

**Bush Industries, Inc.  
Annual Summary Report for 2009 Groundwater  
Monitored Natural Attenuation Program for  
312 Fair Oak Street  
Little Valley, New York**

*Submitted to:*  
**Bush Industries, Inc., Jamestown, NY**

*Submitted by:*  
**AMEC Geomatrix, Inc., Amherst, NY**

December 2009

Project 6191

## **EXECUTIVE SUMMARY**

Amec Geomatrix, Inc. (AMEC) has been retained by Bush Industries, Inc. (Bush Industries) to conduct the 2009 Monitored Natural Attenuation (MNA) Program for groundwater at the property located at 312 Fair Oak Street, Little Valley, New York. The work was conducted pursuant to and in accordance with the Amended and Supplemental Order (File No.: 96-07 R9-4314-96-06) agreed to between Bush Industries and the New York State Department of Environmental Conservation (NYSDEC).

The subject property is located within the Little Valley Superfund Site (LVSS). The LVSS is currently being addressed by the United States Environmental Protection Agency (USEPA). The Record of Decision (ROD) for the LVSS specifies MNA as the remedy for trichloroethene (TCE) contaminated groundwater measured throughout the LVSS. The USEPA MNA remedy includes groundwater sampling on properties located throughout the LVSS including 312 Fair Oak Street. Bush Industries has agreed to conduct the MNA sampling on this property in accordance with the Amended and Supplemental Order. This report presents the validated results of the annual MNA sampling event conducted on the property by AMEC in September 2009.

The results of the 2009 MNA sampling event for the property indicate that natural attenuation processes are occurring. The presence of daughter products and methane in groundwater samples reflect the reductive dechlorination occurring in groundwater at the property. The 2009 results indicate concentrations of TCE and daughter products in groundwater are within the historical ranges in each well and do not appear to be increasing.

## TABLE OF CONTENTS

	Page
1.0 INTRODUCTION .....	1
1.1 BACKGROUND AND SITE DESCRIPTION.....	1
1.2 PREVIOUS SITE INVESTIGATIONS .....	2
1.3 MNA PROGRAM OBJECTIVES .....	2
2.0 WORK PERFORMED .....	3
2.1 MNA SCOPE OF WORK.....	3
2.2 2009 MNA GROUNDWATER SAMPLING EVENT.....	4
3.0 SAMPLING EVENT RESULTS .....	5
3.1 DATA VALIDATION AND USABILITY.....	5
3.2 GROUNDWATER RESULTS.....	5
3.2.1 Hydraulic Head Measurements .....	5
3.2.2 Analytical Results.....	5
4.0 CONTAMINANT TRENDS AND PROGRESS OF MNA .....	7
4.1 CONTAMINANT TRENDS.....	7
4.2 REDUCTIVE DECHLORINATION .....	7
4.3 PROGRESS OF MNA AT THE SITE .....	9

## **TABLE OF CONTENTS (Continued)**

### **TABLES**

Table 1	Sample Collection and Analysis Protocols
Table 2	Monitoring Well Purge Summary
Table 3	Hydraulic Head Measurements
Table 4	Validated Groundwater Analytical Summary
Table 5	Comparison Criteria for Detected Constituents in Groundwater
Table 6	Historical Summary of Detected Groundwater Constituents in MNA Wells

### **FIGURES**

Figure 1	Site Location
Figure 2	Site Plan and Monitoring Well Locations
Figure 3	Groundwater Elevation Contour Map
Figure 4	MW-2 Time-Concentration Plot
Figure 5	MW-3 Time-Concentration Plot
Figure 6	MW-5 Time-Concentration Plot
Figure 7	MW-6 Time-Concentration Plot
Figure 8	MW-D1 Time-Concentration Plot
Figure 9	MW-D2 Time-Concentration Plot

### **APPENDICES**

Appendix A	Data Validation Report
------------	------------------------

# **ANNUAL SUMMARY REPORT FOR 2009 GROUNDWATER MONITORED NATURAL ATTENUATION PROGRAM**

312 Fair Oak Street  
Little Valley, New York

## **1.0 INTRODUCTION**

### **1.1 BACKGROUND AND SITE DESCRIPTION**

Amec Geomatrix, Inc. (AMEC) has been retained by Bush Industries, Inc. (Bush Industries) to conduct the 2009 Monitored Natural Attenuation (MNA) Program for groundwater at the property located at 312 Fair Oak Street, Little Valley, New York. The work was conducted pursuant to and in accordance with the Amended and Supplemental Order (File No.: 96-07 R9-4314-96-06) agreed to between Bush Industries and the New York State Department of Environmental Conservation (NYSDEC).

The subject property is located within the Little Valley Superfund Site (LVSS). The LVSS is currently being addressed by the United States Environmental Protection Agency (USEPA). The Record of Decision (ROD) for the LVSS specifies MNA as the remedy for TCE contaminated groundwater measured throughout the LVSS.

A topographic map of the Site and surrounding area prepared from a 7.5 minute series U.S. Geological Survey map is presented in Figure 1. The Site is situated on a 9.4 acre lot, and contains three contiguous buildings (see Figure 2). The USEPA MNA remedy includes groundwater sampling on properties located throughout the LVSS, including the property at 312 Fair Oak Street. Bush Industries has agreed to conduct the MNA sampling on this property in accordance with the Amended and Supplemental Order.

As NYSDEC was notified by letter dated September 15, 2008, Bush Industries entered into a contract to sell its land and improvements at 312 Fair Oak Street, Little Valley, N.Y. That transaction was completed on November 12, 2008. Bush Industries retained all rights-of-entry and authorization for Bush Industries (and NYSDEC) to continue to perform its obligations under the Amended and Supplemental Order. Also, deed restrictions have been placed upon the property prohibiting the use of groundwater. The current owner of the property is H2K Ventures, with addresses of 297 Howard Avenue, Jamestown, N.Y., and 312 Fair Oak Street, Little Valley, N.Y.

## **1.2 PREVIOUS SITE INVESTIGATIONS**

Bush Industries has conducted an extensive investigation of groundwater conditions at the 312 Fair Oak Street Site in concert with NYSDEC. Results are documented in the report entitled Groundwater Evaluation Report, prepared by Conestoga-Rovers & Associates (CRA) and dated February 21, 2000. The findings presented in the Groundwater Evaluation Report are summarized as follows:

1. The highest concentrations of TCE and its degradation products remain in the interior of the Site. There is a residual low level presence of TCE and its degradation products in the interior of the Site with concentrations in groundwater dropping precipitously along the downgradient flow path.
2. Concentrations of TCE at the downgradient perimeter of the Site are approximately equal to or below the New York State Groundwater criterion.
3. This distribution trend (rapidly declining concentrations with distance from the interior of the Site) indicates that natural attenuation processes occur limiting constituent migration and the Site does not pose a significant threat to downgradient groundwater quality.

The Groundwater Evaluation Report was approved by NYSDEC in March 2000. In May 2000, Bush Industries submitted the Remediation Report prepared by Geomatrix Consultants. The Remediation Report recommended implementation of an annual MNA sampling program at the Site. That Remediation Report was approved by NYSDEC in July 2007, along with EPA's concurrence.

## **1.3 MNA PROGRAM OBJECTIVES**

The objectives of the natural attenuation monitoring are to:

1. Perform annual monitored natural attenuation (MNA) sampling events
2. Evaluate historic and new analytical data to monitor natural attenuation at the Site

## **2.0 WORK PERFORMED**

### **2.1 MNA SCOPE OF WORK**

The MNA monitoring work to be performed at the 312 Fair Oak Street Site is specified in the following documents:

*Final Remedial Action Work Plan for the Little Valley Superfund Site*

Contract Number:68-W-98-214

Prepared by Tetra Tech EC, Inc.

Dated October 2006

*Quality Assurance Project Plan Addendum for the Little Valley Superfund Site*

Contract Number:68-W-98-214

Prepared by Tetra Tech EC, Inc.

Dated September 2006

*Work Plan for Natural Attenuation Monitoring, Bush Industries, Inc.*

Prepared for Bush Industries, Inc.

Prepared by Geomatrix Consultants

Dated July 2007

The latter document prepared by Geomatrix governs the specific sampling program for the Site and is referred to herein as the Work Plan. In order to facilitate direct comparison of the Site analytical results with results from other wells within the LVSS sampled by USEPA, the sampling methods, analytical methods and QA/QC protocols specified by USEPA for the LVSS remediation are utilized for the Bush Industries MNA monitoring and are incorporated into the Work Plan.

In accordance with the Work Plan, the MNA Program for groundwater at the 312 Fair Oak Street Site includes the following:

1. Annual groundwater sampling events for the following wells: MW-D1, MW-D2, MW-2, MW-3, MW-5 and MW-6. Monitoring well locations are shown of Figure 2.
2. Sampling of wells using low flow methodology in accordance with the Work Plan
3. Analyses of samples for the following MNA analyses: Volatile Organic Chemicals (VOCs), alkalinity, sulfate, sulfide, nitrate, chloride, total organic carbon, ferrous iron, ethane, ethene and methane. The analytical program and methodology is summarized in Table 1 (except deviations as noted in Section 2.2, below).
4. Data validation.

## 5. Data evaluation and reporting.

These tasks are described in detail in the Work Plan.

### **2.2 2009 MNA GROUNDWATER SAMPLING EVENT**

Amec Geomatrix personnel conducted the annual MNA sampling event for the Site on September 22, 2009. Water level measurement, equipment decontamination, and low flow purge methods were in accordance with the work plan. Purge records are included in Table 2.

Deviations from the Work Plan during the 2009 sampling event are listed below:

- With the prior concurrence of NYSDEC (by e-mail from Linda Ross, NYSDEC, dated September 18, 2008), VOCs were analyzed using SW-846 Third Edition Methods with USEPA Contract Laboratory Program (CLP) deliverables.

Groundwater samples were analyzed in accordance with Table 1 (except as noted above) by Test America Buffalo Laboratory.

The data validation and usability are discussed in Section 3.1. Results are presented in Section 3.2.



### **3.0 SAMPLING EVENT RESULTS**

#### **3.1 DATA VALIDATION AND USABILITY**

The analytical results and data packages reported by the laboratory were validated by MECX, LPof Aurora, Colorado. Data validation was performed in accordance with the Work Plan based on an evaluation of method specific QC information (holding times, calibration records, laboratory and field blanks, duplicate precision, and surrogate and matrix spike recoveries), the most current version of the USEPA Region 2 Data Validation SOPs ([www.epa.gov/region02/desa/hsw/sops.htm](http://www.epa.gov/region02/desa/hsw/sops.htm)), the most current version of the EPA National Functional Guidelines ([www.epa.gov/superfund/programs/clp/guidance.htm](http://www.epa.gov/superfund/programs/clp/guidance.htm)) and the best professional judgment of the validator.

The Data Validation Report is included in its entirety in Appendix A. Results were deemed usable with appropriate qualifiers added (see Appendix A). The most notable qualification required was for the Total Organic Carbon (TOC) results which were qualified as estimated due to difficulty with sample result verification.

#### **3.2 GROUNDWATER RESULTS**

##### **3.2.1 Hydraulic Head Measurements**

Groundwater hydraulic head measurements obtained September 22, 2009 are presented in Table 3. Figure 3 presents a potentiometric surface map prepared from these measurements. Groundwater flow is indicated to be toward the northeast and is consistent with prior measurement events.

##### **3.2.2 Analytical Results**

The validated analytical results are summarized in Table 4. Table 5 presents comparison criteria for detected constituents in groundwater used by USEPA for the LVSS. TCE and/or its reductive dechlorination products (cis-1,2-dichloroethene and vinyl chloride) were detected at or above the comparison criteria in 3 of the 6 wells sampled.

The highest TCE concentration was measured in the sample from well MW-D2 (reported concentration of 140 ug/L). Well MW-D2 is located in the southeastern portion of the property. The reductive dechlorination product cis-1,2-dichloroethene was present above 1 ug/L in samples from 3 wells (29 ug/L in MW-2; 26 ug/L in MW-6; and 32 ug/L in MW-D2). The reductive dechlorination product vinyl chloride was detected in 2 wells (0.77 J (estimated) ug/L in MW-2; and 2.5 ug/L in MW-6).

At the downgradient property boundary (MW-3), TCE was detected in the sample at 4.2 ug/L and in the blind duplicate sample at 3.7 ug/L (both results are below the comparison criteria). No other VOCs were detected in the sample from well MW-3 or its blind duplicate.

Toluene and 2-butanone were detected at low concentrations (5 ug/L and 3.6 J (estimated) ug/L, respectively) in well MW-5.

MNA parameter results are discussed in the following section.

## **4.0 CONTAMINANT TRENDS AND PROGRESS OF MNA**

### **4.1 CONTAMINANT TRENDS**

Table 6 presents historical sampling results for the six wells in the Bush Industries MNA sampling program. Figures 4 through 9 present time versus concentration plots depicting the historical trend of TCE and daughter products in the Bush Industries MNA monitoring wells. As shown on these figures, all 2009 sampling event results for TCE and its reductive dechlorination products are within the range of historical values. Additional annual sampling data will be necessary to assess any long term trends in the MNA monitoring wells.

### **4.2 REDUCTIVE DECHLORINATION**

The data obtained during the September 2009 groundwater sampling event were reviewed to assess the potential for degradation of VOCs at the Site via reductive dechlorination. EPA's Technical Protocol (EPA, 1998) was used as a basis for much of the following assessment.

#### *Oxygen*

Anaerobic bacteria generally cannot function at dissolved oxygen (DO) concentrations above 0.5 mg/L, and reductive dechlorination will not occur. As indicated in Table 2, stable field measured DO concentrations at the Site ranged from approximately 0.5 mg/L to 8.6 mg/L. The lowest DO concentrations were measured at wells MW-2 and MW-6. Reductive dechlorination products were detected in both of these wells.

#### *Nitrate*

After dissolved oxygen has been depleted, nitrate may be used as an electron acceptor for the biodegradation of organic compounds via denitrification. Areas of depressed nitrate concentrations within a groundwater plume may indicate biodegradation via nitrate reduction, while the presence of nitrate in groundwater can indicate a fairly aerobic environment. Nitrate concentrations in the contaminant plume should be less than 1 mg/L for reductive dechlorination to occur. Nitrate concentrations ranged from not detected (conductive) to 1.6 mg/L (not conductive). Nitrate concentrations below 1 mg/L were measured in wells MW-2, MW-5, MW-6 and MW-D2.

#### *Ferrous Iron*

After nitrate, iron (III) may be used as an electron acceptor during anaerobic biodegradation, reducing the analyte to iron (II). Ferrous iron [iron (II)] concentrations were not detected in any wells.

### *Sulfate/Sulfide*

After dissolved oxygen and nitrate depletion, sulfate may be used as an electron acceptor for anaerobic biodegradation (EPA, 1998). This “sulfate reduction” process produces sulfide, and concentrations of sulfide greater than 1 mg/L indicate a possible reductive pathway. Sulfate concentrations ranged up to 17.0 mg/L. Sulfide was not detected in any well during the 2009 event.

### *Methane/Ethane/Ethene*

EPA, 1998 states that methanogenesis (the reduction of carbon dioxide to methane) generally occurs after oxygen, nitrate, and sulfate have been depleted. Therefore, the presence of methane in groundwater is indicative of strongly reducing conditions. Samples from three wells, MW-2, MW-5, and MW-6, contained detectable concentrations of methane in the 2009 event (0.0087 mg/L, 0.00031 J (estimated) mg/L and 0.098 mg/L, respectively).

### *Alkalinity*

Zones of microbial activity are typically identified by an increase in alkalinity, resulting from increased concentrations of carbon dioxide produced by the metabolism of microorganisms. According to EPA, 1998, a two-fold increase in alkalinity values over background numbers suggests biodegradation may be occurring. The minimum value for alkalinity (61.8 mg/L) was present in the sample from well MW-5, which is considered upgradient of the TCE presence at the Site. Well MW-5, therefore, was used as “background” for comparison. Samples from the following wells had concentrations more than twice background concentration: MW-2, MW-3, MW-D1 and MW-D2.

### *Oxidation-Reduction Potential*

The oxidation-reduction potential of groundwater is a relative measure of electron activity, and can influence rates of biodegradation. At less than 50 millivolts (mV), the reductive pathway is possible, and becomes more likely below -100 mV (EPA, 1998). Negative redox potentials were not measured in any wells during the 2009 event.

### *pH and Temperature*

Metabolic activity of bacteria is affected by the pH and temperature of the groundwater. The optimal values for these parameters for reductive biodegradation is a pH between 6 and 8 and a temperature greater than 20°C. All of the wells had pHs in this optimum range. Stable values of water temperature during the 2009 sampling event were between 11.50°C and 14.36°C.

### *Chloride*

Chloride is released as a breakdown product during the biodegradation of chlorinated compounds. Chloride ions do not typically enter into oxidation-reduction reactions, form no important solute complexes, do not form salts of low solubility, are not significantly adsorbed on mineral surfaces, and play few vital biochemical roles (EPA, 1998). As a result, significant increases in chloride concentrations relative to background (i.e., two times) may indicate the biodegradation of chlorinated compounds. Road salting also serves as a common, localized source of chloride to aquifer systems. Well MW-5, which as indicated above is considered upgradient of the TCE presence at the Site, was used as “background” for comparison of the chloride values. MW-5 had a chloride concentration of 12.0 mg/L. The furthest downgradient well on the property (MW-3) had a chloride concentration of 31.8 mg/L. All other wells sampled had chloride concentrations below 30 mg/L.

### *Total Organic Carbon*

The presence of natural or anthropogenic organic carbon can facilitate dechlorination, by acting as a carbon and energy source for aerobic microorganisms (which during aerobic respiration decrease dissolved oxygen levels, creating a reducing environment and increasing the potential for anaerobic bacteria to function). A TOC concentration of 20 mg/L is most favorable to dechlorination. TOC concentrations ranged from 0.9 J (estimated) mg/L (in well MW-D2) to 2.5 J (estimated) mg/L in well MW-6 for the 2009 event.

### *Daughter Products*

Transformation of TCE via reduction dechlorination produces daughter products including 1,1-dichloroethene, 1,2-dichloroethene (cis- and/or trans-), and vinyl chloride. As described in Section 3.2, these daughter products were detected, suggesting that reductive dechlorination has occurred at the property.

## **4.3 PROGRESS OF MNA AT THE SITE**

The presence of daughter products and methane in groundwater samples reflect the reductive dechlorination occurring in groundwater at the property.

The 2009 results indicate concentrations of TCE and daughter products in groundwater are within the historical ranges in each well and do not appear to be increasing.

The next annual report is due 90 days from completion of the 2010 yearly groundwater sampling, per the Work Plan.

