12	15:30	X	
GW-50138-091812-RR-011	MW-11	water	09/18/12	16:25	X	
GW-50138-091812-RR-012	MW-3D	water	09/18/12	17:50	Χ	
GW-50138-091912-RR-013	MW-1D	water	09/19/12	9:40	Χ	
GW-50138-091912-RR-014	MW-1	water	09/19/12	10:20	X	
GW-50138-091912-RR-015	MW-5	water	09/19/12	11:35	Χ	•
GW-50138-091912-RR-016	MW-4	water	09/19/12	14:30	Χ	
GW-50138-091912-RR-017	MW-3	water	09/19/12	16:45	Χ	MS/MSD
GW-50138-091912-RR-018	-	water	09/19/12	8:20	Χ	Rinse Blank
TRIP BLANK	-	water	09/17/12	0:00	X	* Trip Blank

#### Notes:

MS Matrix Spike.

MSD Matrix Spike Duplicate.

TCL Target Compound List.

VOCs Volatile Organic Compounds.

CRA 050138Memo-14-Tbls-

TABLE 2

	Sample Location: Sample ID: Sample Date:	MW-1 GW-50138-091912-RR-014 9/19/2012	MW-1D GW-50138-091912-RR-013 9/19/2012	MW-2 GW-50138-091712-RR-002 9/17/2012	MW-2D GW-50138-091712-RR-001 9/17/2012	MW-3D GW-50138-091812-RR-012 9/18/2012
Parameters	Units					
Volatile Organic Compounds						
1,1,1-Trichloroethane	μg/L	5 U	5 U	2 Ј	5 U	5 Ü
1,1,2,2-Tetrachloroethane	μg/L	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	μg/L	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	μg/L	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	μg/L	5 Ü	5 U	5 Ü	5 U	5 U
1,2,4-Trichlorobenzene	μg/L	5 U	5 U	5 U	5 U	5 ปั
1,2-Dibromo-3-chloropropane (DBCP)	μg/L	5 Ü	5 U	5 Ü	5 Ü	5 U
1,2-Dibromoethane (Ethylene dibromide)	μg/L	5 U	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	μg/L	5 U	5 <b>U</b>	5 U	5 U	5 U
1,2-Dichloroethane	μg/L	5 U	5 U	5 U	5 Ü	5 U
1,2-Dichloropropane	μg/L	5 U	5 U	5 U	5 Ü	5 Ü
1,3-Dichlorobenzene	μg/L	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	μg/L	5 U	5 U	5 Ü	5 U	5 U
2-Butanone (Methyl ethyl ketone) (MEK)	μg/L	5 Ü	5 U	5 Ü	5 U	5 U
2-Hexanone	$\mu \mathrm{g}/\mathrm{L}$	5 Ü	5 Ü	5 U	5 Ü	5 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIB)	K) μg/L	5 U	5 U	5 U	5 U	5 Ü
Acetone	μg/L	5 U	5 U	5 U	5 U į	5 Ü
Benzene	μg/L	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane	μg/L	5 U	5 U	5 U	5 Ü	5 Ü
Bromoform	μg/L	5 U	5 <b>U</b>	5 U	5 U	5 U
Bromomethane (Methyl bromide)	μg/L	5 U	5 Ü	5 Ü	5 U	5 U
Carbon disulfide	μg/L	5 U	5 U	5 U	5 <u>,</u> U	5 Ü
Carbon tetrachloride	μg/L	5 U	5 U	5 Ü	5 U	5 U
Chlorobenzene	μg/L	5 Ü	5 U	5 U	5 U	5 U
Chloroethane	μg/L	5 U	5 Ü	5 Ü	5 U	5 U
Chloroform (Trichloromethane)	μg/L	5 U	5 <b>U</b>	5 <b>U</b>	5 U	5 U
Chloromethane (Methyl chloride)	μg/L	5 U	5 U	5 U	5 U	5 U
. cis-1,2-Dichloroethene	μg/L	5 U	5 U	5 Ü	5 U	5 U
cis-1,3-Dichloropropene	μg/L	5 U	5 U	5 U	5 U	5 Ü

