

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: 480-117054-1

Client Project/Site: Frewsburg Site #907016

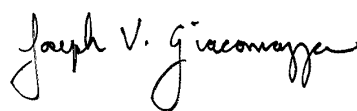
For:

New York State D.E.C.

270 Michigan Avenue

Buffalo, New York 14203

Attn: Mr. Maurice Moore



Authorized for release by:

5/8/2017 1:40:35 PM

Joe Giacomazza, Project Management Assistant II

joe.giacomazza@testamericainc.com

Designee for

Orlette Johnson, Senior Project Manager

(484)685-0864

orlette.johnson@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

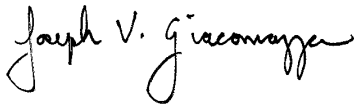
www.testamericainc.com

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.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Joe Giacomazza
Project Management Assistant II
5/8/2017 1:40:35 PM



Table of Contents

Cover Page 1

Table of Contents 3

Definitions 4

Case Narrative 5

Detection Summary 6

Client Sample Results 7

Surrogate Summary 11

QC Sample Results 12

QC Association 16

Chronicle 17

Certification Summary 18

Method Summary 19

Sample Summary 20

Chain of Custody 21

Receipt Checklists 22

Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

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.
E	Result exceeded calibration range.

General Chemistry

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.

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: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

Job ID: 480-117054-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-117054-1

Receipt

The samples were received on 4/27/2017 3:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.6° C.

GC/MS VOA

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-356018 recovered above the upper control limit for Carbon tetrachloride and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: OUTFALL 001 (480-117054-1) and TRIP BLANK (480-117054-2).

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 480-356018 recovered outside control limits for the following analytes: Trichlorofluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The initial calibration curve analyzed in batch 480-356018 was outside acceptance criteria for Trichlorofluoromethane. A CCV standard at or below the reporting limit (RL) was analyzed and found to be acceptable. The following samples were non detect for the affected analyte, therefore, the data have been reported. The following sample is impacted: OUTFALL 001 (480-117054-1) and TRIP BLANK (480-117054-2).

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

Metals

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

General Chemistry

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

Detection Summary

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

Client Sample ID: OUTFALL 001

Lab Sample ID: 480-117054-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Acetone	4.2	J	10	3.0	ug/L	1			8260C	Total/NA
cis-1,2-Dichloroethene	10		1.0	0.81	ug/L	1			8260C	Total/NA
Trichloroethene	1.4		1.0	0.46	ug/L	1			8260C	Total/NA
Vinyl chloride	1.5		1.0	0.90	ug/L	1			8260C	Total/NA
Iron	1.9		0.050	0.019	mg/L	1			200.7 Rev 4.4	Total/NA
Oil & Grease	4.8	J	4.9	1.4	mg/L	1			1664A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil	Fac	D	Method	Prep Type
Total Suspended Solids	20.0		4.0	4.0	mg/L	1			SM 2540D	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-117054-2

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

Client Sample ID: OUTFALL 001

Lab Sample ID: 480-117054-1

Date Collected: 04/26/17 14:00

Matrix: Water

Date Received: 04/27/17 15:30

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			05/06/17 15:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/06/17 15:17	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/06/17 15:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/06/17 15:17	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/06/17 15:17	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/06/17 15:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/06/17 15:17	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/06/17 15:17	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/06/17 15:17	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/06/17 15:17	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/06/17 15:17	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/06/17 15:17	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/06/17 15:17	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/06/17 15:17	1
2-Hexanone	ND		5.0	1.2	ug/L			05/06/17 15:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/06/17 15:17	1
Acetone	4.2	J	10	3.0	ug/L			05/06/17 15:17	1
Benzene	ND		1.0	0.41	ug/L			05/06/17 15:17	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/06/17 15:17	1
Bromoform	ND		1.0	0.26	ug/L			05/06/17 15:17	1
Bromomethane	ND		1.0	0.69	ug/L			05/06/17 15:17	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/06/17 15:17	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/06/17 15:17	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/06/17 15:17	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/06/17 15:17	1
Chloroethane	ND		1.0	0.32	ug/L			05/06/17 15:17	1
Chloroform	ND		1.0	0.34	ug/L			05/06/17 15:17	1
Chloromethane	ND		1.0	0.35	ug/L			05/06/17 15:17	1
cis-1,2-Dichloroethene	10		1.0	0.81	ug/L			05/06/17 15:17	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/06/17 15:17	1
Cyclohexane	ND		1.0	0.18	ug/L			05/06/17 15:17	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/06/17 15:17	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/06/17 15:17	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/06/17 15:17	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/06/17 15:17	1
Methyl acetate	ND		2.5	1.3	ug/L			05/06/17 15:17	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/06/17 15:17	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/06/17 15:17	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/06/17 15:17	1
Styrene	ND		1.0	0.73	ug/L			05/06/17 15:17	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/06/17 15:17	1
Toluene	ND		1.0	0.51	ug/L			05/06/17 15:17	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/06/17 15:17	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/06/17 15:17	1
Trichloroethene	1.4		1.0	0.46	ug/L			05/06/17 15:17	1
Trichlorofluoromethane	ND	*	1.0	0.88	ug/L			05/06/17 15:17	1
Vinyl chloride	1.5		1.0	0.90	ug/L			05/06/17 15:17	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/06/17 15:17	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