## TABLES

---

TABLE 1

**SAMPLE COLLECTION AND ANALYSIS PROTOCOLS**  
**312 Fair Oak Street, Little Valley, New York**

Page 1 of 2

<i>Sample Type</i>	<i>Matrix</i>	<i>Sampling Device</i>	<i>No. of Samples</i> <sup>(1)(2)</sup>	<i>Parameter</i>	<i>Sample Container</i> <sup>(3)(4)</sup>	<i>Sample Preservation</i>	<i>Analytical Method</i> <sup>(5)</sup>	<i>PQL</i>	<i>Holding Time</i> <sup>(6)</sup>
Groundwater	Water	Positive Displacement Submersible Pump	6	pH; temperature; specific conductivity DO; ORP; turbidity [Field Screening]	NA	NA	Direct Field Measurement Following SOP	NA	Analyze Immediately
			6	Low Concentration TCL Volatile Organic Compounds [CLP Lab]	(4) 40 mL VOA vials w/Teflon lined septum	1:1 HCl to pH<2; Cool to 4°C	SOM01.1	Compound specific (0.5 - 20 µg/L)	10 days
			6	Total Organic Carbon [DESA Lab]	(1) L amber glass	H <sub>2</sub> SO <sub>4</sub> to pH<2; Cool to 4°C	SW-846 Method 9060	1 mg/L	28 days*
			6	Alkalinity [DESA Lab]	(1) 1 L polyethelyene	Cool to 4°C	MCAWW Method 310.1	1 mg/L	14 days*
			6	Sulfate [DESA Lab]	(1) 1 L polyethelyene	Cool to 4°C	EPA 300.1	1 mg/L	28 days*
			6	Sulfide [DESA Lab]	(1) 1 L polyethelyene	NaOH to pH >12; 4 drops of zinc acetate per liter; Cool to 4°C	MCAWW Method 376.1	1 mg/L	7 days*
			6	Nitrate [DESA Lab]	(1) 1 L polyethelyene	Cool to 4°C	EPA 300.1	0.05 mg/L	48 hours*
			6	Chloride [DESA Lab]	(1) 1 L polyethelyene	Cool to 4°C	EPA 300.1	1 mg/L	28 days*
			6	Ferrous Iron [Sub Lab]	(1) 100 mL amber glass	2mL HCl; Cool to 4°C	Std. Methods Method 3500Fe-D	10 µg/L	24 hours*
			6	Ethane [Sub Lab]	(5) 40-mL VOA vials w/Teflon lined septum	Cool to 4°C	GC/FID (SW-846 Method 3810)	5 µg/L	7 days*
			6	Ethene [Sub Lab]	(5) 40-mL VOA vials w/Teflon lined septum	Cool to 4°C	GC/FID (SW-846 Method 3810)	5 µg/L	7 days*
			6	Methane [Sub Lab]	(5) 40-mL VOA vials w/Teflon lined septum	Cool to 4°C	GC/FID (SW-846 Method 3810)	5 µg/L	7 days*

TABLE 1

**SAMPLE COLLECTION AND ANALYSIS PROTOCOLS**  
**312 Fair Oak Street, Little Valley, New York**

<i>Sample Type</i>	<i>Matrix</i>	<i>Sampling Device</i>	<i>No. of Samples</i> <sup>(1)(2)</sup>	<i>Parameter</i>	<i>Sample Container</i> <sup>(3)(4)</sup>	<i>Sample Preservation</i>	<i>Analytical Method</i> <sup>(5)</sup>	<i>PQL</i>	<i>Holding Time</i> <sup>(6)</sup>
Field Blank	Water	Collected Rinsate Passed Over/Through Sampling Equipment	1	Low Concentration TCL Volatile Organic Compounds [CLP Lab]	(4) 40-mL VOA vials w/Teflon lined septum	1:1 HCl to pH<2; Cool to 4°C	SOM01.1	Compound specific (0.5 - 20 µg/L)	10 days
Trip Blank	Water	Direct Fill of Sample Bottles	1	Low Concentration TCL Volatile Organic Compounds [CLP Lab]	(4) 40-mL VOA vials w/Teflon lined septum	1:1 HCl to pH<2; Cool to 4°C	SOM01.1	Compound specific (0.5 - 20 µg/L)	10 days
			6	Ethane [Sub Lab]	(5) 40-mL VOA vials w/Teflon lined septum	Cool to 4°C	GC/FID (SW-846 Method 3810)	5 µg/L	7 days*
			6	Ethene [Sub Lab]	(5) 40-mL VOA vials w/Teflon lined septum	Cool to 4°C	GC/FID (SW-846 Method 3810)	5 µg/L	7 days*
			6	Methane [Sub Lab]	(5) 40-mL VOA vials w/Teflon lined septum	Cool to 4°C	GC/FID (SW-846 Method 3810)	5 µg/L	7 days*

## NOTES:

- The number in parentheses in the "No. of Samples" column denotes the number of duplicate samples.
- The number of field, trip and DI water blanks is estimated based on the approximate number of days in the field for each type of sampling during the MNA Program events.
- The number in parentheses in the "Sample Container" column denotes the number of containers needed. Additional volume must be sent for laboratory QA/QC sample analyses.
- All bottles will comply with OSWER Directive 9240.0-05A: "Specifications and Guidance for Obtaining Contaminant-Free Sample Containers", EPA 540/R-93/051, December 1992.
- Method References:  
 SOM01.1 = USEPA Contract Laboratory Program Statement of Work for Multi-Media, Multi-Concentration Organics (May 2005 or latest revision).  
 MCAWW = Methods for Chemical Analysis of Water and Wastes, March 1983.  
 Std. Methods = Standard Methods for the Examination of Water and Wastewater, 20th Edition (January 2000).  
 SW-846 = Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (November 1986, revised through November 2000 via Updates I through IVB).  
 EPA300.1 = Determination of Inorganic Anions in Drinking Water by Ion Chromatography, Revision I (27 April 1999).  
 EPA/600/R-98128 = Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater (September 1998).
- All holding times listed are from Verified Time of Sample Receipt (VTSR) unless noted otherwise (\* denotes from time of sample collection).
- Acronyms/Abbreviations used:  
 CLP = Contract Laboratory Program  
 DO = Dissolved Oxygen  
 PQL = Practical Quantitation Limit  
 TCL = Target Compound List  
 DESA = Division of Environmental Science and Assessment  
 ORP = Oxidation-Reduction Potential  
 Sub Lab = Non-RAS Subcontract Laboratory  
 VOA = Volatile Organic Analysis



**TABLE 2**  
**MONITORING WELL PURGE SUMMARY**  
**312 Fair Oak Street**  
**Little Valley, New York**

Time	Cumulative Volume (L)	Temperature (degrees C)	pH	Specific Conductance (us/cm)	Dissolved Oxygen (mg/L)	Redox Potential (mV)
<b>MW-2</b>						
14:55	Begin Purge	--	--	--	--	--
15:00	1	15.71	7.50	0.607	3.90	90.1
15:05	2	13.49	7.08	0.592	1.31	83.6
15:10	4	13.04	7.05	0.588	1.00	80.7
15:15	5	13.30	7.05	0.589	0.91	79.5
15:20	6	13.40	7.05	0.589	0.86	80.9
<b>MW-3</b>						
9:45	Begin Purge	--	--	--	--	--
10:00	5	12.03	6.85	0.806	8.67	130.9
10:10	8	12.14	6.86	0.805	8.60	130.3
10:15	9	12.07	6.85	0.805	8.53	129.5
10:20	10	12.12	6.76	0.804	8.57	128.4
<b>MW-5</b>						
16:10	Begin Purge	--	--	--	--	--
16:15	1	14.79	6.68	0.241	3.62	98.3
16:20	2	14.53	6.52	0.238	1.78	85.6
16:25	4	14.42	6.51	0.238	1.35	83.6
16:30	5	14.39	6.53	0.242	1.61	83.1
16:35	6	14.36	6.54	0.245	1.85	82.5
<b>MW-6</b>						
13:35	Begin Purge	--	--	--	--	--
13:40	1	14.38	6.21	0.377	1.77	101.9
13:45	2	14.26	6.22	0.298	1.91	111
13:50	4	14.31	6.21	0.324	1.18	88.5
13:55	5	14.28	6.21	0.355	0.85	82.7
14:00	6	14.21	6.20	0.366	0.55	75.9
<b>MW-D1</b>						
10:55	Begin Purge	--	--	--	--	--
11:00	2	15.49	6.71	0.708	8.07	147.5
11:05	4	13.70	7.13	0.742	7.13	142.0
11:10	6	13.26	6.80	0.726	6.80	136.6
11:15	8	12.90	6.77	0.718	6.77	134.4
11:20	9	12.93	6.58	0.71	6.58	134.0
11:25	10	12.80	6.57	0.708	6.57	134.5
<b>MW-D2</b>						
11:45	Begin Purge	--	--	--	--	--
11:50	1	12.78	7.13	0.729	6.29	141.7
12:00	3	11.48	7.12	0.774	4.88	123.0
12:05	4	11.45	7.20	0.773	4.40	118.0
12:10	5	11.41	7.20	0.757	4.26	115.1
12:15	6	11.50	7.2	0.742	4.20	113.7

**TABLE 3**  
**GROUNDWATER ELEVATION SUMMARY**  
**312 Fair Oak Street**  
**Little Valley, New York**

<b>Well ID</b>	<b>Measuring Point Elevation (fasl)</b>	<b>DTW (ft.) 9/22/09</b>	<b>Groundwater Elevation (fasl)</b>
MW-2	1590.18	38.5	1551.68
MW-3	1591.37	51.18	1540.19
MW-5	1590.44	6.92	1583.52
MW-6	1584.99	3.65	1581.34
MW-D1	1590.31	49.43	1540.88
MW-D2	1584.17	38.16	1546.01

Notes:

DTW- depth to water

fasl- feet above sea level

**TABLE 4**  
**VALIDATED GROUNDWATER ANALYTICAL SUMMARY**  
**312 Fair Oak Street**  
**Little Valley, New York**

<i>Sample ID:</i>	<i>LVRA03-MNAGW-MW2</i>	<i>LVRA03-MNAGW-MW3</i>	<i>LVRA03-MNAGW-MW5</i>	<i>LVRA03-MNAGW-MW6</i>	<i>LVRA03-MNAGW-MWD1</i>	<i>LVRA03-MNAGW-MWD2</i>	<i>LVRA03-MNAGW-DUP1<sup>(1)</sup></i>
<i>Date Sampled:</i>	<i>09/22/09</i>	<i>09/22/09</i>	<i>09/22/09</i>	<i>09/22/09</i>	<i>09/22/09</i>	<i>09/22/09</i>	<i>09/22/09</i>
<b><i>Volatile Organic Compounds (ug/L)</i></b>							
1,1,1-Trichloroethane	1U	1U	1U	1U	1U	1U	1U
1,1,2,2-Tetrachloroethane	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloro-1,2,2,-trifluoroethane	1U	1U	1U	1U	1U	1U	1U
1,1,2-Trichloroethane	1U	1U	1U	1U	1U	1U	1U
1,1-Dichloroethane	1U	1U	1U	1U	1U	1U	1U
1,1-Dichloroethene	0.58J	1U	1U	1U	1U	0.71J	1U
1,2,4-Trichlorobenzene	1U	1U	1U	1U	1U	1U	1U
1,2-Dibromo-3-Chloropropane	1UJ	1UJ	1UJ	1UJ	1UJ	1UJ	1UJ
1,2-Dibromomethane	1U	1U	1U	1U	1U	1U	1U
1,2-Dichlorobenzene	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloroethane	1U	1U	1U	1U	1U	1U	1U
1,2-Dichloropropane	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	1U	1U	1U	1U	1U	1U	1U
1,4-Dichlorobenzene	1U	1U	1U	1U	1U	1U	1U
2-Butanone	5U	5U	3.6J	5U	5U	5U	5U
2-Hexanone	5U	5U	5U	5U	5U	5U	5U
4-Methyl-2-pentanone	5U	5U	5U	5U	5U	5U	5U
Acetone	5UJ	5UJ	5UJ	5UJ	5UJ	5UJ	5UJ
Benzene	1U	1U	1U	1U	1U	1U	1U
Bromodichloromethane	1U	1U	1U	1U	1U	1U	1U
Bromoform	1U	1U	1U	1U	1U	1U	1U
Bromomethane	1U	1U	1U	1U	1U	1U	1U
Carbon Disulfide	1U	1U	1U	1U	1U	1U	1U
Carbon Tetrachloride	1U	1U	1U	1U	1U	1U	1U
Chlorobenzene	1U	1U	1U	1U	1U	1U	1U
Chloroethane	1U	1U	1U	1U	1U	1U	1U
Chloroform	1U	1U	1U	1U	1U	1U	1U
Chloromethane	1U	1U	1U	1U	1U	1U	1U
cis-1,2-Dichloroethene	29	1U	1U	26	0.92J	32	1U
cis-1,3-Dichloropropene	1U	1U	1U	1U	1U	1U	1U
Cyclohexane	1U	1U	1U	1U	1U	1U	1U
Dibromochloromethane	1U	1U	1U	1U	1U	1U	1U
Dichlorodifluoromethane	1U	1U	1U	1U	1U	1U	1U
Ethylbenzene	1U	1U	1U	1U	1U	1U	1U
Isopropylbenzene	1U	1U	1U	1U	1U	1U	1U
Methyl acetate	1U	1U	1U	1U	1U	1U	1U
Methylcyclohexane	1U	1U	1U	1U	1U	1U	1U
Methylene Chloride	1U	1U	1U	1U	1U	1U	1U
Methyl-tert-butyl ether	1U	1U	1U	1U	1U	1U	1U
Styrene	1U	1U	1U	1U	1U	1U	1U
Tetrachloroethene	1U	1U	1U	1U	1U	1U	1U
Toluene	1U	1U	5.5	1U	1U	1U	1U
Total Xylenes	2U	2U	2U	2U	2U	2U	2U
trans-1,2-Dichloroethene	1U	1U	1U	1U	1U	1U	1U
trans-1,3-Dichloropropene	1U	1U	1U	1U	1U	1U	1U
Trichloroethene	77	4.2	1U	3.7	6.7	140	3.7
Trichlorofluoromethane	1U	1U	1U	1U	1U	1U	1U
Vinyl chloride	.77J	1U	1U	2.5	1U	1U	1U

<b><i>Monitored Natural Attenuation Parameters (mg/L)</i></b>							
Chloride	25.2	31.8	12.0	11.3	23.8	27.3	32.1
Ethane	0.0075U	0.0015U	0.0015U	0.015U	0.0015U	0.0015U	0.0015U
Ethene	0.0075UJ	0.0015UJ	0.0015UJ	0.015UJ	0.0015UJ	0.0015UJ	0.0015UJ
Ferrous Iron	0.10 U	0.10U	0.10 U	0.10 U	0.10U	0.10U	0.10 U
Methane	0.0087	0.001U	.00031J	0.098	0.001U	0.001U	0.001U
Nitrate	0.05 U	1.43	0.05 U	0.05 U	1.60	0.416	1.46
Sulfate	16.5	11.5	5.31	10.9	11.7	17.0	11.0
Sulfide	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Alkalinity	173	171	61.8	92.0	151	154	173
Total Organic Carbon	1.6J	1.1J	1.1J	2.5J	1.0J	0.9J	0.9J

Notes:

U = Compound not detected above specified laboratory detection limit

J= Laboratory estimated concentration

(1) Duplicate sample collected at LVRA03-MNAGW-MW3 location

**TABLE 5**  
**Comparison Criteria for Detected Constituents in Groundwater**

<b>BASIS FOR CRITERIA</b>	<b>HUMAN HEALTH</b>	<b>STATE</b>
	<b>EPA Maximum Contaminant Level</b>	<b>NYSDEC Water Quality Values [Class GA]</b>
<b>Volatile Organics (ug/L)</b>		
1,1,2-Trichloroethane	200	5
1,1-Dichloroethene	7	5
1,2,3-Trichlorobenzene	NC	5
1,2,4-Trichlorobenzene	70	5
1,2-Dichlorobenzene	600	3
1,2-Dichloroethane	5	0.6
1,2-Dichloroethene (total)	70	5
cis-1,2-Dichloroethene	70	5
trans-1,2-Dichloroethene	100	5
1,2-Dichloropropane	5	1
1,3-Dichlorobenzene	NC	3
1,4-Dichlorobenzene	75	3
2-Hexanone	NC	50
Acetone	NC	50
Benzene	5	1
Carbon disulfide	NC	60
Chlorobenzene	100	5
Chloroethane	NC	5
Cyclohexane	NC	NC
Ethylbenzene	700	5
Methyl chloride (Chloromethane)	NC	5
Methyl ethyl ketone (2-Butanone)	NC	50
Methyl isobutyl ketone (4-Methyl-2-pentanone)	NC	NC
Methylcyclohexane	NC	NC
Styrene	100	5
Tetrachloroethene	5	5
Toluene	1000	5
Trichloroethene	5	5
m/p-Xylene	10000	5
Xylenes (total)	10000	5

TABLE 6  
Historical Summary of Detected Groundwater Constituents in MNA Wells  
312 Fair Oak Street

	BIAMW-2											BIAMW-3								
	05/05/1999	05/05/1999 Duplicate	12/14/1999	12/14/1999 Duplicate	01/10/2001	12/11/2003	10/31/2006	10/31/2006 Duplicate	09/25/2007	09/25/2008	09/22/2009	05/05/1999	01/09/2001	12/10/2003	10/30/2006	09/25/2007	09/25/2008	09/25/2008 Duplicate	09/22/2009	09/22/2009 Duplicate
Volatile Organics (ug/L)																				
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	1 J	--	0.7 J	0.7 J	--	0.63	0.8	0.89	0.73	0.6	0.58 J	--	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	NA	NA	NA	NA	--	--	0.16 J	0.12 J	--	--	--	NA	--	--	--	--	--	--	--	--
Benzene	0.7 J	--	0.4 J	0.4 J	--	0.32 J	--	--	0.29 J	--	--	--	--	--	0.12 J	--	--	--	--	--
2-Butanone	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	0.8 J	--	--	--	--	--	0.19 J	0.23 J	--	--	--	--	--	--	0.091 J	--	--	--	--	--
1,2-Dichloroethene	54	51	40	42	NA	NA	NA	NA	NA	NA	--	2 J	NA	NA	NA	NA	NA	NA	--	--
cis-1,2-Dichloroethene	NA	NA	NA	NA	44	40 D	45 D	46 D	54 D	42	29	NA	3	2.2	0.36 J	0.86	0.7	0.8	--	--
trans-1,2-Dichloroethene	NA	NA	NA	NA	--	0.28 J	0.51	0.49 J	0.47 J	--	--	NA	--	--	--	--	--	--	--	--
Ethylbenzene	--	--	--	--	--	--	0.25 J	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	NA	NA	NA	NA	NA	--	0.14 J	--	--	--	--	NA	NA	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	230	190	84	87	110	36 D	58 D	58 D	69 J	75	77	5 J	8	6.3	2.2	7.9 J	5	6	4.2	3.7
Vinyl Chloride	4 J	2 J	1 J	1 J	NA	4.8	4	4.8	4.2	3	0.77 J	--	--	--	--	--	--	--	--	--
m/p-Xylene	NA	NA	NA	NA	NA	NA	0.1 J	--	--	--	--	NA	NA	NA	--	--	--	--	--	--
MNA/Water Quality Parameters (mg/L)																				
Alkalinity	NA	NA	NA	NA	NA	180	190	180	176	194	173	NA	NA	160	260	155	167	168	171	173
Chloride	NA	NA	NA	NA	NA	19	26	26	28.4	32.2	25.2	NA	NA	44	78	64.4	46.0	46.3	31.8	32.1
Ferrous Iron	NA	NA	NA	NA	NA	--	0.17	0.14	--	--	--	NA	NA	--	--	0.18	--	--	--	--
Methane	NA	NA	NA	NA	NA	0.54 JD	0.046 J	0.11 J	0.026	0.020	0.009	NA	NA	0.07 J N	--	--	--	--	--	--
Nitrate	NA	NA	NA	NA	NA	--	--	--	--	--	--	NA	NA	1.2	1.9	1.5	1.4	1.3	1.43	1.46
Sulfate	NA	NA	NA	NA	NA	16	17	17	20.5	21.2	16.5	NA	NA	12	27	23.8	13.8	13.2	11.5	11.0
Sulfide	NA	NA	NA	NA	NA	NA	0.02	0.018	--	--	--	NA	NA	NA	0.018	--	--	--	--	--
TOC	NA	NA	NA	NA	NA	2.6	--	--	1.6	--	1.6 J	NA	NA	--	26	1.4	--	--	--	--

**Notes:**  
-- Not detected  
J Estimated concentration.  
D Value derived from dilution analysis.  
N Evidence exists for constituent presence.  
NA Not analyzed.

