



**C&S Companies**

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October 14, 2015

Jaspal Walia  
New York State Department of Environmental Conservation  
Project Manager  
270 Michigan Ave.  
Buffalo, NY 14203-2915

Re: Groundwater Monitoring Results – June and August 2015  
Conventus Site, Brownfield Cleanup Program Site No. C9915260

Dear Mr. Walia:

C&S Engineers (C&S) is providing this letter to inform you of our findings during the recent groundwater monitoring event at the Conventus Site at 1001 Main Street, Buffalo, New York. This letter report provides data from the 2<sup>nd</sup> quarterly sampling event. Prior letter reports were provided to the NYSDEC on May 5, 2015.

**I. INTRODUCTION**

A. Background

Remedial activities for the Conventus Site concluded in 2013. The NYSDEC awarded the Certificate of Completion (“COC”) in December 2014. As part of the COC, a SMP was established for the Site. The SMP required:

- Quarterly groundwater monitoring for two years;
- Annual Site wide inspection; and
- Periodic in-situ chemical treatment to reduce BTEX concentrations to asymptotic levels.

Since the establishment of the SMP, six groundwater sampling events and three in-situ treatments have been conducted over three years.

**II. GROUNDWATER MONITORING**

The SMP identified the need for continued monitoring of groundwater conditions at the Site, including the periodic measuring of water levels and collecting groundwater samples for volatile organic compound (VOC) analysis.

Following the completion of the mass excavation at the Site, seven monitoring wells were installed with bottom depths of 40 feet bgs. The wells were installed to monitor groundwater conditions and evaluate concentrations of petroleum-related VOCs; in particular, benzene, toluene, ethylbenzene and xylenes compounds (BTEX). Monitoring events were conducted on:

September 20, 2013	June 17, 2015
March 19, 2014	August 3, 2015

May 22, 2014

March 11, 2015

Figure 1 shows the location of the groundwater wells in the sub-basement of the Conventus building.

A. Groundwater Levels

On March 11, 2015, C&S mobilized to the Site to conduct groundwater monitoring. During the round of water level measurements prior to the initiation of sampling, C&S encountered dry conditions in each of the monitoring wells. Dry conditions were observed in BCP-MW-1, BCP-MW-2 and BCP-MW-6 from March 2015 to June 2015. Currently, groundwater has returned to normal levels.

Graphical trends in groundwater levels are included as an attachment to this report as Figure 2. Table 2-1 presents groundwater level measurements and Table 2-2 presents water column measurements since the construction of the sub-basement monitoring wells.

**Table 2-1: Historic Groundwater Levels**

<b>DATE</b>	<b>BCP-MW-1</b>	<b>BCP-MW-2</b>	<b>BCP-MW-3</b>	<b>BCP-MW-4</b>	<b>BCP-MW-5</b>	<b>BCP-MW-6</b>	<b>BCP-MW-7</b>
<b>9/20/2013</b>	33.8	40*	31	33.6	31.3	33.6	30.8
<b>3/19/2014</b>	34.9	40*	30.3	33.6	29.4	34.8	31.55
<b>5/22/2014</b>	28.6	40*	33.53	29.4	34.57	30.42	31.53
<b>3/11/2015</b>	38.9	40*	33.8	33.5	35.05	40*	37.8
<b>4/13/2015</b>	38.4	40*	33.4	33.25	34.5	40*	38.7
<b>6/10/2015</b>	34.9	40*	32.5	32.55	33.9	34.8	36.4
<b>6/17/2015</b>	37	40*	32.7	32.45	33.75	34.6	36.3
<b>7/15/2015</b>	34.1	40*	35.1	32.6	33.2	33.9	36
<b>8/3/2015</b>	33.7	40*	32.4	31.75	32.3	33.6	35.9

\* Indicates no water in well.

**Table 2-2: Water Column (Feet)**

<b>DATE</b>	<b>BCP-MW-1</b>	<b>BCP-MW-2</b>	<b>BCP-MW-3</b>	<b>BCP-MW-4</b>	<b>BCP-MW-5</b>	<b>BCP-MW-6</b>	<b>BCP-MW-7</b>
<b>9/20/2013</b>	6.2	0	9	6.4	8.7	6.4	9.2
<b>3/19/2014</b>	5.1	0	9.7	6.4	10.6	5.2	8.45
<b>5/22/2014</b>	11.4	0	6.47	10.6	5.43	9.58	8.47
<b>3/11/2015</b>	1.1	0	6.2	6.5	4.95	0	2.2
<b>4/13/2015</b>	1.6	0	6.6	6.75	5.5	0	1.3
<b>6/10/2015</b>	5.1	0	7.5	7.45	6.1	5.2	3.6
<b>6/17/2015</b>	3	0	7.3	7.55	6.25	5.4	3.7
<b>7/15/2015</b>	5.9	0	4.9	7.4	6.8	6.1	4
<b>8/3/2015</b>	6.3	0	7.6	8.25	7.7	6.4	4.1

**B. Analytical Results**

Groundwater sampling occurred on June 17, 2015 prior to a in situ treatment event that was conducted on June 24 – 26, 2015. Post-treatment groundwater sampling was conducted on August 3, 2015. Concentrations of BTEX compounds above NYSDEC TOGS<sup>1</sup> were identified in the following monitoring wells:

- BCP-MW-1
- BCP-MW-3
- BCP-MW-4
- BCP-MW-5
- BCP-MW-6

All monitoring wells were sampled with the exception of BCP-MW-2 which has remained dry since its installation. BCP-MW-7 had no detections above NYSDEC standards. Figure 3 shows the VOC concentrations over time. Concentrations of VOCs in the groundwater have shown a modest decrease after the initial December 2013 treatment but has slowly rebounded over the following 18 months.

Table 2-3, attached to this letter, presents detected compounds over all monitoring events. Attachment A provides laboratory analytical results.

**III. IN SITU REMEDIATION**

In-situ treatment consists of gravity-feeding a chemical oxidizer mixed with water directly into monitoring wells. The first application of treatment solution was RegenOX and

<sup>1</sup> NYSDEC Division of Water Quality Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. (“TOGS”)



Klozur persulfate. For the first application, BCP-MW-6 was treated only with RegenOX. Due to its close proximity earth retention sheeting an oxidizer was needed to not impact the integrity of the steel sheeting.

After the first application C&S became aware that the wells treated with Klozur persulfate and the associated iron activator plugged MW-3 and MW-5. In March 2013 sediment was removed and flushed out of these monitoring wells. For the second injection RegenOX was used on BCP-MW-3, BCP-MW-5 and BCP-MW-6. Table 3-1 shows an estimated breakdown of the amount of treatment products used in each monitoring well.

**Table 3-1: Treatment Product**

<b>DATE</b>	<b>BCP-MW-3</b>	<b>BCP-MW-4</b>	<b>BCP-MW-5</b>	<b>BCP-MW-6</b>
<b>12/12/2013</b>				100 <sup>1</sup>
<b>12/18/2013</b>	880 <sup>2</sup>		880 <sup>2</sup>	
<b>7/28/2014</b>	100		100	100
<b>6/24/2015</b>	100	100	40	80
<b>Total</b>	<b>1,080</b>	<b>100</b>	<b>1,020</b>	<b>280</b>

- 1- RegenOX
- 2- Klozur persulfate only (iron activator not included)

#### **IV. DISCUSSION OF FINDINGS**

BCP-MW-3 and BCP-MW-5 have remained constant since March 2014. BTEX concentrations have increase 180% in BCP-MW-4 and 83% in BCP-MW-6 since September 2013. Groundwater sampling events from September 2013 to May 2014 detected no BTEX compounds; however, in the last two groundwater monitoring events BCP-MW-1 has exceedances of benzene and toluene.

Overall, chemical oxidation has had minimal success in reducing BTEX concentrations.

#### **V. RECOMMENDATIONS**

C&S proposes removing contaminated groundwater to reduce the overall contaminate load. A temporary pump and treat system will be implemented to remove groundwater over one month. Contaminated groundwater will be removed from BCP-MW-3, 4, 5, 6 and 7. Groundwater will be treated with activated carbon until BTEX levels are within allowable limits to be discharged in to the sewer system. C&S will coordinate with the Buffalo Sewer Authority for the appropriate permit for discharge into the sewer system.

Groundwater sampling will be completed in October 2015 prior to well pumping. Following three months of groundwater extraction (estimated completion February 2016), C&S will perform another round of groundwater sampling. The results of the sampling and assessment of the effectiveness of the groundwater extraction will be evaluated following the February 2016 sampling event.



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October 14, 2015  
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BCP-MW-2 has been dry since its construction within the flowable fill. C&S will modify this well to evaluate groundwater conditions beneath the flowable fill.

Please contact me if you have any questions.

Sincerely,

C&S ENGINEERS, INC.

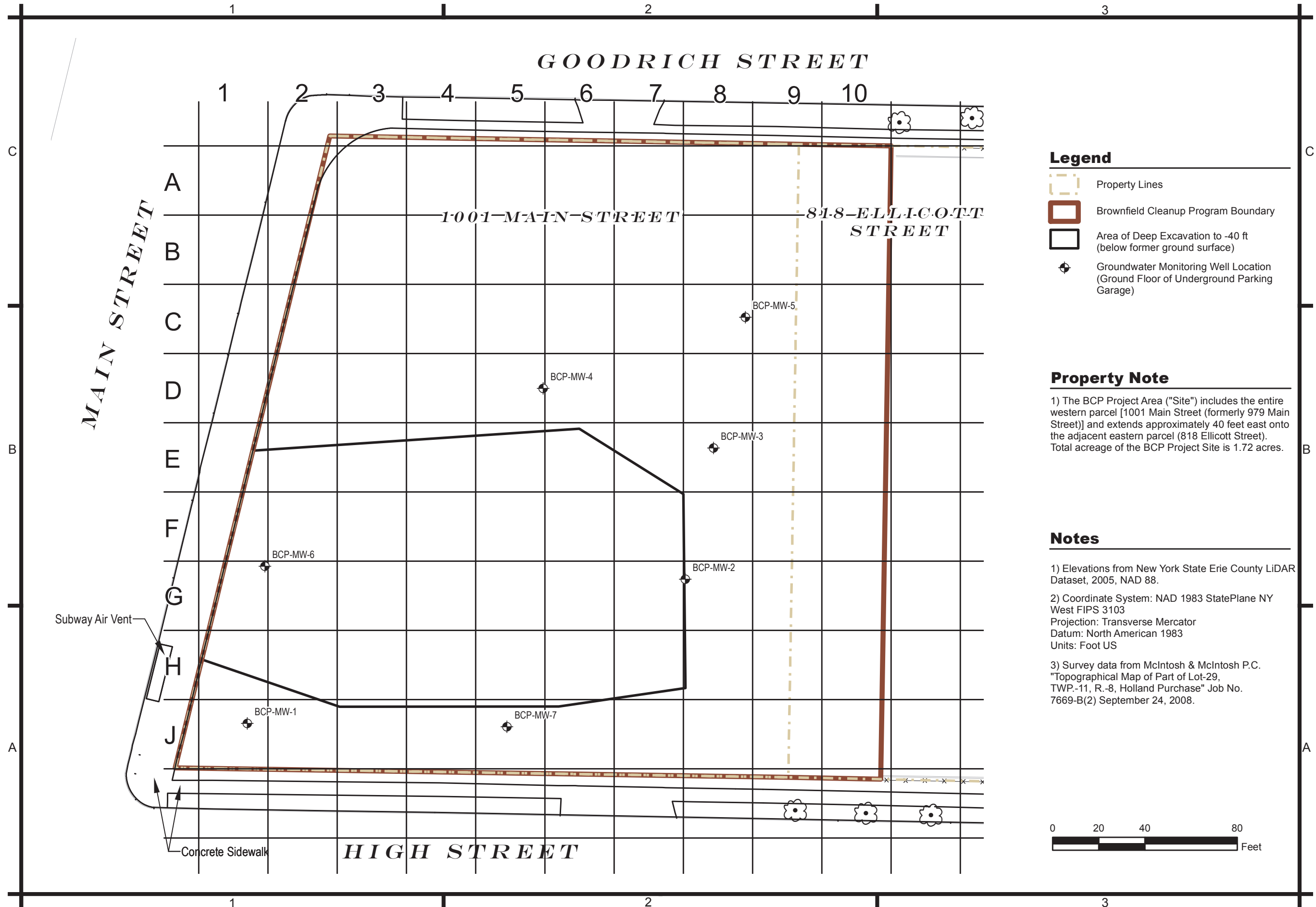


Mark Colmerauer  
Environmental Department Manager

cc: Denise Juron-Borgese, CREC.

# FIGURES

Path: F:\Project\K11-Kaleida Health\K11.002.001 - MOB Brownfield Cleanup Program\Environmental-study\CADD-GIS\GIS\IRMF\FIGURE\_X\_GW\_WELL\_LOCATIONS.mxd



**Legend**

- Property Lines
- Brownfield Cleanup Program Boundary
- Area of Deep Excavation to -40 ft (below former ground surface)
- Groundwater Monitoring Well Location (Ground Floor of Underground Parking Garage)

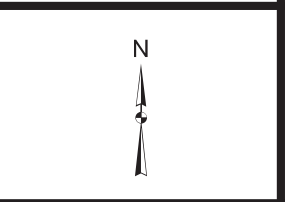
**Property Note**

1) The BCP Project Area ("Site") includes the entire western parcel [1001 Main Street (formerly 979 Main Street)] and extends approximately 40 feet east onto the adjacent eastern parcel (818 Ellicott Street). Total acreage of the BCP Project Site is 1.72 acres.

**Notes**

- 1) Elevations from New York State Erie County LIDAR Dataset, 2005, NAD 88.
- 2) Coordinate System: NAD 1983 StatePlane NY West FIPS 3103  
Projection: Transverse Mercator  
Datum: North American 1983  
Units: Foot US
- 3) Survey data from McIntosh & McIntosh P.C. "Topographical Map of Part of Lot-29, TWP.-11, R.-8, Holland Purchase" Job No. 7669-B(2) September 24, 2008.