Client Sample ID: OUTFALL 001

Lab Sample ID: 480-117054-1

Date Collected: 04/26/17 14:00

Matrix: Water

Date Received: 04/27/17 15:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120		05/06/17 15:17	1
1,2-Dichloroethane-d4 (Surr)	112		77 - 120		05/06/17 15:17	1
4-Bromofluorobenzene (Surr)	96		73 - 120		05/06/17 15:17	1
Dibromofluoromethane (Surr)	107		75 - 123		05/06/17 15:17	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.9		0.050	0.019	mg/L		05/01/17 10:10	05/02/17 13:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	4.8	J	4.9	1.4	mg/L		05/05/17 16:21	05/05/17 16:21	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	20.0		4.0	4.0	mg/L			05/02/17 02:16	1

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-117054-2

Date Collected: 04/26/17 14:00

Matrix: Water

Date Received: 04/27/17 15:30

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			05/06/17 15:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/06/17 15:40	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/06/17 15:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/06/17 15:40	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/06/17 15:40	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/06/17 15:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/06/17 15:40	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/06/17 15:40	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/06/17 15:40	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/06/17 15:40	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/06/17 15:40	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/06/17 15:40	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/06/17 15:40	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/06/17 15:40	1
2-Hexanone	ND		5.0	1.2	ug/L			05/06/17 15:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/06/17 15:40	1
Acetone	ND		10	3.0	ug/L			05/06/17 15:40	1
Benzene	ND		1.0	0.41	ug/L			05/06/17 15:40	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/06/17 15:40	1
Bromoform	ND		1.0	0.26	ug/L			05/06/17 15:40	1
Bromomethane	ND		1.0	0.69	ug/L			05/06/17 15:40	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/06/17 15:40	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/06/17 15:40	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/06/17 15:40	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/06/17 15:40	1
Chloroethane	ND		1.0	0.32	ug/L			05/06/17 15:40	1
Chloroform	ND		1.0	0.34	ug/L			05/06/17 15:40	1
Chloromethane	ND		1.0	0.35	ug/L			05/06/17 15:40	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/06/17 15:40	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/06/17 15:40	1
Cyclohexane	ND		1.0	0.18	ug/L			05/06/17 15:40	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/06/17 15:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/06/17 15:40	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/06/17 15:40	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/06/17 15:40	1
Methyl acetate	ND		2.5	1.3	ug/L			05/06/17 15:40	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/06/17 15:40	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/06/17 15:40	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/06/17 15:40	1
Styrene	ND		1.0	0.73	ug/L			05/06/17 15:40	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/06/17 15:40	1
Toluene	ND		1.0	0.51	ug/L			05/06/17 15:40	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/06/17 15:40	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/06/17 15:40	1
Trichloroethene	ND		1.0	0.46	ug/L			05/06/17 15:40	1
Trichlorofluoromethane	ND	*	1.0	0.88	ug/L			05/06/17 15:40	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/06/17 15:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/06/17 15:40	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-117054-2

Date Collected: 04/26/17 14:00

Matrix: Water

Date Received: 04/27/17 15:30

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Toluene-d8 (Surr)</i>	103		80 - 120		05/06/17 15:40	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	105		77 - 120		05/06/17 15:40	1
<i>4-Bromofluorobenzene (Surr)</i>	97		73 - 120		05/06/17 15:40	1
<i>Dibromofluoromethane (Surr)</i>	106		75 - 123		05/06/17 15:40	1