Above human health-based values.  
 Above state values.  
 Above both of the above values.

TABLE 6  
Historical Summary of Detected Groundwater Constituents in MNA Wells  
312 Fair Oak Street

	BIAMW-5							BIAMW-6						BIAMW-D1					
	05/05/1999	12/13/1999	01/04/2001	10/30/2006	09/25/2007	09/25/2008	09/22/2009	12/13/1999	01/10/2001	10/30/2006	09/25/2007	09/25/2008	09/22/2009	05/05/1999	12/13/1999	01/10/2001	12/10/2003	10/31/2006	09/22/2009
Volatile Organics (ug/L)																			
1,1,2-Trichloroethane	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	--	--	--	--	--	--	--	--	--	0.66	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	NA	NA	--	--	--	--	--	NA	--	--	--	--	--	NA	NA	--	--	--	--
Benzene	--	--	--	0.23 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	--	--	--	--	--	--	3.6 J	--	--	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	0.13 J	--	--	--	--	--	0.11 J	--	--	--	--	--	--	--	--	--
1,2-Dichloroethene	--	--	NA	NA	NA	NA	--	30	NA	NA	NA	NA	--	6 J	4 J	NA	NA	NA	--
cis-1,2-Dichloroethene	NA	NA	--	--	--	--	--	NA	44	35 D	120	39	26	NA	NA	8	4.8	0.42 J	0.92 J
trans-1,2-Dichloroethene			--	--	--	--	--	NA	--	0.48 J	0.31 J	--	--	NA	NA	--	--	0.55	--
Ethylbenzene	--	--	--	0.13 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	NA	NA	NA	--	--	--	--	NA	NA	--	--	--	--	NA	NA	NA	--	--	--
Toluene	--	--	--	--	--	--	5.5	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	--	--	--	--	--	--	17	37	19	1.6 J	3	3.7	11	9 J	18	12	1.8	6.7
Vinyl Chloride	--	--	--	--	--	--	--	4 J	--	--	9.5 J	5	2.5	--	--	--	--	0.16 J	--
m/p-Xylene	NA	NA	NA	--	--	--	--	NA	NA	--	--	--	--	NA	NA	NA	NA	--	--
MNA/Water Quality Parameters (mg/L)																			
Alkalinity	NA	NA	NA	70	65	65.4	61.8	NA	NA	88	75	86.1	92	NA	NA	NA	190	200	151
Chloride	NA	NA	NA	11	38.4	23.3	12	NA	NA	13	32.9	17.8	11.3	NA	NA	NA	42	55	23.8
Ferrous Iron	NA	NA	NA	0.18	--	--	--	NA	NA	--	--	--	--	NA	NA	NA	--	--	--
Methane	NA	NA	NA	--	0.0061	--	0.00031 J	NA	NA	0.082 J	0.098	0.064	0.098	NA	NA	NA	0.06 J N	--	--
Nitrate	NA	NA	NA	0.73	--	--	--	NA	NA	--	--	--	--	NA	NA	NA	1.4	2.7	1.6
Sulfate	NA	NA	NA	6.7	7.4	6.4	5.31	NA	NA	11	19.4	10.1	10.9	NA	NA	NA	13	11	11.7
Sulfide	NA	NA	NA	--	--	--	--	NA	NA	--	--	--	--	NA	NA	NA	NA	--	--
TOC	NA	NA	NA	--	1.3	--	1.1 J	NA	NA	--	1.7	--	2.5 J	NA	NA	NA	--	--	1.0 J

Notes:  
-- Not detected  
J Estimated concentration.  
D Value derived from dilution analysis.  
N Evidence exists for constituent presence.  
NA Not analyzed.

Above human health-based values.  
 Above state values.  
 Above both of the above values.

TABLE 6  
Historical Summary of Detected Groundwater Constituents in MNA Wells  
312 Fair Oak Street

	BIAMW-D2									
	05/05/1999	12/14/1999	01/10/2001	01/10/2001 Duplicate	12/11/2003	10/30/2006	09/25/2007	09/25/2007 Duplicate	09/25/2008	09/22/2009
Volatile Organics (ug/L)										
1,1,2-Trichloroethane	--	--	--	--	--	0.084 J	--	--	--	--
1,1-Dichloroethene	1 J	0.4 J	--	--	0.81	0.54	0.44 J	0.47 J	--	0.71 J
1,4-Dichlorobenzene	NA	NA	--	--	--	--	--	--	--	--
Benzene	2 J	--	--	--	--	--	--	--	--	--
2-Butanone	--	--	--	--	--	--	--	--	--	--
Chloroethane	--	--	--	--	--	0.11 J	--	--	--	--
1,2-Dichloroethene	58	16	NA	NA	NA	NA	NA	NA	NA	--
cis-1,2-Dichloroethene	NA	NA	36	29	18 D	26 D	33	33	25	32
trans-1,2-Dichloroethene	NA	NA	--	--	--	0.71	0.31 J	0.23 J	--	--
Ethylbenzene	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene	NA	NA	NA	NA	--	--	--	--	--	--
Toluene	--	--	--	--	--	--	--	--	--	--
Trichloroethene	160	58	140	110	78 D	93 D	110 J	110 J	93	140
Vinyl Chloride	--	--	--	--	--	--	--	--	--	--
m/p-Xylene	NA	NA	NA	NA	NA	--	--	--	--	--
MNA/Water Quality Parameters (mg/L)										
Alkalinity	NA	NA	NA	NA	130	140	116	116	133	154
Chloride	NA	NA	NA	NA	22	31	37.8	37.8	33.4	27.3
Ferrous Iron	NA	NA	NA	NA	--	--	0.23	--	--	--
Methane	NA	NA	NA	NA	0.07 JN	--	--	--	--	--
Nitrate	NA	NA	NA	NA	0.29	0.34	0.23	0.22	0.24	0.416
Sulfate	NA	NA	NA	NA	15	13	19.8	19.1	16.8	17
Sulfide	NA	NA	NA	NA	NA	0.027	--	--	--	--
TOC	NA	NA	NA	NA	2.4	--	1.8	--	--	0.9 J

Notes:

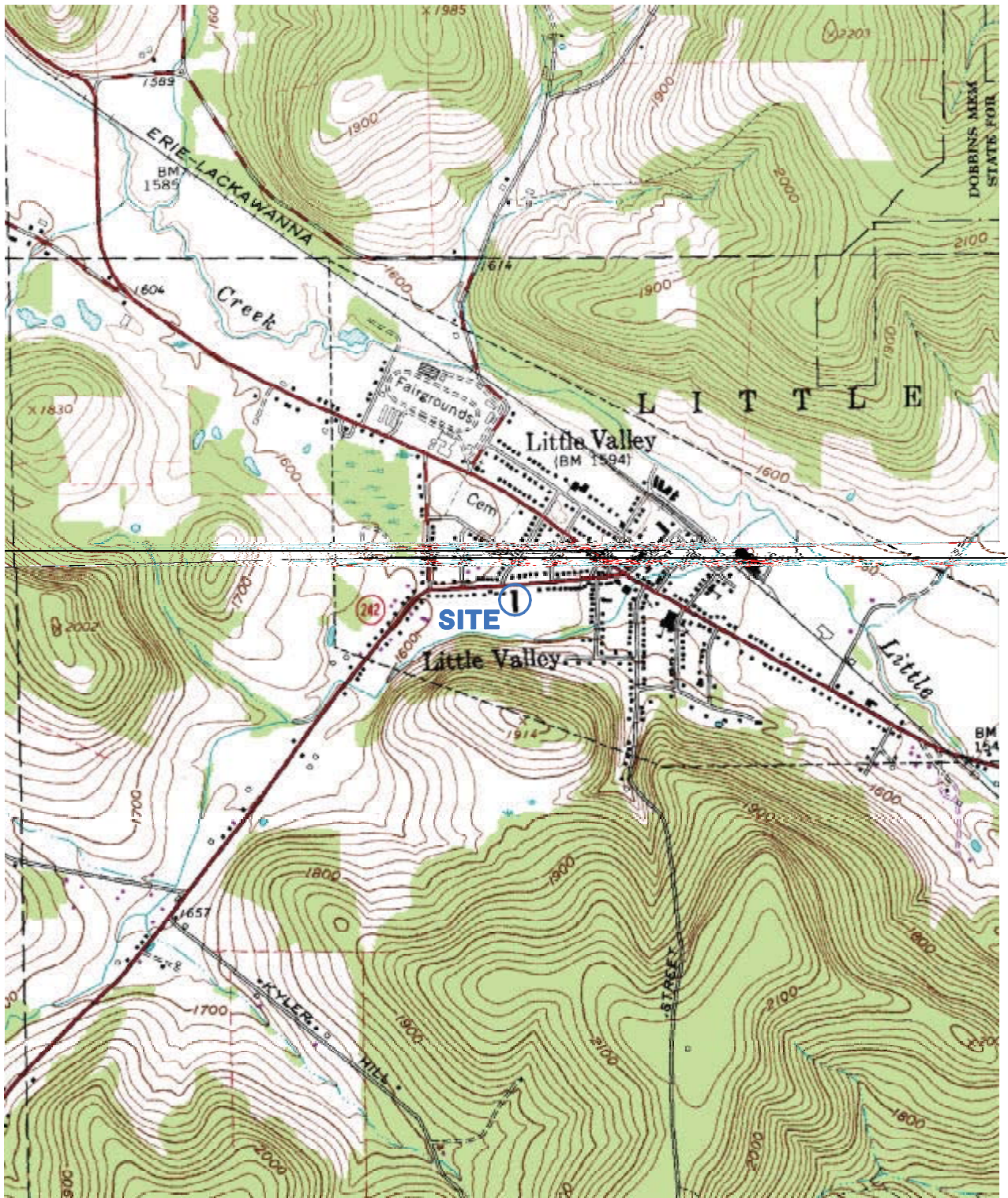
- Not detected
- J Estimated concentration.
- D Value derived from dilution analysis.
- N Evidence exists for constituent presence.
- NA Not analyzed.

- Above human health-based values.
- Above state values.
- Above both of the above values.

## FIGURES

---





SOURCE:

USGS CATTARAUGUS AND LITTLE VALLEY, NEW YORK QUADRANGLES.