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**FORMER MOBIL STATION 99-MST  
 979 MAIN ST (1001 MAIN ST)  
 BROWNFIELD CLEANUP PROGRAM**  
**BUFFALO, NEW YORK**

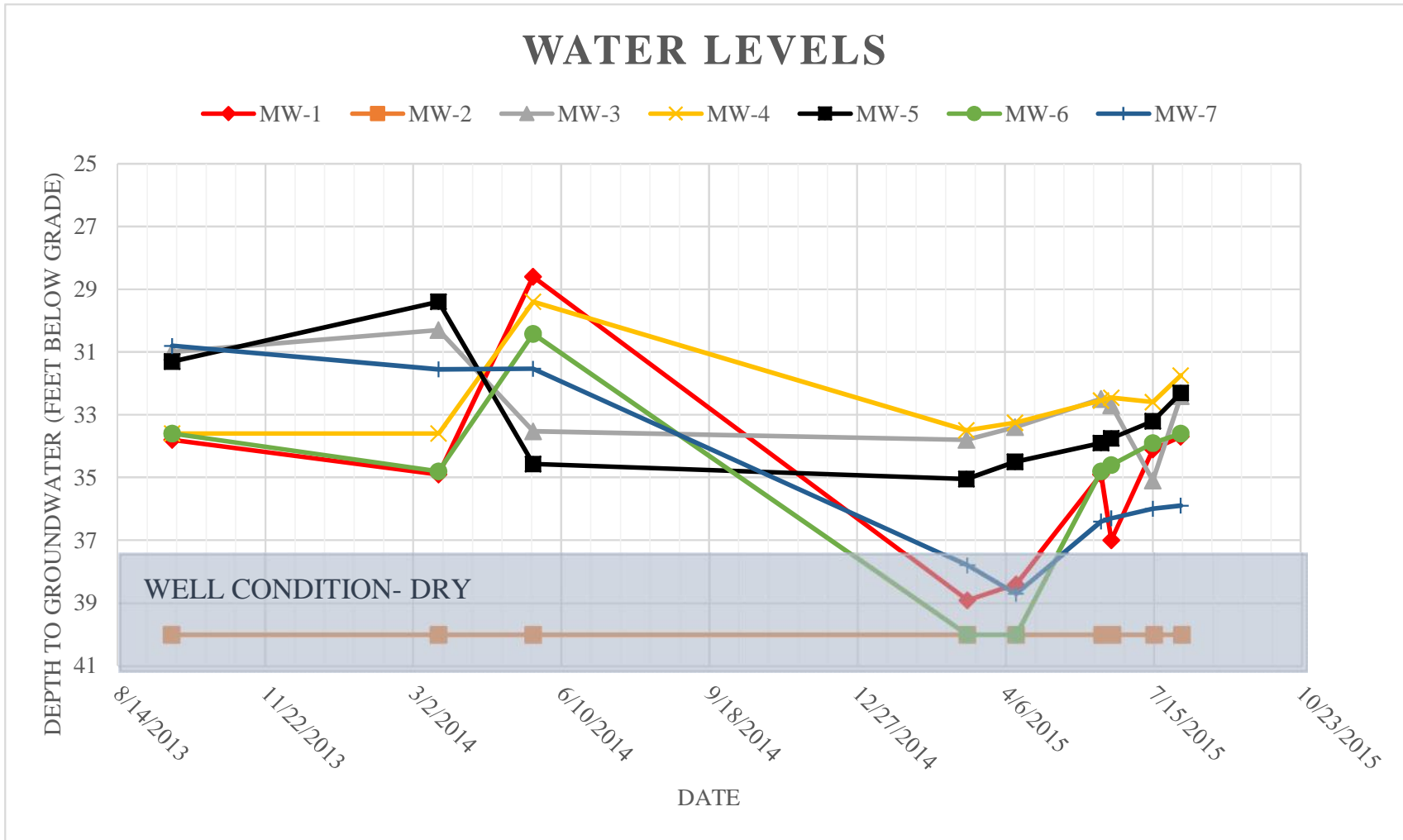
MARK	DATE	DESCRIPTION
REVISIONS		
PROJECT NO: K11.002.001		
DATE: OCTOBER 13, 2014		
DRAWN BY: C. MARTIN		
DESIGNED BY: C. MARTIN		
CHECKED BY: M. COLMERAUER		
NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK EDUCATION LAW		

POST-CONSTRUCTION  
 GROUNDWATER  
 MONITORING WELLS

FIGURE 1

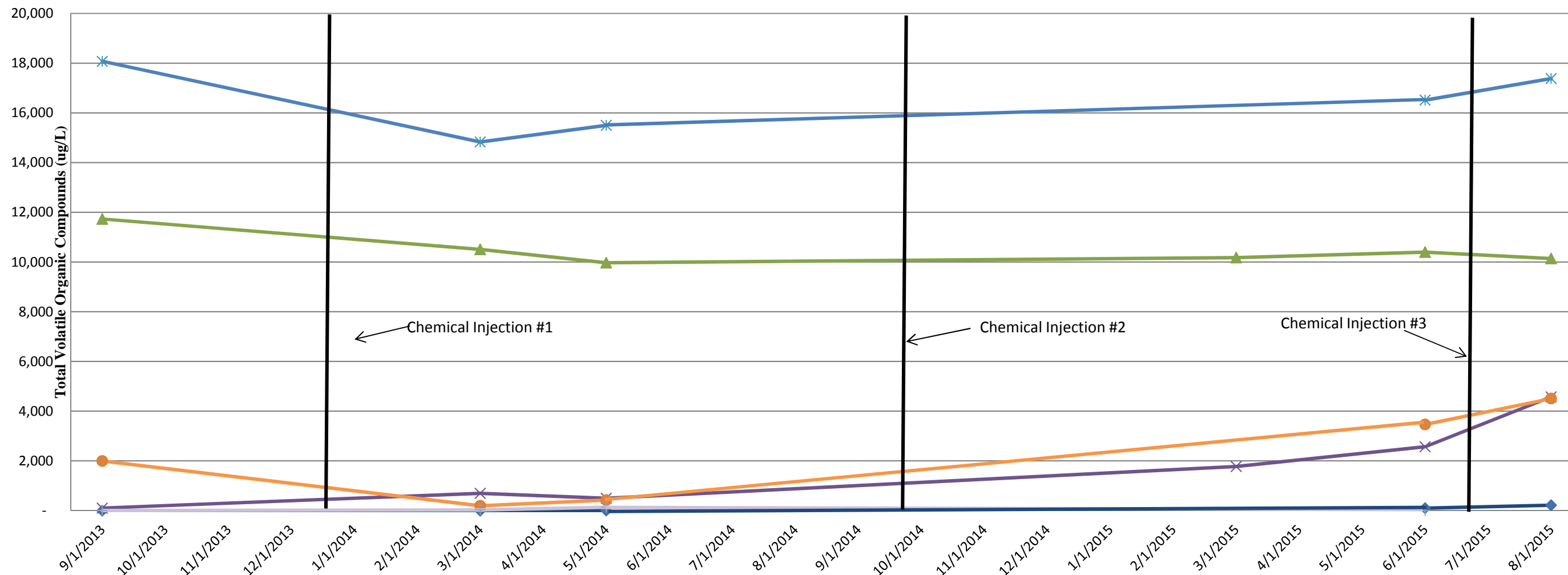
**Former Mobil Station 99-MST 979 Main Street (1001 Main Street)  
Conventus Groundwater Remediation**

**Figure 2**





### GROUNDWATER TREATMENT MONITORING - TOTAL VOC



	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015
BCP MW-1	-	-	1.41		101.9	216.7
BCP MW-2						
BCP MW-3	11,730	10,506	9,970	10,179.01	10,400	10,136
BCP MW-4	102.5	697.7	497.1	1,774.5	2,566.50	4,577.0
BCP MW-5	18,072	14,829	15,500		16,510	17,380
BCP MW-6	1,998.4	196	424		3,466	450.8
BCP MW-7	1.47	23.16	136.17		0.18	

# TABLES

**Table 2-3 - Groundwater Monitoring  
Summary of Detected Compounds  
Former Mobil Station 99-MST 979 Main Street (1001 Main Street) Brownfield Cleanup**

Sample Name	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	
	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2014	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015		
Date Collected	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	
Matrix	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
Unit	NYSDEC Ambient Water Quality Standards & Guidance Values																			
Volatile Organic Compound	Surface Water	Groundwater																		
	2-HEXANONE	50	50	ND	ND	ND		ND	ND	ND	3	ND	ND	ND	ND	ND	ND	1.7	ND	ND
ACETONE	50	50	ND	ND	ND		ND	ND	ND	98	ND	17	ND	ND	10	250	170	67	ND	210.00
BENZENE	1	1	ND	ND	ND		35	39	6,600	4,500	4,700	3,700	4,300	4,100	42	29	15	26	24	242.00
ETHYLBENZENE	5	5	ND	ND	ND		2	1.5	1,200	1,600	1,500	1,600	1,500	1,700	4.7	34	32	560	1,000	680.00
ISOPROPYLBENZENE (CUMENE)	5	5	ND	ND	ND		1.3	ND	ND	37	ND	32	ND	ND	ND	ND	ND	9.8	15.0	26.00
METHYL ETHYL KETONE (2-BUTANONE)	50	50	ND	ND	ND		ND	45	ND	71	ND	6.7	ND	ND	ND	ND	ND	ND	8.50	ND
METHYLENE CHLORIDE	5	5	ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1 J	ND	ND	ND
TOLUENE	5	5	ND	ND	ND		19	38	110	150	150	110	110	130	1.1	190	110	53	57	140.00
XYLENES, TOTAL	5	5	ND	ND	ND		6.4	4.2	3,700	3,600	3,200	4200	4000	3900	29	180	160	800	1,200	3100.00
<b>No Standard</b>																				
CARBON DISULFIDE			ND	ND	0.94		ND	ND	ND	ND	0.31	ND	ND	ND	ND	ND	1.9 J	ND	ND	ND
CYCLOHEXANE			ND	ND	ND		35	59	120	320	270	390	330	210	8.2	11	7	170	170	110
METHYL ISOBUTYL KETONE			ND	ND	ND		ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
METHYLCYCLOHEXANE			ND	ND	0.47		3.2	17	ND	130	150	120	160	96	7.5	3.7	3.1	87	92	69
<b>Total VOCs</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.41</b>	<b>-</b>	<b>101.90</b>	<b>216.70</b>	<b>11,730</b>	<b>10,506</b>	<b>9,970</b>	<b>10,179</b>	<b>10,400</b>	<b>10,136</b>	<b>102.5</b>	<b>697.7</b>	<b>497.1</b>	<b>1,774.5</b>	<b>2,566.5</b>	<b>4,577.0</b>
<b>Total BTEX</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>62</b>	<b>83</b>	<b>11,610</b>	<b>9,850</b>	<b>9,550</b>	<b>9,610</b>	<b>9,910</b>	<b>9,830</b>	<b>76.8</b>	<b>433</b>	<b>317</b>	<b>1,439</b>	<b>2,281</b>	<b>4,162</b>

Notes:  
 BCP MW-2 was dry and not sampled  
 For the March 11, 2015 monitoring event well MW-1, MW-5, MW-6 and MW-7 were dry or not enough water was inside the well for a representative sample.

Sample Name	Sample Name		MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-7	MW-7	MW-7	MW-7	MW-7		
	Date Collected		9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015	8/3/2015	9/20/2013	3/19/2014	5/22/2014	3/11/2015	6/17/2015		
	Matrix		WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	WG	
	Unit		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
<b>NYSDEC Ambient Water Quality Standards &amp; Guidance Values</b>																					
Volatile Organic Compound		Surface Water	Groundwater																		
2-HEXANONE	50	50	11	ND	ND		ND	ND	ND	ND	ND		190		ND	ND	4.8		ND		
ACETONE	50	50	ND	520	ND		ND	ND	ND	ND	ND		480	340	ND	3	ND		ND		
BENZENE	1	1	5,600	4,800	4,900		3,700	4,100	190	33	16		470	890	0.51	8.8	14		ND		
ETHYLBENZENE	5	5	1,900	1,600	1,600		2,800	2,600	130	20	31		36	210	ND	ND	3		ND		
ISOPROPYLBENZENE (CUMENE)	5	5	28	29	ND		ND	ND	4.4	ND	1.9 J				ND	ND	ND		ND		
METHYL ETHYL KETONE (2-BUTANONE)	50	50	10	350	ND		ND	ND	ND	ND	ND		110		ND	ND	ND		ND		
METHYLENE CHLORIDE	5	5	ND	ND	ND		ND	ND	ND	ND	ND		ND		ND	ND	ND		ND		
TOLUENE	5	5	170	220	310		290	290	810	42	79		1,000	1,900	ND	0.56	4.7		ND		
XYLENES, TOTAL	5	5	10,000	6,800	8,300		9,100	10,000	750	85	150		740	1,100	0.96	4.8	94		ND		
<b>No Standard</b>																					
CARBON DISULFIDE			ND	ND	ND		ND	ND	ND	ND	ND		ND	ND	ND	ND	0.97		ND		
CYCLOHEXANE			230	340	240		430	260	68	ND	130		270	41	ND	4.3	9.6		ND		
METHYL ISOBUTYL KETONE			23	ND	ND		ND	ND	ND	ND	ND		ND	ND	ND	ND	ND		ND		
METHYLCYCLOHEXANE			100	170	150		190	130	46	16	18		170	27	ND	1.7	5.1		0.18		
<b>Total VOCs</b>			<b>18,072</b>	<b>14,829</b>	<b>15,500</b>		<b>-</b>	<b>16,510</b>	<b>17,380</b>	<b>1,998.4</b>	<b>196</b>	<b>424</b>		<b>-</b>	<b>3,466</b>	<b>4,508</b>	<b>1.47</b>	<b>23.16</b>	<b>136.17</b>	<b>-</b>	<b>0.18</b>
<b>Total BTEX</b>			<b>17,670</b>	<b>13,420</b>	<b>15,110</b>		<b>-</b>	<b>15,890</b>	<b>16,990</b>	<b>1,880</b>	<b>180</b>	<b>276</b>		<b>-</b>	<b>2,246</b>	<b>4,100</b>	<b>0.51</b>	<b>14.16</b>	<b>115.7</b>	<b>-</b>	<b>-</b>

Notes:

BCP MW-2 was dry and not sampled

For the March 11, 2015 monitoring event well MW-1, MW-5, MW-6 and MW-7 were dry or not enough water was inside the well for a representative sample.

ATTACHMENT A  
LAB ANALYTICAL DATA

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-82489-1

Client Project/Site: Well Sampling - MOB

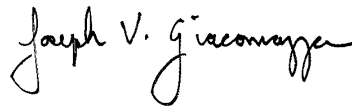
For:

C&S Engineers, Inc.

499 Col. Eileen Collins Blvd

Syracuse, New York 13212

Attn: Mr. Mark Colmerauer



Authorized for release by:

6/23/2015 10:40:51 AM

Joe Giacomazza, Project Management Assistant II

[joe.giacomazza@testamericainc.com](mailto:joe.giacomazza@testamericainc.com)

Designee for

Judy Stone, Senior Project Manager

(484)685-0868

[judy.stone@testamericainc.com](mailto:judy.stone@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)



# Case Narrative

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Job ID: 480-82489-1**

**Laboratory: TestAmerica Buffalo**

## Narrative

### Job Narrative 480-82489-1

#### Receipt

The samples were received on 6/18/2015 1:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.6° C.

#### Receipt Exceptions

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC).

#### GC/MS VOA

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-249012 recovered above the upper control limit for Chlorodibromomethane, Carbon Tetrachloride, Tetrachloroethene, and 1,1,2-Trichloro-1,2,2-trifluoroethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-1-61715 (480-82489-1), MW-3-61715 (480-82489-2), MW-4-61715 (480-82489-3), MW-5-61715 (480-82489-4), MW-6-61715 (480-82489-5), MW-7-61715 (480-82489-6) and TRIP BLANK (480-82489-7).

Method(s) 8260C: The laboratory control sample (LCS) for batch 480-249012 recovered outside control limits for the following analyte: Bromoform. This was not a requested spike compound; therefore, the data have been qualified and reported. The following samples are impacted: MW-1-61715 (480-82489-1), MW-3-61715 (480-82489-2), MW-4-61715 (480-82489-3), MW-5-61715 (480-82489-4), MW-6-61715 (480-82489-5), MW-7-61715 (480-82489-6) and TRIP BLANK (480-82489-7).

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-3-61715 (480-82489-2), MW-4-61715 (480-82489-3), MW-5-61715 (480-82489-4) and MW-6-61715 (480-82489-5). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-4-61715 (480-82489-3), MW-5-61715 (480-82489-4), MW-6-61715 (480-82489-5), (480-82489-B-5 MS) and (480-82489-B-5 MSD). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: MW-6-61715 (480-82489-5).