TABLE 2

	Sample Location: Sample ID: Sample Date:	MW-1 GW-50138-091912-RR-014 9/19/2012	MW-1D GW-50138-091912-RR-013 9/19/2012	MW-2 GW-50138-091712-RR-002 9/17/2012	MW-2D GW-50138-091712-RR-001 9/17/2012	MW-3D GW-50138-091812-RR-012 9/18/2012
Parameters	Units					
Volatile Organic Compounds (Coant'd.)						
Cyclohexane	μg/L	5 Ü	5 U	5 Ü	5 U	5 U
Dibromochloromethane	μg/L	5 U	5 U	5 U	5 <b>U</b>	5 U
Dichlorodifluoromethane (CFC-12)	μg/L	5 ਪ੍ਰ	5 UJ	5 ਪ੍ਰ	5 UJ	5 UJ
Ethylbenzene	μg/L	5 U	5 U	5 Ü	5 U	5 U
Isopropyl benzene	μg/L	5 U	5 U	5 U	5 U	5 U
Methyl acetate	μg/L	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Methyl cyclohexane	μg/L	5 Ü	5 U	5 U	5 U	5 U
Methyl tert butyl ether (MTBE)	μg/L	5 U	4 J	5 U	4 J	1 J
Methylene chloride	μg/L	5 U	5 U	5 U	5 U	5 U
Styrene	μg/L	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	μg/L	5 U	5 U	5	5 U	5 Ü
Toluene	μg/L	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	μg/L	5 U	. 5 U	5 U	5 Ü	5 U
trans-1,3-Dichloropropene	μg/L	5 U	5 U	5 U	5 U	5 Ü
Trichloroethene	μg/L	5 U	5 U	3 Ј	5 U	5 U
Trichlorofluoromethane (CFC-11)	μg/L	5 U	5 Ü	5 U	5 U	5 U
Trifluorotrichloroethane (Freon 113)	μg/L	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	μg/L	2 U	2 <b>U</b>	2 U	. 2 U	2 U
Xylenes (total)	μg/L	5 Ü	5 <b>U</b>	5 U	5 U	5 U

TABLE 2

	Sample Location: Sample ID: Sample Date:	MW-3 GW-50138-091912-RR-017 9/19/2012	MW-4 GW-50138-091912-RR-016 9/19/2012	MW-5 GW-50138-091912-RR-015 9/19/2012	MW-6 GW-50138-091812-RR-006 9/18/2012
Parameters	Units				
Volatile Organic Compounds					
1,1,1-Trichloroethane	μg/L	5 U	5 U	8	2 J
1,1,2,2-Tetrachloroethane	μg/L	5 U	5 <b>U</b>	5 U	5 U
1,1,2-Trichloroethane	μg/L	5 U	5 U	5 U	5 U
1,1-Dichloroethane	μg/L	5 Ü	5 U	4 J	5 U
1,1-Dichloroethene	μg/L	5 U	5 <b>U</b>	5 <b>Ú</b>	2 J
1,2,4-Trichlorobenzene	μg/L	5 U	5 U	5 U	5 U
1,2-Dibromo-3-chloropropane (DBCP)	μg/L	5 U	5 Ü	5 U	5 U
1,2-Dibromoethane (Ethylene dibromide)	μg/L	5 <b>U</b>	5 U	5 U	5 Ü
1,2-Dichlorobenzene	μg/L	7	5 Ü	5 <b>U</b>	5 U
1,2-Dichloroethane	μg/L	5 U	5 U	5 Ü	5 U
1,2-Dichloropropane	μg/L	5 U	5 U	5 U	5 <b>U</b>
1,3-Dichlorobenzene	μg/L	<b>3</b> J	5 U	5 <b>U</b>	5 <b>U</b>
1,4-Dichlorobenzene	μg/L	10	5 U	5 U	5 U
2-Butanone (Methyl ethyl ketone) (MEK)	μg/L	5 U	5 Ü	5 <b>U</b>	5 U
2-Hexanone	μg/L	5 Ü	5 Ü	5 U	5 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIB		5 U	5 U	5 U	5 U
Acetone	μg/L	5 U	5 U	5 U	5 U
Benzene	μg/L	2 ј	5 U	5 U	5 U
Bromodichloromethane	μg/L	5 U	5 U	5 Ü	5 U
Bromoform	μg/L	5 U	5 U	5 U	5 U
Bromomethane (Methyl bromide)	μg/L	5 U	5 U	5 U	5 U
Carbon disulfide	μg/L	5 <b>U</b>	5 U	5 U 🛫	5 U
Carbon tetrachloride	μg/L	5 U	5 U	5 U	5 U
Chlorobenzene	μg/L	33	5 U	5 U	5 Ü
Chloroethane	μg/L	5 U	5 Ü	5 U	5 U
Chloroform (Trichloromethane)	μg/L	5 U	5 U	5 U	5 U
Chloromethane (Methyl chloride)	μ <b>g/</b> L	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	μg/L	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	μg/L	5 U	5 U	5 U	5 U