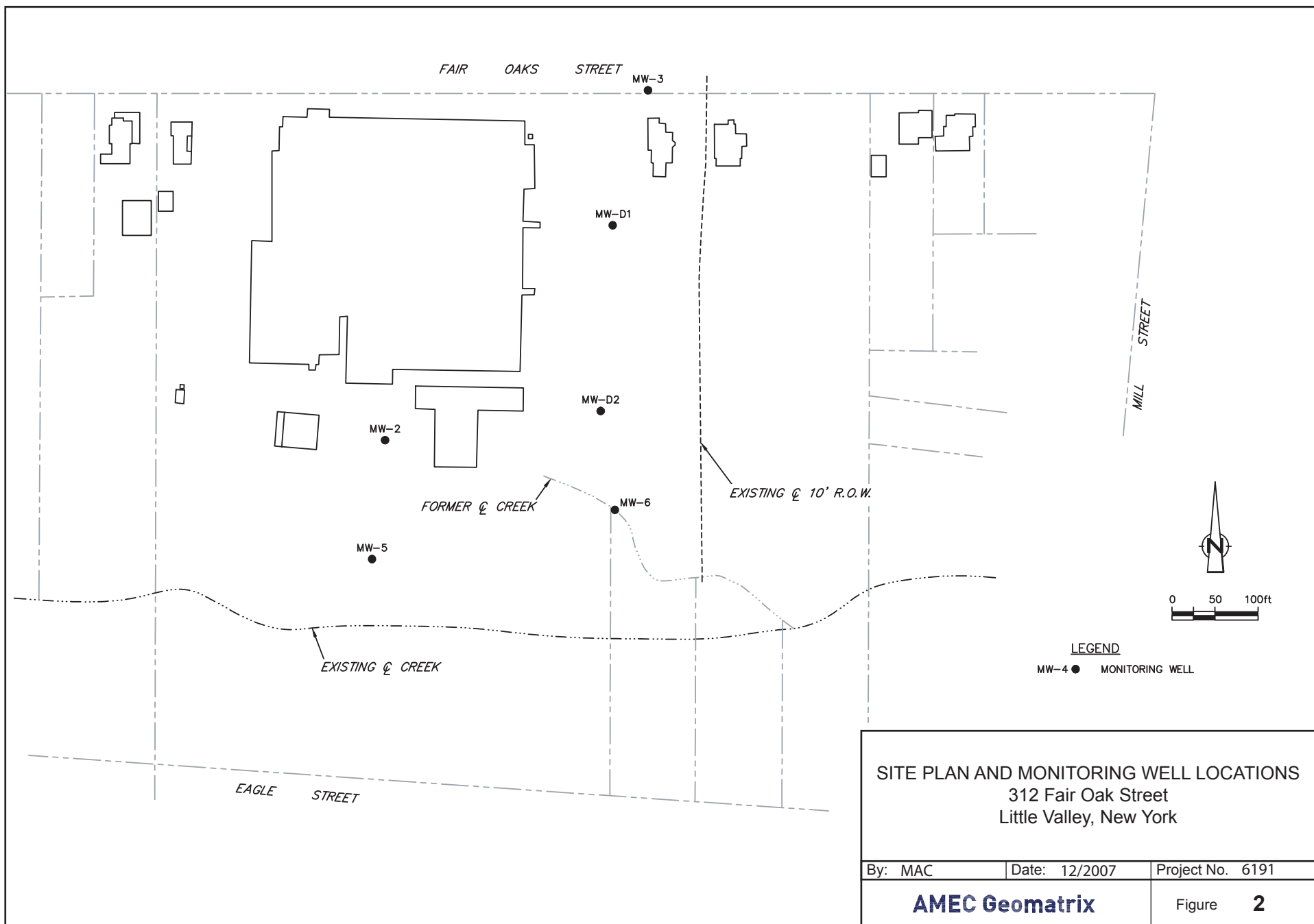
DATE: 05/09/2000  
FILEPATH: C:\GEOMATRIX\6191  
DRAFTED BY: JTM

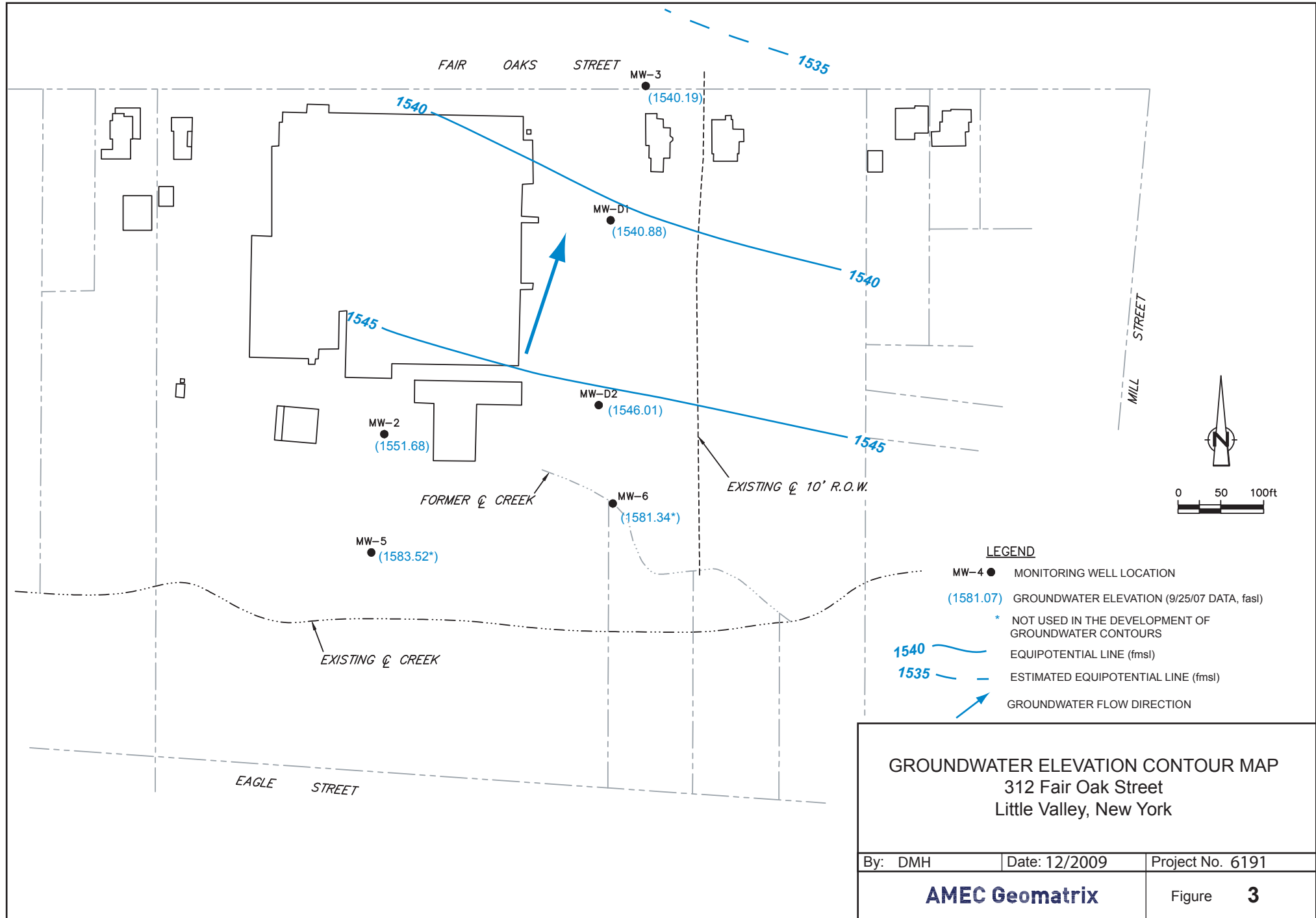
**AMEC Geomatrix**

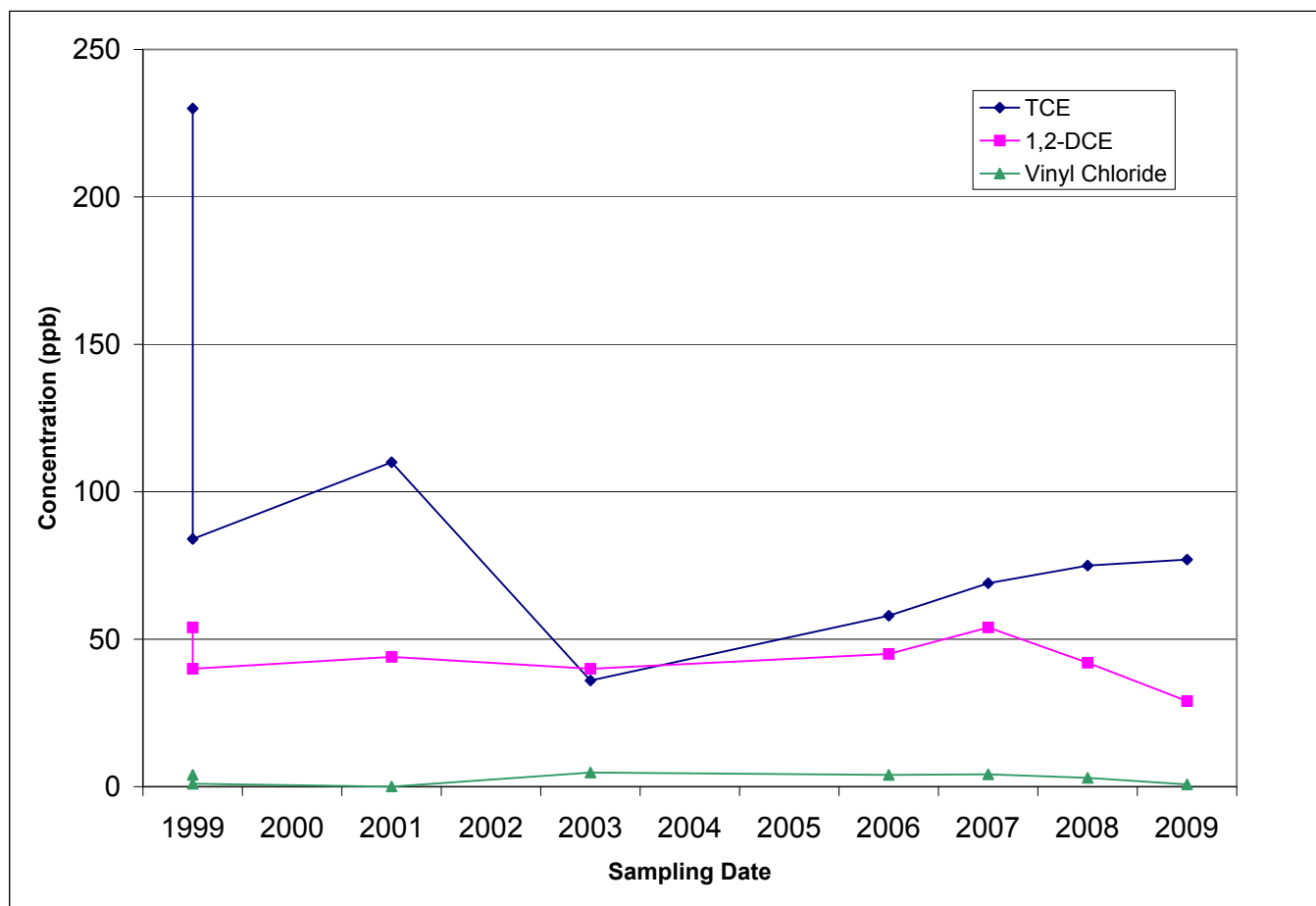
SITE LOCATION  
312 FAIR OAK STREET  
LITTLE VALLEY, NEW YORK

Project No.  
6191

Figure  
1







MW-2 VOC TIME-CONCENTRATION PLOT  
312 Fair Oak Street  
Little Valley, New York

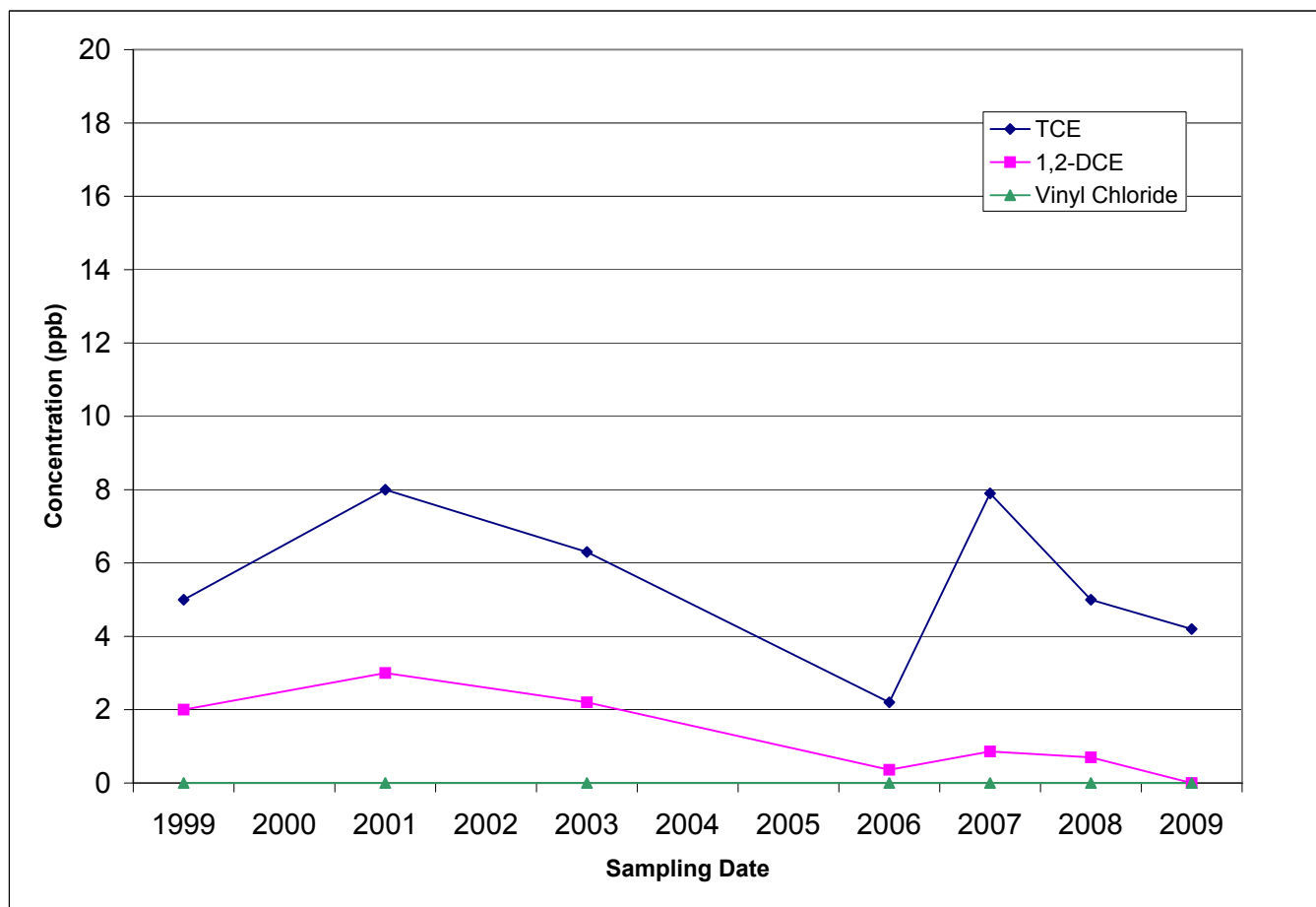
By: DMH

Date: 12/2009

Project No. 6191

**AMEC Geomatrix**

Figure 4



MW-3 VOC TIME-CONCENTRATION PLOT  
312 Fair Oak Street  
Little Valley, New York

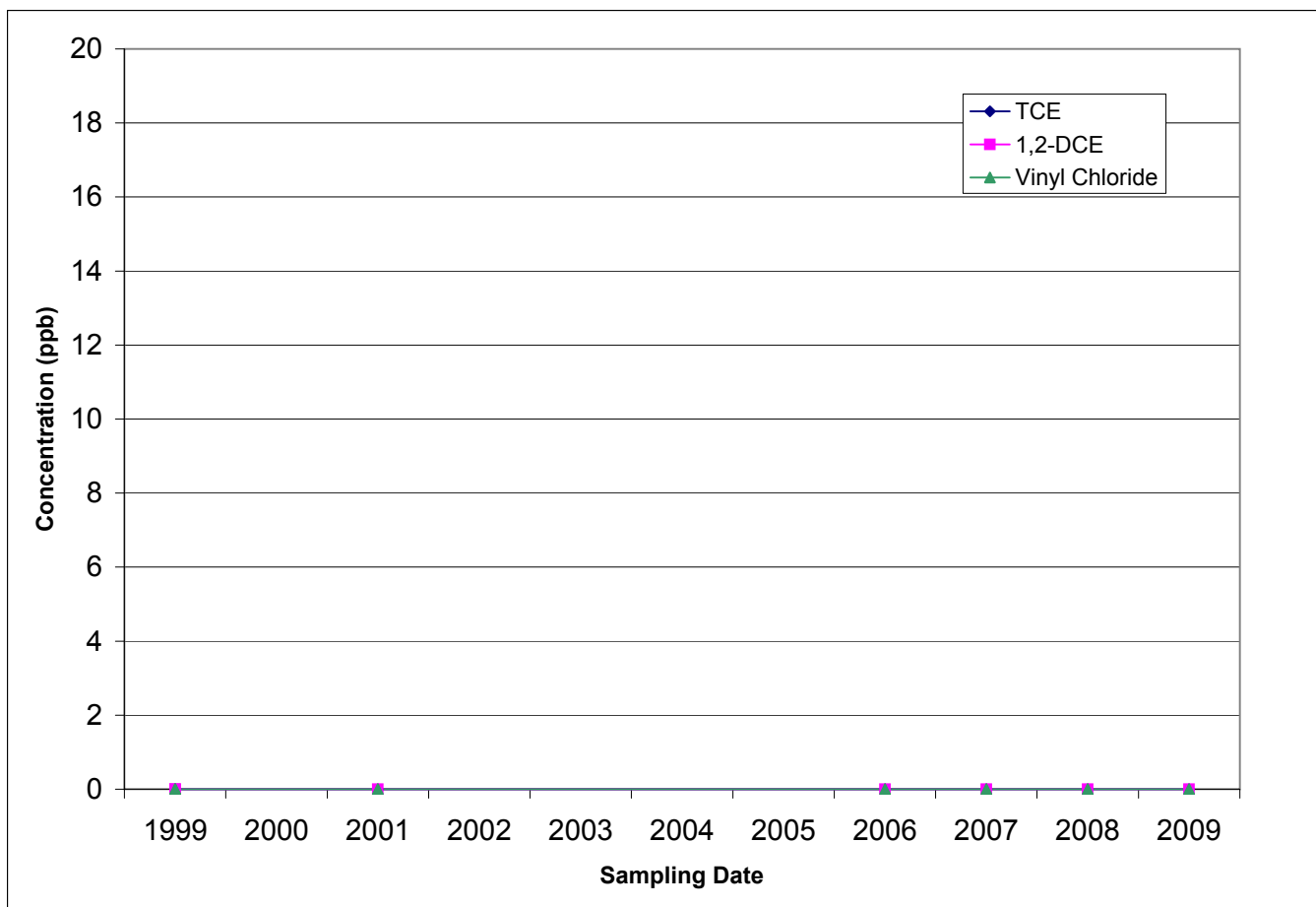
By: DMH

Date: 12/2009

Project No. 6191

**AMEC Geomatrix**

Figure 5



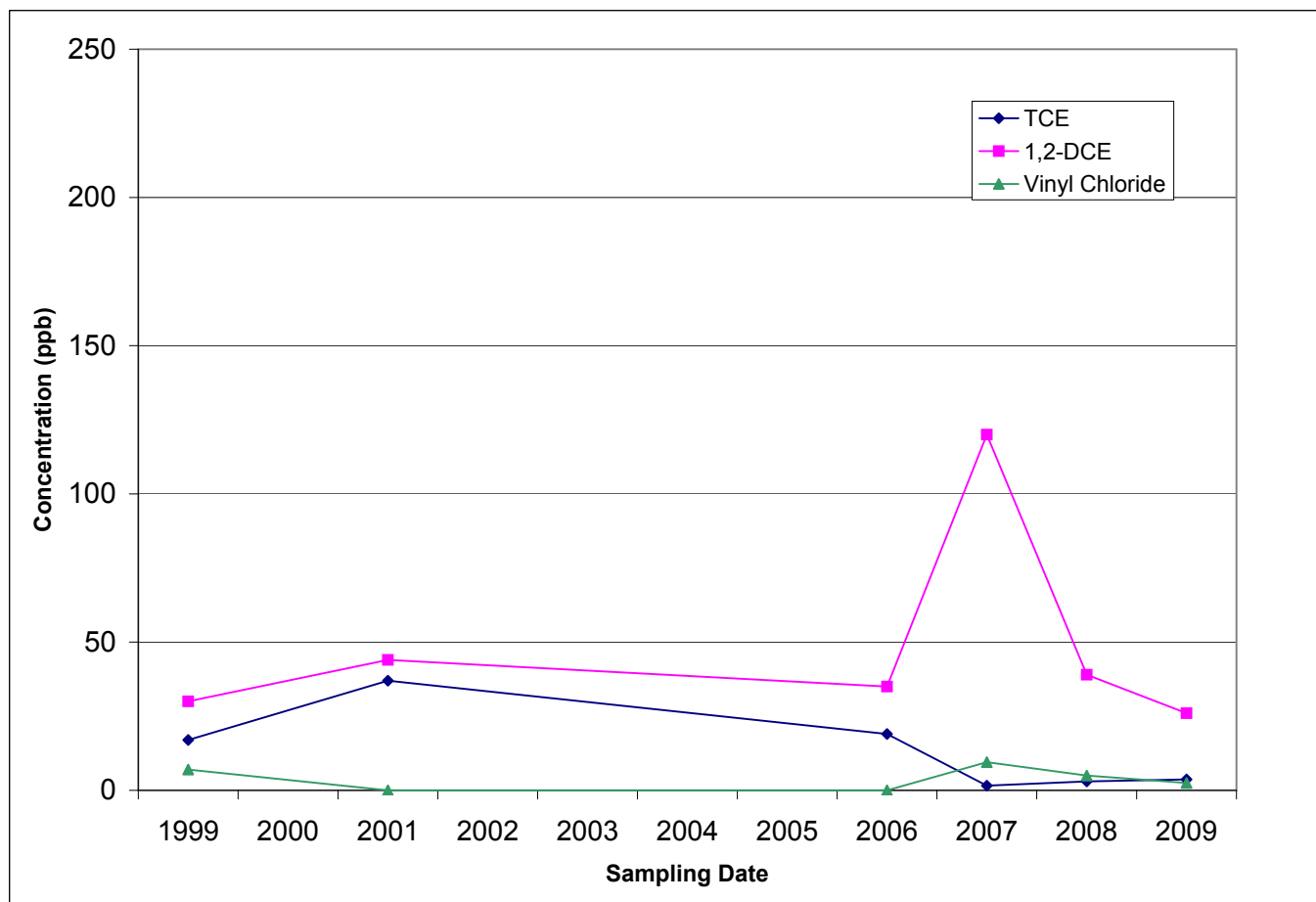
MW-5 VOC TIME-CONCENTRATION PLOT  
312 Fair Oak Street  
Little Valley, New York

By: DMH	Date: 12/2009	Project No. 6191
---------	---------------	------------------

**AMEC Geomatrix**

Figure 6



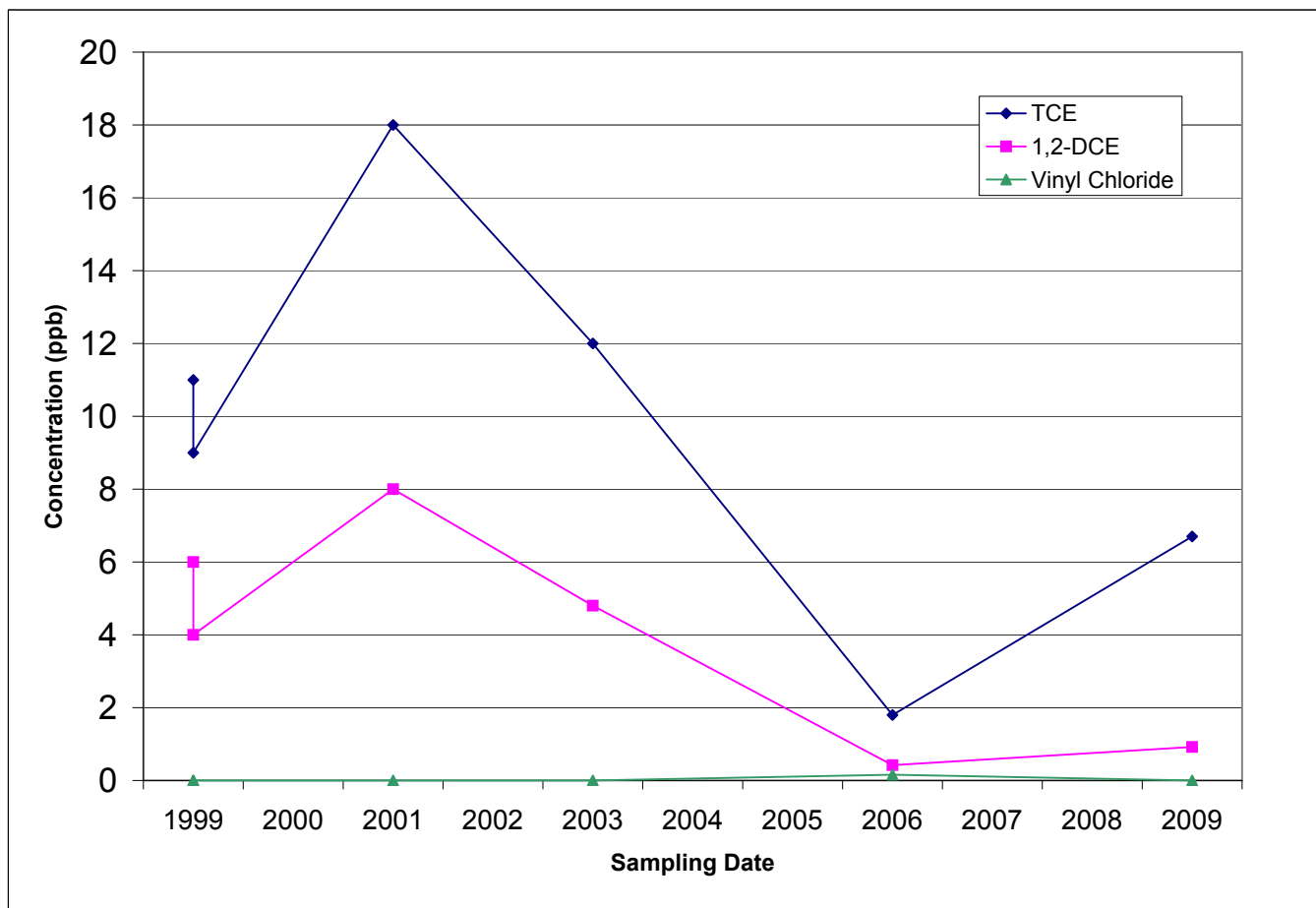


MW-6 VOC TIME-CONCENTRATION PLOT  
312 Fair Oak Street  
Little Valley, New York

By: DMH Date: 12/2009 Project No. 6191

**AMEC Geomatrix**

Figure 7



MW-D1 VOC TIME-CONCENTRATION PLOT  
312 Fair Oak Street  
Little Valley, New York