Method(s) 8260C: The following sample was collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: MW-6-61715 (480-82489-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

## Client Sample ID: MW-1-61715

## Lab Sample ID: 480-82489-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	0.38	J	1.0	0.21	ug/L	1		8260C	Total/NA
4-Methyl-2-pentanone (MIBK)	2.4	J	5.0	2.1	ug/L	1		8260C	Total/NA
Benzene	35		1.0	0.41	ug/L	1		8260C	Total/NA
Cyclohexane	35		1.0	0.18	ug/L	1		8260C	Total/NA
Ethylbenzene	2.0		1.0	0.74	ug/L	1		8260C	Total/NA
Isopropylbenzene	1.3		1.0	0.79	ug/L	1		8260C	Total/NA
Methylcyclohexane	3.2		1.0	0.16	ug/L	1		8260C	Total/NA
Toluene	19		1.0	0.51	ug/L	1		8260C	Total/NA
Xylenes, Total	6.4		2.0	0.66	ug/L	1		8260C	Total/NA

## Client Sample ID: MW-3-61715

## Lab Sample ID: 480-82489-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4300		50	21	ug/L	50		8260C	Total/NA
Cyclohexane	330		50	9.0	ug/L	50		8260C	Total/NA
Ethylbenzene	1500		50	37	ug/L	50		8260C	Total/NA
Methylcyclohexane	160		50	8.0	ug/L	50		8260C	Total/NA
Toluene	110		50	26	ug/L	50		8260C	Total/NA
Xylenes, Total	4000		100	33	ug/L	50		8260C	Total/NA

## Client Sample ID: MW-4-61715

## Lab Sample ID: 480-82489-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	8.5	J	50	6.6	ug/L	5		8260C	Total/NA
Benzene	24		5.0	2.1	ug/L	5		8260C	Total/NA
Cyclohexane	170		5.0	0.90	ug/L	5		8260C	Total/NA
Isopropylbenzene	15		5.0	4.0	ug/L	5		8260C	Total/NA
Methylcyclohexane	92		5.0	0.80	ug/L	5		8260C	Total/NA
Toluene	57		5.0	2.6	ug/L	5		8260C	Total/NA
Ethylbenzene - DL	1000		20	15	ug/L	20		8260C	Total/NA
Xylenes, Total - DL	1200		40	13	ug/L	20		8260C	Total/NA

## Client Sample ID: MW-5-61715

## Lab Sample ID: 480-82489-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3700		80	33	ug/L	80		8260C	Total/NA
Cyclohexane	430		80	14	ug/L	80		8260C	Total/NA
Ethylbenzene	2800		80	59	ug/L	80		8260C	Total/NA
Methylcyclohexane	190		80	13	ug/L	80		8260C	Total/NA
Toluene	290		80	41	ug/L	80		8260C	Total/NA
Xylenes, Total - DL	9100		400	130	ug/L	200		8260C	Total/NA

## Client Sample ID: MW-6-61715

## Lab Sample ID: 480-82489-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Hexanone	190		25	6.2	ug/L	5		8260C	Total/NA
2-Butanone (MEK)	110		50	6.6	ug/L	5		8260C	Total/NA
4-Methyl-2-pentanone (MIBK)	130		25	11	ug/L	5		8260C	Total/NA
Acetone	480		50	15	ug/L	5		8260C	Total/NA
Benzene	470		5.0	2.1	ug/L	5		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Detection Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

## Client Sample ID: MW-6-61715 (Continued)

Lab Sample ID: 480-82489-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane	270		5.0	0.90	ug/L	5		8260C	Total/NA
Ethylbenzene	36		5.0	3.7	ug/L	5		8260C	Total/NA
Methylcyclohexane	170		5.0	0.80	ug/L	5		8260C	Total/NA
Xylenes, Total	740		10	3.3	ug/L	5		8260C	Total/NA
Toluene - DL	1000	F1	20	10	ug/L	20		8260C	Total/NA

## Client Sample ID: MW-7-61715

Lab Sample ID: 480-82489-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylcyclohexane	0.18	J	1.0	0.16	ug/L	1		8260C	Total/NA

## Client Sample ID: TRIP BLANK

Lab Sample ID: 480-82489-7

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: MW-1-61715**

**Lab Sample ID: 480-82489-1**

**Date Collected: 06/17/15 15:00**

**Matrix: Water**

**Date Received: 06/18/15 13:25**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/19/15 11:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/19/15 11:33	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/19/15 11:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/19/15 11:33	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/19/15 11:33	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/19/15 11:33	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/19/15 11:33	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/19/15 11:33	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/19/15 11:33	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/19/15 11:33	1
<b>1,2-Dichloroethane</b>	<b>0.38</b>	<b>J</b>	1.0	0.21	ug/L			06/19/15 11:33	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/19/15 11:33	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/19/15 11:33	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/19/15 11:33	1
2-Hexanone	ND		5.0	1.2	ug/L			06/19/15 11:33	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/19/15 11:33	1
<b>4-Methyl-2-pentanone (MIBK)</b>	<b>2.4</b>	<b>J</b>	5.0	2.1	ug/L			06/19/15 11:33	1
Acetone	ND		10	3.0	ug/L			06/19/15 11:33	1
<b>Benzene</b>	<b>35</b>		1.0	0.41	ug/L			06/19/15 11:33	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/19/15 11:33	1
Bromoform	ND	*	1.0	0.26	ug/L			06/19/15 11:33	1
Bromomethane	ND		1.0	0.69	ug/L			06/19/15 11:33	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/19/15 11:33	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/19/15 11:33	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/19/15 11:33	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/19/15 11:33	1
Chloroethane	ND		1.0	0.32	ug/L			06/19/15 11:33	1
Chloroform	ND		1.0	0.34	ug/L			06/19/15 11:33	1
Chloromethane	ND		1.0	0.35	ug/L			06/19/15 11:33	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/19/15 11:33	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/19/15 11:33	1
<b>Cyclohexane</b>	<b>35</b>		1.0	0.18	ug/L			06/19/15 11:33	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/19/15 11:33	1
<b>Ethylbenzene</b>	<b>2.0</b>		1.0	0.74	ug/L			06/19/15 11:33	1
<b>Isopropylbenzene</b>	<b>1.3</b>		1.0	0.79	ug/L			06/19/15 11:33	1
Methyl acetate	ND		2.5	0.50	ug/L			06/19/15 11:33	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/19/15 11:33	1
<b>Methylcyclohexane</b>	<b>3.2</b>		1.0	0.16	ug/L			06/19/15 11:33	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/19/15 11:33	1
Styrene	ND		1.0	0.73	ug/L			06/19/15 11:33	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/19/15 11:33	1
<b>Toluene</b>	<b>19</b>		1.0	0.51	ug/L			06/19/15 11:33	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/19/15 11:33	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/19/15 11:33	1
Trichloroethene	ND		1.0	0.46	ug/L			06/19/15 11:33	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/19/15 11:33	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/19/15 11:33	1
<b>Xylenes, Total</b>	<b>6.4</b>		2.0	0.66	ug/L			06/19/15 11:33	1

TestAmerica Buffalo

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: MW-1-61715**

**Date Collected: 06/17/15 15:00**

**Date Received: 06/18/15 13:25**

**Lab Sample ID: 480-82489-1**

**Matrix: Water**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	105		66 - 137		06/19/15 11:33	1
Toluene-d8 (Surr)	101		71 - 126		06/19/15 11:33	1
4-Bromofluorobenzene (Surr)	110		73 - 120		06/19/15 11:33	1
Dibromofluoromethane (Surr)	106		60 - 140		06/19/15 11:33	1

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: MW-3-61715**

**Lab Sample ID: 480-82489-2**

**Date Collected: 06/17/15 13:40**

**Matrix: Water**

**Date Received: 06/18/15 13:25**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		50	41	ug/L			06/19/15 12:01	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			06/19/15 12:01	50
1,1,2-Trichloroethane	ND		50	12	ug/L			06/19/15 12:01	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			06/19/15 12:01	50
1,1-Dichloroethane	ND		50	19	ug/L			06/19/15 12:01	50
1,1-Dichloroethene	ND		50	15	ug/L			06/19/15 12:01	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			06/19/15 12:01	50
1,2-Dibromo-3-Chloropropane	ND		50	20	ug/L			06/19/15 12:01	50
1,2-Dibromoethane	ND		50	37	ug/L			06/19/15 12:01	50
1,2-Dichlorobenzene	ND		50	40	ug/L			06/19/15 12:01	50
1,2-Dichloroethane	ND		50	11	ug/L			06/19/15 12:01	50
1,2-Dichloropropane	ND		50	36	ug/L			06/19/15 12:01	50
1,3-Dichlorobenzene	ND		50	39	ug/L			06/19/15 12:01	50
1,4-Dichlorobenzene	ND		50	42	ug/L			06/19/15 12:01	50
2-Hexanone	ND		250	62	ug/L			06/19/15 12:01	50
2-Butanone (MEK)	ND		500	66	ug/L			06/19/15 12:01	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			06/19/15 12:01	50
Acetone	ND		500	150	ug/L			06/19/15 12:01	50
<b>Benzene</b>	<b>4300</b>		50	21	ug/L			06/19/15 12:01	50
Bromodichloromethane	ND		50	20	ug/L			06/19/15 12:01	50
Bromoform	ND	*	50	13	ug/L			06/19/15 12:01	50
Bromomethane	ND		50	35	ug/L			06/19/15 12:01	50
Carbon disulfide	ND		50	9.5	ug/L			06/19/15 12:01	50
Carbon tetrachloride	ND		50	14	ug/L			06/19/15 12:01	50
Chlorobenzene	ND		50	38	ug/L			06/19/15 12:01	50
Dibromochloromethane	ND		50	16	ug/L			06/19/15 12:01	50
Chloroethane	ND		50	16	ug/L			06/19/15 12:01	50
Chloroform	ND		50	17	ug/L			06/19/15 12:01	50
Chloromethane	ND		50	18	ug/L			06/19/15 12:01	50
cis-1,2-Dichloroethene	ND		50	41	ug/L			06/19/15 12:01	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			06/19/15 12:01	50
<b>Cyclohexane</b>	<b>330</b>		50	9.0	ug/L			06/19/15 12:01	50
Dichlorodifluoromethane	ND		50	34	ug/L			06/19/15 12:01	50
<b>Ethylbenzene</b>	<b>1500</b>		50	37	ug/L			06/19/15 12:01	50
Isopropylbenzene	ND		50	40	ug/L			06/19/15 12:01	50
Methyl acetate	ND		130	25	ug/L			06/19/15 12:01	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			06/19/15 12:01	50
<b>Methylcyclohexane</b>	<b>160</b>		50	8.0	ug/L			06/19/15 12:01	50
Methylene Chloride	ND		50	22	ug/L			06/19/15 12:01	50
Styrene	ND		50	37	ug/L			06/19/15 12:01	50
Tetrachloroethene	ND		50	18	ug/L			06/19/15 12:01	50
<b>Toluene</b>	<b>110</b>		50	26	ug/L			06/19/15 12:01	50
trans-1,2-Dichloroethene	ND		50	45	ug/L			06/19/15 12:01	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			06/19/15 12:01	50
Trichloroethene	ND		50	23	ug/L			06/19/15 12:01	50
Trichlorofluoromethane	ND		50	44	ug/L			06/19/15 12:01	50
Vinyl chloride	ND		50	45	ug/L			06/19/15 12:01	50
<b>Xylenes, Total</b>	<b>4000</b>		100	33	ug/L			06/19/15 12:01	50

TestAmerica Buffalo

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: MW-3-61715**

**Date Collected: 06/17/15 13:40**

**Date Received: 06/18/15 13:25**

**Lab Sample ID: 480-82489-2**

**Matrix: Water**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	101		66 - 137		06/19/15 12:01	50
Toluene-d8 (Surr)	103		71 - 126		06/19/15 12:01	50
4-Bromofluorobenzene (Surr)	109		73 - 120		06/19/15 12:01	50
Dibromofluoromethane (Surr)	108		60 - 140		06/19/15 12:01	50

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# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: MW-4-61715**

**Lab Sample ID: 480-82489-3**

**Date Collected: 06/17/15 13:00**

**Matrix: Water**

**Date Received: 06/18/15 13:25**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			06/19/15 12:28	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			06/19/15 12:28	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			06/19/15 12:28	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			06/19/15 12:28	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			06/19/15 12:28	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			06/19/15 12:28	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			06/19/15 12:28	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			06/19/15 12:28	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			06/19/15 12:28	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			06/19/15 12:28	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			06/19/15 12:28	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			06/19/15 12:28	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			06/19/15 12:28	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			06/19/15 12:28	5
2-Hexanone	ND		25	6.2	ug/L			06/19/15 12:28	5
<b>2-Butanone (MEK)</b>	<b>8.5</b>	<b>J</b>	50	6.6	ug/L			06/19/15 12:28	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			06/19/15 12:28	5
Acetone	ND		50	15	ug/L			06/19/15 12:28	5
<b>Benzene</b>	<b>24</b>		5.0	2.1	ug/L			06/19/15 12:28	5
Bromodichloromethane	ND		5.0	2.0	ug/L			06/19/15 12:28	5
Bromoform	ND	*	5.0	1.3	ug/L			06/19/15 12:28	5
Bromomethane	ND		5.0	3.5	ug/L			06/19/15 12:28	5
Carbon disulfide	ND		5.0	0.95	ug/L			06/19/15 12:28	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			06/19/15 12:28	5
Chlorobenzene	ND		5.0	3.8	ug/L			06/19/15 12:28	5
Dibromochloromethane	ND		5.0	1.6	ug/L			06/19/15 12:28	5
Chloroethane	ND		5.0	1.6	ug/L			06/19/15 12:28	5
Chloroform	ND		5.0	1.7	ug/L			06/19/15 12:28	5
Chloromethane	ND		5.0	1.8	ug/L			06/19/15 12:28	5
cis-1,2-Dichloroethene	ND		5.0	4.1	ug/L			06/19/15 12:28	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			06/19/15 12:28	5
<b>Cyclohexane</b>	<b>170</b>		5.0	0.90	ug/L			06/19/15 12:28	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			06/19/15 12:28	5
<b>Isopropylbenzene</b>	<b>15</b>		5.0	4.0	ug/L			06/19/15 12:28	5
Methyl acetate	ND		13	2.5	ug/L			06/19/15 12:28	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			06/19/15 12:28	5
<b>Methylcyclohexane</b>	<b>92</b>		5.0	0.80	ug/L			06/19/15 12:28	5
Methylene Chloride	ND		5.0	2.2	ug/L			06/19/15 12:28	5
Styrene	ND		5.0	3.7	ug/L			06/19/15 12:28	5
Tetrachloroethene	ND		5.0	1.8	ug/L			06/19/15 12:28	5
<b>Toluene</b>	<b>57</b>		5.0	2.6	ug/L			06/19/15 12:28	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			06/19/15 12:28	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			06/19/15 12:28	5
Trichloroethene	ND		5.0	2.3	ug/L			06/19/15 12:28	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			06/19/15 12:28	5
Vinyl chloride	ND		5.0	4.5	ug/L			06/19/15 12:28	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		66 - 137		06/19/15 12:28	5

TestAmerica Buffalo



# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: MW-4-61715**

**Lab Sample ID: 480-82489-3**

**Date Collected: 06/17/15 13:00**

**Matrix: Water**

**Date Received: 06/18/15 13:25**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		71 - 126		06/19/15 12:28	5
4-Bromofluorobenzene (Surr)	111		73 - 120		06/19/15 12:28	5
Dibromofluoromethane (Surr)	101		60 - 140		06/19/15 12:28	5

**Method: 8260C - Volatile Organic Compounds by GC/MS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1000		20	15	ug/L			06/20/15 17:37	20
Xylenes, Total	1200		40	13	ug/L			06/20/15 17:37	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		66 - 137		06/20/15 17:37	20
Toluene-d8 (Surr)	103		71 - 126		06/20/15 17:37	20
4-Bromofluorobenzene (Surr)	107		73 - 120		06/20/15 17:37	20
Dibromofluoromethane (Surr)	107		60 - 140		06/20/15 17:37	20