TABLE 2

	Sample Location: Sample ID: Sample Date:	MW-3 GW-50138-091912-RR-017 9/19/2012	MW-4 GW-50138-091912-RR-016 9/19/2012	MW-5 GW-50138-091912-RR-015 9/19/2012	MW-6 GW-50138-091812-RR-006 9/18/2012
Parameters	Units				
Volatile Organic Compounds (Coant'd.)					
Cyclohexane	μg/L	4 J	5 U	5 U	5 U
Dibromochloromethane	μg/L	5 U	5 U	5 U	5 U
Dichlorodifluoromethane (CFC-12)	μg/L	5 <b>U</b> J	5 UJ	5 UJ	5 UJ
Ethylbenzene	μg/L	15	5 U	5 Ü	5 U
Isopropyl benzene	μg/L	10	$5\mathbf{U}$	5 U	. 2 U
Methyl acetate	μg/L	5 <b>U</b> J	5 ປັງ	5 UJ	, 5 UJ
Methyl cyclohexane	μg/L	2 )	5 <b>U</b>	5 U	5 U
Methyl tert butyl ether (MTBE)	μg/L	5 U	5 U	5 U	5 U
Methylene chloride	μg/L	5 U	5 U	5 U	5 U
Styrene	μg/L	5 Ü	5 U	5 U _	5 U
Tetrachloroethene	μg/L	5 U	5ប	5 U	3 Ј
Toluene	μg/L	2 J	5 Ü	5 U	5 U
trans-1,2-Dichloroethene	μg/L	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	μg/L	5 Ü	5 U	5 U	5 U
Trichloroethene	μg/L	5 U	5 U	5 U	3 ]
Trichlorofluoromethane (CFC-11)	μg/L	5 <b>U</b>	5 Ü	5 U	5 U
Trifluorotrichloroethane (Freon 113)	μg/L	5 U	5 U	5 U	. 5 บ
Vinyl chloride	μg/L	2 Ü	2 U	2 Ü	2 U
Xylenes (total)	μg/L	4 J	5 <b>U</b>	5 U	5 U