By: DMH

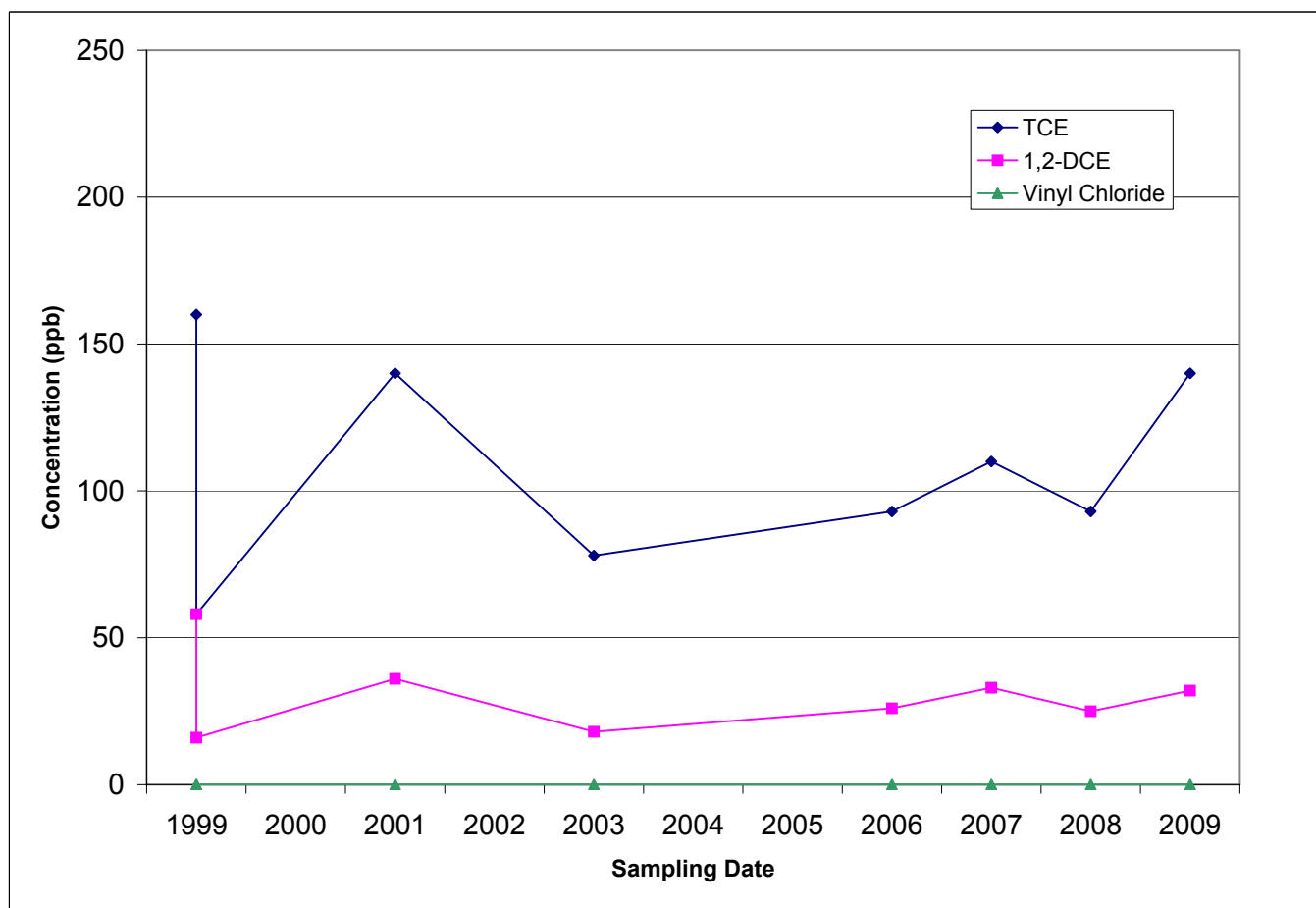
Date: 12/2009

Project No. 6191

**AMEC Geomatrix**

Figure 8





MW-D2 VOC TIME-CONCENTRATION PLOT  
312 Fair Oak Street  
Little Valley, New York

By: DMH

Date: 12/2009

Project No. 6191

**AMEC Geomatrix**

Figure 9

## **APPENDIX A**

---

### Data Validation Report



**DATA USABILITY SUMMARY REPORT  
for**

**Bush Industries**

**Analyses: Volatiles, Dissolved Gases, Ferrous Iron, Alkalinity,  
Chloride, Sulfate, Nitrate, Sulfide, Total Organic Carbon**

**SAMPLE DELIVERY GROUP  
ISI0801**

**PREPARED FOR:**

**AMEC - Geomatrix  
West Amherst, New York**

**Reviewed by:**

A handwritten signature in black ink, appearing to read "K. T. S. J. G. D.", written over a horizontal line.

**Reviewed by:**

A handwritten signature in black ink, appearing to read "P. M. D.", written over a horizontal line.

**Approved by:**

A handwritten signature in black ink, appearing to read "E. H. W.", written over a horizontal line.

**Prepared by**

MEC<sup>X</sup>, LP  
12269 East Vassar Drive  
Aurora, CO 80014

## I. INTRODUCTION

Task Order Title: Bush Industries  
Contract Task Order: 1217.012D.00 001  
Sample Delivery Group: RSI0801  
Project Manager: Kelly McIntosh  
Matrix: Water  
QC Level: III  
No. of Samples: 9  
No. of Reanalyses/Dilutions: 0  
Laboratory: TestAmerica-Buffalo

**Table 1. Sample Identification**

Client ID	Laboratory ID	Matrix	Sample Date	Method
LVRA04-MNAGW-MW3	RSI0801-01	Water	09/22/2009 1020	300.0, 353.2, 2320B, 3500D, 4500-SF, 8260B, 9060, RSK175
LVRA04-MNAGW-MWD1	RSI0801-02	Water	09/22/2009 1125	300.0, 353.2, 2320B, 3500D, 4500-SF, 8260B, 9060, RSK175
LVRA04-MNAGW-MWD2	RSI0801-03	Water	09/22/2009 1215	300.0, 353.2, 2320B, 3500D, 4500-SF, 8260B, 9060, RSK175
LVRA04-MNAGW-MWD6	RSI0801-04	Water	09/22/2009 1400	300.0, 353.2, 2320B, 3500D, 4500-SF, 8260B, 9060, RSK175
LVRA04-MNAGW-MW2	RSI0801-07	Water	09/22/2009 1520	300.0, 353.2, 2320B, 3500D, 4500-SF, 8260B, 9060, RSK175
LVRA04-MNAGW-MW5	RSI0801-08	Water	09/22/2009 1635	300.0, 353.2, 2320B, 3500D, 4500-SF, 8260B, 9060, RSK175
Field Blank	RSI0801-09	Water	09/22/2009 1420	8260B, 9060
Trip Blank	RSI0801-10	Water	09/22/2009	8260B
DUP-1	RSI0801-11	Water	09/22/2009	300.0, 353.2, 2320B, 3500D, 4500-SF, 8260B, 9060, RSK175

## II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C  $\pm$ 2°C. Other sample receipt information was provided by the laboratory. The COCs were appropriately signed and dated by field and/or laboratory personnel. Sample DUP-1 was not included on the original COC; however, according to the case narrative for this SDG, the sample analyses were requested as noted on the sample container. No information regarding the custody seals was provided by the laboratory. If necessary, the client ID was added to the sample result summary by the reviewer. No additional sample receipt information was provided by the laboratory.

**Data Qualifier Reference Table**

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

**Qualification Code Reference Table**

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

**Qualification Code Reference Table Cont.**

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

### III. Method Analyses

#### A. EPA Method 8260B - Volatile Organic Compounds (VOCs)

Reviewed By: K. Shadowlight

Date Reviewed: November 21, 2009

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC<sup>x</sup> Data Validation Procedure for Volatile Organics (DVP-2, Rev. 0)*, *EPA Method 8260B*, *CLP Organics Data Review and Preliminary Review (9/2006)*, and the *USEPA Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B (9/2006)*.

- Holding Times: The preserved water samples were analyzed within 14 days of collection.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. All samples were analyzed within 12 hours of the BFB injection time.
- Calibration: The average RRFs for the SPCCs were within the method required criteria of  $\geq 0.1$  (for chloromethane, 1,1-dichloroethane, and bromoform) and  $\geq 0.3$  (for chlorobenzene and 1,2-dichloroethane). The remaining average RRFs for the applicable target compounds were  $\geq 0.05$ . Initial calibration %RSDs were  $\leq 15\%$  or  $r^2$  values were  $\geq 0.995$  for all applicable target compounds.
- Continuing Calibration: The continuing calibration RRFs for the SPCCs were within the method required criteria of  $\geq 0.1$  for chloromethane, 1,1-dichloroethane, and bromoform and  $\geq 0.3$  for chlorobenzene and 1,2-dichloroethane. The remaining continuing calibration RRFs for the applicable target compounds were  $\geq 0.05$ . The %Ds for 1,2-dibromo-3-chloropropane and acetone exceeded 20%; therefore, the results for these two compounds were qualified as estimated, "J," for detects and "UJ," for nondetects in the samples of this SDG, unless otherwise rejected (see Compound Quantitation section). The remaining %Ds for the applicable target compounds were  $\leq 20\%$ .
- Blanks: The method blanks had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries for the five spiked target compounds were within laboratory-established QC limits.
- Surrogate Recovery: The surrogate recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on sample LVRA04-MNAGW-MW6. Recoveries and RPDs for the five spiked target compounds were within laboratory-established QC limits.



- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Trip Blanks: Sample TRIP BLANK was the trip blank identified for the samples in this SDG. There were no detects reported above the MDL in the trip blank.
  - Field Blanks and Equipment Rinsates: Sample FIELD BLANK was identified as the field blank associated with the samples in this SDG. Acetone was reported at 1.4 µg/L in FIELD BLANK. Acetone detected in sample LVRA04-MNAGW-MW5 was qualified as nondetected, "U." There were no other detects above the MDL in the field blank.
  - Field Duplicates: Samples LVRA04-MNAGW\_MW3 and DUP-1 were identified as a field duplicate pair in this SDG. There was a common detect for trichloroethene with calculated RPDs  $\leq 50\%$  for ground waters. The pair was considered to be in good agreement.
- Internal Standards Performance: The internal standard area counts and retention times for the samples were within the control limits established by the continuing calibration standards:  $-50\%/+100\%$  for internal standard areas and  $\pm 30$  seconds for retention times.
- Compound Identification: Compound identification was not verified at this level of validation. The laboratory analyzed for volatiles by EPA Method 8260B. The sample result summaries were compared to the raw data and no transcription errors were noted.
- Compound Quantification Compound quantitation was not verified at this level of validation. The reporting limits were supported by the low point of the initial calibration and the MDLs. Sample LVRA04-MNAGW-MWD2 was analyzed at a 4× dilution in order to report trichloroethene within linear range of the calibration. The result for trichloroethene was rejected, "R," in the original analysis (LVRA04-MNAGW-MWD2) in favor of the result in the diluted analysis (LVRA04-MNAGW-MWD2-RE). All remaining target compounds in the diluted analysis were rejected, "R," in favor of those same target compounds in the original analysis. Any detect between the MDL and the reporting limit was qualified as estimated, "J," in the samples of this SDG. Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this SDG.
- System Performance: Review of the raw data indicated no problems with system performance.

## B. Method RSK-175--Methane, Ethane, Ethene

Reviewed By: K. Shadowlight

Date Reviewed: November 21, 2009

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in *MEC<sup>X</sup> Data Validation Procedure for Volatile Organics (DVP-2, Rev. 0)*, *MEC<sup>X</sup> Data Validation Procedure for Volatile Organics (DVP-2, Rev. 0)*, *Method RSK-175, CLP Organics Data Review and Preliminary Review (9/2006)*, and *SW-846 Method 8000 (12/1996)*.

- Holding Times: The samples in the SDG were analyzed within 14 days of collection.
- GC/MS Tuning: Not applicable to this analysis.
- Calibration: Calibration criteria were met. Initial calibration %RSDs were  $\leq 20\%$  or  $r^2$  values were  $\geq 0.995$ . The %D for ethene exceeded 15% in the ICV; therefore, results for ethene (all nondetects) were qualified as estimated, "UJ" in the samples of this SDG. The remaining ICV and all CCV %Ds were  $\leq 15\%$ .
- Blanks: There were no detects above the reporting limit in the method blank.
- Blank Spikes and Laboratory Control Samples: Recoveries were within the laboratory established QC limits.
- Surrogate Recovery: Surrogates were not utilized in this method.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed for sample LVRA04-MNAGW-MW6 of this SDG. Recoveries and RPDs were within the laboratory established QC limits.
- Compound Identification: Compound identification was verified at this level of validation. A cursory review of the sample chromatograms and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified. The reporting limits were supported by the low point of the initial calibration and the MDL. Samples LVRA04-MNAGW-MW2 and LVRA04-MNAGW-MW6 were analyzed at 5 $\times$  and 10 $\times$  dilutions, respectively, in order to report methane within the linear range of the calibration. Any detect between the MDL and the reporting limit was qualified as estimated, "J," in the samples of this SDG. Reported nondetects are valid to the reporting limit.
- System Performance: Review of the raw data indicated no problems with system performance.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC

data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Trip Blanks: Trip blanks were not applicable to RSK-175 analysis.
- Field Blanks and Equipment Rinsates: Sample FIELD BLANK was identified as the field blank for the samples in this SDG, however, analysis by RSK-175 was not requested for this analysis.
- Field Duplicates and Field Split Samples: Samples LVRA04-MNAGW-MW3 and DUP-1 were the field duplicate samples identified for this SDG. There were no detects reported above the MDL in the field duplicate samples and the pair was considered to be in good agreement.

### C. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: November 23, 2009

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC<sup>x</sup> Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Methods 300.0, 353.2, 2320B, 3500D, 4500-SF, and 9060*, and the *Validation of Metals for the Contract Laboratory Program based on SOW ILMO5.3, SOP Revision 13 (9/2006)*.

- Holding Times: The analytical holding times, 28 days from collection for chloride, sulfate and TOC, 14 days from collection for alkalinity, seven days from collection for sulfide, and 48 hours from collection for nitrate, were met. As per the method, the analytical holding time for ferrous iron is noted as “in field”. As the ferrous iron analyses were not performed within 24 hours of receipt at the laboratory, the ferrous iron results (all nondetects) were qualified as estimated, “UJ.”
- Calibration: Calibration criteria were met. Initial calibration  $r^2$  values were  $\geq 0.995$ . ICVs were not analyzed for chloride, sulfate, ferrous iron, nitrate and sulfide. As the check standards were acceptably recovered, no qualifications were deemed necessary. For chloride, sulfate, ferrous iron, sulfide, and nitrate the laboratory did not analyze CCVs. Instead, batch LCSs were analyzed every 10 field samples. As the site sample analyses were bracketed by one standard that was not reported as the associated LCS, the reviewer deemed that no qualifications necessary. All initial and continuing calibration recoveries were within 90-110%.

For the titrimetric methods, sulfide and alkalinity, no verification of the titrant normalization was provided by the laboratory. For alkalinity, the normality of the titrant was not provided. The reviewer determined the normality by calculation and as this value remained constant throughout the analyses, no qualifications were necessary.

- **Blanks:** For chloride, sulfate, ferrous iron, sulfide, and nitrate the laboratory did not analyze CCBs. Instead, batch method blanks were analyzed every 10 field samples. As the site sample analyses were bracketed by one standard that was not reported as the associated method blank, the reviewer deemed that no qualifications were necessary. Method blanks and CCBs had no detects.
- **Blank Spikes and Laboratory Control Samples:** Recoveries were within laboratory-established QC limits.
- **Laboratory Duplicates:** Laboratory duplicate analyses were performed on DUP-1 for chloride and sulfate and TOC. The RPDs were within the laboratory-established control limits.
- **Matrix Spike/Matrix Spike Duplicate:** MS/MSD analyses were performed on LVRA04-MNAGW-MW6 for all analytes and on LVRA04-MNAGW-MW3 for chloride and sulfate and TOC. All recoveries and RPDs were within the laboratory-established control limits and no qualifications were required.
- **Sample Result Verification:** A representative number of calculations and sample results were verified against the raw data. The reviewer was able to reproduce and verify the intercept of the linear initial calibration equation for TOC. Using the calculated initial calibration equation, the reviewer was able to calculate only the LCS results. The laboratory apparently used an average response factor (RRF) to calculate the TOC concentrations. The reviewer was able to calculate the samples results using the laboratory's RRF, but was unable to calculate the RRF, within a factor of 2. This difference could be attributable to the instrument injection volume, but as this volume was not reported in the raw data, the reviewer was unable to verify the sample results; therefore, TOC detected in the samples was qualified as estimated, "J." Nondetected TOC in FIELD BLANK was not qualified as the sample absorbances were below the absorbance equivalent to the MDL.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - **Field Blanks and Equipment Rinsates:** This SDG had no identified field blank or equipment rinsate samples for any analyte except TOC. TOC was not detected above the MDL in sample FIELD BLANK.
  - **Field Duplicates:** Samples LVRA04-MNAGW-MW3 and DUP-1 were identified as field duplicate samples. The samples were considered to be in good agreement as all detects were in common and all RPDs were less than 20%.