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

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)			
		TOL (80-120)	12DCE (77-120)	BFB (73-120)	DBFM (75-123)
480-117054-1	OUTFALL 001	104	112	96	107
480-117054-2	TRIP BLANK	103	105	97	106
LCS 480-356018/4	Lab Control Sample	108	109	98	112
MB 480-356018/6	Method Blank	101	114	99	111

Surrogate Legend

TOL = Toluene-d8 (Surr)

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

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

QC Sample Results

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

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

Lab Sample ID: MB 480-356018/6

Matrix: Water

Analysis Batch: 356018

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			05/06/17 14:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			05/06/17 14:18	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			05/06/17 14:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			05/06/17 14:18	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			05/06/17 14:18	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			05/06/17 14:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			05/06/17 14:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			05/06/17 14:18	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			05/06/17 14:18	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			05/06/17 14:18	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			05/06/17 14:18	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			05/06/17 14:18	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			05/06/17 14:18	1
2-Butanone (MEK)	ND		10	1.3	ug/L			05/06/17 14:18	1
2-Hexanone	ND		5.0	1.2	ug/L			05/06/17 14:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			05/06/17 14:18	1
Acetone	ND		10	3.0	ug/L			05/06/17 14:18	1
Benzene	ND		1.0	0.41	ug/L			05/06/17 14:18	1
Bromodichloromethane	ND		1.0	0.39	ug/L			05/06/17 14:18	1
Bromoform	ND		1.0	0.26	ug/L			05/06/17 14:18	1
Bromomethane	ND		1.0	0.69	ug/L			05/06/17 14:18	1
Carbon disulfide	ND		1.0	0.19	ug/L			05/06/17 14:18	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			05/06/17 14:18	1
Chlorobenzene	ND		1.0	0.75	ug/L			05/06/17 14:18	1
Dibromochloromethane	ND		1.0	0.32	ug/L			05/06/17 14:18	1
Chloroethane	ND		1.0	0.32	ug/L			05/06/17 14:18	1
Chloroform	ND		1.0	0.34	ug/L			05/06/17 14:18	1
Chloromethane	ND		1.0	0.35	ug/L			05/06/17 14:18	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			05/06/17 14:18	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			05/06/17 14:18	1
Cyclohexane	ND		1.0	0.18	ug/L			05/06/17 14:18	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			05/06/17 14:18	1
Ethylbenzene	ND		1.0	0.74	ug/L			05/06/17 14:18	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			05/06/17 14:18	1
Isopropylbenzene	ND		1.0	0.79	ug/L			05/06/17 14:18	1
Methyl acetate	ND		2.5	1.3	ug/L			05/06/17 14:18	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			05/06/17 14:18	1
Methylcyclohexane	ND		1.0	0.16	ug/L			05/06/17 14:18	1
Methylene Chloride	ND		1.0	0.44	ug/L			05/06/17 14:18	1
Styrene	ND		1.0	0.73	ug/L			05/06/17 14:18	1
Tetrachloroethene	ND		1.0	0.36	ug/L			05/06/17 14:18	1
Toluene	ND		1.0	0.51	ug/L			05/06/17 14:18	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			05/06/17 14:18	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			05/06/17 14:18	1
Trichloroethene	ND		1.0	0.46	ug/L			05/06/17 14:18	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			05/06/17 14:18	1
Vinyl chloride	ND		1.0	0.90	ug/L			05/06/17 14:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			05/06/17 14:18	1

TestAmerica Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		05/06/17 14:18	1
1,2-Dichloroethane-d4 (Surr)	114		77 - 120		05/06/17 14:18	1
4-Bromofluorobenzene (Surr)	99		73 - 120		05/06/17 14:18	1
Dibromofluoromethane (Surr)	111		75 - 123		05/06/17 14:18	1