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: MW-5-61715**

**Lab Sample ID: 480-82489-4**

**Date Collected: 06/17/15 14:20**

**Matrix: Water**

**Date Received: 06/18/15 13:25**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		80	66	ug/L			06/19/15 12:55	80
1,1,2,2-Tetrachloroethane	ND		80	17	ug/L			06/19/15 12:55	80
1,1,2-Trichloroethane	ND		80	18	ug/L			06/19/15 12:55	80
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		80	25	ug/L			06/19/15 12:55	80
1,1-Dichloroethane	ND		80	30	ug/L			06/19/15 12:55	80
1,1-Dichloroethene	ND		80	23	ug/L			06/19/15 12:55	80
1,2,4-Trichlorobenzene	ND		80	33	ug/L			06/19/15 12:55	80
1,2-Dibromo-3-Chloropropane	ND		80	31	ug/L			06/19/15 12:55	80
1,2-Dibromoethane	ND		80	58	ug/L			06/19/15 12:55	80
1,2-Dichlorobenzene	ND		80	63	ug/L			06/19/15 12:55	80
1,2-Dichloroethane	ND		80	17	ug/L			06/19/15 12:55	80
1,2-Dichloropropane	ND		80	58	ug/L			06/19/15 12:55	80
1,3-Dichlorobenzene	ND		80	62	ug/L			06/19/15 12:55	80
1,4-Dichlorobenzene	ND		80	67	ug/L			06/19/15 12:55	80
2-Hexanone	ND		400	99	ug/L			06/19/15 12:55	80
2-Butanone (MEK)	ND		800	110	ug/L			06/19/15 12:55	80
4-Methyl-2-pentanone (MIBK)	ND		400	170	ug/L			06/19/15 12:55	80
Acetone	ND		800	240	ug/L			06/19/15 12:55	80
<b>Benzene</b>	<b>3700</b>		80	33	ug/L			06/19/15 12:55	80
Bromodichloromethane	ND		80	31	ug/L			06/19/15 12:55	80
Bromoform	ND	*	80	21	ug/L			06/19/15 12:55	80
Bromomethane	ND		80	55	ug/L			06/19/15 12:55	80
Carbon disulfide	ND		80	15	ug/L			06/19/15 12:55	80
Carbon tetrachloride	ND		80	22	ug/L			06/19/15 12:55	80
Chlorobenzene	ND		80	60	ug/L			06/19/15 12:55	80
Dibromochloromethane	ND		80	26	ug/L			06/19/15 12:55	80
Chloroethane	ND		80	26	ug/L			06/19/15 12:55	80
Chloroform	ND		80	27	ug/L			06/19/15 12:55	80
Chloromethane	ND		80	28	ug/L			06/19/15 12:55	80
cis-1,2-Dichloroethene	ND		80	65	ug/L			06/19/15 12:55	80
cis-1,3-Dichloropropene	ND		80	29	ug/L			06/19/15 12:55	80
<b>Cyclohexane</b>	<b>430</b>		80	14	ug/L			06/19/15 12:55	80
Dichlorodifluoromethane	ND		80	54	ug/L			06/19/15 12:55	80
<b>Ethylbenzene</b>	<b>2800</b>		80	59	ug/L			06/19/15 12:55	80
Isopropylbenzene	ND		80	63	ug/L			06/19/15 12:55	80
Methyl acetate	ND		200	40	ug/L			06/19/15 12:55	80
Methyl tert-butyl ether	ND		80	13	ug/L			06/19/15 12:55	80
<b>Methylcyclohexane</b>	<b>190</b>		80	13	ug/L			06/19/15 12:55	80
Methylene Chloride	ND		80	35	ug/L			06/19/15 12:55	80
Styrene	ND		80	58	ug/L			06/19/15 12:55	80
Tetrachloroethene	ND		80	29	ug/L			06/19/15 12:55	80
<b>Toluene</b>	<b>290</b>		80	41	ug/L			06/19/15 12:55	80
trans-1,2-Dichloroethene	ND		80	72	ug/L			06/19/15 12:55	80
trans-1,3-Dichloropropene	ND		80	30	ug/L			06/19/15 12:55	80
Trichloroethene	ND		80	37	ug/L			06/19/15 12:55	80
Trichlorofluoromethane	ND		80	70	ug/L			06/19/15 12:55	80
Vinyl chloride	ND		80	72	ug/L			06/19/15 12:55	80

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# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: MW-5-61715**

**Lab Sample ID: 480-82489-4**

**Date Collected: 06/17/15 14:20**

**Matrix: Water**

**Date Received: 06/18/15 13:25**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		66 - 137		06/19/15 12:55	80
Toluene-d8 (Surr)	102		71 - 126		06/19/15 12:55	80
4-Bromofluorobenzene (Surr)	110		73 - 120		06/19/15 12:55	80
Dibromofluoromethane (Surr)	101		60 - 140		06/19/15 12:55	80

**Method: 8260C - Volatile Organic Compounds by GC/MS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	9100		400	130	ug/L			06/20/15 18:04	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		66 - 137		06/20/15 18:04	200
Toluene-d8 (Surr)	104		71 - 126		06/20/15 18:04	200
4-Bromofluorobenzene (Surr)	109		73 - 120		06/20/15 18:04	200
Dibromofluoromethane (Surr)	106		60 - 140		06/20/15 18:04	200

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: MW-6-61715**

**Lab Sample ID: 480-82489-5**

**Date Collected: 06/17/15 12:15**

**Matrix: Water**

**Date Received: 06/18/15 13:25**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	4.1	ug/L			06/19/15 13:23	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			06/19/15 13:23	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			06/19/15 13:23	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			06/19/15 13:23	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			06/19/15 13:23	5
1,1-Dichloroethene	ND		5.0	1.5	ug/L			06/19/15 13:23	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			06/19/15 13:23	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			06/19/15 13:23	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			06/19/15 13:23	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			06/19/15 13:23	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			06/19/15 13:23	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			06/19/15 13:23	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			06/19/15 13:23	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			06/19/15 13:23	5
<b>2-Hexanone</b>	<b>190</b>		25	6.2	ug/L			06/19/15 13:23	5
<b>2-Butanone (MEK)</b>	<b>110</b>		50	6.6	ug/L			06/19/15 13:23	5
<b>4-Methyl-2-pentanone (MIBK)</b>	<b>130</b>		25	11	ug/L			06/19/15 13:23	5
<b>Acetone</b>	<b>480</b>		50	15	ug/L			06/19/15 13:23	5
<b>Benzene</b>	<b>470</b>		5.0	2.1	ug/L			06/19/15 13:23	5
Bromodichloromethane	ND		5.0	2.0	ug/L			06/19/15 13:23	5
Bromoform	ND	*	5.0	1.3	ug/L			06/19/15 13:23	5
Bromomethane	ND		5.0	3.5	ug/L			06/19/15 13:23	5
Carbon disulfide	ND		5.0	0.95	ug/L			06/19/15 13:23	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			06/19/15 13:23	5
Chlorobenzene	ND		5.0	3.8	ug/L			06/19/15 13:23	5
Dibromochloromethane	ND		5.0	1.6	ug/L			06/19/15 13:23	5
Chloroethane	ND		5.0	1.6	ug/L			06/19/15 13:23	5
Chloroform	ND		5.0	1.7	ug/L			06/19/15 13:23	5
Chloromethane	ND		5.0	1.8	ug/L			06/19/15 13:23	5
cis-1,2-Dichloroethene	ND		5.0	4.1	ug/L			06/19/15 13:23	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			06/19/15 13:23	5
<b>Cyclohexane</b>	<b>270</b>		5.0	0.90	ug/L			06/19/15 13:23	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			06/19/15 13:23	5
<b>Ethylbenzene</b>	<b>36</b>		5.0	3.7	ug/L			06/19/15 13:23	5
Isopropylbenzene	ND		5.0	4.0	ug/L			06/19/15 13:23	5
Methyl acetate	ND		13	2.5	ug/L			06/19/15 13:23	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			06/19/15 13:23	5
<b>Methylcyclohexane</b>	<b>170</b>		5.0	0.80	ug/L			06/19/15 13:23	5
Methylene Chloride	ND		5.0	2.2	ug/L			06/19/15 13:23	5
Styrene	ND		5.0	3.7	ug/L			06/19/15 13:23	5
Tetrachloroethene	ND		5.0	1.8	ug/L			06/19/15 13:23	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			06/19/15 13:23	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			06/19/15 13:23	5
Trichloroethene	ND		5.0	2.3	ug/L			06/19/15 13:23	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			06/19/15 13:23	5
Vinyl chloride	ND		5.0	4.5	ug/L			06/19/15 13:23	5
<b>Xylenes, Total</b>	<b>740</b>		10	3.3	ug/L			06/19/15 13:23	5

TestAmerica Buffalo

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: MW-6-61715**

**Lab Sample ID: 480-82489-5**

**Date Collected: 06/17/15 12:15**

**Matrix: Water**

**Date Received: 06/18/15 13:25**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		66 - 137		06/19/15 13:23	5
Toluene-d8 (Surr)	100		71 - 126		06/19/15 13:23	5
4-Bromofluorobenzene (Surr)	108		73 - 120		06/19/15 13:23	5
Dibromofluoromethane (Surr)	110		60 - 140		06/19/15 13:23	5

**Method: 8260C - Volatile Organic Compounds by GC/MS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	1000	F1	20	10	ug/L			06/20/15 18:32	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		66 - 137		06/20/15 18:32	20
Toluene-d8 (Surr)	103		71 - 126		06/20/15 18:32	20
4-Bromofluorobenzene (Surr)	110		73 - 120		06/20/15 18:32	20
Dibromofluoromethane (Surr)	100		60 - 140		06/20/15 18:32	20

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: MW-7-61715**

**Lab Sample ID: 480-82489-6**

**Date Collected: 06/17/15 11:20**

**Matrix: Water**

**Date Received: 06/18/15 13:25**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/19/15 13:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/19/15 13:50	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/19/15 13:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/19/15 13:50	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/19/15 13:50	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/19/15 13:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/19/15 13:50	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/19/15 13:50	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/19/15 13:50	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/19/15 13:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 13:50	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/19/15 13:50	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/19/15 13:50	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/19/15 13:50	1
2-Hexanone	ND		5.0	1.2	ug/L			06/19/15 13:50	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/19/15 13:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/19/15 13:50	1
Acetone	ND		10	3.0	ug/L			06/19/15 13:50	1
Benzene	ND		1.0	0.41	ug/L			06/19/15 13:50	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/19/15 13:50	1
Bromoform	ND	*	1.0	0.26	ug/L			06/19/15 13:50	1
Bromomethane	ND		1.0	0.69	ug/L			06/19/15 13:50	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/19/15 13:50	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/19/15 13:50	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/19/15 13:50	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/19/15 13:50	1
Chloroethane	ND		1.0	0.32	ug/L			06/19/15 13:50	1
Chloroform	ND		1.0	0.34	ug/L			06/19/15 13:50	1
Chloromethane	ND		1.0	0.35	ug/L			06/19/15 13:50	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/19/15 13:50	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/19/15 13:50	1
Cyclohexane	ND		1.0	0.18	ug/L			06/19/15 13:50	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/19/15 13:50	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/19/15 13:50	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/19/15 13:50	1
Methyl acetate	ND		2.5	0.50	ug/L			06/19/15 13:50	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/19/15 13:50	1
<b>Methylcyclohexane</b>	<b>0.18</b>	<b>J</b>	1.0	0.16	ug/L			06/19/15 13:50	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/19/15 13:50	1
Styrene	ND		1.0	0.73	ug/L			06/19/15 13:50	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/19/15 13:50	1
Toluene	ND		1.0	0.51	ug/L			06/19/15 13:50	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/19/15 13:50	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/19/15 13:50	1
Trichloroethene	ND		1.0	0.46	ug/L			06/19/15 13:50	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/19/15 13:50	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/19/15 13:50	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/19/15 13:50	1

TestAmerica Buffalo

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: MW-7-61715**

**Date Collected: 06/17/15 11:20**

**Date Received: 06/18/15 13:25**

**Lab Sample ID: 480-82489-6**

**Matrix: Water**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	101		66 - 137		06/19/15 13:50	1
Toluene-d8 (Surr)	104		71 - 126		06/19/15 13:50	1
4-Bromofluorobenzene (Surr)	109		73 - 120		06/19/15 13:50	1
Dibromofluoromethane (Surr)	107		60 - 140		06/19/15 13:50	1

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 480-82489-7**

**Date Collected: 06/17/15 00:00**

**Matrix: Water**

**Date Received: 06/18/15 13:25**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/19/15 14:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/19/15 14:18	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/19/15 14:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/19/15 14:18	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/19/15 14:18	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/19/15 14:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/19/15 14:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/19/15 14:18	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/19/15 14:18	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/19/15 14:18	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 14:18	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/19/15 14:18	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/19/15 14:18	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/19/15 14:18	1
2-Hexanone	ND		5.0	1.2	ug/L			06/19/15 14:18	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/19/15 14:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/19/15 14:18	1
Acetone	ND		10	3.0	ug/L			06/19/15 14:18	1
Benzene	ND		1.0	0.41	ug/L			06/19/15 14:18	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/19/15 14:18	1
Bromoform	ND *		1.0	0.26	ug/L			06/19/15 14:18	1
Bromomethane	ND		1.0	0.69	ug/L			06/19/15 14:18	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/19/15 14:18	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/19/15 14:18	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/19/15 14:18	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/19/15 14:18	1
Chloroethane	ND		1.0	0.32	ug/L			06/19/15 14:18	1
Chloroform	ND		1.0	0.34	ug/L			06/19/15 14:18	1
Chloromethane	ND		1.0	0.35	ug/L			06/19/15 14:18	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/19/15 14:18	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/19/15 14:18	1
Cyclohexane	ND		1.0	0.18	ug/L			06/19/15 14:18	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/19/15 14:18	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/19/15 14:18	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/19/15 14:18	1
Methyl acetate	ND		2.5	0.50	ug/L			06/19/15 14:18	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/19/15 14:18	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/19/15 14:18	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/19/15 14:18	1
Styrene	ND		1.0	0.73	ug/L			06/19/15 14:18	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/19/15 14:18	1
Toluene	ND		1.0	0.51	ug/L			06/19/15 14:18	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/19/15 14:18	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/19/15 14:18	1
Trichloroethene	ND		1.0	0.46	ug/L			06/19/15 14:18	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/19/15 14:18	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/19/15 14:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/19/15 14:18	1

TestAmerica Buffalo



# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: TRIP BLANK**

**Date Collected: 06/17/15 00:00**

**Date Received: 06/18/15 13:25**

**Lab Sample ID: 480-82489-7**

**Matrix: Water**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	101		66 - 137		06/19/15 14:18	1
Toluene-d8 (Surr)	104		71 - 126		06/19/15 14:18	1
4-Bromofluorobenzene (Surr)	109		73 - 120		06/19/15 14:18	1
Dibromofluoromethane (Surr)	105		60 - 140		06/19/15 14:18	1

# Surrogate Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE	TOL	BFB	DBFM
		(66-137)	(71-126)	(73-120)	(60-140)
480-82489-1	MW-1-61715	105	101	110	106
480-82489-2	MW-3-61715	101	103	109	108
480-82489-3	MW-4-61715	103	104	111	101
480-82489-3 - DL	MW-4-61715	104	103	107	107
480-82489-4	MW-5-61715	95	102	110	101
480-82489-4 - DL	MW-5-61715	99	104	109	106
480-82489-5	MW-6-61715	106	100	108	110
480-82489-5 - DL	MW-6-61715	96	103	110	100
480-82489-5 MS	MW-6-61715	104	102	107	112
480-82489-5 MSD	MW-6-61715	101	102	109	109
480-82489-6	MW-7-61715	101	104	109	107
480-82489-7	TRIP BLANK	101	104	109	105
LCS 480-249012/4	Lab Control Sample	97	103	109	104
LCS 480-249205/5	Lab Control Sample	100	104	108	106
MB 480-249012/6	Method Blank	102	102	106	107
MB 480-249205/7	Method Blank	102	102	108	105

### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

# QC Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-249012/6

Matrix: Water

Analysis Batch: 249012

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/19/15 11:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/19/15 11:06	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/19/15 11:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/19/15 11:06	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/19/15 11:06	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/19/15 11:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/19/15 11:06	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/19/15 11:06	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/19/15 11:06	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/19/15 11:06	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/19/15 11:06	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/19/15 11:06	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/19/15 11:06	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/19/15 11:06	1
2-Hexanone	ND		5.0	1.2	ug/L			06/19/15 11:06	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/19/15 11:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/19/15 11:06	1
Acetone	ND		10	3.0	ug/L			06/19/15 11:06	1
Benzene	ND		1.0	0.41	ug/L			06/19/15 11:06	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/19/15 11:06	1
Bromoform	ND		1.0	0.26	ug/L			06/19/15 11:06	1
Bromomethane	ND		1.0	0.69	ug/L			06/19/15 11:06	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/19/15 11:06	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/19/15 11:06	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/19/15 11:06	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/19/15 11:06	1
Chloroethane	ND		1.0	0.32	ug/L			06/19/15 11:06	1
Chloroform	ND		1.0	0.34	ug/L			06/19/15 11:06	1
Chloromethane	ND		1.0	0.35	ug/L			06/19/15 11:06	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/19/15 11:06	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/19/15 11:06	1
Cyclohexane	ND		1.0	0.18	ug/L			06/19/15 11:06	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/19/15 11:06	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/19/15 11:06	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/19/15 11:06	1
Methyl acetate	ND		2.5	0.50	ug/L			06/19/15 11:06	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/19/15 11:06	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/19/15 11:06	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/19/15 11:06	1
Styrene	ND		1.0	0.73	ug/L			06/19/15 11:06	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/19/15 11:06	1
Toluene	ND		1.0	0.51	ug/L			06/19/15 11:06	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/19/15 11:06	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/19/15 11:06	1
Trichloroethene	ND		1.0	0.46	ug/L			06/19/15 11:06	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/19/15 11:06	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/19/15 11:06	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/19/15 11:06	1

TestAmerica Buffalo

# QC Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-249012/6**  
**Matrix: Water**  
**Analysis Batch: 249012**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		66 - 137		06/19/15 11:06	1
Toluene-d8 (Surr)	102		71 - 126		06/19/15 11:06	1
4-Bromofluorobenzene (Surr)	106		73 - 120		06/19/15 11:06	1
Dibromofluoromethane (Surr)	107		60 - 140		06/19/15 11:06	1

**Lab Sample ID: LCS 480-249012/4**  
**Matrix: Water**  
**Analysis Batch: 249012**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	24.1		ug/L		97	71 - 129
1,1-Dichloroethene	25.0	26.7		ug/L		107	58 - 121
1,2-Dichlorobenzene	25.0	26.6		ug/L		107	80 - 124
1,2-Dichloroethane	25.0	24.5		ug/L		98	75 - 127
Benzene	25.0	26.4		ug/L		106	71 - 124
Chlorobenzene	25.0	27.2		ug/L		109	72 - 120
cis-1,2-Dichloroethene	25.0	26.9		ug/L		108	74 - 124
Ethylbenzene	25.0	27.0		ug/L		108	77 - 123
Methyl tert-butyl ether	25.0	26.2		ug/L		105	64 - 127
Tetrachloroethene	25.0	28.5		ug/L		114	74 - 122
Toluene	25.0	26.6		ug/L		106	80 - 122
trans-1,2-Dichloroethene	25.0	27.1		ug/L		109	73 - 127
Trichloroethene	25.0	27.0		ug/L		108	74 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		66 - 137
Toluene-d8 (Surr)	103		71 - 126
4-Bromofluorobenzene (Surr)	109		73 - 120
Dibromofluoromethane (Surr)	104		60 - 140

**Lab Sample ID: MB 480-249205/7**  
**Matrix: Water**  
**Analysis Batch: 249205**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/20/15 10:13	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/20/15 10:13	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/20/15 10:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			06/20/15 10:13	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/20/15 10:13	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			06/20/15 10:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			06/20/15 10:13	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			06/20/15 10:13	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			06/20/15 10:13	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			06/20/15 10:13	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/20/15 10:13	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/20/15 10:13	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			06/20/15 10:13	1

TestAmerica Buffalo

# QC Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-249205/7**  
**Matrix: Water**  
**Analysis Batch: 249205**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			06/20/15 10:13	1
2-Hexanone	ND		5.0	1.2	ug/L			06/20/15 10:13	1
2-Butanone (MEK)	ND		10	1.3	ug/L			06/20/15 10:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			06/20/15 10:13	1
Acetone	ND		10	3.0	ug/L			06/20/15 10:13	1
Benzene	ND		1.0	0.41	ug/L			06/20/15 10:13	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/20/15 10:13	1
Bromoform	ND		1.0	0.26	ug/L			06/20/15 10:13	1
Bromomethane	ND		1.0	0.69	ug/L			06/20/15 10:13	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/20/15 10:13	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/20/15 10:13	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/20/15 10:13	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/20/15 10:13	1
Chloroethane	ND		1.0	0.32	ug/L			06/20/15 10:13	1
Chloroform	ND		1.0	0.34	ug/L			06/20/15 10:13	1
Chloromethane	ND		1.0	0.35	ug/L			06/20/15 10:13	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/20/15 10:13	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/20/15 10:13	1
Cyclohexane	ND		1.0	0.18	ug/L			06/20/15 10:13	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			06/20/15 10:13	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/20/15 10:13	1
Isopropylbenzene	ND		1.0	0.79	ug/L			06/20/15 10:13	1
Methyl acetate	ND		2.5	0.50	ug/L			06/20/15 10:13	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/20/15 10:13	1
Methylcyclohexane	ND		1.0	0.16	ug/L			06/20/15 10:13	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/20/15 10:13	1
Styrene	ND		1.0	0.73	ug/L			06/20/15 10:13	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/20/15 10:13	1
Toluene	ND		1.0	0.51	ug/L			06/20/15 10:13	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/20/15 10:13	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/20/15 10:13	1
Trichloroethene	ND		1.0	0.46	ug/L			06/20/15 10:13	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			06/20/15 10:13	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/20/15 10:13	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/20/15 10:13	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	102		66 - 137		06/20/15 10:13	1
Toluene-d8 (Surr)	102		71 - 126		06/20/15 10:13	1
4-Bromofluorobenzene (Surr)	108		73 - 120		06/20/15 10:13	1
Dibromofluoromethane (Surr)	105		60 - 140		06/20/15 10:13	1

**Lab Sample ID: LCS 480-249205/5**  
**Matrix: Water**  
**Analysis Batch: 249205**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1-Dichloroethane	25.0	25.8		ug/L		103	71 - 129

TestAmerica Buffalo

# QC Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 480-249205/5**  
**Matrix: Water**  
**Analysis Batch: 249205**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	25.0	29.8		ug/L		119	58 - 121
1,2-Dichlorobenzene	25.0	26.6		ug/L		106	80 - 124
1,2-Dichloroethane	25.0	25.4		ug/L		102	75 - 127
Benzene	25.0	28.0		ug/L		112	71 - 124
Chlorobenzene	25.0	27.5		ug/L		110	72 - 120
cis-1,2-Dichloroethene	25.0	28.7		ug/L		115	74 - 124
Ethylbenzene	25.0	27.8		ug/L		111	77 - 123
Methyl tert-butyl ether	25.0	27.6		ug/L		110	64 - 127
Tetrachloroethene	25.0	29.6		ug/L		118	74 - 122
Toluene	25.0	27.2		ug/L		109	80 - 122
trans-1,2-Dichloroethene	25.0	29.1		ug/L		116	73 - 127
Trichloroethene	25.0	28.8		ug/L		115	74 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		66 - 137
Toluene-d8 (Surr)	104		71 - 126
4-Bromofluorobenzene (Surr)	108		73 - 120
Dibromofluoromethane (Surr)	106		60 - 140

**Lab Sample ID: 480-82489-5 MS**  
**Matrix: Water**  
**Analysis Batch: 249205**

**Client Sample ID: MW-6-61715**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	ND		500	534		ug/L		107	71 - 129
1,1-Dichloroethene	ND	F1	500	623	F1	ug/L		125	58 - 121
1,2-Dichlorobenzene	ND		500	523		ug/L		105	80 - 124
1,2-Dichloroethane	ND		500	532		ug/L		106	75 - 127
Benzene	480		500	1020		ug/L		109	71 - 124
Chlorobenzene	ND		500	540		ug/L		108	72 - 120
cis-1,2-Dichloroethene	ND		500	586		ug/L		117	74 - 124
Ethylbenzene	18	J	500	555		ug/L		107	77 - 123
Methyl tert-butyl ether	ND		500	559		ug/L		112	64 - 127
Tetrachloroethene	ND		500	581		ug/L		116	74 - 122
Toluene	1000	F1	500	1400		ug/L		80	80 - 122
trans-1,2-Dichloroethene	ND		500	613		ug/L		123	73 - 127
Trichloroethene	ND		500	608		ug/L		122	74 - 123

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		66 - 137
Toluene-d8 (Surr)	102		71 - 126
4-Bromofluorobenzene (Surr)	107		73 - 120
Dibromofluoromethane (Surr)	112		60 - 140

# QC Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 480-82489-5 MSD**

**Matrix: Water**

**Analysis Batch: 249205**

**Client Sample ID: MW-6-61715**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	ND		500	500		ug/L		100	71 - 129	7	20
1,1-Dichloroethene	ND	F1	500	571		ug/L		114	58 - 121	9	16
1,2-Dichlorobenzene	ND		500	509		ug/L		102	80 - 124	3	20
1,2-Dichloroethane	ND		500	504		ug/L		101	75 - 127	5	20
Benzene	480		500	969		ug/L		98	71 - 124	5	13
Chlorobenzene	ND		500	525		ug/L		105	72 - 120	3	25
cis-1,2-Dichloroethene	ND		500	557		ug/L		111	74 - 124	5	15
Ethylbenzene	18	J	500	534		ug/L		103	77 - 123	4	15
Methyl tert-butyl ether	ND		500	539		ug/L		108	64 - 127	4	37
Tetrachloroethene	ND		500	557		ug/L		111	74 - 122	4	20
Toluene	1000	F1	500	1360	F1	ug/L		72	80 - 122	3	15
trans-1,2-Dichloroethene	ND		500	575		ug/L		115	73 - 127	6	20
Trichloroethene	ND		500	569		ug/L		114	74 - 123	7	16

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	101		66 - 137
Toluene-d8 (Surr)	102		71 - 126
4-Bromofluorobenzene (Surr)	109		73 - 120
Dibromofluoromethane (Surr)	109		60 - 140

# QC Association Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

## GC/MS VOA

### Analysis Batch: 249012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-82489-1	MW-1-61715	Total/NA	Water	8260C	
480-82489-2	MW-3-61715	Total/NA	Water	8260C	
480-82489-3	MW-4-61715	Total/NA	Water	8260C	
480-82489-4	MW-5-61715	Total/NA	Water	8260C	
480-82489-5	MW-6-61715	Total/NA	Water	8260C	
480-82489-6	MW-7-61715	Total/NA	Water	8260C	
480-82489-7	TRIP BLANK	Total/NA	Water	8260C	
LCS 480-249012/4	Lab Control Sample	Total/NA	Water	8260C	
MB 480-249012/6	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 249205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-82489-3 - DL	MW-4-61715	Total/NA	Water	8260C	
480-82489-4 - DL	MW-5-61715	Total/NA	Water	8260C	
480-82489-5 - DL	MW-6-61715	Total/NA	Water	8260C	
480-82489-5 MS	MW-6-61715	Total/NA	Water	8260C	
480-82489-5 MSD	MW-6-61715	Total/NA	Water	8260C	
LCS 480-249205/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-249205/7	Method Blank	Total/NA	Water	8260C	



# Lab Chronicle

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: MW-1-61715**

**Date Collected: 06/17/15 15:00**

**Date Received: 06/18/15 13:25**

**Lab Sample ID: 480-82489-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	249012	06/19/15 11:33	EDB	TAL BUF

**Client Sample ID: MW-3-61715**

**Date Collected: 06/17/15 13:40**

**Date Received: 06/18/15 13:25**

**Lab Sample ID: 480-82489-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	249012	06/19/15 12:01	EDB	TAL BUF

**Client Sample ID: MW-4-61715**

**Date Collected: 06/17/15 13:00**

**Date Received: 06/18/15 13:25**

**Lab Sample ID: 480-82489-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	249012	06/19/15 12:28	EDB	TAL BUF
Total/NA	Analysis	8260C	DL	20	249205	06/20/15 17:37	LJF	TAL BUF

**Client Sample ID: MW-5-61715**

**Date Collected: 06/17/15 14:20**

**Date Received: 06/18/15 13:25**

**Lab Sample ID: 480-82489-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		80	249012	06/19/15 12:55	EDB	TAL BUF
Total/NA	Analysis	8260C	DL	200	249205	06/20/15 18:04	LJF	TAL BUF

**Client Sample ID: MW-6-61715**

**Date Collected: 06/17/15 12:15**

**Date Received: 06/18/15 13:25**

**Lab Sample ID: 480-82489-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	249012	06/19/15 13:23	EDB	TAL BUF
Total/NA	Analysis	8260C	DL	20	249205	06/20/15 18:32	LJF	TAL BUF

**Client Sample ID: MW-7-61715**

**Date Collected: 06/17/15 11:20**

**Date Received: 06/18/15 13:25**

**Lab Sample ID: 480-82489-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	249012	06/19/15 13:50	EDB	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 480-82489-7**

**Date Collected: 06/17/15 00:00**

**Matrix: Water**

**Date Received: 06/18/15 13:25**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	249012	06/19/15 14:18	EDB	TAL BUF

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# Certification Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

## Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-16

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# Method Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

---

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF

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**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600



# Sample Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-82489-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-82489-1	MW-1-61715	Water	06/17/15 15:00	06/18/15 13:25
480-82489-2	MW-3-61715	Water	06/17/15 13:40	06/18/15 13:25
480-82489-3	MW-4-61715	Water	06/17/15 13:00	06/18/15 13:25
480-82489-4	MW-5-61715	Water	06/17/15 14:20	06/18/15 13:25
480-82489-5	MW-6-61715	Water	06/17/15 12:15	06/18/15 13:25
480-82489-6	MW-7-61715	Water	06/17/15 11:20	06/18/15 13:25
480-82489-7	TRIP BLANK	Water	06/17/15 00:00	06/18/15 13:25

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt \_\_\_\_\_

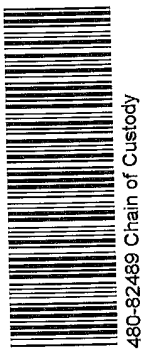
Drinking Water? Yes  No

## Chain of Custody Record

TAL-4124 (1007)

Client: **C&S Engineers, Inc** Project Manager: **Mark Colmerer** Chain of Custody Number: **250580**  
 Address: **141 Elm Street** Telephone Number (Area Code)/Fax Number: **716-847-1630** Date: **6/18/15** Page **1** of **1**  
 City: **Buffalo** State: **NY** Zip Code: **14203** Site Contact: \_\_\_\_\_ Lab Contact: \_\_\_\_\_ Analysis (Attach list if more space is needed): \_\_\_\_\_  
 Project Name and Location (State): **MOB** Carrier/Waybill Number: \_\_\_\_\_

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix						Containers & Preservatives											
			Air	Aqueous	Soil	Soil	Unpres	H2SO4	HNO3	HCl	NH4OH	ZnAc	NH4OH							
MW-1-61715	6/17/15	15:00	X									X	X	X	X	X				
MW-3-61715		13:40	X									X	X	X	X	X				
MW-4-61715		13:00	X									X	X	X	X	X				
MW-5-61715		14:20	X									X	X	X	X	X				
MW-6-61715		12:15	X									X	X	X	X	X				
MW-7-61715		11:20	X									X	X	X	X	X				



Special Instructions/  
Conditions of Receipt

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required:  24 Hours  48 Hours  7 Days  14 Days  21 Days  Other \_\_\_\_\_

1. Relinquished By	Date	Time	1. Received By	Date	Time
<i>Cody A. [Signature]</i>	6/18/15	12:45	<i>Jay [Signature]</i>	6/18/15	12:45
2. Relinquished By			2. Received By		
<i>Jay [Signature]</i>	6/18/15	13:25	<i>Jay [Signature]</i>	6/18/15	13:25
3. Relinquished By			3. Received By		

Comments

Temp 46c #1

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

## Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-82489-1

**Login Number: 82489**  
**List Number: 1**  
**Creator: Kolb, Chris M**

**List Source: TestAmerica Buffalo**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	No: Received Trip Blank(s) not listed on COC.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	C&S ENG.
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-84998-1

Client Project/Site: Well Sampling - MOB

For:

C&S Engineers, Inc.