**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**  
**8260B**

LVRA04-MNAGW-MW3

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-01 File ID: G4293.D  
 Sampled: 09/22/09 10:20 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 12:40  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9126030 Sequence: RI92605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
71-55-6	1,1,1-Trichloroethane	1	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	U
75-34-3	1,1-Dichloroethane	1	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	1.0	U
106-93-4	1,2-Dibromoethane	1	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	U
78-93-3	2-Butanone	1	5.0	U
591-78-6	2-Hexanone	1	5.0	U
108-10-1	4-Methyl-2-pentanone	1	5.0	U
67-64-1	Acetone	1	5.0	U
71-43-2	Benzene	1	1.0	U
75-27-4	Bromodichloromethane	1	1.0	U
75-25-2	Bromoform	1	1.0	U
74-83-9	Bromomethane	1	1.0	U
75-15-0	Carbon disulfide	1	1.0	U
56-23-5	Carbon Tetrachloride	1	1.0	U
108-90-7	Chlorobenzene	1	1.0	U
75-00-3	Chloroethane	1	1.0	U
67-66-3	Chloroform	1	1.0	U
74-87-3	Chloromethane	1	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	U
110-82-7	Cyclohexane	1	1.0	U
124-48-1	Dibromochloromethane	1	1.0	U
75-71-8	Dichlorodifluoromethane	1	1.0	U
100-41-4	Ethylbenzene	1	1.0	U
98-82-8	Isopropylbenzene	1	1.0	U
79-20-9	Methyl Acetate	1	1.0	U
108-87-2	Methylcyclohexane	1	1.0	U
75-09-2	Methylene Chloride	1	1.0	U
1634-04-4	Methyl-t-Butyl Ether (MTBE)	1	1.0	U

MECX VALIDATED

**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**  
**8260B**

LVRA04-MNAGW-MW3

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-01 File ID: G4293.D  
 Sampled: 09/22/09 10:20 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 12:40  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: R192605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)		Q	
100-42-5	Styrene	1	1.0		U	
127-18-4	Tetrachloroethene	1	1.0		U	
108-88-3	Toluene	1	1.0		U	
156-60-5	trans-1,2-Dichloroethene	1	1.0		U	
10061-02-6	trans-1,3-Dichloropropene	1	1.0		U	
79-01-6	Trichloroethene	1	4.2			
75-69-4	Trichlorofluoromethane	1	1.0		U	
75-01-4	Vinyl chloride	1	1.0		U	
1330-20-7	Xylenes, total	1	2.0		U	
SYSTEM MONITORING COMPOUND		ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4		25.0	24.1	96	66 - 137	
4-Bromofluorobenzene		25.0	25.8	103	73 - 120	
Toluene-d8		25.0	28.1	112	71 - 126	
INTERNAL STANDARD		AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4		129908	10.73	162308	10.73	
1,4-Difluorobenzene		304109	5.46	371949	5.46	
Chlorobenzene-d5		147880	8.34	169601	8.34	

\* Values outside of QC limits

MECX VALIDATED



**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**  
**8260B**

LVRA04-MNAGW-MWD1

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-02 File ID: G4294.D  
 Sampled: 09/22/09 11:25 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 13:02  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: R192605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
71-55-6	1,1,1-Trichloroethane	1	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	U
75-34-3	1,1-Dichloroethane	1	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	1.0	U
106-93-4	1,2-Dibromoethane	1	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	U
78-93-3	2-Butanone	1	5.0	U
591-78-6	2-Hexanone	1	5.0	U
108-10-1	4-Methyl-2-pentanone	1	5.0	U
67-64-1	Acetone	1	5.0	U
71-43-2	Benzene	1	1.0	U
75-27-4	Bromodichloromethane	1	1.0	U
75-25-2	Bromoform	1	1.0	U
74-83-9	Bromomethane	1	1.0	U
75-15-0	Carbon disulfide	1	1.0	U
56-23-5	Carbon Tetrachloride	1	1.0	U
108-90-7	Chlorobenzene	1	1.0	U
75-00-3	Chloroethane	1	1.0	U
67-66-3	Chloroform	1	1.0	U
74-87-3	Chloromethane	1	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	0.92	J
10061-01-5	cis-1,3-Dichloropropene	1	1.0	U
110-82-7	Cyclohexane	1	1.0	U
124-48-1	Dibromochloromethane	1	1.0	U
75-71-8	Dichlorodifluoromethane	1	1.0	U
100-41-4	Ethylbenzene	1	1.0	U
98-82-8	Isopropylbenzene	1	1.0	U
79-20-9	Methyl Acetate	1	1.0	U
108-87-2	Methylcyclohexane	1	1.0	U
75-09-2	Methylene Chloride	1	1.0	U
1634-04-4	Methyl-t-Butyl Ether (MTBE)	1	1.0	U

## Form 1

## ORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MWD1

8260B

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-02 File ID: G4294.D  
 Sampled: 09/22/09 11:25 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 13:02  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: RI92605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q		
100-42-5	Styrene	1	1.0	U		
127-18-4	Tetrachloroethene	1	1.0	U		
108-88-3	Toluene	1	1.0	U		
156-60-5	trans-1,2-Dichloroethene	1	1.0	U		
10061-02-6	trans-1,3-Dichloropropene	1	1.0	U		
79-01-6	Trichloroethene	1	6.7			
75-69-4	Trichlorofluoromethane	1	1.0	U		
75-01-4	Vinyl chloride	1	1.0	U		
1330-20-7	Xylenes, total	1	2.0	U		
SYSTEM MONITORING COMPOUND		ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4		25.0	24.4	97	66 - 137	
4-Bromofluorobenzene		25.0	24.7	99	73 - 120	
Toluene-d8		25.0	26.1	105	71 - 126	
INTERNAL STANDARD		AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4		138288	10.73	162308	10.73	
1,4-Difluorobenzene		316840	5.46	371949	5.46	
Chlorobenzene-d5		146820	8.34	169601	8.34	

\* Values outside of QC limits

MECX VALIDATED



**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**  
**8260B**

LVRA04-MNAGW-MWD2

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-03 File ID: G4295.D  
 Sampled: 09/22/09 12:15 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 13:25  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: R192605 Calibration: R911710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
71-55-6	1,1,1-Trichloroethane	1	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	U
75-34-3	1,1-Dichloroethane	1	1.0	U
75-35-4	1,1-Dichloroethene	1	0.71	J
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	1.0	U
106-93-4	1,2-Dibromoethane	1	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	U
78-93-3	2-Butanone	1	5.0	U
591-78-6	2-Hexanone	1	5.0	U
108-10-1	4-Methyl-2-pentanone	1	5.0	U
67-64-1	Acetone	1	5.0	U
71-43-2	Benzene	1	1.0	U
75-27-4	Bromodichloromethane	1	1.0	U
75-25-2	Bromoform	1	1.0	U
74-83-9	Bromomethane	1	1.0	U
75-15-0	Carbon disulfide	1	1.0	U
56-23-5	Carbon Tetrachloride	1	1.0	U
108-90-7	Chlorobenzene	1	1.0	U
75-00-3	Chloroethane	1	1.0	U
67-66-3	Chloroform	1	1.0	U
74-87-3	Chloromethane	1	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	32	
10061-01-5	cis-1,3-Dichloropropene	1	1.0	U
110-82-7	Cyclohexane	1	1.0	U
124-48-1	Dibromochloromethane	1	1.0	U
75-71-8	Dichlorodifluoromethane	1	1.0	U
100-41-4	Ethylbenzene	1	1.0	U
98-82-8	Isopropylbenzene	1	1.0	U
79-20-9	Methyl Acetate	1	1.0	U
108-87-2	Methylcyclohexane	1	1.0	U
75-09-2	Methylene Chloride	1	1.0	U
1634-04-4	Methyl-t-Butyl Ether (MTBE)	1	1.0	U

**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**

LVRA04-MNAGW-MWD2

8260B

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-03 File ID: G4295.D  
 Sampled: 09/22/09 12:15 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 13:25  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: RI92605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q		
100-42-5	Styrene	1	1.0	U		
127-18-4	Tetrachloroethene	1	1.0	U		
108-88-3	Toluene	1	1.0	U		
156-60-5	trans-1,2-Dichloroethene	1	1.0	U		
10061-02-6	trans-1,3-Dichloropropene	1	1.0	U		
79-01-6	Trichloroethene	1	160	E		
75-69-4	Trichlorofluoromethane	1	1.0	U		
75-01-4	Vinyl chloride	1	1.0	U		
1330-20-7	Xylenes, total	1	2.0	U		
SYSTEM MONITORING COMPOUND		ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4		25.0	21.0	84	66 - 137	
4-Bromofluorobenzene		25.0	22.5	90	73 - 120	
Toluene-d8		25.0	25.5	102	71 - 126	
INTERNAL STANDARD		AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4		149785	10.73	162308	10.73	
1,4-Difluorobenzene		362999	5.46	371949	5.46	
Chlorobenzene-d5		161512	8.34	169601	8.34	

\* Values outside of QC limits

MECK VALIDATED

**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**

LVRA04-MNAGW-MWD2

AE

8260B

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-03RE1 File ID: S9400.D  
 Sampled: 09/22/09 12:15 Prepared: 09/26/09 15:10 Analyzed: 09/27/09 00:07  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26053 Sequence: RI92611 Calibration: R9I2403 Instrument: HP5973S

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
71-55-6	1,1,1-Trichloroethane	4	4.0	UD
79-34-5	1,1,2,2-Tetrachloroethane	4	4.0	UD
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	4	4.0	UD
79-00-5	1,1,2-Trichloroethane	4	4.0	UD
75-34-3	1,1-Dichloroethane	4	4.0	UD
75-35-4	1,1-Dichloroethene	4	4.0	UD
120-82-1	1,2,4-Trichlorobenzene	4	4.0	UD
96-12-8	1,2-Dibromo-3-chloropropane	4	4.0	UD
106-93-4	1,2-Dibromoethane	4	4.0	UD
95-50-1	1,2-Dichlorobenzene	4	4.0	UD
107-06-2	1,2-Dichloroethane	4	4.0	UD
78-87-5	1,2-Dichloropropane	4	4.0	UD
541-73-1	1,3-Dichlorobenzene	4	4.0	UD
106-46-7	1,4-Dichlorobenzene	4	4.0	UD
78-93-3	2-Butanone	4	20	UD
591-78-6	2-Hexanone	4	20	UD
108-10-1	4-Methyl-2-pentanone	4	20	UD
67-64-1	Acetone	4	20	UD
71-43-2	Benzene	4	4.0	UD
75-27-4	Bromodichloromethane	4	4.0	UD
75-25-2	Bromoform	4	4.0	UD
74-83-9	Bromomethane	4	4.0	UD
75-15-0	Carbon disulfide	4	4.0	UD
56-23-5	Carbon Tetrachloride	4	4.0	UD
108-90-7	Chlorobenzene	4	4.0	UD
75-00-3	Chloroethane	4	4.0	UD
67-66-3	Chloroform	4	4.0	UD
74-87-3	Chloromethane	4	4.0	UD
156-59-2	cis-1,2-Dichloroethene	4	33	D
10061-01-5	cis-1,3-Dichloropropene	4	4.0	UD
110-82-7	Cyclohexane	4	4.0	UD
124-48-1	Dibromochloromethane	4	4.0	UD
75-71-8	Dichlorodifluoromethane	4	4.0	UD
100-41-4	Ethylbenzene	4	4.0	UD
98-82-8	Isopropylbenzene	4	4.0	UD
79-20-9	Methyl Acetate	4	4.0	UD
108-87-2	Methylcyclohexane	4	4.0	UD
75-09-2	Methylene Chloride	4	3.2	JD
1634-04-4	Methyl-t-Butyl Ether (MTBE)	4	4.0	UD

**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**

**LVRA04-MNAGW-MWD2**  
*REI*

**8260B**

Laboratory: TestAmerica Buffalo      SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY      Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water      Laboratory ID: RSI0801-03RE1      File ID: S9400.D  
 Sampled: 09/22/09 12:15      Prepared: 09/26/09 15:10      Analyzed: 09/27/09 00:07  
 Solids: \_\_\_\_\_      Preparation: 5030B MS      Initial/Final: 5 mL / 5 mL  
 Batch: 9I26053      Sequence: RI92611      Calibration: R9I2403      Instrument: HP5973S

CAS NO.	COMPOUND		DILUTION	CONC. (ug/L)		Q
100-42-5	Styrene	R/D ↓	4	4.0		UD
127-18-4	Tetrachloroethene		4	4.0		UD
108-88-3	Toluene		4	4.0		UD
156-60-5	trans-1,2-Dichloroethene		4	4.0		UD
10061-02-6	trans-1,3-Dichloropropene		4	4.0		UD
79-01-6	Trichloroethene	R/D ↓	4	140		D
75-69-4	Trichlorofluoromethane		4	4.0		UD
75-01-4	Vinyl chloride		4	4.0		UD
1330-20-7	Xylenes, total		4	8.0		UD
SYSTEM MONITORING COMPOUND		ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4		25.0	25.9	104	66 - 137	
4-Bromofluorobenzene		25.0	27.5	110	73 - 120	
Toluene-d8		25.0	25.0	100	71 - 126	
INTERNAL STANDARD		AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4		284427	9.06	346866	9.06	
1,4-Difluorobenzene		588729	4.99	648395	4.99	
Chlorobenzene-d5		344371	7.19	385653	7.19	

\* Values outside of QC limits

*MECK VALIDATED*

**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**  
**8260B**

LVRA04-MNAGW-MW6

Laboratory: TestAmerica Buffalo SDG:  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-04 File ID: G4296.D  
 Sampled: 09/22/09 14:00 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 13:47  
 Solids: Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: R192605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
71-55-6	1,1,1-Trichloroethane	1	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	U
75-34-3	1,1-Dichloroethane	1	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	1.0	U
106-93-4	1,2-Dibromoethane	1	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	U
78-93-3	2-Butanone	1	5.0	U
591-78-6	2-Hexanone	1	5.0	U
108-10-1	4-Methyl-2-pentanone	1	5.0	U
67-64-1	Acetone	1	5.0	U
71-43-2	Benzene	1	1.0	U
75-27-4	Bromodichloromethane	1	1.0	U
75-25-2	Bromoform	1	1.0	U
74-83-9	Bromomethane	1	1.0	U
75-15-0	Carbon disulfide	1	1.0	U
56-23-5	Carbon Tetrachloride	1	1.0	U
108-90-7	Chlorobenzene	1	1.0	U
75-00-3	Chloroethane	1	1.0	U
67-66-3	Chloroform	1	1.0	U
74-87-3	Chloromethane	1	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	26	
10061-01-5	cis-1,3-Dichloropropene	1	1.0	U
110-82-7	Cyclohexane	1	1.0	U
124-48-1	Dibromochloromethane	1	1.0	U
75-71-8	Dichlorodifluoromethane	1	1.0	U
100-41-4	Ethylbenzene	1	1.0	U
98-82-8	Isopropylbenzene	1	1.0	U
79-20-9	Methyl Acetate	1	1.0	U
108-87-2	Methylcyclohexane	1	1.0	U
75-09-2	Methylene Chloride	1	1.0	U
1634-04-4	Methyl-t-Butyl Ether (MTBE)	1	1.0	U



## Form 1

## ORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW6

8260B

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RS10801-04 File ID: G4296.D  
 Sampled: 09/22/09 14:00 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 13:47  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9126030 Sequence: RI92605 Calibration: R911710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q		
100-42-5	Styrene	1	1.0	U		
127-18-4	Tetrachloroethene	1	1.0	U		
108-88-3	Toluene	1	1.0	U		
156-60-5	trans-1,2-Dichloroethene	1	1.0	U		
10061-02-6	trans-1,3-Dichloropropene	1	1.0	U		
79-01-6	Trichloroethene	1	3.7			
75-69-4	Trichlorofluoromethane	1	1.0	U		
75-01-4	Vinyl chloride	1	2.5			
1330-20-7	Xylenes, total	1	2.0	U		
SYSTEM MONITORING COMPOUND		ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4		25.0	21.0	84	66 - 137	
4-Bromofluorobenzene		25.0	21.5	86	73 - 120	
Toluene-d8		25.0	24.5	98	71 - 126	
INTERNAL STANDARD		AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4		148670	10.73	162308	10.73	
1,4-Difluorobenzene		342362	5.46	371949	5.46	
Chlorobenzene-d5		164265	8.34	169601	8.34	

\* Values outside of QC limits

MECK VALIDATED

**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**

**LVRA04-MNAGW-MW2**

**8260B**

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-07 File ID: G4299.D  
 Sampled: 09/22/09 15:20 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 14:54  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: RI92605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
71-55-6	1,1,1-Trichloroethane	1	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	U
75-34-3	1,1-Dichloroethane	1	1.0	U
75-35-4	1,1-Dichloroethene	1	0.58	J
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	1.0	U
106-93-4	1,2-Dibromoethane	1	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	U
78-93-3	2-Butanone	1	5.0	U
591-78-6	2-Hexanone	1	5.0	U
108-10-1	4-Methyl-2-pentanone	1	5.0	U
67-64-1	Acetone	1	5.0	U
71-43-2	Benzene	1	1.0	U
75-27-4	Bromodichloromethane	1	1.0	U
75-25-2	Bromoform	1	1.0	U
74-83-9	Bromomethane	1	1.0	U
75-15-0	Carbon disulfide	1	1.0	U
56-23-5	Carbon Tetrachloride	1	1.0	U
108-90-7	Chlorobenzene	1	1.0	U
75-00-3	Chloroethane	1	1.0	U
67-66-3	Chloroform	1	1.0	U
74-87-3	Chloromethane	1	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	29	
10061-01-5	cis-1,3-Dichloropropene	1	1.0	U
110-82-7	Cyclohexane	1	1.0	U
124-48-1	Dibromochloromethane	1	1.0	U
75-71-8	Dichlorodifluoromethane	1	1.0	U
100-41-4	Ethylbenzene	1	1.0	U
98-82-8	Isopropylbenzene	1	1.0	U
79-20-9	Methyl Acetate	1	1.0	U
108-87-2	Methylcyclohexane	1	1.0	U
75-09-2	Methylene Chloride	1	1.0	U
1634-04-4	Methyl-t-Butyl Ether (MTBE)	1	1.0	U

## Form 1

## ORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW2

8260B

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-07 File ID: G4299.D  
 Sampled: 09/22/09 15:20 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 14:54  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: RI92605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)		Q	
100-42-5	Styrene	1	1.0		U	
127-18-4	Tetrachloroethene	1	1.0		U	
108-88-3	Toluene	1	1.0		U	
156-60-5	trans-1,2-Dichloroethene	1	1.0		U	
10061-02-6	trans-1,3-Dichloropropene	1	1.0		U	
79-01-6	Trichloroethene	1	77			
75-69-4	Trichlorofluoromethane	1	1.0		U	
75-01-4	Vinyl chloride	1	0.77		J	
1330-20-7	Xylenes, total	1	2.0		U	
SYSTEM MONITORING COMPOUND		ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4		25.0	21.7	87	66 - 137	
4-Bromofluorobenzene		25.0	22.9	91	73 - 120	
Toluene-d8		25.0	26.4	105	71 - 126	
INTERNAL STANDARD		AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4		146340	10.73	162308	10.73	
1,4-Difluorobenzene		352212	5.46	371949	5.46	
Chlorobenzene-d5		154868	8.34	169601	8.34	