Lab Sample ID: LCS 480-356018/4

Matrix: Water

Analysis Batch: 356018

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	27.7		ug/L		111	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.2		ug/L		101	76 - 120
1,1,2-Trichloroethane	25.0	27.8		ug/L		111	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.2		ug/L		89	61 - 148
1,1-Dichloroethane	25.0	26.2		ug/L		105	77 - 120
1,1-Dichloroethene	25.0	23.5		ug/L		94	66 - 127
1,2,4-Trichlorobenzene	25.0	23.1		ug/L		92	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	25.1		ug/L		100	56 - 134
1,2-Dichlorobenzene	25.0	26.6		ug/L		107	80 - 124
1,2-Dichloroethane	25.0	27.1		ug/L		108	75 - 120
1,2-Dichloropropane	25.0	25.7		ug/L		103	76 - 120
1,3-Dichlorobenzene	25.0	26.4		ug/L		106	77 - 120
1,4-Dichlorobenzene	25.0	28.1		ug/L		112	80 - 120
2-Butanone (MEK)	125	147		ug/L		117	57 - 140
2-Hexanone	125	150		ug/L		120	65 - 127
4-Methyl-2-pentanone (MIBK)	125	145		ug/L		116	71 - 125
Acetone	125	147		ug/L		117	56 - 142
Benzene	25.0	27.7		ug/L		111	71 - 124
Bromodichloromethane	25.0	28.1		ug/L		113	80 - 122
Bromoform	25.0	27.1		ug/L		108	61 - 132
Bromomethane	25.0	31.7		ug/L		127	55 - 144
Carbon disulfide	25.0	30.7		ug/L		123	59 - 134
Carbon tetrachloride	25.0	33.2		ug/L		133	72 - 134
Chlorobenzene	25.0	27.5		ug/L		110	80 - 120
Dibromochloromethane	25.0	30.0		ug/L		120	75 - 125
Chloroethane	25.0	24.7		ug/L		99	69 - 136
Chloroform	25.0	27.1		ug/L		108	73 - 127
Chloromethane	25.0	25.9		ug/L		104	68 - 124
cis-1,2-Dichloroethene	25.0	26.3		ug/L		105	74 - 124
cis-1,3-Dichloropropene	25.0	26.9		ug/L		107	74 - 124
Cyclohexane	25.0	26.4		ug/L		106	59 - 135
Dichlorodifluoromethane	25.0	25.4		ug/L		102	59 - 135
Ethylbenzene	25.0	27.5		ug/L		110	77 - 123
1,2-Dibromoethane	25.0	28.1		ug/L		112	77 - 120
Isopropylbenzene	25.0	24.8		ug/L		99	77 - 122
Methyl acetate	125	136		ug/L		109	74 - 133
Methyl tert-butyl ether	25.0	27.1		ug/L		108	77 - 120
Methylcyclohexane	25.0	22.0		ug/L		88	68 - 134
Methylene Chloride	25.0	24.9		ug/L		100	75 - 124
Styrene	25.0	28.8		ug/L		115	80 - 120
Tetrachloroethene	25.0	25.6		ug/L		103	74 - 122
Toluene	25.0	25.8		ug/L		103	80 - 122
trans-1,2-Dichloroethene	25.0	28.2		ug/L		113	73 - 127

TestAmerica Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

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

Lab Sample ID: LCS 480-356018/4

Matrix: Water

Analysis Batch: 356018

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	25.0	27.2		ug/L		109	80 - 120
Trichloroethene	25.0	27.0		ug/L		108	74 - 123
Trichlorofluoromethane	25.0	65.2	E *	ug/L		261	62 - 150
Vinyl chloride	25.0	21.9		ug/L		87	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	108		80 - 120
1,2-Dichloroethane-d4 (Surr)	109		77 - 120
4-Bromofluorobenzene (Surr)	98		73 - 120
Dibromofluoromethane (Surr)	112		75 - 123

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-354873/1-A

Matrix: Water

Analysis Batch: 355389

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 354873

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050	0.019	mg/L		05/01/17 10:10	05/02/17 12:36	1

Lab Sample ID: LCS 480-354873/2-A

Matrix: Water

Analysis Batch: 355389

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 354873

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	10.0	10.22		mg/L		102	85 - 115

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 480-355949/1-A

Matrix: Water

Analysis Batch: 355962

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 355949

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		5.0	1.4	mg/L		05/05/17 16:21	05/05/17 16:21	1

Lab Sample ID: LCS 480-355949/2-A

Matrix: Water

Analysis Batch: 355962

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 355949

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oil & Grease	39.9	40.98		mg/L		103	78 - 114

TestAmerica Buffalo

QC Sample Results

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 480-355035/1
Matrix: Water
Analysis Batch: 355035

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	1.0	mg/L			05/02/17 02:16	1

Lab Sample ID: LCS 480-355035/2
Matrix: Water
Analysis Batch: 355035

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	276	264.8		mg/L		96	88 - 110