499 Col. Eileen Collins Blvd

Syracuse, New York 13212

Attn: Mr. Mark Colmerauer



Authorized for release by:

8/6/2015 4:54:03 PM

Orlette Johnson, Senior Project Manager

(484)685-0864

[orlette.johnson@testamericainc.com](mailto:orlette.johnson@testamericainc.com)

Designee for

Judy Stone, Senior Project Manager

(484)685-0868

[judy.stone@testamericainc.com](mailto:judy.stone@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# Definitions/Glossary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Job ID: 480-84998-1**

**Laboratory: TestAmerica Buffalo**

## Narrative

### Job Narrative 480-84998-1

#### Receipt

The samples were received on 8/4/2015 12:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

#### GC/MS VOA

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-256997 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: BCP-MW1-080315 (480-84998-1), BCP-MW3-080315 (480-84998-2), BCP-MW4-080315 (480-84998-3), BCP-MW5-080315 (480-84998-4), BCP-MW6-080315 (480-84998-5) and BCP-MW7-080315 (480-84998-6).

Method(s) 8260C: The following sample was collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: BCP-MW6-080315 (480-84998-5).

Method(s) 8260C: The following samples was diluted to bring the concentration of target analytes within the calibration range: BCP-MW3-080315 (480-84998-2), BCP-MW5-080315 (480-84998-4), BCP-MW6-080315 (480-84998-5), BCP-MW4-080315 (480-84998-3), (480-84998-A-2 MS) and (480-84998-A-2 MSD). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

# Detection Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

## Client Sample ID: BCP-MW1-080315

## Lab Sample ID: 480-84998-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	45		10	1.3	ug/L	1		8260C	Total/NA
4-Methyl-2-pentanone (MIBK)	13		5.0	2.1	ug/L	1		8260C	Total/NA
Benzene	39		1.0	0.41	ug/L	1		8260C	Total/NA
Cyclohexane	59		1.0	0.18	ug/L	1		8260C	Total/NA
Ethylbenzene	1.5		1.0	0.74	ug/L	1		8260C	Total/NA
Methylcyclohexane	17		1.0	0.16	ug/L	1		8260C	Total/NA
Toluene	38		1.0	0.51	ug/L	1		8260C	Total/NA
Xylenes, Total	4.2		2.0	0.66	ug/L	1		8260C	Total/NA

## Client Sample ID: BCP-MW3-080315

## Lab Sample ID: 480-84998-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4100		50	21	ug/L	50		8260C	Total/NA
Cyclohexane	210		50	9.0	ug/L	50		8260C	Total/NA
Ethylbenzene	1700		50	37	ug/L	50		8260C	Total/NA
Methylcyclohexane	96		50	8.0	ug/L	50		8260C	Total/NA
Toluene	130		50	26	ug/L	50		8260C	Total/NA
Xylenes, Total	3900		100	33	ug/L	50		8260C	Total/NA

## Client Sample ID: BCP-MW4-080315

## Lab Sample ID: 480-84998-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	210		200	60	ug/L	20		8260C	Total/NA
Benzene	24		20	8.2	ug/L	20		8260C	Total/NA
Cyclohexane	110		20	3.6	ug/L	20		8260C	Total/NA
Ethylbenzene	680		20	15	ug/L	20		8260C	Total/NA
Isopropylbenzene	26		20	16	ug/L	20		8260C	Total/NA
Methylcyclohexane	69		20	3.2	ug/L	20		8260C	Total/NA
Toluene	140		20	10	ug/L	20		8260C	Total/NA
Xylenes, Total - DL	3100		100	33	ug/L	50		8260C	Total/NA

## Client Sample ID: BCP-MW5-080315

## Lab Sample ID: 480-84998-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4100		200	82	ug/L	200		8260C	Total/NA
Cyclohexane	260		200	36	ug/L	200		8260C	Total/NA
Ethylbenzene	2600		200	150	ug/L	200		8260C	Total/NA
Methylcyclohexane	130	J	200	32	ug/L	200		8260C	Total/NA
Toluene	290		200	100	ug/L	200		8260C	Total/NA
Xylenes, Total	10000		400	130	ug/L	200		8260C	Total/NA

## Client Sample ID: BCP-MW6-080315

## Lab Sample ID: 480-84998-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	340		200	60	ug/L	20		8260C	Total/NA
Benzene	890		20	8.2	ug/L	20		8260C	Total/NA
Cyclohexane	41		20	3.6	ug/L	20		8260C	Total/NA
Ethylbenzene	210		20	15	ug/L	20		8260C	Total/NA
Methylcyclohexane	27		20	3.2	ug/L	20		8260C	Total/NA
Toluene	1900		20	10	ug/L	20		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Detection Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW6-080315 (Continued)**

**Lab Sample ID: 480-84998-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	1100		40	13	ug/L	20		8260C	Total/NA

**Client Sample ID: BCP-MW7-080315**

**Lab Sample ID: 480-84998-6**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo



# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW1-080315**

**Lab Sample ID: 480-84998-1**

**Date Collected: 08/03/15 10:15**

**Matrix: Water**

**Date Received: 08/04/15 12:15**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/05/15 01:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/05/15 01:53	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/05/15 01:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/05/15 01:53	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/05/15 01:53	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/05/15 01:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/05/15 01:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/05/15 01:53	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/05/15 01:53	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/05/15 01:53	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/05/15 01:53	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/05/15 01:53	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/05/15 01:53	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/05/15 01:53	1
2-Hexanone	ND		5.0	1.2	ug/L			08/05/15 01:53	1
<b>2-Butanone (MEK)</b>	<b>45</b>		10	1.3	ug/L			08/05/15 01:53	1
<b>4-Methyl-2-pentanone (MIBK)</b>	<b>13</b>		5.0	2.1	ug/L			08/05/15 01:53	1
Acetone	ND		10	3.0	ug/L			08/05/15 01:53	1
<b>Benzene</b>	<b>39</b>		1.0	0.41	ug/L			08/05/15 01:53	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/05/15 01:53	1
Bromoform	ND		1.0	0.26	ug/L			08/05/15 01:53	1
Bromomethane	ND		1.0	0.69	ug/L			08/05/15 01:53	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/05/15 01:53	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/05/15 01:53	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/05/15 01:53	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/05/15 01:53	1
Chloroethane	ND		1.0	0.32	ug/L			08/05/15 01:53	1
Chloroform	ND		1.0	0.34	ug/L			08/05/15 01:53	1
Chloromethane	ND		1.0	0.35	ug/L			08/05/15 01:53	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			08/05/15 01:53	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/05/15 01:53	1
<b>Cyclohexane</b>	<b>59</b>		1.0	0.18	ug/L			08/05/15 01:53	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/05/15 01:53	1
<b>Ethylbenzene</b>	<b>1.5</b>		1.0	0.74	ug/L			08/05/15 01:53	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/05/15 01:53	1
Methyl acetate	ND		2.5	1.3	ug/L			08/05/15 01:53	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/05/15 01:53	1
<b>Methylcyclohexane</b>	<b>17</b>		1.0	0.16	ug/L			08/05/15 01:53	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/05/15 01:53	1
Styrene	ND		1.0	0.73	ug/L			08/05/15 01:53	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/05/15 01:53	1
<b>Toluene</b>	<b>38</b>		1.0	0.51	ug/L			08/05/15 01:53	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/05/15 01:53	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/05/15 01:53	1
Trichloroethene	ND		1.0	0.46	ug/L			08/05/15 01:53	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/05/15 01:53	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/05/15 01:53	1
<b>Xylenes, Total</b>	<b>4.2</b>		2.0	0.66	ug/L			08/05/15 01:53	1

TestAmerica Buffalo

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW1-080315**

**Lab Sample ID: 480-84998-1**

**Date Collected: 08/03/15 10:15**

**Matrix: Water**

**Date Received: 08/04/15 12:15**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	115		66 - 137		08/05/15 01:53	1
Toluene-d8 (Surr)	98		71 - 126		08/05/15 01:53	1
4-Bromofluorobenzene (Surr)	96		73 - 120		08/05/15 01:53	1
Dibromofluoromethane (Surr)	111		60 - 140		08/05/15 01:53	1

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# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW3-080315**

**Lab Sample ID: 480-84998-2**

**Date Collected: 08/03/15 13:00**

**Matrix: Water**

**Date Received: 08/04/15 12:15**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		50	41	ug/L			08/05/15 02:15	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			08/05/15 02:15	50
1,1,2-Trichloroethane	ND		50	12	ug/L			08/05/15 02:15	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			08/05/15 02:15	50
1,1-Dichloroethane	ND		50	19	ug/L			08/05/15 02:15	50
1,1-Dichloroethene	ND		50	15	ug/L			08/05/15 02:15	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			08/05/15 02:15	50
1,2-Dibromo-3-Chloropropane	ND		50	20	ug/L			08/05/15 02:15	50
1,2-Dibromoethane	ND		50	37	ug/L			08/05/15 02:15	50
1,2-Dichlorobenzene	ND		50	40	ug/L			08/05/15 02:15	50
1,2-Dichloroethane	ND		50	11	ug/L			08/05/15 02:15	50
1,2-Dichloropropane	ND		50	36	ug/L			08/05/15 02:15	50
1,3-Dichlorobenzene	ND		50	39	ug/L			08/05/15 02:15	50
1,4-Dichlorobenzene	ND		50	42	ug/L			08/05/15 02:15	50
2-Hexanone	ND		250	62	ug/L			08/05/15 02:15	50
2-Butanone (MEK)	ND		500	66	ug/L			08/05/15 02:15	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			08/05/15 02:15	50
Acetone	ND		500	150	ug/L			08/05/15 02:15	50
<b>Benzene</b>	<b>4100</b>		50	21	ug/L			08/05/15 02:15	50
Bromodichloromethane	ND		50	20	ug/L			08/05/15 02:15	50
Bromoform	ND		50	13	ug/L			08/05/15 02:15	50
Bromomethane	ND		50	35	ug/L			08/05/15 02:15	50
Carbon disulfide	ND		50	9.5	ug/L			08/05/15 02:15	50
Carbon tetrachloride	ND		50	14	ug/L			08/05/15 02:15	50
Chlorobenzene	ND		50	38	ug/L			08/05/15 02:15	50
Dibromochloromethane	ND		50	16	ug/L			08/05/15 02:15	50
Chloroethane	ND		50	16	ug/L			08/05/15 02:15	50
Chloroform	ND		50	17	ug/L			08/05/15 02:15	50
Chloromethane	ND		50	18	ug/L			08/05/15 02:15	50
cis-1,2-Dichloroethene	ND		50	41	ug/L			08/05/15 02:15	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			08/05/15 02:15	50
<b>Cyclohexane</b>	<b>210</b>		50	9.0	ug/L			08/05/15 02:15	50
Dichlorodifluoromethane	ND		50	34	ug/L			08/05/15 02:15	50
<b>Ethylbenzene</b>	<b>1700</b>		50	37	ug/L			08/05/15 02:15	50
Isopropylbenzene	ND		50	40	ug/L			08/05/15 02:15	50
Methyl acetate	ND		130	65	ug/L			08/05/15 02:15	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			08/05/15 02:15	50
<b>Methylcyclohexane</b>	<b>96</b>		50	8.0	ug/L			08/05/15 02:15	50
Methylene Chloride	ND		50	22	ug/L			08/05/15 02:15	50
Styrene	ND		50	37	ug/L			08/05/15 02:15	50
Tetrachloroethene	ND		50	18	ug/L			08/05/15 02:15	50
<b>Toluene</b>	<b>130</b>		50	26	ug/L			08/05/15 02:15	50
trans-1,2-Dichloroethene	ND		50	45	ug/L			08/05/15 02:15	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			08/05/15 02:15	50
Trichloroethene	ND		50	23	ug/L			08/05/15 02:15	50
Trichlorofluoromethane	ND		50	44	ug/L			08/05/15 02:15	50
Vinyl chloride	ND		50	45	ug/L			08/05/15 02:15	50
<b>Xylenes, Total</b>	<b>3900</b>		100	33	ug/L			08/05/15 02:15	50

TestAmerica Buffalo



# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW3-080315**

**Lab Sample ID: 480-84998-2**

**Date Collected: 08/03/15 13:00**

**Matrix: Water**

**Date Received: 08/04/15 12:15**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	96		66 - 137		08/05/15 02:15	50
Toluene-d8 (Surr)	103		71 - 126		08/05/15 02:15	50
4-Bromofluorobenzene (Surr)	100		73 - 120		08/05/15 02:15	50
Dibromofluoromethane (Surr)	99		60 - 140		08/05/15 02:15	50

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# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW4-080315**

**Lab Sample ID: 480-84998-3**

**Date Collected: 08/03/15 12:30**

**Matrix: Water**

**Date Received: 08/04/15 12:15**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			08/05/15 02:37	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			08/05/15 02:37	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			08/05/15 02:37	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			08/05/15 02:37	20
1,1-Dichloroethane	ND		20	7.6	ug/L			08/05/15 02:37	20
1,1-Dichloroethene	ND		20	5.8	ug/L			08/05/15 02:37	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			08/05/15 02:37	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			08/05/15 02:37	20
1,2-Dibromoethane	ND		20	15	ug/L			08/05/15 02:37	20
1,2-Dichlorobenzene	ND		20	16	ug/L			08/05/15 02:37	20
1,2-Dichloroethane	ND		20	4.2	ug/L			08/05/15 02:37	20
1,2-Dichloropropane	ND		20	14	ug/L			08/05/15 02:37	20
1,3-Dichlorobenzene	ND		20	16	ug/L			08/05/15 02:37	20
1,4-Dichlorobenzene	ND		20	17	ug/L			08/05/15 02:37	20
2-Hexanone	ND		100	25	ug/L			08/05/15 02:37	20
2-Butanone (MEK)	ND		200	26	ug/L			08/05/15 02:37	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			08/05/15 02:37	20
<b>Acetone</b>	<b>210</b>		200	60	ug/L			08/05/15 02:37	20
<b>Benzene</b>	<b>24</b>		20	8.2	ug/L			08/05/15 02:37	20
Bromodichloromethane	ND		20	7.8	ug/L			08/05/15 02:37	20
Bromoform	ND		20	5.2	ug/L			08/05/15 02:37	20
Bromomethane	ND		20	14	ug/L			08/05/15 02:37	20
Carbon disulfide	ND		20	3.8	ug/L			08/05/15 02:37	20
Carbon tetrachloride	ND		20	5.4	ug/L			08/05/15 02:37	20
Chlorobenzene	ND		20	15	ug/L			08/05/15 02:37	20
Dibromochloromethane	ND		20	6.4	ug/L			08/05/15 02:37	20
Chloroethane	ND		20	6.4	ug/L			08/05/15 02:37	20
Chloroform	ND		20	6.8	ug/L			08/05/15 02:37	20
Chloromethane	ND		20	7.0	ug/L			08/05/15 02:37	20
cis-1,2-Dichloroethene	ND		20	16	ug/L			08/05/15 02:37	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			08/05/15 02:37	20
<b>Cyclohexane</b>	<b>110</b>		20	3.6	ug/L			08/05/15 02:37	20
Dichlorodifluoromethane	ND		20	14	ug/L			08/05/15 02:37	20
<b>Ethylbenzene</b>	<b>680</b>		20	15	ug/L			08/05/15 02:37	20
<b>Isopropylbenzene</b>	<b>26</b>		20	16	ug/L			08/05/15 02:37	20
Methyl acetate	ND		50	26	ug/L			08/05/15 02:37	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			08/05/15 02:37	20
<b>Methylcyclohexane</b>	<b>69</b>		20	3.2	ug/L			08/05/15 02:37	20
Methylene Chloride	ND		20	8.8	ug/L			08/05/15 02:37	20
Styrene	ND		20	15	ug/L			08/05/15 02:37	20
Tetrachloroethene	ND		20	7.2	ug/L			08/05/15 02:37	20
<b>Toluene</b>	<b>140</b>		20	10	ug/L			08/05/15 02:37	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			08/05/15 02:37	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			08/05/15 02:37	20
Trichloroethene	ND		20	9.2	ug/L			08/05/15 02:37	20
Trichlorofluoromethane	ND		20	18	ug/L			08/05/15 02:37	20
Vinyl chloride	ND		20	18	ug/L			08/05/15 02:37	20