TABLE 2

	Sample Location: Sample ID: Sample Date:	MW-7 GW-50138-091712-RR-003 9/17/2012	MW-8 GW-50138-091712-RR-004 9/17/2012	MW-9 GW-50138-091812-RR-005 9/18/2012	MW-10 GW-50138-091812-RR-010 9/18/2012
Parameters	Units				
Volatile Organic Compounds					
1,1,1-Trichloroethane	μg/L	5 Ü	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	μg/L	5 Ü	5 U	5 U	5 Ü
1,1,2-Trichloroethane	μg/L	5 U	5 U	5 U	5 U
1,1-Dichloroethane	μg/L	5 U	5 U	5 U	5 U
1,1-Dichloroethene	μg/L	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	μg/L	5 U	5 Ü	5 U	5 U
1,2-Dibromo-3-chloropropane (DBCP)	μg/L	5 U	5 U	5 U	5 U
1,2-Dibromoethane (Ethylene dibromide)	μg/L	5 Ü	5 Ü	5 Ü	5 U
1,2-Dichlorobenzene	μg/L	5 U	5 U	5 U	5 U
1,2-Dichloroethane	μg/L	5U .	5 U	5 <b>U</b>	5 U
1,2-Dichloropropane	μg/L	5 Ü	5 U	5 Ü	5 <b>U</b>
1,3-Dichlorobenzene	μg/L	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	μg/L	5 U	5 U	5 U	5 U
2-Butanone (Methyl ethyl ketone) (MEK)	μg/L	5 U	5 U	5 U	5 U
2-Hexanone	μg/L	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBI	K) μg/L	5 U	5 U	5 Ü	5 U
Acetone	μg/L	5 U	. 5 U	, 5U	, 5 <b>U</b>
Benzene	μg/L	5 U	5 U	5 U	5 <b>U</b>
Bromodichloromethane	μg/L	5 U	5 U	5 U	5 U
Bromoform	μg/L	5 U	5 Ü	5 Ü	5 U
Bromomethane (Methyl bromide)	μg/L	5 U	5 U	5 U	5 Ü
Carbon disulfide	μg/L	5 U	5 U	5 ປັ ຼ	5 U
Carbon tetrachloride	μg/L	5 U	5 U	5 <b>U</b>	5 U
Chlorobenzene	μg/L	5 U	5 U	5 U	5 U
Chloroethane	μg/L	5 U	5 U	5 U	5 Ü
Chloroform (Trichloromethane)	μg/Ľ	5 U	5 Ü	5 Ü	5 U
Chloromethane (Methyl chloride)	μg/L	5 <b>U</b>	5 U	5 U	5 Ü
cis-1,2-Dichloroethene	μg/L	5 U	5 U	5 U	1 Ϊ
cis-1,3-Dichloropropene	μg/L	5 U	5 Ü	5 Ü	5 U

TABLE 2

	Sample Location: Sample ID: Sample Date:	MW-7 GW-50138-091712-RR-003 9/17/2012	MW-8 GW-50138-091712-RR-004 9/17/2012	MW-9 GW-50138-091812-RR-005 9/18/2012	MW-10 GW-50138-091812-RR-010 9/18/2012
Parameters	Units			•	
Volatile Organic Compounds (Coant'd.)					
Cyclohexane	μg/L	5 U	5 U	5 U	5 U
Dibromochloromethane	μg/L	5 U	5 U	5 <b>U</b>	5 U
Dichlorodifluoromethane (CFC-12)	μg/L	5 UJ	5 UJ	5 UJ	5 UJ
Ethylbenzene	μg/L	5 U	5 U	5 U	5 U
Isopropyl benzene	µg/L	5 U	5 U	5 <b>U</b>	5 U
Methyl acetate	μg/L	5 UJ	5 UJ	5 UJ	5 UJ
Methyl cyclohexane	μg/L	5 Ü	60	5 Ü	5 U
Methyl tert butyl ether (MTBE)	μg/L	5 U	5 U	5 U	5 U
Methylene chloride	μg/L	5 U	5 U	5 U	5 U
Styrene	μg/L	5 U	5 Ü	5 U	5 U
Tetrachloroethene	μg/L	6	5 U	5 U	5
Toluene	μg/L	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	μ <b>g</b> /L	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	μg/L	5 U	5 U _	5 U	5 U
Trichloroethene	μg/L	5 U	5 U	1)	2 J
Trichlorofluoromethane (CFC-11)	μg/L	5 U	5 U	5 U	5 U
Trifluorotrichloroethane (Freon 113)	μg/L	5 U	5 U	5 U	5 U
Vinyl chloride	μg/L	2 U	2 U	2 U	2 U
Xylenes (total)	μg/L	5 U	5 U	5 U	5 U