QC Association Summary

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

GC/MS VOA

Analysis Batch: 356018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117054-1	OUTFALL 001	Total/NA	Water	8260C	
480-117054-2	TRIP BLANK	Total/NA	Water	8260C	
MB 480-356018/6	Method Blank	Total/NA	Water	8260C	
LCS 480-356018/4	Lab Control Sample	Total/NA	Water	8260C	

Metals

Prep Batch: 354873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117054-1	OUTFALL 001	Total/NA	Water	200.7	
MB 480-354873/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-354873/2-A	Lab Control Sample	Total/NA	Water	200.7	

Analysis Batch: 355389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117054-1	OUTFALL 001	Total/NA	Water	200.7 Rev 4.4	354873
MB 480-354873/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	354873
LCS 480-354873/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	354873

General Chemistry

Analysis Batch: 355035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117054-1	OUTFALL 001	Total/NA	Water	SM 2540D	
MB 480-355035/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 480-355035/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Prep Batch: 355949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117054-1	OUTFALL 001	Total/NA	Water	1664A	
MB 480-355949/1-A	Method Blank	Total/NA	Water	1664A	
LCS 480-355949/2-A	Lab Control Sample	Total/NA	Water	1664A	

Analysis Batch: 355962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-117054-1	OUTFALL 001	Total/NA	Water	1664A	355949
MB 480-355949/1-A	Method Blank	Total/NA	Water	1664A	355949
LCS 480-355949/2-A	Lab Control Sample	Total/NA	Water	1664A	355949

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

Client Sample ID: OUTFALL 001

Lab Sample ID: 480-117054-1

Date Collected: 04/26/17 14:00

Matrix: Water

Date Received: 04/27/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	356018	05/06/17 15:17	NEA	TAL BUF
Total/NA	Prep	200.7			354873	05/01/17 10:10	MVZ	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	355389	05/02/17 13:56	LMH	TAL BUF
Total/NA	Prep	1664A			355949	05/05/17 16:21	DSC	TAL BUF
Total/NA	Analysis	1664A		1	355962	05/05/17 16:21	DSC	TAL BUF
Total/NA	Analysis	SM 2540D		1	355035	05/02/17 02:16	KMB	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-117054-2

Date Collected: 04/26/17 14:00

Matrix: Water

Date Received: 04/27/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	356018	05/06/17 15:40	NEA	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

Method Summary

Client: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
1664A	HEM and SGT-HEM	1664A	TAL BUF
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL BUF

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

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: New York State D.E.C.
Project/Site: Frewsburg Site #907016

TestAmerica Job ID: 480-117054-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-117054-1	OUTFALL 001	Water	04/26/17 14:00	04/27/17 15:30
480-117054-2	TRIP BLANK	Water	04/26/17 14:00	04/27/17 15:30

Chain of Custody Record

Client Information Client Contact: Thomas Palmer Phone: 800 287 7857 Email: orlette.johnson@testamericainc.com		Lab PM: Johnson, Orlette S E-Mail: orlette.johnson@testamericainc.com		Carrier Tracking No(s): 480-89516-19837.1 Page: 1 of 1 Job #:	
Groundwater & Environmental Services Inc Address: 495 Aero Drive Suite 3 City: Cheektowaga State/Zip: NY, 14225 PO #: CallOut ID: 126536 WO #: Email: tpalmer@gesonline.com Project #: 48013647 SOW#:					
Analysis Requested					
Due Date Requested: TAT Requested (days): 510		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate D - NH ₄ E - Na F - Me G - Ar H - As I - Ice J - DI K - ED L - ED Other:			
Sample Identification Outfall 001 Trip blank		Sample Date 4/26 ✓	Sample Time 1400 1400	Sample Type (C=Comp, G=grab) S S	Matrix (W=Water, S=Solid, O=Other) Water water
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		200.7 - Total Fe 166.4 - Calc - Oil & Grease 2540D - Total Suspended Solids 8260C - TCL list OLM04.2	
Total Number of Containers		Special Instructions/Note:			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months					
Special Instructions/QC Requirements:					
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological		Deliverable Requested: I, II, III, IV, Other (specify)			
Empty Kit Relinquished by:		Date:			
Relinquished by:		Date/Time:			
Relinquished by:		Date/Time:			
Relinquished by:		Date/Time:			
Custody Seals Intact:		Custody Seal No.:			

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-117054-1

Login Number: 117054

List Source: TestAmerica Buffalo

List Number: 1

Creator: Kolb, Chris M

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 (Excluding tests with immediate HTs)..	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	GES
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	