TestAmerica Buffalo

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW4-080315**

**Lab Sample ID: 480-84998-3**

**Date Collected: 08/03/15 12:30**

**Matrix: Water**

**Date Received: 08/04/15 12:15**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		66 - 137		08/05/15 02:37	20
Toluene-d8 (Surr)	102		71 - 126		08/05/15 02:37	20
4-Bromofluorobenzene (Surr)	101		73 - 120		08/05/15 02:37	20
Dibromofluoromethane (Surr)	110		60 - 140		08/05/15 02:37	20

**Method: 8260C - Volatile Organic Compounds by GC/MS - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	3100		100	33	ug/L			08/05/15 11:08	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		66 - 137		08/05/15 11:08	50
Toluene-d8 (Surr)	104		71 - 126		08/05/15 11:08	50
4-Bromofluorobenzene (Surr)	102		73 - 120		08/05/15 11:08	50
Dibromofluoromethane (Surr)	106		60 - 140		08/05/15 11:08	50

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW5-080315**

**Lab Sample ID: 480-84998-4**

**Date Collected: 08/03/15 14:00**

**Matrix: Water**

**Date Received: 08/04/15 12:15**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		200	160	ug/L			08/05/15 02:59	200
1,1,2,2-Tetrachloroethane	ND		200	42	ug/L			08/05/15 02:59	200
1,1,2-Trichloroethane	ND		200	46	ug/L			08/05/15 02:59	200
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		200	62	ug/L			08/05/15 02:59	200
1,1-Dichloroethane	ND		200	76	ug/L			08/05/15 02:59	200
1,1-Dichloroethene	ND		200	58	ug/L			08/05/15 02:59	200
1,2,4-Trichlorobenzene	ND		200	82	ug/L			08/05/15 02:59	200
1,2-Dibromo-3-Chloropropane	ND		200	78	ug/L			08/05/15 02:59	200
1,2-Dibromoethane	ND		200	150	ug/L			08/05/15 02:59	200
1,2-Dichlorobenzene	ND		200	160	ug/L			08/05/15 02:59	200
1,2-Dichloroethane	ND		200	42	ug/L			08/05/15 02:59	200
1,2-Dichloropropane	ND		200	140	ug/L			08/05/15 02:59	200
1,3-Dichlorobenzene	ND		200	160	ug/L			08/05/15 02:59	200
1,4-Dichlorobenzene	ND		200	170	ug/L			08/05/15 02:59	200
2-Hexanone	ND		1000	250	ug/L			08/05/15 02:59	200
2-Butanone (MEK)	ND		2000	260	ug/L			08/05/15 02:59	200
4-Methyl-2-pentanone (MIBK)	ND		1000	420	ug/L			08/05/15 02:59	200
Acetone	ND		2000	600	ug/L			08/05/15 02:59	200
<b>Benzene</b>	<b>4100</b>		200	82	ug/L			08/05/15 02:59	200
Bromodichloromethane	ND		200	78	ug/L			08/05/15 02:59	200
Bromoform	ND		200	52	ug/L			08/05/15 02:59	200
Bromomethane	ND		200	140	ug/L			08/05/15 02:59	200
Carbon disulfide	ND		200	38	ug/L			08/05/15 02:59	200
Carbon tetrachloride	ND		200	54	ug/L			08/05/15 02:59	200
Chlorobenzene	ND		200	150	ug/L			08/05/15 02:59	200
Dibromochloromethane	ND		200	64	ug/L			08/05/15 02:59	200
Chloroethane	ND		200	64	ug/L			08/05/15 02:59	200
Chloroform	ND		200	68	ug/L			08/05/15 02:59	200
Chloromethane	ND		200	70	ug/L			08/05/15 02:59	200
cis-1,2-Dichloroethene	ND		200	160	ug/L			08/05/15 02:59	200
cis-1,3-Dichloropropene	ND		200	72	ug/L			08/05/15 02:59	200
<b>Cyclohexane</b>	<b>260</b>		200	36	ug/L			08/05/15 02:59	200
Dichlorodifluoromethane	ND		200	140	ug/L			08/05/15 02:59	200
<b>Ethylbenzene</b>	<b>2600</b>		200	150	ug/L			08/05/15 02:59	200
Isopropylbenzene	ND		200	160	ug/L			08/05/15 02:59	200
Methyl acetate	ND		500	260	ug/L			08/05/15 02:59	200
Methyl tert-butyl ether	ND		200	32	ug/L			08/05/15 02:59	200
<b>Methylcyclohexane</b>	<b>130 J</b>		200	32	ug/L			08/05/15 02:59	200
Methylene Chloride	ND		200	88	ug/L			08/05/15 02:59	200
Styrene	ND		200	150	ug/L			08/05/15 02:59	200
Tetrachloroethene	ND		200	72	ug/L			08/05/15 02:59	200
<b>Toluene</b>	<b>290</b>		200	100	ug/L			08/05/15 02:59	200
trans-1,2-Dichloroethene	ND		200	180	ug/L			08/05/15 02:59	200
trans-1,3-Dichloropropene	ND		200	74	ug/L			08/05/15 02:59	200
Trichloroethene	ND		200	92	ug/L			08/05/15 02:59	200
Trichlorofluoromethane	ND		200	180	ug/L			08/05/15 02:59	200
Vinyl chloride	ND		200	180	ug/L			08/05/15 02:59	200
<b>Xylenes, Total</b>	<b>10000</b>		400	130	ug/L			08/05/15 02:59	200

TestAmerica Buffalo

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW5-080315**

**Lab Sample ID: 480-84998-4**

**Date Collected: 08/03/15 14:00**

**Matrix: Water**

**Date Received: 08/04/15 12:15**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	98		66 - 137		08/05/15 02:59	200
Toluene-d8 (Surr)	104		71 - 126		08/05/15 02:59	200
4-Bromofluorobenzene (Surr)	105		73 - 120		08/05/15 02:59	200
Dibromofluoromethane (Surr)	105		60 - 140		08/05/15 02:59	200

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# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW6-080315**

**Lab Sample ID: 480-84998-5**

**Date Collected: 08/03/15 11:30**

**Matrix: Water**

**Date Received: 08/04/15 12:15**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		20	16	ug/L			08/05/15 03:22	20
1,1,2,2-Tetrachloroethane	ND		20	4.2	ug/L			08/05/15 03:22	20
1,1,2-Trichloroethane	ND		20	4.6	ug/L			08/05/15 03:22	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		20	6.2	ug/L			08/05/15 03:22	20
1,1-Dichloroethane	ND		20	7.6	ug/L			08/05/15 03:22	20
1,1-Dichloroethene	ND		20	5.8	ug/L			08/05/15 03:22	20
1,2,4-Trichlorobenzene	ND		20	8.2	ug/L			08/05/15 03:22	20
1,2-Dibromo-3-Chloropropane	ND		20	7.8	ug/L			08/05/15 03:22	20
1,2-Dibromoethane	ND		20	15	ug/L			08/05/15 03:22	20
1,2-Dichlorobenzene	ND		20	16	ug/L			08/05/15 03:22	20
1,2-Dichloroethane	ND		20	4.2	ug/L			08/05/15 03:22	20
1,2-Dichloropropane	ND		20	14	ug/L			08/05/15 03:22	20
1,3-Dichlorobenzene	ND		20	16	ug/L			08/05/15 03:22	20
1,4-Dichlorobenzene	ND		20	17	ug/L			08/05/15 03:22	20
2-Hexanone	ND		100	25	ug/L			08/05/15 03:22	20
2-Butanone (MEK)	ND		200	26	ug/L			08/05/15 03:22	20
4-Methyl-2-pentanone (MIBK)	ND		100	42	ug/L			08/05/15 03:22	20
<b>Acetone</b>	<b>340</b>		200	60	ug/L			08/05/15 03:22	20
<b>Benzene</b>	<b>890</b>		20	8.2	ug/L			08/05/15 03:22	20
Bromodichloromethane	ND		20	7.8	ug/L			08/05/15 03:22	20
Bromoform	ND		20	5.2	ug/L			08/05/15 03:22	20
Bromomethane	ND		20	14	ug/L			08/05/15 03:22	20
Carbon disulfide	ND		20	3.8	ug/L			08/05/15 03:22	20
Carbon tetrachloride	ND		20	5.4	ug/L			08/05/15 03:22	20
Chlorobenzene	ND		20	15	ug/L			08/05/15 03:22	20
Dibromochloromethane	ND		20	6.4	ug/L			08/05/15 03:22	20
Chloroethane	ND		20	6.4	ug/L			08/05/15 03:22	20
Chloroform	ND		20	6.8	ug/L			08/05/15 03:22	20
Chloromethane	ND		20	7.0	ug/L			08/05/15 03:22	20
cis-1,2-Dichloroethene	ND		20	16	ug/L			08/05/15 03:22	20
cis-1,3-Dichloropropene	ND		20	7.2	ug/L			08/05/15 03:22	20
<b>Cyclohexane</b>	<b>41</b>		20	3.6	ug/L			08/05/15 03:22	20
Dichlorodifluoromethane	ND		20	14	ug/L			08/05/15 03:22	20
<b>Ethylbenzene</b>	<b>210</b>		20	15	ug/L			08/05/15 03:22	20
Isopropylbenzene	ND		20	16	ug/L			08/05/15 03:22	20
Methyl acetate	ND		50	26	ug/L			08/05/15 03:22	20
Methyl tert-butyl ether	ND		20	3.2	ug/L			08/05/15 03:22	20
<b>Methylcyclohexane</b>	<b>27</b>		20	3.2	ug/L			08/05/15 03:22	20
Methylene Chloride	ND		20	8.8	ug/L			08/05/15 03:22	20
Styrene	ND		20	15	ug/L			08/05/15 03:22	20
Tetrachloroethene	ND		20	7.2	ug/L			08/05/15 03:22	20
<b>Toluene</b>	<b>1900</b>		20	10	ug/L			08/05/15 03:22	20
trans-1,2-Dichloroethene	ND		20	18	ug/L			08/05/15 03:22	20
trans-1,3-Dichloropropene	ND		20	7.4	ug/L			08/05/15 03:22	20
Trichloroethene	ND		20	9.2	ug/L			08/05/15 03:22	20
Trichlorofluoromethane	ND		20	18	ug/L			08/05/15 03:22	20
Vinyl chloride	ND		20	18	ug/L			08/05/15 03:22	20
<b>Xylenes, Total</b>	<b>1100</b>		40	13	ug/L			08/05/15 03:22	20

TestAmerica Buffalo

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW6-080315**

**Lab Sample ID: 480-84998-5**

**Date Collected: 08/03/15 11:30**

**Matrix: Water**

**Date Received: 08/04/15 12:15**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	101		66 - 137		08/05/15 03:22	20
Toluene-d8 (Surr)	104		71 - 126		08/05/15 03:22	20
4-Bromofluorobenzene (Surr)	102		73 - 120		08/05/15 03:22	20
Dibromofluoromethane (Surr)	104		60 - 140		08/05/15 03:22	20

# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW7-080315**

**Lab Sample ID: 480-84998-6**

**Date Collected: 08/03/15 10:30**

**Matrix: Water**

**Date Received: 08/04/15 12:15**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/05/15 03:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/05/15 03:44	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/05/15 03:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/05/15 03:44	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/05/15 03:44	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/05/15 03:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/05/15 03:44	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/05/15 03:44	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/05/15 03:44	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/05/15 03:44	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/05/15 03:44	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/05/15 03:44	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/05/15 03:44	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/05/15 03:44	1
2-Hexanone	ND		5.0	1.2	ug/L			08/05/15 03:44	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/05/15 03:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/05/15 03:44	1
Acetone	ND		10	3.0	ug/L			08/05/15 03:44	1
Benzene	ND		1.0	0.41	ug/L			08/05/15 03:44	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/05/15 03:44	1
Bromoform	ND		1.0	0.26	ug/L			08/05/15 03:44	1
Bromomethane	ND		1.0	0.69	ug/L			08/05/15 03:44	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/05/15 03:44	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/05/15 03:44	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/05/15 03:44	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/05/15 03:44	1
Chloroethane	ND		1.0	0.32	ug/L			08/05/15 03:44	1
Chloroform	ND		1.0	0.34	ug/L			08/05/15 03:44	1
Chloromethane	ND		1.0	0.35	ug/L			08/05/15 03:44	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			08/05/15 03:44	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/05/15 03:44	1
Cyclohexane	ND		1.0	0.18	ug/L			08/05/15 03:44	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/05/15 03:44	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/05/15 03:44	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/05/15 03:44	1
Methyl acetate	ND		2.5	1.3	ug/L			08/05/15 03:44	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/05/15 03:44	1
Methylcyclohexane	ND		1.0	0.16	ug/L			08/05/15 03:44	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/05/15 03:44	1
Styrene	ND		1.0	0.73	ug/L			08/05/15 03:44	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/05/15 03:44	1
Toluene	ND		1.0	0.51	ug/L			08/05/15 03:44	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/05/15 03:44	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/05/15 03:44	1
Trichloroethene	ND		1.0	0.46	ug/L			08/05/15 03:44	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/05/15 03:44	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/05/15 03:44	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/05/15 03:44	1

TestAmerica Buffalo



# Client Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW7-080315**

**Lab Sample ID: 480-84998-6**

**Date Collected: 08/03/15 10:30**

**Matrix: Water**

**Date Received: 08/04/15 12:15**

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	99		66 - 137		08/05/15 03:44	1
Toluene-d8 (Surr)	104		71 - 126		08/05/15 03:44	1
4-Bromofluorobenzene (Surr)	103		73 - 120		08/05/15 03:44	1
Dibromofluoromethane (Surr)	103		60 - 140		08/05/15 03:44	1

# Surrogate Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (66-137)	TOL (71-126)	BFB (73-120)	DBFM (60-140)
480-84998-1	BCP-MW1-080315	115	98	96	111
480-84998-2	BCP-MW3-080315	96	103	100	99
480-84998-2 MS	BCP-MW3-080315	103	104	103	110
480-84998-2 MSD	BCP-MW3-080315	103	106	105	108
480-84998-3	BCP-MW4-080315	106	102	101	110
480-84998-3 - DL	BCP-MW4-080315	105	104	102	106
480-84998-4	BCP-MW5-080315	98	104	105	105
480-84998-5	BCP-MW6-080315	101	104	102	104
480-84998-6	BCP-MW7-080315	99	104	103	103
LCS 480-256997/4	Lab Control Sample	98	103	100	105
LCS 480-257044/5	Lab Control Sample	103	106	103	108
MB 480-256997/6	Method Blank	100	103	100	104
MB 480-257044/7	Method Blank	101	105	102	108

### Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)