TABLE 2

	Sample Location: Sample ID: Sample Date:	MW-11 GW-50138-091812-RR-011 9/18/2012	MW-12D GW-50138-091812-RR-009 9/18/2012	MW-12S GW-50138-091812-RR-007 9/18/2012	MW-12S GW-50138-091812-RR-008 9/18/2012 (Duplicate)
Parameters	Units				
Volatile Organic Compounds					
1,1,1-Trichloroethane	μg/L	ุ 5 บ	5 Ü	5 Ü	5 Ü
1,1,2,2-Tetrachloroethane	μg/L	5 U	5 U	5 Ü	5 Ü
1,1,2-Trichloroethane	μg/L	5 U ·	5 U	5 U	5 U
1,1-Dichloroethane	μg/L	5 U	5 U	5 U	5 U
1,1-Dichloroethene	μg/L	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	μg/L	5 U	5 U	5 U	5 U
1,2-Dibromo-3-chloropropane (DBCP)	μg/L	5 U	5 U	5 U	5 U
1,2-Dibromoethane (Ethylene dibromide)	μg/L	5 U	5 U	5 Ü	5 U
1,2-Dichlorobenzene	μg/L	5 U	5 U ·	5 U	5 U
1,2-Dichloroethane	μg/L	5 U	5 U	5 U	5 U
1,2-Dichloropropane	μg/L	5 U	5 U	5 Ü	5 U
1,3-Dichlorobenzene	μg/L	5 Ü	5 U	5 U .	5 Ü
1,4-Dichlorobenzene	μ <b>g/</b> L	5 Ü	5 U	5 U	5 U
2-Butanone (Methyl ethyl ketone) (MEK)	μg/L	, 5 U	5 Ü	5 U	5 Ü
2-Hexanone	μg/L	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIB)	K) μg/L	5 U	5 U	5 U	5 U
Acetone	μg/L	5 U	5 Ü	5 U	5 Ü
Benzene	μg/L	5 U	5 U	5 Ü	5 U
Bromodichloromethane	μg/L	5 U	5 U	5 U	5 U
Bromoform	μg/L	5 Ü	5 U	5 Ü	5 U
Bromomethane (Methyl bromide)	μg/L	5 U	5 U	5 U	. 5 <b>U</b>
Carbon disulfide	$\mu { m g}/{ m L}$	5 U	5 U	5 U	5 U
Carbon tetrachloride	μg/L	5 U	5 U	5 U	5 U
Chlorobenzene	$\mu \mathrm{g}/\mathrm{L}$	5 U	5 U	5 U	5 U
Chloroethane	μg/L	5 U	5 U	5 U	5 U
Chloroform (Trichloromethane)	μg/L	5 U	5 U	5 U	5 U
Chloromethane (Methyl chloride)	μg/Ľ	5 U	5 U	5 U	5 Ü
cis-1,2-Dichloroethene	μg/L	1J	5 U	5 U	5 Ü
cis-1,3-Dichloropropene	μg/L	5 U	5 U	5 U	5 U

TABLE 2

	Sample Location: Sample ID: Sample Date:	MW-11 GW-50138-091812-RR-011 9/18/2012	MW-12D GW-50138-091812-RR-009 9/18/2012	MW-12S GW-50138-091812-RR-007 9/18/2012	MW-12S GW-50138-091812-RR-008 9/18/2012 (Duplicate)
Parameters	Units				
Volatile Organic Compounds (Coant'd.)					
Cyclohexane	μg/L	5 U	5 U	11	11
Dibromochloromethane	μg/L	5 U	5 Ü	5 U	5 U
Dichlorodifluoromethane (CFC-12)	μg/L	5 UJ	5 UJ	5 UJ	5 UJ
Ethylbenzene	μg/L	5 U	5 Ü	5 U	5 U
Isopropyl benzene	μg/L	5 U	5 U	1 Ј	1 J
Methyl acetate	μg/L	5 ປັງ	5 UJ	5 UJ	5 UJ
Methyl cyclohexane	μg/L	5 U	5 U	10	8
Methyl tert butyl ether (MTBE)	μg/L	5 U	2 J	5 U	5 U
Methylene chloride	μg/L	5 U	5 U	. 5 <b>U</b>	. 5 U
Styrene	μg/L	5 U	5 U	5 <b>U</b>	5 U
Tetrachloroethene	μg/L	4 J	5 U	5 U	5 U
Toluene	μg/L	5 U	5 Ü	5 U	5 U
trans-1,2-Dichloroethene	μg/L	5 U	5 U	5 U	5 Ü
trans-1,3-Dichloropropene	μg/L	5 U	5 U	5 <b>U</b>	5 U
Trichloroethene	μg/L	1 J	5 U	5 U	5 U
Trichlorofluoromethane (CFC-11)	μg/L	5 U	· 5 U	5 U	5 U
Trifluorotrichloroethane (Freon 113)	μg/L	5 U	5 U	5 U	5 U
Vinyl chloride	μg/L	1 J	2 U	2 U	2 U
Xylenes (total)	μg/L	5 U	5 U	5 U	5 U