\* Values outside of QC limits

MECK VALIDATED



**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**

LVRA04-MNAGW-MWS

8260B

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-08 File ID: G4300.D  
 Sampled: 09/22/09 16:35 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 15:17  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: RI92605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
71-55-6	1,1,1-Trichloroethane	1	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	U
75-34-3	1,1-Dichloroethane	1	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	1.0	U
106-93-4	1,2-Dibromoethane	1	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	U
78-93-3	2-Butanone	1	3.6	J
591-78-6	2-Hexanone	1	5.0	U
108-10-1	4-Methyl-2-pentanone	1	5.0	U
67-64-1	Acetone	1	5.0	U
71-43-2	Benzene	1	1.0	U
75-27-4	Bromodichloromethane	1	1.0	U
75-25-2	Bromoform	1	1.0	U
74-83-9	Bromomethane	1	1.0	U
75-15-0	Carbon disulfide	1	1.0	U
56-23-5	Carbon Tetrachloride	1	1.0	U
108-90-7	Chlorobenzene	1	1.0	U
75-00-3	Chloroethane	1	1.0	U
67-66-3	Chloroform	1	1.0	U
74-87-3	Chloromethane	1	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	U
110-82-7	Cyclohexane	1	1.0	U
124-48-1	Dibromochloromethane	1	1.0	U
75-71-8	Dichlorodifluoromethane	1	1.0	U
100-41-4	Ethylbenzene	1	1.0	U
98-82-8	Isopropylbenzene	1	1.0	U
79-20-9	Methyl Acetate	1	1.0	U
108-87-2	Methylcyclohexane	1	1.0	U
75-09-2	Methylene Chloride	1	1.0	U
1634-04-4	Methyl-t-Butyl Ether (MTBE)	1	1.0	U

**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**

LVRA04-MNAGW-MW5

8260B

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-08 File ID: G4300.D  
 Sampled: 09/22/09 16:35 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 15:17  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9126030 Sequence: RI92605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q		
100-42-5	Styrene	1	1.0	U		
127-18-4	Tetrachloroethene	1	1.0	U		
108-88-3	Toluene	1	5.5			
156-60-5	trans-1,2-Dichloroethene	1	1.0	U		
10061-02-6	trans-1,3-Dichloropropene	1	1.0	U		
79-01-6	Trichloroethene	1	1.0	U		
75-69-4	Trichlorofluoromethane	1	1.0	U		
75-01-4	Vinyl chloride	1	1.0	U		
1330-20-7	Xylenes, total	1	2.0	U		
SYSTEM MONITORING COMPOUND		ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4		25.0	22.6	90	66 - 137	
4-Bromofluorobenzene		25.0	23.2	93	73 - 120	
Toluene-d8		25.0	24.8	99	71 - 126	
INTERNAL STANDARD		AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4		147773	10.73	162308	10.73	
1,4-Difluorobenzene		336694	5.46	371949	5.46	
Chlorobenzene-d5		155107	8.34	169601	8.34	

\* Values outside of QC limits

MECK VALIDATED

**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**

FIELD BLANK

8260B

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-09 File ID: G4301.D  
 Sampled: 09/22/09 14:20 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 15:39  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: R192605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
71-55-6	1,1,1-Trichloroethane	1	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	U
75-34-3	1,1-Dichloroethane	1	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	1.0	U
106-93-4	1,2-Dibromoethane	1	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	U
78-93-3	2-Butanone	1	5.0	U
591-78-6	2-Hexanone	1	5.0	U
108-10-1	4-Methyl-2-pentanone	1	5.0	U
67-64-1	Acetone	1	1.4	J
71-43-2	Benzene	1	1.0	U
75-27-4	Bromodichloromethane	1	1.0	U
75-25-2	Bromoform	1	1.0	U
74-83-9	Bromomethane	1	1.0	U
75-15-0	Carbon disulfide	1	1.0	U
56-23-5	Carbon Tetrachloride	1	1.0	U
108-90-7	Chlorobenzene	1	1.0	U
75-00-3	Chloroethane	1	1.0	U
67-66-3	Chloroform	1	1.0	U
74-87-3	Chloromethane	1	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	U
110-82-7	Cyclohexane	1	1.0	U
124-48-1	Dibromochloromethane	1	1.0	U
75-71-8	Dichlorodifluoromethane	1	1.0	U
100-41-4	Ethylbenzene	1	1.0	U
98-82-8	Isopropylbenzene	1	1.0	U
79-20-9	Methyl Acetate	1	1.0	U
108-87-2	Methylcyclohexane	1	1.0	U
75-09-2	Methylene Chloride	1	1.0	U
1634-04-4	Methyl-t-Butyl Ether (MTBE)	1	1.0	U

## Form 1

## ORGANIC ANALYSIS DATA SHEET

FIELD BLANK

8260B

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-09 File ID: G4301.D  
 Sampled: 09/22/09 14:20 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 15:39  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: RI92605 Calibration: R911710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)		Q	
100-42-5	Styrene	1	1.0		U	
127-18-4	Tetrachloroethene	1	1.0		U	
108-88-3	Toluene	1	1.0		U	
156-60-5	trans-1,2-Dichloroethene	1	1.0		U	
10061-02-6	trans-1,3-Dichloropropene	1	1.0		U	
79-01-6	Trichloroethene	1	1.0		U	
75-69-4	Trichlorofluoromethane	1	1.0		U	
75-01-4	Vinyl chloride	1	1.0		U	
1330-20-7	Xylenes, total	1	2.0		U	
SYSTEM MONITORING COMPOUND		ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4		25.0	22.1	89	66 - 137	
4-Bromofluorobenzene		25.0	22.9	92	73 - 120	
Toluene-d8		25.0	26.4	106	71 - 126	
INTERNAL STANDARD		AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4		141975	10.73	162308	10.73	
1,4-Difluorobenzene		339884	5.46	371949	5.46	
Chlorobenzene-d5		151469	8.34	169601	8.34	

\* Values outside of QC limits

MECX VALIDATED

## Form 1

## ORGANIC ANALYSIS DATA SHEET

TRIP BLANK

8260B

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-10 File ID: G4302.D  
 Sampled: 09/22/09 00:00 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 16:02  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: RI92605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
71-55-6	1,1,1-Trichloroethane	1	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	U
75-34-3	1,1-Dichloroethane	1	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	1.0	U
106-93-4	1,2-Dibromoethane	1	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	U
78-93-3	2-Butanone	1	5.0	U
591-78-6	2-Hexanone	1	5.0	U
108-10-1	4-Methyl-2-pentanone	1	5.0	U
67-64-1	Acetone	1	5.0	U
71-43-2	Benzene	1	1.0	U
75-27-4	Bromodichloromethane	1	1.0	U
75-25-2	Bromoform	1	1.0	U
74-83-9	Bromomethane	1	1.0	U
75-15-0	Carbon disulfide	1	1.0	U
56-23-5	Carbon Tetrachloride	1	1.0	U
108-90-7	Chlorobenzene	1	1.0	U
75-00-3	Chloroethane	1	1.0	U
67-66-3	Chloroform	1	1.0	U
74-87-3	Chloromethane	1	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	U
110-82-7	Cyclohexane	1	1.0	U
124-48-1	Dibromochloromethane	1	1.0	U
75-71-8	Dichlorodifluoromethane	1	1.0	U
100-41-4	Ethylbenzene	1	1.0	U
98-82-8	Isopropylbenzene	1	1.0	U
79-20-9	Methyl Acetate	1	1.0	U
108-87-2	Methylcyclohexane	1	1.0	U
75-09-2	Methylene Chloride	1	1.0	U
1634-04-4	Methyl-t-Butyl Ether (MTBE)	1	1.0	U



## Form 1

## ORGANIC ANALYSIS DATA SHEET

TRIP BLANK

8260B

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-10 File ID: G4302.D  
 Sampled: 09/22/09 00:00 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 16:02  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: RI92605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q		
100-42-5	Styrene	1	1.0	U		
127-18-4	Tetrachloroethene	1	1.0	U		
108-88-3	Toluene	1	1.0	U		
156-60-5	trans-1,2-Dichloroethene	1	1.0	U		
10061-02-6	trans-1,3-Dichloropropene	1	1.0	U		
79-01-6	Trichloroethene	1	1.0	U		
75-69-4	Trichlorofluoromethane	1	1.0	U		
75-01-4	Vinyl chloride	1	1.0	U		
1330-20-7	Xylenes, total	1	2.0	U		
SYSTEM MONITORING COMPOUND		ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4		25.0	21.6	86	66 - 137	
4-Bromofluorobenzene		25.0	22.6	90	73 - 120	
Toluene-d8		25.0	26.1	104	71 - 126	
INTERNAL STANDARD		AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4		140530	10.73	162308	10.73	
1,4-Difluorobenzene		341076	5.46	371949	5.46	
Chlorobenzene-d5		150422	8.34	169601	8.34	

\* Values outside of QC limits

MECX VALIDATED

## Form 1

## ORGANIC ANALYSIS DATA SHEET

DUP-1

8260B

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-11 File ID: G4303.D  
 Sampled: 09/22/09 00:00 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 16:25  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: RI92605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
71-55-6	1,1,1-Trichloroethane	1	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1	1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1	1.0	U
79-00-5	1,1,2-Trichloroethane	1	1.0	U
75-34-3	1,1-Dichloroethane	1	1.0	U
75-35-4	1,1-Dichloroethene	1	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1	1.0	U
106-93-4	1,2-Dibromoethane	1	1.0	U
95-50-1	1,2-Dichlorobenzene	1	1.0	U
107-06-2	1,2-Dichloroethane	1	1.0	U
78-87-5	1,2-Dichloropropane	1	1.0	U
541-73-1	1,3-Dichlorobenzene	1	1.0	U
106-46-7	1,4-Dichlorobenzene	1	1.0	U
78-93-3	2-Butanone	1	5.0	U
591-78-6	2-Hexanone	1	5.0	U
108-10-1	4-Methyl-2-pentanone	1	5.0	U
67-64-1	Acetone	1	5.0	U
71-43-2	Benzene	1	1.0	U
75-27-4	Bromodichloromethane	1	1.0	U
75-25-2	Bromoform	1	1.0	U
74-83-9	Bromomethane	1	1.0	U
75-15-0	Carbon disulfide	1	1.0	U
56-23-5	Carbon Tetrachloride	1	1.0	U
108-90-7	Chlorobenzene	1	1.0	U
75-00-3	Chloroethane	1	1.0	U
67-66-3	Chloroform	1	1.0	U
74-87-3	Chloromethane	1	1.0	U
156-59-2	cis-1,2-Dichloroethene	1	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1	1.0	U
110-82-7	Cyclohexane	1	1.0	U
124-48-1	Dibromochloromethane	1	1.0	U
75-71-8	Dichlorodifluoromethane	1	1.0	U
100-41-4	Ethylbenzene	1	1.0	U
98-82-8	Isopropylbenzene	1	1.0	U
79-20-9	Methyl Acetate	1	1.0	U
108-87-2	Methylcyclohexane	1	1.0	U
75-09-2	Methylene Chloride	1	1.0	U
1634-04-4	Methyl-t-Butyl Ether (MTBE)	1	1.0	U

**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**

**DUP-1**

**8260B**

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSI0801-11 File ID: G4303.D  
 Sampled: 09/22/09 00:00 Prepared: 09/26/09 10:24 Analyzed: 09/26/09 16:25  
 Solids: \_\_\_\_\_ Preparation: 5030B MS Initial/Final: 5 mL / 5 mL  
 Batch: 9I26030 Sequence: RI92605 Calibration: R9I1710 Instrument: HP5973G

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)		Q	
100-42-5	Styrene	1	1.0		U	
127-18-4	Tetrachloroethene	1	1.0		U	
108-88-3	Toluene	1	1.0		U	
156-60-5	trans-1,2-Dichloroethene	1	1.0		U	
10061-02-6	trans-1,3-Dichloropropene	1	1.0		U	
79-01-6	Trichloroethene	1	3.7			
75-69-4	Trichlorofluoromethane	1	1.0		U	
75-01-4	Vinyl chloride	1	1.0		U	
1330-20-7	Xylenes, total	1	2.0		U	
SYSTEM MONITORING COMPOUND		ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4		25.0	21.6	86	66 - 137	
4-Bromofluorobenzene		25.0	22.7	91	73 - 120	
Toluene-d8		25.0	26.3	105	71 - 126	
INTERNAL STANDARD		AREA	RT	REF AREA	REF RT	Q
1,4-Dichlorobenzene-d4		147151	10.73	162308	10.73	
1,4-Difluorobenzene		355665	5.46	371949	5.46	
Chlorobenzene-d5		155757	8.34	169601	8.34	

\* Values outside of QC limits

MEEX VALIDATED



Form 1  
ORGANIC ANALYSIS DATA SHEET  
RSK175

LVRA04-MNAGW-MW3

Laboratory: TestAmerica Buffalo SDG:  
Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
Matrix: Water Laboratory ID: RSI0801-01 File ID: 15A55206  
Sampled: 09/22/09 10:20 Prepared: 09/28/09 06:00 Analyzed: 09/28/09 11:28  
Solids: Preparation: RSK-175 Initial/Final: 1 mL / 1 mL  
Batch: 9I28056 Sequence: RI92907 Calibration: R9B0501 Instrument: HP5890-15

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
74-84-0	Ethane	1	1.5	U
74-85-1	Ethene	1	1.5	U
74-82-8	Methane	1	1.0	U

\* Values outside of QC limits

MECX VALIDATED

Form 1  
ORGANIC ANALYSIS DATA SHEET  
RSK175

LVRA04-MNAGW-MWD1

Laboratory: TestAmerica Buffalo SDG:  
Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
Matrix: Water Laboratory ID: RSI0801-02 File ID: 15A55207  
Sampled: 09/22/09 11:25 Prepared: 09/28/09 06:00 Analyzed: 09/28/09 11:43  
Solids: Preparation: RSK-175 Initial/Final: 1 mL / 1 mL  
Batch: 9128056 Sequence: R192907 Calibration: R9B0501 Instrument: HP5890-15

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
74-84-0	Ethane	1	1.5	U
74-85-1	Ethene	1	1.5	U
74-82-8	Methane	1	1.0	U

\* Values outside of QC limits

MECX VALIDATED

Form 1  
ORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MWD2

RSK175

Laboratory: TestAmerica Buffalo SDG:  
Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
Matrix: Water Laboratory ID: RSI0801-03 File ID: 15A55208  
Sampled: 09/22/09 12:15 Prepared: 09/28/09 06:00 Analyzed: 09/28/09 11:58  
Solids: Preparation: RSK-175 Initial/Final: 1 mL / 1 mL  
Batch: 9I28056 Sequence: R192907 Calibration: R9B0501 Instrument: HP5890-15

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
74-84-0	Ethane <i>u</i>	1	1.5	U
74-85-1	Ethene <i>U/I/C</i>	1	1.5	U
74-82-8	Methane <i>u</i>	1	1.0	U

\* Values outside of QC limits

*MeCX*  
VALIDATED

Form 1  
ORGANIC ANALYSIS DATA SHEET  
RSK175

LVRA04-MNAGW-MW6

Laboratory: TestAmerica Buffalo SDG:  
Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
Matrix: Water Laboratory ID: RSI0801-04 File ID: 15A55205  
Sampled: 09/22/09 14:00 Prepared: 09/28/09 06:00 Analyzed: 09/28/09 11:13  
Solids: Preparation: RSK-175 Initial/Final: 1 mL / 1 mL  
Batch: 9I28056 Sequence: RI92907 Calibration: R9B0501 Instrument: HP5890-15

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
74-84-0	Ethane <u>4</u>	10	15	UD
74-85-1	Ethene <u>4.5/c</u>	10	15	UD
74-82-8	Methane	10	98	D

\* Values outside of QC limits

MECX VALIDATED

Form 1  
ORGANIC ANALYSIS DATA SHEET  
RSK175

LVRA04-MNAGW-MW2

Laboratory: TestAmerica Buffalo SDG:  
Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
Matrix: Water Laboratory ID: RSI0801-07 File ID: 15A55209  
Sampled: 09/22/09 15:20 Prepared: 09/28/09 06:00 Analyzed: 09/28/09 12:13  
Solids: Preparation: RSK-175 Initial/Final: 1 mL / 1 mL  
Batch: 9I28056 Sequence: R192907 Calibration: R9B0501 Instrument: HP5890-15

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
74-84-0	Ethane <u>4</u>	5	7.5	UD
74-85-1	Ethene <u>45/c</u>	5	7.5	UD
74-82-8	Methane	5	8.7	D

\* Values outside of QC limits

MECX VALIDATED

**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**

**LVRA04-MNAGW-MW5**

**RSK175**

Laboratory: TestAmerica Buffalo SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water Laboratory ID: RSJ0801-08 File ID: 15A55211  
 Sampled: 09/22/09 16:35 Prepared: 09/28/09 06:00 Analyzed: 09/28/09 12:53  
 Solids: \_\_\_\_\_ Preparation: RSK-175 Initial/Final: 1 mL / 1 mL  
 Batch: 9128056 Sequence: R192907 Calibration: R9B0501 Instrument: HP5890-15

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
74-84-0	Ethane <u>U</u>	1	1.5	U
74-85-1	Ethene <u>U5/C</u>	1	1.5	U
74-82-8	Methane <u>J</u>	1	0.31	J

\* Values outside of QC limits

MECX VALIDATED

**Form 1**  
**ORGANIC ANALYSIS DATA SHEET**

**DUP-1**

**RSK175**

Laboratory: TestAmerica Buffalo      SDG: \_\_\_\_\_  
 Client: AMEC Geomatrix Inc. - Amherst, NY      Project: AMEC Geomatrix Inc. - NY3A9056.9  
 Matrix: Water      Laboratory ID: RSI0801-11      File ID: 15A55212  
 Sampled: 09/22/09 00:00      Prepared: 09/28/09 06:00      Analyzed: 09/28/09 13:08  
 Solids: \_\_\_\_\_      Preparation: RSK-175      Initial/Final: 1 mL / 1 mL  
 Batch: 9I28056      Sequence: RI92907      Calibration: R9B0501      Instrument: HP5890-15

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q
74-84-0	Ethane	1	1.5	U
74-85-1	Ethene	1	1.5	U
74-82-8	Methane	1	1.0	U

\* Values outside of QC limits

MECK VALIDATED  
 11-25-09

## Form 1

## INORGANIC ANALYSIS DATA SHEET

2320B

LVRA04-MNAGW-MWD1

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-02

File ID:

Sampled: 09/22/09 11:25Prepared: 09/26/09 10:31Analyzed: 09/26/09 10:31Solids: 0.00Preparation: No Prep AlkalinityInitial/Final: 50 mL / 50 mLBatch: 9I26073

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
STL00171	Alkalinity, Total	151	mg/L	1	B	2320B

MEC<sup>x</sup> Validated



## Form 1

## INORGANIC ANALYSIS DATA SHEET

2320B

LVRA04-MNAGW-MWD2

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-03

File ID:

Sampled: 09/22/09 12:15Prepared: 09/26/09 10:31Analyzed: 09/26/09 10:31Solids: 0.00Preparation: No Prep AlkalinityInitial/Final: 50 mL / 50 mLBatch: 9I26073

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
STL00171	Alkalinity, Total	154	mg/L	1	B	2320B

MEC\* Validated

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW6

2320B

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-04

File ID:

Sampled: 09/22/09 14:00Prepared: 09/26/09 10:31Analyzed: 09/26/09 10:31Solids: 0.00Preparation: No Prep AlkalinityInitial/Final: 50 mL / 50 mLBatch: 9I26073

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
STL00171	Alkalinity, Total	92.0	mg/L	1	B	2320B

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

2320B

LVRA04-MNAGW-MW2

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-07

File ID:

Sampled: 09/22/09 15:20Prepared: 09/26/09 10:31Analyzed: 09/26/09 10:31Solids: 0.00Preparation: No Prep AlkalinityInitial/Final: 50 mL / 50 mLBatch: 9I26073

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
STL00171	Alkalinity, Total	173	mg/L	1	B	2320B

MEC\* Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

2320B

LVRA04-MNAGW-MW5

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-08

File ID:

Sampled: 09/22/09 16:35Prepared: 09/26/09 10:31Analyzed: 09/26/09 10:31Solids: 0.00Preparation: No Prep AlkalinityInitial/Final: 50 mL / 50 mLBatch: 9I26073

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
STL00171	Alkalinity, Total	61.8	mg/L	1	B	2320B

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

2320B

DUP-1

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-11

File ID:

Sampled: 09/22/09 00:00Prepared: 09/26/09 10:31Analyzed: 09/26/09 10:31Solids: 0.00Preparation: No Prep AlkalinityInitial/Final: 50 mL / 50 mLBatch: 9I26073

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
STL00171	Alkalinity, Total	173	mg/L	1	B	2320B

MECK Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW3

300

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-01File ID: 100509-2 011-0Sampled: 09/22/09 10:20Prepared: 10/05/09 11:29Analyzed: 10/05/09 13:10Solids: 0.00Preparation: Direct Injection - AnionsInitial/Final: 5 mL / 5 mLBatch: 9J06023

Sequence:

Calibration:

Instrument: IC2A

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
16887-00-6	Chloride	31.8	mg/L	1		300
14808-79-8	Sulfate	11.5	mg/L	1		300

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MWD1

300

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-02File ID: 100509-2 015-0Sampled: 09/22/09 11:25Prepared: 10/05/09 11:29Analyzed: 10/05/09 13:51Solids: 0.00Preparation: Direct Injection - AnionsInitial/Final: 5 mL / 5 mLBatch: 9J06023

Sequence:

Calibration:

Instrument: IC2A

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
16887-00-6	Chloride	23.8	mg/L	1		300
14808-79-8	Sulfate	11.7	mg/L	1		300

MEC\* Validated

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MWD2

300

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-03File ID: 100509-2 016-0Sampled: 09/22/09 12:15Prepared: 10/05/09 11:29Analyzed: 10/05/09 14:01Solids: 0.00Preparation: Direct Injection - AnionsInitial/Final: 5 mL / 5 mLBatch: 9J06023

Sequence:

Calibration:

Instrument: IC2A

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
16887-00-6	Chloride	27.3	mg/L	1		300
14808-79-8	Sulfate	17.0	mg/L	1		300

MEC<sup>x</sup> Validated



## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW6

300

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-04File ID: 100509-2 017-0Sampled: 09/22/09 14:00Prepared: 10/05/09 11:29Analyzed: 10/05/09 14:11Solids: 0.00Preparation: Direct Injection - AnionsInitial/Final: 5 mL / 5 mLBatch: 9J06023

Sequence:

Calibration:

Instrument: IC2A

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
16887-00-6	Chloride	11.3	mg/L	1		300
14808-79-8	Sulfate	10.9	mg/L	1		300

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW2

300

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-07File ID: 100509-2 020-0Sampled: 09/22/09 15:20Prepared: 10/05/09 11:29Analyzed: 10/05/09 14:41Solids: 0.00Preparation: Direct Injection - AnionsInitial/Final: 5 mL / 5 mLBatch: 9J06023

Sequence:

Calibration:

Instrument: IC2A

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
16887-00-6	Chloride	25.2	mg/L	1		300
14808-79-8	Sulfate	16.5	mg/L	1		300

MECK Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW5

300

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-08File ID: 100509-2 021-0Sampled: 09/22/09 16:35Prepared: 10/05/09 11:29Analyzed: 10/05/09 14:51Solids: 0.00Preparation: Direct Injection - AnionsInitial/Final: 5 mL / 5 mLBatch: 9J06023

Sequence:

Calibration:

Instrument: IC2A

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
16887-00-6	Chloride	12.0	mg/L	1		300
14808-79-8	Sulfate	5.31	mg/L	1		300

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

DUP-1

300

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-11File ID: 100509-2 022-0Sampled: 09/22/09 00:00Prepared: 10/05/09 11:29Analyzed: 10/05/09 15:01Solids: 0.00Preparation: Direct Injection - AnionsInitial/Final: 5 mL / 5 mLBatch: 9J06023

Sequence:

Calibration:

Instrument: IC2A

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
16887-00-6	Chloride	32.1	mg/L	1		300
14808-79-8	Sulfate	11.0	mg/L	1		300

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

3500D

LVRA04-MNAGW-MW3

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-01

File ID:

Sampled: 09/22/09 10:20Prepared: 09/23/09 22:20Analyzed: 09/23/09 22:20Solids: 0.00Preparation: DirectInitial/Final: 25 mL / 25 mLBatch: 9I23105

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
15438-31-0	Ferrous Iron (dissolved)	0.100	mg/L	1	U	3500D

UT/H

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

3500D

LVRA04-MNAGW-MWD1

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-02

File ID:

Sampled: 09/22/09 11:25Prepared: 09/23/09 22:20Analyzed: 09/23/09 22:20Solids: 0.00Preparation: DirectInitial/Final: 25 mL / 25 mLBatch: 9I23105

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
15438-31-0	Ferrous Iron (dissolved)	0.100	mg/L	1	U	3500D

UJ/H

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

3500D

LVRA04-MNAGW-MWD2

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-03

File ID:

Sampled: 09/22/09 12:15Prepared: 09/23/09 22:20Analyzed: 09/23/09 22:20Solids: 0.00Preparation: DirectInitial/Final: 25 mL / 25 mLBatch: 9I23105

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
15438-31-0	Ferrous Iron (dissolved)	0.100	mg/L	1	U	3500D

MEC<sup>+</sup> Validated

UJ/H

## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW6

3500D

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-04

File ID:

Sampled: 09/22/09 14:00Prepared: 09/23/09 22:20Analyzed: 09/23/09 22:20Solids: 0.00Preparation: DirectInitial/Final: 25 mL / 25 mLBatch: 9I23105

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
15438-31-0	Ferrous Iron (dissolved)	0.100	mg/L	1	U	3500D

UJ/H

MEC\* Validated



## Form 1

## INORGANIC ANALYSIS DATA SHEET

3500D

LVRA04-MNAGW-MW2

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-07

File ID:

Sampled: 09/22/09 15:20Prepared: 09/23/09 22:20Analyzed: 09/23/09 22:20Solids: 0.00Preparation: DirectInitial/Final: 25 mL / 25 mLBatch: 9I23105

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
15438-31-0	Ferrous Iron (dissolved)	0.100	mg/L	1	U	3500D

UJ/H

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

3500D

LVRA04-MNAGW-MW5

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-08

File ID:

Sampled: 09/22/09 16:35Prepared: 09/23/09 22:20Analyzed: 09/23/09 22:20Solids: 0.00Preparation: DirectInitial/Final: 25 mL / 25 mLBatch: 9I23105

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
15438-31-0	Ferrous Iron (dissolved)	0.100	mg/L	1	U	3500D

MEC<sup>x</sup> Validated

UT/H

## INORGANIC ANALYSIS DATA SHEET

DUP-1

3500D

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-11

File ID:

Sampled: 09/22/09 00:00Prepared: 09/23/09 22:20Analyzed: 09/23/09 22:20Solids: 0.00Preparation: DirectInitial/Final: 25 mL / 25 mLBatch: 9I23105

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
15438-31-0	Ferrous Iron (dissolved)	0.100	mg/L	1	U	3500D

MEC\* Validated

UJ/H

## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW3

353.2

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-01File ID: N309239Q-004Sampled: 09/22/09 10:20Prepared: 09/23/09 16:38Analyzed: 09/23/09 18:12Solids: 0.00Preparation: NitrateInitial/Final: 5 mL / 5 mLBatch: 9I24006

Sequence:

Calibration:

Instrument: Lachat

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
14797-55-8	Nitrate	1.43	mg/L as N	1	B	353.2

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MWD1

353.2

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-02File ID: N309239Q-005Sampled: 09/22/09 11:25Prepared: 09/23/09 16:38Analyzed: 09/23/09 18:13Solids: 0.00Preparation: NitrateInitial/Final: 5 mL / 5 mLBatch: 9I24006

Sequence:

Calibration:

Instrument: Lachat

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
14797-55-8	Nitrate	1.60	mg/L as N	1	B	353.2

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MWD2

353.2

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-03File ID: N309239Q-006Sampled: 09/22/09 12:15Prepared: 09/23/09 16:38Analyzed: 09/23/09 18:14Solids: 0.00Preparation: NitrateInitial/Final: 5 mL / 5 mLBatch: 9I24006

Sequence:

Calibration:

Instrument: Lachat

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
14797-55-8	Nitrate	0.416	mg/L as N	1	B	353.2

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW6

353.2

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-04File ID: N309239Q-007Sampled: 09/22/09 14:00Prepared: 09/23/09 16:38Analyzed: 09/23/09 18:15Solids: 0.00Preparation: NitrateInitial/Final: 5 mL / 5 mLBatch: 9I24006

Sequence:

Calibration:

Instrument: Lachat

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
14797-55-8	Nitrate	0.050	mg/L as N	1	U	353.2

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW2

353.2

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-07File ID: N309239Q-012Sampled: 09/22/09 15:20Prepared: 09/23/09 16:38Analyzed: 09/23/09 18:20Solids: 0.00Preparation: NitrateInitial/Final: 5 mL / 5 mLBatch: 9I24006

Sequence:

Calibration:

Instrument: Lachat

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
14797-55-8	Nitrate	0.050	mg/L as N	1	U	353.2

MEC\* Validated



## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW5

353.2

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-08File ID: N309239Q-013Sampled: 09/22/09 16:35Prepared: 09/23/09 16:38Analyzed: 09/23/09 18:21Solids: 0.00Preparation: NitrateInitial/Final: 5 mL / 5 mLBatch: 9I24006

Sequence:

Calibration:

Instrument: Lachat

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
14797-55-8	Nitrate	0.050	mg/L as N	1	U	353.2

MEC<sup>x</sup> Validated

## INORGANIC ANALYSIS DATA SHEET

DUP-1

353.2

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-11File ID: N309239Q-016Sampled: 09/22/09 00:00Prepared: 09/23/09 16:38Analyzed: 09/23/09 18:25Solids: 0.00Preparation: NitrateInitial/Final: 5 mL / 5 mLBatch: 9124006

Sequence:

Calibration:

Instrument: Lachat

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
14797-55-8	Nitrate	1.46	mg/L as N	1	B	353.2

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

4500-S F

LVRA04-MNAGW-MW3

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-01

File ID:

Sampled: 09/22/09 10:20Prepared: 09/24/09 14:15Analyzed: 09/24/09 14:15Solids: 0.00Preparation: No prep SulfideInitial/Final: 100 mL / 100 mLBatch: 9I24106

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
18496-25-8	Sulfide	1.0	mg/L	1	U	4500-S F

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

4500-S F

LVRA04-MNAGW-MWD1

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-02

File ID:

Sampled: 09/22/09 11:25Prepared: 09/24/09 14:15Analyzed: 09/24/09 14:15Solids: 0.00Preparation: No prep SulfideInitial/Final: 100 mL / 100 mLBatch: 9I24106

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
18496-25-8	Sulfide	1.0	mg/L	1	U	4500-S F

MEC<sup>x</sup> Validated

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MWD2

4500-S F

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-03

File ID:

Sampled: 09/22/09 12:15Prepared: 09/24/09 14:15Analyzed: 09/24/09 14:15Solids: 0.00Preparation: No prep SulfideInitial/Final: 100 mL / 100 mLBatch: 9I24106

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
18496-25-8	Sulfide	1.0	mg/L	1	U	4500-S F

MEC<sup>x</sup> Validated

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW6

4500-S F

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-04

File ID:

Sampled: 09/22/09 14:00Prepared: 09/24/09 14:15Analyzed: 09/24/09 14:15Solids: 0.00Preparation: No prep SulfideInitial/Final: 100 mL / 100 mLBatch: 9I24106

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
18496-25-8	Sulfide	1.0	mg/L	1	U	4500-S F

MEC<sup>x</sup> Validated

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW2

4500-S F

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-07

File ID:

Sampled: 09/22/09 15:20Prepared: 09/24/09 14:15Analyzed: 09/24/09 14:15Solids: 0.00Preparation: No prep SulfideInitial/Final: 100 mL / 100 mLBatch: 9I24106

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
18496-25-8	Sulfide	1.0	mg/L	1	U	4500-S F

MEC<sup>x</sup> Validated

**Form 1**  
**INORGANIC ANALYSIS DATA SHEET**  
**4500-S F**

LVRA04-MNAGW-MW5

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-08

File ID:

Sampled: 09/22/09 16:35Prepared: 09/24/09 14:15Analyzed: 09/24/09 14:15Solids: 0.00Preparation: No prep SulfideInitial/Final: 100 mL / 100 mLBatch: 9I24106

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
18496-25-8	Sulfide	1.0	mg/L	1	U	4500-S F

MEC<sup>x</sup> Validated



## INORGANIC ANALYSIS DATA SHEET

DUP-1

4500-S F

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-11

File ID:

Sampled: 09/22/09 00:00Prepared: 09/24/09 14:15Analyzed: 09/24/09 14:15Solids: 0.00Preparation: No prep SulfideInitial/Final: 100 mL / 100 mLBatch: 9I24106

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
18496-25-8	Sulfide	1.0	mg/L	1	U	4500-S F

MEC<sup>x</sup> Validated

## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW3

9060

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-01

File ID:

Sampled: 09/22/09 10:20Prepared: 09/27/09 10:06Analyzed: 09/27/09 10:06Solids: 0.00Preparation: No prep CarbonInitial/Final: 40 mL / 40 mLBatch: 9I26069

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
7440-44-0	Total Organic Carbon	1.1	mg/L	1	B	9060

J/\*III

MEC<sup>x</sup> Validated

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MWD1

9060

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-02

File ID:

Sampled: 09/22/09 11:25Prepared: 09/27/09 10:06Analyzed: 09/27/09 10:06Solids: 0.00Preparation: No prep CarbonInitial/Final: 40 mL / 40 mLBatch: 9I26069

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
7440-44-0	Total Organic Carbon	1.0	mg/L	1	B	9060

J/\*III

MEC\* Validated

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MWD2

9060

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-03

File ID:

Sampled: 09/22/09 12:15Prepared: 09/27/09 10:06Analyzed: 09/27/09 10:06Solids: 0.00Preparation: No prep CarbonInitial/Final: 40 mL / 40 mLBatch: 9I26069

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
7440-44-0	Total Organic Carbon	0.9	mg/L	1	JB	9060

MEC<sup>x</sup> Validated

J/A/III

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW6

9060

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-04

File ID:

Sampled: 09/22/09 14:00Prepared: 09/27/09 10:06Analyzed: 09/27/09 10:06Solids: 0.00Preparation: No prep CarbonInitial/Final: 40 mL / 40 mLBatch: 9I26069

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
7440-44-0	Total Organic Carbon	2.5	mg/L	1	B	9060

MEC<sup>x</sup> Validated

J/\*III

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW2

9060

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-07

File ID:

Sampled: 09/22/09 15:20Prepared: 09/27/09 10:06Analyzed: 09/27/09 10:06Solids: 0.00Preparation: No prep CarbonInitial/Final: 40 mL / 40 mLBatch: 9I26069

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
7440-44-0	Total Organic Carbon	1.6	mg/L	1	B	9060

MEC<sup>x</sup> Validated

J/\*III

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW5

9060

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-08

File ID:

Sampled: 09/22/09 16:35Prepared: 09/27/09 10:06Analyzed: 09/27/09 10:06Solids: 0.00Preparation: No prep CarbonInitial/Final: 40 mL / 40 mLBatch: 9I26069

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
7440-44-0	Total Organic Carbon	1.1	mg/L	1	B	9060

MEC<sup>x</sup> Validated

J/X.III

## INORGANIC ANALYSIS DATA SHEET

FIELD BLANK

9060

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-09

File ID:

Sampled: 09/22/09 14:20Prepared: 09/27/09 10:06Analyzed: 09/27/09 10:06Solids: 0.00Preparation: No prep CarbonInitial/Final: 40 mL / 40 mLBatch: 9I26069

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
7440-44-0	Total Organic Carbon	1.0	mg/L	1	U	9060

MEC<sup>x</sup> Validated



## INORGANIC ANALYSIS DATA SHEET

DUP-1

9060

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-11

File ID:

Sampled: 09/22/09 00:00Prepared: 09/27/09 10:06Analyzed: 09/27/09 10:06Solids: 0.00Preparation: No prep CarbonInitial/Final: 40 mL / 40 mLBatch: 9I26069

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
7440-44-0	Total Organic Carbon	0.9	mg/L	1	JB	9060

MEC\* Validated

J/KIII

## Form 1

## INORGANIC ANALYSIS DATA SHEET

LVRA04-MNAGW-MW3

2320B

Laboratory: TestAmerica Buffalo

SDG:

Client: AMEC Geomatrix Inc. - Amherst, NYProject: AMEC Geomatrix Inc. - NY3A9056.9Matrix: WaterLaboratory ID: RSI0801-01

File ID:

Sampled: 09/22/09 10:20Prepared: 09/26/09 10:31Analyzed: 09/26/09 10:31Solids: 0.00Preparation: No Prep AlkalinityInitial/Final: 50 mL / 50 mLBatch: 9I26073

Sequence:

Calibration:

Instrument: Inst

CAS NO.	Analyte	Concentration	Units	Dilution Factor	Q	Method
STL00171	Alkalinity, Total	171	mg/L	1	B	2320B

MEC<sup>x</sup> Validated