# QC Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 480-256997/6**

**Matrix: Water**

**Analysis Batch: 256997**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/04/15 20:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/04/15 20:42	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/04/15 20:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/04/15 20:42	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/04/15 20:42	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/04/15 20:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/04/15 20:42	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/04/15 20:42	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/04/15 20:42	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/04/15 20:42	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/04/15 20:42	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/04/15 20:42	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/04/15 20:42	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/04/15 20:42	1
2-Hexanone	ND		5.0	1.2	ug/L			08/04/15 20:42	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/04/15 20:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/04/15 20:42	1
Acetone	ND		10	3.0	ug/L			08/04/15 20:42	1
Benzene	ND		1.0	0.41	ug/L			08/04/15 20:42	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/04/15 20:42	1
Bromoform	ND		1.0	0.26	ug/L			08/04/15 20:42	1
Bromomethane	ND		1.0	0.69	ug/L			08/04/15 20:42	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/04/15 20:42	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/04/15 20:42	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/04/15 20:42	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/04/15 20:42	1
Chloroethane	ND		1.0	0.32	ug/L			08/04/15 20:42	1
Chloroform	ND		1.0	0.34	ug/L			08/04/15 20:42	1
Chloromethane	ND		1.0	0.35	ug/L			08/04/15 20:42	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			08/04/15 20:42	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/04/15 20:42	1
Cyclohexane	ND		1.0	0.18	ug/L			08/04/15 20:42	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/04/15 20:42	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/04/15 20:42	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/04/15 20:42	1
Methyl acetate	ND		2.5	1.3	ug/L			08/04/15 20:42	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/04/15 20:42	1
Methylcyclohexane	ND		1.0	0.16	ug/L			08/04/15 20:42	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/04/15 20:42	1
Styrene	ND		1.0	0.73	ug/L			08/04/15 20:42	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/04/15 20:42	1
Toluene	ND		1.0	0.51	ug/L			08/04/15 20:42	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/04/15 20:42	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/04/15 20:42	1
Trichloroethene	ND		1.0	0.46	ug/L			08/04/15 20:42	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/04/15 20:42	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/04/15 20:42	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/04/15 20:42	1

TestAmerica Buffalo

# QC Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	100		66 - 137		08/04/15 20:42	1
Toluene-d8 (Surr)	103		71 - 126		08/04/15 20:42	1
4-Bromofluorobenzene (Surr)	100		73 - 120		08/04/15 20:42	1
Dibromofluoromethane (Surr)	104		60 - 140		08/04/15 20:42	1

Lab Sample ID: LCS 480-256997/4  
Matrix: Water  
Analysis Batch: 256997

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	25.0	24.0		ug/L		96	58 - 121
1,2-Dichlorobenzene	25.0	25.4		ug/L		101	80 - 124
1,2-Dichloroethane	25.0	23.8		ug/L		95	75 - 127
Benzene	25.0	25.5		ug/L		102	71 - 124
Chlorobenzene	25.0	25.5		ug/L		102	72 - 120
cis-1,2-Dichloroethene	25.0	26.2		ug/L		105	74 - 124
Ethylbenzene	25.0	25.1		ug/L		101	77 - 123
Methyl tert-butyl ether	25.0	25.1		ug/L		100	64 - 127
Tetrachloroethene	25.0	25.6		ug/L		103	74 - 122
Toluene	25.0	25.2		ug/L		101	80 - 122
trans-1,2-Dichloroethene	25.0	25.0		ug/L		100	73 - 127
Trichloroethene	25.0	26.0		ug/L		104	74 - 123

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	98		66 - 137
Toluene-d8 (Surr)	103		71 - 126
4-Bromofluorobenzene (Surr)	100		73 - 120
Dibromofluoromethane (Surr)	105		60 - 140

Lab Sample ID: 480-84998-2 MS  
Matrix: Water  
Analysis Batch: 256997

Client Sample ID: BCP-MW3-080315  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		1250	1360		ug/L		109	58 - 121
1,2-Dichlorobenzene	ND		1250	1320		ug/L		105	80 - 124
1,2-Dichloroethane	ND		1250	1400		ug/L		112	75 - 127
Benzene	4100		1250	5520	E	ug/L		113	71 - 124
Chlorobenzene	ND		1250	1380		ug/L		111	72 - 120
cis-1,2-Dichloroethene	ND		1250	1390		ug/L		111	74 - 124
Ethylbenzene	1700		1250	3010		ug/L		105	77 - 123
Methyl tert-butyl ether	ND		1250	1290		ug/L		103	64 - 127
Tetrachloroethene	ND		1250	1410		ug/L		113	74 - 122
Toluene	130		1250	1500		ug/L		110	80 - 122
trans-1,2-Dichloroethene	ND		1250	1420		ug/L		113	73 - 127
Trichloroethene	ND		1250	1390		ug/L		111	74 - 123

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	103		66 - 137
Toluene-d8 (Surr)	104		71 - 126
4-Bromofluorobenzene (Surr)	103		73 - 120

TestAmerica Buffalo

# QC Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 480-84998-2 MS**  
**Matrix: Water**  
**Analysis Batch: 256997**

**Client Sample ID: BCP-MW3-080315**  
**Prep Type: Total/NA**

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	110		60 - 140

**Lab Sample ID: 480-84998-2 MSD**  
**Matrix: Water**  
**Analysis Batch: 256997**

**Client Sample ID: BCP-MW3-080315**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	ND		1250	1330		ug/L		106	71 - 129	2	20
1,1-Dichloroethene	ND		1250	1280		ug/L		103	58 - 121	5	16
1,2-Dichlorobenzene	ND		1250	1310		ug/L		105	80 - 124	0	20
1,2-Dichloroethane	ND		1250	1390		ug/L		111	75 - 127	1	20
Benzene	4100		1250	5340	E	ug/L		98	71 - 124	3	13
Chlorobenzene	ND		1250	1360		ug/L		109	72 - 120	1	25
cis-1,2-Dichloroethene	ND		1250	1370		ug/L		110	74 - 124	2	15
Ethylbenzene	1700		1250	2970		ug/L		101	77 - 123	1	15
Methyl tert-butyl ether	ND		1250	1290		ug/L		103	64 - 127	0	37
Tetrachloroethene	ND		1250	1380		ug/L		110	74 - 122	2	20
Toluene	130		1250	1460		ug/L		106	80 - 122	3	15
trans-1,2-Dichloroethene	ND		1250	1350		ug/L		108	73 - 127	5	20
Trichloroethene	ND		1250	1350		ug/L		108	74 - 123	3	16

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		66 - 137
Toluene-d8 (Surr)	106		71 - 126
4-Bromofluorobenzene (Surr)	105		73 - 120
Dibromofluoromethane (Surr)	108		60 - 140

**Lab Sample ID: MB 480-257044/7**  
**Matrix: Water**  
**Analysis Batch: 257044**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			08/05/15 10:24	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.21	ug/L			08/05/15 10:24	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			08/05/15 10:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			08/05/15 10:24	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			08/05/15 10:24	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			08/05/15 10:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			08/05/15 10:24	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			08/05/15 10:24	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			08/05/15 10:24	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			08/05/15 10:24	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			08/05/15 10:24	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			08/05/15 10:24	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			08/05/15 10:24	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			08/05/15 10:24	1
2-Hexanone	ND		5.0	1.2	ug/L			08/05/15 10:24	1
2-Butanone (MEK)	ND		10	1.3	ug/L			08/05/15 10:24	1

TestAmerica Buffalo

# QC Sample Results

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-257044/7**  
**Matrix: Water**  
**Analysis Batch: 257044**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			08/05/15 10:24	1
Acetone	ND		10	3.0	ug/L			08/05/15 10:24	1
Benzene	ND		1.0	0.41	ug/L			08/05/15 10:24	1
Bromodichloromethane	ND		1.0	0.39	ug/L			08/05/15 10:24	1
Bromoform	ND		1.0	0.26	ug/L			08/05/15 10:24	1
Bromomethane	ND		1.0	0.69	ug/L			08/05/15 10:24	1
Carbon disulfide	ND		1.0	0.19	ug/L			08/05/15 10:24	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			08/05/15 10:24	1
Chlorobenzene	ND		1.0	0.75	ug/L			08/05/15 10:24	1
Dibromochloromethane	ND		1.0	0.32	ug/L			08/05/15 10:24	1
Chloroethane	ND		1.0	0.32	ug/L			08/05/15 10:24	1
Chloroform	ND		1.0	0.34	ug/L			08/05/15 10:24	1
Chloromethane	ND		1.0	0.35	ug/L			08/05/15 10:24	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			08/05/15 10:24	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			08/05/15 10:24	1
Cyclohexane	ND		1.0	0.18	ug/L			08/05/15 10:24	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			08/05/15 10:24	1
Ethylbenzene	ND		1.0	0.74	ug/L			08/05/15 10:24	1
Isopropylbenzene	ND		1.0	0.79	ug/L			08/05/15 10:24	1
Methyl acetate	ND		2.5	1.3	ug/L			08/05/15 10:24	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			08/05/15 10:24	1
Methylcyclohexane	ND		1.0	0.16	ug/L			08/05/15 10:24	1
Methylene Chloride	ND		1.0	0.44	ug/L			08/05/15 10:24	1
Styrene	ND		1.0	0.73	ug/L			08/05/15 10:24	1
Tetrachloroethene	ND		1.0	0.36	ug/L			08/05/15 10:24	1
Toluene	ND		1.0	0.51	ug/L			08/05/15 10:24	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			08/05/15 10:24	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			08/05/15 10:24	1
Trichloroethene	ND		1.0	0.46	ug/L			08/05/15 10:24	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			08/05/15 10:24	1
Vinyl chloride	ND		1.0	0.90	ug/L			08/05/15 10:24	1
Xylenes, Total	ND		2.0	0.66	ug/L			08/05/15 10:24	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	101		66 - 137		08/05/15 10:24	1
Toluene-d8 (Surr)	105		71 - 126		08/05/15 10:24	1
4-Bromofluorobenzene (Surr)	102		73 - 120		08/05/15 10:24	1
Dibromofluoromethane (Surr)	108		60 - 140		08/05/15 10:24	1

**Lab Sample ID: LCS 480-257044/5**  
**Matrix: Water**  
**Analysis Batch: 257044**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
1,1-Dichloroethane	25.0	25.9		ug/L		104	71 - 129
1,1-Dichloroethene	25.0	25.6		ug/L		102	58 - 121
1,2-Dichlorobenzene	25.0	26.3		ug/L		105	80 - 124
1,2-Dichloroethane	25.0	25.1		ug/L		100	75 - 127

TestAmerica Buffalo

# QC Sample Results

Client: C&S Engineers, Inc.  
 Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-257044/5

Matrix: Water

Analysis Batch: 257044

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	26.5		ug/L		106	71 - 124
Chlorobenzene	25.0	27.3		ug/L		109	72 - 120
cis-1,2-Dichloroethene	25.0	27.6		ug/L		110	74 - 124
Ethylbenzene	25.0	26.8		ug/L		107	77 - 123
Methyl tert-butyl ether	25.0	25.4		ug/L		101	64 - 127
Tetrachloroethene	25.0	27.4		ug/L		110	74 - 122
Toluene	25.0	27.1		ug/L		108	80 - 122
trans-1,2-Dichloroethene	25.0	26.8		ug/L		107	73 - 127
Trichloroethene	25.0	27.6		ug/L		110	74 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		66 - 137
Toluene-d8 (Surr)	106		71 - 126
4-Bromofluorobenzene (Surr)	103		73 - 120
Dibromofluoromethane (Surr)	108		60 - 140

# QC Association Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

## GC/MS VOA

### Analysis Batch: 256997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-84998-1	BCP-MW1-080315	Total/NA	Water	8260C	
480-84998-2	BCP-MW3-080315	Total/NA	Water	8260C	
480-84998-2 MS	BCP-MW3-080315	Total/NA	Water	8260C	
480-84998-2 MSD	BCP-MW3-080315	Total/NA	Water	8260C	
480-84998-3	BCP-MW4-080315	Total/NA	Water	8260C	
480-84998-4	BCP-MW5-080315	Total/NA	Water	8260C	
480-84998-5	BCP-MW6-080315	Total/NA	Water	8260C	
480-84998-6	BCP-MW7-080315	Total/NA	Water	8260C	
LCS 480-256997/4	Lab Control Sample	Total/NA	Water	8260C	
MB 480-256997/6	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 257044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-84998-3 - DL	BCP-MW4-080315	Total/NA	Water	8260C	
LCS 480-257044/5	Lab Control Sample	Total/NA	Water	8260C	
MB 480-257044/7	Method Blank	Total/NA	Water	8260C	



# Lab Chronicle

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

**Client Sample ID: BCP-MW1-080315**

**Date Collected: 08/03/15 10:15**

**Date Received: 08/04/15 12:15**

**Lab Sample ID: 480-84998-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	256997	08/05/15 01:53	EDB	TAL BUF

**Client Sample ID: BCP-MW3-080315**

**Date Collected: 08/03/15 13:00**

**Date Received: 08/04/15 12:15**

**Lab Sample ID: 480-84998-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	256997	08/05/15 02:15	EDB	TAL BUF

**Client Sample ID: BCP-MW4-080315**

**Date Collected: 08/03/15 12:30**

**Date Received: 08/04/15 12:15**

**Lab Sample ID: 480-84998-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	256997	08/05/15 02:37	EDB	TAL BUF
Total/NA	Analysis	8260C	DL	50	257044	08/05/15 11:08	EDB	TAL BUF

**Client Sample ID: BCP-MW5-080315**

**Date Collected: 08/03/15 14:00**

**Date Received: 08/04/15 12:15**

**Lab Sample ID: 480-84998-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		200	256997	08/05/15 02:59	EDB	TAL BUF

**Client Sample ID: BCP-MW6-080315**

**Date Collected: 08/03/15 11:30**

**Date Received: 08/04/15 12:15**

**Lab Sample ID: 480-84998-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	256997	08/05/15 03:22	EDB	TAL BUF

**Client Sample ID: BCP-MW7-080315**

**Date Collected: 08/03/15 10:30**

**Date Received: 08/04/15 12:15**

**Lab Sample ID: 480-84998-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	256997	08/05/15 03:44	EDB	TAL BUF

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

# Certification Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

## Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-16

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# Method Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

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Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF

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**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

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# Sample Summary

Client: C&S Engineers, Inc.  
Project/Site: Well Sampling - MOB

TestAmerica Job ID: 480-84998-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-84998-1	BCP-MW1-080315	Water	08/03/15 10:15	08/04/15 12:15
480-84998-2	BCP-MW3-080315	Water	08/03/15 13:00	08/04/15 12:15
480-84998-3	BCP-MW4-080315	Water	08/03/15 12:30	08/04/15 12:15
480-84998-4	BCP-MW5-080315	Water	08/03/15 14:00	08/04/15 12:15
480-84998-5	BCP-MW6-080315	Water	08/03/15 11:30	08/04/15 12:15
480-84998-6	BCP-MW7-080315	Water	08/03/15 10:30	08/04/15 12:15

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# TestAmei

THE LEADER IN ENVIRONMENT

480-84998 Chain of Custody

Temperature on Receipt \_\_\_\_\_

Drinking Water? Yes  No

## Chain of Custody Record

TAL-4124 (1007)

Client: **C & S ENGINEERS INC** Project Manager: **MARK COLUMERAUER** Date: **8/3/15** Chain of Custody Number: **297213**

Address: **BUFFALO NY 14203** Telephone Number (Area Code)/Fax Number: **716-847-1630** Lab Number: \_\_\_\_\_ Page **1** of **1**

City: **BUFFALO** State: **NY** Zip Code: **14203** Site Contact: \_\_\_\_\_ Lab Contact: \_\_\_\_\_

Project Name and Location (State): **MOB** Carrier/Waybill Number: \_\_\_\_\_

Contract/Purchase Order/Quote No. \_\_\_\_\_

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Special Instructions/ Conditions of Receipt	
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		
BCP - MW1 - 080315	8/3/15	10:15												
BCP - MW3 - 080315		13:00												
BCP - MW4 - 080315		12:30												
BCP - MWS - 080315		14:00												
BCP - MW6 - 080315		11:30												
BCP - MW7 - 080315		10:30												

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Return To Client  Archive For \_\_\_\_\_ Months

Disposal By Lab  (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required:  24 Hours  48 Hours  7 Days  14 Days  21 Days  Other \_\_\_\_\_

QC Requirements (Specify): \_\_\_\_\_

1. Relinquished By: *Alayna Damaghi* Date: **8/4/15** Time: **11:40**

2. Relinquished By: *Janette* Date: **8/4/15** Time: **11:40**

3. Relinquished By: *Carney Wallace* Date: **8/4/15** Time: **12:15**

Comments: \_\_\_\_\_

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

## Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-84998-1

**Login Number: 84998**

**List Number: 1**

**Creator: Wallace, Cameron**

**List Source: TestAmerica Buffalo**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