Notes:

J - Estimated.

U - Not detected.

UJ - Not detected, estimated reporting limit.

TABLE 3

# QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS GROUNDWATER SAMPLING EVENT HAZARDOUS WASTE DISPOSAL SITE FARMINGDALE, NEW YORK SEPTEMBER 2012

Parameter	Calibration Date	Compound	%D	Associated Sample ID	Qualified Sample Results	Units
VOCs	9/27/18	Dichlorodifluoromethane (CFC-12)	53	GW-50138-091912-RR-017	5 UJ	μg/L
	, ,	,		GW-50138-091712-RR-001	5 UJ	μg/L
				GW-50138-091812-RR-010	5 UJ	μg/L
				GW-50138-091712-RR-002	5 UJ	μg/L
				GW-50138-091712-RR-003	5 UJ	μg/L
				GW-50138-091712-RR-004	5 UJ	μg/L
				GW-50138-091812-RR-005	5 UJ	μg/L
				GW-50138-091812-RR-006	5 UJ	μg/L
				GW-50138-091812-RR-007	5 UJ	μg/L
				GW-50138-091812-RR-008	5 UJ	μg/L
				GW-50138-091812-RR-009	5 UJ	μg/L
				GW-50138-091812-RR-011	5 UJ	μg/L
				GW-50138-091812-RR-012	5 UJ	μg/L
				GW-50138-091912-RR-013	5 UJ	μg/L
				GW-50138-091912-RR-014	5 UJ.	μg/L
				GW-50138-091912-RR-015	5 ປັງ	μg/L
				GW-50138-091912-RR-016	5 UJ	μg/L
VOCs	9/27/12	Methyl acetate	45	GW-50138-091912-RR-017	5 UJ	μg/L
1000	<i>3/2//12</i>	and and a decided	10	GW-50138-091712-RR-001	5 UJ	μg/L
				GW-50138-091712-RR-002	5 UJ	μg/L
		·		GW-50138-091712-RR-003	5 UJ	μg/L
				GW-50138-091712-RR-004	5 UJ	μg/L
				GW-50138-091812-RR-005	5 UJ	μg/L

TABLE 3

# QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS GROUNDWATER SAMPLING EVENT HAZARDOUS WASTE DISPOSAL SITE FARMINGDALE, NEW YORK SEPTEMBER 2012

Parameter	Calibration Date	Compound	% <b>D</b>	Associated Sample ID	Qualified Sample Results	Units
VOCs	9/27/12	Methyl acetate	45	GW-50138-091812-RR-006	5 UJ	μg/L
100	7/2/12	menty ruceatte		GW-50138-091812-RR-010	5 UJ	μg/L
				GW-50138-091812-RR-011	5 UJ	μg/L
				GW-50138-091812-RR-012	5 ປັງ	μg/L
				GW-50138-091912-RR-013	5 UJ	μg/L
				GW-50138-091912-RR-014	5 UJ	μg/L
				GW-50138-091912-RR-015	5 UJ	μg/L
				GW-50138-091812-RR-007	5 UJ	μg/L
				GW-50138-091812-RR-008	5 UJ	μg/L
				GW-50138-091912-RR-016	5 UJ	μg/L
				GW-50138-091812-RR-009	5 UJ	μg/L

Notes:

%D Percent Difference.

UJ Not detected, estimated reporting limit.

VOCs Volatile Organic Compounds.